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MCHIP END-OF-PROJECT REPORT



Global Report

Reporting period:

September 2008–December 2014

Submitted on:

March 9, 2015

Submitted to:

United States Agency for International Development
under Cooperative Agreement # GHS-A-00-08-00002-00

Cover photo credits (clockwise): Erika Pied, Indrani Kashyap, Karen Kasmauski

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal, and child health (MNCH) program. MCHIP supports programming in maternal, newborn, and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health, and health systems strengthening.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

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Acronyms and Abbreviations

AA	Associate Award
AAP	American Academy of Pediatrics
ACCESS	Access to Clinical and Community Maternal, Neonatal, and Women's Health Services
ACOG	American Congress of Obstetricians and Gynecologists
ACS	Antenatal Corticosteroids
ADRA	Adventist Development and Relief Agency
AFRO	Regional Office for Africa
AMREF	African Medical and Research Foundation
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
ART	Antiretroviral Therapy
ATF	Anemia Task Force
AWG	Advocacy Working Group
BBL	Brown Bag Lunch
BCC	Behavior Change Communication
BEmONC	Basic Emergency Obstetric and Newborn Care
BMGF	Bill & Melinda Gates Foundation
CCM	Community Case Management
CDA	Community Development Associations
CDPA	Center for Data Processing and Analysis
CECAP	Cervical Cancer Prevention
CFI	Child Fund International
CHAM	Christian Health Association of Malawi
CHEW	Community Health Extension Worker
CHS	Center for Human Services
CHW	Community Health Worker
CHX	Chlorhexidine
CI	Communications Initiative
CMWG	Case Management Working Group
cMYP	Comprehensive Multi Year Plan
COP	Community of Practice
COPE	Client-Oriented Provider Efficient
CQI	Continuous Quality Improvement
CRS	Catholic Relief Services
CSHGP	Child Survival and Health Grants Program
CSO	Civil Society Organization
CYP	Couple Years of Protection
D&A	Disrespectful Care and Abuse
DCC	Delayed Cord Clamping
DHS	Demographic and Health Survey
DIP	Detailed Implementation Plan
DPT3	Diphtheria, Pertussis, and Tetanus

ECEB	Essential Care for Every Baby
EIMC	Early Infant Male Circumcision
EML	Essential Medicines List
ENAP	Every Newborn Action Plan
ENC	Essential Newborn Care
EONC	Essential Obstetric and Newborn Care
EOP	End-of-Project
EPI	Expanded Program on Immunization
FANTA	Food and Nutrition Technical Assistance
FCHV	Female Community Health Worker
FIGO	International Federation of Gynecology and Obstetrics
FIVD	Friends in Village Development
FMOH	Federal Ministry of Health
FP	Family Planning
GAPPD	Global Action Plan for Pneumonia and Diarrhea
GAVI	GAVI Alliance (formerly the Global Alliance for Vaccines and Immunization)
GDA	Global Development Alliance
GF	Global Fund to Fight AIDS, Tuberculosis, and Malaria
GHSP	Global Health: Science and Practice Journal
GMHC	Global Maternal Health Conference
GNHC	Global Newborn Health Conference
GPEI	Global Polio Eradication Initiative
GSM	Global Strategic Marketing Alliance
GVAP	Global Vaccine Action Plan
HBB	Helping Babies Breathe
HBLSS	Home-Based Life Saving Skills
HBS	Helping Babies Survive
HCI	Healthcare Improvement Project
HHP	Home Health Provider
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HMIS	Health Management Information System
HNDU	Human Nutrition and Dietetics Unit
HSS	Health Systems Strengthening
HTC	HIV Testing and Counseling
icddr,b	International Centre for Diarrheal Disease Research, Bangladesh
iCCM	Integrated Community Case Management
ICM	International Confederation of Midwives
ICN	International Congress of Nutrition
IIP	Immunization in Practice
IMB	Independent Monitoring Board
IMCI	Integrated Management of Childhood Illness
IMNCI	Integrated Management of Neonatal and Childhood Illness
INGO	International Nongovernmental Organization
IP	Infection Prevention

IPAC	Immunization Practices Advisory Committee
IPC	Interpersonal Communication
IPTp	Intermittent Preventive Treatment in Pregnancy
ISDP	Integrated Service Delivery Program
ITN	Insecticide-Treated Bed Net
IUD	Intrauterine Device
IYCF	Infant and Young Child Feeding
IYCN	Infant and Young Child Nutrition
JHU-IIP	Johns Hopkins Institute for International Programs
JHSPH	Johns Hopkins Bloomberg School of Public Health
JSI	John Snow, Inc.
K4Health	Knowledge for Health
KMC	Kangaroo Mother Care
KPC	Knowledge, Practices, and Coverage
L&D	Labor and Delivery
LAC	Latin America and the Caribbean
LAM	Lactational Amenorrhea Method
LARC	Long-Acting Reversible Contraception
LBW	Low Birth Weight
LiST	Lives Saved Tool
LLIN	Long-Lasting Insecticide-Treated Bed Net
LSHTM	London School of Hygiene and Tropical Medicine
M&E	Monitoring and Evaluation
MAMA	Mobile Alliance for Maternal Action
MCA	Multi-Country Analysis
MCHIP	Maternal and Child Health Integrated Program
MCP	Malaria Communities Program
MDG	Millennium Development Goal
MER	Monitoring, Evaluation and Research
MgSO ₄	Magnesium Sulfate
MH	Maternal Health
MICS	Multiple Indicator Cluster Survey
MIP	Malaria in Pregnancy
MIYCN	Maternal, Infant, and Young Child Nutrition
MIYCN-FP	Maternal, Infant, and Young Child Nutrition and Family Planning
MLM	Mid-Level Manager
MMI	Model Maternities Initiative
MNC	Maternal and Newborn Care
MNCH	Maternal, Newborn, and Child Health
MNCH/FP	Maternal, Newborn, and Child Health/Family Planning
MNH	Maternal and Newborn Health
MNT	Maternal and Neonatal Tetanus
MOA	Ministry of Agriculture
MOH	Ministry of Health
MOHSW	Ministry of Health and Social Welfare

MR	Measles-Rubella
NGO	Nongovernmental Organization
NISONM	Nigerian Society of Neonatal Medicine
NMCP	National Malaria Control Programs
NUVI	New and Underutilized Vaccines
OR	Operations Research
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
OSCE	Objective Structured Clinical Examination
PAC	Postabortion Care
PATH	Program for Appropriate Technology in Health
PCV	Pneumococcal Conjugate Vaccine
PDQ	Partnership Defined Quality
PDSA	Plan, Do, Study, and Act
PE/E	Pre-Eclampsia/Eclampsia
PEP	Post-Exposure Prophylaxis
PEPFAR	President's Emergency Program for AIDS Relief
PLHV	People Living with HIV
PMI	U.S. President's Malaria Initiative
PMNCH	Partnership for Maternal, Newborn & Child Health
PMTCT	Prevention of Mother-to-Child Transmission
PNC	Postnatal Care
PPFP	Postpartum Family Planning
PPH	Postpartum Hemorrhage
PPIUD	Postpartum Intrauterine Device
PPSS	Postpartum Systematic Screening
PSE	Pre-Service Education
PSI	Population Services International
PVO	Private Voluntary Organization
PY	Program Year
QA	Quality Assurance
QCA	Qualitative Comparative Analysis
QI	Quality Improvement
QoC	Quality of Care
RAPID	Regular Appraisal of Program Implementation in a District
RBHS	Rebuilding Health System
RBM	Roll Back Malaria
REC	Reaching Every Community
RED	Reach Every District
RH	Reproductive Health
RHB	Regional Health Bureau
RI	Routine Immunization
RMC	Respectful Maternity Care
RMNCH	Reproductive, Maternal, Newborn, and Child Health
RRI	Rapid Results Initiative

SAGE	WHO Scientific Advisory Group of Experts
SAT	Simplified Antibiotic Treatment
SBA	Skilled Birth Attendant
SBCC	Social and Behavior Change Communication
SBM-R®	Standards-Based Management and Recognition
SIA	Supplementary Immunization Activity
SO	Strategic Objective
SP	Sulfadoxine-Pyrimethamine
SPA	Service Provision Assessment
SUN	Scaling Up Nutrition
SW	Strategic Workplan
TA	Technical Assistance
TAG	Technical Advisory Group
TB	Tuberculosis
TBA	Traditional Birth Attendant
TDR	WHO Special Programme for Research and Training in Tropical Diseases
TF	Taskforce
TIPs	Trials for Improved Practices
TOT	Training of Trainers
TRAction	Translating Research into Action Project
TWG	Technical Working Group
UHEP	Urban Health Extension Program
UNCoLSC	UN Commission on Life Saving Commodities
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
URADCA	Urban Research and Development Centre for Africa
URC	University Research Co.
USAID	United States Agency for International Development
UIIFB	Uterotonic Use Immediately Following Birth
VCT	Voluntary Counseling and Testing
VHND	Village Health and Nutrition Day
VMMC	Voluntary Male Medical Circumcision
WASH	Water, Sanitation, and Hygiene
WBW	World Breastfeeding Week
WHO	World Health Organization
WRA	White Ribbon Alliance
WV	World Vision

Executive Summary

The Maternal and Child Health Integrated Program (MCHIP) was the United States Agency for International Development (USAID) Bureau for Global Health's flagship maternal, newborn, and child health/family planning (MNCH/FP) program from 2008–2014. Designed to bring together multiple technically specific programs in MNCH/FP under one mechanism, MCHIP had a diverse portfolio and provided technical assistance in 54 countries. MCHIP received field funding in 41 countries, leveraged bureau and other funding in eight countries, and provided support to Child Survival and Health Grants Program (CSHGP) grantees in an additional five countries.

Jhpiego led the MCHIP consortium of partners, which included Save the Children, John Snow, Inc. (JSI), ICF (which acquired Macro International at the start of the project), the Johns Hopkins Institute for International Programs (JHU-IIP), the Program for Appropriate Technology in Health (PATH), Broad Branch Associates, and Population Services International (PSI).

MCHIP's team combined technical leaders from across the spectrum of MNCH/FP intervention areas with operations experts in health care financing, quality assurance, private voluntary organization/nongovernmental organization (PVO/NGO) capacity building, social marketing, public-private partnerships, logistics, management information systems, behavior change communication (BCC), social mobilization, and high-quality research, analysis, and evaluation.

MCHIP's overall goal was to contribute to reductions in mortality and morbidity among women and children under five, and to accelerate progress toward reaching Millennium Development Goals (MDGs) 4 and 5. MDG 5b, which focuses on improving FP, was also an integral part of the project and MCHIP provided assistance for FP to more than 22 countries. Working in concert with other MNCH partners, MCHIP was expected to contribute to the following outcomes:

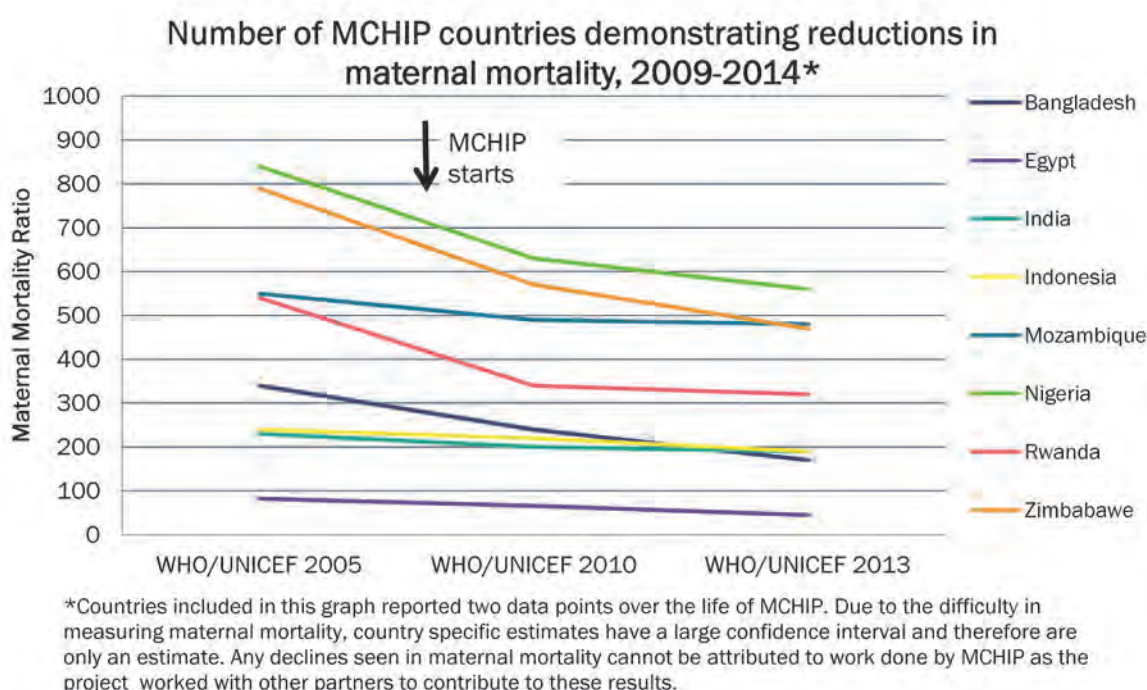
- Reductions in maternal and under-five mortality in 30 countries
- Saving an estimated 118,000 mothers and 7.2 million children under five in high-burden countries
- Demonstrated improvements in coverage in use of MNCH services in 20 countries, with five of these benefiting from an integrated package of high-impact MNCH interventions
- Demonstrated greater equity in coverage of MNCH services in five countries
- All 68 MDG Countdown countries benefiting from MCHIP-promoted learning tools and approaches

MCHIP was designed with three overarching strategic objectives:

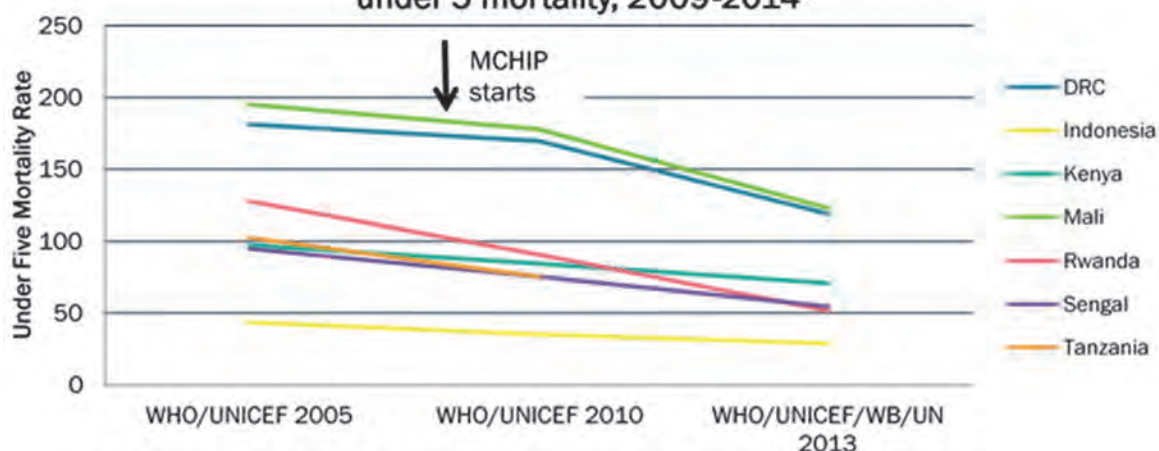
- **Strategic Objective 1:** Increased availability and use of appropriate high-impact MNCH interventions, including supportive FP interventions;
- **Strategic Objective 2:** Global leadership in MNCH, including further development and promotion of improved approaches; and
- **Strategic Objective 3:** Assist PVO/NGOs and their local partners supported by the CSHGP and PMI MCP programs to design, implement, monitor, and evaluate innovative, effective, and scalable community-oriented strategies that deliver integrated, high-impact interventions to vulnerable populations.

In most countries, MCHIP managed multi-year programs through local offices and staff who worked closely with Ministries and other partners. In other countries, technical assistance (TA) interventions were limited to one specific area, supporting a one-time study or conducting research. Country activities were achieved through direct MCHIP funds, Associate Awards (AAs), and partnership with CSHGP. Programs were based throughout Africa, Asia, the Middle East, and Latin America. Over the life of the program, USAID programmed a total of Redacted were field-driven investments.

MCHIP was instrumental in catalyzing and supporting progress in MNCH and contributing to reductions in mortality and morbidity. The following three graphs show notable reductions in maternal, child and newborn mortality in a selection of MCHIP countries. As MCHIP was not designed to directly evaluate impact, the country data source is from available World Health Organization (WHO)/UNICEF reports and demonstrates the result of multiple contributors to the mortality reductions.

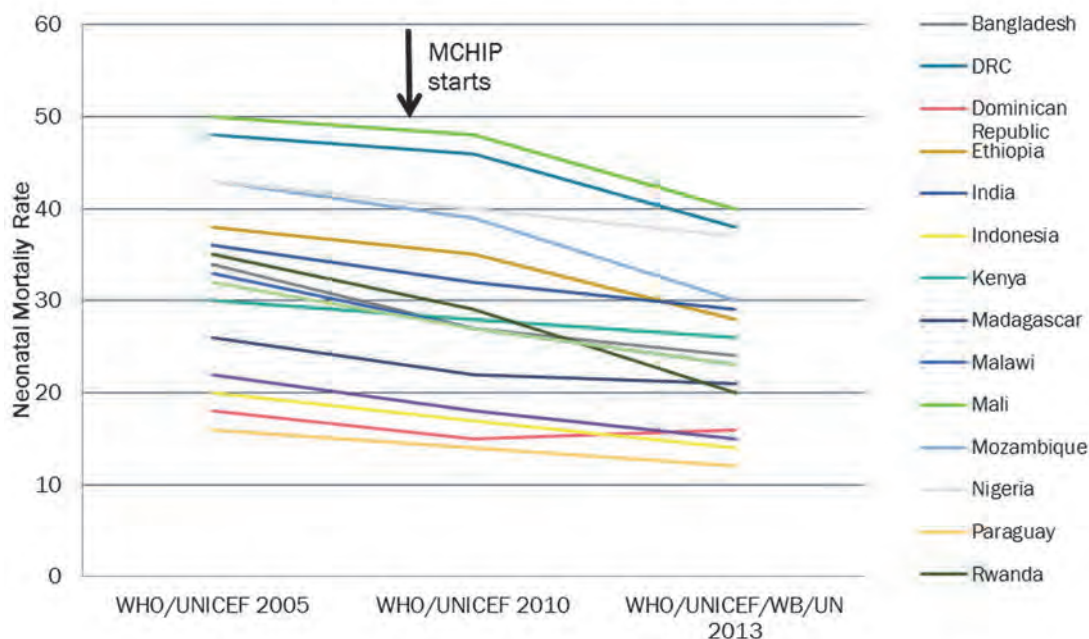


Number of MCHIP countries demonstrating reductions in under 5 mortality, 2009-2014*



*Any declines seen in under five mortality cannot be attributed to work done by MCHIP as the project worked with other partners to contribute to these results.

Number of MCHIP countries demonstrating reductions in neonatal mortality, 2009-2014*



*Any declines seen in neonatal mortality cannot be attributed to work done by MCHIP as the project worked with other partners to contribute to these results.

By the end of the program in December 2014, MCHIP, working in close collaboration with other MNCH partners, will have met or exceeded certain key expected program outcomes as follows:

- More than 53 countries benefited from evidence-based practices and policies.
- More than 4 million women were counseled on FP as part of integrated essential care services.
- 1.7 million deliveries were attended by a skilled birth provider.

- 1.1 million women received active management of the third stage of labor.
- 830,000 cases of diarrhea in children were treated.
- 88 million children received diphtheria, pertussis, and tetanus vaccines from MCHIP-supported countries.
- 400,000 men were circumcised as part of the fight to prevent HIV, with 90% getting tested.

This end-of-project report has been developed to discuss the achievements, program learning, and recommendations for the way forward.

OVERARCHING KEY ACCOMPLISHMENTS

The first section, *Overarching Key Accomplishments*, highlights overarching accomplishments across the three strategic objectives of Scale-up, Global Leadership, and Community (PVO/NGO) support.

Strategic Objective 1

Within the first Strategic Objective, to achieve scale-up for increased availability and use of appropriate high-impact MNCH interventions, MCHIP successfully promoted learning and adoption of proven approaches to reducing mortality and morbidity, including postpartum intrauterine devices (PPIUDs) in 13 countries, newborn resuscitation through Helping Babies Breathe (HBB) in 25 countries, introduction of new and underutilized vaccines (NUVI) in 11 countries, and the three components of active management of the third stage of labor (AMTSL) including uterotonic use immediately following birth (UUIFB) to prevent postpartum hemorrhage (PPH) in 30 countries. In fighting human immunodeficiency virus (HIV), MCHIP emerged as USAID and the U.S. President's Emergency Plan for AIDS Relief's (PEPFAR's) single largest voluntary male medical circumcision (VMMC) implementing partner, with more than 400,000 men circumcised with MCHIP support, including 123,000 men in **Tanzania** alone.

As scale-up involves taking interventions to greater numbers of people, MCHIP supported task shifting as a viable and innovative strategy, with notable successes in multiple countries including such examples as **Bangladesh, Guinea, Kenya, Liberia, Madagascar, Mali, Rwanda, South Sudan** and **Tanzania**. Over the life of the program, MCHIP trained more than 282,000 health care workers, the majority in new tasks that expanded their roles and brought greater coverage to those in need.

MCHIP achieved other notable progress in scaling up through global advocacy, an essential tool to develop local ownership of scale-up and promote change at the country level. For example,

Country examples where MCHIP supported task shifting to increase scale-up:

- **Guinea, Liberia, Madagascar, Rwanda, and South Sudan:** Pilot projects in these countries engaged community health workers to deliver misoprostol, shifting this postpartum hemorrhage intervention from the facility to the household level.
- **Bangladesh:** CHWs have been trained and will fulfill the gaps of skilled birth attendants at community level. MCHIP provided support on critical gap management in this area through facility strengthening and capacity building at the community level.
- **Mali:** Ninety-eight community auxiliary midwives trained and operational in the insertion of implants, which convinced the government this was a safe and feasible option.
- **India:** As of 2012, nurses allowed to insert PPIUDs.
- **Kenya:** Community health workers (CHWs) trained to manage and monitor HIV-positive mothers and reduce the transmission of the virus to newborns.
- **Tanzania:** Nurses trained to conduct all surgical tasks related to VMMC; as a result, more than 123,000 circumcisions were performed by December 2012, with nurses, clinical officers, and doctors performing similarly.

MCHIP contributed substantially to increased interest in and refocused priorities on the “forgotten” killers of children—diarrhea and pneumonia. MCHIP brought integrated community case management (iCCM) to the country level in Kenya, working hand in hand with national ministries to advocate for openness to task shifting and the introduction of iCCM to reach communities without access to health facilities. Through MCHIP’s technical support in Kenya, the Ministry of Health (MOH) and its stakeholders conducted a rapid results initiative (RRI) to scale up use of oral rehydration therapy (ORT) and zinc in the management of sick children with diarrhea in 230 facilities across the county. While over-the-counter distribution of antibiotics is still not permitted in Kenya, results from the rapid results initiative showed tremendous improvement in the use of zinc and oral rehydration salts (ORS) in the facilities from 49% of children treated at baseline to 95% at the endline. In Namibia and Mali, policy changes were made to allow CHWs to distribute antibiotics and zinc. MCHIP also introduced zinc in DRC and promoted the use of zinc in other countries, including Guinea and Zimbabwe. MCHIP also strengthened routine immunization systems, and supported and implemented Reaching Every District (RED) and related strategies in nine countries.

Complementing these country-level efforts, MCHIP played a vital leadership role as the Secretariat of the CCM Task Force to increase the development and standardization of iCCM tools and support activities that fostered global learning for improved implementation and iCCM scale-up.

Over the life of the program, MCHIP documented program learning about approaches that contributed to the success of MCHIP interventions and remaining gaps in programming. Through dissemination of the lessons learned in this global End-of-Project (EOP) report, as well as through program-generated reports, peer-reviewed publications, and other dissemination platforms, MCHIP strives to positively influence future efforts to combat maternal, newborn, and child mortality and morbidity.

Strategic Objective 2

In Strategic Objective 2, MCHIP exercised global leadership across MNCH by convening key actors, influencing the global agenda in policy and guidance, developing and disseminating tools, monitoring and evaluating results, and documenting key program learning. Participation in Global Development Alliances (GDAs)—notably Helping Babies Breathe (HBB) and Survive and Thrive (S&T)—was instrumental for MCHIP to engage at the global level and harness resources and skills from disparate groups to achieve greater impact.

One notable accomplishment under this objective was MCHIP’s contributions to improving routine and periodic measurement of MNCH outputs and outcomes. MCHIP co-led the multi-agency “Strengthening Immunization Systems Performance and Monitoring” working group and successfully advocated to include certain indicators in the Global Vaccine Action Plan (GVAP). MCHIP supported the development of assessment toolkits and frameworks that address monitoring and evaluation (M&E) of MNCH interventions and services by developing the *Quality of Care (QoC) for Prevention and Management of Common Maternal and Newborn Complications* facility survey, which was implemented in seven countries with MCHIP support. MCHIP supported country-level efforts to use assessment findings to address service delivery gaps and developed indicators and data collection tools that can be used in multiple countries. Specifically, in Kenya, QoC assessments have become part of the national Service Provision Assessment, and regional workshops were developed based on the findings from the QoC. Encouraging greater efficiency through the use of technology, MCHIP applied the use of mHealth tools for M&E activities. MCHIP successfully used mobile phones and Android tablets for data collection, including observational assessments such as the QoC facility assessments in **Tanzania** and client and provider questionnaires to assess client satisfaction with PPIUDs in the **Philippines**.

MCHIP was also particularly successful at furthering global engagement through international conferences, which served as valuable forums for sharing the latest evidence and program learning. Among the 29 global and regional conferences that benefited from MCHIP participation, the *Global Newborn Health Conference* (GNHC) exemplifies USAID's critical global leadership role through MCHIP in fostering multi-donor engagement that is essential to garnering support for global practices. Taking the lead in organizing this first conference of its kind, MCHIP brought together more than 450 researchers, health officials, policymakers, experts, and advocates from over 50 countries. Through technical assistance (TA) provided before, during, and after the conference, MCHIP catalyzed country action to advance newborn health and also informed a global action plan aimed at reducing the annual global death toll of nearly three million babies during the first month of life—now known as the “Every Newborn Action Plan” (ENAP). This global ENAP document—officially endorsed at the World Health Assembly and launched at the MNCH Forum in July 2014—as well as country-level plans will provide guidance and momentum for improving newborn survival through 2015 and beyond. In 2011 and 2012, MCHIP held two *Regional Meetings on Interventions for Impact in Essential Obstetric and Newborn Care* in Addis Ababa, Ethiopia and Dhaka, Bangladesh, respectively. These meetings brought together over 700 policy leaders, experienced clinicians, and program managers with a goal to support accelerated implementation and expansion of maternal and newborn health programs in countries throughout Africa and Asia, with a specific focus on prevention and management of postpartum hemorrhage, pre-eclampsia/eclampsia (PE/E), and newborn asphyxia.

As part of its overall strategy and to ensure sustainability and acceptance of its programs, MCHIP sought out opportunities for global engagement with key development partners, in particular, WHO and the United Nations Children's Fund (UNICEF). MCHIP has worked closely with WHO to ensure that information from new WHO guidelines for several important topics, including the prevention and treatment of PPH, the prevention and treatment of PE/E, and postnatal care for mothers and newborns, were translated into practical materials and disseminated at global, regional, and country levels. MCHIP, in collaboration with WHO and other partners, contributed to WHO's “[Statement for Collective Action for Postpartum Family Planning](#)” to emphasize the importance of postpartum family planning (PPFP) and offer general approaches for addressing unmet need and expanding the range of contraceptive options during the postpartum period. The global health community rallied in support of this obvious, but often overlooked, group of women in need of services and the statement received official endorsements from additional donor governments, including Australia and the United Kingdom, and from FP stakeholders, such as UNFPA and the International Planned Parenthood Federation.

MCHIP has served on numerous WHO technical committees and has been asked to lead sessions on the implementation of the guidelines at WHO guideline meetings, such as on preterm birth, PE/E, and postpartum hemorrhage (PPH), thus demonstrating that MCHIP is recognized by WHO and partners as a key implementer in countries where MNCH activities are under way. MCHIP also advised the Director of WHO's Immunization Program on rotavirus vaccine introduction, training approaches, and other important aspects of vaccine program implementation. By forging these strategic partnerships, MCHIP maximized the impact of collective efforts to reduce maternal and newborn mortality and morbidity.

During the second year of the program, MCHIP identified five cross-cutting themes for program learning including scale, integration, community, quality, and equity. In collaboration with USAID, MCHIP identified global program learning questions to be answered by the end of the program. In addition, MCHIP selected 11 program learning priority countries and ensured that they were supported and able to document and disseminate their learning for use globally, regionally, or in country. Highlights from MCHIP program learning on QoC, Integration of Services, and Equity are detailed in this report in Table 3 within the Strategic Objective 2 section. Learning on Scale-Up is covered in the Strategic Objective 1 section and learning on

Community Action in the Strategic Objective 3 section. Although just the most salient highlights are covered in the body of this report, the program learning briefs for each of these topics are included in Annex 8.

Strategic Objective 3

Through leveraging the rigorous standards for design, monitoring, and evaluation of PVO/NGO projects funded by the CSHGP and President's Malaria Initiative's (PMI's) Malaria Communities Program (MCP), and through strategically partnering with the CORE Group and its expanded network of civil society partners, SO3 expanded the global evidence base on community-oriented health programming to strengthen health systems.¹ The main accomplishments under this SO related to expanding the global evidence base on community-oriented health programming to strengthen health systems through leveraging both the rigorous standards for design, monitoring, and evaluation of these programs and strategically partnering with CORE Group and its expanded network of civil society partners.

During the life of MCHIP, 94 CSHGP grantees implemented programs in 42 countries, reaching 4,691,666 children under five years of age, 8,721,868 women of reproductive age, and 124,816 clients being treated for TB. Twenty MCP grantees operating in 12 countries reached more than 4.7 million beneficiaries, including women of reproductive age, children under five years of age, and other groups such as people living with HIV. MCHIP analyses of CSHGP data documented that these programs not only effectively delivered lifesaving interventions, but also contributed significantly to reducing child mortality.

MCHIP advanced USAID's global leadership in community-oriented programming by contributing to the generation of evidence from grantees in CSHGP's OR portfolio of 30 projects in 23 countries, and facilitated the development of journal articles and briefing papers that have helped to position the CSHGP experience as an important part of the global evidence base. These efforts augmented learning on issues relevant to MCHIP's technical agenda, including health equity, FP integration, iCCM, community inputs to maternal and newborn care, and mHealth.

Through CORE Group, MCHIP leveraged a wider network and NGO community; capitalized on CORE Group's complementary household- and community-level development approaches; and linked directly to a well-established program learning platform that served as an effective vehicle for the dissemination of tools and knowledge to influence international practice related to community-based health programming. CORE Group provided a vehicle for rapid, action-oriented diffusion of lessons learned, tools, and new opportunities to increase positive health impact and contribute to global learning for community health.

Together, CORE Group and MCHIP, with support from collaborating partners, diffused dozens of collaborative community health program tools and resources, including first and second editions of the *CCM Essentials Guide* and the *HBB Implementation Guide*. CORE Group's participation in MCHIP resulted in the creation of several joint products, the cross-promotion of resources, and extended representation in global forums, thus elevating the importance of integrated community-focused interventions and the role of civil society in helping to end preventable child and maternal deaths.

The resulting achievements of this partnership illustrate the unique contributions that PVOs and NGOs can make, engaging communities and civil society to address priority health challenges with innovative solutions that contribute to ending preventable deaths.

¹ MCP achievements are highlighted in the Malaria section of this report.

ACHIEVEMENTS BY PROGRAM AREAS AND RESULTS PATHWAYS

The second section of this report summarizes achievements, learning, and recommendations for the way forward across 10 technical program areas: maternal health, child health, immunization, newborn health, FP, malaria, HIV, immunization, urban health, and WASH. All 10 areas are discussed in detail in the body of the report; below are a few selected highlights.

Maternal Health

One notable achievement in maternal health is MCHIP's contribution to the global evidence base on the effectiveness of community-based interventions to prevent PPH. MCHIP's extensive advocacy and programmatic efforts to promote advance distribution of misoprostol for self-administration at homebirth—through the development of a wide array of related tools, resources, and especially operations research (OR) in five countries—have widespread implications for reducing maternal mortality and the expansion of services to more women. MCHIP also helped shape global thinking to make PE/E a priority maternal health intervention by forging strategic partnerships with key development partners (WHO, FIGO, ICM, UNCoLSC, Accelovate) to generate global evidence and promote best practices for managing complications from PE/E. MCHIP's Multi Country Analysis (MCA) Survey of 37 countries in PY3 and PY4 and Quality of Care (QoC) assessments—conducted in seven African countries—have contributed to global evidence and advanced country-level efforts to reduce maternal mortality from PE/E (and PPH). Conducting research to address critical gaps in the Knowledge and Practices of PE/E Prevention and Management, MCHIP developed and widely disseminated a practical review article in *BMC Pregnancy and Childbirth* on the safety of magnesium sulfate for management of severe PE/E. In this review, MCHIP dispelled the myths that MgSO₄ is a dangerous drug and recommended that clinical leaders in maternal health adopt, promote, and support the use of MgSO₄ as the anticonvulsant of choice in treating and managing PE/E.

Newborn Health

In newborn health, MCHIP played a pivotal role in the launch and expansion of the HBB initiative, beginning in 2010 at its inception as a USAID GDA. MCHIP has supported the introduction and implementation of HBB to address birth asphyxia in 25 countries on four continents, primarily through in-service training and site strengthening. Mentoring, supervision, and the incorporation of HBB into pre-service education in selected countries have been areas of focus as well. While Kangaroo Mother Care (KMC) existed more than 30 years prior to MCHIP, few countries had adopted or adapted this innovative yet simple approach that saves lives. MCHIP introduced or strengthened KMC, a proven method for managing premature and low birth weight (LBW) newborns, in 20 countries over the life of the program. In addition to direct implementation support at the country level, MCHIP provided technical leadership for the development of implementation guidance and tools and documented the facilitators and barriers to KMC implementation in Asia, Africa, Latin America, and the Caribbean (LAC).

Child Health

Similarly, MCHIP also supported global policy change in child health through advocacy for the revitalization of oral rehydration therapy and use of low-osmolality oral rehydration salts (ORS) and zinc in diarrhea treatment at facility and community levels, including the reclassification of zinc as an over-the-counter drug. The resulting policy change allowed community health workers (CHWs) to use zinc for diarrhea case management and antibiotics for the treatment of pneumonia. Building on an existing malaria platform, MCHIP supported the initial introduction and scale-up of community case management of diarrhea, malaria, and pneumonia in 10 countries.

Immunization

MCHIP also influenced global policies in the area of immunization, frequently sharing country-level experiences via regional- and global-level mechanisms. Through strategic participation in selected working groups and committees, MCHIP amplified project learning and helped set international agendas for immunization. At the country level, MCHIP built country capacity to plan, implement, monitor, and learn from 19 new vaccine introductions of five antigens in 11 countries. Additionally, MCHIP built the capacity of MOHs and partners to strengthen the performance of their routine immunization programs, systems, and services in nine countries.

Family Planning

Exercising global leadership in FP, MCHIP developed the “Statement for Collective Action for Postpartum Family Planning,” calling for a renewed focus and commitment to meeting the FP needs of women in the postpartum period. Simultaneously, MCHIP’s work to highlight the evidence of unmet need among postpartum women helped catalyze a global response from WHO. Together with USAID, MCHIP and WHO developed the “Programming Strategies for Postpartum Family Planning,” which provides strategies for policymakers and program managers on how to design PFP programs. MCHIP worked in 21 countries to improve family planning access and services, 17 of which included PFP.

RECOMMENDATIONS AND THE WAY FORWARD

Following the section on health technical area accomplishments, this report features a section that discusses overall MCHIP lessons learned and recommendations for the way forward to shed light on post-MDG programming. This third section offers insight for future programming and is organized in four parts: (i) Technical areas; (ii) Cross-cutting themes (Equity, Community Engagement, Quality, Scale-Up, and Integration); (iii) Monitoring and Evaluation (M&E); and (iv) NGO Partnerships, Global Alliances, and Leadership.

The *Recommendations and the Way Forward* concludes the main body of the report, and is followed by a series of important annexes, including the Program Coverage Matrix (Annex 1), the Illustrative Funding Matrix (Annex 2) and the Global M&E Framework (Annex 3). Annex 4 contains Country Briefs that highlight the experience, achievements, and lessons learned in each of the MCHIP field-funded countries as well as Regional Summaries for LAC and Africa Bureau core-funded activities. Brief snapshots for each Associate Award that provide overviews of the strategies, activities, and achievements to date for each award are located in Annex 5. A list of all MCHIP research studies is found in Annex 6. Program Learning outputs are highlighted in Annexes 7 and 8, including the Program Learning Matrix and Program Learning Theme Summaries respectively. A sampling of MCHIP success stories across technical and cross-cutting areas is presented in Annex 9. Brief reports on accomplishments through PVOs/NGOs and CORE Group are found in Annex 10 and Annex 11, respectively. Annex 12 discusses the work of the Strategic Communications Team, demonstrating how MCHIP—in concert with implementing partner organizations—has strategically leveraged other existing platforms within the global community and harnessed a multitude of communications tools to effectively communicate the programmatic achievements in multiple areas. Annexes 13–16 provide lists of all peer-reviewed journal articles; national policy changes to which MCHIP contributed; presentations at international conferences; and publications, materials, and tools developed by the overall project (training curricula, job aids, etc.). Both the body of the EOP report and the annexes provide detailed accounts of the challenges, successes, lessons learned, and way forward of MCHIP.

Overarching Key Accomplishments

The Maternal and Child Health Integrated Program (MCHIP) was the United States Agency for International Development (USAID) Bureau for Global Health's flagship maternal, newborn, and child health (MNCH) program from 2008–2014. Designed to bring together multiple technically specific programs in maternal, newborn, and child health/family planning (MNCH/FP) under one mechanism, MCHIP had a diverse portfolio and provided technical assistance in more than 50 countries. MCHIP received field funding in 41 countries, bureau and other funding in an additional eight countries, and supported Child Survival and Health Grants Program (CSHGP) grantees in five countries where MCHIP had no formal presence. The expansion of country-level MCHIP activities over the first five years of implementation is illustrated in the map below. MCHIP gained valuable insights on the pathways and complexities of achieving impact at scale and for leveraging the talents of multiple partners.

Figure 1. Countries with MCHIP Presence/Activity

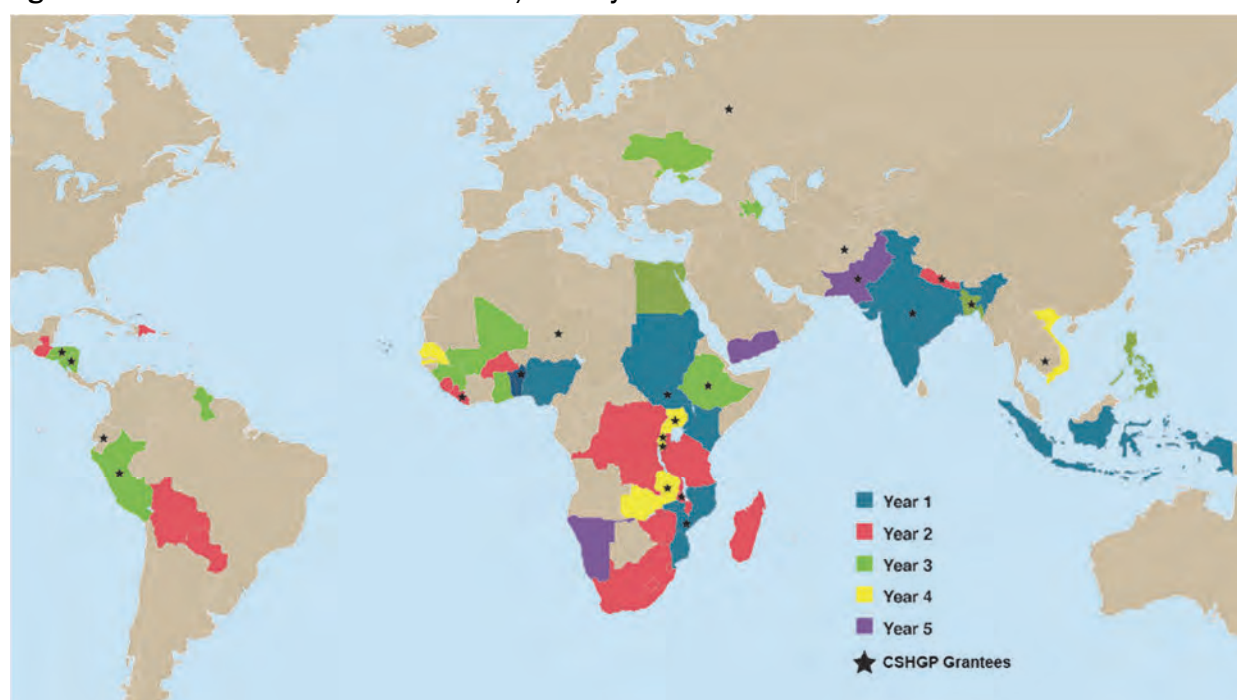
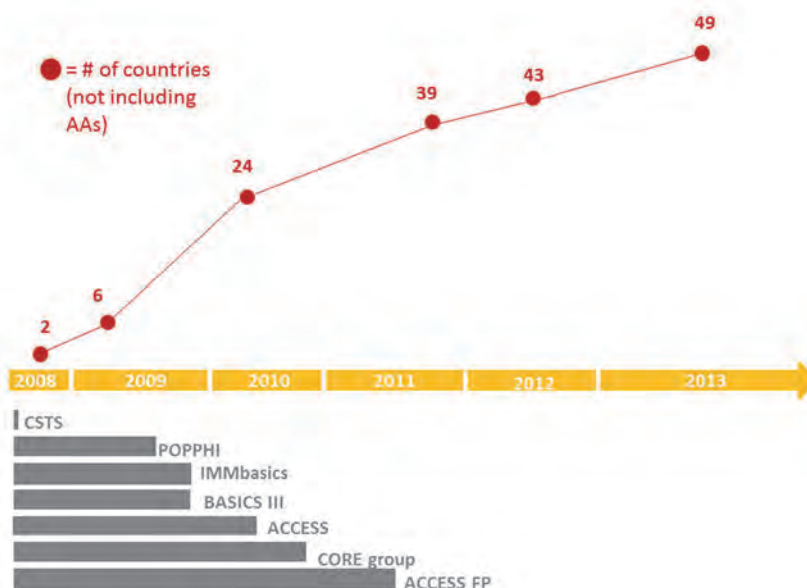


Figure 2 details six global USAID-funded projects that were woven into MCHIP over time, as well as the inclusion of CORE Group as a central partner.² The red line shows the expansion of the number of countries that MCHIP reached. In seven of these countries, MCHIP also managed a total of nine Associate Awards (AAs), some of which will continue several years beyond MCHIP's end date.³

² Child Survival Technical Support Program (CSTS); Prevention of Post-Partum Hemorrhage Initiative (POPPHI); Immunization basics (IMMbasics); Basic Support for Institutionalizing Child Survival (BASICS III); Access to Clinical and Community Maternal, Neonatal and Women's Health Services (ACCESS); CORE Group: was rolled in after the start of MCHIP as a key partner within MCHIP; Centrally funded Associate Award to the Access to Clinical and Community Maternal, Neonatal and Women's Health Services (ACCESS-FP).

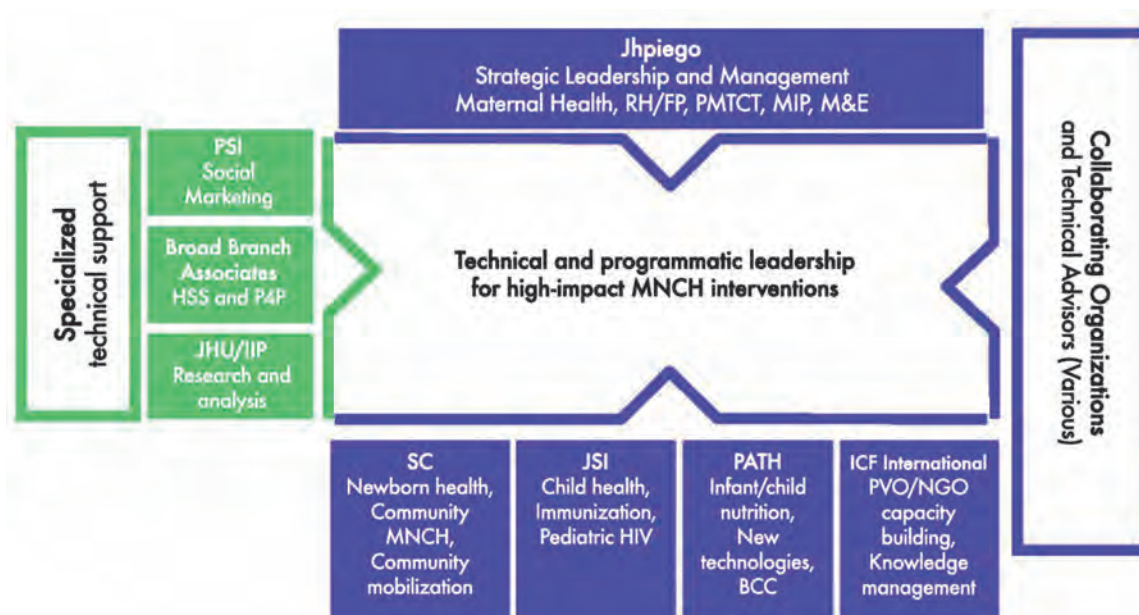
³ Associate Awards were implemented in Bangladesh (Mamoni 2009–2013; HSS 2009–2013), Pakistan (Fata-KP [2012–2017], MNCH [2012]), Mozambique (2010–2015), Malawi (2013–2017), South Sudan (2012–2017), Zimbabwe (2014–2016), and Yemen (2014–2019).

Figure 2. Six Years in the Making: Number of Countries Reached through MCHIP



MCHIP was a Leader with Associate Award, granted in 2008 to a group of partners, led by Jhpiego, including Save the Children, John Snow, Inc. (JSI), ICF International (which acquired Macro International at the start of the project), the Johns Hopkins University Institute for International Programs (JHU-IIP), the Program for Appropriate Technology in Health (PATH), Broad Branch Associates, and Population Services International (PSI). MCHIP's team combined technical leaders from across the spectrum of MNCH/FP intervention areas with operations experts in health care financing, quality assurance (QA), private voluntary organization/nongovernmental organization (PVO/NGO) capacity building, social marketing, public-private partnerships, logistics, management information systems, behavior change communication (BCC), social mobilization, and high-quality research, analysis, and evaluation.

Figure 3. MCHIP Consortium



MCHIP's overall goal was to help achieve reductions in mortality and morbidity among women and children under five, and to accelerate progress toward reaching Millennium Development Goals (MDGs) 4 and 5. The MDG 5b, which focuses on improving FP, was also an integral part of the project and MCHIP provided assistance for FP to more than 22 countries. Working in concert with other MNCH partners, MCHIP was expected to contribute to the following outcomes:

- Reductions in maternal and under-five mortality in 30 countries
- Saving an estimated 118,000 mothers and 7.2 million children under five in high-burden countries
- Demonstrated improvements in coverage in use of MNCH services in 20 countries, with five of these benefiting from an integrated package of high-impact MNCH interventions
- Demonstrated greater equity in coverage of MNCH services in five countries
- All 68 MDG Countdown countries benefiting from MCHIP-promoted learning tools and approaches

Examples of MCHIP-Supported High-Impact Interventions That Were Introduced and Expanded:

- Use of chlorhexidine in newborn care
- Newborn resuscitation
- Kangaroo Mother Care
- Postpartum contraceptive choices, including IUDs
- Community distribution of misoprostol for PPH
- Emergency obstetric care, including treatment and management of PPH and eclampsia

MCHIP was designed with three overarching strategic objectives (SOs):

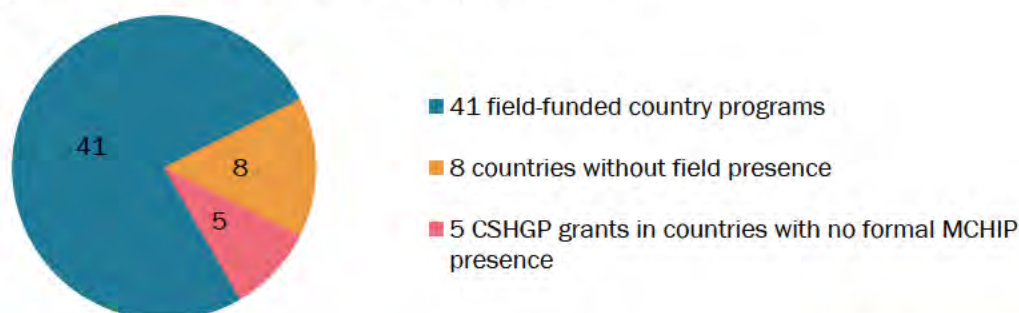
- **Strategic Objective 1:** Increased availability and use of appropriate high-impact MNCH interventions, including supportive FP interventions;
- **Strategic Objective 2:** Global leadership in MNCH, including further development and promotion of improved approaches; and
- **Strategic Objective 3:** Assist PVO/NGOs and their local partners supported by the CSGHP and PMI MCP programs to design, implement, monitor, and evaluate innovative, effective, and scalable community-oriented strategies that deliver integrated, high-impact interventions to vulnerable populations.

MCHIP's technical scope was broad, reaching across 10 technical areas of intervention:

- | | |
|--|--|
| ▪ maternal health | ▪ human immunodeficiency virus (HIV) (including voluntary medical male circumcision [VMMC] and prevention of mother-to-child transmission [PMTCT]) |
| ▪ child health | ▪ nutrition |
| ▪ newborn health | ▪ water, sanitation, and hygiene (WASH) |
| ▪ immunization | ▪ urban health |
| ▪ FP (with particular emphasis on postpartum family planning [PPFP] options) | |
| ▪ Malaria (with an emphasis on malaria in pregnancy [MIP]) | |

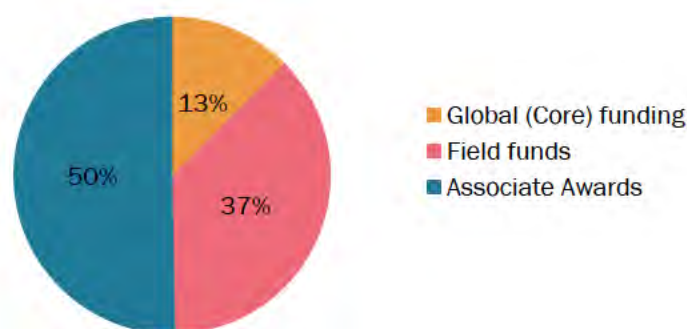
Overall, MCHIP provided technical assistance to 54 countries, receiving field funding in 41 countries and regional bureau and other funding in eight countries although it was initially designed to work in only 30. Success in early countries led to a marked increase in country and field Mission demand, which drove the rapid growth of MCHIP's coverage.

Figure 4. Number of MCHIP Intervention Countries



In most countries, MCHIP managed multi-year programs through local offices and staff who worked closely with ministries and other partners. In other countries, technical assistance (TA) interventions were limited to one specific area, supporting a one-time study or conducting research. Country activities were implemented through MCHIP core and field funds, Associate Awards (AA), and partnership with the CSHGP. Programs were based throughout Africa, Asia, the Middle East, and Latin America. Over the life of the project, MCHIP programmed a total of **Redacted** in core funds, field funds, and AAs to meet its objectives, of which nearly 90% were field-driven investments.

Figure 5. Breakdown of MCHIP Funding



MCHIP Achievements:

- Over 4 million women counseled on FP as part of integrated essential care services
- 2.3 million couple years of protection to avert pregnancy supported by MCHIP FP services
- 1.7 million deliveries attended by a skilled birth provider
- 1.1 million women received active management of third stage of labor (AMTSL)
- 830,000 cases of diarrhea in children treated
- 88 million children received DTP3 from MCHIP-supported countries
- 309,000 newborns received antibiotics
- 229,000 children with pneumonia treated with antibiotics

MCHIP prioritized five principal strategies in its effort to achieve maternal and child health impact:

- Taking high-impact interventions to scale
- Creating change through global and regional influence
- Ensuring country ownership
- Improving measurement and use of data at the country and global levels
- Expanding coverage through integrated approaches

As part of its overall strategy and to ensure sustainability and acceptance of its programs, USAID through MCHIP worked in concert with Ministries of Health (MOHs) and other Ministries, donors, and local and international NGOs (INGOs). This multi-faceted partnership approach was also evident in the relationships USAID forged through MCHIP with the World

Health Organization (WHO) and the United Nations Children’s Fund (UNICEF). In some instances, MCHIP had a small role, such as providing feedback on proposed policies. In others, MCHIP played a much larger role, such as contributing to the development of WHO’s *Programming Strategies for Postpartum Family Planning*. In every case, USAID’s flagship project was an integral part of a complex, inter-connected effort to reduce maternal and newborn mortality, and opportunities for global engagement were welcomed.

Discussion of Strategic Objectives

S01 Strategic Objective 1

Strategic Objective 1: Increased availability and use of appropriate high-impact MNCH interventions, including supportive FP interventions

Overview

Strategic Objective 1 focused on increased availability and use as well as the institutionalization in country health systems of appropriate, high-impact MNCH interventions, including FP interventions. MCHIP focused on a set of evidence-based, high-impact interventions across the MNCH-FP spectrum to reduce maternal and child mortality, as delineated by USAID at the outset of the program. This section provides highlights of the strategies and results; within Annex 8, the Program Learning Theme Summary for Scale-Up provides a detailed explanation of the analysis framework, elements, strategy, and results of countries with scale-up efforts that received the most MCHIP support. Table 1 below illustrates the 10 high-impact interventions on which MCHIP focused its efforts and the number of countries where MCHIP focused its support for scale-up of each of them.

Table 1. High-Impact Interventions MCHIP Supported for Scale-Up

INTERVENTION	NUMBER OF COUNTRIES
Uterotonic use immediately following birth (UUFB) to prevent postpartum hemorrhage (PPH)	30
Magnesium sulfate for pre-eclampsia/eclampsia (PE/E)	15
Newborn resuscitation (Helping Babies Breathe or [HBB])	25
Kangaroo Mother Care (KMC)	24
Essential newborn care (ENC)/postnatal care (PNC)	13
Integrated community case management (iCCM) for childhood illnesses	10
PPFP with postpartum IUD (PPIUD)	13
Introduction of new and underutilized vaccines (NUVI)	11
Prevention of MIP	7
VMMC with HIV testing and counseling	4

Some of the interventions changed over time as new evidence came to light. For example, with the new global consensus in support of antenatal corticosteroids (ACS) to improve survival of preterm babies, MCHIP embarked on a three-country pilot project in **Cambodia**, the **Philippines**, and **Indonesia** to increase the use of ACS among providers. In the maternal health realm, WHO issued guidance in 2012 that put greater emphasis on uterotonic use at every birth, including the use of misoprostol when oxytocin is not available. As acceptance increased regarding the use of misoprostol at the community level to prevent PPH, MCHIP adapted programming to include misoprostol within its portfolio of supported interventions.

MCHIP selected six of the 10 high-impact interventions in Table 1 to document country experience with scale-up.

1. Uterotonic use immediately following birth to prevent PPH
2. Newborn resuscitation (HBB)
3. Integrated community case management of childhood illnesses
4. Postpartum family planning
5. Introduction of new and underutilized vaccines
6. Prevention of malaria in pregnancy, focusing on intermittent preventive treatment in pregnancy

MCHIP carried out operations research (OR) on prevention of PPH through community-based misoprostol provision in five countries—**South Sudan**,⁴ **Madagascar**, **Liberia**,⁵ **Rwanda**, and **Guinea**. Promising results from **Liberia** and **South Sudan** have already been published, with studies from **Madagascar** and **Rwanda** expected in late 2014.

MCHIP adjusted programming to complement existing country efforts, focusing on bringing policy and practice in line with international standards in countries that already had a solid maternal and newborn health (MNH) platform or that were redoubling nascent efforts. Understanding the political landscape of each country gave efforts at scaling up practices a better chance of success. For each country, MCHIP based its programming on existing resources, government interest, USAID Mission requests, and the possibility of interest from

other donors to aid in eventual resource mobilization in scale-up efforts. MCHIP's original mandate did not explicitly include health systems strengthening (HSS); however, MCHIP did take a systems approach when assessing the environment in support of scaling up. In order to achieve impact at scale, the contribution of the newly scaled intervention will only be as strong as the weakest link in the health system—including system governance, commodity procurement/logistics, information systems, and human resources. Published literature regarding one of MCHIP's target interventions supports this principle. When HBB was rolled out in **Tanzania**⁶ through initial training and regular post-training workplace follow-up, some providers demonstrated improved simulated performance of newborn resuscitation, but failed to perform those same skills when their actual clinical practice was observed. Thus, regular reinforcement of skills through supervised clinical practice, rather than just demonstrated competence at a single offsite training, was determined to be crucial for effective scale-up. This was in addition to the multiple system elements to be addressed to increase coverage and institutionalization such as inclusion in pre-service curricula, supply of needed commodities, and regular reporting in the health information system.

Mali's success in building the capacity of *matrones*, or auxiliary midwives, to insert implants is another example of how efforts to scale up a technical intervention and consideration of health systems intersect. *Matrones* are auxiliary midwives with limited skills, who serve large populations and are instrumental in providing access to multiple services. As modern contraceptive prevalence is low, particularly for long-acting methods, the Government of **Mali** was open to trying innovative approaches. MCHIP first trained 30 *matrones* in Diema, the Kayes region, on the insertion of implants. Post-training follow-up and supervision showed that 19 out of 24 *matrones* scored 80% or better on measures of quality of service provision. Government observers noted that the skills of the *matrones* were on par with or better than those of midwives and physicians, the usual service providers. As a result, the Government's *Norms and Procedures in Sexual and Reproductive Health* were modified to institutionalize a new national policy allowing *matrones* to continue inserting implants. This task-shifting

⁴ Smith JM et al. 2014. Clinical article: Advance distribution of misoprostol for the prevention of postpartum hemorrhage in South Sudan. *International Journal Of Gynecology And Obstetrics*; doi:10.1016/j.ijgo.2014.05.016

⁵ Smith JM et al. 2014. Advance distribution of misoprostol for prevention of postpartum hemorrhage (PPH) at home births in two districts of Liberia. *BMC Pregnancy and Childbirth* 14 (189); <http://www.biomedcentral.com/content/pdf/1471-2393-14-189.pdf>.

⁶ Ersdal HL et al. 2013. A one-day "Helping Babies Breathe" course improves simulated performance but not clinical management of neonates. *Resuscitation* 84(10); <http://dx.doi.org/10.1016/j.resuscitation.2013.04.005>

exercise can help overcome the bottleneck of a severe shortage of human resources needed for family planning service provision.

The majority of countries where MCHIP worked had multiple health systems bottlenecks that needed to be addressed in order to assist in a successful scale-up process. In **Malawi** the MCHIP Immunization Team helped the national Expanded Program on Immunization (EPI) address cold chain weaknesses to help pave the way for successful introduction and national scale up of PCV and Rotavirus vaccines. Using scale-up maps⁷ developed by MCHIP as a planning tool to identify system constraints across the various health system components needed for new vaccine introduction and scale up, MCHIP helped to identify those areas of the national EPI system most in need of improvement so that Pneumococcal Conjugate Vaccine (PCV) and Rotavirus vaccine could best be successfully scaled up. MCHIP's support for the successful introduction of the PCV and Rotavirus vaccine resulted in national-level coverage equivalent to other antigens, with PCV3 national-level coverage at 89% and Rotavirus 2 coverage at 81% by two years after their introduction (end of 2013). The fact that system issues were addressed means that these rapid coverage gains are more likely to be sustainable within the improved national EPI system.

Implementation Strategies for Scaling up High-Impact Interventions

MCHIP employed the following five main strategies that can contribute to scaling up: 1) advocacy and coalition building; 2) attention to organizational processes and capacity building; 3) resource mobilization; 4) M&E and data use for action; and 5) client and community engagement.

Advocacy and Coalition Building

Advocacy is an essential tool to build consensus among key global and country-level stakeholders that an intervention should be scaled up. The MCHIP experience has demonstrated that advocacy at a global level can translate to change at the country level and that such advocacy can indeed have a role in cultivating in-country champions for the introduction and scale-up process. Most of the MCHIP program teams invested in global advocacy, which ultimately resulted in decisions at the country level to introduce and expand proven, evidence-based interventions by national governments. At the global level, as a member of the Global Development Alliance (described in more detail in the section on Strategic Objective 2), MCHIP contributed to the design and refinement of the HBB implementation guide to make it user-friendly and compatible with national systems. As demonstrated through MCHIP experiences with successful introduction and expansion of HBB in various countries, including **Bangladesh, Malawi**, and several countries in the LAC region through the LAC Neonatal Alliance, MCHIP contributed to advocacy by engaging stakeholders and key decision-makers in the discussions about the benefits, and promoting country ownership of the intervention. The regional advocacy through the LAC Neonatal Alliance also contributed to mobilization of resources devoted to introduction and scale-up of HBB in several countries in which MCHIP did not have a presence (e.g., Colombia). This will be covered in more detail on the section on Resource Mobilization.



⁷ Please refer to Program Learning Scale-Up Theme Summary, Annex 8, for more details.

MCHIP teams also supported advocacy by contributing to the development of WHO guidelines, created opportunities for knowledge-sharing virtually and at regional forums, and assisted in creating an evidence base for successful implementation strategies. As an example, the Immunization Team worked with WHO and other global partners on the guidelines and operational principles for the adoption of several new vaccines including PCV, Rotavirus, and meningococcal vaccine. The Maternal Health Team also worked with WHO on guidelines for use of misoprostol for PPH prevention for home births and helped to promote this and other key maternal interventions through regional forums in Addis Ababa (2011) and Dhaka (2012). Post-meeting surveys with participants from the various MOHs confirmed that the decision to introduce and in some cases scale up misoprostol was a direct consequence of attendance at one of these meetings and learning of the new guidelines and other countries' experiences.

Through global advocacy, MCHIP contributed substantially to refocused interest in the “forgotten” killers of children—diarrhea and pneumonia. MCHIP brought iCCM to the country level in **Kenya**, working hand in hand with national ministries to advocate for openness to task shifting and the introduction of iCCM to reach communities without access to health facilities. MCHIP helped establish a national iCCM implementation plan, referred to as the iCCM Roadmap, and coordinated efforts by all partners involved in iCCM, resulting in coordinated operations research efforts between MCHIP, WHO, and UNICEF on the scalability of iCCM. By advocating for zinc to be available without a prescription, the Kenya Ministry of Medical Services and Ministry of Public Health and Sanitation officially changed the pharmaceutical classification of zinc from prescription medicine to an over-the-counter drug. This policy change paved the way for expanded community access to zinc and is expected to contribute significantly to child health improvements through iCCM efforts and beyond. In **Mali** MCHIP was also part of a coalition with UNICEF, Save the Children, and others that advocated for iCCM implementation through the newly developed SEC⁸ community primary health care system. MCHIP's experience in supporting iCCM and this advocacy contributed to the MOH's decision in March 2014 to release its plan for national SEC and iCCM roll out.

When the advocacy process contributed to government ownership and especially to the commitment of resources, programs progressed quickly. This was dramatically illustrated in the PPFP program in **India**. The repositioning of the IUD being advocated by MCHIP and other development partners fit well with the government's reinvigoration of PPFP services. It also dovetailed with the Government of India's (GoI) Janani Suraksha Yojana (JSY) program that had been initiated in 2005 through the National Rural Health Mission (NRHM). JSY promotes institutional delivery among poor women and had resulted in dramatic increases in institutional delivery and therefore large increases in potential clients for facility-based PPFP services. The GoI folded PPFP/PPIUD services into this larger scheme, thereby achieving rapid gains in service delivery for PPFP/PPIUD. A total of 43,000 PPIUDs were inserted in the three MCHIP states between early 2010 and July 2014. The GOI scaled up MCHIP-supported PPFP/PPIUD activities nationwide with the support of other donors and was able to perform an additional 257,000 insertions by July 2014 outside of MCHIP-supported states. The MCHIP India team ensured that this service expansion was done with quality by creating a program that included PPIUD performance standards, which the GoI incorporated into national policies and standard operating procedures. The MOH tracked the post-insertion expulsion rate as a sentinel indicator of quality during the expansion process. Expulsion rates remained low; key informants in the MOH attribute this success to the fact that there were dedicated counselors, a strengthened service delivery program at the facility level, and good follow-up. The government continues to build on this scale-up success. They are currently allowing task shifting to nurses to further increase access to IUD insertions.

⁸ The integrated essential community-based maternal, newborn, and child health/FP package.

Some MCHIP teams developed tools to help focus advocacy and coalition-building around coordination of efforts to address specific tasks in the scale-up process. An example of this was the use of scale-up maps to identify key scale-up tasks as well as gaps. The Maternal Health Team used these maps (an example is shown in Annex 8) as a centerpiece for its assessments of 37 country programs in its Multi-Country Analysis (MCA) for the prevention and management of PPH and PE/E. This process revealed that partnership arrangements in the majority of countries are based on broad collaboration among USAID programs, projects, and other partners, as well as collaboration between the local MOH and other partners. Through work on institutional adoption of policies, training systems, and use of information systems, MCHIP and other donors facilitated country ownership. Similar mappings were done by the Newborn Team for Helping Babies Breathe and Kangaroo Mother Care.

Organizational Processes and Capacity Building

MCHIP assisted various MOHs to identify and address the main organizational bottlenecks to scale-up. One of the main bottlenecks was the lack of sufficient numbers of adequately trained providers. Training of currently authorized providers was a large MCHIP focus (over 280,000 health workers were trained over the life of the project). MCHIP also advocated successfully for task shifting and for training of these newly authorized personnel to assume their additional tasks. In addition to examples already mentioned in **Kenya** (iCCM), **Mali** (FP), and **India** (FP), some other examples in which MCHIP supported task shifting as a scale-up strategy are the following:

- **Tanzania:** Nurses were trained to conduct all the surgical tasks related to VMMC; as a result, more than 123,000 circumcisions were performed by December 2012 and the performance of nurses, clinical officers, and doctors was of similar quality.
- **Kenya:** CHWs manage and monitor HIV-positive mothers and reduce the transmission of the virus to newborns.

While continuing to support task shifting as a viable strategy to increase scale-up, MCHIP's assessment of this practice has signaled some aspects that need to be addressed globally. These include:

- The role of incentives, whether monetary or non-monetary, as an important way to facilitate the adoption of new practices by providers;
- The importance of keeping in mind that one will reach a saturation point for provision of quality services as additional tasks are added to providers' current responsibilities;
- The need for advocacy aimed at currently authorized health care providers who may be resistant to task shifting; and
- The imperative to provide follow-up for at least one to two years to ensure that the new skills are being used and performed with sufficient quality.

Resource Mobilization

A combination of resources from national governments and development partners needs to be mobilized for technical support and to finance the additional costs associated with scaling up. Assuring sufficient funding is one of the more difficult aspects of scale-up to achieve, given the complex development landscape globally and in most countries, with multiple initiatives competing for attention.⁹ This creates program tension and requires efforts to identify ongoing funding mechanisms to ensure sustainability. Some countries are able to increase their

⁹ Larson A, Ricca J, Posner J, and Raney L. 2014. *Lessons Learned from the Scale Up Experience of Six Key High Impact Interventions in Reproductive, Maternal, Newborn, and Child Health (RMNCH)*. Washington, D.C.: MCHIP.

financial support: the Government of **India** supported resource mobilization by shouldering a significant part of the cost of expanding the program to introduce PPIUD. **Malawi**, however, demonstrates the challenges associated with sustaining interventions; there is a \$31 million projected funding gap for the continued scaling up of the immunization program, and the 2012–2016 budget lists MCHIP as a donor, despite the fact that MCHIP is a program reliant on donor funds and ended in 2014.

Given its global, regional, and in-country presence, MCHIP had many options to advocate for resource mobilization. As an example of a regional resource mobilization initiative, MCHIP supported HBB through the Latin American and Caribbean Newborn Alliance. Even though MCHIP had no country presence in Colombia, clinical leaders and medical universities joined the coalition, and the effort benefited from the work of the Pan American Health Organization. National teams were supported by the American Academy of Pediatrics (AAP), one of the lead partners in the HBB Global Development Alliance.

Alliances worked very effectively when they were formed with a coalition of powerful groups. To advance the scaling up of UIIFB, MCHIP worked in partnership with a high-level coalition that included WHO, the Bill & Melinda Gates Foundation, United Nations Population Fund (UNFPA), UNICEF, the United Nations Commission on Life-Saving Commodities, bilateral donors, in addition to USAID, representatives of national governments, British and American researchers, and drug manufacturers.

These experiences demonstrate that the success of mobilizing partners for scale-up depends on existing global alliances, the strength of the government in the particular sector, and the vibrancy of the civil society sector. Working with a wide range of partners enabled MCHIP to leverage funds and allowed for the inclusion of technical information and services in new geographic areas, health care settings, and cadres.

While MCHIP achieved great success through some of these partnerships, MCHIP also learned that involving multiple NGOs and technical agencies can result in competing agendas and uncoordinated scale-up. For example, scale-up efforts in **Burkina Faso** to combat MIP proved problematic due to the numerous coordinating committees for malaria, each reflecting national or development partner priorities and made up of representatives of those agencies. The National Malaria Control Program (NMCP) participated in all of the committees, but NGOs involved in malaria control and reproductive health did not. Given that many NGOs provided health services either independently or by supporting the government services, lack of coordination was an obstacle to scaling up the effort to fight MIP. The coordination process worked better in **Ghana**, where the coordinated engagement of faith-based organizations was crucial to the government's ability to increase coverage. From 2008 to 2011, there was a 7% increase in the use of insecticide-treated bed nets (ITNs), thanks to the collaboration among partners.¹⁰

M&E/Data Use for Action

MCHIP successfully used data to convince decision-makers to take action and scale up effective interventions. For example, as a foundational step for scaling up the use of uterotonics, MCHIP implemented a uterotonic estimation exercise in **Mozambique**, **Tanzania**, Jharkhand State of **India**, and **Yemen** to measure coverage of UIIFB. In a transparent, consultative forum, experts reached a consensus about national coverage for the use of uterotonic in the third stage of labor using this novel methodology that combined expert opinion with available data for both facility and home births. Importantly, this exercise enabled stakeholders to develop estimates of coverage where none were available previously. In highlighting gaps in coverage at the

¹⁰ 2013 Ghana Malaria Operational Plan.

community level, this UIIFB exercise engendered advocacy around the idea of greater UIIFB coverage for all births regardless of delivery location. Results stimulated key policy and programmatic changes: driving efforts to get better data on uterotonic use and availability in **Tanzania**, and stimulating and reinforcing plans in Jharkhand State of **India** and **Mozambique**, respectively, to move forward with community-based distribution of misoprostol programs and to improve storage conditions for oxytocin.¹¹

MCHIP was also successful in using data to scale up MIP prevention. MCHIP helped lead a data collection exercise with USAID's Malaria Action Coalition to create an MIP readiness framework. The framework examined eight key areas of MIP programming: integration, capacity building, policy, community awareness and involvement, commodities, M&E, QA, and financing. Using the framework and stakeholder interviews, MCHIP facilitated an in-depth analysis of **Zambia's** MIP progress for future implementation readiness, and identified lessons learned to inform future efforts. MCHIP used **Zambia's** case study as a model in the hope that other African countries can evaluate their progress in MIP prevention and control and determine next steps, adapted to specific local situations. Multi-country analyses were also developed for PPH, PE/E, HBB, and KMC; these were previously described.

MCHIP's learning on scale-up highlighted the challenge of obtaining good coverage data on the impact of scale-up. In future programming, it will be important to assure relevant baseline data and monitoring to track the changes in service expansion. Ideally, monitoring efforts should track indicators of quality as well—as was done with PPIUD in India, described earlier in this section.

Community/Client Engagement

Though often scale-up efforts tend to focus on improving the supply of services, engagement of clients and communities can strengthen demand for, strength and quality of delivery, and sustainability of services. In **India**, the JSY program resulted in dramatic increases in the numbers of clients coming for institutional deliveries. The majority of PPIUD providers interviewed in India reported that the growth and sustainability of the project was bolstered by increasing community demand through the involvement of community mobilizers. In **Mali**, community health associations are responsible for health care at the local level, but they were not involved in the design of the new primary health care program that included iCCM activities. This hindered scaling up services for three important reasons: 1) many of the CHWs were not selected from within the community, but instead were brought in from other districts or regions of the country, and cultural differences and issues of lack of trust for these previously unknown providers have led to under-utilization of services; 2) CHWs themselves often do not feel accepted by the local community and as such turnover can be very high; and 3) the package of services that the new CHWs can provide has not been communicated well to the community and, as such, expectations have not been met. However, community desire for improved primary

Uterotonic Estimation Exercise

The process for calculating an estimate depends on conducting a desk review of existing data, calculating new data, and disseminating the data. Experts take into account the following four factors:

- **Context:** Use existing documents to determine what policies, norms, scopes of practice, etc. exist regarding the use of uterotonics.
- **Distribution of births by location:** Use available survey data to understand the distribution of births in public facilities, private facilities, or at home, and who attends the woman in each setting.
- **Uterotonic use in each birth location:** Use data such as quality of care surveys to assess uterotonic use in each setting. Where data are not available, participants debate the likely level of practice.
- **Adjustment of estimates based on various factors:** Use additional available information, such as frequency of stock-outs, attendance at birth by cadres not authorized to use uterotonics, or quality of oxytocin supply, to adjust coverage estimates to reflect the real picture of service provision.

¹¹ For more details on MCHIP efforts in PPH, please refer to the Maternal Health Technical Section.

health care services in some previously poorly served rural areas was strong, and sustained the SEC efforts through a difficult time for the Government of Mali.

The MCHIP experience in VMMC also demonstrated that sound demand creation and community mobilization are essential for reaching national goals for VMMC. When only a single partner was given the task of community mobilization, they were not able to adequately cater to differing information needs at the district level. In addition, when demand creation and service delivery were separated, results were not as strong. The MOH in Malawi has guidance that demand creation should happen at least two weeks prior to the onset of a campaign and MCHIP supports this. When demand creation activities start only days before a campaign, it limited the number of participants coming in for services. MCHIP supported the government's first VMMC campaign in **Malawi**. In the four-week campaign, 4,516 men received VMMC, accounting for a 225% increase over the number of circumcisions performed in the country over the two years preceding the campaign (less than 1,000 circumcisions per year). HIV testing uptake was high in Malawi, with 4,237 (97.4%) clients accepting testing. Of these, 2.1% of clients tested HIV-positive. Across four countries, **Swaziland, Lesotho, Malawi, and Tanzania**, 400,000 men were circumcised with MCHIP support, providing evidence for the feasibility of scaling up in this area.

Scale-Up Outcomes: Service Expansion (Coverage) and Institutionalization

The eventual goal of any scale-up process is achievement of sustainable impact at scale, not simply newly trained providers or the presence of a new service. Achievement of this goal requires *both* expanded coverage *and* institutionalization of the intervention into country health systems. The intervention should ideally reach all those in need of it, close to universal coverage. In order to sustain this expanded service delivery, the intervention should be institutionalized in country health systems. Achievement of institutionalization implies the application of a systematic approach from the beginning that strives to address all six of WHO's Health System Building Blocks: governance (policy, coordination, leadership, planning), financing, personnel including training, service delivery (supervision, quality improvement, and demand), health information systems, and logistics systems.¹² Since the achievement of sustainable impact will only be as strong as the weakest of these components, improvement and maintenance in all of these areas, while challenging, is essential to assure quality and sustainability, and achievement of the ultimate goal of "sustainable impact at scale."

Institutionalization

In PY6, MCHIP took a health systems view and adapted its original scale-up map¹³ to include assessment of institutionalization of an intervention using WHO's six Health System Building Blocks. To describe the nature of scale-up for the six key technical interventions studied, MCHIP undertook a landscape analysis in 14 countries utilizing the scale-up matrices, further probed the process in four in-depth case studies,¹⁴ and reviewed program learning studies from individual technical teams.¹⁵

The challenges of institutionalization can be described through the example of iCCM. As a strategy to increase access by extending case management of childhood illness beyond health facilities, it had several key components. These key components included task shifting to CHWs, integrating several services that may be delivered and funded separately, and developing new

¹² Please refer to Program Learning Scale Up Theme Summary, Annex 8.

¹³ Please refer to Program Learning Scale Up Theme Summary, Annex 8.

¹⁴ Additional in-depth investigation was done in India, Mali, Malawi, and Bangladesh.

¹⁵ Citation of paper: Larson A, Ricca J, Posner J, and Raney L. 2014. *Lessons Learned from the Scale Up Experience of Six Key High Impact Interventions in Reproductive, Maternal, Newborn, and Child Health (RMNCH)*. Washington, D.C.: MCHIP.

or updated policies promoting the development of cadres of workers who can provide specific medications. Each aspect of iCCM required attention in order for the intervention to reach sustainably high levels of coverage and progress on each of these components moved at different rates. This sometime resulted in a slow progress but ultimately a more sustainable program.

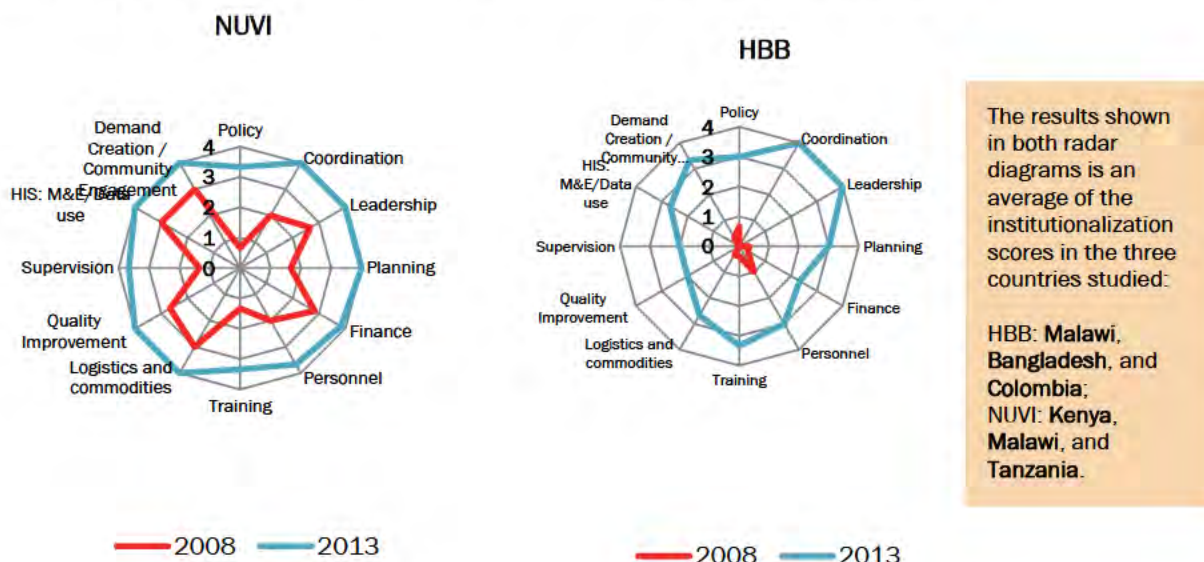
An analysis across all six studied interventions (explained in more detail in Annex 8) showed that institutionalization improved significantly over the last five years over the various health system building blocks. The health system building blocks showing the most progress were governance (i.e., policies) and human resources (i.e., training). There was less reported progress on financing, supervision, and health information systems (HIS). Financing is still not receiving sufficient attention in a number of settings, and there is continued reliance on development partners for financing the scale-up effort and ongoing program delivery. The inclusion of new indicators in registers, and especially reporting and use of these indicators, is a slow process in many places that is dependent on country HIS revision processes that occur on a different timeline that is often not in synchrony with the process of introducing the new intervention.

To illustrate differences in the progress on institutionalization across interventions, radar diagrams of progress for two very different interventions are shown illustratively below—for the new vaccine PCV (NUVI) and for HBB. The results shown in both radar diagrams are an average of the institutionalization scores in the three countries studied (HBB = **Malawi, Bangladesh, and Colombia**; NUVI = **Kenya, Malawi, and Tanzania**).

Dramatic progress in scaling up NUVI and HBB is presented below by each of 10 essential components for sustainable programming: policy, coordination, leadership, planning, finance, personnel, training, supervision, health information systems, and demand. Figure 6 shows the results of institutionalizing these two interventions over five years across each of the three countries studied per intervention.

Aggregated institutionalization scores show that the governance components of policy development, coordination, leadership, and planning increased significantly between the beginning and end of the review period and rose to the highest levels. Although the differences are not great, there was less reported progress on financing, supervision, and M&E. A lower mean score for financing indicates that the intervention is still not receiving a line item in a number of settings, and there is continued reliance on development partners for financing the scale-up effort and ongoing program delivery.

Figure 6. Progress in Institutionalization for NUVI and HBB from 2008 to 2013



NUVI built on the existing immunization delivery platform. It therefore started from a level of institutionalization in 2008 that was already significant. Progress was made on all components by 2013. The financing institutionalization score only depends on having a line item on the country budgeting process. There is still dependence on outside financing for this. HBB rolled out in a more “vertical” fashion—in other words, it initially had separate trainings and was not immediately incorporated within existing supervisory and logistic systems. There was progress toward similar institutionalization scores for governance (policy, coordination, leadership). But the lag in institutionalization was greater in terms of service delivery support (supervision, QI) and commodities.

HBB coverage rose in all three study countries:

Burkina Faso: 1% to 39%
Kenya: 15% to 29%
Ghana: 46% to 65%

Service Expansion (Coverage Changes)

Systematic documentation of service expansion and coverage changes was more difficult to obtain for the six studied interventions. Some interventions like UIIFB and iCCM are complex and have several component parts. Others, like HBB, are facility-based and not easily amenable to population-based coverage estimates. Due to varying country contexts and competing priorities, baseline and final coverage surveys were not systematically done for any of the interventions. Table 2 below provides an indication of the service expansion changes achieved by the studied countries for each of the six interventions. This information can be summarized briefly as follows:

- **NUVI:** The most dramatic and best documented changes in coverage were achieved for this intervention. Routine EPI systems in all three countries achieved PCV coverage rates at or near national DPT3 rates within two years of introduction.
- **HBB:** In both **Bangladesh** and **Malawi**, there were large increases in the number of districts and facilities with trained and equipped personnel deployed (in both cases, there were facilities with providers trained and equipped in HBB in 2011 and by 2013 80% were in **Bangladesh** and 90% in **Malawi**). Providers in both countries were already performing resuscitation in 2011, so the question of what is being measured should be considered. In addition, impact evaluations in both countries showed that although providers had

improved knowledge and skills, they had not substantially changed their clinical practices. Further action in support and study of the scale-up process is warranted.

- MIP/Intermittent preventive treatment in pregnancy, second dose (IPTp2): Rates of coverage rose from 14% to 38% in comparably collected IPTp2 in national DHS, MICS, or Malaria Indicator Survey data from at or near 2008 to 2012/13. There were multiple initiatives occurring that contributed to this increase, with financing from PMI, Global Fund, and others.
- UIIFB was composed of two interventions: oral misoprostol for home births and the use of injectable oxytocin for facility-based deliveries. The groundwork for scale-up of misoprostol was laid in both **India** and **Mozambique**—pilot projects were done, policies developed, and initial discussions for national plans held. Coverage has not changed yet; it has remained minimal in both settings. The other technical intervention under UIIFB is use of injectable oxytocin in facilities. With previous work promoting AMTSL in both countries as a foundation, the coverage among facility-based deliveries was already above 80% when MCHIP began and remained relatively unchanged over the life of the project.
- iCCM started at zero or near zero coverage in all three countries studied in depth (**Rwanda**, **DRC**, and **Mali**). As iCCM is a complex intervention that often involves the need for policy changes, establishing or strengthening a CHW cadre, solving health system bottlenecks for logistics, supervision, and HIS. Increasing coverage levels, as measured by the percentage of districts covered, is a lengthy process. **Rwanda** has made steady progress toward national coverage. An important consideration is the measurement of the true level of population coverage within districts with a CHW/iCCM program. Measuring and reporting this population coverage is not done in any of the three countries on a regular basis. Implementation data have revealed that the average caseload for June 2012 to May 2013 was approximately 342 per 1,000 children under five for the three diseases. In comparison to the other five countries being evaluated, **Mali** has achieved the third highest iCCM treatment rate. Based on routine data, health care workers treated 18% of all under-five cases treated in the public sector, with 32% of diarrhea cases, 20% of pneumonia cases, and 15% of malaria cases treated by health care workers in comparison to the health facilities.¹⁶ There is ongoing research in the global iCCM community concerning the question of whether iCCM programs are in fact extending coverage to previously unreached children or simply causing shifts from facility- to community-based care. Based on this lack of important information, a Maternal and Child Survival Program (MCSP) priority is to help countries collect population-level coverage information feasibly and on an ongoing basis and analyze it in ways that can answer this question.
- PPF/PPIUD coverage was also near zero when MCHIP started in all three countries studied in depth (**India**, **Tanzania**, and **Philippines**). Coverage rose in the areas supported by MCHIP, and in the case of **India**, the number of insertions rose quite dramatically to over 40,000. Only **India** currently has a national scale-up plan and has already inserted over 400,000 PPIUDs in additional states. However, national coverage in all three countries is still estimated in the single digits.

¹⁶ Summative report on the external evaluation of the Catalytic Initiative (CI)/Integrated Health Systems Strengthening (IHSS) program in Mali. Undertaken by the Medical Research Council, South Africa, in partnership with the University of the Western Cape and Save the Children, USA. UNICEF, May 2014.

Table 2. Service Expansion (Coverage Changes) for Six Interventions in 14 Countries

INTERVENTION	EXPANSION OF THE INTERVENTION TO FACILITIES, AREAS, AND HEALTH WORKERS	COVERAGE OF INTERVENTION AMONG INTENDED BENEFICIARIES
PPFP	<ul style="list-style-type: none"> In India, PPIUD introduced in at least two sites in 19 states and in all district-level facilities in six states. In the Philippines, 40% of districts have a PPFP program, and the 10 facilities with PPIUD services reach 31 of the country's 81 provinces. In Tanzania, 500 health workers have been trained and 14% of districts are implementing PPFP. 	<ul style="list-style-type: none"> By 2013, PPIUD acceptance rates in sites where the service was introduced in India averaged between 5% and 10%. In Philippines, the percentage of women counseled ranged from 6% to 80% in the 10 facilities where PPIUD service was introduced.
HBB	<ul style="list-style-type: none"> Almost all skilled birth attendants in Bangladesh, one-third in Malawi, and those in priority sites in Colombia attended the two-day, competency-based training. 	<ul style="list-style-type: none"> The intervention had expanded almost universally in all three countries. Impact evaluations in Bangladesh and Malawi found that the introduction of the intervention has not yet caused significant change in clinical practice.
UUIFB	<ul style="list-style-type: none"> A uterotonic is routinely provided for PPH prevention in almost all government facilities in India and Mozambique. Policy agreement in India and Mozambique to scale up misoprostol. 	<ul style="list-style-type: none"> About half of all births in Mozambique and India are in government public health facilities; utilization of uterotonic drugs in these settings was already high at the beginning of the period and did not change. Quality of service provision was a focus of effort in Mozambique, but no definitive data on improvement yet exist. Service delivery not started for misoprostol in India and Mozambique.
iCCM	<ul style="list-style-type: none"> CHWs were recruited, trained, and established in eligible communities in Rwanda and Mali. The program has been expanded from 10% to 20% of districts in DRC. 	<ul style="list-style-type: none"> iCCM programs are still at an early stage of service expansion in DRC and Mali, whereas Rwanda has extended services to all districts. A UNICEF evaluation in Mali showed that 60% of districts had introduced iCCM. CHWs were estimated to be treating 15–32% of cases of targeted illnesses in these communities. It is still not clear to what extent iCCM has expanded or replaced facility-based child illness services.
MIP/IPTp	<ul style="list-style-type: none"> Training in MIP reached 13,000 health workers in Ghana. Training reached most health workers in malaria-affected areas in Kenya. Training reached only one or two participants per facility in Burkina Faso. 	<ul style="list-style-type: none"> Recent household survey data not available, but there is evidence of increased coverage of at least two doses of IPTp in all three countries from comparably collected Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), or Malaria Indicator Surveys done in the last four years, compared with data from before 2008.

INTERVENTION	EXPANSION OF THE INTERVENTION TO FACILITIES, AREAS, AND HEALTH WORKERS	COVERAGE OF INTERVENTION AMONG INTENDED BENEFICIARIES
NUVI/PCV	<ul style="list-style-type: none"> PCV introduced through the national programs to all parts of Malawi, Tanzania, and Kenya. 	<ul style="list-style-type: none"> In the first full calendar year following introduction, Health Management Information System (HMIS) data reported to UNICEF showed that all three countries, Malawi, Tanzania, and Kenya, achieved over 95% of eligible children fully vaccinated with PCV through the routine immunization system.

S02 Strategic Objective 2

Strategic Objective 2: Global leadership in MNCH, including further development and promotion of improved approaches

MCHIP's second Strategic Objective aimed at positioning MCHIP and USAID through global leadership to translate its experience into international advocacy, policy, tools, and guidance, and in turn influence country programs and accelerate progress toward MDGs. Global leadership was defined as a broad-based set of actions, including the ability to convene key actors, influence the global agenda in policy and guidance, develop and disseminate tools, and monitor and evaluate results. To complement these efforts, MCHIP worked to document the collective wisdom and learning from field experience as program learning so it could be used to improve policies, guidance, and tools supporting community work, quality of care (QoC), integration of services, and scale-up. MCHIP's experiences with global leadership and program learning are discussed below.

Global Leadership

Convening Key Actors

By assembling key actors, MCHIP created opportunities for global dialogue on important and pressing issues in the MNCH arena. MCHIP employed a number of strategies to convene key actors that drew upon inclusive practices, such as frequent consultation with partners and shared ownership of processes that expanded the types of actors contributing to global and national discourse. In addition, MCHIP's involvement with CORE Group widened the sphere of influence of global civil society actors, and USAID's Global Development Alliances (GDAs) provided structures for dialogue and debate.

USAID through MCHIP dedicated resources to examining innovations and impact and garnering knowledge management; MCHIP documented and disseminated its vast learning to a broader audience. The level of expertise of MCHIP and USAID staff became a resource to the global community as evidenced by numerous invitations to participate in global working groups, serve as experts to policymakers, speak at conferences, and contribute to peer-reviewed journals.

Global Conferences

MCHIP supported global and regional conferences before, during, and after they took place, which increased learning and the use of new evidence. MCHIP's contributions included disseminating latest evidence in global meetings, assuring the attendance of key gatekeepers and agents of change, assisting country teams with the preparation of their conference materials, and funding follow-up activities. MCHIP staff presented at 29 different international conferences, sharing program results and evidence to support the use of high-impact interventions. These meetings had diverse representation, including many different countries, pan-donor support, and high attendance. The follow-up to global conferences, which included additional working meetings and further funding depending on the country context, was vital to ensuring that country-level efforts maximized the learning from meetings and resulted in tangible changes and actions, allowing countries to refine existing plans and initiate new interventions.

While the full list of conferences is discussed in detail in Annex 15, some highlights include:

- At the first *Latin America and Caribbean Annual Conference on Kangaroo Mother Care*, held in December 2011 in the Dominican Republic, participants debated how to overcome reluctance in the medical community to embrace such a low-tech intervention. A significant outcome from this conference was the initiation of the regional network and community of practice to support the continuation of doctor-to-doctor and implementer-to-implementer regional learning. This network of more than 250 members allowed countries to expand health services, grow stronger, and improve efficiency and care for mothers and babies throughout Latin America and the Caribbean.
- During the *Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care* held in Dhaka, Bangladesh, in May 2012, MCHIP presenters discussed global scientific and technical information on prevention, early detection, and management of PPH and PE/E, as well as special care for newborns. The presenters also shared programmatic experiences and progress in the implementation of newborn care and PPH prevention/management programs in Asia and the Middle East. There were 400 participants from 30 countries. Similarly, the *Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care* held in Addis Ababa, Ethiopia, in February 2011 brought together over 300 participants from 36 countries to help African countries pursue evidence-based interventions and strengthen national programs aiming to improve maternal and neonatal health. MCHIP was intensely involved in the [*2012 Child Survival Call to Action and A Promise Renewed Conference*](#), jointly led by USAID and UNICEF, with the Governments of Ethiopia and India. The conference brought together more than 700 public, private, and civil society sector partners. It was followed by a smaller meeting in 2013 in India, which was attended by ministers from central and state governments, leaders from the private sector, civil society, media and multilateral organizations, members of academia, and funding agencies. Participants agreed on a set of actions and commitments to promote accountability and engage high-burden states to determine a follow-up mechanism to achieve India's goals for child survival and development.
- The *Global Newborn Health Conference: Accelerating the Scale-Up of Maternal and Newborn Health Interventions to Reduce Mortality*, held in Johannesburg, South Africa, in April 2013, typified the multi-donor engagement that is essential to garnering support for global practices. In addition to MCHIP backing, other donors included Save the Children's Saving Newborn Lives group (supported by the Bill & Melinda Gates Foundation), UNICEF in collaboration with WHO, and additional support from JSI, the Laerdal Foundation, and Jhpiego. Two outcomes of the conference were global commitments to follow the Every Newborn Action Plan and a private sector engagement policy that featured a series of meetings between USAID, MCHIP, and groups such as the GSM Alliance, GSK Pharmaceutical, and Becton Dickinson.
- During FP conferences, such as the *Women Deliver Conference* in Malaysia (May 2013) and regional meetings in Zambia (April 2013) and Burkina Faso (February 2013), MCHIP helped facilitate discussions on PPFP and PPIUD use. MCHIP held the sixth annual PPFP technical meeting in Malaysia as a satellite event to the *Women Deliver Conference*. This was the first time the meeting had been held outside of Washington, D.C., a deliberate strategy to ensure more representation from the field and hear from a wider array of actors. The pre-conference meeting had more than 100 participants. This diversity of voices, along with the participation of USAID, WHO, and a senior official from the Indian government, helped to give even greater credibility to the need to expand PPFP access. At the *International Conference on Family Planning* held in Addis Ababa, Ethiopia, in November 2013, with 4,000 people in attendance, MCHIP presented a roadmap that outlined a tracking system of postpartum contraceptive use, easy-to-understand information materials for families, and recommended practices for health workers.

Global Online Engagement

MCHIP fully utilized social media and new media technologies with great success for the *Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care* and the *Global Newborn Conference 2013*. MCHIP employed a number of tools for online engagement to reach audiences that were unable to attend the conferences because of time, fiscal, or travel restraints; reach atypical publics; elevate MCHIP's online presence; and develop a reputation for innovation, as well as engage those online and act as their "voice" at the conference.

For the Asia Regional Meeting, MCHIP had more than 3,700 views of the webcast from over 13 countries, including Cambodia, Afghanistan, Japan, and the UK; social media (new followers on Facebook increased 700% and on Twitter 300%, with 313,490 impressions); an online depository of presentations via Scribd (over 21,000 views); a guest blogger series (read over 3,800 times); and YouTube videos (85) of the meeting in its entirety. Building off of the lessons learned from this meeting, MCHIP had even greater success employing the use of online engagement at the Newborn Conference, where the *live webcast* was viewed over 16,000 times by online participants from 90 different countries.

MCHIP worked with field offices to arrange satellite viewing parties in countries such as **Bangladesh, India, Nepal, Malawi, and Madagascar**; live tweeted the entire conference; and acted as the on-site voice for the numerous questions and comments of online participants. The #Newborn2013 hashtag was widely used and with over 28,000 contributors on Twitter, the online conversations reached 48 million people across the world. The Scribd page has been viewed over 58,000 times. For knowledge management, MCHIP captured knowledge shared at the conference, encouraged ongoing discussions, and developed our second conference survey to capture knowledge-sharing habits of participants and provided support for the Daily Digests created each day to capture conference highlights.

- On June 26, 2014, more than 400 colleagues—including Ministers of Health from 23 countries and USAID Administrator Dr. Rajiv Shah—gathered in Washington, DC, to celebrate MCHIP successes at the *Close-Out Event: Critical Concepts for Ending Preventable Maternal and Child Deaths*. The event explored and disseminated learning on three key themes—scaling up, community-level activities, and quality of service provision—from the broad experiences of MCHIP, as well as the broader reproductive, maternal, newborn, and child health (RMNCH) community.

Global Development Alliances

In the last decade, USAID has promoted the GDA practice as a way to harness resources and skills from disparate groups and achieve greater development impact. MCHIP participation in selected GDAs provided an opportunity for key actors to coordinate and extend the reach of their individual efforts. The bullet points below highlight alliances in which MCHIP was most active.

- **Helping Babies Breathe (HBB):** HBB is an evidence-based, educational program aimed at teaching neonatal resuscitation techniques in resource-limited areas. It is an initiative of the AAP in collaboration with WHO, USAID, Saving Newborn Lives, the National Institute of Child Health and Development, and a number of other global health organizations. USAID has directly contributed through MCHIP to introduce and expand HBB in 25 of the more than 60 GDA countries: 16 of these countries have national implementation efforts coordinated by local governments. This GDA has



Photo credit: Joel Bobeck, Jhpiego

One Zambian clinician stated, "I have managed a number of emergencies using the skills and knowledge I acquired from the EmONC training and the intensive mentorship we are receiving from district mentors."

changed practices in the treatment of newborn asphyxia: 103,000 health care providers in 60 countries have completed HBB training since March 2010, according to the HBB website updated in April 2013. It has been taught in 14 languages over 460 times. In **Madagascar**, 924 providers from professional associations, faith-based organizations, and private health associations have been trained to implement the tenets of HBB in their daily practice.

- **Survive and Thrive (S&T):** MCHIP, in partnership with WHO, USAID, AAP, American Congress of Obstetricians and Gynecologists (ACOG), and the American College of Nurse-Midwives, which serves as the Secretariat, has catalyzed action on country adoption and scale-up of the use of ACS to accelerate fetal lung maturation during spontaneous or induced preterm labor or elective cesarean section for maternal conditions such as PE/E. The MCHIP Newborn and Maternal Teams are also members of the Survive and Thrive GDA Preterm Working Group, and collaborated with other partners to develop a learning package for countries to adapt and use as they seek to improve care for preterm births. At the time of this report, the learning package is undergoing field-testing and finalization in **Bangladesh** and **Malawi**, and is set to be launched in August 2014.

Saving Mothers/Giving Life (SMGL): is a public-private partnership with the (ACOG), [Every Mother Counts](#), the [Government of Norway](#), [Merck for Mothers](#), [Project C.U.R.E.](#), and the U.S. Government. This GDA, which was launched just two years ago, has already had an impact. MCHIP's effort in **Zambia** is an example of a program focused on skills strengthening and mentoring, and was designed to improve the quality of MNH services and reduce maternal deaths by 50% in seven target districts.

Mobile Alliance for Maternal Action (MAMA): MAMA, a GDA with the mission to engage an innovative global community to deliver vital health information to new and expectant mothers through mobile phones, has launched two country programs in **Bangladesh** and **South Africa**, with a third launching in **India**, in late summer 2014. MAMA is a partnership between MCHIP, United Nations Foundation, Johnson & Johnson, and BabyCenter; the United Nations Foundation is the Secretariat. MCHIP directly manages the grant to MAMA **Bangladesh**, which was launched in December 2012, and currently reaches more than 210,000 subscribers. Results of a preliminary phone survey show that 63% of MAMA **Bangladesh** subscribers attended four ANC visits (national average 32%), 45% had a facility-based birth (national average 29%), and 83% exclusively breastfed for six months (national average 64%). MAMA now offers messages on PMTCT, infant feeding, and PFFP. It also offers messages designed for other household decision-makers in communities where phone ownership is often shared. MAMA's adaptable messages are based on WHO and UNICEF guidelines and have been developed in close collaboration with a group of global health experts who make up MAMA's Health Content Advisory Council. MCHIP provides TA to the MAMA global team for messaging content and dissemination of learning from the project's progress. MCHIP has provided M&E support to MAMA **Bangladesh** and MAMA **South Africa**, and helped the MAMA global team hire and train a full-time M&E consultant. MCHIP participated in a panel discussing MAMA's global M&E framework at the American Public Health Association annual meeting in November 2013.

mPowering Frontline Health Workers: mPowering Frontline Health Workers' (mPowering) goal is to accelerate the use of mobile technology to improve the skills and performance of frontline health workers, as part of a global effort to end preventable child and maternal deaths. mPowering focuses on four areas to achieve its goals: global tools, country programs, research, and advocacy. The mHealth Alliance, serving as the partnership secretariat, coordinates and amplifies the resources and expertise of its 16 members: MCHIP, UNICEF, Qualcomm Wireless Reach, Vodafone, Intel, MDG Health Alliance, GlaxoSmithKline, Praekelt Foundation, Frontline Health Workers Coalition, Barr Foundation, World Vision, Dalberg, Futures Group, 1 Million Community Health Workers Campaign, Accenture Development Partners, and the

mHealth Alliance. MCHIP, as project secretariat, has provided financial management, human resources, communications, and administrative support. In addition, MCHIP provided technical opportunities to mPowering and helped to identify potential points of collaboration between the two initiatives. In 2014, mPowering provided direct support to programs in seven countries, supported research to build the evidence base for mobile health solutions, began development of a content delivery mobile platform for CHWs, and worked to improve practices related to costing, designing, and delivering mobile training for CHWs. In **Ethiopia**, mPowering supported the adaptation of print-based content to develop an mHealth training program for 300 Health Extension Workers; this content is being further adapted by UNICEF for CHWs in **Uganda**.

Contributing to Setting the Global Agenda

Over six years, MCHIP actively influenced the drafting, amending, dissemination, and uptake of more than 150 guidelines and policies across all of its technical areas of intervention. The process by which MCHIP implemented its policy work included developing partnerships with key players who shared the same agenda, participating actively in technical working groups (TWGs), and providing expert testimony based on research and evidence. While MCHIP used advocacy as a tool in implementing country-level programs, it also used advocacy to engage with global partners, such as WHO and UNICEF, as a way of contributing to policy discussion. MCHIP programs also worked at the regional and national levels to improve policies and guidelines that promote maternal and child survival. A few select examples are highlighted below (a more comprehensive list is captured in Annex 14).

- MCHIP convened the technical advisory group (TAG) meeting to solicit input on the topic of **CHWs Performance at Scale**. The objective was to advance the field of practice and support quality community-based work, including policy change. Outcomes included identification of remaining gaps, the need for a better taxonomy that captures the different classifications of community workers, and tools that can support managers in the field. MCHIP worked with the group that included representatives from USAID, URC, UNICEF, World Relief, World Vision (WV), HCI, Management Sciences for Health, CORE Group, Johns Hopkins Bloomberg School of Public Health (JHSPH), and Food for the Hungry. MCHIP also developed an important reference guide for program managers and policymakers called ***Developing and Strengthening Community Health Worker Programs at Scale***. The contents draw particularly upon experiences from large-scale, public sector CHW programs and seek to provide useful lessons that can impact country programs. The guide looks comprehensively across a range of factors determining the effectiveness of community health service and takes a pragmatic view, promoting no single model, given that CHW programs serve different purposes depending on context.
- As the Secretariat of the Integrated Community Case Management (iCCM) Childhood Illness Task Force, MCHIP provided technical leadership and strategic management to facilitate enhanced partner coordination and centralize and disseminate key **global learning through CCMCentral.com**. MCHIP coordinated the work of thematic subgroups that compiled the body of evidence and existing tools to guide country uptake and implementation, generated new learning, and developed new tools. Other child health policy initiatives involved providing TA to the development of the [“2013 Integrated Global Action Plan for Pneumonia and Diarrhea \(GAPPD\).”](#)
- As a member of the PEPFAR TWG, MCHIP strategized and planned for **the approval of VMMC device(s)** and the implementation/repercussions of using the devices to improve the scale-up of VMMC in 14 priority countries.
- MCHIP, in collaboration with WHO and other partners, contributed to WHO’s [“Statement for Collective Action for Postpartum Family Planning”](#) to emphasize the importance of PFP and offer general approaches for addressing unmet need and expanding the range of

contraceptive options during the postpartum period. The global health community rallied in support of this obvious, but often overlooked, group of women in need of services. The statement received official endorsements from additional donor governments, including Australia and the United Kingdom, and from FP stakeholders, such as UNFPA and the International Planned Parenthood Federation.

- MCHIP advocated successfully for measles and measles-rubella vaccines in **5-dose vials, which will soon become available** from the UNICEF Supply Division for international tender. Inactivated polio vaccine—slated for introduction in 125 countries over the next three years—will also be available in 5-dose vials for the first time in late 2014, thanks to MCHIP’s efforts. Health workers in poor, remote settings are sometimes reluctant to open 10-dose measles vials for fear of wasting doses, which likely results in missed opportunities to vaccinate children against measles, late immunization, and increased risk of outbreaks.
- MCHIP collaborated with WHO, Pre-EMPT, and USAID to complete a brief related to the WHO guidelines called *Recommendations for Prevention and Treatment of Pre-eclampsia and Eclampsia*—a resource that aims to improve the quality of care and health outcomes related to PE/E. Published in 2013, this brief has been disseminated to country teams to use in programming and is given out at workshops, conferences, and TWG meetings. Individuals and groups can use the brief to develop job aids, including facility posters and treatment flowcharts to help providers maintain their skills in PE/E management and care.

Development and Dissemination of Tools

MCHIP used an updated evidence base, along with field experience, to develop and improve tools that can be used to drive changes in practice and policy. MCHIP’s team of technical experts developed or contributed to more than 350 resources and toolkits that MCHIP disseminated or promoted widely. The increased use of web-based resources, which MCHIP has fully exploited, has greatly increased the rapid dissemination of toolkits. Toolkits are inanimate unless they are used and MCHIP has been determined in its follow-up and implementation of tools to catalyze significant change. A comprehensive list of MCHIP-supported resources and tools is found in Annex 16. The list below provides some highlights of these important developments that MCHIP supported to provide global leadership and influence across a range of technical areas.

- MCHIP designed the [Respectful Maternity Care \(RMC\) Toolkit](#) to provide clinicians, trainers, managers, and other stakeholders with the necessary tools to begin implementing RMC in their area of work or influence. The toolkit contains: the results from a survey of 19 countries; an assessment instrument; program briefs and reports providing examples of how RMC has been implemented; training and advocacy materials; operational standards for RMC; illustrative indicators for monitoring RMC; job aids; and a resource list. MCHIP launched the RMC toolkit on Knowledge for Health (K4Health) in June 2013, introducing RMC implementation materials to a broad audience and providing needed guidance to program implementers looking to strengthen RMC in their countries. As of April 2014, there were 1,624 toolkit site visits, with 6,805 pages viewed by people from 106 countries.
- MCHIP updated the [PPH Prevention Toolkit](#), with a new section dedicated to the advance distribution of misoprostol and an associated [Program Implementation Guide](#) in 2013. The implementation guide provides step-by-step instructions and resources on how to implement, improve, and expand misoprostol distribution programs.
- As a member of UNICEF Cold Chain Logistics (CCL) Task Force, MCHIP helped revise the [Effective Vaccine Management](#) (EVM) tool, which guides cold chain and logistics management and is required for countries to receive GAVI support.

- The [Essential Obstetric and Newborn Care \(EONC\) Toolkit](#) was created to collect and package resources that are useful to country programs for developing, implementing, monitoring, and scaling up maternal health-related interventions at various levels. It contains an annotated bibliography of selected journal articles on EONC and a program implementation guide (in English and French) for developing and scaling up EONC programs. MCHIP has released two toolkits—one on [Postpartum Hemorrhage](#) and another on [Pre-eclampsia/Eclampsia](#)—both of which are organized around key programmatic steps, providing lessons learned and relevant resources to assist country programs, donors, and governments in the development of focused interventions and programs.
- MCHIP coordinated the work of thematic subgroups that compiled the body of evidence and existing tools to guide country uptake and implementation of iCCM, generated new learning, and developed new tools including [Community Case Management Essentials—Treating Common Childhood Illnesses in the Community—A Guide for Program Managers](#), new [CHW training and supervision materials and job aids](#), the [iCCM Benchmarks Framework](#), the generic [iCCM Implementation Guide](#), and the [iCCM Indicator Guide](#).
- CORE Group’s collaboration with MCHIP began with their shared CCM initiatives and continued to be the main focus over the course of the project. CORE Group and MCHIP have disseminated nearly 2,500 hard copies and hundreds of downloads of the first, second, and French editions of [Community Case Management Essentials—Treating Common Childhood Illnesses in the Community—A Guide for Program Managers](#). This guide was widely disseminated through CORE Group biannual meetings, CSHGP, MCHIP, and CCMCentral.org and CHWCentral.org—at regional and global levels. In addition, more than 300 guides went to UNICEF and CORE Group member African regional meetings, through regular Roll Back Malaria (RBM) Case Management Working Group (CMWG) meetings, and at the iCCM Evidence Review Symposium in Ghana. For every direct dissemination effort, MCHIP and CORE Group have co-hosted regular learning sessions, TAGs, and coaching and connecting of practitioners to resources, helping to drive the global agenda for CCM. The *CCM Essentials Guide* was referenced in the [“WHO/UNICEF Joint Statement for iCCM.”](#)
- In 2014, MCHIP spearheaded the development of the [Latin America and Caribbean \(LAC\) Newborn Health Alliance Toolkit](#) to introduce readers to the history and successes of the organization and its significance as a structural model for global health work of alliances. The toolkit also aims to support those actors interested in forming their own national-level newborn alliances. To this end, case studies were conducted in PY5 in three of the region’s longest-running alliances—**El Salvador**, **Bolivia**, and **Peru**—to gain insights into their successes. The case studies are included as a section in the toolkit and are being used to distill best practices and lessons learned to share with other groups interested in forming newborn alliances in Latin America and beyond. With TA and support from the LAC Neonatal Alliance, new national newborn alliances have been formed in **Bolivia**, **El Salvador**, **Peru**, **Haiti**, and **Paraguay**.

Project Website: www.mchip.net

From March 2010–June 2014, there were more than 345,000 sessions (formally known as visits) to the MCHIP website. The sessions from the last six months included a 17% increase in page views over the prior six months, demonstrating the website’s increasing relevance to the RMNCH community. This increase in page views can be attributed in part to the high volume of content posted to the website. *In total, MCHIP produced 292 feature articles, 290 blogs, 127 event announcements, 99 “in the news” pieces, 31 multimedia pieces, and 29 news releases over the life of the project.* Specific samples of stories that demonstrate MCHIP’s successes as well as a comprehensive list of said stories are available in Annex 9. The MCHIP website has been accessed in over 208 countries worldwide with highest visitation coming from the United States, **India**, **Kenya**, United Kingdom, **Philippines**, **Pakistan**, **Ethiopia**, Canada, **Indonesia**, and **Bangladesh**.

- As a member of the working group, MCHIP reviewed and informed the development of the [Scaling Up Lifesaving Commodities for Women, Children, and Newborns: An Advocacy Toolkit](#), which was launched by the United Nations Commission on Life-Saving Commodities Advocacy Working Group. This new resource provides information about the Commission, its [13 priority commodities](#), and provides examples of how its 10 recommendations to improve access and availability are being applied globally and within countries. This toolkit is part of the [Every Woman Every Child](#) alliance, an unprecedented global movement to mobilize and intensify global action to improve the health of women and children around the world.
- At the request of USAID, MCHIP created the [Integrated Anemia Prevention and Control Toolkit](#), which was reviewed by nutritionists and malaria specialists from USAID-funded projects and other international organizations. The toolkit provides guidance to policymakers and program managers on the prevalence of anemia in women and children, its impact on survival, and programs to address the problem. The toolkit is updated quarterly with information on the latest anemia research and new information, program implementation, and lessons learned. It serves as a consolidated source of information for people working to reduce anemia, the most prevalent public health problem in the world. Since its launch at the International Congress of Nutrition in September 2013, it has been disseminated to more than 200 people and visited by over 400 people, with nearly 1,000 page reviews.
- The [Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide for Program Managers and Policy Makers](#) is a comprehensive manual developed by MCHIP, Johns Hopkins Bloomberg School of Public Health, CORE Group, and the Norwegian Knowledge Center for Health Service. The guide provides a lens through which to look at the global experience of CHW programs and serves as an authoritative resource for issues that policymakers and program leaders should consider as they develop, expand, or strengthen large-scale CHW programs. There are plans to keep it as a living document by soliciting comments and new updates, and hosting webinars on particular chapters.
- The [Maternal, Infant and Young Child Nutrition and Family Planning \(MIYCN-FP\) Integration Toolkit](#), available since 2012, was compiled by the MIYCN-FP Technical Working Group and is designed to assist efforts to integrate nutrition and family planning efforts.
- [Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects](#) is a guide developed in 2011 to give those who design and implement community-oriented health programs a systematic way of ensuring that equity is incorporated into program designs and that its improvement can be better demonstrated and explained. It focuses on equitable health outcomes.
- The [Clinical Observer Learning Resource Package](#), available since 2013, is designed to prepare clinical trainers and other clinicians to be observers and assess the quality of clinical services in an objective and standardized way. Uses for the learning include participation in observational evaluation studies, quality improvement assessments, or other collection activities that involve observing client-provider interactions.

MCHIP designed the *Clinical Observer Resource Package* to prepare health professionals to participate in observational assessments of health service delivery. The resource package includes practice observing client-provider interactions in the classroom through clinical simulations using anatomic models and role plays and in health facilities during direct observation of actual clients and providers.

Monitoring, Evaluation, and Research

MCHIP contributed to global efforts to improve routine and periodic measurement of MNCH outputs and outcomes. MCHIP's work included providing global leadership by promoting the use of M&E best practices, indicators and resources, strengthening HMIS, and developing and revising M&E data collection tools and resources. These efforts have led to stronger M&E systems and higher-quality data for informed decision-making in 28 countries across MNCH interventions.

Strengthening Health Management Information Systems (HMIS)

To improve country-level programs, key indicators must be tracked and monitored for quality. MCHIP made undeniable progress in empowering Ministries of Health and other partners to improve their data collection systems and compilation of essential indicators. Ongoing efforts to improve HMIS will increase country and global access to information-rich systems to support MNCH program strengthening. MCHIP documented their efforts in the report ["Strengthening Health Management Information Systems for Maternal and Child Health: Documenting MCHIP's Contributions."](#) The report highlights MCHIP's contributions to strengthen HMIS and examples of where these have been integrated and institutionalized in national HMIS systems, and describes lessons learned. As an example, MCHIP in **Mozambique** supported the MOH to increase their efficiency to track six key MNH indicators across labor and delivery (L&D), sexually transmitted infections, and newborn health. Priority MNH indicators and data sources were included in the updated maternity register, integrating what was previously five separate registers into one. In addition, three cervical cancer prevention (CECAP) indicators were created and data elements were integrated into FP data collection tools, including the woman's health passport, FP register, and facility monthly summary report, as well as a daily summary form to track CECAP services.

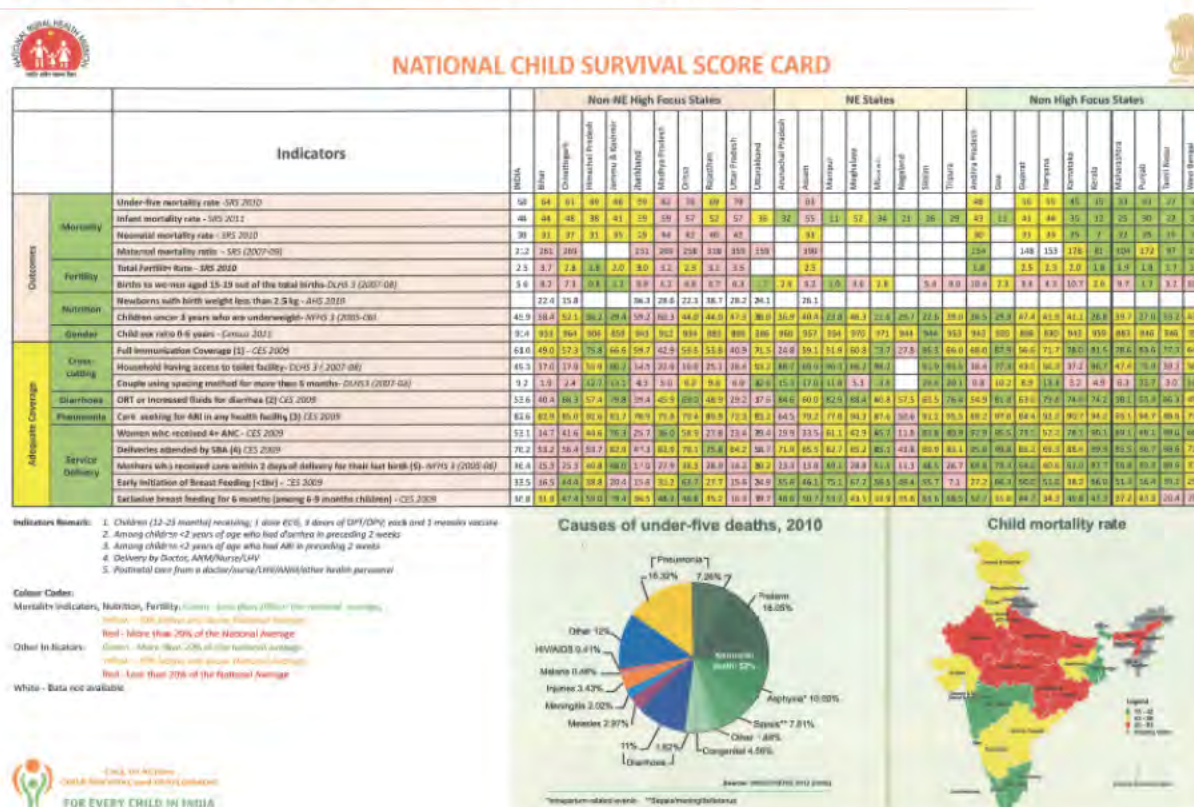
Supporting Country-Level Measurement and A Promise Renewed (APR)

MCHIP promoted the use of information products that provide visual images of data, such as results posters and scorecards in 13 countries—**Ghana, Guyana, India, Kenya, Liberia, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, Zambia, Zimbabwe, and Uganda**—leading to routine use of data for program monitoring and planning. These resources allow for quicker action, increased accountability, and revitalization of commitments to improve health outcomes. The products cover areas such as immunization, cervical cancer, newborn health outcomes, and FP.

One important example is the introduction and use of scorecards and dashboards in **India**. This initiative was made as part of the *A Promise Renewed Call to Action*. While India has made significant progress in reducing maternal and child deaths, rates of progress within the states and districts are unequal. The India Call to Action plan emphasizes the effective use of data for planning and implementing interventions to reduce health disparities. National child survival scorecards using data from national and state survey data were prepared. Dashboards based on the GOI's health management and information system have been developed and are updated quarterly. These tools facilitate comparative assessments between states and districts and identify action plans based on the analysis of available data.

The survey-based child survival scorecard captures both public and private sector data and is used to assess outcomes and service delivery performance at national and state levels. Scorecards are updated as new survey data become available. The HMIS-based dashboard monitoring system allows states to use HMIS data to improve decision-making in real time because it can be updated quarterly. The scorecards and dashboards improve accountability in the public health system, enable comparative assessments of state and district performance, and monitor the major components of the national reproductive and child health program and strategy.

Figure 7. Example of India's National Child Survival Scorecard



MCHIP also supported the application of the Lives Saved Tool (LiST), a tool that was developed by the Johns Hopkins Bloomberg School of Public Health and others to estimate the impact of scaling up maternal, newborn, and child health interventions. MCHIP performed LiST analyses in 24 priority countries to model the impact of coverage of key RMNCH interventions on lives saved and future projections. In **Bangladesh, DRC, Mozambique, Nigeria, and Senegal**, the LiST analyses compared an historic trend and best performer models and four scenarios for each to examine the contributions of MNCH versus family planning interventions for reducing child mortality. In **Nigeria**, LiST models were used to compare UNICEF-WHO estimates of vaccine coverage to estimates of vaccine coverage from the most recent Demographic and Health Survey (DHS) report. In **Pakistan**, a sub-national model for KP and models of scale-up of various MNCH interventions were done in order to prioritize targets for social and behavioral change communication (SBCC) efforts. Results of the 24 LiST analyses were included in the USAID report “Acting on the Call” for the June 2014 USAID meeting, and will be used to guide country plans and monitor progress moving forward. MCHIP has also supported the CSHGP grantees to use LiST to estimate the number of lives saved of children under five among the grantee program intervention areas.¹⁷

The LiST analysis in the MCHIP-supported CSHGP countries estimated the number of lives saved among children under five:

- Nepal** – 3,504 children (CSHGP, HKI 2008–2012)
- Uganda** – 18,188 children (CSHGP, ERD 2008–2012)
- Ethiopia** – 8,784 children (CSHGP, Save the Children 2007–2012)
- India** – 11,382 children (CSHGP, WorldRenew 2007–2012)

¹⁷ The 24 USAID priority countries are: Afghanistan, Bangladesh, Democratic Republic of Congo, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen, and Zambia.

Encouraging greater efficiency through the use of technology, MCHIP applied the use of mHealth tools for M&E activities. Rapid advances in mobile technology, hardware, software, and connectivity, especially in sub-Saharan Africa, offered opportunities for greater use of mHealth for data collection under MCHIP. MCHIP successfully used mobile phones and Android tablets for data collection, including observational assessments such as the **Quality of Care (QoC)** facility assessments in **Tanzania** and **Madagascar** and client and provider questionnaires to assess client satisfaction with PPIUDs in the **Philippines**. In **Pakistan**, Android tablets were used for the collection of supervision data, facility assessments, and other routine data. Mobile phones and Android tablets were used for large program evaluation data collection in **Guinea**. In **India** and **Kenya**, MCHIP used mobile data collection to facilitate an evaluation of PPFP integration models. MCHIP evaluated the use of mobile technology as a means to mentor providers after training in West Africa. In **Ghana** and **Guinea**, mobile phones were used to provide post-training follow-up and reinforcement of key knowledge using both voice and text messages.

Global Research

MCHIP has supported the development of assessment toolkits and frameworks that address M&E of MNCH interventions and services. An important example is the development of the Quality of Care (QoC) survey for prevention and management of common maternal and newborn complications, which has been implemented in seven countries with MCHIP support. This QoC survey has now been incorporated into the MEASURE DHS Service Provision Assessments (SPAs) as an optional module. MCHIP pioneered these QoC surveys to improve understanding of MNH and integrated elements into the SPAs, which will continue to be used long after the end of MCHIP. Key findings from the surveys can be found in the following box.

Quality of Care Survey Highlights:

- Conducted in **Ethiopia, Kenya, Madagascar, Mozambique, Rwanda, and Tanzania** (including Zanzibar) and **Zimbabwe**;
- Guided QI activities for maternal and newborn care at the facility, regional, and national levels;
- Provided baseline estimates for countries to monitor improvements in care;
- Developed indicators and data collection tools that can be used in multiple countries; and
- Collected data through survey using mobile technology Smartphones and tablets.

Results Include:

- Partographs were not correctly completed in a majority of cases in any country, and in many cases they were completed only after delivery.
- Oxytocin was included in the essential drugs list in all countries surveyed and was available for use in delivery rooms in 77%–100% of hospital facilities.
- Administration of a uterotonic during the third stage of labor was observed in the majority of deliveries in all countries (average 95%), but practices varied widely.

Use of Findings:

- **Ethiopia**: Increased the use of MgSO₄
- **Kenya**: Developed regional workshops based on findings
- **Madagascar**: Used findings to advocate for national adoption of HBB and improve the use of maternal interventions (e.g., partograph)
- **Mozambique**: Highlighted the need to improve newborn resuscitation; MCHIP advocated for HBB to be rolled out as national policy
- **Tanzania**: Increased linkage to Venture Strategies Innovations to improve misoprostol supply; stock data helped galvanize tracking for maternal health drugs
- **Zimbabwe**: Findings used in national QoC assessment
- **Rwanda**: Supply of MgSO₄ made available in all hospitals, influenced development of three major documents

MCHIP also implemented studies in numerous countries in order to better understand programs and interventions and create aligned tools for the global community. A list of these studies can be found in Annex 6. MCHIP conducted some evaluations that spanned multiple countries; the study tools and results were thus able to be used to compare related areas of interest. Studies included operations research in five countries to provide global evidence for the use of misoprostol for the prevention of PPH and to increase uterotonic coverage at all births.

Standardized tools were developed and can be adapted for countries where studies will be conducted. Details on these MCHIP-funded programs can be found under Objective 3 (Page 34) and in the Maternal Health technical section (Page 46). Another example of MCHIP's work in developing tools and frameworks for global consumption was the evaluation of the quality, coverage, and impact of HBB on newborn mortality in **Bangladesh** and **Malawi**. A synthesized report was developed to provide overarching recommendations on HBB scale-up for the global community. See the Newborn Health technical section for more details (Page 58). PPIUD services were also explored through studies in **India**, **Paraguay**, and the **Philippines**. Results and lessons learned were shared across countries and can be used for FP programming across the globe. (See Family Planning technical section for more details [Page 90].)

In collaboration with other partners, MCHIP has contributed M&E guidance that provides a foundation for partners to move monitoring efforts from measuring contact to quality. M&E tools and guidance were included in multiple toolkits, which are delineated in the previous section *Development and Dissemination of Tools*.

MCHIP also helped revise and support the application of data collection tools developed by partners, as well as tools that were developed before the start of the program. Some examples include the [*Knowledge, Practices and Coverage \(KPC\) Survey*](#) and the [*Rapid Health Facility Assessment Tool*](#). MCHIP worked to ensure that these tools are up-to-date, reflecting state-of-the-art technical content, and that they remain consistent with WHO-recommended indicators, the LiST tool, MDGs, and information needed by USAID.

In addition to toolkits, MCHIP also created new frameworks for analysis of secondary and qualitative data pertaining to MIP programming and intended to generate practical information for use by policymakers and program planners in low-resource settings.

Partnership to Improve Measurement and M&E

To promote M&E best practices, indicators, and resources, MCHIP contributed to the work of multiple M&E working groups, including the MDG Countdown Coverage Working Group and several TWGs. For example, MCHIP partnered with WHO on the Maternal Health Indicators working group, to promote moving away from merely counting ANC visits to measuring the technical content of each visit and its impact, which is based on the QoC provided.

MCHIP worked with partners to identify gaps in the available resources for conducting MNCH monitoring, evaluation, and research (MER), such as indicator compendia, M&E guidance documents, assessment toolkits, and M&E training resources. In turn, MCHIP identified opportunities to work with critical global partners, such as WHO, the International Confederation of Midwives, the International Federation of Gynecology and Obstetrics, and other USAID-implementing agencies to contribute to the development of new indicators, data collection tools, and other resources to address these gaps. For example, MCHIP has initiated a new effort to work with WHO and others to identify “benchmark indicators” for maternal health that can be integrated into national HMIS.

MCHIP also participated in ongoing efforts of M&E TWGs to review MNCH indicators used in nationally representative household surveys, such as USAID's DHS, the Malaria Indicator



Photo credit: Kate Holt, Jhpiego.

Survey, and the UNICEF-supported Multiple-Indicator Cluster Survey. MCHIP combined two approaches, including toolkit development and improved measurement, when it developed the [Indicator Guide: Monitoring and Evaluating Integrated Community Case Management](#). This guide aims to encourage iCCM programs to more effectively monitor and evaluate iCCM implementation and results across all of the iCCM benchmark components. The guide is intended for program managers, M&E officers, researchers, and organizations supporting and implementing iCCM. It was disseminated during the last months of MCHIP, and future USAID projects will track the adoption of the manual and its impact on practices. Through the establishment of the iCCM Benchmarks and Indicators, MCHIP provided normative standards for iCCM implementation so that data can be compared across country programs.

Program Learning in Support of Global Leadership

From the onset, MCHIP tested new approaches and tools for more effective implementation and conducted analyses to determine the most effective programmatic approaches. Learning collected from these efforts was applied to continuing field efforts, creating a cycle of knowledge and improvement in practice. It was also disseminated outside of the project through conferences and workshops, presentations, self-published monographs, and peer-reviewed articles. The project had five key learning topics: scale-up, community action, QoC, integration of services, and equity. Highlights from MCHIP program learning are detailed in Table 3 below for QoC, Integration of Services, and Equity. Learning on Scale-Up is covered under SO1 and learning on Community Action under Strategic Objective 3. Thorough analyses for each of the program learning topics are located in relevant briefs and an expanded results table in Annex 8.

Table 3. Program Learning Highlights for Quality, Integration, and Equity Themes

LOCATION	IMPLEMENTATION OUTCOME HIGHLIGHTS	LEARNING OUTCOME HIGHLIGHTS/STRENGTH OF EVIDENCE
Quality		
India	In Uttar Pradesh, India , through the RAPID approach, 39 health facilities moved from 85% poor designation after round 1 to 53% good after round 4. Similarly, in Jharkhand, 11 facilities moved from 36% poor designation in round 1 to 73% good after round 6. RAPID was scaled up with local funding to 5 other Indian states.	Early lessons from RAPID found that RAPID is: <ul style="list-style-type: none"> • easily adaptable to the local context • requires consensus and participation of government and facility staff • uses simple, low-tech tools appropriate to existing field realities • provides an immediate quantification of quality and existing gaps • enhances facility staff's ability to demonstrate and validate their need for resources or additional support

LOCATION	IMPLEMENTATION OUTCOME HIGHLIGHTS	LEARNING OUTCOME HIGHLIGHTS/STRENGTH OF EVIDENCE
Mozambique Ethiopia Kenya Madagascar Rwanda Tanzania Zimbabwe	In seven African countries MCHIP designed and conducted quality of care (QoC) assessments in health facilities providing maternity services. In Ethiopia these findings were used to advocate for the increased use of magnesium sulfate. In Kenya , the assessments became part of the national service provision assessment, and regional workplans were developed based on findings. In Mozambique , these assessments highlighted the need to improve newborn resuscitation and MCHIP advocated for HBB to be rolled out as national policy. Similarly, in Madagascar they were used to advocate for the national adoption of HBB, as well as improved the use of key maternal interventions such as partograph use.	QoC assessment findings across all seven countries demonstrated: <ul style="list-style-type: none"> • Continue policy, advocacy, and provider education, training, and support to promote the wide-scale use of essential lifesaving interventions. • Emphasize HSS to ensure that drugs and commodities are available to implement best practices. • Organize services so that critical supplies and equipment are accessible and ready for use when needed. • Encourage supportive supervision to ensure adequate monitoring of service provision in clinical decision-making, management, and reporting. • Conduct research to understand factors that limit or encourage implementation of proven lifesaving interventions. Learning about the QoC tool: <ul style="list-style-type: none"> • The extra effort that direct observation requires is justified to further characterize actionable gaps in quality of service provision. • Simpler QoC tool is needed that could be incorporated into supportive supervision.
Integration		
Liberia	Partial integration of FP and immunization services in Liberia demonstrated an increase in the total number of contraceptive users at all facilities, and an increase in measles vaccination coverage from 45% to 97% from baseline to endline.	Programmatic evidence in Liberia highlighted the importance of implementing programs that are supportive of government policies and programs, working in close partnership with MOHs and other partners at the national and local levels to ensure that: commodities and equipment are in place for targeted services, capacity of health care providers is built, monitoring of quality of care is strengthened, and communities are engaged through IEC/BCC materials and campaigns.
Cambodia	Partial integration of IYCN and MNCH services in Cambodia (implemented by CSHGP grantee IRD) led to improved nutritional status in 122 out of 183 malnourished children and an additional 1,852 households with access to an improved drinking water source.	Combining IYCN, water and sanitation, and healthy timing and spacing of pregnancy interventions was both feasible and effective at moderate scale in Cambodia .
Bangladesh	Integration of FP with MNH services at the community level in Bangladesh using the Healthy Fertility Study (HFS) model led to a decrease in the incidence of pregnancy within the first 36 months of delivery. HFS activities were also associated with a 21% reduction of probability of shorter birth intervals and 20% lower risk of preterm birth.	The quasi-experimental study in Bangladesh gave strong evidence that FP can be feasibly and effectively integrated with MNCH services delivered by CHWs.

LOCATION	IMPLEMENTATION OUTCOME HIGHLIGHTS	LEARNING OUTCOME HIGHLIGHTS/STRENGTH OF EVIDENCE
Equity		
Tanzania	MCHIP's VMMC program in Iringa, Tanzania , which identified a particularly vulnerable group of hard-to-reach men—migrant field workers—increased the prevalence of VMMC in the region from 29% in 2009 to 50% in 2012. The Iringa region has become one of the few VMMC programs coming close to achieving the 80% coverage target.	Based on preliminary evidence from Tanzania , it appears that it is possible to increase VMMC utilization among vulnerable populations through focused campaigns.
Malawi	In Malawi , 3,000 MCHIP-supported CHWs who were recruited and trained to diagnose and treat the most common childhood illnesses and identify children in need of immediate facility referral covered 3,500 out of 4,000 hard-to-reach areas (defined as areas more than 8 km from the nearest health center).	Community-based service provision in Malawi can be strengthened using community-based health workers.
Nicaragua	In Nicaragua , Catholic Relief Service, a CSHGP grantee supported by MCHIP, tracked changes in the behavior of men in terms of the degree to which they actively participate and make decisions with their wives about pregnancy and newborn care. Data showed statistically significant increases in the antenatal care, SBA, joint decision-making, and men's participation in ANC, delivery, and newborn care, and decreases in domestic violence.	Nicaragua's experience shows that male involvement appeared to lower the barriers for women to access needed services, and can be effective to reduce gender violence and improve maternal health indicators.

S03 Strategic Objective 3

Strategic Objective 3: Assist PVO/NGOs and their local partners supported by the CSHGP and PMI MCP programs to design, implement, monitor, and evaluate innovative, effective, and scalable community-oriented strategies that deliver integrated, high-impact interventions to vulnerable populations

Under this objective, MCHIP provided TA to 94 PVO/NGO projects funded by the CSHGP and 20 PVO/NGO projects funded by the President's Malaria Initiative's (PMI's) Malaria Communities Program (MCP).¹⁸ Support included technical input and strategic information and monitoring assistance to both programs and, in partnership with CORE Group, advancing global leadership through the analysis, synthesis, and diffusion of PVO/NGO best practices and innovations. Under Strategic Objective 3, MCHIP enhanced community-focused activities in 42 countries and augmented the global evidence base for community-oriented programming to strengthen health systems in several technical areas, including nutrition, malaria, immunization, FP, and MNCH.

Through CORE Group, MCHIP expanded its partnerships to a wider network and NGO community; capitalized on CORE Group's complementary household- and community-level development approaches; and linked directly to a well-established program learning platform that served as an effective vehicle for the dissemination of tools and knowledge to influence international practice related to community-based health programming.

This singular partnership led to strongly designed PVO/NGO programs that generated important evidence to inform community-oriented health programming. The partnership also leveraged a broader network of PVOs/NGOs to advance related global learning and leadership. The resulting achievements, outlined below, illustrate the unique contributions that PVOs and NGOs can make, engaging communities and civil society to address priority health challenges with innovative solutions that contribute to ending preventable deaths.

Innovative, Effective, Community-Oriented CSHGP Programs Designed and Implemented

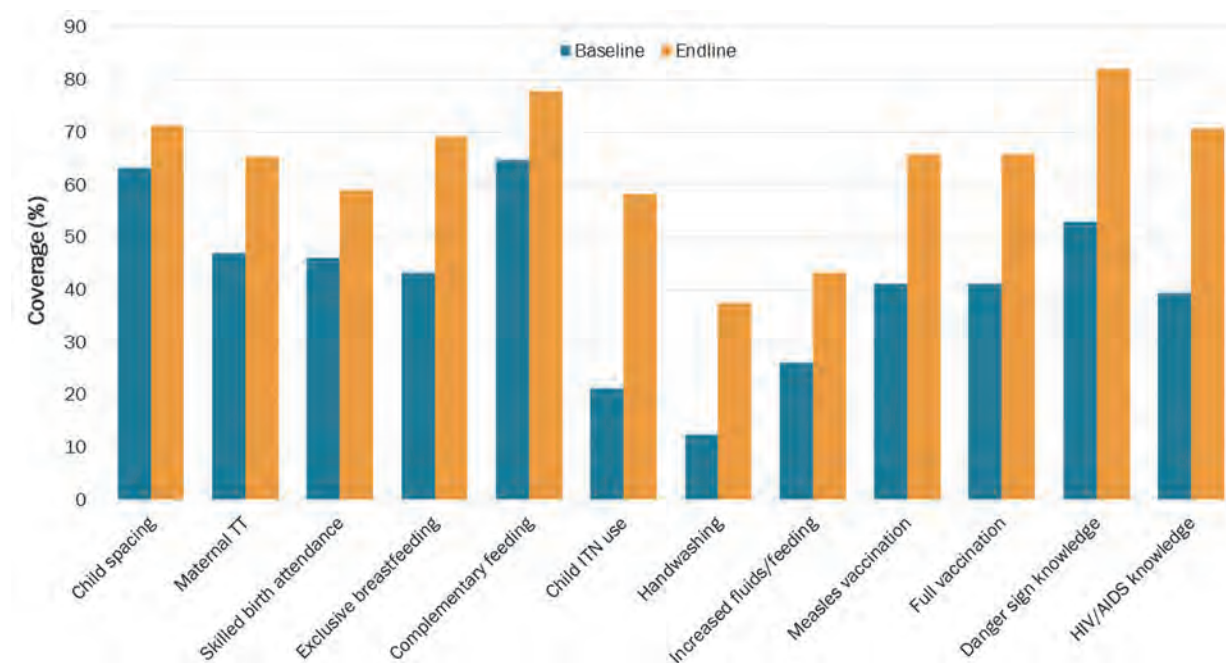
Over the life of MCHIP, 94 CSHGP grantees implemented programs in 42 countries, reaching 4,691,666 children under five years of age, 8,721,868 women of reproductive age, and 124,816 clients being treated for TB. The rigorous standards for program design, monitoring, evaluation, and implementation established by the CSHGP in its program guidance, and reinforced through MCHIP's technical support, allowed MCHIP to document that these programs not only effectively delivered lifesaving interventions, but also reduced child mortality.

MCHIP conducted an analysis of 129 projects completed between 2000 and 2010 that showed consistent improvements in coverage for critical intervention and in health status indicators (Figure 8). These data show the increases from baseline to the final evaluation in coverage of

¹⁸ MCP achievements are highlighted in the Malaria section of this report.

interventions such as use of skilled assistance at birth, exclusive breastfeeding, full vaccination, insecticide-treated net (ITN) use, postnatal visits, fever treatment, and pneumonia treatment. (See Annex 17 for complete definitions of these indicators.)

Figure 8. Grantees Improve Coverage in Lifesaving Interventions (2000–2011)*



* Inclusion criteria: Indicators were reported by at least 10 projects with a focus in an area relevant to the indicator (e.g., child ITN use was included only if a project included a level of effort related to malaria). Projects started between 2000 and 2008 and ended between 2003 and 2011.

Further analysis of these data highlight the ability of CSHGP projects to deliver results, including consistent increases in coverage of lifesaving interventions compared to national performance. Even though they often worked in districts and regions with lower than national levels of coverage, the CSHGP projects achieved levels of coverage of services and behaviors known to reduce deaths that exceeded national averages (Figures 9 and 10). Dramatic improvements in coverage of household behaviors were found, for example, in the oral rehydration therapy and exclusive breastfeeding practices, an intervention which by itself could reduce child deaths by more than 11% according to estimates reported in the *Lancet*.¹⁹

¹⁹ Black RE, Victora CG, Walker SP, and the Maternal and Child Nutrition Study Group. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet* 2013; published online June 6. [http://dx.doi.org/10.1016/S0140-6736\(13\)60937-X](http://dx.doi.org/10.1016/S0140-6736(13)60937-X)

Figure 9. Trends in ORT—CSHGP Project Area vs. National Trends (2004–2007)

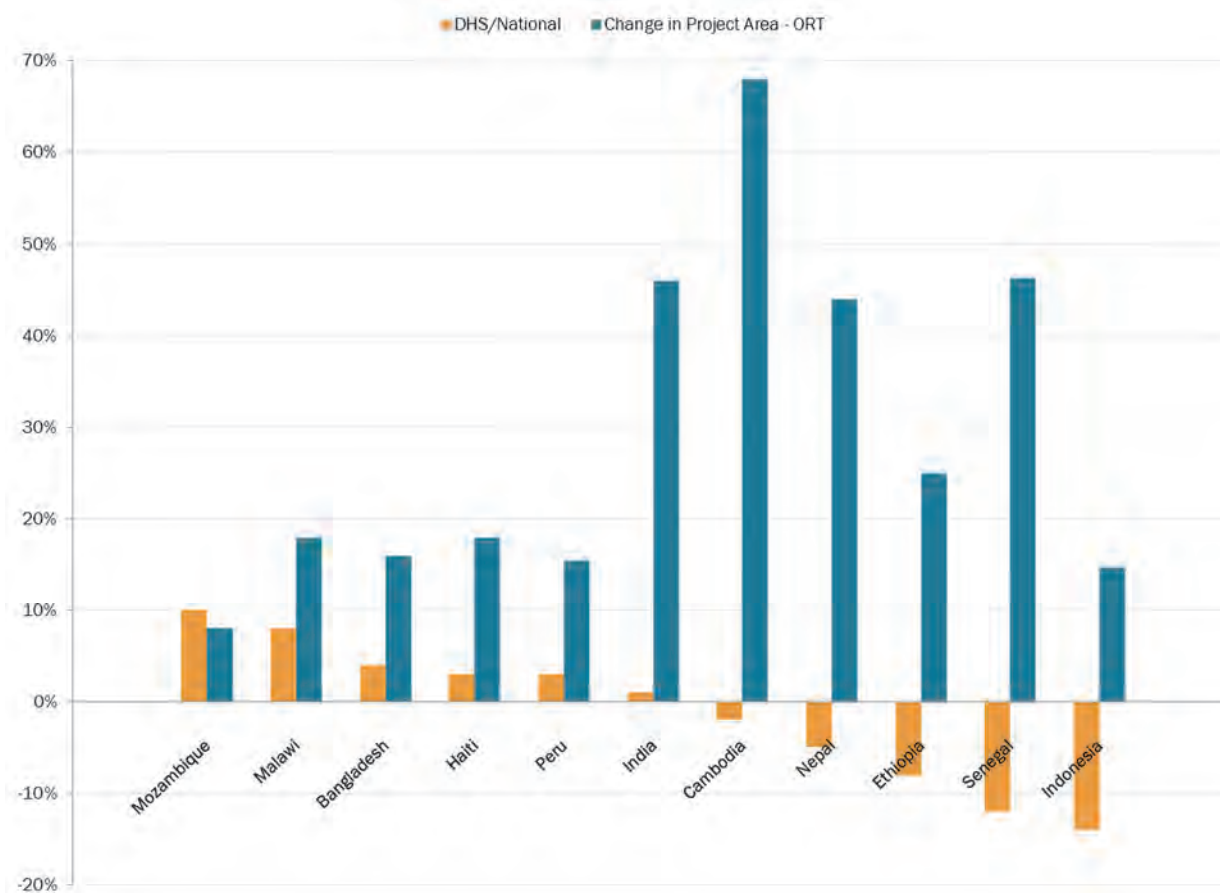
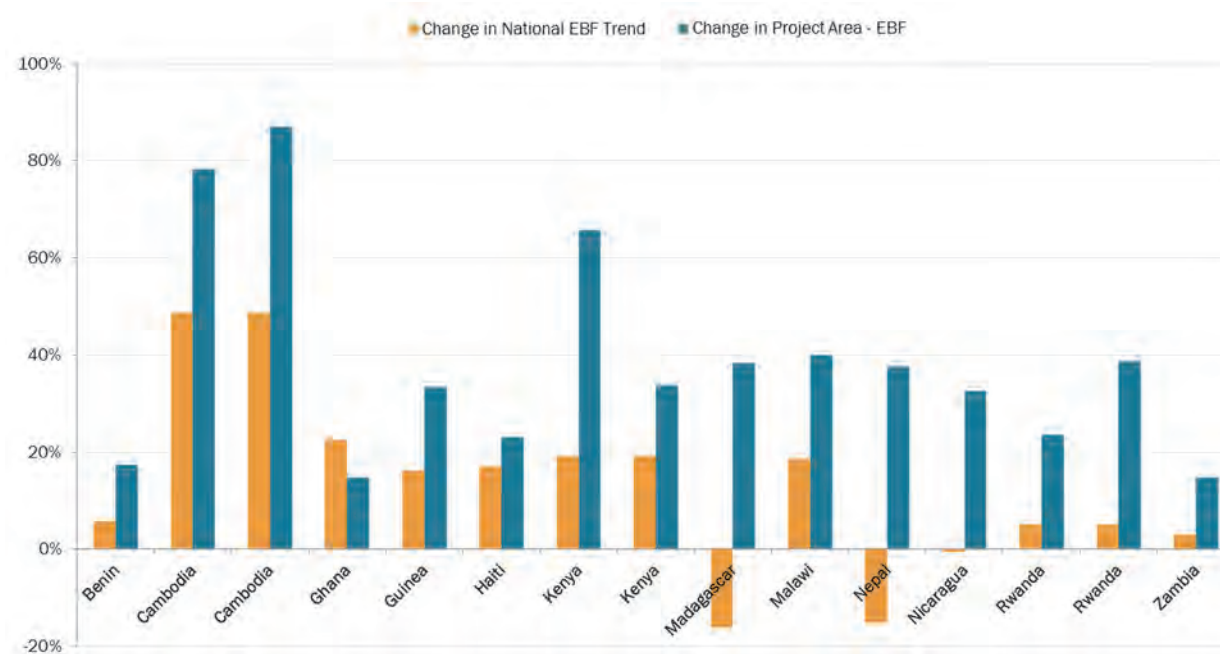


Figure 10. Trends in Exclusive Breastfeeding—CSHGP Project Area vs. National Trends (2004–2007)



Several other published articles generated through MCHIP support help tell the story of the mix of interventions that CSHGP partners strengthened and the results that demonstrate that the integrated PVO program efforts helped save lives in previously poorly performing districts and regions. Published evidence from 12 CSHGP projects shows that average under-five mortality rates in CSHGP project areas declined by 5.8% per year compared to only 2.5% in surrounding regions.²⁰ This doubling of child mortality reduction is exactly what countries would need to reach the Millennium Development Goal targets. The achievement reinforces the idea that governments and the global health community should dedicate greater efforts to the dynamic relationship between health systems and marginalized communities that must be engaged in the design and delivery of better health care. Most of the reduction in under-five mortality was estimated to have been accomplished through interventions delivered at the community and household levels and was correlated with the highly effective interpersonal approaches used by grantees.

While the coverage data changes and LiST analyses made it possible to estimate changes in mortality rates, a handful of CSHGP project teams were able to track mortality rates over time and during their evaluations they compared these rates to national-level improvements. These direct mortality reduction measures were consistent with trends calculated through LiST.²¹

Important Community-Health Evidence Generated and Disseminated

In addition to the portfolio-level analyses of CSHGP data outlined above, MCHIP advanced USAID's global leadership in community-oriented programming by contributing to the generation of evidence from grantees in CSHGP's OR portfolio of 30 projects in 23 countries, and facilitated the development of journal articles and briefing papers that have helped to position the CSHGP experience as an important part of the global evidence base. These efforts augmented learning on issues relevant to MCHIP's technical agenda, including health equity, FP integration, iCCM, community inputs to maternal and newborn care, and mHealth. In addition, MCHIP worked with USAID's CSHGP team to make all grantee final evaluation documents publicly available at www.mchip.net, so that others who wish to learn from the experience of CSHGP grantees have access to their reports.

Highlights from CSHGP's Operations Research Portfolio

Since 2008—the first year of MCHIP—USAID's CSHGP has supported 30 grants implemented by 19 international NGOs, in collaboration with academia, ministries of health, and other local partners in 23 countries. The CSHGP grants have been used to implement and test innovative approaches to end preventable child and maternal deaths through community-oriented interventions. MCHIP contributed to organizing and diffusing the findings from these programs, some of which are highlighted below.

From 2008 to 2012, research funded by CSHGP in **Nepal's** Baitadi district tested an Enhanced Homestead Food Production (EHFP) model to reduce the rate of stunting, wasting, underweight, and anemia. Through collaboration between the Government of Nepal's agricultural and nutritional sectors, the EHFP model was used to teach households improved techniques for the year-round production of diversified animal- and plant-source foods. In addition, interpersonal nutrition counseling and communication was conveyed by health volunteers to promote optimal nutrition practices. Although the EHFP model improved women's nutritional status, study results showed that a longer time frame or the use of EHFP along with other nutrition strategies might be needed to reverse child stunting in settings such as Baitadi,

²⁰ Ricca J, Kureshy N, LeBan K, Prosnitz D, Ryan L. Community based intervention packages facilitated by NGOs offer plausible evidence for child mortality impact. *Health Policy and Planning* 2014; 29(2):204–216.

²¹ Ricca J et al. Comparing estimates of child mortality reduction modelled in LiST with pregnancy history survey data for a community-based NGO project in Mozambique. *BMC Public Health* 2011; 11(Suppl 3):S35.

where the prevalence of malnutrition is extremely high. USAID and the Government of Nepal are using the findings to adapt and scale up this model in other areas of Nepal.

From 2009 to 2013, CSHGP funded an innovative essential obstetric and newborn care (EONC) model in collaboration with the Government of **Ecuador**. The EONC network model creates and uses a comprehensive provincial-level network that coordinates community- and facility-based services (public and private) and promotes coordinated service delivery along the continuum of care from household to facility. This network supports increased coverage and improved quality of care in vulnerable, indigenous communities, including in the health care centers and county hospitals, in these regions. The EONC network established in Cotopaxi contributed to improvements in behaviors such as exclusive breastfeeding, referral of complications by a traditional birth attendant to a facility (from 50% to 83%), and postpartum visits within two days of birth (from 4% to 70%), as well as significant improvement in reducing neonatal mortality. The evidence influenced a decision by the Government of Ecuador for country-wide expansion, as part of a national initiative to reduce maternal and newborn mortality, including a dedicated budget and staffing in all provinces of Ecuador.

From 2008 to 2012, the **Better Health for Afghan Mothers and Children** project tested the use of mobile phone technology (mHealth) as a job aid for community health workers (CHWs). The approach was based on the American College of Nurse-Midwives' Home-Based Life-Saving Skills for maternal and newborn care. It is used as a communication tool to make faster emergency responses possible and to create a comprehensive network that links community members, a health facility, and a maternity hospital. An evaluation of this project found an increase in pregnant women who: 1) received antenatal care, 2) received skilled delivery at a health facility, 3) coordinated with the facility for referral, 4) had a birth plan that involved a health facility, and 5) displayed increased knowledge of adverse pregnancy signs. Findings from this study indicate that using mobile technology supports CHWs in their daily activities of coordinating and providing care, and that the technology was easily used by non-literate female CHWs for promoting health knowledge in households. The findings are being communicated to local officials for consideration of uptake in remote areas, and mHealth is being adapted for use in Afghanistan and other countries.

Concern Worldwide partnered with the MOH in **Burundi** to establish and strengthen existing cadres of CHWs to implement malaria community case management (CCM) in a pilot study that tested whether the Care Group model, a well-documented innovation that has shown great promise in contributing to mortality reduction at the district and sub-district levels, could function just as effectively if it were facilitated by the MOH as part of efforts to implement CCM. Evidence from the project indicated that the MOH-facilitated integrated model performed as well as the NGO-led model for 36 of 40 child health and nutrition indicators. For example, in both intervention groups, exclusive breastfeeding until six months increased significantly from baseline to endline (from 36.4% to 92% in the NGO-led Care Group model and from 51.7% to 91.5% in the MOH-facilitated Care Group model). This suggests that the MOH-supported CHWs in the integrated Care Group model were just as effective at training and supervising their care groups as the NGO-paid promoters in the traditional Care Group model. The findings from this study were shared with the MOH, UNICEF, and other in-country development partners in September 2013. Concern Worldwide is continuing to work with the MOH, scaling up the approach in two new districts. The organization has developed an implementation guide for integrating the Care Group model into MOH structures. Other NGOs can use the guide to implement and further test MOH-facilitated integrated Care Groups.

In **Honduras**, ChildFund International tested a community-based model of integrated service delivery, which increased access to MNH services and reduced costs to consumers. The project collaborated with rural, low-income communities to establish health posts staffed by an array of

community volunteers, including trained traditional birth attendants, growth promotion monitors, and community health volunteers. In the final survey in 2012, child mortality in high-burden communities had decreased from 33 per 1,000 live births in 2009 to 27 per 1,000 live births. Ninety-four percent of those who benefited from the health posts were in the lowest socio-economic quintiles, and yet by the end of the project these communities enjoyed higher child survival rates than department- or national-level health posts. Results of a costing study conducted on the health posts found that when families found solutions to a child health problem at the community-level UCOS (community health units), they saved USD \$6.03–\$70.24 (as opposed to visiting a rural health post or hospital, respectively). Similarly, the costing study found that resources could be “saved” by the government as a result of strengthening medical attention at the community level. Savings ranged from USD \$6.07 at a rural health post to USD \$33.13 at a hospital (per visit averted).

In the high altitude and geographically remote Chitral district of KPK province in **Pakistan**, AKF’s CSHGP project partnered with the Ministry of Health and responded to the call to prevent maternal deaths. In a five-year period, the project improved skilled attendance at birth from 33% to 82% and skilled care across a continuum of care²² from 1% to 23% in areas of greatest need. An innovative intervention package included improved training and deployment of community midwives (CMWs), referral mechanisms, behavior change interventions, including male involvement, and community engagement and empowerment through village health committees (VHCs) and community savings schemes. Through training and an additional facility-based practicum, the project built CMW skills and confidence and bolstered relationships between community and facility health care providers. The project fostered CMW linkages with community members and other community health workers through VHCs, and ensured service quality by establishing a supportive supervision system. Community-based savings groups (CBSGs) were introduced and were found to hold promise for increasing utilization of skilled care: women who were associated with CBSGs were four times more likely than women with no association to access skilled care across a continuum of care. Referral mechanisms were strengthened. As a result of the connections fostered among community health workers and between community- and facility-level providers, referral mechanisms were strengthened. Women were referred to the CMW by other community health workers and were referred on time to secondary facilities (supported in some cases by the VHC for transport).

Other Portfolio-Level Analyses and Peer-Reviewed Publications

MCHIP facilitated or produced other important publications based on CSHGP experience, both in the published and grey literature, further raising the visibility of the program among global health practitioners and national policymakers. These efforts included the following:

MCHIP supported a review of the evidence on the effectiveness of community-based primary health care, which incorporated a review of a significant number of CSHGP grantee evaluation documents.²³ Overall, the findings of this review provide strong scientific support for the following three conclusions:

1. When proven interventions are implemented at the community level by locally trained and well-supervised health workers, coverage, impact, and equity can be favorably affected.
2. Under the right conditions, communities can become strong partners with established health delivery systems in improving the health of children.

²² A minimum of one antenatal care visit, skilled attendance at birth, and at least one postnatal care visit within two days of delivery.

²³ Perry H et al. How effective is community-based primary health care in improving the health of children? Summary findings report to the expert review panel, Community-Based Primary Health Care Working Group, International Health Section, American Public Health Association, July 2009.

3. Health programs can more effectively and sustainably improve the health of children by mobilizing the energy of local people for their own benefit.

In the context of both the project's overall focus on community case management and CSHGP's learning agenda, MCHIP supported a review of CSHGP implementation of CCM since 2000.²⁴ The review effort was undertaken in recognition of the powerful contributions that CSHGP grantees can make to advancing CCM. The 22 projects reviewed represent a sizeable investment of resources—Redacted match from grantees. The report found that while CSHGP grantees made important contributions in areas such as establishing an enabling policy environment, these contributions would be highlighted more effectively through a more systematic approach to documenting their CCM results against key benchmarks. The findings of this report were shared with grantees at CORE Group Spring Meeting (2012) in an effort to continuously improve grantee program design and documentation.

In addition to this review, MCHIP facilitated the development and publication of an article on the results from a CSHGP Expanded Impact in **Rwanda**.²⁵ Co-authored by MCHIP and a representative from the Rwandan Ministry of Health, the article described how, during national scale-up of iCCM in Rwanda, greater improvements in care-seeking were found in the districts where Kabehe Mwana (the CSHGP project) implemented its model than in the rest of the country. Success was attributed to an emphasis on routine data review, intensive monitoring, collaborative supervision, community mobilization, and, in particular, CHW peer support groups. This publication was the result of an MCHIP-facilitated "writeshop" that convened CSHGP grantee staff, MCHIP PVO/NGO Support team staff, and a Rwanda MOH representative.

Two other articles emerging from the writeshop were in the process of addressing feedback from journal review panels at the time of production of this report:

- Langston A et al. "The neglected value of small population based surveys: comparison of knowledge, practice, and coverage child health survey coverage and mortality modeling estimates with estimates from the Rwanda Demographic and Health Survey." Under review by *Journal of Health, Population and Nutrition* in 2014.
- Sarriot E. "Community case management in Rwanda: scenarios for sustainability and options for the health system and its partners." Under review by *Social Science and Medicine* in 2014.

Leveraging a Wider Network to Advance Global Leadership in Community Health

MCHIP's reach—through CORE Group and its network of 53 PVOs/NGOs, 23 Associate Organizations, and 28 Individual Associates—was significantly expanded, facilitating greater opportunities for increased collaboration and synergies with PVO/NGOs. By partnering with CORE Group, MCHIP gained access to an established program learning platform that fosters partnership, knowledge sharing, and advancement of best practices for ending preventable maternal, newborn, and child deaths. CORE Group and MCHIP hosted more than 30 webinars and at least a dozen trainings, which facilitated progress toward field-level impact. CORE Group also served as a catalyst for establishing strategic partnerships and inspiring effective practice across a wide variety of organizations, as evidenced by the broad participation at the seven semi-annual conferences CORE Group convened between spring 2011 and spring 2014. The conferences averaged 237 participants from 89 different organizations. Further evidence of

²⁴ Marsh D et al. What did USAID's Child Survival and Health Grants Program learn about community case management and how can it learn more? A review of 22 projects since 2000. Unpublished briefing paper; June 2012.

²⁵ Langston A et al. Plausible role for CHW peer support groups in increasing care-seeking in an integrated community case management project in Rwanda: A mixed methods evaluation. *Global Health Science and Practice* 2014; 2(3): 342–354.

CORE Group's impact over the course of the project was that the number of unique visitors to their website more than doubled, with an average of more than 16,500 visitors each year. CORE Group social media efforts began in 2011 and grew significantly, increasing MCHIP and CORE Group engagement and attendance by a much wider range of partners. These networking and diffusion mechanisms helped to ensure that the practical tools and resources developed through CORE reflected the wide range of experience of its network and were immediately applicable in the field.

CORE Group provided a vehicle for rapid, action-oriented diffusion of MCHIP's lessons learned, tools, and opportunities to increase positive health impact and contribute to global learning for community health. Together, CORE Group and MCHIP, with support from collaborating partners, diffused dozens of collaborative community health program tools and resources, including first and second editions of the *CCM Essentials Guide* and the *HBB Implementation Guide*. CORE Group's participation in MCHIP resulted in the creation of several joint products and the cross-promotion of resources, and extended representation in global forums, thus elevating the importance of integrated community-focused interventions and the role of civil society in helping to end preventable child and maternal deaths.

CORE Group Contributions to Advancing Community Health

CORE Group supported strategic collaboration with MCHIP by facilitating linkages between MCHIP, CORE Group, CSHGP, and the wider community health network to increase coordination, quality, and scale-up of high-impact, community-focused interventions and approaches with a focus on MNCH and nutrition. For **mHealth**, CORE Group supported an interest group and listserv for sharing best practices, resources, and learning, and contributed to increasing the engagement of NGOs through its membership in the TAG of the mPowering Frontline Health Workers GDA and the UNF mHealth Steering Committee. CORE Group also produced the *mHealth Field Guide for Newborn Health* with support from the private-sector firm DiMagi.

For **CHWs and systems**, CORE Group contributed to thought leadership and knowledge sharing. CORE Group also established and facilitated the MCHIP-led CHW Performance TAG and follow-on activities related to CHW typologies and community health systems. As an outcome of the CHW advisory group meeting, CORE Group led a multi-organization working group on community health systems and led the writing and dissemination of the discussion paper [*How Social Capital in Community Systems Strengthens Health Systems: People, Structures and Processes*](#). For the CHW handbook [*Developing and Strengthening CHW Programs at Scale: A Reference Guide for Program Managers and Policy Makers*](#), CORE Group authored a chapter on CHW relationships with the community, co-authored a chapter on CHW relationships with the health system, and reviewed the remaining chapters. At the global level, CORE Group participated on the advisory panel of a WHO TDR (Special Programme for Research and Training in Tropical Diseases) realist review of incentives and the recruitment, retention, and performance of CHWs; participated on the CHW Central TAG; and contributed to the USG Community Health Worker Evidence Summit.

Building on CSHGP and MCHIP synergies, the CORE Group supported the completion and dissemination of [*The Mortality Assessment for Health Programs \(MAP\) System: An NGO Field Manual for Registering Vital Events and Assessing Child Survival Outcomes Using the Care Group Model*](#). This manual is a guide for NGOs using the Care Group model for child health programming to assess under-five mortality rates and evaluate program effectiveness. As noted earlier, in the discussion of Concern Worldwide's CSHGP Operations Research program in Burundi, care groups are now being used by more 20 organizations in more than 20 countries. Training has reached more than 106,000 peer educators, who reach at least 1.275 million households. A care group consists of 10 to 15 volunteer community-based health educators who

regularly meet with a staff person for training, supervision, and support. Care groups achieve complete and consistent coverage of a specified area. The “saturation coverage” design ensures that every household with a child under age five or a woman of childbearing age receives a volunteer visit at least twice a month and helps develop deeper personal relationships for promoting behavior change and improved health impact. As part of its efforts to advance community coverage approaches, CORE Group also planned and facilitated the two-day Care Group TAG—including both Care Group practitioners and leading thinkers in community-oriented programming—which resulted in updating the Care Group Info website and training resources, and wider diffusion of the evidence-based methodology.

At the global level, CORE Group co-sponsored an NGO information reception at the 2012 launch of “A Promise Renewed” to encourage USAID, MCHIP, and country leadership to inspire greater engagement and harmonization across partners. CORE Group participated in the global iCCM Task Force and served as the Co-Focal Person for the Roll Back Malaria (RBM) CMWG Expanding Access to Treatment Workstream. Together, CORE Group and MCHIP disseminated and promoted the *CCM Essentials Guide*, the CCM Graphic, and CCMCentral.com, and supported the CCM Supplement Launch at the American Society of Tropical Medicine and Hygiene.

With CORE Group, MCHIP leveraged its role as co-organizer in the Global Newborn Health Meeting and the iCCM Evidence Review Symposium to ensure representation of community-oriented efforts.

CORE Group provided global leadership around the development of community health tools and guidance to influence program design and program learning related to equity, community health workers and systems, and social accountability. CORE Group featured **equity** in its semi-annual *Community Health Network* meetings, which contributed to resources developed by MCHIP PVO/NGO Support, [*Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal and Child Health Projects \(September 2011\)*](#) and [*MCHIP Checklist for Health Equity Programming*](#). This guidance helps program planners assess health equity issues in their project area and create plans to address them. It was developed over years of dialogue with and learning from NGOs and other experts working with underserved populations. Through MCHIP, NGOs and CORE Group disseminated the successes of different technical interventions used in their projects to wider audiences. MCHIP’s comprehensive and integrated design contributed to a flow of learning from communities through the health system to the policy level and back again through the system to communities, with continual discussion, debate, documentation, and dissemination.

The key learning themes of behavior change, integration, and equity benefited from the work of CORE Group and the PVO/NGO Support team. CORE Group and PVO/NGO Support contributed to the collaborative MIYCN-FP toolkit completion and launch, and CORE Group developed and disseminated a complementary GSM-funded guide, [*Better Together –Linking Family Planning and Community Health for Health Equity and Impact*](#), and an “off-the-shelf” facilitator’s guide, [*Social and Behavior Change for Family Planning: How to Develop Behavior Change Strategies for Integrating Family Planning into Maternal and Child Health Programs*](#). The facilitator’s guide is for facilitators of a 2.5-day training for NGO and civil society staff in low-resource settings. (For more information, see PVO/NGO Support Annex 10 and CORE Group Annex 11.)

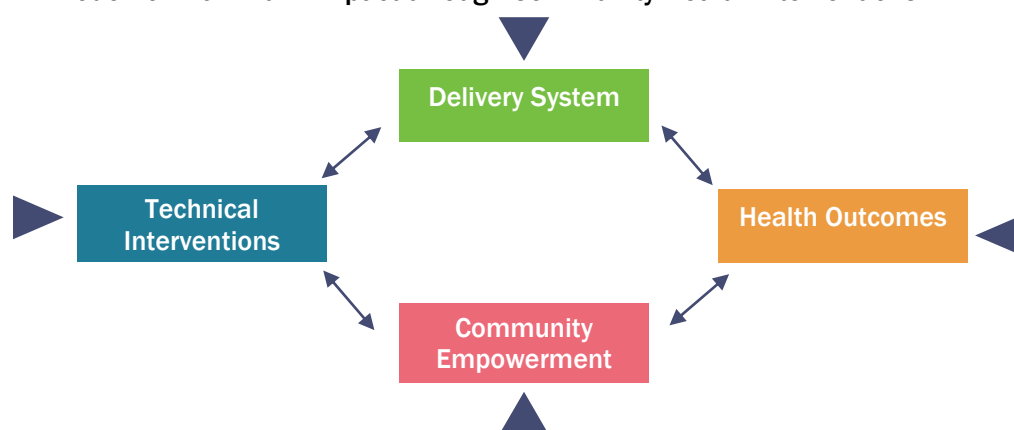
Community-Themed Program Learning Highlights

SO3’s focus on community-oriented programming delivered by PVOs/NGOs and their local partners both complemented and informed MCHIP-wide program learning efforts around the theme of *community*. After developing a policy brief on community engagement, the full text of which is available in Annex 8, and after a thorough literature review, MCHIP defined

“community-based approaches” as activities that take place outside of health facilities and that engage the community. Community-based interventions may occur at fixed points where community members gather, in the home or at a community-run facility, including a health hut, birthing hut, mosque, village hall, or any other place where a community-based provider gives services, such as the *Posyandu* in **Indonesia**. In addition, the term “community-based approaches,” which includes activities and interventions, suggests that communities be engaged as partners in the process of service delivery and health improvement. It is an umbrella term encompassing mobilization, outreach, and home visits, among others. MCHIP field activities tested many of these approaches. Overall, MCHIP implemented significant community-based work in 14 countries.

Learning generated by MCHIP country programs, the CSHGP, and MCP about effective community health programming at scale is described in this section in the following three categories corresponding to the framework used (shown in Figure 11): 1) support for implementation and study of community-based, high-impact interventions; 2) support for development and scale-up of community-based delivery systems; and 3) support for community empowerment and mobilization approaches.

Figure 11. Model for Maximum Impact through Community Health Interventions



Support for Implementation and Study of Community-Based, High-Impact Interventions

To provide national leaders with compelling evidence that PPH prevention strategies are effective at achieving high uterotonic coverage for prevention of PPH, MCHIP and the MOH collaborated on OR in five countries—**Guinea, Madagascar, Liberia, Rwanda, and South Sudan**. Specifically, MCHIP supported the MOH in each country to carry out the intervention, document the results, and disseminate the findings as part of an effort to scale up the program. Some of the major findings of these studies included the following: 1) programs that use home visits can achieve high rates of distribution and coverage; 2) the location and cadre used for misoprostol distribution affect coverage; 3) CHWs achieved higher coverage than ANC health workers; 4) advance distribution in late pregnancy (as opposed to distribution at the time of birth) results in higher coverage; and 5) CHWs are as effective as facility-based providers in delivering counseling and education to women.

Other evidence supporting the effectiveness of community-based, high-impact interventions include data obtained through the Healthy Fertility Study, a quasi-experimental study measuring the effectiveness of community-based PPFP integrated with MNH care interventions. The goal of this study, which was implemented in eight unions of Sylhet district in **Bangladesh**, was to promote recommended MNH and FP practices by building an enabling environment and social support for these issues, with an emphasis on the lactational

amenorrhea method (LAM). The study found that the intervention caused a significant increase in contraceptive prevalence rates and uptake and an increase in the number of women who exclusively breastfed their infant (often in association with adoption of LAM). The intervention also produced a decrease in the probability of a subsequent birth within 30 months.

Support for Development and Scale-Up of Community-Based Delivery Systems

As discussed previously, one of the important innovations to emerge from the CSHGP is the Care Group methodology, which has led to widespread dissemination throughout the NGO child survival community. By supporting a paper about the use of CARE Group volunteers to communicate important health messages to mothers in **Mozambique**, MCHIP contributed to growing the evidence base around care groups.²⁶ This paper showed how using Care Group models can improve the level of undernutrition among children at scale and at low cost, and thus has implications for reducing under-five child mortality in priority countries. For example, in 2013, the nutrition impact of a Care Group project implemented in a population of 1.1 million people in rural **Mozambique** documented that more than 90% of beneficiary mothers reported that they had been contacted by Care Group volunteers during the previous two weeks, and that the annual rate of decline in childhood undernutrition was four times greater than in the country as a whole.³

Also, as mentioned previously, iCCM is another important strategy that demonstrates the effectiveness of community-based delivery systems. MCHIP has provided technical leadership through its role as Secretariat of the iCCM Task Force, an essential forum in which members coordinate advocacy efforts, share existing tools, develop common resources, and use a common organizing framework for CCM implementation. In addition, MCHIP has helped to introduce iCCM programs in four countries and supported the expansion of iCCM programs in seven countries. The program has contributed to formal iCCM assessments and evaluations in four countries, and the review of CSHGP grantee experience highlighted earlier in this section is another MCHIP effort in this area.

A final effective strategy that MCHIP has used to support the development and scale-up of community-based delivery systems is community mobilization through behavior change. By providing technical support to MCP grantees in 12 sub-Saharan African countries, MCHIP strengthened local capacity to undertake community-based malaria prevention and treatment activities; built local ownership of malaria control in partnership with communities and NMCPs; and extended coverage of PMI and NMCP interventions to reach larger beneficiary populations. Results indicate that these interventions, among others, led to an increase in ITN use among children under five in all except one of the project areas reporting survey data, and IPTp coverage increased by an average of 50 percentage points across the seven project areas where NGOs conducted surveys. In two projects that had serial DHS data for comparison of under-five coverage of ITNs (Malawi and Tanzania), the increases in coverage in the project area were larger than the trend of coverage increase measured by the serial DHS data. For example, increases from baseline to endline showed that ITN use in the project area in Tanzania increased from 5% to 67%, and IPTp coverage in the project area in Angola rose from 23% to 80%.

Support for Community Empowerment and Mobilization Approaches

Among countries where MCHIP worked, the Immunization Team partnered with district health services to strengthen capacity and build partnerships with communities for more effective planning. The team provided assistance in monitoring and improving the delivery and uptake of

²⁶ Davis T et al. Reducing child global under nutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. *Glob Health Sci Pract* 2013;1(1):35–51.

routine immunization services. For example, to increase child immunization coverage, MCHIP partnered with the MOH to implement the Imunizasaun Proteje Labarik (Immunization Protects Children) project in seven districts of **Timor-Leste** from April 2011 to October 2013. The project supported the MOH and national partners in annual micro-planning at the district and sub-district levels. It helped the government to review and formulate policy papers and strategic guidelines for both the EPI and the wider health system. The project developed standard tools for supportive supervision and mentored local staff on reporting and registering. At the community level, the project trained community leaders on immunization and other health topics so that they could mobilize fellow community members and respond to their questions and concerns. It engaged communities in micro-planning and monitoring by introducing a new tool that enabled community volunteers to list all infants, record the dates of each of their vaccinations, and make home visits to motivate parents when a child fell behind in his/her immunization schedule. The project also gave immunization orientations in middle schools. Together, these interventions resulted in increased knowledge and improved capacity to provide immunization services at the community and health system levels among community leaders. The project also achieved increased levels of immunization coverage and demonstrated positive impact on timeliness of vaccination.

Another example of how MCHIP supported approaches that worked to empower and mobilize the community is the MaMoni project in **Bangladesh**.²⁷ This project created an interface between the community and the health system by using high-impact technical interventions, providing training, motivating and supporting CHWs, and ensuring that essential commodities were available. The project recruited female CHWs to provide routine systematic household-based counseling on MNH messages and also trained service providers on elements of the integrated package. Community engagement was achieved through community action groups and community volunteers. Volunteers raised awareness, promoted care-seeking, identified health problems, and addressed the problems with local resources. As a result of these efforts, monthly community-to-facility referrals rose from 20 per month to more than 180; the contraceptive prevalence rate rose from 39% to 46%; ANC1 rose from 32% to 76%; and institutional delivery nearly doubled, increasing from 13% to 22% of births.

In addition to country-level efforts to implement effective community engagement practices, MCHIP also contributed to global dialogue on the future of these efforts—for example, by contributing to the development of the previously mentioned reference guide for CHWs.²⁸ This guide was developed through an exhaustive literature review and field work, and it produced several key findings, suggesting that intervention delivery strategies such as home visitation, CCM, participatory women's groups, and provision of services by mobile health teams at outreach points remain essential strategies for reaching communities. Some of the strongest mobilization strategies were outreach to non-traditional groups, such as micro-credit groups, and working with smaller health-oriented groups within the community.

²⁷ Additional discussion of the MaMoni project can be found in the section titled “Integrated Community Mobilization for MNH: The Bangladesh MaMoni Project” in *Prospects for Effective and Scalable Community-Based Approaches to Improve, Reproductive, Maternal, Newborn, and Child Health (RMNCH)* under Annex 8.

²⁸ *Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide for Program Managers and Policy Makers*.

Achievements by Program Areas and Results Pathways



Maternal Health

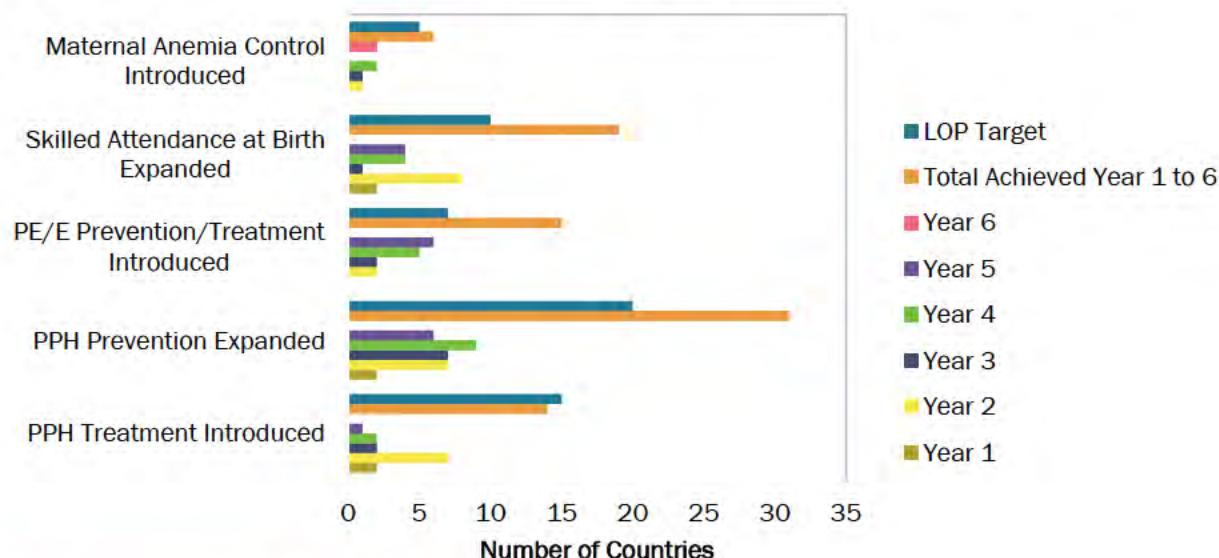
Introduction

Over the past six years, the MCHIP Maternal Health Team has successfully capitalized on MCHIP's international platform to help reduce maternal mortality through targeted initiatives at the global and country levels. Providing direct technical assistance (TA) to country programs worldwide, MCHIP has helped countries work toward their goals of scaling up evidence-based maternal health approaches. Complementing work at the country level, MCHIP has helped define and drive the global agenda in maternal health through generating evidence, promoting best practices, and forging strategic partnerships with key development partners, including WHO, UNFPA, UNICEF, FIGO, ICM, Survive and Thrive, Born Too Soon, BMGF, other donors, bilaterals, and implementers, to successfully improve maternal health outcomes on a worldwide scale.



Global leadership and country support efforts have centered on operationalizing and scaling up evidence-based maternal health approaches, focusing primarily on the prevention and management of postpartum hemorrhage (PPH) and pre-eclampsia/eclampsia (PE/E), as well as the promotion of skilled birth attendance (SBA). Recognizing that interventions at the community and household levels can have a significant impact on mortality, MCHIP has placed a high priority on producing the necessary evidence and tools to expand the range of high-impact interventions to include these community- and household-based approaches. For example, MCHIP has successfully promoted advance distribution of misoprostol for use at home birth, as part of a comprehensive approach to PPH prevention at home birth and in the facility.

Figure 12. Progress in Introducing and Expanding High-Impact Maternal Health Interventions



Key Achievements and Results

Global Leadership

MCHIP has contributed to advancing global thinking and country-level uptake of strategies to reduce maternal mortality from PPH and PE/E through strategic and robust engagement with key global partners, especially through technical support to Ministries of Health to build leadership and implementation capacity, and through partnerships with WHO and UNICEF. MCHIP worked closely with WHO to ensure that information from new WHO guidelines for several important topics, including the prevention and treatment of PPH, the prevention and treatment of PE/E, and postnatal care for mothers and newborns, were translated into practical materials and disseminated at global, regional, and country levels.

MCHIP has served on numerous WHO technical committees and has been asked to lead sessions on the implementation of the guidelines at WHO guideline meetings, such as on preterm birth, PE/E, and PPH, thus demonstrating that MCHIP is recognized by WHO and partners as a key implementer in countries where MNCH activities are under way. MCHIP also advised the Director of WHO's Immunization Program on rotavirus vaccine introduction, training approaches, and other important aspects of vaccine program implementation. By forging these strategic partnerships, MCHIP maximized the impact of collective efforts to reduce maternal and newborn mortality and morbidity. In addition to leadership in the area of PPH and PE/E, MCHIP advanced global efforts to reduce morbidity and mortality from preterm birth through operations research (OR), the development of resource materials in partnership with the Survive and Thrive GDA, and contributions to global meetings and initiatives. Frequently participating on scientific/steering committees to set the agendas and themes, the Maternal Health Team led sessions at the Global Newborn meeting in Johannesburg in 2013 on maternal interventions for improved newborn outcomes, with a focus on prematurity.

MCA Findings Grouped by Themes:

- 1a. Availability of uterotonic medications
- 1b. Availability of MgSO₄ for the management of severe PE/E
2. Lifesaving medicines approved at the national level
3. National policies regarding AMTSL
4. Expansion and scale-up of misoprostol availability and PPH-reduction programs
5. Midwife and SBA scope of practice
6. Education and training in AMTSL and PE/E management principles
7. National reporting on selected maternal health indicators
8. Potential for scale-up and bottlenecks

To inform progress on scaling up PPH and PE/E programs, MCHIP undertook a Multi Country Analysis (MCA) Survey of 37 countries in [PY3](#) and [PY4](#).²⁹ In this survey, MCHIP assessed national programs for the prevention and management of PPH and PE/E, and conducted a sub-analysis of service delivery guidelines related to prevention of PPH and EMLs for oxytocin and misoprostol (the findings are presented across the eight themes shown on the previous page). This survey—and a corresponding manuscript published in *Global Health: Science and Practice (GHSP) Journal* in Q3 of PY6—contributed to the global evidence base, enabling donors and partners to use the MCA survey data and recommendations to identify barriers and more effectively prioritize efforts and funding to reduce morbidity and mortality from PPH and PE/E. Importantly, governments and implementing agencies have used the results of this MCA survey to identify and address gaps as they work toward scaling up interventions to reduce PPH and PE/E at the country level; most specifically, the United Nations Commission on Life-Saving Commodities (UNCoLSC) has cited the MCA survey repeatedly. Through this widely used survey and advocacy tool, which has been presented and disseminated at almost 10 national and international conferences, MCHIP has been able to identify availability issues related to key maternal health commodities. This information will aid in addressing some of the UNCoLSC recommendations. The MCA survey was used extensively in the “Key Data and Findings: Medicines for Maternal Health” report, filling critical information gaps on the availability and use of maternal health medicines and supplies at the country level. Given its scope and breadth, this survey has provided a large amount of useful data, helping the UNCoLSC identify potential issues that require attention and action so that essential lifesaving products reach those who need them most. MCHIP also worked with its partner PATH to support the development of the Advocacy Working Group’s (AWG’s) Advocacy toolkit *Scaling-up Lifesaving Commodities for Women, Children and Newborns*. Reflecting its commitment to providing advocacy resources for addressing commodity-related gaps in global and national plans, policies, and initiatives, MCHIP supported the launch of the toolkit in a workshop in Ghana during Q3 of PY6.

MCHIP organized two regional maternal health meetings in **Ethiopia** (November 2011) and **Bangladesh** (May 2012) that focused on interventions for impact in essential obstetric and newborn care. These workshops were critical in promoting evidence-based maternal health policymaking in **Liberia, South Sudan, Zambia, the Philippines, Burma, Pakistan, and India**. The MCA of PPH and PE/E programs was presented, encouraging numerous programs in countries across Africa, Asia, and the Near East to adopt evidence-based maternal health interventions that achieve impact at scale. For example, following the Asia meeting, Pakistani representatives of provincial departments of health, professional bodies, academic institutions, civil society organizations (CSOs), and development partners met and, as a direct result, adopted the inclusion of misoprostol on the EML for FATA-KP, Punjab, and Baluchistan.

Some participants used the information from these regional meetings to improve health care service delivery. For example, in Bangladesh, one participant, a training and capacity development expert from the Asian Development Bank, used conference information, particularly on PE/E and AMTSL, to draft an MNH training curriculum and to conduct trainings for doctors, paramedics, nurses, and medical technicians in her capacity as master trainer. She also organized staff training sessions as well as two days of faculty development training on HBB, a program she hadn’t used before the MCHIP conference. Another participant added a skills test for HBB in July 2012 to the clinical standardized service training for the clinical staff of the medical college in Jharkhand State, India. At the provincial health office in Central Java, Indonesia, participants held meetings to discuss how to use magnesium sulfate (MgSO₄) and led clinical practice sessions for midwives and doctors on neonatal resuscitation using NeoNatalie anatomic models.

²⁹ <http://www.mchip.net/globalstatusreport>

Similar to the MCA Survey, the Quality of Care (QoC) assessments conducted in seven African countries—**Ethiopia, Kenya, Tanzania, Madagascar, Rwanda, Mozambique, and Zimbabwe**—have contributed to global evidence and advanced country-level efforts to reduce maternal mortality from PPH and PE/E, with the added value on measurement of QoC using direct observation. MCHIP has shared the results of the QoC studies at international and national conferences and online, drawing greater attention to important, specific quality challenges, and contributing to a growing emphasis, at the global level, on quality—particularly for labor, delivery, and immediate postnatal care (PNC). The results from these assessments will be published in multiple peer-reviewed journal articles on several topics.³⁰

Importantly, these QoC studies spurred concrete action in all seven countries. In **Rwanda**, the QoC study influenced the development of three major documents, including the National Guidelines on Newborn Care, BEmONC training, and a policy on PAC, given that the QoC study data helped to inform the creation of a new policy. Additionally, the government included key medicines and equipment on national lists, such as supplies for newborn resuscitation, calcium supplementation and MgSO₄. Thanks to MCHIP, the government now understands the importance of access to MgSO₄ and has not only made it available at hospitals, but has also committed to providing training to ensure that providers are able to use it.³¹

Given the challenges associated with observation-based assessment of QoC, MCHIP has built on the QoC studies to develop and validate a subset of informative indicators that can be used for more rapid, ongoing, and cost-effective measurement of the quality of labor and delivery (L&D) care processes at health facilities. This task began with a global literature review to identify indicators used for the assessment of the quality of L&D care. A group of global maternal and newborn care experts then participated in a Delphi process to identify key dimensions of the quality of L&D care processes. Affiliated with MCHIP, USAID, and external organizations, these experts also rated the indicators used in the QoC studies for their importance and representation of important dimensions of QoC. Combinations of highly rated indicators were evaluated for their validity. A best-performing set of indicators was identified and piloted at seven health facilities in **Tanzania** to evaluate reliability and user experience. A shorter set of indicators, consisting only of actions performed at or immediately after delivery, was also evaluated for its validity. These two tools may facilitate the more rapid and effective assessment of the quality of maternal and newborn care services, and help target QI activities. Additionally, this shortened indicator set is an important tool for future programs to incorporate into their routine, sustainable quality assessment and improvement approaches. Four related manuscripts are under review and will contribute significantly to the current global focus on QoC and to program learning about which MNH indicators best measure the QoC.

MCHIP has shown leadership through close collaboration with the Newborn Team and partners to focus attention on the importance of integrated perinatal approaches that target key maternal health interventions to address prematurity and improve outcomes for newborns. In close collaboration with other key stakeholders, such as Born Too Soon, Survive and Thrive, and the BMGF, MCHIP has spearheaded the development and dissemination of materials on the reduction of newborn asphyxia and infection, as well as complications of prematurity, through improved L&D practices. In addition to promoting better intrapartum practices to reduce newborn infections and newborn death, other noteworthy products include an advocacy and technical briefer, as well as a job aid, all promoting the use of antenatal corticosteroids (ACS) for fetal lung maturation. MCHIP also conducted an innovative research study in three

³⁰ Planned articles on QoC assessments include an overview on the need for observation to assess quality of services; PPH prevention and management; PE/E prevention and management; RMC; and essential newborn care, including resuscitation.

³¹ Please refer to Global EOP Report Program Learning Annexes 7 and 8 for more information on QoC Assessment background, lessons learned, and country experiences.

countries (**Indonesia, Cambodia, and the Philippines**) to measure the results of an intervention to increase the use of ACS at facilities. With data collection ending in May 2014, findings from this study were disseminated in the third quarter of 2014, and provided evidence around the key elements and potential barriers to the success of the implementation of ACS interventions. In partnership with the UNCoLSC, MCHIP has demonstrated leadership in the appropriate use of ACS, spearheading the development of new training materials, and promoting the use of ACS at numerous global forums.

In addition to these global-level interventions, the Maternal Health technical staff provided national- and country-level TA, integrating maternal health interventions for improved newborn outcomes in several countries, including **Malawi, Nepal, and Bangladesh**. Adopting approaches that link maternal and newborn interventions to reduce newborn complications, MCHIP has made it a standard practice to integrate essential newborn care with clean and safe birth programs. In **Yemen**, for example, MCHIP supported the introduction of new AMTSL guidelines, which also included delayed cord clamping (DCC), skin-to-skin contact, and immediate breastfeeding. Similarly, MCHIP supported the integration of HBB with PPH-related trainings under the associate award in **South Sudan**.

As the lead implementing agency for USAID and a prominent participant in the global arena, MCHIP has been a valued TA organization for high-level global standards meetings convened by WHO, UNICEF, FIGO, and ICM. MCHIP has worked in close partnership with these global organizations to advance progress on critical maternal health issues, including preterm birth, PE/E, and AMTSL. MCHIP has contributed to the development and dissemination of briefers summarizing essential WHO guidelines on high-quality, high-impact interventions aimed at reducing maternal mortality, such as PE/E, PPH, and PNC. MCHIP translated and widely disseminated these briefers and guidelines at global meetings, and worked closely with partners such as ICM and FIGO to bring these global standards to the national level.

One effective vehicle for the wide dissemination of these guidelines and other useful resources has been several maternal health-focused toolkits developed by MCHIP on the K4Health website. One such toolkit is on Essential Obstetric and Newborn Care (EONC),³² which encompasses the full range of essential care for uncomplicated deliveries as well as comprehensive emergency care. Developed with a focus on Africa to support the MNH Champions, this toolkit was launched in 2012 for a broader audience. As of April 2014, there were 2,237 visits to this site from users in 116 countries, with a total of 18,715 pages viewed. This toolkit provides guidance on key programmatic steps, sharing lessons learned and relevant resources to assist country programs, donors, and governments to develop focused interventions and programs. Recognizing that Internet connectivity might be a problem in some developing countries, MCHIP distributed materials from EONC and other toolkits in the form of printed copies, USB, and CD-ROMs at regional and global conferences. Other toolkits on PPH, PE/E, pre-service education (PSE), and respectful maternity care (RMC) will be discussed in subsequent sections of this report.

Postpartum Hemorrhage

MCHIP has worked tirelessly to promote the prevention and treatment of PPH at country, regional, and global levels. Most important, MCHIP supported global policy change by contributing to the global evidence base on the effectiveness of community-based interventions to prevent PPH. In keeping with its extensive advocacy and programmatic efforts to promote advance distribution of misoprostol for self-administration at home birth, MCHIP has carried out OR on introductory PPH prevention programs in five countries—**South Sudan**,

³² <https://www.k4health.org/toolkits/eonc>

Madagascar, Liberia, Rwanda, and Guinea. All but the Madagascar³³ program supported a comprehensive PPH prevention approach, promoting AMTSL at the health facility and advanced distribution of misoprostol for home birth, with the goal of ensuring that all women are protected from PPH, regardless of where they give birth.

The studies provided Ministries of Health (MOHs) with compelling evidence on whether PPH prevention strategies (particularly misoprostol distribution and administration strategies) were effective at achieving the highest possible uterotonic coverage of all births. These studies also generated learning on the most effective PPH prevention approaches, which were captured in peer-reviewed publications through an article on **Liberia** published in [BMC Pregnancy and Childbirth](#) in Q3 of PY6,³⁴ and another on **South Sudan**, published in [International Journal of Gynecology & Obstetrics](#)³⁵ in Q3 of PY6. Thanks to highly promising results of some of these programs, MOHs have opted to expand them to varying degrees in **South Sudan, Liberia, and Madagascar**—protecting thousands more women from PPH.

These studies, along with an MCHIP article in [BMC Pregnancy and Childbirth](#)³⁶ and a corresponding [two-page briefer](#), have widespread implications for reducing maternal mortality and expansion of services to more women. Further contributing to the global evidence supporting advance distribution of misoprostol, this BMC article presents the results of integrative review of implementation strategies for the use of misoprostol for the prevention of PPH at home birth. This article revealed that advance distribution of misoprostol by community health agents during home visits late in pregnancy achieved the greatest distribution and coverage rates.

Complementary to these efforts to generate global evidence have been practical, hands-on tools, resources, and trainings developed by MCHIP to increase the capacity for prevention and management of PPH. An example includes the PPH toolkit on the K4Health³⁷ website. The K4Health website has proven an effective means of sharing program materials related to PPH, based on the large number of site visits related to PPH—5,316 as of April 2014, with 13,631 total pages visited by users from 147 countries.



Photo credit: Kate Holt, Jhpiego.

To promote the broad adoption of use of misoprostol in programs that prevent PPH at home births, MCHIP led a global effort to strengthen the capacity of partner organizations and local NGOs. In addition to updating the PPH toolkit with a new section aimed at helping programs initiate or expand PPH programming using misoprostol, MCHIP developed an updated [Program Implementation](#)

Wilma Ajiiba, a Home Health Provider in South Sudan, teaches women about the importance of giving birth in a health facility.

³³ MCHIP was not permitted to work in public sector facilities due to the Brooke Amendment, which restricted the U.S. Government from providing direct TA to the Government of Madagascar.

³⁴ Smith JM et al. 2014. Advance distribution of misoprostol for prevention of postpartum hemorrhage (PPH) at home births in two districts of Liberia. *BMC Pregnancy and Childbirth* 14:189; online at <http://www.biomedcentral.com/1471-2393/14/189>.

³⁵ Smith J M et al. 2014. Clinical article: Advance distribution of misoprostol for the prevention of postpartum hemorrhage in South Sudan. *International Journal of Gynecology and Obstetrics*, doi:10.1016/j.ijgo.2014.05.016.

³⁶ Smith JM et al. 2013. Misoprostol for postpartum hemorrhage prevention at home birth: an integrative review of global implementation experience to date. *BMC Pregnancy and Childbirth* 13:44; online at: <http://www.biomedcentral.com/1471-2393/13/44>

³⁷ <https://www.k4health.org/toolkits/postpartumhemorrhage>

[Guide](#)³⁸ designed to scale up misoprostol programs. In collaboration with VSI, PSI, and EngenderHealth, MCHIP also held three three-day workshops on comprehensive PPH prevention programs for program implementers working in PPH. At these workshops held in Washington, D.C., New Delhi, India, and Maputo, Mozambique, there were a combined total of 163 participants from 79 organizations and government agencies, representing more than 23 countries.

In addition to providing the knowledge and tools for successful implementation of PPH programs, MCHIP supported country-level progress in PPH prevention and treatment. For example, given the lack of AMTSL protocols in **South Sudan**, ISDP, the MCHIP Associate Award, supported the incorporation of AMTSL in the training on normal delivery and management of PPH for two states, and AMTSL is now part of the pre-service midwifery programs nationally. Furthermore, given that misoprostol was not on the EML for PPH prevention at home birth, ISDP also successfully piloted the use of misoprostol for the prevention of PPH in two counties of Western Equatoria state of **South Sudan**, and plans for national scale-up were under way before the security situation there deteriorated in late 2013. Similarly, in **Guinea**, MCHIP supported the incorporation of misoprostol on the EML and the inclusion of AMTSL in the HMIS, in addition to the launch of an introductory program piloting the use of misoprostol for the prevention of PPH at home birth. In **Ethiopia**, at MCHIP-, Jhpiego-, and some partner-supported sites, MNH service providers are being trained on AMTSL and prevention and management of PPH during pre-service and in-service training. Job aids on AMTSL are being given to BEmONC trainees during training and are distributed to health facilities. In **Kenya**, MCHIP has supported the Ministry with the development of national MNH standards, as well as job aids and posters on AMTSL.

Given the importance of uterotonic use immediately following birth (UUIFB), and the scarcity of information about UUIFB in most national health systems, MCHIP with collaboration from JHSPH, London School of Hygiene and Tropical Medicine (LSHTM), CDC, FHI, and others developed a novel methodology to measure coverage of UUIFB and undertook a rapid estimation exercise in **Mozambique**, **Tanzania**, Jharkhand State, **India**, and **Yemen**. A manuscript presenting national-level findings from these four pilot countries has been submitted to BMC Health Services Research. Results stimulated key policy and programmatic changes, reinforcing plans under way in Jharkhand State, **India**, and **Mozambique** to move forward with community-based distribution of misoprostol programs and to improve storage conditions for uterotonics, namely oxytocin. In **Tanzania**, the findings helped drive efforts to get better data on uterotonic utilization and availability (stock-outs), primarily oxytocin. The findings strengthened preliminary plans to ensure that these key data are part of the HMIS.

As a testament to the scope and impact of MCHIP's work in PPH, this UUIFB exercise, and the lower-than-expected estimates of uterotonic coverage, accelerated the inclusion of guidelines on advance distribution of misoprostol for home births in **India's** National PPH strategy. Also significant, the results from this exercise convinced the government to send representatives from 10 states to attend MCHIP's comprehensive PPH workshop in India to build their capacity to implement PPH programs.

This UUIFB exercise highlighted gaps in coverage at the community level and the need for more targeted programs. It also raised issues of uterotonic availability and quality, and potential policies and practices that inhibit high coverage. Finally, this exercise underscored the need to improve data gathering and data quality for UUIFB, both at the facility and household levels. Fundamentally, in making this method and the corresponding estimates available,

³⁸ Advance Distribution of Misoprostol for Self-Administration: Expanding Coverage for the Prevention of Postpartum Hemorrhage. 2013.

MCHIP has engendered advocacy around the idea of greater UUIFB coverage, for all births regardless of delivery location.

Pre-Eclampsia/Eclampsia

Just as with ongoing work in PPH, MCHIP has forged strategic partnerships with global organizations like WHO to build capacity in the management of PE/E. Making the most of its key role as a member of the WHO Guidelines Committee, MCHIP has effectively developed and disseminated valuable PE/E resources and guidance at global forums as well as through country-level TA. In addition to promoting the quality and availability of MgSO₄ through contributions to the UNCoLSC, MCHIP has provided TA to country programs, bilaterals, and other partners to strengthen and expand MgSO₄ quality and coverage for the management of PE/E. Launched at the Africa Regional Meeting in Ethiopia in February 2011, the PE/E toolkit is on the K4Health³⁹ website and is updated semi-annually. With 3,948 site visits and 10,612 pages visited from users in 143 developing countries to date, this toolkit has served as a useful resource for program implementers.

Through the provision of useful PE/E technical resource materials, in combination with direct technical support to country programs, MCHIP has facilitated notable achievements in **Indonesia, Mozambique, and Zimbabwe**. In **Zimbabwe**, MCHIP participated in the review of the RH and maternal health policy to support task shifting in the management of severe PE/E, for example, who can administer MgSO₄. MCHIP also helped outfit sites with emergency kits for severe PE/E in the two learning districts and advocated for use of these kits at the national level. Through competency-based BEmONC training starting in 2011, MCHIP helped build the capacity of nurses to identify and correctly manage cases of severe PE/E earlier, and to better stabilize these women prior to transfer to a higher-level facility. The combination of task shifting and competency-based training, along with a continuous QI process, has helped improved PE/E outcomes. Notably, there were significant declines in cause-specific maternal mortality rates in severe PE/E, which have decreased by more than 50% over the past two years at MCHIP-supported sites. Also highly significant, even with more PE/E cases reported in PY3 (see Table 4), up from 184 in Year 2 to 294 in Year 3, there was a notable drop in the number of deaths from 16 to seven in the same period, thus indicating better diagnosis of severe PE, and leading to better management and outcomes.

Table 4. MCHIP/Zimbabwe Supported Sites: PE/E Cases and Impact on Mortality

INDICATOR	BASELINE (JAN - DEC 2009 DATA; SOURCE: MOHCC, 2009)	Y2 (OCT 2011-SEP 2012) ACTUAL	Y3 (OCT 2012-SEP 2013) ACTUAL	Y3 (OCT 2012- FEB 2014) TARGET
Number of live births	MMR = 296/100,000 live births	14,646	15,369	MMR = 215/100,000 live births
Total of maternal deaths (ALL CAUSES)		34	42	
Number of cases of PE/E	no data	184	294	n/a
Number of deaths due to PE/E	no data	16	7	n/a

Similarly, MCHIP used the findings from the MCA and QoC studies to scale up best practices for prevention and management of PE/E in several countries. In **Malawi**, MCHIP supported the MOH to revise obstetric protocols, including management of severe PE/E, which were distributed to all maternity units countrywide and are posted in all maternity wards for easy

³⁹ <https://www.k4health.org/toolkits/preeclampsia-eclampsia>

reference. In **Kenya**, MCHIP helped the Ministry develop guidelines, including the National Guidelines for Quality Obstetrics and Perinatal care, as well as job aids and posters on the use of MgSO₄. In addition, MCHIP worked with the Ministry to develop national MNH standards. In **Ethiopia**, thanks to the support of MCHIP and other MNH partners, training on the administration of MgSO₄ is now included in BEmONC training and currently more than 75% of SBAs at hospitals have received this training.

Using innovative solutions to promote the use of MgSO₄ at the country level, MCHIP is piloting an active audit-feedback intervention to increase use of MgSO₄ among women with severe PE/E in six hospitals in **Ethiopia**. This intervention involves a technical update coupled with ongoing audit feedback of all severe PE/E cases at the facility. The technical update includes an interactive instructional video developed by MCHIP that focuses on the correct preparation and administration of MgSO₄. As part of the audit-feedback process, the labor/maternity ward team identifies and reviews all severe PE/E cases on a regular basis (weekly or twice monthly), and takes corrective action where necessary. Progress is monitored using simple maternity dashboards and posters. Through the provision of this country-level TA, MCHIP is playing a vital role in improving the quality of management of PE/E and appropriate administration of MgSO₄.

In addition to promoting best practices at the country level, MCHIP has helped shape global thinking to make PE/E a priority maternal health intervention through publications, including a practical review article on the safety of MgSO₄ for management of severe PE/E. In this widely disseminated [BMC Pregnancy and Childbirth article](#)⁴⁰ and corresponding two-page [summary brief](#), MCHIP dispelled the myths that MgSO₄ is a dangerous medicine and recommended that clinical leaders in maternal health adopt, promote, and support the use of MgSO₄ as the anticonvulsant of choice in treating and managing PE/E.

Further contributing to the global evidence base, MCHIP conducted a study in **Nepal** on calcium supplementation for pregnant women distributed during routine ANC at health facilities, in order to assess coverage, compliance, and effectiveness at preventing PE/E and inform scale-up. Calcium distribution through ANC produced very high coverage of calcium at 95%, and was found to be acceptable to ANC providers and feasible to incorporate into their current responsibilities. The study therefore recommended that this model of calcium distribution be scaled up to other districts in **Nepal**. At the national dissemination meeting in December 2013, analysis was presented on the programmatic success of the distribution, and the government of **Nepal** committed to the immediate scale-up in two districts in the Terai region where the prevalence of eclampsia is high.

For a more in-depth discussion of MCHIP's achievements in PE/E, please refer to the report entitled *Pre-Eclampsia/Eclampsia (PE/E): MCHIP's Key Accomplishments 2008–2014. Improving Maternal Health Care & Outcomes through Prevention, Diagnosis and Management* (Annex 18).

Skilled Birth Attendance

In collaboration with WHO, UNFPA, ICM, and other global partners, MCHIP developed and disseminated PSE resources and materials and created a toolkit on K4Health⁴¹ to enable country programs to strengthen their PSE institutions. MCHIP disseminated the PSE toolkit via multiple channels, such as at global meetings and CORE Group. As of April 2014, there had been over 18,461 visits to this toolkit from users in 191 countries, with 32,445 total pages

⁴⁰ Smith JM et al. 2013. An integrative review of the side effects related to the use of magnesium sulfate for pre-eclampsia and eclampsia management. *BMC Pregnancy and Childbirth* 13:34; online at: www.biomedcentral.com/1471-2393/13/34

⁴¹ <http://www.k4health.org/toolkits/pse>

viewed. MCHIP has also provided country-level TA to strengthen education of midwifery cadres in several countries, most notably in **Ethiopia, India, Burma, and Yemen**.

In collaboration with WHO, UNFPA, ICM, and others, MCHIP supported the expansion of midwifery in selected countries, contributed to midwifery symposia (Women Deliver 2013), and provided TA on the State of the World's Midwifery Report in 2011 and 2014. MCHIP worked closely with global- and country-level partners to promote skilled attendance at birth and midwifery models of care by advocating for the professionalization of midwife cadres in country contexts. In addition, MCHIP partnered with ICM to create, disseminate, and promote outreach materials on ICM's core focus on education, regulation, and association at ICM global and regional events.

As an implementer in RMC, MCHIP has made important progress in advancing RMC globally by developing and disseminating program tools, templates, and other materials to address factors compromising the quality of MNH care. MCHIP launched the RMC toolkit on K4Health⁴² in June 2013, introducing RMC implementation materials to a broad audience and providing needed guidance to program implementers looking to strengthen RMC in their countries. As of April 2014, there were 1,624 toolkit site visits with 6,805 pages viewed by people from 106 countries. Additionally, MCHIP has supported specific countries—namely **South Sudan, Pakistan, Yemen, Tanzania, Mozambique, and Ethiopia**—to integrate RMC activities with their work.

Consistent with its role in supporting and engaging in global advocacy efforts to elevate the importance of RMC with the White Ribbon Alliance and other collaborating partners, MCHIP led an April 2013 interagency workshop to help address the need for an illustrative set of RMC indicators. One important output of this workshop was an “Indicators Compendium,” RMC indicators that have been, and are being, used in MNH programs around the globe. Another key result of this RMC measurement workshop is that CSHGP grantees have included a set of RMC indicators in baseline surveys and indicators are being included in the revised MNC module of the KPC survey.

One key result of MCHIP's efforts to look at the development of RMC measurement approaches for routine program implementation, including creation of a logical framework, is that WHO is taking the leadership in this area and MCHIP continues to be an active participant. Also significant, MCHIP has produced materials for inclusion in the toolkit that support a shift away from medicalization of care. Other products that have expanded the evidence base on the use of unindicated and inappropriate practices include QoC research related to RMC, such as a poster showing study data on the quality of RMC, which was presented at the 2012 Global Maternal Health Conference in Arusha. A planned manuscript on this same topic will be developed and disseminated to inform best practices on the implementation of RMC. Finally, MCHIP collaborated with TRAction to develop a module to address RMC in pre-service and in-service training.

Finally, under MCHIP, the JHU IIP developed an evaluation methodology to model the impact of investments in PSE on reduced morbidity and mortality, and in PY6 Q3 published a manuscript in [*PLOS One journal*](#) on estimating lives saved through this investment in midwifery education.

⁴² <https://www.k4health.org/toolkits/rmc>

Africa Champions Program

In PY4, 5, and 6, MCHIP worked in collaboration with USAID, WAHO, ECSA, and WHO/AFRO to develop MNH champions in Africa for advocacy and training. This activity was designed to cultivate MNH champions to promote policies, practices, and programs that will help achieve MDGs 4 and 5 in their respective countries and regions through advocacy and action.

A cohort of 30 technical experts from 10 countries in West Africa and East/Southern Africa were selected in PY4 out of over 100 applicants. The 10 country teams of three champions each come from **Kenya, Liberia, South Sudan, Uganda, Zambia, Benin, Guinea, Madagascar, Mali, and Senegal**. E-learning courses and three regional workshops (three Anglophone trainings for the five East/Southern Africa champion teams and three Francophone trainings for the five West Africa champion teams) were held for the champions to develop skills to create country action plans, and action plans were refined for improving MNH outcomes in their respective countries. The trainings took place in PY4 and PY5 and included:

1. Clinical training update and standardization
2. Training and education competencies
3. Advocacy and technical updates in the prevention of mother-to-child transmission of HIV (PMTCT) and MIP

In PY5, champions led trainings in BEmONC, PMTCT, and long-acting, reversible contraception (LARC) and participated in evaluations of postabortion care (PAC) programs and integration of FP and cervical cancer screenings in their respective countries. Also in PY5, representatives of five of the 10 champions teams submitted and received acceptance of abstracts for presentations that took place in PY6 at the June 2014 ICM Triennial Congress. In PY6, MCHIP provided remote and regional TA to follow up with the champions' progress in-country and document their impact.

Challenges and Way Forward

As a key contributor to WHO recommendations on PPH, MCHIP's wide-ranging advocacy and programmatic work, in particular the introductory PPH prevention programs and the integrative review article on community-based distribution, will add to the growing body of evidence supporting advance distribution of misoprostol for self-administration at home birth. Ultimately, the impact of MCHIP's multifaceted efforts to promote misoprostol at home birth will be to ensure that more women are reached with this lifesaving intervention, regardless of where they give birth.

Future programming should continue the expansion of PPH prevention at home births and general PPH and AMTSL quality improvements, supporting the scale-up of this vital intervention through country TA and the measurement of coverage through the uterotonic estimation exercises.

Given that MCHIP's innovative approach to arriving at national-level UIIFB estimates was deemed feasible, transparent, and acceptable to stakeholders, MCHIP introduced this methodology in **Mozambique, Tanzania**, the state of Jharkhand in **India**, and **Yemen**. This exercise provided an important opportunity to use the commodities as a tracer to focus on health system issues that result in poor coverage and availability, and bring attention to the importance of maternal health metrics to track progress. This exercise also provided guidance on how to take action at the country level, with the goal of spurring efforts to ensure that key data on commodity use and availability are part of the national HMIS. If widely utilized in future projects, this methodology has the potential to help countless countries identify appropriate interventions to address health system gaps, including information gaps and opportunities to improve national-level metrics for maternal health, and to promote increased

access to and availability of these lifesaving commodities. The exercise in Jharkhand, India resulted in the recognition of a need for a comprehensive PPH program, including community-based distribution of misoprostol, and government representatives from 10 states attended a workshop held by MCHIP on how to implement such a program.

In the area of PE/E, country-level TA should continue to focus on improving the quality of management of PE/E and appropriate administration of MgSO₄. There should be a more comprehensive approach to PE/E programming at global, regional, and country levels, promoting approaches for prevention, early detection, and better management.

Future RMC programming should build on current momentum by expanding QoC study methodology to incorporate questions looking at RMC, as has been done for the **Pakistan** QoC assessment carried out in April 2014. The **Pakistan** team also conducted a Maternal and Neonatal Refresher Training for the first three days of the QoC observer training that included an RMC presentation and discussion. Future projects should also contribute to efforts under way for the refinement of research and measurement methods to determine prevalence of RMC and D&A, as the global community grapples with how to define these topics. Additionally, task sharing and task shifting and the refinement of midwifery scope of practice should continue to be promoted at country levels.



Newborn Health

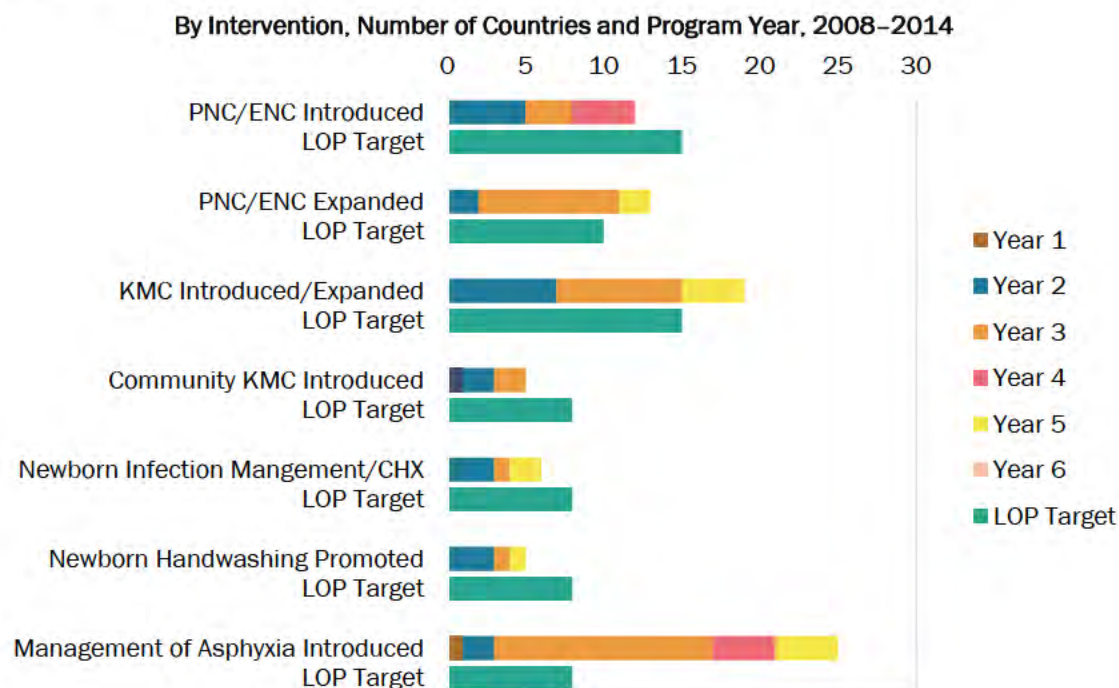
Introduction

From 2008–2014, MCHIP’s newborn health strategy focused on the introduction and expansion of access to evidence-based newborn interventions that address the three main causes of newborn mortality: birth asphyxia, preterm births, and newborn infections. Over these six years, MCHIP provided technical leadership to global newborn health advocacy and policy efforts, while also providing targeted TA at regional and country levels to increase coverage of these high-impact interventions.



Key achievements include: MCHIP’s leadership in planning the first-ever global conference on newborn health, which catalyzed follow-on action in numerous countries; support to the development of the Every Newborn Action Plan; introduction and expansion of facility and/or community-based Kangaroo Mother Care (KMC) in **20** countries; introduction and expansion of *Helping Babies Breathe* (HBB) in **25** countries with MCHIP support since 2010; essential newborn care and/or PNC home visits introduced in **12** countries and expanded in **13**; development of an essential newborn care curriculum, *Essential Care for Every Baby* (ECEB), to complement HBB; and increased country interest in four critical newborn health commodities—antenatal corticosteroids (ACS), chlorhexidine (CHX) for umbilical cord care, newborn resuscitation and a simplified antibiotic treatment (SAT) regimen; introduction of newborn infection/sepsis prevention and management in **six** countries; and the promotion of handwashing for newborn survival in **five** countries.

Figure 13. MCHIP-Supported High-Impact Newborn Health Interventions



It is important to note that these achievements were not realized by MCHIP alone but, rather, through collaboration and coordination with global-, regional-, and country-level partners. Since the program began in 2008, MCHIP helped shape the global technical agenda for the management of newborn birth asphyxia by working with USAID, the American Academy of Pediatrics (AAP), and other HBB GDA partners. The HBB GDA has served as a platform to improve birth asphyxia management and strengthen ENC in over 60 countries as of 2014, with MCHIP directly implementing or providing TA to HBB in 25 of these countries.

In addition, MCHIP benefited from the extensive experience and valuable lessons learned from the USAID-funded ACCESS Program and Save the Children's Saving Newborn Lives program. Last but not least, MCHIP worked closely with MOHs in almost every country, except for in those countries where USAID advised otherwise, such as Mali, Madagascar, South Sudan, and Zimbabwe.

Key Achievements and Results

Global Leadership

MCHIP's strategic and collaborative engagement of key partners, in both the public and private sectors, at global and regional levels over six years helped to increase momentum globally in support of newborn health. MCHIP played the lead role in organizing the **first-ever Global Newborn Health Conference (GNHC)** in April 2013, which brought together more than 450 researchers, health officials, policymakers, experts, and advocates from over 50 countries. They reviewed the progress made toward reducing newborn deaths and discussed what could be done



Photo credit: Rachel Taylor/MCHIP

Global Newborn Health Conference:
HBB skills session, April 2013

to address challenges in countries where the needs are greatest. The participants, including 70 officials representing health ministries from around the world, agreed to support the development of a new global action plan aimed at reducing the annual global death toll of nearly three million babies during the first month of life. The formal conference was followed by a one-day planning session in which multi-organization country teams (with representatives from MOHs, MCHIP, SNL, USAID, BMGF, and UNICEF) discussed their specific national strategies for scale-up of priority newborn health interventions. These discussions continued after the conference and connected newborn health programming with resources and political commitment associated with the UN Secretary General's global Every Woman/Every Child strategy, A Promise Renewed Call to Action to eliminate preventable child deaths, and the UNCoLSC. After returning from the conference, India announced significant policy changes to scale up the use of several key interventions including antibiotics to treat infections, ACS for preterm labor, and KMC for low birth weight (LBW) and premature babies. In addition, MOH representatives from Zambia, Liberia, Sierra Leone, Mozambique, and Yemen also indicated their intention to expand use of one or more proven interventions as a result of evidence and country experiences shared at the conference.

The conference also leveraged technology and social media to reach a much larger audience than the 450 individuals in attendance. Plenary sessions were live cast over the Internet, drawing a large international audience with over 16,000 views of the webcast in 90 countries. In addition, satellite viewing parties were held across the globe, including in Bangladesh, India, Nepal, and Madagascar. With more than 28,000 contributors on Twitter, online conversations regarding newborn health reached 48 million people around the world.

Importantly, the GNHC also served as a launch pad for the **Every Newborn Action Plan** (ENAP), which takes forward the UN Global Strategy for Women's and Children's Health by focusing specific attention on newborn health. UNICEF, WHO, PMNCH, USAID, MCHIP, Save the Children, BMGF, as well as other partners and representatives of health ministries in more than 20 low-income countries, have led the development of this plan. MCHIP Newborn Health Team members served on the global Core Team as well as the global Advisory Group. MCHIP provided TA to select country-level bottleneck analysis results, catalyzed country action to advance newborn health, and informed the global ENAP document. In May 2014, the ENAP was officially endorsed at the World Health Assembly and launched one month later at the Partnership for Maternal, Newborn & Child Health (PMNCH) Partners' Forum in Johannesburg, South Africa. The global document and country-level plans will provide guidance and momentum for improving newborn survival through 2015 and beyond.

Care for Preterm and Low Birth Weight Newborns

KMC, a proven method for managing premature and LBW newborns, is a key intervention that MCHIP introduced or strengthened the use of in **20 countries** over the life of the program. In addition to direct implementation support at the country level, MCHIP provided technical leadership to the development of implementation guidance and tools, and documented the facilitators and barriers to KMC implementation through country and regional assessments.

The rapid adoption of KMC services in Liberia offers one example of MCHIP's catalytic influence at the country level. In the West African nation, MCHIP supported the MOHSW to undertake a newborn health situation analysis in 2011, then applied SNL's scale-up readiness benchmarks in tandem with MCHIP's scale-up maps in a consultative process with key newborn stakeholders in September 2012. Based in large part on these efforts, which prioritized the establishment of KMC services, the MOHSW officially endorsed KMC "at National, Regional, County and health facility levels to ensure survival and optimal development of preterm and low birth weight babies" in 2013. Beginning in April of the same year, MCHIP and Save the Children established KMC units in five hospitals across three of the country's most populous counties

(Montserrado, Bong, and Margibi). In February 2014, an external consultant supported by MCHIP visited Liberia to review the status of KMC start-up and implementation in the five hospitals and provide recommendations to improve KMC services and expand them to other facilities in the country. Key findings focused on the need to continue to strengthen the quality of KMC care in the five facilities—especially through increased human resources—and noted that a seamless network of services for LBW infants was lacking and would be necessary to ensure that the provision of care meets the entire spectrum of LBW infants’ needs. The introduction of KMC messaging during ANC and development of a postnatal network for LBW babies requiring follow-up outside of facilities would strengthen and optimize implementation of KMC across the continuum of care.

Achieving high KMC coverage has proven a challenge in most countries, even for those that have been implementing KMC much longer than Liberia. **To document and understand the facilitators and barriers to effective implementation of KMC at scale**, MCHIP and partners undertook two regional assessments: one in Africa in 2012 ([Malawi, Mali, Rwanda, and Uganda](#)), and one in Asia in late 2013 (Bangladesh, India, Indonesia, Pakistan, and the Philippines; these findings will be finalized and published under USAID’s Maternal and Child Survival Program). Using an implementation progress model developed by the South African Medical Research Council’s Unit for Maternal and Infant Health Care Strategies, key findings included the need to integrate KMC into routine newborn care services, strategies, budgets, and plans to achieve quality at scale. Although the quality of KMC varied among facilities in all four African countries, key drivers of quality across the board included: “1) the quality of KMC training and in-service orientation for health workers; 2) the intensity of supervisory support; and 3) the ability to integrate KMC into existing quality improvement activities.”⁴³ A report on the Africa assessment was shared at the International KMC Conference in India in November 2012, and, in June 2014, [an article on the findings](#) was accepted for publication in *BMC Health Services Research*.

The Africa results were also shared at the GNHC in Johannesburg in April 2013, during which presentations and discussion of KMC featured prominently. It was in Johannesburg that MCHIP, SNL, BMGF, and WHO colleagues agreed to “reinvigorate” the KMC working group to harmonize and accelerate each partner’s efforts to scale up KMC implementation. Membership was expanded to include participants from the *Born Too Soon*-initiated preterm care group, and the new KMC TWG agreed to hold a global consultation in Turkey in October 2013. A key output from the meeting was a consensus statement by participants that called for KMC’s adoption and acceleration, and defined success as “augmented and sustained global and national level action to achieve 50% coverage of KMC among preterm newborns by the year 2020 as part of an integrated RMNCH package.” To achieve this goal, participants—including MCHIP global- and country-level newborn experts—highlighted nine necessary actions in what has been termed the “Istanbul Call to Action.”

⁴³ MCHIP/SC-SNL/MRC/University of Pretoria. Tracking Implementation Progress for Kangaroo Mother Care, 2013.

Figure 14. Istanbul Call to Action

Istanbul Kangaroo Mother Care Acceleration Meeting—October 2013—Call to Action:

- I. Revise WHO KMC guidelines and country-level government health agendas and policies to define KMC as standard of care for all preterm newborns.
- II. Incorporate high-quality KMC in national RMNCH and nutrition policies, plans, and programs.
- III. Engage health professional associations in high-income countries to adopt KMC as standard of care, to mitigate beliefs that KMC is only for low-income countries.
- IV. Address local and context-specific cultural barriers in the design of KMC guidelines, protocols, and education.
- V. Rally communities and families to support mothers in the practice of KMC and address misconceptions and stigma associated with preterm birth, early bonding, skin-to-skin practices, and breastfeeding.
- VI. Improve practitioner uptake of KMC by working with professional associations, Ministries of Health, and traditional leaders, who can work with local providers to overcome barriers related to workforce, skills, and cultural norms.
- VII. Develop a unified advocacy narrative that culturally and medically normalizes KMC, with messages that can be adapted in different contexts.
- VIII. Measure our progress against our definition of success, using robust metrics and indicators.
- IX. Conduct research to better understand optimal timing, duration, and conditions for KMC, its impact on development and survival segmented by gestational age, how to tackle barriers to KMC practice, change provider behaviors, and cost analyses of establishing KMC services.

Source: Engmann C et al. 2013. Consensus on kangaroo mother care acceleration. *Lancet* doi: 10.1016/S0140-6736(13)62293-X. Epub Nov 16. S0140-6736(13)62293-X

In preparation for the Istanbul meeting, MCHIP and SNL undertook another multi-country KMC review, this time in Asia: in **Bangladesh, India, Indonesia, Pakistan**, and the **Philippines** (the latter with WHO support). Preliminary findings were shared in Istanbul, while additional analysis was conducted and individual country reports were prepared and a draft consolidated report completed in June 2014. Findings indicate similar challenges, barriers, and opportunities as those observed in Africa. In Asia, it was also noted that there appear to have been three “phases” of uptake of KMC in facility-based services, albeit in different fashions. The first two phases—around the millennium and then between 2007 and 2012—correspond with Jeremy Shiffman’s (2010) observation of increased focus on and funding for newborn survival starting around 2005, with the publication of the Neonatal Survival Series in *The Lancet*. A third phase was observed to be currently under way, which commenced with the *Born Too Soon* report in early 2013 and the initial introduction of the global ENAP in the same year. MCHIP’s substantial involvement in these second and third phases—through policy and implementation support to 20 countries as well as through global technical engagement in Born Too Soon, ENAP, and the Istanbul meeting—are evidence of the program’s successful advocacy and leadership at both country and global levels.



Photo credit: Ida Neuman/
Laerdal Global Health

MCHIP-supported Francophone HBB
training in Senegal, December 2012

Newborn Resuscitation

MCHIP played a pivotal role in the launch and expansion of the HBB initiative, beginning in 2010 at its inception as a USAID GDA. MCHIP has supported the introduction and implementation of HBB to address birth asphyxia in 25 countries on four continents, primarily through in-service training and site strengthening; MCHIP also supported mentoring, supervision, and the incorporation of HBB into pre-service education in selected countries. At the global level, MCHIP supported the initial training of trainers (TOTs) in HBB in Washington, D.C., in 2010 at the launch of the GDA, and the field-testing of HBB training materials in **Bangladesh** and **Kenya**. Thereafter, MCHIP supported regional TOTs in Anglophone Africa (**Ethiopia** 2011), Asia (**Bangladesh** 2012), Francophone Africa (**Senegal** 2012), and LAC (**Nicaragua** and **Paraguay** in 2011, **Trinidad** in 2012). Over the life of the project, MCHIP trained 25,007 participants in HBB (see Annex 3/PMP for details).

In addition to these activities, MCHIP provided financial and technical support to the AAP to develop supplementary HBB materials, including the *HBB Implementation Guide*. In the final year of MCHIP, AAP used program funds to engage an external consultant to chronicle the development of the HBB GDA and document the contribution of the GDA and its individual members, both at the country and global levels, to the adoption and scale-up of HBB in less-developed countries. It is expected that the findings from this exercise will be published early in 2015.

Two of the 25 MCHIP-supported countries—**Bangladesh** and **Malawi**—were selected for evaluation of the quality, coverage, and impact of HBB on newborn mortality. To complement these assessments, MCHIP engaged an external consultant to document the processes of HBB introduction and scale-up in order to capture lessons learned and identify recommendations to strengthen and guide the implementation of HBB. The process documentation exercise resulted in three reports: one for each country and a synthesized report that provided overarching recommendations, including the following:

“Investments in health system components that support HBB must be given priority equal to training and provision of equipment. HBB is described as a training program and scale-up efforts are prioritizing in-service training and equipment provision. Additional components such as partnership and financing structures, monitoring, and supervision and mentoring, demand equal priority. HBB may not succeed at scale until it develops a broader scope.”⁴⁴

The two-country synthesis reports also provided detailed recommendations for each of the following phases of HBB scale-up:

- Phase One: Preparing for scale-up:
 - Policy development leading to adoption of HBB
 - Macro-level planning: development of the HBB scale-up plan
 - Funding, inputs, and partnerships for HBB scale-up
 - Adaptation of HBB for the local context
- Phase Two: Implementation of scale-up:
 - HBB education
 - HBB equipment and logistics

⁴⁴ McPherson R. 2014. *A Joint Process Documentation of the Scale-Up of the Helping Babies Breathe Initiative in Bangladesh and Malawi*. MCHIP, published to www.mchip.net.

- Supervision of the provision of HBB
- Monitoring of HBB scale-up
- Phase Three: Institutionalization of HBB:
 - Assessment of implementation status
 - Integration and sustainability

It is anticipated that the lessons learned from Bangladesh and Malawi regarding their successes and challenges in scaling up HBB—as well those documented by MCHIP in 23 other countries—will be taken forward by MOHs, HBB GDA members, USAID’s Maternal and Child Survival Project, and other partners in order to implement quality newborn resuscitation at scale.

Essential Newborn Care

Postnatal Care Home Visits

In 2009, WHO and UNICEF published a Joint Statement on the use of PNC home visits to increase newborn survival. Leveraging this statement and the evidence that community-based interventions reduce newborn mortality, MCHIP supported MOHs to introduce or strengthen structured PNC home visits in **eight** countries over the life of the program.

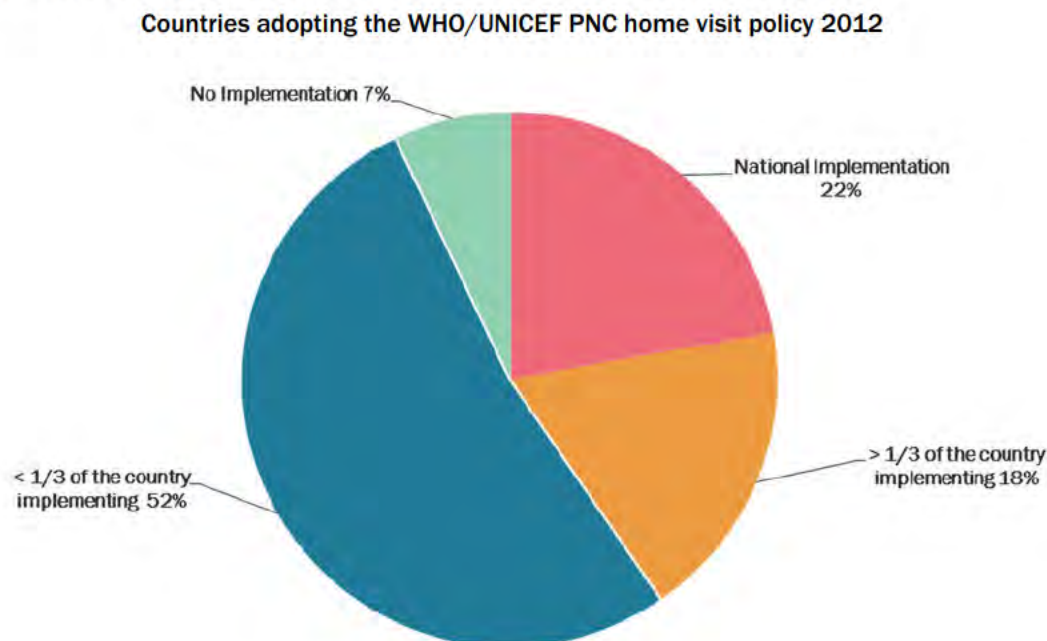
In February 2012, WHO convened a technical consultation, with support from MCHIP and others, to assess country progress in implementing the Joint Statement. In preparation for this consultation, MCHIP and SNL conducted a detailed review of PNC home visits in five countries (**Malawi, Nigeria, Rwanda, Bangladesh, and Nepal**) in 2011. These reviews included document and data review, country visits, and interviews with central MOH staff and stakeholders. Country-specific reports were written and a [synthesis report](#) compared and contrasted each country’s progress in the adoption and rollout of programs on the ground, including lessons learned. Selected findings from the PNC home visit synthesis report include:

- In early implementation areas, upward trends are noted in facility-based deliveries, deliveries with a skilled provider, and early PNC contacts for the mother and newborn—although the relative impact of community approaches on performance in each of these areas cannot be quantified. Improvements in early PNC home visits in implementation areas have so far been modest. An increasing proportion of deliveries by skilled providers have contributed more to improvements in early PNC contacts than home visits by CHWs.
- It remains a challenge to get CHWs to make household visits in most countries for a number of reasons. Early home visits—on the first day after delivery—remain the most difficult to achieve. A number of strategies to improve early household contacts have been used. The feasibility of achieving three PNC home visits in the first week of life needs to be further investigated.
- Quality of facility-based care is an increasingly important concern among program managers in countries implementing community maternal and newborn packages. An increase in demand for facility deliveries and referral care for sick mothers and newborns has placed increasing pressure on facilities. More data are needed on QoC, gaps, and approaches to addressing these gaps.
- Long-term sustainability will require an increasing shift of human, material, and financial resources to government systems required to train and support CHWs. So far, this has generally only been possible in most countries with the support of development partners.

In addition to this in-depth five country review, MCHIP supported WHO to administer an online survey to 53 countries regarding their PNC policies. Similar findings were reflected, i.e.,

that while many countries had established a policy, less than one-quarter were implementing that policy at scale.

Figure 15. Status of Implementation of Postnatal Care Home Visits Policy, 2012

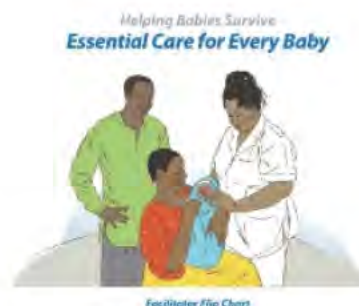


Source: WHO Internet survey of PNC policies, 2012.

Data and findings from both exercises were synthesized with MCHIP support and a journal manuscript was submitted to the *WHO Bulletin* in late 2014. It is expected that USAID's Maternal and Child Survival Program, together with SNL, will use these findings to inform additional OR on PNC home visits for newborn survival and to adjust implementation strategies at the country level.

Essential Care for Every Baby

To address an identified gap in the ENC elements of the HBB curriculum, MCHIP collaborated with neonatologists and the AAP to develop the **ECEB** module of the *Helping Babies Survive* (HBS) curriculum. ECEB focuses on ENC services that health workers should provide in the first day of life and necessary preparation of the family for care of the newborn at home. ECEB is based extensively on the WHO ENC course, and materials are presented in a format similar to HBB, including a facilitator flip chart, action plan, simulated skill practices, observed structured clinical examinations (OSCEs), and knowledge test, plus a parent guide. MCHIP provided technical facilitation of the entire curriculum development process, technical review of documents, as well as financial support to hire the



After immediate care at birth
**Continue skin-to-skin care
and monitor breathing**



To keep babies warm and identify problems early

educational designer and to convene meetings to review the draft materials. ECEB was field-tested by other partners in India and Kenya, with support from Laerdal Global Fund, demonstrated to WHO via an MCHIP-funded course in **Uganda** in January 2014, and used to train master trainers from 10 countries in a regional workshop in **Ethiopia** in May 2014. It is anticipated that the Maternal and Child Survival Program will support ECEB—and other modules of the HBS curriculum—to be taken up by countries interested in strengthening their ENC training programs.

Newborn Infection Prevention and Management

Management of Newborn Infection/Sepsis

To reduce the number of newborn infants dying as a result of infections, MCHIP exercised its global leadership through the Handwashing with Soap for Newborn Survival GDA and through participation in UNCoLSC working groups on 7.1% chlorhexidine digluconate (CHX) for umbilical cord care and simplified antibiotic treatment regimen; supported country introduction of CHX; and attempted to catalyze management of newborn infection at community and peripheral health facility levels.

In northern **Nigeria**, MCHIP succeeded in initiating a program to implement—and document—the management of newborn sepsis at peripheral health facilities. In partnership with the FMOH, the Nigerian Society of Neonatal Medicine (NISONM), SNL, and others, MCHIP supported a rapid situation analysis in areas where neonatal infection management services would be improved. Sites were selected, training was conducted, and services established. Unfortunately, due to the deteriorating security situation in the north—and the conclusion of the field-funded MCHIP Nigeria program—final data collection could not be completed nor could MCHIP identify a qualified consultant to deploy in order to conduct a program review.

However, lessons learned during the short period of implementation in **Nigeria** did help to inform the development of guidance documents developed at the global level. In Year 4, MCHIP and other newborn sepsis TWG members drafted the *Management of Newborn Sepsis Implementation Guide* and complementary tools. However, they held back finalizing and publishing the guide through Year 6 in order to await—and align MCHIP's implementation guidance with—WHO's updated recommendations resulting from their multi-country study of simplified antibiotic regimens (for which MCHIP provided TA to the development of the study protocol). It is anticipated that USAID's Maternal and Child Survival Program, SNL, and other partners will be able to draw upon the draft guidance prepared by MCHIP to undertake OR on the management of possible severe bacterial infections in newborns at peripheral facility levels.

Handwashing with Soap for Newborn Survival

Through a GDA on *Handwashing with Soap for Newborn Survival* established in 2011, MCHIP worked with USAID and Unilever/Lifebuoy to meet the challenge of saving newborn lives through improved handwashing practices at birth and during the first month of life. The two key activities were to: 1) conduct formative research into handwashing practices in the neonatal period in order to understand motivators, barriers, and facilitators to handwashing; and b) develop materials for context-specific behavior change activities. MCHIP-supported formative research was undertaken in [Bangladesh](#) by the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b), in [Indonesia](#) by the LSHTM, and in [Kenya](#) by the Urban Research and Development Centre for Africa (URADCA).

Findings from each country—plus one additional USAID-funded study in Bangladesh—were compared, synthesized, and published in a separate [program report](#) that “identified overlapping themes that transcend cultural and geographic diversity, and provide a basis for

development of interventions to promote handwashing in the perinatal period.”⁴⁵ Three priority insights from the MCHIP-supported synthesis report include:

- *Mothers wash hands because of motivators other than health.* Consistent with the findings from numerous formative research studies, data from Bangladesh, Indonesia, and Kenya found that mothers wash their hands due to a variety of motivators other than health, including disgust, comfort, aspiration, and nurture. The desire to keep their babies clean is equally as motivating as mothers’ desires to *appear* clean, suggesting the power of social norms in shaping mothers’ perceptions and handwashing behavior.
- *Conveniently located handwashing materials facilitate maternal handwashing.* Mothers who are cocooned with their newborns for religious or cultural reasons, or who do not have access to handwashing materials in close proximity to where they spend time with their babies, cannot wash hands because of inconvenience or the lack of visual cues.
- *New mothers are busy people and that lack of time (perceived or actual) prevents them from washing hands.* Mothers who do not have assistance from family members for household chores or care for older children have particular difficulty with washing hands. They do not have time to step away from the newborn or the home to find handwashing materials. A lengthy list of different critical times for handwashing may be too impractical to be followed by busy mothers.⁴⁶

USAID’s new Maternal and Child Survival Program, with support from Unilever and partners, will take forward learning from Kenya to further identify and document the most effective intervention or suite of interventions for increasing frequency of handwashing by caregivers before handling the newborn during the first 28 days of life.

Chlorhexidine for Umbilical Cord Care

MCHIP made a catalytic core investment to introduce CHX for umbilical cord care in **Liberia**, where MCHIP’s Year 4 core-funded newborn health situation analysis recommended, among other actions, that the MOHSW “adapt the use of chlorhexidine [CHX] 4% application to the umbilical stump to replace the current practice of alcohol application or leaving the cord clean and dry.” Less than one year later, through a national stakeholder process supported by MCHIP, the Liberia MOHSW did endorse CHX for cord care.⁴⁷

Liberia’s national EML previously listed chlorhexidine digluconate in different concentrations and as a general antiseptic; the MOHSW endorsement of CHX for umbilical cord care should help expedite the inclusion of 7.1% chlorhexidine digluconate onto the EML. Given that local production was not feasible, MCHIP helped to secure funds through



A midwife teaches a mother how to apply chlorhexidine to her baby’s umbilical cord stump in Monrovia, Liberia (2013).

⁴⁵ Ibid, page 8.

⁴⁶ Ram P and Kuman S. 2014. *Handwashing in the Perinatal Period: Literature Review and Synthesis of Qualitative Research Studies from Bangladesh, Indonesia, and Kenya*, page 13. MCHIP, published to www.mchip.net

⁴⁷ Ministry of Health and Social Welfare, Republic of Liberia. Policy on the Use of Chlorhexidine for Cord Care. Adopted April 2013.

Save the Children from the UNCoLSC's CHX working group budget to purchase three initial orders of CHX from a manufacturer in Nepal. MCHIP supported the distribution of the CHX to five hospitals and nine clinics in Montserrado County, where approximately one-third of Liberia's population resides. Subsequently, partners, including UNFPA, UNICEF, and the USAID bilateral – Rebuilding Health Services (RBHS), pledged financial support to allow for further expansion of the intervention in the counties and facilities that they support.

The rapid introduction of CHX in Liberia is a prime example of the powerful synergy between MCHIP's global leadership role—as a member of the UNCoLSC CHX working group and as co-organizer of the GNHC, to which it supported the Liberia delegations' attendance—and MCHIP's credibility and relationships at the country level. Looking forward, the MOHSW and implementing partners in-country must focus efforts and resources to address the sustainability of the intervention; cost of the product itself and related HSS inputs; procurement; integration of intervention into ANC clinics; and M&E of the intervention. More details will be found in an upcoming report from a qualitative assessment conducted by an external consultant.⁴⁸ These findings were shared with the global CHX working group of the UNCoLSC in May 2014, in order to inform introduction and implementation in other countries taking up this new intervention.

Challenges and Way Forward

At the country level, a recurrent challenge was health facilities' and their larger systems' inability to accurately capture relevant data to monitor, and then adjust, the delivery of quality newborn health services. Future programs and partners should continue to participate in the Newborn Indicators TWG, support testing and validating of key newborn health indicators, and share country experiences through the TWG and relevant COPs to inform the uptake of indicators in other countries. Programs should emphasize data use, in addition to data collection.

At the global level, the tension between MCHIP's readiness to take forward certain interventions—based on its own experience and evidence presented in the literature—and the desire to wait for WHO's formal recommendations to be released often presented a challenge. While this challenge will likely persist, USAID's Maternal and Child Survival Program and other partners would benefit from focusing on working with countries on *how* to apply relevant WHO guidance in their particular settings.

MCHIP did not succeed in gaining traction with USAID Missions or MOHs to prioritize programming for newborn sepsis management. Given the significant proportion of newborn deaths attributable to infection and sepsis, this warrants renewed attention and additional resources under the Maternal and Child Survival Program and partners in the future.

Finally, as reflected in the findings of the HBB process documentation exercises in **Bangladesh** and **Malawi**, and the two regional KMC assessments in Asia and Africa, the intense focus on training and site strengthening for both interventions, while warranted, is not sufficient to achieve implementation at scale. Future programs and efforts—notably the full suite of HBS learning materials—should take a broader, health systems strengthening approach.

⁴⁸ This report, written by Anne-Marie Bergh, will be published and available in 2015 on www.mchip.net.



Child Health

Introduction

MCHIP played an important role as a global leader for population-level improvements in child health (CH), focusing specifically on MDG 4, which calls for a two-thirds reduction in child mortality by 2015. MCHIP advocated for and supported the scale-up of high-impact interventions addressing the three main causes of child mortality—pneumonia, diarrhea and malaria. MCHIP worked with key CH partners at global and country levels on service delivery efforts and collaborated with WHO, UNICEF, the BMGF, and the Clinton Health Access Initiative (CHAI) on the project's CH activities. Collaboration encouraged harmonized decision-making and investments in and leveraging of resources at the country level. MCHIP was the Secretariat for the Global CCM Task Force (TF) and served as an active participant in other key global working groups and initiatives, including the Pneumonia/Diarrhea Working Group, GAPPD, the UNCoLSC, and the Call to Action for Child Survival/A Promise Renewed (APR). MCHIP's Child Health Team was led by John Snow, Inc. (JSI) and included technical experts from Save the Children, PSI, ICF International, CSHGP Support Team, and CORE Group.



MCHIP effected change in CH by advocating globally and at the country level for: 1) the introduction and scale-up of iCCM for pneumonia, diarrhea, and malaria in young children; 2) the revitalization of ORT and use of low-osmolality ORS and zinc in diarrhea treatment, including the re-classification of zinc as an over-the-counter drug in several countries; 3) policy change to allow CHWs to use zinc in diarrhea case management and antibiotics in the treatment of pneumonia; 4) the strengthening of facility-based CH services; and 5) the leveraging and coordination of support to achieve greater impact on infant and child mortality at scale.

Key Achievements: Global Level

Global Leadership and Program Learning for the Introduction and Scale-Up of iCCM

MCHIP contributed in different ways to global child survival initiatives and partnerships that aim to accelerate progress toward MDG 4 and the ambitious post-MDG goal of ending preventable child death in all countries by 2035.

Global CCM Task Force and CCMCentral.com: At the start of MCHIP, no formal mechanism existed to organize, coordinate, or provide guidance to countries interested in adopting or scaling up iCCM. USAID, with support from MCHIP, played a key role in the creation of the Global CCM TF, a collaborative body of organizations that raised the profile of iCCM and worked to more effectively leverage and coordinate resources toward its expansion. MCHIP's role as secretariat has been critical not only to the effectiveness of the broader TF, but also in supporting the CCM TF Steering Committee (WHO, UNICEF, USAID, Save the Children, and the Secretariat) to develop the vision and set the global TF agenda of

harmonizing tools, sharing learning, and identifying opportunities to leverage resources for iCCM implementation at the country level. MCHIP coordinated the work of thematic subgroups that compiled the body of evidence and existing tools to guide country uptake and implementation of iCCM, generated new learning, and developed new tools, including *CCM Essentials: a Guide to Planning and Implementing iCCM*, new CHW training and supervision materials and job aids, the *iCCM Benchmarks Framework*, the generic *iCCM Implementation Guide*, and the *iCCM Indicator Guide*. Tools compiled and generated by the TF were made available at www.ccmcentral.com, which was also developed and managed by the MCHIP CH Team. MCHIP used these tools for MCHIP-supported countries and used the TF to advocate for the use of these tools by other partners to guide implementation, scale-up, and monitoring in all country iCCM programs.

iCCM Joint Statement and GAPPD: In 2012, MCHIP made substantive contributions to the development and release of the joint iCCM advocacy statement spearheaded by WHO, UNICEF, and USAID and endorsed by a variety of other CH partners. The CH Team also played a significant role in developing The Global Action Plan for the Prevention and Control of Pneumonia (GAPP), which was launched in April 2013 in Geneva, London, and Washington, D.C., along with a related *Lancet* series on childhood prevention of pneumonia. Following the release of GAPP, four regional meetings were held in Nairobi, Rwanda, Senegal, and Bangladesh to update countries on iCCM evidence. At these meetings, MCHIP led the effort to include diarrheal disease as part of the GAPP. As a result of MCHIP's efforts, the GAPP became The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPPD). The GAPPD was the first attempt to develop a coordinated plan of action to prevent and treat diarrhea and pneumonia. Follow-up in **Zambia** resulted in supporting an assessment to identify key bottlenecks to rolling out revised policy on low osmolality ORS and introduction to zinc. The results have informed the development of the new strategic plan to strengthen IMCI.

Learning from Country Scale-Up: At the start of MCHIP, both grey and peer-reviewed literature lacked systematic documentation of iCCM implementation findings and best practices. Through the OR subgroup of the CCM TF, MCHIP supported the development and publication of 15 papers on iCCM for the Journal Supplement of the *American Journal of Tropical Medicine and Hygiene* (AJTMH). Working with the TF, MCHIP and partners developed a set of benchmarks for monitoring the scale-up of iCCM using eight key program components. They then used this framework to guide the documentation of scale-up experiences in two countries—**Senegal** and **DRC**. Subsequently, findings were combined with those from Malawi in a three-country synthesis publication that summarized lessons learned. The synthesis was designed for and shared with program planners, implementing partners, and governments looking to implement and scale up iCCM. Recommendations from the lessons learned were used by MCHIP's own programming in **Mali, Guinea, Rwanda, Kenya, Zimbabwe, Namibia, and Ethiopia** and were instrumental in helping these countries to monitor progress during early implementation and scale-up.

Global iCCM Evidence Review and CHNRI Process: MCHIP worked with UNICEF and the CCM TF members to organize the iCCM Evidence Review Symposium in Ghana (March 3–5, 2014). The goal of the symposium was to systematically review the current state of iCCM implementation—tools, lessons, and gaps—and to map the way forward for iCCM expansion with the implementers. The symposium, which attracted delegations from upwards of 14 countries, 10 international agencies, and seven NGOs, was both a forum for dissemination of iCCM learning and for defining the agenda for the next phase of iCCM. MCHIP also supported the development of the iCCM research agenda through a Child Health and Nutrition Research Initiative (CHNRI) process on iCCM that was shared at the Symposium. The CHNRI process asked experts to generate and then rank potential research questions that, if answered, would significantly contribute to global learning. The CHNRI process on iCCM has paved the way for

global agreement on key priority areas of research and garnered donor support to improve iCCM implementation and scale-up.

Monitoring and Evaluating iCCM: The need for common indicators to guide and assess implementation emerged in the early stages of iCCM discussions. With MCHIP's leadership, and using the CCM Benchmarks Framework developed early during MCHIP, the TF's M&E subgroup defined, organized, and vetted a comprehensive list of iCCM indicators, and finalized and launched the iCCM Indicator Guide at the iCCM Evidence Review Symposium. MCHIP programs in **Kenya, Mali, Guinea, and Namibia** and CSHGP grantees have adapted elements of the framework for iCCM monitoring. MCHIP also led a review of the state of iCCM M&E in six countries (**DRC, Madagascar, Niger, Senegal, South Sudan, and Zambia**), while the USAID/ TRAction Project reviewed M&E systems in four other countries (Ethiopia, Mali, Malawi, and Mozambique). MCHIP and TRAction developed a synthesis of the learning from these 10 countries, which will: 1) guide further refinement of the iCCM indicators; 2) be used to recommend possible standardization of DHIS II community indicators and data collection methods; 3) support the use of data for decision-making; and 4) and inform future research on the strengthening of routine monitoring of iCCM services and community health programs.

Leveraging New Funding for iCCM: With the Global Fund's 2014 announcement that its New Funding Model would, for the first time, accept applications that included iCCM, the CCM TF became a channel for mobilizing and providing TA to 17 initial countries. MCHIP led efforts in **Kenya, Uganda, Ghana, and Zambia** to review existing iCCM policies and programs, carry out gap analysis to identify unmet financial and programmatic need, and work with MOHs to develop concept notes to the Global Fund to expand iCCM under the malaria and/or HSS funding windows. At the close of MCHIP, these concept notes were pending Global Fund approval.

Advocacy to Increase Coverage of ORT/Zinc

With ORS use either stagnating or on the decline and low zinc coverage in many developing countries, MCHIP supported secondary DHS analysis at the global level to better understand care-seeking and treatment patterns; advocated for policy change to allow the distribution of zinc and antibiotics by CHWs; and used global CH meetings and a webinar series to advocate for the revitalization of ORT, attention to zinc coverage, and policy change to enable CHWs to use zinc and antibiotics in diarrhea and pneumonia treatment.

Advocacy to Increase CCM for Pneumonia

At the start of MCHIP, malaria CCM was rapidly gaining acceptance with support from PMI and the Global Fund, but in many countries there continued to be a lack of supportive policy and resistance to the treatment of pneumonia by CHWs. USAID, through MCHIP, sought to introduce CCM of pneumonia into policy and supported its implementation in high-burden countries, often by building on an existing malaria platform. According to a survey conducted by UNICEF in 2013, 29 countries had national policies that included community management of pneumonia, including the administration of antibiotics by different types of community workers. MCHIP supported the initial introduction and/or scale-up of community case management of diarrhea, malaria, and pneumonia in nine of these 29 countries.

Facility-Based Quality of Care

MCHIP contributed to improving facility-based QoC through its review of existing WHO/UNICEF tools to improve supervision for the treatment of malaria. MCHIP carried out an assessment of training and supervision tools for malaria case management in 13 PMI countries to identify bottlenecks to scale-up of diagnostic testing and treatment guidelines within the context of IMNCI. Key findings included that, in 2013, few countries had step-by-step instructions on how to conduct a RDT or microscopy, and that they lacked instructions for the treatment of severe febrile

disease/severe malaria (beyond confirming the classification of the case). Also, some country materials did not instruct providers to use an RDT to test an anemic child, even though anemia is a key sign of malaria. This review, including recommendations, is documented in *MCHIP Child Health: Inventory of IMCI Training and Supervision Tools in PMI Countries*.

Key Achievements: Country Level

Introducing and Scaling Up iCCM/Advocacy for Pneumonia and Diarrhea Treatment

At the start of MCHIP in 2009, only 10 countries worldwide had adopted the assessment and treatment of diarrhea, malaria, and pneumonia by trained CHWs. According to UNICEF, by early 2014, 29 countries were implementing some or all elements of the iCCM approach. Ten of these countries—**DRC, Ethiopia, Guinea, Kenya, Mali, Namibia, Ethiopia, Rwanda, Zambia, and Zimbabwe**, plus two countries with Associate Awards, **Yemen and South Sudan**—received direct technical and financial support from MCHIP for iCCM. In all of the countries receiving MCHIP technical support, MCHIP consistently supported MOHs in their leadership by developing and participating in CH national steering committees (e.g., **Guinea, Namibia**), community health committees (e.g., the SEC in **Mali**) or CH TWGs with other country partners and MOH divisions and programs. Very few countries had the systems in place to adequately support their CCM programs and each was at a different stage of implementation. This demonstrates that MCHIP's technical support was tailored, country by country, to meet the needs at different phases of implementation.

Advocacy and Planning: MCHIP worked with country stakeholders to advocate for policies that allow CHWs to assess, classify, and treat malaria, diarrhea, and pneumonia, including the use of antibiotics to treat pneumonia and zinc to treat diarrhea. In countries where the MOH and stakeholders were ready to make policy changes, for example in **Mali and Namibia**, MCHIP provided TA for policy change and facilitated discussions among partners to make strategic decisions and jointly plan program implementation. In countries such as **Guinea**, where the MOH demonstrated interest but lacked experience in implementing iCCM programming, MCHIP organized study tours and facilitated experience-sharing. For example, the MOH team and partners from Guinea visited the **Rwandan** MCHIP-supported program and the **Namibian** MOH and partners visited **Ethiopia**. In countries, such as **Kenya**, where controversies around iCCM remain, MCHIP helped build local evidence by working closely with the Government of Kenya on a feasibility study of iCCM in one district. As a first step, the Kenyan Government re-classified zinc as an over-the-counter commodity, which enabled CHWs and drug shops to dispense it with ORS in communities that otherwise would not have access. **Namibia and Mali** are examples of countries that developed policies supporting the provision of the fully integrated CCM (iCCM) package of CHW services during MCHIP's tenure.

Early Implementation: MCHIP worked with ministries and partners to develop national guidelines, develop and revise training materials and approaches, test different models for CHW supervision and support, develop BCC materials and job aids, develop community health information systems, and monitor and evaluate iCCM coverage and effectiveness. This involvement helped standardize the approach to both iCCM and IMCI among countries and implementing global partners. Countries supported by MCHIP during the early implementation phase of iCCM include **Mali** (SEC program), **Namibia** (National Health Extension Program), and **Guinea** (PCIME Communautaire); all three national programs resulted in the rollout of new cadres of CHWs who provide iCCM services.

Expansion and Scale-Up: **DRC, Guinea, and Rwanda** have all either successfully scaled up their iCCM programs or are in the process of doing so with MCHIP's technical support. During MCHIP's two years in the DRC, the national iCCM program expanded from a baseline of 78 (with 1,358 trained CHWs) to 101 (with 2,286 trained CHWs) out of 515 health zones countrywide. Expansion of Guinea's iCCM program also grew rapidly, from a baseline of no

CHWs to more than 500 CHWs trained in iCCM nationwide in its first two years of implementation. **Namibia** is also moving quickly to expand its Health Extension Program, with more than 500 HEWs trained in basic primary health care during MCHIP's final year of support, and plans to expand training for iCCM in 2015. **Zambia** and **Mali** are two more examples where MCHIP worked with MOHs to develop coordinated iCCM scale-up plans with targets to achieve coverage and saturation.

Refining CCM Strategies: In countries with national CHW programs and iCCM or CCM strategies that were already ongoing and scaled up, MCHIP helped test, introduce, and expand new approaches. These new approaches included: testing of FP provision by volunteer CHWs in the **DRC**; the introduction of RDTs at the community level to **Rwanda's** 30,000 *binomes*, who are now able to more accurately screen, classify, and treat malaria; and the implementation of iCCM in the challenging context of the **Ethiopian** pastoral region. In **Zimbabwe**, a country with a traditionally strong Village Health Worker (VHW) cadre, but one that had been severely affected by the country's economic downturn in the 1990s, MCHIP not only assisted in revitalizing the cadre, but also in developing the national training package for community-based malaria case management (introducing RDTs and ACT at the community level) and testing a new community HIS and system of peer supervision to improve the quality and the monitoring of VHW care.

Quality of Facility-Based Care

MCHIP worked with MOHs and other stakeholders in all of its country programs with CH objectives to improve the management of diarrheal disease at the facility level, health care worker training curricula, and the quality of IMNCI service delivery. MCHIP strengthened the management of diarrheal disease in facilities by reinforcing national policies that called for the use of zinc and low osmolality ORS but had not been fully implemented (**DRC, Kenya, Zimbabwe**); promoting water, sanitation, and hygiene (WASH) messaging and feeding counseling during and after illness (**Kenya, DRC**); and supporting the re-establishment of ORT corners in health facilities (**DRC, Kenya, and Zimbabwe**). As a result of reinforcing national policies, Zimbabwe began to use zinc in MCHIP-supported districts, areas where zinc typically expired on the shelf, causing stock-outs. DRC and Kenya increased the number of functional ORT corners and experienced an increase of overall use of ORS and zinc in districts where MCHIP worked. MCHIP CH advisors in **Zimbabwe, Kenya, Mozambique, Guinea, Mali, and Rwanda** played an important role by technically contributing to their countries' revisions to and rolling out of IMCI training courses. Revisions focused on updating training content to reflect recent evidence, adding care for the newborn, and/or shortening the duration, and reducing the cost of IMCI/IMNCI training. MCHIP supported **Zimbabwe, Rwanda, and Guinea** in developing a more cost-effective model of IMNCI training by reducing the IMNCI training course from 11 to six days, thereby reducing a significant barrier to scale-up. In **Rwanda**, MCHIP performed a comparison of health workers' skills through review of records in 2011–2012 to demonstrate that the shortened course did not sacrifice the QoC. All three countries adopted the new modules as the new national training curricula.

Finally, MCHIP used a modified SBM-R approach in **Zimbabwe** and **Guinea** to help facility-level staff monitor their own performance against IMNCI standards of care. MCHIP first developed specific SBM-R standards for CH services and then trained supervisors and care providers to use the SBM-R tools. In Zimbabwe, the pace of implementation was slow and results were mixed, while initial follow-up in Guinea showed encouraging signs of provider adherence and government ownership. This was the first time SBM-R, a methodology widely used in other technical areas, was applied to IMCI standards of care under MCHIP. Although there was an increase in adherence to the IMCI algorithm, the process wasn't linked to outcomes of sick child data. Experiences from the two countries showed that SBM-R was time-consuming. Moving forward, modification to SBM-R is necessary to reduce the number of standards to be implemented and tracked in order to increase the likelihood of health workers

using the tool. Outcome measures need to be linked to the IMCI standards to demonstrate improved QoC. The team will use the core principles of QI to adapt and test simpler approaches to QI in CH.

Challenges and Way Forward

MCHIP has continued USAID's tradition of global leadership in CH and become an important actor in multi-partner efforts to accelerate progress toward MDG 4. In its leadership role with the Global iCCM TF and the recipient of support from 12 USAID country Missions, MCHIP has been in the position to document and improve on strategies for scaling up iCCM. The CH Team has also played an active role in advocating for policies and practices that will lead to increase use of ORS and zinc for diarrheal disease, antibiotics for pneumonia, and RDTs and ACT for malaria treatment at the community level.

Reducing child morbidity and mortality from pneumonia, diarrhea, and malaria will depend not only on strategies like iCCM or IMNCI, but also on robust health systems that support linkages between community- and facility-based CH services and achieve a healthy balance between treatment and prevention (i.e., vaccination, WASH, IYCF, child spacing, timely and appropriate care-seeking). Too often, attention is paid to training facility- and community-based providers without sufficient attention to the systems that must be in place or the financial and technical support that will be required to ensure their success.

There is currently a groundswell of interest from countries in iCCM and new resources for implementation through the Global Fund's New Funding Model. Experience shows that implementation of iCCM should be guided by a long-term, multi-partner strategic plan for scaling up and achieving coverage and saturation. Special attention to high-burden areas, to ensuring that the necessary linkages are established between communities and health facilities, and to investing in the systems that will support the community cadre must all be part of country implementation plans.

The proliferation of global CH-related working groups and initiatives demonstrates renewed interest in CH, which is encouraging. At the same time, this renewed interest has resulted in significant fragmentation of the CH agenda and is not likely to translate into significant new funding for post-neonatal child survival without a well-coordinated effort to address the multiple causes and consequences of the 6.6 million preventable deaths that occur each year in children under five years of age.

Three recommendations can be made building on MCHIP's experience:

1. Based on MCHIP's experience, USAID and its global flagship Maternal and Child Survival Program should continue to strengthen case management at both the community and facility levels, while promoting improved disease prevention practices at the household level—all of these approaches need to be anchored in a broader health systems framework for sustainability.
2. Improved coverage, quality, and saturation (maximum coverage that meets disease-specific need) of services in targeted population are necessary to ensure that high-impact CH interventions lead to reduced child mortality.
3. Policies that support the delivery of lifesaving interventions by trained CHWs are in place in many countries, but policy challenges still remain. Action to support a country-led process to reduce policy barriers to iCCM is still needed. Respecting each country's right to determine its own path, USAID and its future CH flagship programs should continue to invest in demonstrations, such as those in **Kenya** and **Zimbabwe**, and in developing and working through country "champions" to push for policy change for iCCM.



Immune

Introduction

MCHIP/Immunization TA focused on strengthening country capacity to manage routine immunization (RI) services and the smooth introduction of new vaccines. MCHIP provided long-term support in collaboration with partners⁴⁹ to increase vaccination coverage and equity using roughly Redacted in core funds and operating in 14 countries where MCHIP worked nationwide and covered all districts.⁵⁰ MCHIP also contributed to accelerated disease control efforts related to polio, measles, and maternal/neonatal tetanus.



MCHIP achieved its program objectives by focusing on four overarching strategies:

1. Increase capacity for achieving and sustaining high and equitable immunization coverage levels with all appropriate vaccines to reach the unreached and reduce child mortality.
2. Support effective and sustainable introduction of safe, high-quality, lifesaving new vaccines.
3. Engage in disease control priority programs with a focus on enhancing the positive effects on strengthening the RI platform.
4. Influence global and regional levels with program learning from the field.

Key Achievements and Results

Global Leadership

MCHIP's strategic participation in working groups and committees amplified the project's learning and expertise, while infusing the policies, strategies, and operational plans of key partners with pragmatic, operational considerations. Because MCHIP strengthens RI program management in many contexts, its input was valued and requested by partners who set the global agenda for immunization. Selected highlights follow.

Shaping strategies, policies, and approaches to sustainably increase the reach of vaccines, close the equity gap, and strengthen local management of routine immunization. MCHIP:

- Helped formulate the Global Vaccine Action Plan (GVAP), which serves as the blueprint to operationalize and achieve the immunization goals for 2020 set forth in the global Decade of Vaccines collaborative effort. Co-led the multi-agency "Strengthening Immunization Systems Performance and Monitoring" working group and successfully advocated for GVAP

⁴⁹ WHO, UNICEF, USAID, GAVI, Bill & Melinda Gates Foundation, CDC, and others.

⁵⁰ DR Congo, India, Kyrgyzstan, Kenya, Malawi, Senegal, South Sudan, Tajikistan, Tanzania, Timor-Leste, Uganda, Ukraine, Yemen, and Zimbabwe.

to retain the DTP1⁵¹ to DTP3 indicator and to include a new indicator measuring sustained immunization coverage over time.

- Was a founding member of the GAVI CSO Task Team, and supported the GAVI strategy to establish a civil society engagement strategy.
- Collaborated with partners to revise the recommended use of comprehensive multi-year plans (cMYPs) and, subsequently, the cMYP guidelines and costing tool for financial and program planning, required by GAVI in new vaccine applications.
- As a member of the Immunization Practices Advisory Committee, or IPAC, advised the Director of WHO's Immunization Program on: rotavirus vaccine introduction; training approaches; misguided efforts by environmental groups that would have removed the only available preservative from multi-dose vaccine vials, despite its proven safety; and revising the WHO pre-qualification process for programmatic suitability of new vaccines.
- Served on the GAVI Health System Strengthening (HSS) technical advisory group, which provided technical input on how GAVI's future HSS investments could be used to strengthen delivery of new vaccines and RI systems more broadly.
- Along with USAID and other partners, participated in the external evaluation of WHO/AFRO's five-year immunization strategy, which resulted in recommendations for WHO/AFRO's next strategy.
- Participated in a WHO-hosted meeting on the design of pre-service curricula for health professionals who either manage or deliver vaccination services, and provided further support in four MCHIP countries.⁵²
- Played a key role in comprehensive, multi-agency EPI reviews in 10 countries.⁵³ Results of reviews were used to advocate with decision-makers and program managers for strategic planning and investment in RI strengthening.

Helping to ensure that vaccines are used safely. MCHIP:

- Through IPAC, helped update the Multi-dose Vial Policy to help assure that newer vaccines, with their unique characteristics, are safely administered. The policy was finalized in 2014 and disseminated globally by WHO.
- Contributed to training and communication materials on rotavirus vaccine safety, particularly related to the potential consequences of stricter age restrictions that were imposed and then later lifted by WHO.⁵⁴

Promoting practices for effective and efficient handling of vaccines. MCHIP:

- As a member of the UNICEF Cold Chain Logistics Task Force, helped revise the Effective Vaccine Management tool that guides cold chain and logistics management and is required for countries to receive GAVI support. Also participated in drafting and reviewing 30-day temperature recording guidelines, which have been finalized and are being implemented in countries where continuous temperature monitoring devices are used.
- Contributed to the development of the WHO Vaccine Management Handbook (VMH-e7-02.1): How to use passive containers and coolant packs for vaccine transport and outreach

⁵¹ Diphtheria-tetanus-pertussis containing vaccine.

⁵² Kenya, Malawi, Senegal, and Tanzania.

⁵³ Benin, DRC, Liberia, Ghana, Senegal, South Sudan, Tajikistan, Uganda, Ukraine, and Zimbabwe.

⁵⁴ As member of the Rotavirus Communication Working Group.

operations. This module is a first in a series being developed and will be disseminated for use at the country level.

- Revised WHO's module on "Maintaining Vaccines at the Correct Temperature at Country Level."
- Through IPAC: advised on introduction of the "controlled temperature chain" and expansion of the birth dose of hepatitis B vaccine; and contributed to presentations advocating to the WHO Scientific Advisory Group of Experts (SAGE) for increased investment in immunization supply chain and logistics; these led to SAGE's endorsement of the IPAC Call to Action on Immunization Supply Chain and Logistics.
- As a member of the WHO/PATH Optimize Program Advisory Group, advised on design of supply chain systems for the future and advocated for increased investment in this neglected aspect of immunization systems.

Helping Design Vaccine Products Appropriate for Use in Low-Resource Settings

Health workers in poor, remote settings are sometimes reluctant to open 10-dose measles vaccine vials for fear of wasting doses, which likely results in missed opportunities to vaccinate children against measles, late immunization, and increased risk of outbreaks. MCHIP advocated successfully for measles and measles-rubella (MR) vaccines in 5-dose vials, which will soon become available from UNICEF's supply division for international tender. IPV, which is supposed to be introduced in 125 countries over the next three years, will be available in 5-dose vials for the first time in late 2014.

As a member of an Institute of Medicine Committee, MCHIP provided technical input into the *Ranking Vaccines: A Prioritization Software Tool*, which helps to identify and prioritize the introduction of new preventive vaccines.⁵⁵ MCHIP participated in the Vaccine Presentation and Packaging Advisory Group that brings industry and public health communities together virtually to design vaccines suitable for use in public sector programs in developing countries. MCHIP provided input on the development of specifications recommended for primary containers (e.g., vials) of vaccines⁵⁶ and, as part of IPAC, advised on programmatic suitability of vaccines for WHO pre-qualification.⁵⁷

Promoting Understanding, Acceptance, and Utilization of Vaccines

At WHO's request, MCHIP worked with partners to revise and pre-test mid-level manager (MLM) training modules, which will be rolled out in the WHO/AFRO region, and wrote a new module for the Immunization in Practice (IIP) series on community partnership. These modules are used globally for training health workers and immunization program managers. MCHIP also drafted the M&E chapter and other sections of the WHO/EURO's *Tailoring Immunization Programmes (TIPs) Toolkit*, which assists countries in developing appropriate communication approaches and community linkages for improving immunization coverage. As part of a suite of WHO tools for identifying why children remain unvaccinated, MCHIP prepared a diagnostic tool to review the knowledge, attitude, and practices of health workers with regard to their ability to assess the quality of the interface between health workers and parents.

⁵⁵ www.nap.edu/smartvaccines

⁵⁶ Co-chaired multi-agency meeting "Consideration for Primary Vaccine Container Selection in Developing Countries – Defining the Evidence and Framework for Decision Making."

⁵⁷ As a member of IPAC.

Contributing to Accelerated Disease Control Initiatives

MCHIP has been an active member of the Measles Rubella Initiative, advocating for RI strengthening to become a key component of the measles and rubella elimination strategy. MCHIP provided technical input into a district-level measles outbreak risk assessment tool (which was used by WHO, CDC, and MOH in several African countries). In working toward the elimination of maternal and neonatal tetanus (MNT), MCHIP built on its longtime contributions in this area by serving as chair of UNICEF's MNT elimination Program Advisory Committee and developing a proposal for school-age tetanus toxoid vaccination which, in collaboration with UNICEF, will be tested and evaluated in one country.

MCHIP also provided detailed technical feedback to the GAVI Alliance guidelines for its support to supplementary immunization activities (SIAs) in priority countries and assisted with in-country support for SIAs and linkages with RI strengthening in **DRC, Kenya, Senegal, and Zimbabwe**.

New Vaccines

MCHIP provided technical support to 10 GAVI-eligible countries⁵⁸ in preparing for 24 new vaccine introductions,⁵⁹ six of which will occur following the close of MCHIP. MCHIP also provided STTA to other countries for the preparation and follow-up for new vaccine introduction (Table 5).⁶⁰ To maximize the effectiveness of pneumonia and diarrhea prevention, MCHIP's Immunization and Child Health Teams contributed to the Global Action Plan for Pneumonia and Diarrhea (GAPPD) and worked with UNICEF and other partners to draft a communications framework for pneumonia and diarrhea disease control and new and underused vaccine introduction. This framework was adapted for use in **Kenya** and several other East and Southern African countries for their PCV introductions.

Table 5. MCHIP/Immunization Technical Assistance for New Vaccine Introduction (2008–2014)

MCHIP NUVI COUNTRY-LEVEL TECHNICAL ASSISTANCE SINCE PY1						
Country	Vaccine antigen	GAVI Proposal	Preparation for introduction	Launch event for introduction	Post-introduction follow-up	Post-introduction evaluation (PIE)
Benin	PCV	–	✓	✓	–	–
DRC	PCV	✓	✓	✓	✓	✓
Ethiopia	PCV	–	–	–	–	✓
India	Penta	–	✓	✓	✓	✓
Kenya	PCV	–	✓	✓	✓	✓
	Rotavirus	✓	✓	July 2014	–	–
	Measles 2 nd dose	N/A	✓	✓	✓	N/A
Malawi	PCV	–	✓	✓	✓	✓
	Rotavirus	✓	✓	✓	✓	✓
	Measles 2 nd dose	✓	✓	–	–	–
Nigeria	Hib (penta)	–	–	–	–	✓
Rwanda	PCV	✓	✓	✓	✓	✓
	Rotavirus	✓	✓	✓	✓	–
	MR campaign	✓	–	–	–	–

⁵⁸ DRC, India, Kenya, Malawi, Rwanda, Senegal, Tanzania, Timor-Leste, Uganda, and Zimbabwe.

⁵⁹ Penta, PCV, Rotavirus, MenA, MR, Measles 2nd dose.

⁶⁰ Benin, Ethiopia, and Nigeria.

MCHIP NUVI COUNTRY-LEVEL TECHNICAL ASSISTANCE SINCE PY1						
Country	Vaccine antigen	GAVI Proposal	Preparation for introduction	Launch event for introduction	Post-introduction follow-up	Post-introduction evaluation (PIE)
Senegal	PCV	✓	✓	✓	✓	–
	Rotavirus	✓	–	–	–	–
	MR campaign	✓	✓	✓	✓	N/A
	MenA	–	✓	✓	✓	N/A
Tanzania	PCV	✓	✓	✓	✓	✓
	Rotavirus	✓	✓	✓	✓	✓
	Measles 2 nd dose	✓	✓	✓	✓	N/A
	MR	✓	✓	–	–	–
Timor-Leste	Penta	✓	✓	✓	–	N/A
Uganda	PCV	–	✓	✓	✓	–
	Rotavirus	✓	–	–	–	–
	IPV	✓	✓	–	–	–
Zimbabwe	PCV	✓	✓	✓	✓	✓
	Rotavirus	✓	✓	✓	✓	–
	Measles 2 nd dose	✓	–	–	–	–
Total		21 GAVI proposals submitted	24 vaccine introductions prepared for	19 vaccines launched	16 new vaccine-related follow-up activities	10 PIE's conducted

Routine Immunization

Introduction of new vaccines, control of vaccine-preventable diseases, and achievement of MDG mortality reduction targets depend on the functioning of the RI system. MCHIP strengthened RI systems, and supported and implemented RED and related strategies in nine countries.⁶¹ MCHIP's approach to strengthening RI recognizes that the priorities and challenges of immunization programs vary across countries; therefore, a common thread running through the project's TA was to work closely with in-country partners in developing customized approaches to meet the country's needs.

To foster shared understanding and ownership of the challenges related to strengthening RI systems in **Uganda**, MCHIP added elements of a QI approach, including implementation of user-defined, rapid learning Plan-Do-Study-Act cycles, to transition from RED to Reaching Every Community (REC). In one early success, this QI approach led to district health teams in four out of five implementation districts using their own funds to permanently solve a decades-old chronic shortage of gas cylinders that power the refrigerators in health facilities. In **India**, MCHIP tackled the perennial problem of poor supervision by designing and implementing RAPID (Regular Appraisal of Program Implementation in a District) methods; these have been adopted in their entirety by Jharkhand State, using local resources. MCHIP exported to **Tanzania** and **Kenya** the planning tools that MCHIP developed in **India** to target services and identify logistic requirements. In **India**, **Kenya**, and **Timor-Leste**, innovative techniques to improve newborn tracking by engaging existing community networks were implemented; notably, the "My Village is My Home" tool, which showed an improvement in vaccination

⁶¹ India, Kenya, Madagascar, Nigeria, Senegal, South Sudan, Uganda, Tanzania, Timor-Leste, and Zimbabwe.

timeliness. In **South Sudan**, MCHIP collaborated with partners to develop a new national immunization policy, in addition to drafting RED guidelines and EPI training modules for the national immunization program. In **Zimbabwe**, MCHIP supported implementation of all components of the RED approach to reach underserved populations and improve coverage across the intervention areas. In **Kenya**, MCHIP and the immunization program completed the development of pre-service curricula on immunization for medical and nursing schools, while in **Senegal, Uganda, and Malawi**, a similar process was initiated. In all countries, MCHIP improved the local collection, use, and interpretation of data to engage and motivate health workers and improve performance. In most countries, MCHIP engaged and mentored civil society players, including NGOs and faith-based organizations.

Polio

MCHIP supported efforts to strengthen global and regional polio eradication initiatives, particularly linkages with RI, through contributions to technical reviews and partnerships, including with the Independent Monitoring Board (IMB), a global advisory body for WHO, and the Global Polio Eradication Initiative (GPEI). To help shape the global agenda around polio, MCHIP also assisted the GAVI Alliance (GAVI) in defining its role and strategy on polio eradication, UNICEF's global polio grant, and USAID's Global Polio Emergency Plan. In addition, MCHIP participated in a closed polio roundtable with the Center for Strategic and International Studies.

At the regional level, MCHIP provided technical guidance to the Horn of Africa and SEARO Technical Advisory Groups, and for UNICEF/WCARO and ESARO multi-country polio workshops, which are forums to guide country implementation. MCHIP also co-authored two peer-reviewed journal articles in the May 2010 *Health Communication* that helped inform and guide organizations at country, regional, and global levels on the use of data on polio communication.

To sustain eradication efforts in polio priority countries, MCHIP supported national- and district-level planning and implementation of SIAs (**Kenya, India, DRC**) and RI training for UNICEF and CORE SM Net teams and District Immunization Officers (Uttar Pradesh, **India**). In addition, MCHIP led newborn tracking for OPV0 and BCG—including links with RI coverage in UP and Jharkhand, **India**—linking thousands of infants more directly with the immunization system. In **Kenya**, newborn tracking also included OR in high-volume, demonstration facilities, where mobile text reminders were used for new mothers to bring infants for their vaccination, including OPV. In DRC, MCHIP worked with health workers during polio SIAs to identify all children for the OPV birth dose, verify the immunization status of all children for all vaccines, and refer those who were un/under-immunized to fixed immunization sites to receive vaccination. These efforts contributed to an increase in routine coverage.

MCHIP provided technical and administration oversight of a four-year sub-agreement (extended for nine months until June 2014) that enabled the Communication Initiative (CI) to continue contributing its expertise in polio communication to global polio eradication efforts. Major accomplishments included:

- Participating actively in nine national technical reviews of polio communication
- Participating in numerous country technical advisory group meetings and regional meetings for polio and immunization, particularly in the polio-endemic countries
- Working with partners to develop and use polio-improved communication indicators within the global polio program

- Distilling, publishing, and disseminating polio communication strategic knowledge (polio website, online discussions, widely disseminated newsletters, blogs, journal articles, and reports)
- Providing networking and knowledge support; advising USAID Missions, the Independent Monitoring Board, and other partner staff and offices

Finally, in partnership with MCHIP and local organizations, CI planned and implemented a major study in **Nigeria** using qualitative comparative analysis (QCA) to understand the factors leading to repeated campaign coverage among certain households and communities. Field work has been completed and analysis has begun, with preliminary results expected by the end of June.

Challenges and Way Forward

Vaccines and immunization have gained global prominence in recent decades, but more support is needed to ensure that RI systems are capable of providing timely, safe, and effective vaccination to all children, particularly the most vulnerable, supporting the introduction of new vaccines, and sustaining the disease reduction gains achieved in large measure through mass campaigns. Without a sound platform, the full benefits of new vaccines cannot be realized.

Furthermore, as the GVAP suggests, the global community must ensure that “the benefits of immunization are equitably extended to all people,” in part by continuing to improve the RED strategy and moving from RED to REC. Poor data quality continues to be a bottleneck to successful identification of the unreached. With more children being born each year, the need for capable RI systems that protect all children against preventable deaths will be a cornerstone of health programs everywhere.



Malaria

Introduction

MCHIP has worked closely with the PMI and RBM Partnership, including key stakeholders in MNCH, to support a reduction in the global burden of malaria morbidity and mortality. MCHIP's key areas of intervention include: MIP, integrated community case management (iCCM), and malaria prevention and case management that are addressed at the community level through the Malaria Communities Program (MCP). This focus has engendered equitable support targeting pregnant women and children less than five, who are most vulnerable to malaria.



MCHIP's contributions to stem malaria span the global, regional, and country levels. At the **country** level, this includes high-quality TA, including program review and implementation support. At the **regional** level, this includes documentation and dissemination of best practices and lessons learned to advance program learning. MCHIP's **global** leadership in MIP and iCCM has contributed to developing evidence-based tools and fostering partnerships between experts in malaria and MNCH through participation in the RBM MIP working group and the Global CCM Task Force (TF), respectively. MCHIP has also strengthened the capacity of MCP grantees to design and implement community-based malaria programs that build local ownership.

Key Achievements and Results

Malaria in Pregnancy

Although many African countries have made important strides toward achieving their malaria program goals, none has reached the RBM targets of 80% and PMI targets of 85% for use of intermittent preventive treatment during pregnancy (IPTp) and use of insecticide-treated bed nets (ITNs) by pregnant women. Since Year 1, MCHIP has focused its MIP efforts on shedding light on why these challenges remain, disseminating information on what countries can do to increase the use of lifesaving MIP interventions, and supporting countries through global leadership and direct country support to accelerate MIP prevention and control.

Documenting and Disseminating Best Practices and Lessons Learned: MCHIP produced country case studies of **Malawi, Senegal, and Zambia** documenting MIP best practices and lessons learned across eight essential and interconnected health system elements: integration, policy, commodities, quality

In areas of moderate-to-high malaria transmission, IPTp-SP is recommended for all pregnant women at each scheduled ANC visit. WHO recommends a schedule of four ANC visits:

- The first IPTp-SP dose should be administered as early as possible during the 2nd trimester of gestation.
- Each SP dose should be given at least 1 month apart.
- The last dose of IPTp-SP can be administered up to the time of delivery, without safety concerns.

Source: WHO.

http://www.who.int/malaria/iptp_sp_up_dated_policy_recommendation_en_102_012.pdf October 2012.

assurance, capacity building, community awareness and involvement, M&E, and financing. A brief report synthesizing the key findings and recommendations from the three countries was developed and disseminated with the case studies to stakeholders in the three countries. It was also disseminated more widely through PMI and MCHIP country teams, and at regional-level meetings and conferences. A key recommendation of the documentation reinforces the important collaboration of national malaria control, RH, and HIV partners to implement integrated programs. During dissemination meetings in the three countries, partners decided upon actions, inspired by the documentation, to improve implementation of their MIP programs. For example, **Senegal** planned to accelerate its free distribution of long-lasting insecticide treated bed nets (LLINs) at ANC and create a joint coordination committee focusing on training and community-level interventions. Jhpiego developed a manuscript on the three-country documentation series accepted for publication in volume two of the *Global Health: Science and Practice* online journal (<http://www.ghspjournal.org/content/2/1/55.full>).

Malaria in Pregnancy Working Group: MCHIP has been an integral member of the RBM MIP working group, providing technical leadership through the MCHIP Director's role as Co-chair. MCHIP has also provided continuous support for the functionality of the working group through the development of meeting agendas and minutes, organization of annual meetings and telecoms, and contribution to and formulation of the group's workplan, which centers on providing technical and programmatic guidance to countries challenged by MIP. Through MCHIP's involvement, namely, reaching out to new partners, the working group's membership expanded to include a number of new research, program, and technical partners to ensure wider coverage, support, and advocacy for MIP programming. MCHIP also contributed to the development of five key documents:

1. ***IPTp Policy Brief*** issued in April 2013, which reinforces and provides clarity to the WHO updated policy recommendation on IPTp-sulfadoxine-pyrimethamine (SP) that was issued in October 2012. All sub-Saharan African countries have begun the process to review, update, and/or disseminate the new policy guidance.
(http://www.who.int/malaria/publications/atoz/policy_brief_iptp_sp_policy_recommendation/en/)
2. ***MIP Consensus Statement*** highlights the key elements needed to optimize the delivery of MIP interventions and champion integrated policymaking and harmonized program implementation between national RH and malaria programs, including: ensuring harmonized policies on MIP; increasing coverage and equity of access of comprehensive MIP services for pregnant women; implementing WHO's three-pronged approach to MIP prevention, diagnosis, and treatment; and using an MIP M&E framework to guide program implementation.
(<http://www.rollbackmalaria.org/docs/2013/MIP-consensus-statement-en.pdf>)
3. ***Malaria Protection in Pregnancy: A lifesaving intervention for preventing neonatal mortality and low birth weight***, a brief synthesizing two published articles on the evidence of use of ITNs and IPTp contributing to reduced maternal and child mortality, as well as key MIP messages.
(http://www.rollbackmalaria.org/partnership/wg/wg_pregnancy/docs/MIPBriefer.pdf)
4. ***Malaria in Pregnancy in Asia Pacific region***, a literature review from an area of mixed infections with *P. vivax* and *P. falciparum*.
(<http://download.thelancet.com/pdfs/journals/laninf/PIIS1473309911703152.pdf?id=aaaEXZtEJc37L-Jb7ECqu>)
5. ***WHO Global Fund Policy Brief***, intended to support countries in the development of their Global Fund Proposals for Malaria. The guidance specifically outlines the need to link and strategically integrate malaria programming on the MNCH platform. MCHIP contributed to the 2011 brief and provided information to an updated 2014 version that is pending publication.
(http://tip.populationaction.org/files/2012/08/WHO_RH_MNCHGuidance_July2011.pdf)

Recognizing that MIP is at a crossroads and strides must be made to sustain gains, MCHIP has worked closely with the MIP working group to raise visibility about the importance of addressing MIP. MCHIP participated in the **Global Fund technical consultation meeting** in Nairobi, Kenya, December 13–16, 2011, to support countries in developing transitional plans for MIP programming due to cancellation of Round 11 funding. MCHIP provided guidance to countries on reallocating scarce resources to scale up key program systems for supporting IPTp, LLINs, and case management. MCHIP also participated in the **Malaria in Pregnancy: Bringing the Maternal Health and Malaria communities together** meeting in Istanbul, Turkey, June 26–28, 2012, organized by the Maternal Health Task Force. Forty malaria and maternal health experts identified key steps for moving MIP programming forward, which were folded into the agenda of the MIP working group. MCHIP led a panel of presenters, including working group partners, on **Malaria in Pregnancy: What it takes to deliver quality services as a component of comprehensive maternal and newborn health care**, at the Global Maternal Health Conference (GMHC) in Arusha, Tanzania, January 15–17, 2013. The panel aimed to reach out to global MNH colleagues on the importance of integrating MIP services into ANC. In addition to visibility, MCHIP, in collaboration with the MIP working group, supported dissemination of the updated WHO policy for IPTp. This resulted in multiple countries, including **Burkina Faso, Guinea, Tanzania, Kenya, Uganda, and Mali**, reviewing existing policies and guidelines and updating these documents based on the latest evidence.

Malaria Tools and Resources Developed under MCHIP:

1. ***National Document Review:*** To better understand whether national MIP documents reflected WHO MIP guidelines and how consistent MIP content was across documents from the same country, MCHIP reviewed MIP national-level documents in 19 PMI focus countries. The report is an important reference document for countries as they continue to review and update national policies. MCHIP and PMI have disseminated the report to stakeholders in the countries and more widely through the RBM MIP working group and supported country-specific dissemination meetings of the findings and recommendations, including action planning, in **Uganda, Angola, Guinea and Kenya**.
<http://www.mchip.net/sites/default/files/mchipfiles/19%20Country%20Review%20of%20MIP.pdf>
2. ***Review of MIP Indicators:*** To better understand which MIP indicators countries are documenting, how these indicators are tracked in national health information systems, and how the indicators are used for decision making, MCHIP reviewed MIP monitoring in six PMI focus countries. The six individual county reports and overall synthesis report offer insight into how countries can improve MIP monitoring and support acceleration of programming efforts.
3. ***Case Management Job Aid:*** MCHIP supported development of a case management job aid, based on the latest WHO recommendations, which countries can adapt and incorporate into their national service delivery systems.

Country Technical Assistance: MCHIP has provided targeted TA to countries to address specific MIP program needs. For example, MCHIP helped Nigeria address bottlenecks hindering implementation of its Global Fund-supported MIP activities through meetings to orient state policymakers about MIP issues and distribution of guidelines to secondary and primary health care facilities. MCHIP worked with PMI in **Ghana** to develop a brief documenting the country's successful practices and lessons learned in implementing IPTp that lends to expanded program learning within **Ghana** and knowledge sharing with other countries. In **Uganda**, MCHIP and PMI supported the MOH to bring together key partners in RH and malaria control to define their roles and a process for reprioritizing MIP. MCHIP reviewed Uganda's MIP guidance documents and made specific recommendations for updating each document in accordance with the latest WHO MIP recommendations. MCHIP provided TA and facilitation of the MIP session of the MCP Regional workshop, in May 2011, in Lilongwe, Malawi. At the session, 18 grantees

across 12 countries learned to apply the eight essential MIP health system elements to their programs for improved performance and were informed by other country program challenges and successes.

Global Meetings: In addition to the meetings discussed above, through collaboration with the RBM MIP working group, MCHIP also participated in global meetings and panels to expand knowledge of MIP and future directions for MIP programming. MCHIP participated in the panel the “Changing Face of Malaria in Maternal Health” during the Global Health Council Conference in Washington, D.C., in June 2011. Panelists presented information on innovative MIP programs from two countries, as well as research priorities and the donor perspective on MIP program priorities in an era of changing epidemiology. At the CORE Group Spring Meeting in May 2012, MCHIP facilitated the panel “Malaria in Pregnancy: Strengthening Health Systems to Improve Outcomes for MIP,” which contributed to program learning and expanding the technical dialogue among CORE Group’s multiple member organizations and partners that work in community-focused public health around the world.

Integrated Community Case Management

iCCM of childhood illness—the delivery of timely and low-cost interventions against diarrhea, malaria, and pneumonia at community levels by CHWs—is an effective strategy for saving children’s lives. The iCCM TF is an association of multilateral and bilateral agencies and NGOs that is recognized globally for its contribution in pushing forward the global iCCM agenda and advancing state-of-the-art tools and resources. The TF membership grew to 50 organizations and 152 members in December 2013 from 26 organizations and 87 members in June 2012. This growth was thanks to the growing realization of the effectiveness of the TF in advancing iCCM. Through this forum, MCHIP is not only providing leadership, but also influencing the members on key child health issues. The TF has advocated policy change; as a result, 29 of 40 sub-Saharan African countries, and more in South Asia, today have favorable policies to implement a complete iCCM package. Such a package includes interventions against diarrhea, malaria, and pneumonia, the three primary causes of child mortality. Moreover, the majority of these countries are moving from introduction and NGO-led programs to expansion of national, government-led programs.

As the iCCM TF secretariat, MCHIP has played a key role in developing and maintaining an organized structure and convening technical subgroup members. The technical subgroups have spearheaded the development of evaluation criteria for collecting and assessing the various tools and guidance needed to support successful iCCM implementation, essentially an iCCM tool kit. The tools include the **CCM Essentials**, a **guide to planning and implementing iCCM** produced in collaboration with CORE Group and other partners, CHW training and supervision materials, job aids, etc. These tools formed the original core of the CCMCentral.com website, which provides a central location where organizations and countries can access state-of-the-art tools and decrease the need to “reinvent the wheel.” End of project evaluation of the Catalytic Initiative, for example, highlighted achievements in implementation strength of programs using some of the TF tools for training of CHWs.

The period of 2008 to 2014 has been a time of learning while doing for the iCCM community. MCHIP has been an active player, particularly in leading and collaborating on various initiatives and sharing tools and resources with the community. MCHIP documented iCCM implementation in DRC and Senegal to chronicle the history, process of policy change, key players, and successes and challenges to inform the future of iCCM in these countries and inform other countries. To build on this exercise, MCHIP developed a synthesis report of the cross-cutting findings and lessons learned from iCCM programs in the DRC, Senegal, and Malawi, and put forward key recommendations on how iCCM programs can integrate the lessons learned with current and future programming. The iCCM country reports have been

disseminated in **Guinea, DRC, Senegal, Uganda, and Mali**, and at the American Society of Tropical Medicine and Hygiene conference. Lessons learned from these documentation reports have particularly influenced policy changes related to iCCM in **Guinea and Mali**. In **Guinea**, MCHIP advocated for the introduction of an integrated CCM package by expanding the ongoing program of diarrhea case management to include the treatment of childhood malaria and pneumonia. In **Mali**, MCHIP was instrumental in facilitating scale-up of iCCM as part of a larger essential community package.

In addition, MCHIP carried out an assessment of training and supervision tools for: 1) malaria case management in PMI countries, and 2) iCCM in 10 sub-Saharan African countries to identify major bottlenecks to scaling up WHO diagnostic testing and treatment guidelines for malaria within the context of integrated management of childhood illness (IMCI) and adherence to WHO/UNICEF standards for iCCM. The review assessed how IMCI/malaria training and supervision tools currently used at the country level address updated WHO/UNICEF guidance encouraging diagnostic testing of all suspected malaria cases and treatment of those with a positive test only. It also examined guidance for pre-referral treatment for the severely ill and recommendations for definitive management of severe malaria. The findings were shared with all PMI and iCCM countries to address gaps in their respective country programs and will be published in the global malaria journal for wider dissemination.

The need for common indicators to guide and assess implementation emerged prominently in the early stages of iCCM discussions. Building on the work of BASICS and the benchmarks framework, from 2010 to 2013, MCHIP has been both an active technical participant and facilitator of the M&E subgroup's work to define, organize, and vet the list of indicators. The Indicator Guide has been completed and printed and will be distributed at the iCCM Symposium in Ghana to a broad range of participants to influence country M&E systems. Countries will also be supported to choose from the indicator list.

Finally, with the Global Fund's 2014 announcement that its New Funding Model would, for the first time, accept applications that included iCCM, the CCM TF became a channel for mobilizing and providing technical assistance to 17 initial countries. MCHIP led efforts in **Kenya, Uganda, Ghana and Zambia** to review existing iCCM policies and programs, carry out gap analysis to identify unmet financial and programmatic need, and work with MOHs to develop concept notes to the Global Fund to expand iCCM under the Malaria and/or Health Systems Strengthening funding windows. At the close of MCHIP, these concept notes were pending Global Fund approval.

Malaria Communities Program

Through the MCP, PMI engaged NGOs to support community-based malaria control efforts. MCHIP supported PMI by creating reporting guidance and then reviewing annual reports and workplans for 20 MCP projects; collating project results to contribute to PMI annual reports; and contributing learning from MCP projects to the interagency M&E of Malaria Behavior Change Working Group. These efforts assisted PMI with MCP administration, while also ensuring quality in grantees' work. In addition, to address the evidence gap regarding community-based malaria control efforts, MCHIP both led and contributed technical support to grantee efforts to convey project lessons to practitioners as well as to national and global policymakers. For example, two grantees, in partnership with MOH, conducted pilot tests of community case management, and MCHIP documented these experiences in a case study.

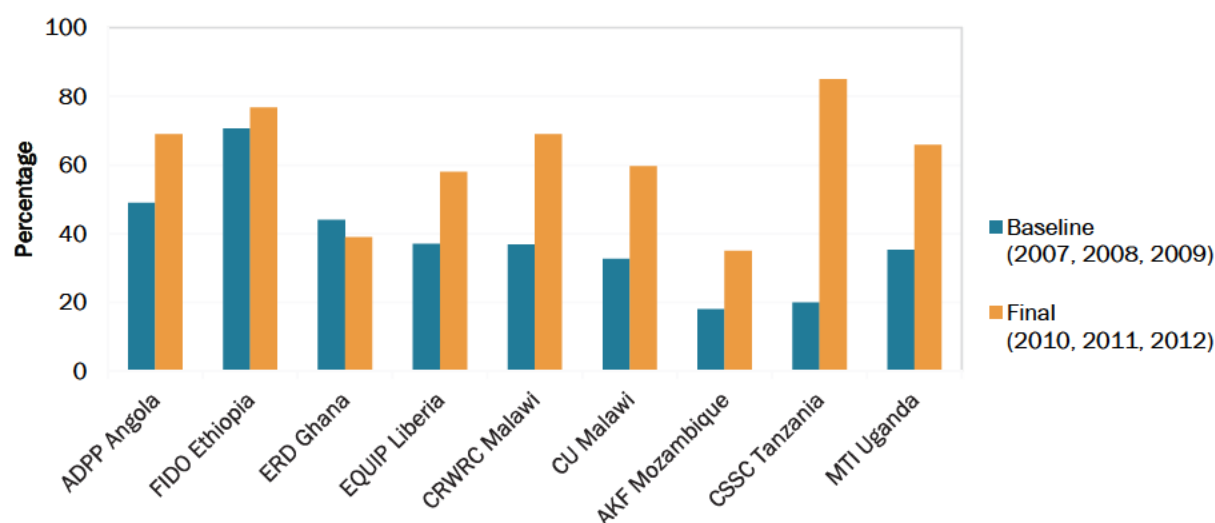
MCHIP supported grantees through technical advice during project site visits, in response to project deliverables and on an ad-hoc basis. This technical advice spanned topics including reporting to USAID and implementing community-based malaria control programming activities, M&E, and behavior change. MCHIP also designed curricula, and organized and

facilitated two workshops—one on M&E and behavior change and one on iCCM and MIP—to further guide and strengthen grantee projects. Finally, MCHIP disseminated relevant peer-reviewed articles and technical materials to the grantees. All of these grantee support efforts were designed to enhance grantee capacity, expand their knowledge, and strengthen their projects to contribute learning to global dialogue about community-based malaria control.

To contribute to the global dialogue, MCHIP organized a high-level event for PMI, during which grantees presented their results to showcase MCP project learning. MCHIP also collected data and, with PMI, wrote case studies to highlight learning in four areas: case management, ITN use, MIP, and community capacity for malaria control. See Figures 16 and 17 for some results from these projects. MCHIP's work to build grantees' skills in data collection made it possible to quantify coverage for several key indicators in project areas. Finally, MCHIP disseminated MCP learning through its many communication channels, reaching a wide audience so that other organizations can build on MCP lessons in planning, implementing, monitoring, and evaluating community-based malaria control projects. Specific points of learning that emerged from MCHIP's work include:

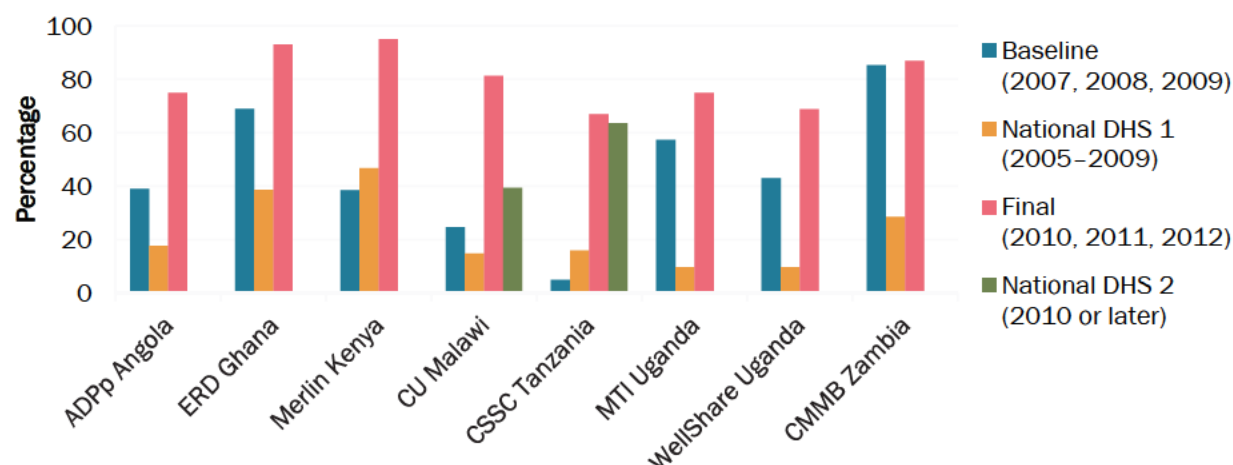
1. MCP partners are well-placed to continue implementing high-quality, community-based malaria control projects with other international and national partners. They have demonstrated how NGOs can contribute to national malaria control efforts. Documentation of their efforts adds to national and global discourse on both NGO roles and community-based efforts in malaria control.
2. Grantees preferred sharing learning in person; sharing through facilitated electronic discussion was not successful.
3. Visiting project sites afforded MCHIP opportunities to work together with grantees to assess/review processes and brainstorm changes, which could not be optimized through electronic and phone communication.
4. With MCHIP's TA, grantees were able to conduct population-based surveys to acquire the data needed to measure change (results) in project areas.

Figure 16. Prompt Care-Seeking: Increased Demand for Prompt Malaria Treatment (general indicator: percentage of children under five treated promptly with an appropriate antimalarial*) in Three-, Four-, and Five-Year Projects



*Indicator definitions vary.

Figure 17. Percentage of Children under Five in MCP Project Areas Who Slept under an ITN the Previous Night* Compared to National Trends**



*Household surveys were carried out in MCP project areas and are not nationally representative.

**Limited availability of national coverage estimates through DHS/MIS.

Challenges and Way Forward

Maintaining visibility for MIP programming, as the world focuses on universal coverage for malaria prevention and control, will remain both important and a challenge. The RBM MIP working group corrals the collective guidance of experienced researchers, technical experts, and programmers who bring to the forefront the latest critical thinking on MIP. The MIP working group's efforts are not only relevant, but important moving forward. The working group raises visibility for MIP programming and also fosters key partnerships between RH and malaria control, as well as supporting dissemination of best practices and lessons learned. MCHIP has also contributed valuable resources to expand MIP program learning and guidance to countries. The MIP case studies, synthesis brief, journal publication, and documentation of country-level MIP guidance and monitoring are important tools to guide countries as they revise MIP policies, improve planning, adapt best practices, and address existing challenges in their MIP programs. Targeted technical support to countries will be needed going forward to assist countries with adoption of WHO's 2012 updated recommendation for IPTp and to aid countries with prioritizing actions based on recommendations from the documentation of country-level MIP guidance and monitoring. In recognition of the toll MIP has on MNH, there should be a focus going forward on engaging MNH stakeholders to support the prioritization of MIP as a comprehensive component of MNH programming.

MCHIP has contributed to moving the iCCM agenda forward, and is a successful channel for disseminating learning for stronger program implementation and, ultimately, increased access to treatment services for children previously underserved. Challenges remain, however, in advocating for scale-up and strengthening of linkages with facility services, providing CHWs with an uninterrupted drug supply, developing sustainable approaches to supervision and performance improvement, and gaining policy and funding support. Fortunately, the landscape for iCCM initiatives and players is improving and expanding, and MCHIP has played a critical role in both global technical leadership and coordination. MCHIP closely supports A Promise Renewed and the Global Fund's new funding model, which are examples of opportunities to support national governments in scale-up of iCCM that will be important investments going forward. MCHIP's legacy of advocacy, TA, and program learning to scale up iCCM, in collaboration with global and national leaders, will prove valuable in reducing preventable child deaths.

MCP grantees exemplified the various roles that NGOs can play in advancing malaria control efforts in communities and in facilitating learning about these activities at national and global levels through partnerships and the dissemination of data-driven reports. MCHIP assisted NGOs by providing QA through site visits, report reviews, and survey consultations, along with documenting and disseminating their work through reports and case studies. There is a gap in evidence and general documentation regarding what works for community-based malaria control and lessons learned from these projects can inform future efforts. Important points for future projects to consider include appropriate M&E to document results and establishing partnerships with MOHs and community groups to both inform projects and to disseminate findings.



Family Planning

Introduction

MCHIP's Family Planning (FP) Team focuses on the health benefits of FP for mothers and children. FP integration within MNCH services is a key strategy for reducing maternal, infant, and child mortality and morbidity through the prevention of unintended pregnancies and the promotion of healthy pregnancy spacing. MCHIP-FP has successfully incorporated the following key components to more effectively meet the FP needs of women within MNCH services through the promotion of postpartum family planning (PPFP) to optimize the healthiest outcomes:⁶²



1. Providing proactive counseling to inform women about return to fecundity, risks of closely spaced pregnancies, benefits of pregnancy spacing and timing, and contraceptive use
2. Supporting women/couples to make voluntary and informed contraceptive choices
3. Integrating FP with other MNCH services, using a “no missed opportunities” approach
4. Addressing barriers to PPFP use and cultivating social norms supporting PPFP use
5. Advancing PPFP at the global level through strong advocacy and technical leadership

MCHIP supported PPIUD programs in 12 countries in Africa and Asia. Through regional workshops, in-country interventions to advocate and overcome concerns with evidence and standardized training, the PPIUD has become a viable PPFP option for many women.

Figure 18. Opportunities to Integrate FP through Contact Points along the Reproductive Cycle



MCHIP's strategy and comparative advantage have been to capitalize on health contacts during the course of pregnancy, childbirth, and the care of a young child. Every interaction, whether in a facility or in a community setting, is an opportunity to introduce messages on the healthy timing and spacing of pregnancies, provide counseling on PPFP, and encourage the adoption of a contraceptive method. Core- and field-funded programs explored and tested the feasibility of FP integration along the continuum of care.

⁶² Because ACCESS had a global Associate Award for FP that outlived the Leader Award (ACCESS-FP), MCHIP didn't begin work in FP until 2009 or Year 3 of MCHIP.

Partners

The MCHIP-FP team works closely with MOHs, WHO's office of Reproductive Health Research, USAID, local organizations (e.g., Shimantik, the Center for Data Processing and Analysis [CDPA]) and CAs (e.g., PSI, JSI, FHI 360, and EngenderHealth, IntraHealth International [PAC], Futures Institute, CORE Group, and many additional stakeholders through global TWGs.)

Coverage: 21 USAID Missions have invested in MCHIP for FP, 17 of which included PPFP.

Impact Indicators: Over 4 million women counseled on FP as part of integrated essential care services at MCHIP-supported facilities over the last six years, and 2.4 million couple years of protection (CYP) to avert pregnancy supported by MCHIP-FP services. A total of 15 FP policies in nine countries (DRC, Guinea, India, Kenya, Liberia, Malawi, Mozambique, Philippines, and Rwanda) were developed.

Engaging Global Actors in PPFP

MCHIP-FP's long history of reviewing the evidence base for PPFP, and growing that evidence through the development and documentation of program models for integrating FP with maternal health care, led to significant engagement from major global actors in FP. First, a "Statement for Collective Action for Postpartum Family Planning," calling for a renewed focus and commitment to meeting the FP needs of women in the postpartum period, was endorsed by 16 organizations and 147 individuals, around the time of the 2012 London Summit on Family Planning. Simultaneously, MCHIP's work to highlight the evidence of need among postpartum women caught the attention of WHO. Together with USAID, MCHIP and WHO developed the "Programming Strategies for Postpartum Family Planning," which provides strategies for policymakers and program managers on how to design a PPFP program. The document was published in November 2013 and launched during a press conference at the International Family Planning Conference in Addis Ababa, Ethiopia. Later, a commentary introducing the document was published in *Global Health: Science and Practice* (February 11, 2014, vol. 2, no. 1, pp. 4–9). The French translation of the "Statement for Collective Action for Postpartum Family Planning" was disseminated at two international meetings in Burkina Faso in February 2014, and a Spanish translation is forthcoming.

The MCHIP-FP team consistently reached across organizations and projects to attract new stakeholders to PPFP programming. Below are examples of results of this approach:

- Revitalized the postpartum IUD, the only LARC option for breastfeeding women during the immediate postpartum period. With partners, MCHIP held three regional meetings on PPIUDs (India 2010, Zambia 2013, Burkina Faso 2014) where MOH officials, program managers, technical advisors, and providers from 27 countries learned how to either introduce or scale up PPIUD program services.
- Provided TA to partner organizations, as, for example, in Liberia, to a CSHGP grantee to assist with replication of the MCHIP FP/immunization integration model at a larger scale.

Figure 19. Community of Practice as Channel for Linking of MCHIP and Partners, Global and Field Program Learning, and Coordinated Development of Products



Global Exchanges and Dissemination of Learning

MCHIP's advocacy for addressing the needs of postpartum women includes the facilitation of a **PPFP Community of Practice (CoP)** that hosts face-to-face annual technical consultations (the last one was held at the 2013 Women Deliver conference), as well as virtual discussions hosted on the Knowledge Gateway. This CoP has grown and generated TWGs. These platforms provide a forum to share field experiences and lessons learned and opportunities to collaborate with partners:

- The PPFP CoP has 1,306 members in 87 countries. MCHIP, with EngenderHealth and PSI, created an expansive PPIUD section, now the most visited tab within the PPFP toolkit. MCHIP hosts online discussion forums through the CoP.
- MCHIP created a Social and Behavior Change Communication (SBCC) for PPFP guide and e-learning course to build the capacity of technical advisors and program staff in this area, and to ensure that strategic, evidence-based, and sustainable approaches are used. The resources articulate seven key PPFP behaviors with strategies and steps for designing and implementing SBCC for PPFP.
- MCHIP co-leads the Maternal, Infant and Young Child Nutrition (MIYCN) and FP Integration Working Group with the SPRING project and a CoP with 199 members from 13 countries. An output of this work was to add LAM messages on the exclusive breastfeeding and complementary feeding cards in the UNICEF Community Counseling cards for MIYCN.⁶³ Collaboratively, the working group developed the MIYCN-FP toolkit.
- MCHIP also co-leads the FP/Immunization Integration working group with FHI 360. This CoP has 194 members in 19 countries and produced an FP/Immunization Integration toolkit, developed indicators for integrated service delivery, identified research gaps to inform future programming decisions, advocated for immunization community stakeholder buy-in, and wrote the High Impact Practices Brief on FP and Immunization integration. This brief has raised the profile of FP/immunization integration and outlines the rationale, program considerations, different types of service delivery models and evidence, and challenges and knowledge gaps.
- MCHIP published eight **country** PPFP profiles using DHS data, highlighting missed opportunities for integration of FP for women through two years postpartum; these profiles are used at country level to raise awareness of the unmet FP needs of postpartum women.
- MCHIP completed a manuscript of a multi-country DHS analysis on postpartum women from 21 countries, exploring trends in unmet FP need, short birth-to-pregnancy intervals, timing of key factors related to fertility return, linkages with FP use and other MNCH services, as well as method mix. This manuscript will provide new estimates of prospective unmet need among postpartum women, updating a seminal paper by Ross and Winfrey published in 2001.

⁶³ http://www.unicef.org/nutrition/files/Key_Message_Booklet_2012_small.pdf

Key Achievements and Results

Integration of Family Planning with Maternal, Newborn, and Child Health and Nutrition

Integration with Maternal Health

MCHIP has expanded FP method options in the immediate postpartum by initiating or expanding **PPIUD services** in 13 countries: **Bangladesh, Ethiopia, Guinea, India, Malawi, Mali, Mozambique, Pakistan, Paraguay, Philippines, Rwanda, Yemen, and Zambia**. Counseling begins during ANC, which allows a woman to choose and then obtain a postplacental PPIUD (within 10 minutes of placental expulsion) or intra-cesarean. Counseling can also take place in the immediate postpartum period up to 48 hours after birth, where, if adopted, insertion can be carried out pre-discharge or the morning after. The **India** program first initiated PPIUD programs in one state and has since brought the intervention to scale through partners, strong advocacy, and a supportive MOH.⁶⁴

PPIUDs in India:

India is currently rapidly scaling up PPIUD services. A recent follow-up survey enrolled 2,733 women who received a PPIUD prior to discharge and 1,730 women (63.3%) were interviewed at a 6-week follow-up visit. Results show:

- Expulsion rate of 3.8%
- Infection rate of 5.4%
- 90% of women satisfied with their choice of PPIUD

MCHIP facilitated dissemination of national guidelines on PPF/PPIUD in **Guinea**, and follow-up documentation indicates that 92% of women are still using PPIUDs at the one-year follow-up. In **Mali**, MCHIP introduced PPIUDs in two regions, Kayes and Sikasso, and strengthened PPIUD services at a major teaching hospital in Bamako. In **Paraguay**, MCHIP supported the documentation of a study demonstrating low expulsion rates of PPIUD that served as the catalyst for the standardization of the insertion technique. An abstract for this study, “Postpartum IUD in Paraguay: A Case Series of 3000 Cases,” appeared in the journal *Contraception* (Araujo et al., 2012). A full paper was also prepared and submitted.

Figure 20. Contraceptive Prevalence by Wealth Quintiles in Each Arm of the Healthy Fertility Study, Sylhet Bangladesh



Integration with Maternal and Newborn Health and Breastfeeding

MCHIP-FP, JHSPH, the Bangladesh MOH and Family Welfare, CDPA and Shimantik—local Bangladeshi NGOs—collaborated on “The Health Fertility Study” to address the unmet need for postpartum contraception in Sylhet District, **Bangladesh**. This study assessed the effect of integrating evidence-based PPF activities into an existing community-based maternal and newborn care program through antenatal and postpartum home visits as well as community mobilization.

Data collection occurred at 3, 6, 9, 12, 18, 24, 30, and 36 months postpartum. Study findings demonstrated that integration of FP services into a community-based MNH service delivery platform is feasible, effective, and did not negatively affect coverage of MNH interventions. Community mobilizers recruited LAM Ambassadors—mothers who practiced exclusive breastfeeding and LAM for a full six months—to deliver BCC messages and promote

⁶⁴ Kumar S et al. 2014. Women’s experience with postpartum intrauterine contraceptive device use in India. *Reproductive Health* 11: 32.

breastfeeding and FP behaviors through community meetings and one-on-one engagement with key stakeholders in the intervention area. By 12 months postpartum, 87% of study participants had attended at least one community mobilization meeting, and exposure to BCC messages on birth spacing, LAM, and postpartum care was nearly universal.

HFS interventions were associated with a 20% increase in the probability of contraceptive adoption during the 36 months postpartum and a 21% reduction in probability of pregnancy incidence in the intervention clusters compared to control clusters. Among intervention area participants, current modern contraceptive use was highest among individuals in the lowest wealth quintile. Overall, women in intervention areas were 21% less likely to have a birth-to-pregnancy interval shorter than 24 months. Among contraceptive methods, LAM was an important method of contraception at three and six months postpartum in the intervention area. However, at 12, 18, 24, 30, and 36 months postpartum, pills were the preferred method for users in both study arms, followed by injectables and condoms. The study initially did not include work on family planning service outlets, but over time CHWs were trained to dispense short-acting methods.

HFS CHWs were the primary source for condoms (88%) and pills (71%) in the intervention area. In the comparison area, pharmacies or shops were the main source for condoms (87%) and pills (57%), followed by government health facilities. In the intervention area, the March 2011 introduction of community-based injectables through HFS CHWs corresponded to increases in injectable use from 12 months (8%) to 36 months (10%) postpartum. User preferences on the source for injectables suggest that HFS CHWs provided injectables to 65% of women in the intervention arm, whereas 75% of control area participants obtained injectables from government health facilities, highlighting the willingness of individuals to utilize functioning public sector services. The lack of or low adoption of long-acting methods should be interpreted with caution as it may be linked to the lack of access to those methods in the study area rather than the preferences of postpartum women.

Integration of FP with Child Health

MIYCN and FP programs and services are perceived as distinct, yet integration of these interventions can be mutually beneficial for mothers and their children.

MCHIP worked collaboratively with the **Kenya** Ministry of Public Health and Sanitation, Department of Family Health, through the Divisions of Nutrition and Reproductive Health to initiate a demonstration program integrating MIYCN with FP services in six health facilities and adjacent community units. A “One Stop Shop” approach was used to ensure that clients visiting the MCH clinic received critical MIYCN and FP information and services during antenatal, delivery, postnatal, FP, and child welfare visits. Strengthening CHW knowledge and skills for counseling on MIYCN and FP during home visits and community activities was a key component. Strategically designed SBCC materials were developed (based on findings from formative assessment) to support the integrated approach. Despite challenges to optimal data collection, supportive supervision findings after one year of intervention revealed a 50% increase in demand for nutrition and FP services and 80% increase in MIYCN-FP knowledge by both mothers and health care workers. Health workers also reported increases in exclusive breastfeeding and the practice of LAM, and increased community dialogue about MIYCN and FP. An evaluation of this approach is currently under way.

In **Yemen**, a study on MIYCN and FP was conducted in March 2014. This qualitative study focused on determining the current practices for MIYCN and FP. The study aimed to identify mothers’ willingness and ability to try and to continue new practices, and barriers and motivators for using optimal MIYCN-FP practices. Members of the MCHIP-FP team contributed to the development and field-testing of the study tools and protocol, analysis of the

findings, and determination of implications. The study report is currently under development/review and will be shared in the coming months.

FP and immunization integration capitalizes on high coverage of child immunization. Ensuring that FP counseling and services are linked to infant vaccination contacts has the potential to reach mothers with FP information and services at a critical time—during the 12 months following birth.⁶⁵

“Some [clients] are saying their husbands say they should take FP and they come here more because they know they can get immunization at the same time. It helps us to meet the Ministry target [for immunization]. It helps you to be known in the community.” - Vaccinator

Beginning in 2011, MCHIP and the **Liberia** MOHSW provided short, targeted FP and immunization messages and same-day FP referrals to mothers bringing their infants to the health facility for routine immunization in a total of 10 facilities in Bong and Lofa counties. In 2011, a formative assessment was conducted to inform the development of strategically designed tools and materials to support the integration approach. Implementation of the demonstration project took place from March–November 2012. Findings from the final assessment in December 2012 included the following:

- The number of new contraceptive users at participating facilities increased by 90% in Lofa County and 73% in Bong County. FP users who were referred from EPI and accepted a method on the same day represented a large proportion of the total number of new contraceptive users in participating facilities—44% and 34% of all new contraceptive users in participating facilities in Bong and Lofa counties were same-day EPI-referral acceptors.
- Pilot facilities experienced an increase in the number of doses of Penta 1 and Penta 3 administered. In both counties, the increase in Penta 1 outpaced Penta 3, resulting in a net increase in the Penta 1–3 dropout rate. However, changes in immunization were more likely because of external factors (e.g., human resource constraints and drop-off in performance at one large health facility, higher background rate of dropout in the target facilities) rather than the integrated service delivery itself. Dropout from Penta 1 to Penta 3 is a challenge faced across health facilities. Vaccinators reported greater confidence and perceived that their value within the health system and community had increased as a result of the intervention. Interviews with service providers (vaccinators, in particular) suggested that the intervention may have also contributed to greater staff appreciation for good recordkeeping. Future integration efforts should continue to seek ways to minimize dropout rates—a problem that has been noted to challenge immunization services nationwide—such as through ensuring that FP providers remind mothers to return for their child’s next immunization visit and strengthening vaccinator communication about the importance of timely completion of the immunization schedule. Integrated service delivery continued at pilot sites even after the pilot phase was completed.

MCHIP-FP worked with the **Liberia** MCHIP team and the MOHSW to develop an FP/immunization integration implementation guide to highlight key components of the approach and recommendations for replication at additional sites. The MOHSW officially endorsed the approach for scale-up.

MCHIP has experimented with another approach to create service integration through **postpartum systematic screening (PPSS)**. In **India**, a PPSS study was undertaken in 18 sub-centers in one of the blocks (a geographical area with population of approximately 100,000) in Simdega district of the state of Jharkhand to assess whether the use of a systematic

⁶⁵ USAID High Impact Practices Brief: Family Planning and Immunization Integration: Reaching postpartum women with family planning services, August 2013.

screening tool could further increase the uptake of FP services during Village Health and Nutrition Days (VHNDs). MCHIP trained health workers in PPFP counseling in both control and intervention arms of the study. The results suggest that the screening tool did result in increased acceptance of FP (34% to 54%) among women with a child less than one year old who came to the VHND for immunization services, as compared to no change in the control group that was not using the tool (35% to 36%), but there was no difference for women attending VHND for other child health services. The results also suggest that the number of doses of immunization administered was not adversely affected by introducing the tool during VHNDs, but population coverage of immunization was not assessed.

MCHIP introduced a similar PPSS model in **Mozambique**. The intervention consists of training on PPFP and a one-page PPSS tool, onsite support to adjust client flow, monthly supportive supervision visits, and a newly established referral system in three health centers in Maputo City (Health Center Polana Caniço, Health Center Bagamoyo, and Health Center Xipanmanine). Evidence from supportive supervision visits and service statistics indicated that the intervention did identify women's needs and resulted in referrals and FP uptake on the same day. Preliminary results showed that as high as 74% and 94% of immunization and postnatal care clients were screened with the tool, resulting in 31% and 64% of same-day referral (of those who were screened) from these units, respectively. However, high volume of well-baby and immunization visits allows providers to screen only a portion of eligible clients, representing missed opportunities. Currently, MCHIP is expanding this work to an additional eight sites (four intervention and four control) in Nampula Province between April and September 2014.

Partnerships

MCHIP's work with partners in **Liberia** was instrumental in scaling up LARC services. MCHIP was a driving member in the TWG and developed national FP guidelines and a national training package that was adapted to pre-service training as a partner in the Rebuilding Health Systems (RBHS) project. MCHIP's work contributed to an increased national CPR from 10% in 2007 (DHS) to 20% in 2013 (preliminary report). In **Mali**, MCHIP increased the availability of contraceptive implants in rural areas. Results from a task-shifting study indicated that an auxiliary midwife can provide implant services according to international standards, and implants were widely accepted by the communities they serve. The MCHIP **Guinea** program consistently achieved 99% or 100% of PAC clients counseled in FP over 3.5 years of operation, and a postabortion contraceptive acceptance rate increased from 73% in 2011 to 90% for the first six months of 2014.

Challenges and Way Forward

Among challenges, rigorous data collection was not always budgeted in pilot projects and data collection was limited. A key lesson is to plan for and adequately fund studies during the activity design stage. More work is needed to develop reliable means of collecting meaningful indicators of integrated services.

The way forward for MCHIP-FP is exciting. The FP Team plans to continue to explore integration as an implementation area of interest. The team plans to focus on youth and young, first-time parents, in particular, to establish good postpartum and newborn care practices including PPFP for healthy birth spacing. Gender norms and girls' and women's empowerment will be a cross-cutting issue that the FP team plans to address. Expanding the range of methods available in the postpartum period, MCHIP-FP will expand access to permanent methods, and, based on the outcomes of the WHO Medical Eligibility Criteria (MEC) consultation, incorporate progestin-only methods into immediate PPFP services. Finally, MCHIP-FP will continue to explore women's perceptions of their return to fertility, the use of LAM, and timely transitions from LAM to another modern method, and address the special needs of postpartum women living with HIV.



HIV/AIDS

Introduction

With a focus on “getting to zero:” zero new infections, zero AIDS deaths, and zero stigma and discrimination, MCHIP activities prioritized establishing and sharing evidence and best practices in HIV testing and counseling (HTC), with emphasis on linkages to care and HIV prevention efforts through voluntary medical male circumcision (VMMC), including early infant male circumcision (EIMC). Through core and field funding, MCHIP’s prevention of mother-to-child transmission of HIV (PMTCT) programs demonstrated that PMTCT efforts can be successfully leveraged to increase uptake of MNH services, as well as HIV services. For example, in **Kenya** and **Ethiopia**, PMTCT program implementation was associated with sharp increases in the number and percentage of pregnant women who completed four ANC visits and who gave birth with a SBA.



MCHIP’s PEPFAR-funded PSE nursing and midwifery programs helped build the knowledge and skills of the next generation of nurses and midwives in PMTCT, antiretroviral therapy (ART), FP, TB, and malaria. These PSE programs worked in **Lesotho** and **Ghana**, in partnership with MOHs, the Lesotho Nursing Council, Christian Health Association of Lesotho, the Nursing and Midwives Council of Ghana, and FHI 360’s Food and Nutrition Technical Assistance (FANTA) project. Finally, MCHIP provided TA and support to an Injection Safety and Post-Exposure Prophylaxis (PEP) program through a core-funded investment in **Malawi** and supported a comprehensive evaluation of USAID’s Centership model in **Namibia**.

MCHIP also undertook both qualitative and quantitative data analyses to characterize voluntary counseling and testing (VCT) clients and evaluate selected referral patterns for these clients and associated outcomes. Given the evolving landscape of HTC modalities, this analysis sought to help key stakeholders to better understand the role and contributions of VCT among the available testing modalities. These assessments, conducted in close collaboration with the Office of HIV/AIDS HTC team and staff from USAID/Zimbabwe, can be used to inform HTC strategic planning efforts. In addition, MCHIP recognized the potential global application of voluntary partner notification and linked HTC as a strategy to accelerate HIV case finding in PEPFAR countries. This approach has been instrumental in the conceptualization and protocol development for a pilot study to examine the relevance of this modality to HTC efforts in sub-Saharan Africa; **Tanzania** has been selected as the pilot country.

With the provision of VMMC services at scale, MCHIP made great strides in employing research findings, while ensuring implementation from the ground up. The program’s greatest areas of achievement were in providing TA to PEPFAR’s VMMC TWG, scaling up VMMC (reaching over 400,000 men with services), knowledge management, and OR. VMMC programs exceeded expectations, international guidance documents were developed and disseminated, and services became truly country-owned. Two of MCHIP’s three VMMC service delivery programs—

Tanzania and **Lesotho**—also succeeded in introducing EIMC, integrated with existing MNCH services. MCHIP focused on implementation at scale, while providing high-level guidance and TA to multiple countries, ensuring that new research was employed when applicable (such as with adult male circumcision devices), quality was maintained, and results were documented and disseminated through conferences, peer-reviewed papers, webinars, and other forums.

Key Achievements and Results

Injection Safety

MCHIP's core-funded injection safety and infection prevention (IP) program in **Malawi** trained providers and support staff on injection safety and PEP standards, including strengthening of reporting and management of PEP. Through the program, MCHIP advocated for interventions to fill the gap around resources for temporary medical waste and sharps collection and procured specific injection safety equipment for three hospitals.

Assessments conducted in August and November 2013 demonstrated positive movement toward institutionalizing IP practices in Mlare Hospital (one of three MCHIP-supported sites); the other two facilities demonstrated some inconsistency in uptake. Key results included the introduction of handwashing waste incineration areas, increased use of personal protective equipment, and procurement of pails and basins for management of linens and waste. Reporting of PEP cases has increased in all three facilities (no records were kept before infection prevention and control support was introduced through MCHIP). Mlare Hospital and St. Gabriel Hospital (a second MCHIP-supported site) were assessed in January and March 2014, respectively, under the MOH's National IP Assessors. Each facility achieved a score of 80% and above in all areas assessed, exceeding requirements for certification. Mlare Hospital was recognized as a "Center of Excellence" in IP practices. Continued challenges in all facilities include cost, staff turnover, and supply stock-outs.

Prevention of Mother-to-Child Transmission

MCHIP supported implementation of PMTCT interventions in **Kenya, Ethiopia, and Mozambique**. In Kenya, MCHIP adapted the Reaching Every District (RED) approach from immunization to also target low coverage areas of PMTCT; it was called Reaching Every Pregnant Woman. CHVs were mobilized in Bondo district, and between 2010 and 2012, they were part of critical efforts that increased the proportion of women who completed four focused ANC visits from 25% to 41%, the proportion of women who delivered with a SBA from 23% to 47%, and the proportion of HIV-exposed infants being tested at six weeks postpartum from 27% to 78%. By improving access to services along the continuum of care, more women and their children were able to receive the full range of PMTCT interventions.

In three regions of rural **Ethiopia**, PMTCT services were initiated in 39 health facilities, with focus on access and quality. The sites did not previously provide PMTCT or other HIV-related services. Through MCHIP's intervention, 109 providers were trained on basic PMTCT and MNCH services, the SBM-R approach was introduced, and testing was integrated into ANC, L&D, postnatal, FP, and under-five clinics.

In **Mozambique**, MCHIP and the Mozambican MOH introduced the Model Maternity Initiative (MMI), which promotes birthing practices that recognize a woman's preferences and needs. MMI focuses on humanistic care and the scaling-up of high-impact interventions, including PMTCT.

HIV Testing and Counseling

MCHIP, in collaboration with other partners, conducted both retrospective quantitative analyses and prospective qualitative analyses based on data collected from selected HIV VCT sites in **Zimbabwe** as part of an effort to better understand the characteristics of clients voluntarily seeking HIV testing and counseling at VCT sites and referral patterns associated

with this HTC modality, and inform approaches to HTC more broadly. The initial analyses included a desk review using existing **Zimbabwe** VCT program data. The desk review considered data from 16,971 male and female clients that looked specifically at referrals and linkages to care from HTC to VMMC and TB services. Initial findings showed that among 1,330 men who were referred for VMMC services, 530 (39.8%) completed VMMC referral. Among 203 men for whom these data were available, the mean number of days between provider referral and the initial visit to a VMMC site was 39.7. Of the total client population, 73 clients (0.4%) were referred for TB treatment (for confirmed cases) and further investigations (for TB suspect cases). Among these, 41 (56.2%) were tracked as having completed the TB referral. In addition, qualitative analysis of in-depth interviews with VCT clients who completed referrals revealed that quality of services provided was a primary motivator for referral uptake and referral of peers to HTC services.

The initial conceptualization and protocol development for the voluntary partner notification and linked HTC pilot, scheduled to take place in **Tanzania**, has been completed. This pilot evaluation will be an important part of efforts to understand whether voluntary partner notification and linked HTC is a proactive, case-finding approach that may provide a diagnosis to individuals at high risk of infection. The results from this study will provide key insights into the applicability of voluntary partner notification and linked HTC as part of country HTC strategic plans.

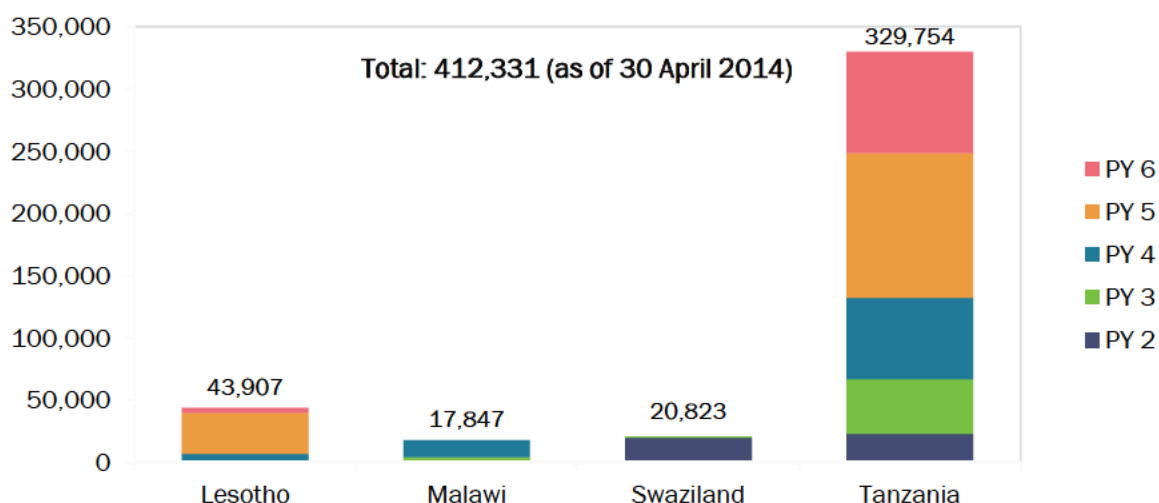
Voluntary Medical Male Circumcision

Over the life of the project, MCHIP provided global-, regional-, and country-level leadership in HIV prevention efforts through scale-up of VMMC. MCHIP accomplished four primary objectives for the VMMC program: technical assistance to PEPFAR's VMMC TWG, scale-up of VMMC, knowledge management and OR, and introduction of new technologies.

TA to PEPFAR's VMMC TWG. MCHIP provided significant TA through the development of global VMMC guidance documents, training packages, and QI approaches. In PY2, MCHIP began collaborating with WHO and UNAIDS in efforts to improve understanding about traditional male circumcision practices in a number of countries that have been prioritized for VMMC scale-up. In PY2, MCHIP created an e-learning package for VMMC program managers, clinicians, and researchers; it was finalized and disseminated in PY3. In PY3 and PY4, MCHIP supported the South African Centre for HIV/AIDS Prevention Studies in the creation of a VMMC Models for Optimizing Volume and Efficiency (MOVE) training video, which is a global resource for individual MC providers, implementers, and programs working in VMMC. In PY5, MCHIP contributed to, launched, and disseminated *PEPFAR's Best Practices for Voluntary Medical Male Circumcision Site Operations: A service guide for site operations*. The document has been posted with all related tools on WHO's male circumcision website. Finally, in PY5 and PY6, MCHIP collaborated with UNICEF to develop EIMC learning packages, drawing on experience from pilot programs in **Swaziland** and **Tanzania**. The training package is the first comprehensive resource on EIMC that is designed not only to transfer knowledge and skills, but also guide successful integration of EIMC within in the MNH platform.

Scale-up of VMMC. In PY2, MCHIP dedicated considerable effort to helping the MOH in the Kingdom of **Swaziland** prepare for a large, year-long VMMC campaign, called *Soka Uncobe* in Siswati. While *Soka Uncobe* was much less successful than hoped, due mainly to very low client turnout, it did yield important lessons learned for VMMC programs throughout the region, particularly in the areas of human resources for VMMC and matching supply and demand. Over the life of the project, MCHIP emerged as USAID's and PEPFAR's single largest VMMC implementing mechanism, as measured by the number of clients circumcised with MCHIP support. As of May 2014, more than 400,000 men received VMMC services through MCHIP (see Figure 21). In addition to circumcision, more than 90% of men in MCHIP's field programs were also tested for HIV.

Figure 21. Total MCHIP-Supported VMMC by Country and Program Year



Knowledge management. In PY4, MCHIP began documenting and sharing program results and achievements, including a highly visible VMMC advocacy satellite meeting at AIDS 2012 in Washington, DC. A key outcome of this meeting was documentation of successes and challenges to VMMC implementation and scale-up in East and Southern Africa. In PY5 and PY6, MCHIP with PEPFAR and other implementing partners hosted four webinars on VMMC for Eastern and Southern Africa, reaching over 570 live participants from 14 countries. Webinar topics included monitoring, reporting, and quality; communications; devices for VMMC; and safety. Finally, MCHIP contributed to the development and publication of two PEPFAR and UNAIDS VMMC supplements for *PLOS* collections in 2011 and 2014.

In close collaboration with the Office of HIV AIDS at USAID, MCHIP supported implementation of continuous quality improvement (CQI) approaches to ensure safety and quality of VMMC programs. To that end, MCHIP compiled generic quality standards based on MCHIP's field experience in **Tanzania**. The draft document was introduced and supported the initiation of CQI activities in **Uganda** and **Mozambique**. The document is currently adopted by PEPFAR as one of the key documents used to implement CQI approaches for VMMC. Its implementation in **Uganda** through USAID's ASSIST project demonstrated a marked improvement in quality as ascertained by PEPFAR's External Quality Assurance.

OR and introduction of new technologies. In its role in bringing VMMC programs to scale and ensuring the implementation of best practices, MCHIP also laid the foundation for the future of VMMC, particularly through OR surrounding the use and scale-up of devices for adult male circumcision. These devices are expected to play a key role in uptake and sustainability of VMMC services, and offer clients and providers an innovative option for non-surgical circumcision. In PY5 and PY6, MCHIP worked closely with partners to conduct studies to evaluate the use of the PrePex™ device for VMMC in **Tanzania** and **Lesotho**. Results from these studies will provide great program learning insight by determining the safety and acceptability of the device; evaluating the ability to task-shift using the device; and determining the acceptability of the device among providers, clients, and the community. MCHIP also developed a series of animated videos describing placement and removal of the device for clients and providers, and trained 10 providers from **Tanzania** and **Lesotho** on use of the PrePex™ device in early 2014.

Early Infant Male Circumcision

Sustainability of VMMC gains can be achieved only if next generation men access circumcision services in the first 60 days of life. A procedure done in early infancy (less than 60 days old) is

associated with fewer complications, fewer pragmatic challenges related to post-circumcision abstinence requirements, and lower costs. In addition, the easily performed procedure allows for broader task shifting. MCHIP took leadership in piloting EIMC programs in **Swaziland, Tanzania, and Lesotho**. MCHIP's early work in **Swaziland** helped provide key inputs for the development of the very first competency-based training package, reviewed and published by UNICEF in PY6.

Tuberculosis

TB has an enormous global burden, with more than 8.6 million incident TB cases and 1.3 million TB-related deaths globally in 2012. Out of the 8.6 million estimated incident TB cases, 2.9 million (35%) occurred in women and about 410,000 women died of TB in 2012. TB is complicated by and intertwined with the HIV epidemic. Globally, of the 35.3 million adults living with HIV, half of them are women. At least one-third of these people living with HIV (PLHIV) are estimated to be infected with TB and have 20–30 times the risk of developing active TB disease when compared with an HIV-negative person. In addition, PLHIV progress to active disease rapidly. TB is the leading cause of death among PLHIV, with about one in four deaths among them attributed to TB. Moreover, several studies showed that there are barriers to women in accessing TB diagnosis, prevention, and treatment services. This underlines the importance of mainstreaming TB prevention, diagnosis, treatment, and care services into existing MNCH and other RH services that provide care for women of reproductive age. Therefore, MCHIP has focused on integrating TB with MCH services to improve case detection and get clients with TB into treatment earlier—to ultimately save lives and prevent onward transmission.

MCHIP's work includes the use of an innovative measuring tape in PSE programs in **Ghana, Nigeria, and Liberia**, which includes clinical reminders about minimum focused ANC standards of care and specific information related to HIV and TB. The tape was also distributed to providers in **Rwanda, Angola, Malawi, and Tanzania**. MCHIP has also supported pilot implementation of TB screening in ANC in **Malawi**. Under the pilot program, health workers were trained in TB awareness and diagnosis for pregnant women; existing antenatal and cough registers were also modified to include case finding and a record of the time of TB diagnosis and initiation of treatment.

Centership Project

MCHIP also supported the evaluation of USAID's innovative Centership model. This community volunteer-based health information initiative was characterized by strengthening HIV and health information and referral links within the community and public and private facilities (as appropriate) in **Namibia**. The unique project combined health promotion with a small income-generating activity to test whether the model could create financially sustainable solutions for community volunteers. While MCHIP did not provide direct TA to the project, this evaluation shed light on several issues that in turn informed MCHIP's work in the field. Primary lessons learned included the importance of community leadership's commitment to projects during startup, the value of mentorship among CHWs, and the need for network and partner mapping to build on existing strengths and resources before expansion of a new or existing program.

Challenges and Way Forward

Development of global technical documents is often a lengthy process involving many partners and stakeholders, resulting in limited time to accommodate as many participants as possible. Despite challenges finalizing deliverables, MCHIP successfully contributed to a number of significant global technical documents. Some noteworthy products include the MOVE training video, *PEPFAR's Best Practices for Voluntary Medical Male Circumcision Site Operations* guide,

and EIMC learning packages. Future programming should build the consultative process into the timeline for development and then dissemination.

PMTCT remained underfunded as part of an integrated maternal health component for the life of the project, constraining MCHIP field programs. However, these programs managed to implement alternative strategies and strategically integrate PMTCT within the package of MNCH services in selected field locations such as **Kenya, Ethiopia, and Mozambique.**

Initial startup of the HTC study assessing partner notification had significant delays due to challenges identifying a country that has the capacity, relevant program, and Mission support to undertake the study. In the future, ensuring that countries and Missions were committed and had the capacity and personnel prior to developing and committing to the workplan activity would be advantageous.

In recent years, the global health community has become increasingly aware of the ways in which infectious diseases such as HIV, TB, and malaria contribute to maternal and newborn morbidity and mortality. MCHIP's experience and lessons learned strongly demonstrate the need for global health experts, specifically all maternal and newborn health care providers, to be able to identify and manage infectious diseases of importance. Therefore, infectious disease prevention, early diagnosis and timely management through PMTCT, case finding, screening, and treatment should be a primary area of focus, and the maternal health platform will remain the single most important way to address HIV prevention, care, and treatment for women during pregnancy, labor, and delivery.

The path to an AIDS-free generation requires a combination of evidence-based HIV prevention, care, and treatment interventions that can easily progress from implementation to scale. A key intervention and component of combination prevention (along with ART and PMTCT) that meets these criteria is VMMC. MCHIP has played a key role in preparing for the integration of the innovative and simple-to-use PrePex™ adult male circumcision device into programs. MCHIP's training, OR, and performance support tools on this device will prove invaluable for scale-up in the coming years. The PrePex™ studies in **Tanzania** and **Lesotho** will be continued under USAID's existing Accelovate project. Outcomes from these studies, along with similar studies happening in six other African countries, will inform the rollout and scale-up of devices for VMMC programs globally.

In addition, as all HIV-related interventions require an individual's knowledge of his or her HIV status, different models of HIV testing need to be considered in future programming. Disseminated results from MCHIP's HTC study assessing partner notification will therefore offer important contributions and will impact future and ongoing HTC implementation, as well as referral.

As the three high-impact HIV interventions (ART, PMTCT, and VMMC) are implemented at scale, "getting to zero" in the world's highest prevalence settings may become a reality sooner than previously thought.



Urban Health

Introduction

Over the past six decades, the world's urban population has grown nearly five-fold. Africa's urban population, alone, is expected to double from 294 million in 2007 to 742 million by 2030, with more people living in urban rather than rural areas. Already, over 1 billion people—or one in every three urban dwellers—now live in under-served, needy habitations. Given that there is little evidence regarding the urban health experience globally, USAID sought to capitalize on MCHIP's platform to invest in two countries that are facing these



urbanization trends to better understand and address urban health challenges.

Ethiopia presented an important opportunity given the Government of Ethiopia's leadership in establishing the Urban Health Extension Professional Program (UHEP) throughout the country to improve access to and demand for health services. With core MNCH funding, MCHIP linked **Ethiopia's** key UHEP stakeholders to the broader urban health professional communities of practice. This created opportunities for sharing implementation experiences, which informed the design of innovative program approaches to improve the quality and/or utilization of evidence-based MNH services in **Ethiopia's** urban and peri-urban areas.

MCHIP Urban Health collaborated with USAID/UHEP to promote the development of urban health leaders in **Ethiopia** and to design and test innovative program approaches that could improve the quality and/or utilization of evidence-based MNCH services in the country's urban and peri-urban areas. The intended goal of this support was to increase MNH services, particularly institutional delivery at public health facilities. Efforts focused on identifying innovative, cost-effective, and locally adaptable interventions that would help to improve the health outcomes of women and children in the urban community. A thorough formative phase (which included a desk review, exchanges, and site visits in **India** and **Brazil**, as well as qualitative and quantitative work) informed the development of pilot interventions to improve the quality and/or utilization of evidence-based MNH services in urban and peri-urban areas of **Ethiopia**. Hawassa City was then selected to test some of these approaches to provide evidence-based information for future scale-up.

In **Kenya**, PPH is the leading cause of maternal mortality, accounting for about 25% of maternal deaths. The majority of these deaths (88%) occur within four hours of delivery (MOH-Kenya annual Statistical Report, 2008). Early recognition at the community level and prompt management of PPH are crucial to maternal survival, especially given that most deliveries take place at home. The current WHO PPH guidelines do not include recommendations for non-skilled providers nor community-level education. MCHIP therefore invested some urban funds to design an interventional study that included both a clinical quality and a community BCC component to demonstrate a community approach to prevention of PPH, working with the DRH, DCAH City Council of Nairobi, and the Tupange Program, funded by the Bill & Melinda Gates

Foundation. Once tested, this MCHIP prevention of PPH model was intended to inform similar urban maternal and FP health activities in **Kenya** and other countries.

Key Achievements and Results

Ethiopia: Because there was a limited body of research and program evidence on urban health work, the urban health work in **Ethiopia** started with a research and data collection phase (Phase 1) to inform the selected activities pilot testing implemented later in the project (Phase 2).

Phase 1: Preliminary research and situation analysis to inform programming: International exchanges. To gain exposure to different approaches to improve demand and access to health services in urban settings and foster cross-learning, MCHIP supported the participation of urban health champions from **Ethiopia** at the annual International Conference on Urban Health in **Brazil**, where they learned about tested urban health approaches and conducted site visits to see Brazil's Family Health Program—upon which Ethiopia's UHEP was originally modeled—in action.



Subsequently, MCHIP collaborated with USAID/**India** and its Health for the Urban Poor project to organize a 12-day exchange visit to Mumbai, New Delhi, Pune, Bhubaneswar, and Agra for 15 urban health leaders from Ethiopia's Federal Ministry of Health (FMOH) and its Regional Health Bureaus (RHBs), during which they learned how health issues are being addressed in India's highly diverse urban and peri-urban areas. They also shared experiences, tools, achievements, and challenges of working with low-income urban populations. Participants returned equipped with ideas for adaptation to the Ethiopian context, including fostering inter-sectoral collaboration, developing public/private partnerships using the Corporate Social Responsibility model, using e-infrastructure to streamline systems—web-based data management, telemedicine, and mHealth. The foundation was laid for a continuing bilateral partnership between the two country teams and their USAID Missions.

Secondary analysis of urban data from the 2011 Ethiopia DHS (EDHS). Following the international exchanges, MCHIP conducted a secondary analysis of urban MNCH data from the 2011 EDHS to specifically tease out information pertaining to MNCH problems and health-seeking behaviors of **Ethiopia's** urban poor. Findings revealed that there was considerable variation in health-seeking behavior between geographical regions, across household wealth, maternal education, and maternal age groups. Wealth was the strongest predictor for all health services, showing a large gap in health care coverage between the poorest and wealthiest urban women and children. It is commonly assumed that urban populations enjoy better health than their rural counterparts since they have greater access to health facilities; however, the disaggregation of wealth highlighted alarmingly low health service utilization among the urban poor (often lower than women living in rural areas). Maternal age and education were also significant determinants for predicting ANC utilization.



Qualitative formative assessment. MCHIP also conducted a qualitative formative assessment in Hawassa to assess health facility MNCH readiness and determine the principal barriers (social, cultural, economic, geographic, etc.) to the utilization of facility-based MNCH services by

socio-economically disadvantaged urban populations. Findings showed that although there was general recognition that ANC and institutional deliveries help improve the health of mothers and newborns, the level of awareness and understanding of the benefits of MNH services varied and many questioned whether such visits were necessary. Further, many women viewed institutional deliveries as necessary only when complications were present. PNC was primarily associated with newborn immunization and FP for the mother. Additional barriers to service utilization included: limited ability to pay for services; transportation (access or cost); perceptions of pregnancy and childbirth as a natural state not requiring medical intervention; availability of friends, family, and traditional birth attendants (TBAs) to assist with home deliveries; and mistreatment and lack of quality care at the facility (particularly in public facilities). Cultural practices that strongly promote home deliveries prevail, irrelevant of socio-economic and education levels. Findings revealed that multiple factors, often operating in tandem, influenced MNH service utilization.

The work conducted under Phase 1 provided a far better understanding of the target audience, the underlying attitudes, knowledge gaps, and cultural practices that affect MNCH service utilization. This led to the design of targeted approaches to increase MNCH utilization and coverage, some of which were then tested at a small scale in Phase 2.

Phase 2: Testing of innovative program approaches to improve the quality and/or utilization of evidence-based MNH services in Ethiopia's urban and peri-urban areas:

Based on findings from learning and research activities in Phase 1, MCHIP developed a joint activity plan with the City Health Department of Hawassa to work with urban health extension workers to increase institutional deliveries in Hawassa City. Given time and funding limitations, MCHIP chose to support the following three activities:

1. **Increasing the awareness and knowledge of the community regarding MNH services.** To broadly capture the attention of Hawassa's urban population, radio messages promoting the services provided in neighboring health facilities were developed and aired for five months. The post-airing evaluation, which included community survey data and focus group discussions, indicated that radio was one of the top three sources of information that reportedly influenced birth preparations, ANC, and institutional deliveries in Hawassa city. The spots created demand for health services and influenced misperceptions and misinformation.
2. **Improving client-provider interactions by enhancing interpersonal communications (IPC) between health care providers and clients.** Using IPC materials, job aids, and data collection tools, MCHIP trained 59 health care professionals from Hawassa's hospitals and health centers and 87 Urban Health Extension (UHE)-Professionals to enhance institutional delivery and improve health outcomes by improving health care providers' communication, refining their interpersonal skills, and strengthening workplace relationships. A post-training action plan was also developed to ensure that trained midwives and health care providers in turn trained other staff in their facilities (including clerks, heads, and security guards) to treat clients, particularly pregnant mothers, with kindness and respect. A standard exit interview checklist is also now being used by health facilities to measure the level of satisfaction of mothers who come to health facilities for ANC, delivery, and child immunizations.



3. **Improving referral systems for maternal health services (ANC, institutional delivery, and PNC).** A mapping exercise was conducted and a client-friendly referral directory was assembled and widely disseminated to help UHE-Professionals refer pregnant mothers to nearby health facilities.
4. **Project staff conducted extensive follow-up to assess the impact and benefit of these three targeted interventions.** As expected, the various pilot interventions and products were reported as helpful to clients and practitioners, but they alone did not ensure service utilization of MNH clients. Programs addressing urban health issues should also apply a “family-centered” approach to address the stated barriers related to family members’ expectations, needing permission, customs, and so forth. Positioning health as a family issue, and understanding the role each family member has to play (both as an enabler or a barrier), as opposed to only focusing on mothers, is critical to encourage the uptake of MNCH services in urban settings, as was evidenced by the qualitative assessment and radio spot evaluation.

Kenya: MCHIP worked in collaboration with RMHU, NCAHU, City Council of Nairobi, the Bill & Melinda Gates Foundation-funded Tupange Program, and other MNH partners to demonstrate a new approach to prevent PPH in low-income urban areas. This work targeted service providers, CHWs, and community members in three urban slums—Viwandani, Korogocho, and Mathare—and covered a community of approximately 400,000 people. The intervention included both a clinical quality and a community BCC component to improve knowledge of the dangers of PPH, encourage delivery with a skilled provider, and help prevent unwanted pregnancies. Leveraging the Tupange Program, MCHIP was able to tap into established community units with active community health extension workers (CHEWs) and CHWs.



Young mothers club session

MCHIP mapped health facilities in the sub-counties to provide information about which facilities community members can go to for maternity and FP services, and conducted a baseline assessment on FP intention after delivery and intention to deliver with a SBA. From the baseline findings, training materials were adapted and areas of weakness identified during the baseline were strengthened. Using a modular approach, eight key topics revolving around PPH were covered. Capacity-building activities were then carried out for service providers, CHEWs, and CHWs. A new approach targeting the CHWs and keeping in line with the MOH Community Strategy was used.



CHWs being shown uterine massage

The CHEWs then oriented the CHWs on providing information on PPH and FP to mothers. They were also updated on their role as a link between the community and the health facility to address a weakness identified during the baseline. After orientation, the CHEWs and CHWs established young mothers’ clubs within their communities. The clubs met weekly under the CHW facilitation to provide information on PPH and FP.

Initial analysis of the endline data revealed that prior to the training, most of the providers were not aware of the real causes of PPH and how to manage or treat it at either the facility or community levels. The mothers also saw PPH as either a curse or a normal occurrence and therefore did not think it required facility attention. After the training, it was clear that the young mothers were more aware and knew the benefits of birth spacing and facility deliveries.

Challenges and Way Forward

Urban health is a fairly new focus of public health, but one with distinct and urgent needs. The health system therefore must adapt to the changes caused by demographic shifts, and sustained investments are needed to improve maternal health and child mortality in urban areas to maintain current progress toward achieving MDGs 4 and 5.

MCHIP's accomplishments in urban health were a result of strong technical leadership, well-grounded research, close collaboration with local government at various levels, and small but targeted pilot interventions. MCHIP's urban health efforts in **Ethiopia** and **Kenya** contributed to the knowledge base for this important new health area through formative research as well as lessons learned from pilot activities. Research findings have informed a variety of stakeholders in urban health programming, including the **Ethiopian** and **Kenyan** governments, other urbanizing countries, policymakers, governments, donors, and program implementers, both local and international.

Although urban populations have proximity to health services within the city, evidence suggests that lower quintiles are not utilizing services as expected. Given the inequity in service usage by wealth quintile in the urban context, future programmatic efforts need to target the urban lowest wealth quintile that has lower patterns of maternal health service utilization (ANC and institutional delivery). The need to gain a better understanding of the factors affecting utilization of MNCH services in urban settings became increasingly evident as implementation of urban-focused activities progressed. There are many assumptions regarding the barriers to utilization in urban settings, but little data to validate these. Utilization patterns and barriers may also vary from one region to another. Therefore, program interventions need to be carefully designed to best reach the intended populations and health communication materials need to be culturally and contextually appropriate. Interventions should be based on the socio-economic and demographic characteristics that affect maternal health service utilization, such as age, level of education, and household socio-economic status/wealth.



Nutrition

Introduction

MCHIP used its global platform and influence with international partners and leveraged field funding to improve advocacy and program implementation to prevent anemia and stunting. As the two most prevalent nutrition problems affecting developing countries, anemia and stunting affect the ability of pregnant women and children (under five years of age) to learn, work, thrive, and survive. MCHIP strategically operationalized USAID's mandate to promote an integrated package of interventions to prevent and control the multiple causes of anemia, including iron deficiency, malaria, and helminth and microbial infections at the global and country levels. MCHIP focused on the first 1,000 days window-of-opportunity (from pregnancy to two years of age) to identify barriers and leveraged unconventional channels to improve MIYCN. Examples include the integration of MIYCN and FP counseling at each contact with women and extending beyond the health sector to form collaborations with agriculture to disseminate MIYCN messages.



Through these targeted efforts at the global and country levels, MCHIP introduced the concept of integrated maternal anemia control to participants at MCHIP global meetings from 61 countries and conducted anemia-control program activities in four countries—**Egypt, Kenya, Rwanda, and Yemen**. In addition, MCHIP supported the development of national policies, guidelines, training curricula for health workers, and nutrition strategies in three countries, as well as two major OR studies to identify barriers and facilitating factors for adequate MIYCN practices.

Key Achievements and Results

MCHIP's integrated platform provided opportunities for expanding program implementation to address the major causes of maternal anemia and stunting. MCHIP's Nutrition, Malaria, Maternal, and Reproductive Health Teams and USAID at the global and country levels (in **Egypt, Kenya, Rwanda, Yemen, and Zimbabwe**) worked collectively to increase attention to and program implementation related to anemia. This was achieved through Pathway 1, Global Leadership and Country Activities for Anemia Prevention and Control, and childhood malnutrition, including stunting, through Pathway 2, Global Leadership and Country Activities to Reduce Stunting.

Global Leadership and Country Activities for Anemia Prevention and Control

MCHIP utilized its maternal health platform to support advocacy efforts to improve programming for maternal anemia at the facility and community levels and increase awareness of other public and private sector organizations.

MCHIP developed the [*K4Health Anemia Prevention and Control Toolkit*](#), a comprehensive and current source of information and resources for policymakers and program managers on the prevalence, causes, and consequences of anemia. The toolkit provides a step-by-step guide on how to build and implement programs to address anemia using an integrated package that includes iron-folic acid (IFA) supplementation, malaria control interventions, and deworming. Reviewed by 15 health and nutrition experts, the toolkit was launched to an audience of more than 225 researchers and program implementers at the International Congress of Nutrition (ICN) and the CORE Group Partners' Meeting on Anemia (September and October 2013). To date, there have been 407 visits to the toolkit site, with a total of 785 page views.

To develop the toolkit, the MCHIP Nutrition Team compiled information on anemia trends and coverage of programs to address anemia, and conducted an analysis to determine if program coverage is related to anemia prevalence. To reach an even larger audience, this analysis was submitted to a peer-reviewed journal to promote further awareness about the importance of using and increasing the coverage of an integrated package for the prevention and control of anemia. MCHIP played a significant technical leadership role as a member of the Anemia Task Force (ATF) Secretariat, led by USAID and its partners, including MCHIP, CORE Group, FANTA-3, and SPRING. MCHIP guided the development of ATF's goals. MCHIP was also a key presenter on several panels at the CORE Group Partners' Meeting on Anemia (October 2013), displaying technical leadership by leading discussions of the first-ever electronic Integrated Anemia Prevention and Control Toolkit and secondary analyses of anemia trends and program coverage in Rwanda. These contributions led to MCHIP Nutrition and Malaria teams collaborating with USAID Malaria teams on the development of a brief to provide background information on the WHO recommendation to limit the daily dose of folic acid to less than 5 mg to mitigate folic acid's interference with malaria treatment.

MCHIP demonstrated global leadership in nutrition through symposiums on maternal anemia and calcium supplementation called "Guidance on Implementing Effective Programs to Prevent Pre-Eclampsia and Eclampsia and Anemia to Improve Maternal and Newborn Outcomes," held the day before the global meetings on maternal and newborn health in Dhaka, Bangladesh (May 2012) and Johannesburg, South Africa (April 2013). MCHIP sought participation and TA from other global programs, including the CIDA-funded Micronutrient Initiative, the Gates-funded Alive and Thrive Project, and the USAID SPRING project. Attended by 200 people from 61 countries, MCHIP and its partners advocated for increasing coverage of the integrated package to reduce anemia, presented evidence for improving supplies for IFA supplementation, and discussed demand issues related to IFA supplementation. MCHIP also featured **Kenya** and **Nepal** country experiences for improving IFA supplementation programs and introducing calcium supplements as part of ANC. Prior to May 2012, WHO released recommendations to prevent pre-eclampsia by giving calcium to women living in countries where intake of calcium is low. At the request of USAID's Maternal Health Team, the MCHIP nutrition symposiums purposefully showcased evidence on how to improve maternal IFA supplementation programs that can be used to inform the introduction of calcium supplementation.

MCHIP's Nutrition Team presented on maternal anemia prevalence and interventions at the Annual Meeting of the RBM MIP Working Group Meeting, "*Commitment to Strengthening, Accelerating and Supporting MIP Programming*," July 2014 in Accra, Ghana. As a result of the presentation, the MIP Working Group prepared a consensus statement on eliminating the availability of the 5 mg dose of folic acid by suppliers of micronutrients at both international and country levels.

To address other nutritional causes of maternal complications, besides anemia and calcium deficiency, MCHIP conducted a "deep dive" literature review and analysis of the impact of nutritional deficiencies on the major causes of maternal mortality, namely PPH, sepsis, and

PE/E. The review and analysis were presented as a poster at the ICN and were submitted to a peer-reviewed journal. Attention to improving maternal nutrition in country programs has been limited in most developing countries. This review will be used to advocate in countries for greater attention to incorporating maternal nutrition counseling into antenatal care and addressing the physical and cultural barriers to improved food intake during pregnancy. In addition, advocacy is needed to improve monitoring of maternal food intake through proxy indicators for quantity and quality to track the effectiveness of interventions.

MCHIP's global role was to address maternal anemia; however, anemia in pregnant women and their newborns is inextricably linked. Addressing iron deficiency in children during their first two years, when iron demands are the highest, is an important component of the integrated package to address anemia. With TA from the Nutrition Team, MCHIP developed a brief on DCC, which increases iron stores at birth. However, giving iron to children in their first two years remains controversial. MCHIP responded to this controversy by organizing the panel "Giving Iron to Children," at the ICN, which was made up of international experts to discuss related benefits and concerns. The panel was co-chaired by MCHIP and Dr. Francesco Branca, Head of Nutrition, WHO, and included participants from JHSPH, Aga Khan University, University of Barcelona, University of West Indies, and University of Minnesota. The panel provided a balanced view of current evidence about the harm of giving iron to and withholding iron from young children. The panel did not resolve the controversy, which can be resolved only through the World Health Organization's leadership, but it raised awareness about the issue, which was discussed in other sessions at the ICN.

Through advocacy at the country level, MCHIP positioned anemia on the agenda with **Rwanda's** MOH and **Kenya's** MOH's Division of Nutrition, now called the Human Nutrition and Dietetics Unit (HNDU), by organizing and sponsoring National Anemia Consultation and Stakeholders' meetings. As a result of the meetings in **Kenya**, stakeholders developed a workplan to improve the existing maternal anemia control program. Subsequently, IFA supplements were added back into **Kenya's** EML and separate IFA supplements were replaced with a combined IFA supplement with less folic acid (400 µg or 0.4 mg), in accordance with updated WHO recommendations to limit the amount of folic acid in malaria-endemic countries. In addition, MCHIP provided technical guidance on BCC materials developed by the HNDU in **Kenya** to assist health workers in counseling women about taking IFA. Further, as a result of the stakeholders' meeting, funding for IFA supplements was included in the World Bank-financed Health Sector Support Project. Given the lack of information about facilitators and barriers to taking IFA supplements, MCHIP/**Kenya** identified needed support during the stakeholders' meeting for qualitative research on IFA supplementation and the use of mobile technology as one tool to provide reminders about taking IFA supplements. Through this activity, PATH will investigate how calcium and IFA can be taken together, with TA on mHealth from MCHIP. By the end of MCHIP, there will be a report on the results of the research including women's perceptions and beliefs about taking IFA supplements with and without calcium supplements, whether they were able to comply with the recommended number of each supplement, and what tools helped them in taking the full course.

In **Rwanda**, a National Anemia Consultation was held (September 2013). Twenty-six participants attended the meeting with representatives and donors from diverse sectors, including health, malaria, agriculture, maternal, child, and reproductive health, and education, in addition to private sector representatives and donors from the food industry. Meeting recommendations to improve supply of and demand for anemia control commodities and programs were used to inform revisions to the *National Nutrition Strategy*. A *Secondary Analysis of the Rwanda Demographic and Health Survey* of anemia and anemia control programs was conducted and presented at the Consultation and at the ICN in Granada, Spain (September 2013). This analysis was submitted to a peer-reviewed journal article for publication.

Global Leadership and Country Activities to Reduce Stunting

MCHIP Nutrition and FP Teams have collaborated on a global scale to promote the integration of nutrition and FP messages at each counseling visit for pregnant women and women with young children. Because of the strong association between stunting and short birth intervals, along with other nutrition problems for women and children, promoting PFP has become a focus. The MCHIP Nutrition Team contributed to the development of the *Global MIYCN-FP Toolkit* and the MIYCN-FP Integration Technical Meeting (May 2010), and assisted in writing the technical report of the meeting. The team actively participated in and presented at subsequent MIYCN-FP technical meetings and developed MIYCN-FP-related counseling cards and posters to deliver key messages at each health contact with women as a key component of a pilot for the MCHIP/**Kenya** country program.

In each country program, MCHIP worked to improve MIYCN practices in an effort to prevent malnutrition, including stunting. In **Kenya**, MCHIP provided TA to the HNDU to develop *MIYCN National Operational Guidelines for Health Workers*. MCHIP helped the HNDU standardize mother support group efforts by developing a *Baby Friendly Community Initiative Tool*, and developed and tested a nutrition indicators monitoring tool for use at sentinel sites called the *Child Health and Nutrition Information System*. MCHIP assisted with training on these tools in Bondo and Igembe North sub-counties.

MCHIP Nutrition and Child Health Teams worked together to introduce nutrition counseling messages about feeding children during and after illness at oral rehydration therapy (ORT) corners in health facilities in **Kenya**. To provide annual support to World Breastfeeding Week (WBW), MCHIP assisted the HNDU with national-level advocacy activities, media events, and technical support to disseminate breastfeeding messages through their WBW Facebook page, *Let's Talk Breastfeeding, Kenya*. Created in 2011, the page has accrued 1,094 “likes” from **Kenya** and worldwide, over the course of three annually held WBW events, and 904 people have shared stories about breastfeeding during the same period. Additional cross-sectoral activities include work with the Ministry of Agriculture (MOA) to develop complementary feeding recipes using local foods, which were disseminated through MOH and MOA channels.

In **Rwanda**, MCHIP supported training for CHWs in MCHIP-supported districts using the national *MIYCN Community Behavior Change Counseling Package*. MCHIP worked outside the health sector to bring nutrition training and messages to the **Rwanda** Agricultural Board's Kitchen Garden training initiative, targeting the country's poorest families.

In support of evidence-based programs, MCHIP designed and implemented innovative OR studies to identify barriers to optimal MIYCN in the Middle East. In **Egypt**, MCHIP conceived of, designed, and implemented a four-part, mixed methods study examining factors associated with stunting. This study includes longitudinal follow-up of children to understand the progression of undernutrition and stunting in the first year of life (Part 1). This study used Trials for Improved Practices (TIPs) methodology to understand mothers' current practices, knowledge, and cultural beliefs related to infant and young child nutrition (IYCN) and explored motivations and drivers of junk food consumption in children less than two years of age (Part 3). The study also examined the role of other caretakers (i.e., grandmothers and fathers) and health care providers in influencing IYCN practices (Part 4). Finally, the study also provided information on cultural beliefs and perceptions of maternal diet during pregnancy and postpartum (Part 2), as well as weight gain during pregnancy and birth spacing among Egyptian women. The results of the study, which were presented at a national workshop in Egypt in May 2014 and in D.C. in July and August 2014 (at Wilson Center for International Scholars and the MCHIP office), have learning implications for Egypt and the region, and will inform global knowledge regarding factors associated with stunting. Two final reports, two technical briefs (English and Arabic), one counseling guide, and three journal manuscripts were submitted based on findings from TIPs and

in-depth interview data, secondary analysis of the 2005 and 2008 Egypt Demographic and Health Surveys, and the longitudinal part of the study.

The Nutrition and FP Teams worked together to design and conduct an MIYCN-FP TIPs study in **Yemen**. It is one of the few studies in **Yemen** with in-depth information on current MIYCN and FP practices and barriers and facilitators of optimal practices. The study will not only be critical to MCHIP's work in developing evidence-based counseling messages on MIYCN-FP for MCHIP's Associate Award in **Yemen**, but will also assist the Ministry of Planning and International Cooperation and its support to the global Scaling-Up Nutrition (SUN) initiative. The TIPs study was shared in a dissemination meeting with national-level stakeholders including the Ministry of Health in June 2014.

In **Zimbabwe**, MCHIP supported other analyses to prevent stunting, including a qualitative study on infant and young child feeding (IYCF) and an IYCF Nutrition Program Review in **Zimbabwe**, both of which were used to develop a National Nutrition Strategy. This strategy became a roadmap for implementing the National Food and Nutrition Security Policy that was approved by Parliament.

MCHIP contributions to MIYCN and MIYCN-FP in **Egypt** and **Kenya** were showcased in presentations at the Nutrition and Nurture Meeting in the United Kingdom (June 2013) and at the International Congress of Nutrition in Spain (September 2013).

Challenges and Way Forward

The MCHIP platform provided a critical and effective mechanism to integrate nutrition interventions to address malnutrition in developing countries. The MCHIP Nutrition Team worked with other MCHIP teams and partners to apply proven strategies, using integrated approaches to successfully advocate for introduction or expansion of maternal anemia control and stunting prevention programs in five countries. Increasing the use of the MNCH platform for nutrition at the national level would facilitate country implementation efforts to reduce malnutrition as an important cause of maternal, newborn, and child mortality.

Given recent increased global attention to malnutrition and the SUN initiative, future programming by all partners and programs should include integration of nutrition across health areas and influence SUN to redouble its efforts to prevent and control anemia and stunting using integrated approaches. Such approaches include incorporating FP, as an important intervention to prevent stunting in children, in nutrition programs. In the future, integrated programming, advocacy for, and programs related to anemia control and stunting should continue to be disseminated at the national level. Program implementation should be tailored to the needs and causes of malnutrition in each country, using multi-sector approaches (e.g., agriculture and civil society) to reach the most vulnerable and address the barriers to optimal nutrition. Nutrition programming should be expanded across sectors (i.e., agriculture, civil society) to increase efforts to address an array of barriers to optimal nutrition. Efforts should also be made to intensify these experiences at the country level, which would engage a greater number of partners and would facilitate “a call to action” to scale up effective interventions to eliminate malnutrition globally.

Recommendations and the Way Forward

As analytical evidence to support program directions becomes increasingly more important, MCHIP's lessons learned and thoughts for future directions can contribute to exciting ongoing discussions on post-MDG programming. Groundbreaking evidence on what strategies contributed to positive impact has accrued over the six years of implementation, allowing the Program to vet approaches that worked and identify remaining gaps. This section offers reflection on MCHIP's experience and the way forward across four areas: 1) global leadership, global alliances, and NGO partnerships; 2) cross-cutting themes; 3) technical areas; and 4) monitoring, evaluation, and research.

Global Leadership, Global Alliances, and NGO Partnerships

GLOBAL LEADERSHIP

- **Engage international experts to assure expansive opportunities for dialogue and advocacy:** Future programming should draw on a wide pool of expertise so as to assure expansive opportunities for dialogue and advocacy. MCHIP's fielding of a highly networked, senior-level team leveraged USAID's investments and positioned it to shape global policy and influence practice outcomes through participation in the global debate. With a history of engaging at the highest levels, many of the senior technical staff hired under the USAID project mechanisms have been credible speakers and expert witnesses when it comes to debate on policy and technical advances. The practice of engaging international experts, drawn from the countries benefiting from assistance, as well as from the United States, makes it inclusive and well-positioned to influence impact.
- **Promote horizontal coordination and common agendas through USAID's leadership:** USAID's efforts to promote coalescence around a common agenda and better coordination among its various projects and programs and those of other donors helped foster more united efforts to achieve impact. This is evident in how MCHIP built on the gains of earlier programming such as BASICS III and ACCESS⁶⁶ and intersects with Saving Newborn Lives, funded by Gates. Future programming will benefit from continued promotion of the horizontal coordination between projects to capture opportunities for maximizing impact. A good example of such an approach is the work done in 2011, led by the Global Health Bureau, which produced a collaborative document entitled *Finding Common Ground: Harmonizing the Application of Different Quality Improvement Models in Maternal, Newborn, and Child Health Programs* and which engaged many USAID projects and partners working toward one goal.

GLOBAL ALLIANCES

- **Ensure adequate collaboration and coordination with regional UN offices where appropriate:** Relationships between USAID-funded projects and WHO and UNICEF will remain critical, but while current policy efforts have been directed at WHO headquarters, future efforts should take into account the devolution of authority to the regional offices. There is some variation according to technical area; maternal health policy work remains centralized in Geneva, but immunization work is increasingly devolved to the regional office. Plans should be put forward to ensure adequate collaboration and coordination with

⁶⁶ Refer to Figure 2 of the report for more details on predecessor projects.

regional offices. Understanding the organizational structure and funding policies of UN agencies has informed the MCHIP Immunization Team's approach to coordination and collaboration. For example, the regional and sub-regional structures of WHO are influential in guiding country-level immunization decisions, so MCHIP consistently engaged those levels, especially when beginning to work in a country for the first time or advocating for new country strategies. To achieve broader impact, MCHIP's immunization staff participated in a multi-agency, region-wide review of the WHO Regional Office for Africa (AFRO) multi-year immunization workplan and on several policy advising groups, presented at many WHO/AFRO sub-regional immunization meetings that engaged all countries, and provided technical support to WHO/AFRO region-wide initiatives such as drafting of training modules and advancing pre-service immunization curricula.

- **Evaluate the effectiveness of GDAs:** The use of GDAs as a partnership/coordinating entity has expanded significantly; however, there has been little independent or objective evaluation of GDAs to determine whether the results are consistent with objectives. An independent evaluation would be useful to determine what changes, if any, would make this mechanism more effective.
- **Consider the nature and members of GDAs:** GDAs function best when all members are active participants and are available to contribute resources. mPowering is an example of a GDA that went from 10 to 18 members and was readily functioning, thanks to active participation by all members. On the assumption that the many GDAs will continue, there should be some consideration given to the nature and number of the members, and arguably should be more inclusive with members who are available to contribute resources.
- **Encourage collaboration with unconventional partners and institutions to enhance impact:** In an increasingly inter-connected world, developing networks across agencies and with different kinds of institutions will continue to be needed to stretch resources. MCHIP worked successfully with the United States Peace Corps, private sector groups, NGOs, both local and international, as well as faith-based organizations, and traditional multi-lateral donors such as WHO and UNICEF. Future programming should continue to seek out unconventional partners and create alliances that enhance impact.
- **Further assess the effectiveness of mHealth applications:** While the use of new mHealth technologies has been embraced by the public health community, there is a need for a more rigorous evaluation of mHealth applications in the future. MCHIP has begun this evaluation process and has found positive impact, for example, use of mobile applications increased utilization of maternal health services in **Afghanistan** and **Timor-Leste**. MCHIP also used mobile technology to good effect in 20 countries for capturing data on QoC, as well as the experience in **Madagascar** of using mobile phones for data collection on community distribution of misoprostol for PPH prevention.

LOCAL NGOS

- **Build capacity of local NGO partners with regard to management and administration to better respond to USAID requirements:** Dedicated resources for mentoring and coaching local NGO partners are critical to obtain optimal performance. In many countries, local NGOs are just beginning to play a major role in development, in part because of the public sector's acceptance to work with them. At the same time, local NGOs can find partnership with USAID projects challenging because of the stringent administrative demands. As USAID continues to leverage the local presence of partners, there needs to be managerial and administrative mentoring to local NGOs, given that many lack structures in compliance with USAID regulations, while at the same time, offering excellent insights and networks with local cultures. For example, USAID, through MCHIP and other health bilaterals, is working to mentor the organization Action Socio Sanitaire et Organisation Secours, which is a consortium of local

NGOs in **Madagascar**. The association brings with it a wealth of knowledge about the health profile in Madagascar that should be used in program planning for effective project implementation.

Technical Areas

MCHIP experience demonstrates that technical intervention areas are best able to flourish with multi-year investments and longer-term vision as planning frameworks. This approach gives rise to more robust programming and allows for multiple interventions to be implemented at the same time, as MCHIP has demonstrated through its longer-standing programs in **Bangladesh, Mali, Zimbabwe, and Yemen**. For example, in **Zimbabwe**, MCHIP has had five years of funding and is working across all of MCHIP's technical areas. MCHIP in Zimbabwe has been able to build relationships with the extended donor community and drive the agenda, particularly in the introduction of salient new vaccines. While this need is true for all technical domains, child health and immunization are two areas that would benefit enormously from long-term sustained programming to have a positive impact on coverage.

In all technical areas, an emphasis on improved indicators and practical data collection, as well as refined processes for measuring, analyzing, and visualizing RMNCH intervention coverage, is essential. District- and national-level planning and decision-making, including the use of dashboards, will be key to empowering communities to actively engage in decision-making and filling current gaps in RMNCH measurement—particularly with respect to obtaining information on quality and equity. Lessons and future directions of specific technical areas are outlined below. Additional information is further detailed in the preceding technical narratives.

MATERNAL HEALTH

- **Enhance PE/E management efforts:** Among the key maternal health interventions, efforts on PE/E management can still be enhanced. As the diagnosis and treatment of PE/E require frequent contact with the health system, uptake has been slow on changing policies and practices and has emphasized the use of MgSO₄ to treat eclampsia once detected. Based on the influential work implemented under MCHIP, future programming efforts should expand across the continuum of care and include two important added components: 1) calcium supplementation during pregnancy in areas where calcium intake is low to reduce the risk of developing PE/E; and 2) screening and early detection of PE through blood pressure measurement and simple urine protein detection at every ANC visit to improve prognosis by increasing opportunities for effective interventions to prevent progression of PE/E. This shift toward earlier detection, with treatment options available from a greater pool of providers, would result in greater reductions in mortality.
- **Support advocacy and education on community-based distribution of misoprostol:** The evidence in support of community-based distribution of misoprostol is compelling in its contribution to reducing mortality. However, the political commitment is fragmented, which has contributed to the slow and incremental progress in this arena. With the recent WHO endorsement of community-based distribution of misoprostol for AMTSL, global efforts should now be able to gain increasing traction, but future efforts must not underestimate ingrained resistance to using misoprostol in the community. While MCHIP studies have demonstrated that self-administration of misoprostol is effective in reducing PPH without loss into the community for further use, additional evidence is needed to rebut concerns on its use as an abortifacient, concerns that women will not be able to take the drug safely without medical supervision, and suspicions about task shifting. In addition, further advocacy is necessary for endorsement by WHO for self-administration of misoprostol.

- **Continue to address QoC and RMC:** RMC is another crucial area of focus that continues to need improvement. Building upon the undeniable momentum from the MCHIP QoC studies, future assessments should include comprehensive RMC components. Future projects should contribute to efforts under way to refine research and measurement methods to determine prevalence of RMC, the results of which should be used to improve the QoC that women receive.
- **Expand programmatic attention for ANC and PNC:** In addition to the major direct causes of maternal mortality discussed above, future programs should prioritize addressing the increasing proportion of maternal, perinatal, and newborn morbidity and mortality due to indirect causes, such as infectious diseases. There is a need for expanded programmatic attention to ANC and PNC services as key loci for improved and integrated service delivery.

CHILD HEALTH

- **Eliminate policy barriers and promote national coordination for child health services:** High-impact results for diminishing child morbidity are achievable only with supportive policies and government ownership. At the start of MCHIP, malaria CCM was rapidly gaining acceptance with support from PMI and the Global Fund (GF), but global awareness of diarrheal disease was very limited and, in many countries, there continued to be a lack of encouraging policies and resistance to the treatment of pneumonia by CHWs. USAID, through MCHIP, advocated for expanded resources for and enhanced visibility of diarrheal disease; sought to introduce CCM for the treatment of pneumonia into policy; and fostered the initial introduction and/or scale-up of iCCM in nine countries, often by building on an existing malaria platform. Eliminating policy barriers for task shifting and allowing CHWs to manage childhood illness, as well as promoting national coordination, will continue to be essential to implementing child survival services.
- **Promote the linkage between community- and facility-based child health services:** Reducing child morbidity relies heavily on a health system that backs the linkage between community- and facility-based child health services. Health systems need to foster this linkage in the areas of promotion of appropriate household practices to prevent disease and promote early care-seeking practices for childhood illness. For example, in the **Democratic Republic of Congo**, MCHIP emphasized the expansion of iCCM by working extensively with religious leaders to promote care-seeking behavior and partnered with UNICEF to develop a national advocacy strategy to fortify both WASH messaging and diarrhea treatment with zinc and ORS. The compelling child health agenda should continue to strengthen case management at both the community and facility levels to expand the scope of child health interventions, while bolstering the improvement of disease prevention practices at the household level.
- **Explore innovative interventions to eliminate barriers to implementation, which maintain high-quality services:** Global child health technical partnerships must continue to be innovative to surmount barriers for implementing high-impact interventions. For example, MCHIP assisted **Rwanda** and **Guinea** in piloting a more cost-effective model for training related to integrated management of neonatal and childhood illness (IMNCI) by reducing the IMNCI training course from 11 to six days, thereby reducing the financial barrier to scaling up. A comparison of health workers' competencies through review of records from 2011–2012 demonstrated that the shortened course did not sacrifice the QoC. Both countries adopted the enhanced modules as the new national training curricula. Increased cost-effectiveness allows for countries to implement IMNCI in a sustainable manner. In the future, child health efforts need to take advantage of these innovative interventions to eliminate barriers to implementation, while maintaining high-quality child health services.

NEWBORN HEALTH

- **Support the sharing and standardizing of key information:** Sharing and standardizing key information and best practices across programs and countries is central to improving newborn health programming. Future programs and partners should continue to engage in the Newborn Indicators TWG. MCHIP used the TWG as a platform to help inform the development of guidance documents for the global level, which can be used by many country programs and guide newborn programming using best practices. MCHIP's support to the testing and validating of key newborn health indicators, and subsequent sharing through the working group and relevant communities of practice, has helped to instruct the uptake of indicators in other countries and strengthen newborn programs.
- **Utilize evidence to guide future program activities:** Using the compelling results of evaluations and assessments can significantly bolster and guide future program activities. The findings of the MCHIP HBB process documentation exercises in **Bangladesh** and **Malawi**, and the two regional KMC assessments in Asia and Africa, highlighted that while the intense focus on training and site strengthening for both interventions is warranted, it is not sufficient to achieve implementation at scale. Future programs and efforts—notably the full suite of HBB learning materials—should take a more comprehensive HSS approach.
- **Promote and prioritize the use of high-impact interventions, including ACS:** The use of high-impact interventions should be prioritized in future programming. Based on MCHIP's multi-country study looking at provider use of antenatal ACS, future programming should include the continued promotion of ACS, which has been identified as a highly effective intervention to improve newborn outcomes of preterm births. In fact, according to the *American Congress of Obstetricians and Gynecologists Practice Bulletin 127*, antenatal administration of ACS is the single most beneficial intervention for advancement of newborn outcomes among babies born prematurely, and near universal coverage of ACS across 75 priority countries may result in a 40% reduction in newborn deaths arising from complications associated with prematurity.

IMMUNIZATION

- **Support technical capacity for immunization:** In low-resource environments with complex, decentralized health systems, the capacity building of health personnel is particularly needed to increase timely protection through the use of both new and traditional vaccines as part of broader strategies to prevent and control diseases and improve health. MCHIP's TA for immunization focused on fostering country capacity to manage routine immunization (RI) services and the smooth introduction of new vaccines. More work is needed to ensure that the improvements in technical capability are supported with reliable and sufficient resources, particularly for recurrent operational costs, so that RI actually functions in accordance with immunization budgets and plans.
- **Improve access to immunization for the vulnerable and hard to reach:** Although significant advancements have been made regarding immunization coverage in the last 14 years thanks to the paramount work of MCHIP and other global partners, this coverage is not high enough to reliably prevent disease transmission at the population level. As stated in the Global Vaccine Action Plan, which MCHIP helped to formulate, more work is needed to move from Reaching Every District—the paradigm of the past decade—to Reaching Every Community and even every child. This goal requires championing the commitment to serve the needs of these groups, improving the quality of immunization data, and promoting its active use by health managers, community members, and development partners to identify and reach the underserved.
- **Promote strong RI systems to deliver all vaccines safely, effectively, and efficiently:** Both new vaccine introductions and mass campaigns against measles and polio

attract resources and visibility that have the potential to benefit RI and other health interventions. However, given their uncertain timing and short-term nature, they do not take the place of RI, which requires its own direct investment as a cornerstone of primary health care services. To foster shared understanding and ownership of the challenges related to strengthening RI systems, MCHIP added elements of a QI approach, including the use of user-defined, rapid learning Plan-Do-Study-Act cycles, to reach more people. With the likely development of improved vaccines against TB, malaria, and possibly HIV/AIDS, there will be a growing need to ensure that RI systems are strong enough to deliver all vaccines safely, effectively, and efficiently to all intended beneficiaries.

FAMILY PLANNING

- **Continue support for PPFP and expand method choice:** Current global evidence suggests that as many as 65% of women in their first postpartum year have an unmet need for FP.⁶⁷ MCHIP's crucial efforts in PPFP, which have emphasized counseling on all methods, but removed barriers to access for the longer-term methods by promoting and offering PPIUDs, are one critical solution to this significant need. This was evidenced in the exciting rapid expansion of PPFP programming in **India**, where more than 100,000 women received the method of their choice. Support should be given for PPFP as a way of expanding method choice for women and ensuring that women have access to services that are most appropriate for their expressed needs.
- **Explore new messaging and SBCC approaches for PPFP:** Unfortunately, barriers within the health system can lead to dramatic decreases in product uptake. These obstacles, as well as facilitators around implementation and scale-up of FP integration with other MNCH services, including PMTCT, should be examined and well-documented. A new pivotal area of learning will be the efficacy of hormonal contraceptive methods when combined with antiretroviral therapy (ART). Critical program learning under MCHIP demonstrated that despite social and behavior change communication (SBCC) efforts to inform women about the return to fertility in the postpartum period, many misconceptions remain. Going forward it will be crucial to explore new messaging and SBCC approaches to cue timely uptake of FP among postpartum women. Future programming should also emphasize adolescents and first time mothers, who have unique needs that require specific and targeted interventions.
- **Extend FP focus on youth and young, first-time parents:** All females of reproductive age should have access to FP options. To build on the momentum of MCHIP through their integration of FP and maternal health, future projects should focus on youth and, in particular, young, first-time parents to establish good postpartum and newborn care practices, including PPFP for healthy birth spacing. Gender norms and girls' empowerment should be cross-cutting issues that are central to future project implementation.

NUTRITION

- **Expand the use of the MNCH platform for nutrition at the national level:** Integration of technical areas can be a vital strategy to increase uptake of high-impact interventions. The MCHIP Nutrition Team worked with other technical leads and partners to apply proven strategies to successfully advocate for the establishment or expansion of programs on maternal anemia control and stunting prevention in five countries. Going forward, boosting the use of the MNCH platform for nutrition at the national level will be crucial to facilitate country implementation efforts to reduce malnutrition as an important cause of maternal, newborn, and child mortality.

⁶⁷ Statement of Collective Action for Postpartum Family Planning, based on DHS analysis of data from 27 countries.

- **Support integration of nutrition across health areas:** Given recent expanded global attention to malnutrition and the Scaling Up Nutrition (SUN) initiative, future programming by all partners and programs should include integration of nutrition across health areas and harness the momentum generated by the SUN Movement to transforming that momentum into country plans and efforts to prevent and control anemia and stunting. These combined approaches in nutrition programs include incorporating FP as an essential intervention to avert stunting in children. In **Kenya**, MCHIP has bolstered the Ministry of Public Health and Sanitation to conduct advocacy around integration of MIYCN-FP and develop a model for implementation. The SUN movements efforts to integrate programming, advocacy for, and programs related to anemia control and stunting should be supported and continue to be disseminated at the national level.
- **Use multi-sectoral approach to reach the most vulnerable and address current barriers to optimal nutrition:** Programs should be tailored to the causes of malnutrition in each country, using multi-sector approaches (e.g., agriculture and civil society) to reach the most vulnerable and address the barriers to optimal nutrition. Building on the innovative OR studies completed by MCHIP to identify barriers to optimal nutrition, programming should be expanded across sectors (i.e., agriculture, civil society) to increase efforts to address an array of barriers to optimal nutrition.

MALARIA

- **Maintain visibility for MIP programming:** Maintaining visibility for MIP programming, as the world focuses on universal coverage for malaria prevention and control, will remain an important challenge moving forward. The work of the RBM MIP working group, for which MCHIP's Director served as Co-chair, raises awareness for MIP programming and also plays a role in fostering key partnerships between reproductive health and malaria control, as well as encouraging dissemination of best practices and lessons learned. Participation by partners and continued emphasis on MIP will be needed to ensure that programs continue to spearhead MIP project components.
- **Utilize key resources to support country revision of MIP policies and programs:** Standardization and sharing of resources inspires program quality within and across technical areas. The MCHIP MIP case studies, synthesis briefs, journal publications, and documentations of country-level MIP guidance and monitoring are meaningful tools to counsel countries as they revise MIP policies and programs. Targeted technical backing to countries will be needed going forward to assist countries with adoption of WHO's 2012 crucial updated recommendation for IPTp and to aid countries with prioritizing actions based on recommendations from the documentation of country-level MIP guidance and monitoring.
- **Ensure that both local and international partners can help identify needs and opportunities in malaria programming through well-established presence:** With MCHIP encouragement, MCP grantees exemplified the various roles that NGOs play in advancing malaria control efforts in communities and in facilitating learning at national and global levels. There is a gap in evidence and general documentation regarding what works for community-based malaria control, and lessons learned from these projects can inform and help surge future efforts. Crucial points for future projects to consider include appropriate M&E to document results and establishment of partnerships with MOH and community groups to advise projects and disseminate findings.

URBAN HEALTH

- **Expand efforts to address the urgent and nuanced needs of urban health:** Despite its fairly new presence in the public health realm, urban health has nuanced and urgent

needs. It is critical that the health system continue to adapt to changes caused by demographic shifts; sustained investments are needed to improve maternal health and child mortality in urban areas to maintain current progress toward achieving MDGs 4 and 5. While important learning from MCHIP's urban health efforts in **Ethiopia** and **Kenya** has occurred, there remain areas to focus on going forward, including barriers to use of health services and inequities. The need to gain a better understanding of the factors affecting utilization of MCHIP MNCH services in urban settings became increasingly evident as implementation of urban-focused activities progressed. Given the inequity in service usage by wealth quintile in the urban context, future programmatic efforts need to target the urban population's lowest wealth quintile that has significantly lower patterns of maternal health service utilization (ANC and institutional delivery).

HIV

- **Enhance and emphasize infectious disease prevention, early diagnosis, and timely management through PMTCT:** In recent years, the global health community has become increasingly aware of the ways in which infectious diseases such as HIV, TB, and malaria contribute to maternal and newborn morbidity and mortality. MCHIP's experience and lessons learned strongly demonstrate the need for global health experts, specifically all maternal and newborn health care providers, to be able to identify and manage infectious diseases of importance. Therefore, infectious disease prevention, early diagnosis and timely management through PMTCT, case finding, screening, and treatment should be emphasized. The maternal health platform will remain the single most important way to address HIV prevention, care, and treatment for women during pregnancy, labor, and delivery.
- **Continue to support VMMC scale-up:** The path to an AIDS-free generation requires a combination of evidence-based HIV prevention, care, and treatment interventions that can easily progress from implementation to scale. A critical intervention and component of combination prevention (along with ART and PMTCT) that meets these criteria is VMMC. MCHIP has played a complex and important role in preparing for the integration of the innovative and simple-to-use PrePex™ adult male circumcision device into programs. MCHIP's training, OR, and performance support tools for use of this device will prove invaluable for scale-up in the coming years. The PrePex™ studies in **Tanzania** and **Lesotho** will be continued under USAID's existing Accelovate Program. Outcomes from these studies, along with similar studies happening in six other African countries, will inform the rollout and scale-up of devices for VMMC programs globally.
- **Explore innovative models for HIV testing and counseling:** In addition, given that all HIV-related interventions require an individual's knowledge of his or her HIV status, different models of HIV testing need to be considered in future programming. Disseminated results from MCHIP's HIV Testing and Counseling study, assessing partner notification, will therefore offer focused contributions and will impact future and ongoing HIV testing and counseling implementation, as well as referral.

Monitoring, Evaluation, and Research

- **Enhance and further standardize approaches for measurement:** As a global program, MCHIP was well-positioned to track and synthesize lessons learned across countries. MCHIP made important contributions to measuring multi-country progress on scaling up high-impact MNCH/FP interventions, improving the quality of MNCH/FP care, and delivering services with equity. Looking ahead, future global projects can continue to build on this work and take an even more standardized approach to measuring and

synthesizing lessons learned in these areas across countries. To achieve impact at scale in the future, it will be important to identify and track progress for vulnerable segments of the population.

- **Build consensus on a common set of indicators and definitions:** Applying an implementation science approach in the future to conduct program evaluations, OR studies, and routine monitoring will yield a more comprehensive understanding of how program interventions were implemented, the results achieved, and the lessons learned that will be most relevant to other implementers. USAID renewed its focus on measurement during MCHIP's implementation. This was in part a response to concerns that development assistance be used for maximum impact and to gain a better understanding of progress toward MDGs 4 and 5. Moving forward, continued work is needed to improve MNCH/FP metrics, especially for routine tracking. There is a lack of consensus at the global level regarding a standardized core set of maternal and newborn indicators to incorporate into national HMIS, especially indicators that measure content and QoC. While progress was made in this topic through MCHIP and other partner support, for example with regard to the WHO recommendation to track uterotonic immediately after birth routinely for prevention of PPH, consensus is needed on other indicators. Future global projects should help facilitate this consensus-building process. Building a common body of work based on indicators and definitions shared by multiple countries and partners improves efficiency and allows for better comparisons of which strategies are achieving the best results.
- **Encourage collaborative QI efforts:** QI monitoring promotes evidence-driven service delivery. MCHIP has learned that successful QI approaches are stronger and more likely to be adopted nationally when implemented in collaboration with other local and international partners. For example, in **Bangladesh**, QI activities are implemented in partnership with WHO and the Japan International Cooperation Agency. In **Bolivia**, MCHIP is one partner in the ENLACE en Salud consortium of partners, which includes Care, Georgetown University's Institute for Reproductive Health, JSI, Socios para el Desarrollo, and PROCOSI. Through the ENLACE umbrella, SBM-R has been integrated into the Bolivian MOH's Family Community and Intercultural Health Strategy. Going forward, QI efforts should be undertaken in collaboration with key stakeholders and partners and in this way will lead to sustainable QI approaches and high-quality health services.
- **Utilize key QoC resources and tools:** MCHIP made an important contribution to measuring the quality of maternal and newborn care services, especially L&D services, through the QoC survey toolkit. The L&D observation checklist has now been adopted as an optional module of ICF/MACRO's Service Provision Assessment so that many countries in the future will have the opportunity to use this tool. A complementary *Clinical Observer Learning Resource Package* developed by MCHIP provides a set of resources for training clinicians to observe client-provider interactions in a standardized way. This resource package has now been disseminated and should be a valuable tool for other organizations conducting direct observation.
- **Support and encourage the production and utilization of high-quality data:** In the future, emphasis should increasingly be placed on the quality of data, in addition to production and utilization of data. Routine data quality audits are needed to help improve the quality of HMIS data that governments and implementing partners like MCHIP rely on to inform programmatic decisions. This includes supporting regular data review meetings at the district level and identifying mechanisms to use the data. As many countries move to using and expanding the DHIS2 as their online, open-source system for housing, analyzing, and charting HMIS data, there may be more opportunities to access and use information at multiple levels of the health system.

Cross-Cutting Themes

MCHIP's experience has shown that the need to focus on cross-cutting areas is paramount to success. The areas of equity, quality, and scale-up are relevant to nearly all project activities. With a focus on improving equity and quality of projects, and assuring scale-up in a sustainable way, projects will achieve greater and more sustainable contributions to the health impact.

IMPROVING AND MEASURING EQUITY

- **Incorporate a health equity focus from the onset of a project:** To reach the most disadvantaged populations, programs must incorporate a health equity focus from the beginning by involving national and local governments and institutions, as well as communities. Equity will not be achieved as a byproduct of other developmental efforts—i.e., health interventions will not automatically reach or benefit the poorest and other disadvantaged groups. In fact, unless strategies are adopted specifically with clear goals established, interventions can have the unintended effect of exacerbating inequities. Programs need to clearly define equity goals and communicate them to program stakeholders, along with what specific actions are aimed at improving equity; how these improvements will be demonstrated and measured; and how these actions, if successful, might be sustained, institutionalized, and scaled up. MCHIP used their guide, *Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects*, to begin health equity dialogues in **Mozambique, Zimbabwe, Yemen, and Indonesia**.
- **Seek and consider data on equity during the design phase:** Discussions about specific patterns of inequities began under MCHIP and should continue in subsequent programs. Programs need to seek and consider data on equity during the design phase. For example, during the design phase of the MCHIP **Yemen** AA, there was recognition that the overall skilled birth attendance is very low. MCHIP's baseline survey in **Yemen** will let program managers know how health behavior is linked to socioeconomic status. Currently, asset questions on wealth, income, and food security are being added to the baseline survey to gain further understanding of the pattern of inequity and to adjust activities appropriately. These discussions should be part of the design of all programs.
- **Consider equity during scale-up to reach hard-to-reach populations:** Because marginalized populations are often the hardest and most expensive to reach, it may seem more efficient to concentrate scaling up of interventions to those who can be reached with fewer resources. However, recent modeling analyses⁶⁸ show that although such strategies may cost more per beneficiary, they may in fact be more cost-effective though they may never reach

MCHIP's Six-Step Checklist for Health Equity Programming

1. Understand the equity issues in the intervention area:
 - a. Identify inequities in health outcomes and the magnitudes of the differences
 - b. Understand underlying issues and barriers
2. Identify the disadvantaged group on which to focus
3. Decide what is in the program's manageable interest to change
4. Define equity goals, objectives, and a specific definition of equity
5. Determine equity strategies and activities
6. Develop and implement an equity-focused M&E plan

⁶⁸ Carrera C, Azrack A, Begkoyan G et al. 2012. The comparative cost-effectiveness of an equity-focused approach to child survival, health, and nutrition: a modeling approach. *Lancet* 380(9850): 1341–1351, 13.

universal coverage.⁶⁹ Moving forward, it will be important to understand the potential effects on inequities when programs are scaled up and develop strategies to avoid increasing inequities.

- **Utilize a community-based approach to decrease barriers to access and improve equity:** In many developing countries, portions of the population lack access to quality health services for a variety of reasons (e.g., geographic access, sociocultural, linguistic barriers). Providing health services through community-based approaches is a promising strategy to help increase health equity by overcoming the access barrier. This idea is supported by a recently published analysis⁷⁰ that looked at data for 12 key MNCH/FP interventions in 54 Countdown countries. The analysis showed that community-based interventions tend to be more equitably distributed compared to facility-based ones. MCHIP experience suggests that the best way to achieve high-quality, community-based services is through linkages with the formal health system. In **Bangladesh**, MCHIP linked CHWs to both the nearest health facility for supportive supervision to ensure the quality of services and with the local governance system to improve social acceptance. MCHIP also trained a private cadre of community skilled birth attendants so that communities without reasonable access to health services have a private provider available in their communities. These private providers were linked to the locally elected representatives to jointly determine how much they could charge and ensure free services to poor women, as identified by local government representatives. The results were promising—with an 11% increase in use of ANC and 20% increase in use of long-acting FP methods in hard-to-reach districts.⁷¹

EFFECTIVE AND SCALABLE COMMUNITY-BASED APPROACHES

- **Support national policies to promote and improve community-based primary health care:** Countries need to develop stronger policies and financing for community-based primary health care programming, robust CHW initiatives, and permissive policies that authorize the community-based delivery of specific, high-impact interventions (e.g., FP, misoprostol, chlorhexidine for prevention of newborn sepsis, etc.). National plans ought to be costed with consideration to possible NGO and private for-profit sector partnerships. Furthermore, there is a need to support the process of authorization for task shifting/task sharing to community-level workers. It is important to recognize that there can be resistance among other cadres to this sort of task shifting. To support community programming at scale, a full analysis of the system is necessary with consideration of the needs for investment across all the WHO “building blocks” of a strong health system: leadership and governance, financing, supply chain, HMIS, and workforce orientation and training (in addition to task shifting). Civil society and NGOs play a role in supporting and strengthening community-level structures and programming. This approach requires a policy-friendly environment for NGOs. There is a clear policy window now in many countries with the development, refinement, or tracking of national plans based on “A Call to Action, Eliminating Preventable Child and Maternal Deaths” and other frameworks for ambitious action. **India’s** plan,⁷² for example, has chapters on the importance of behavior change and community participation. One of the

⁶⁹ Gwatkin DR. 2002. Who Would Gain Most from Efforts to Reach the Millennium Development Goals for Health? An Inquiry into the Possibility of Progress That Fails to Reach the Poor, World Bank Health, Nutrition and Population (HPN) discussion paper, December.

⁷⁰ Barros A, Ronsmans C, Axelson H et al. 2012. Equity in maternal, newborn, and child health interventions in Countdown to 2015: A retrospective review of survey data from 54 countries. *Lancet* 379(9822): 1225–1233; doi: 10.1016/S0140-6736(12)60113-5)

⁷¹ (<http://www.mchip.net/files/mchip-event-presentations/10%20Unleashing%20the%20Potential%20of%20Community%20MaMoni%20Experience%20in%20Bangladesh.pdf>)

⁷² India Ministry of Health and Social Welfare (2013), A Strategic Approach to RMNCH+A in India, http://www.unicef.org/india/1._RMNCHAStrategy.pdf (accessed June 2014).

prioritized interventions is home-based PNC visits by Accredited Social Health Activists. This sort of community action could be deepened and broadened.

- **Expand the evidence base to understand the effectiveness of newer technical interventions delivered at the community level:** There is an ongoing need to expand the evidence base to test the effectiveness of newer technical interventions delivered in the community under realistic settings. However, the bulk of efforts for learning should be directed toward implementation research to elucidate how high-impact technical interventions can be delivered in context-specific situations, in sustainable ways, and packaged in combination. Suggested areas for emphasis for implementation research are:
 1. Investigation of community approaches at scale over longer periods of time. Most of the evidence reviewed was for programming taking place for two to three years within a tightly controlled project environment. Sustainable programming that can last beyond such a relatively short period might require additional supports. These should be better described.
 2. Investigating how best to address the bottlenecks to effective CHW and iCCM programs. iCCM programs delivered by CHWs are often targeted for difficult-to-reach areas where the health system is weak. Logistical and supervisory support continues to be difficult in many programs. Novel ways to ensure proper support for these programs is, therefore, particularly needed. mHealth supports might play a role in non-traditional approaches to supervision. The private sector may be able to play a role for logistics support for needed commodities. MCHIP's work in the **DRC** in assisting the iCCM program found that the supply chain for iCCM was completely separate from the national health system that experiences severe shortages of essential medicines.
 3. In many countries rolling out iCCM, CHWs are combining this new or strengthened treatment role with previous responsibilities for health promotion (e.g., the essential community health system in **Mali**, the Elementary Polyvalent Community Health Agent system in **Mozambique**, and the female community health volunteer [FCHV] system in **Nepal** are all examples of this). It will be important to determine which models are most effective for such integration, by either one or several cadres of health volunteers. MCHIP provided technical support to the SEC system in **Mali** in which CHWs provide iCCM, in addition to nutrition, ENC, and FP.
- **Utilize existing resources and tools:** Some of the necessary evidence does not need to come from new research projects, but could be obtained by analysis of the current and emerging peer-reviewed literature and program reports and evaluations from the grey literature. The CSHGP has the world's most extensive archive of community-based program evaluations and could be exploited further.
- **Include implementation support as well as practical problem-solving for CHW program strengthening:** Support for large-scale CHW program strengthening should involve combining implementation support with investigations into the critical bottlenecks and how to address them in practical ways. Other community-based delivery strategies should also be supported. Critical areas in building a health system's capacity are to: empower and mobilize communities; communicate health messages more effectively to the community; design programs, identify target groups, or carry out surveillance more effectively; or strengthen the health system in ways that would be of benefit for community-based programs (e.g., supervision of CHWs and provision of drugs and supplies to them). Supporting a health system to register vital events, for instance, or working effectively with village health committees could have benefits for improving MNCH/FP services. The review of the evidence identified four basic intervention delivery strategies: home visitation, community case management, participatory women's groups, and delivery of services at

outreach sites by mobile teams. Through the PVO grants, MCHIP supported all of these approaches. Through MCHIP country programs there was the most emphasis on iCCM and on outreach in immunization programming. Strengthening all of these approaches should be a priority, not just iCCM or outreach.

- **Utilize behavior change communications to bolster effectiveness of interventions:** Some of the influential high-impact interventions with the largest potential effect are not only those that can be delivered in the community, but specifically those that are behavior change interventions.⁷³ Bhutta and Black describe different high-impact packages of interventions for MNCH care. One of these is a package of nutrition interventions that includes breastfeeding. One of the most effective mechanisms for breastfeeding promotion is interpersonal behavior change. Care Groups have the power to do this effectively by combining the power of participatory women's groups with systematic home visitation. These groups have shown the potential to dramatically raise coverage of behavioral interventions, such as breastfeeding and handwashing, and others that have a strong behavioral component, such as use of ITNs and care-seeking for serious illness. There have been some early experiences with scaling up Care Groups and integrating them into national systems, most notably in **Burundi**. Systematically implementing and studying such approaches could go a long way toward helping countries reach their goal of eliminating preventable child and maternal deaths.

QUALITY OF CARE

- **Invest in implementation science to better refine and understand QI approaches:** Investment in implementation science to refine and understand the effects of the various QI approaches that have already been prioritized is crucial to improving quality (i.e., SBM-R and other facility-based approaches, including supervisory checklists, partnership defined quality [PDQ], and other community-inclusive approaches, and RAPID and other immunization QI approaches). It is a common issue with QI approaches that even published literature does not document well the types of activities that led to improvements in outcomes. To best facilitate learning, certain key implementation process elements need to be documented and analyzed regularly for any QI approach: description of the MOH and/or other personnel engaged to lead the QI process; the types and numbers of health workers trained in the QI approach and who received training; the types of QI activities in facility and district workplans; to what extent plans are followed; how often the Plan, Do, Study, and Act (PDSA) QI cycle was repeated; what specific improvements occurred at the facility and district levels; and what resources were provided or mobilized to make the improvements. These could include improvements in infrastructure, supervisory processes, institutionalization and standardization of registers, and use of job aids and reminders. There were promising outcomes using the SMB-R approach from MCHIP programs in **Mozambique, Guinea, Zimbabwe**, and other programs. Explaining better what was done in such instances would help in replicating this success. Other promising QI approaches should be brought in. Particularly promising are experiences with brief point-of-service checklists simple enough to be applied in real time, such as WHO's "Safe Birth Checklist."
- **Encourage community and civil society engagement in defining and implementing QI approaches:** Community and civil society engagement in defining and implementing QI approaches is important to ensure sustainable and culturally sensitive interventions. QI processes and tools should allow for the full participation of civil society. The use of PDQ or other community-inclusive approaches will be a priority. The project should also look for opportunities to evaluate such approaches.

⁷³ Bhutta Z and Black R. 2013. Global maternal, neonatal, and child health: So near yet so far. *N Engl. J Med.* 369(23): 2226–2235.

- **Emphasize the importance of respectful care as it related to quality:** The importance of respectful care as an essential element of QoC cannot be over emphasized. Building true symmetric partnerships between clients and providers increases the likelihood of better health care seeking and better outcomes. MCHIP's learning about and experience with respectful care, in conjunction with several other partners, has added critical knowledge to the field and should be incorporated in all QI approaches used. Work needs to continue on feasible and valid measurements, and, even more important, on effective methods for improving this aspect of care.
- **Explore innovative approaches to incentivize the institution and maintenance of a QI system:** Frontline health workers and their managers at the district level need strong incentives for instituting and maintaining a QI system. Strategies that incorporate a behavior change approach for providers should be explored further. Three performance-based incentive approaches appear to hold promise for use in low- and middle-income countries. These include rewards for attaining accreditation standards and rewards for achieving performance on quality components incorporated in correct treatment protocols. Some countries are also exploring the use of quality checklists or scorecards producing a quality index or score, which is then used to either inflate or deflate the performance payment that a health facility should receive based on the quantity of services delivered.
- **Streamline and simplify QI tools to improve institutionalization and sustainability:** QI tools should be streamlined to maximize the chance of institutionalization and sustainability within national systems. SBM-R is systematic and focused on the whole system, but the checklists can be quite lengthy when explanations and tables are included. RAPID is an example of a streamlined approach with promising results in one setting that other QI approaches might emulate. Simple and systematic data presentation and visualization are also important to ensure that data are used by those who need them most—health care providers and their managers. Application of only part of a QI tool at any one time, use of mHealth for data collection, and use of tablets to link specific improvement plans to identified weaknesses are all approaches currently being developed and piloted. The QoC assessment L&D observation checklist is currently being refined so that it has only 20 indicators (reduced from more than 100 in its current form), which would transform the QoC tool from its current quality measurement focus to a true QI focus.
- **Consider the entire health system when addressing QoC:** Many of the challenges in delivering QoC relate to underlying health system issues. An exclusive focus on improvement of quality of service provision will not achieve optimal results if other system issues such as commodity management and shortages of health workers are not addressed. A broader HSS approach is required. In addition, QI interventions cannot be time-limited and donor-driven, but must be institutionalized and sustained within national programs to strongly signal to providers that quality care is not optional. This can be done in multiple ways, some of which have already been piloted, but rarely scaled to the national level:
 1. More frequent and rigorous external verification of results (in SBM-R and other similar approaches)
 2. Linking facility scores on QI tools to provider pay and/or results-based financing programs
 3. Incorporating QI approaches into routine supportive supervision systems
 4. Blending QI tools with national accreditation systems or incorporating QI into the regulatory role of the MOH and rest of the government
 5. Encouraging the formation of QI committees in facilities

SCALE-UP OF HIGH-IMPACT INTERVENTIONS

- **Address scale-up with a comprehensive approach to systems strengthening:** Thinking in terms of systems is critical for sustainable scale-up. Public health interventions have multiple components and need supports across the health system. Almost all of MCHIP's scale-up cases took a comprehensive systems approach, seeking to address how the new practices would be supported through new governance, resourcing, and service delivery processes. Some of the most highly successful cases were those that were most driven by system thinking, such as the NUVI scale-up examples. In **Kenya, Malawi, and Tanzania**, there was near universal coverage of PCV in the first full year following introduction. The new vaccine was integrated into the national immunization programs' governance, resourcing, and delivery processes. All the interventions drew on robust international evidence of effectiveness, but were implemented in ways that were congruent with national health systems and structures. The ability to reach "impact at scale" is only as good as the weakest part of the process—so, for instance, even if training and supervision are good, but commodities are absent, impact will not be achieved. Similarly, if the commodity is present but training follow-up and supervision systems are weak, the commodity may not be used well, again lessening impact at scale.
- **Addressing and ensuring quality at scale is essential:** Obtaining high coverage with poor quality and then hoping to "fix" quality issues later is risky. Donor and MOH priorities may well shift later, robbing the ability to fix the problems, and, in addition, high ineffective coverage will not achieve impact at scale, taking away effort from other more effective programming as well as being demoralizing. MCHIP experiences have highlighted the need to have quality at scale be a primary goal in any scale-up plan. This means applying a systematic approach from the beginning that tries to address all six of the Health System Building Blocks in order to achieve sustainable results: governance (i.e., policy, coordination, leadership, planning), financing, personnel including training, service delivery (supervision, quality improvement, and demand), health information systems, and logistic systems. Improvement and maintenance in all of these areas, while challenging, are essential to assure quality and sustainability, and achievement of the ultimate goal of "sustainable impact at scale."
- **Consider and plan for timing challenges in scale-up:** The pace of scale-up is likely to be a long-term process (i.e., 10 or even 20 years) and does not happen at a constant rate. Shorter-term projects run the risk of making the scale-up process seem like a "project" (e.g., separate vertical trainings, parallel registers and reporting), when, in fact, it must be a long-term, country-owned process. Shorter-term projects need to make choices about how to support scale-up without distorting the MOH's overall process of reaching impact at scale. There will be key moments outside the control of a project to help the MOH make great progress (e.g., iCCM **Mali** and PPFP **India**—which now fit into national plans and priorities and can progress quickly), but there will be other times where progress will be slow and difficult (e.g., iCCM in **Kenya** in the past before the MOH made a commitment in its national plans).
- **Appropriately address conflicting principles:** There are times when important development principles will be in conflict with each other. For example, in scaling up HBB there was a conflict between "data use for action" and "country ownership." **Bangladesh** made the decision that for HBB to be country-owned, the Resource Team recommended

Phased Scale-Up of PPFP in India

The scale-up was phased from a handful of sites to demonstrate that PPIUD was acceptable and feasible to larger and larger targets. There were a number of process innovations (counselors, training nurses, supportive visits, on-site training) developed at an early stage and then built into the expansion phase. If **India** had tried to scale up throughout the whole country all at once or in every facility in the high-focus states, the learning about these innovative implementation strategies may not have been so easily incorporated.

waiting to put HBB indicators into the registers until the MOH printed new registers. They did not want to give the impression that HBB was project-driven, but it also meant that the team managing the scale-up process was “driving blind.” They did not have information on where things were working well or not.

- **Support and enhance task shifting to promote scale-up:** While continuing to support task shifting as a viable strategy to increase scale-up, MCHIP’s assessment of this practice has signaled some aspects that need to be addressed globally. These include:
 - The role of incentives, whether monetary or intangible, as an important way to facilitate the adoption of new practices by providers;
 - The importance of determining the saturation point for adding multiple tasks to providers to ensure quality of services;
 - The need for advocacy aimed at experienced health care providers who are resistant to task shifting; and
 - The imperative to provide follow-up for at least 18 months to ensure that the new skills are being used.

Integration of Service Delivery

The integration experiences highlighted in this Global EOP Report and in Annex 8 are not exhaustive in terms of representing the full portfolio of MCHIP and CSHGP integrated programming, but they provide insights into integration as an approach to service delivery. Each of the projects highlighted demonstrated that integrated services can improve intervention-specific health outcomes. In the case of delivering integrated health services at the community level via CHWs, project work in **Bangladesh, Honduras, Rwanda, and South Sudan** established that CHWs can effectively integrate new services into their routine duties at the community and household levels with positive health outcomes for target populations. However, the **Rwanda** example in which misoprostol coverage rates did not rise significantly shows that the results are sensitive to design of the design of the integrated intervention. Each of these projects also linked community-based interventions and facility-based services to ensure an integrated continuum of care for improved MNCH.

The MCHIP and CSHGP experiences with integration confirm that this is a complex and multi-faceted process that relies on a range of inputs. Projects demonstrated the successes of *partial integration* with shared service delivery responsibilities across providers and through service linkages, and in some cases *full integration* such the **Bangladesh** Healthy Fertility Study. These experiences simply scratch the surface, leaving many key questions to be answered. The following are some recommendations for future implementation research on the topic of integration.

- **Test scalability of integrated programs:** In going to scale, system bottlenecks will more forcefully come into play and need to be addressed. One common bottleneck is commodity availability. While a project might support supply chains in a pilot phase, this cannot be done as the experience is scaled. This is just one example of the sort of system bottlenecks that can threaten the ability to replicate the results of small-scale pilots when going to scale.
- **Consider how funding channels can significantly affect integration:** For example, Atun states that when “financing is provided directly to an intervention and addressed only a particular disease or problem, the function was considered to non-integrated.” Partial integration occurred when donor funds were channeled into the health system to cover the costs of implementing integrated programs. Thus when USAID has earmarked funding, or specific funding such as PEPFAR, which must be used on HIV/AIDS programs, to what extent do these fiscal mandates skew integrative approaches? The elements that promote successful integration such as planning, financing, and governance must be weighed as to how they will impact service delivery and client programs.

- **Further explore costing integrated models:** The MCHIP HFS project in **Bangladesh** found that activities were delivered through existing community-based platforms at minimal incremental cost and that positive health outcomes represented un-quantified cost savings to the household. ChildFund in **Honduras** demonstrated cost savings to families if they were able to manage health services locally as opposed to going to a rural health post or a hospital.
- **Document and disseminate integrated community platform models supported by NGOs:** For example, several papers have been published about the Care Groups (community-based mothers' groups) but there are other promising practices that deserve wider attention. There is a wealth of context-specific information in project reports that should be documented in usable formats and disseminated widely to expand learning and push the boundaries of traditional thinking about scaling up integrated services through a facility-centric model to include community-based approaches. To do this, practitioners and those providing technical assistance should be supported to document results and learning from individual projects as well as from groups of projects.
- **Continue research on health system effects of integration and not only client outcomes:** The Integra Initiative, supported by the Bill & Melinda Gates Foundation, developed a multidimensional index of integration based on five years of research integrating HIV services into reproductive health and family planning services. It is a tool used to quantify the degree of integration at each facility over time to try to get an objective view of how well integration serves clients and improves efficiency.⁷⁴ The Integra Index was able to show that structural integration (i.e., the preparedness of a facility to provide integrated services such as having sufficient infrastructure, equipment, supplies, and human resource in place) does not necessarily lead to integrated delivery of care (whether the provider actually offers more than one service during the consultation). Thus, one recommendation is that future assessments include measures of whether clients actually receive integrated care or if care was integrated in name only and the client did not get any additional benefit.
- **Pay attention to possible overburdening of health workers and to client experiences:** At what point can programs no longer integrate interventions without sacrificing the ability to meet client needs? It is incumbent upon donors and implementers alike to develop the context-specific evidence base to guide policies and practice in relation to program design, rather than rely on dogma. The USAID team conducting the consultation on the Integration of FP, MNCH, and Nutrition stated that among some of the next steps were: "The community perspective and satisfaction with FP-nutrition integrated services is an area that has not received any attention and should also be explored. Advocacy tools, training curricula, job aids, and behavioral change materials are absent, but could be developed based on existing and new research. By taking action on developing a research agenda and conducting advocacy with donors, partners and researchers at all levels, FP-nutrition integration proponents could build a strong case and build momentum for the field."

MCHIP remains convinced of the merits of thoughtful integration as one of the public health strategies that can deliver better care, reduce missed opportunities to meet client needs, and continue to offer high-quality, efficient, and cost-effective services. However, MCHIP recognizes that a thoughtful research agenda is needed to provide the data supporting the best practices for integration.

⁷⁴Vassal A et al. 2013. Cost analysis of Integrated HIV and Sexual Reproductive Health Services in Kenya and Swaziland, London Dissemination Meeting, July; http://www.integrainitiative.org/blog/wp-content/uploads/2013/09/Cost_presentation_

Annex 1. Program Coverage Matrix

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Bangladesh					
Demographic Data				149,772,364	40,887,855
Postpartum hemorrhage (PPH) prevention: a uterotonic in third stage by skilled birth attendant (SBA)	42/4,991 (.84%)	2/64 (3%)	1/7 (14%)		
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	4,491/4,991 (90%)	64/64 (100%)	7/7 (100%)		
Helping Babies Breathe (HBB) newborn resuscitation	4,491/4,991 (90%)	64/64 (100%)	7/7 (100%)		
Postnatal care (PNC) interventions for newborn	129/4,991 (2.58%)	2/64 (3%)	1/7 (14%)		
Postpartum family planning (PPFP)	129/4,991 (2.58%)	2/64 (3%)	1/7 (14%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Bolivia *					
Demographic Data				516,624	258,312
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	120	21	9		
Burkina Faso					
Demographic Data				16,460,000	3,752,000
Malaria in pregnancy (MIP): case management for pregnant women	1,657/1,657 (100%)	64/64 (100%)	13/13 (100%)		
MIP: intermittent screening and testing	1,657/1,657 (100%)	64/64 (100%)	13/13 (100%)		
DR Congo					
Demographic Data				2,540,000	1,143,000
New vaccines: pneumococcal and rotavirus (just for PCV13)	N/A	516/516 (100%)	11/11 (100%)		
Integrated community case management (iCCM)	N/A	101/516 (19.6%)	10/11 (91%)		
Dominican Republic*					
Demographic Data				5,617,973	2,921,346
HBB newborn resuscitation	10	8/9 (88%)	3/3 (100%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Egypt*					
Demographic Data				2,041,725	57,168
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	N/A	12/230 (5%)	6/27 (22%)		
HBB newborn resuscitation	N/A	12/230 (5%)	6/27 (22%)		
Ethiopia					
Demographic Data				26,754,867	6,688,717
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	116/2,782 (4.17%)	43/831 (5.17%)	4/11 (36.36%)	26,754,867	6,688,717
HBB newborn resuscitation	116/2,782 (4.17%)	43/831 (5.17%)	4/11 (36.36%)	26,754,867	6,688,717
Kangaroo Mother Care (KMC) (facility-based)	116/2,782 (4.17%)	43/831 (5.17%)	4/11 (36.36%)	26,754,867	6,688,717
KMC (community-based)	10/2,782 (.36%)	10/831 (1.20%)	4/11 (36.36%)	427,061	106,765
PNC interventions for newborn	116/2,782 (4.17%)	43/831 (5.17%)	4/11 (36.36%)	26,754,867	6,688,717
Integrated community case management (iCCM)	145/2,782 (5.21%)	34/831 (4.09%)	2/11 (18.18%)	4,024,757	1,006,189
PPFP	26/2,782 (.93%)	18/831 (2.17%)	6/11 (54.55%)	15,322,218	3,830,554

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Ghana					
All interventions	N/A	32/216 (15%)	10/10 (100%)	2,066,723	479,480
Guinea					
Demographic Data				7,190,741	1,797,685
PPH prevention: uterotonic in third stage by SBA	48/461 (10%)	20/38 (53%)	4/8 (50%)		
PPH prevention: misoprostol for home birth	23/461 (5%)	1/38 (3%)	1/8 (13%)		
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	48/461 (10%)	20/38 (53%)	4/8 (50%)		
HBB newborn resuscitation	20/461 (4%)	20/38 (53%)	4/8 (50%)		
MIP: intermittent preventive treatment during pregnancy (IPTp) and use of insecticide-treated net (ITN) as part of antenatal care (ANC)	63/461 (14%)	8/38 (21%)	4/8 (50%)		
MIP: case management for pregnant women	63/461 (14%)	8/38 (21%)	4/8 (50%)		
MIP: intermittent screening and testing	63/461 (14%)	8/38 (21%)	4/8 (50%)		
PPFP	117/461 (25%)	20/38 (53%)	4/8 (50%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
India *					
Demographic Data				151,846,374	80,478,578
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	768	55/620 (9%)	7/35 (20%)		
HBB	768	55/620 (9%)	7/35 (20%)		
PNC	768	55/620 (9%)	7/35 (20%)		
Routine immunization	50	5 (1%)	2/35 (6%)		
PPFP	118	60/620 (10%)	3/35 (9%)		
Indonesia					
Demographic Data				2,047,743	471,563
PPH prevention: uterotonic in third stage by SBA	23/11,042 (0.2%)	3/440 (0.7%)	3/34 (9%)		
KMC (community-based)	12/9,321 (0.1%)	3/440 (0.7%)	3/34 (9%)		
iCCM	12/9,321 (0.1%)	3/440 (0.7%)	3/34 (9%)		
Kenya					
Demographic Data				9,634,435	4,624,529
PPH prevention: uterotonic in third stage by SBA	4/4,428 (0%)	4/285 (1.4%)	3/47 (6%)		
PPH prevention: misoprostol for home birth	N/A	4/285 (1.4%)	3/47 (6%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	4/4,428 (0%)	4/285 (1.4%)	3/47 (6%)		
HBB newborn resuscitation	4/4,428 (0%)	4/285 (1.4%)	3/47 (6%)		
KMC (facility-based)	1/4,428 (0%)	1/285 (<1%)	3/47 (6%)		
KMC (community-based)	1/4,428 (0%)	1/285 (<1%)	3/47 (6%)		
Postnatal care interventions for newborn	26/4,428 (0.6%)	1/285 (<1%)	3/47 (6%)		
New vaccines: pneumococcal and rotavirus	N/A	7/285 (2%)	3/47 (6%)		
Routine Immunization	N/A	9/285 (3%)	3/47 (6%)		
MIP: IPTp and ITN use as part of ANC	4/4,428 (0%)	4/285 (1.4%)	3/47 (6%)		
iCCM	N/A	1/285 (<1%)	1/47 (2%)		
PPFP	6/4,428 (0.13%)	1/285 (<1%)	1/47 (2%)		
Kyrgyzstan*					
Routine immunization	29	1/40 (2.5%)	2/7 (29%)	160,000	
Lesotho					
Demographic Data				1,876,633	
Voluntary medical male circumcision (VMMC)	17/236 (7%)	10/10 (100%)	N/A		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Liberia					
Demographic Data				3,210,397	15,944
PPH prevention: uterotonic in third stage by SBA	8/600 (0.01%)	2/88 (2%)	1/15 (7%)	69,322	15,944
PPH prevention: misoprostol for home birth	8/600 (0.01%)	2/88 (2%)	1/15 (7%)	69,322	15,944
KMC (facility-based)	5/20 (20%)	5/88 (6%)	3/15 (20%)	217,895	N/A
Postnatal care interventions for newborn	9/450 (2%)	3/88 (3%)	1/15 (7%)	53,219	N/A
Madagascar					
Demographic Data				13,997,396	3,219,401
PPH prevention: uterotonic in third stage by SBA	392/3,044 (12.87%)	66/119 (55%)	19/22 (86%)	13,997,396	3,219,401
PPH prevention: misoprostol for home birth	N/A	2/119 (1.68%)	2/22 (9%)	620,557	142,728
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	392/3,044 (12.87%)	66/119 (55%)	19/22 (86%)	13,997,396	3,219,401
KMC (facility-based)	392/3,044 (12.87%)	66/119 (55%)	19/22 (86%)	13,997,396	3,219,401
KMC (community-based)	N/A	5/119 (4.2%)	3/22 (14%)	1,554,651	357,569

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Postnatal care interventions for newborn	392/3,044 (12.87%)	66/119 (55%)	19/22 (86%)	13,997,396	3,219,401
Malawi					
Demographic Data				15,805,239	3,635,205
New vaccines: pneumococcal and rotavirus	Nationwide	28/ 28 (100%)	3/3 (100%)		
Routine immunization	Nationwide	28/28 (100%)	3/3 (100%)		
PPH prevention	53/621 (8.53%)	22/28 (79%)	3/3 (100%)		
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	53/621 (8.53%)	22/28 (79%)	3/3 (100%)		
HBB newborn resuscitation	30/261	28/28 (100%)	3/3 (100%)		
MIP: ITN use	621/621 (100%)	22/28 (79%)	3/3 (100%)		
PNC interventions for newborns	53/621 (8.53%)	22/28 (78%)	3/3 (100%)		
PPFP	37/621 (5.96%)	13/28 (46.43%)	3/3 (100%)		
VMMC	100	4/28 (14.29%)	3/3 (100%)		
Mali					
Demographic Data				2,070,556	455,522
PPH prevention: uterotonic in third stage by SBA	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522
HBB newborn resuscitation	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522
KMC (facility-based)	23/1,232 (1.87%)	1/62 (1.61%)	2/8 (25%)	252,226	55,490
PNC interventions for newborn	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522
ICCM	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522
PPFP	171/1,232 (13.88%)	7/62 (11.29%)	2/8 (25%)	2,070,556	455,522
Mozambique					
Demographic Data				13,000,000	6,225,000 (24.9%)
PPH prevention: uterotonic in third stage by SBA	128/874 (15%)	104/128 (81%)	11/11 (100%)		
PPH prevention: misoprostol for home birth	128/874 (15%)	104/128 (81%)	11/11 (100%)		
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	128/874 (15%)	104/128 (81%)	11/11 (100%)		
HBB newborn resuscitation	128/874 (15%)	104/128 (81%)	11/11 (100%)		
KMC (facility-based)	128/874 (15%)	104/128 (81%)	11/11 (100%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
PNC interventions for newborn	128/874 (15%)	104/128 (81%)	11/11 (100%)		
MIP: IPTp and ITN use as part of ANC	128/874 (15%)	104/128 (81%)	11/11 (100%)		
MIP: case management for pregnant women	128/874 (15%)	104/128 (81%)	11/11 (100%)		
MIP: intermittent screening and testing	128/874 (15%)	104/128 (81%)	11/11 (100%)		
PPFP	152/874 (17%)	104/128 (81%)	11/11 (100%)		
Namibia					
VMMC	N/A	N/A	2/13 (15%)		
Nepal					
Demographic Data				261,770	
Maternal and newborn health ¹	N/A	1/75 (1%)	1/5 (20%)		
Nigeria					
Demographic Data				6,874,797	1,843,610
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	57/34,173 (0.17%)	28/ 774 (3.6%)	3/37 (8.11%)		
KMC (facility-based)	2/34,173 (0%)	2/774 (0.26%)	2/37 (5.41%)		

¹ Calcium Supplement Study.

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
PNC interventions for newborn	57/34,173 (0.17%)	28/774 (3.6%)	3/37 (8.11%)		
Family planning	57/34,173 (0.17%)	28/774 (3.6%)	3/37 (8.11%)		
Pakistan- Sindh*					
Demographic Data				7,746,132	1,239,381
PPH prevention: uterotonic in third stage by SBA	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
PPH prevention: misoprostol for home birth	N/A	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
HBB newborn resuscitation	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
KMC (facility-based)	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
PNC interventions for newborn	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
PPFP	100	5/141 (3.5%)	1/4 (25%)	7,746,132	1,239,381
Paraguay*					
Demographic Data				277,740	141,647
PPH prevention: uterotonic in third stage by SBA	8	9/247 (3.64%)			

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	8	9/247 (3.64%)			
HBB newborn resuscitation	8	9/247 (3.64%)			
KMC (facility-based)	2	2/247 (0.81%)			
KMC (community-based)					
PNC interventions for newborn	8	9/247 (3.64%)			
PPFP	2	2/247 (0.81%)			
Philippines*					
Demographic Data				49,235,265	12,904,871
PPFP	10	32/82 (39%)	8/17 (47%)	49,235,265	12,904,871
KMC (facility-based)	2	1/82 (1.2%)	1/17 (6%)	11,491,464	3,411,004
Rwanda					
Demographic Data				9,476,630	2,650,025
New vaccines: pneumococcal and rotavirus	N/A	30/30 (100%)	5/5 (100%)		
PPH prevention: uterotonic in third stage by SBA	154/508 (30%)	9/30 (30%)	3/5 (60%)		
PPH prevention: misoprostol for home birth	N/A	4/30 (14%)	3/5 (60%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	128/508 (25%)	14/30 (47%)	4/5 (80%)		
HBB newborn resuscitation	128/508 (25%)	7/30 (23%)	3/5 (60%)		
KMC (facility-based)	11/508 (2.2%)	8/30 (26%)	4/5 (80%)		
KMC (community-based)	159/508 (31%)	11/30 (36%)	4/5 (80%)		
MIP: IPTp and ITN use as part of ANC	295/508 (58%)	20/30 (66%)	5/5 (100%)		
MIP: case management for pregnant women	295/508 (58%)	20/30 (66%)	5/5 (100%)		
MIP: intermittent screening and testing ²	38/508 (7%)	6/30 (20%)	5/5 (100%)		
iCCM	N/A	5/30 (17%)	2/5 (40%)		
VMMC	4/508 (0.8%)	4/30 (13%)	4/5 (80%)		
Senegal*					
Demographic Data				13,575,237	N/A
New vaccines: pneumococcal and rotavirus	1,315	76/76 (100%)	14/14 (100%)	13,575,237	N/A
Routine immunization	59	4/76 (5%)	3/14 (21%)	528,460	N/A

² MCHIP implemented IST in at least 1 district in each province (all provinces were covered). MCHIP worked in a number of provinces, each of which was comprised of districts. For example, MCHIP worked in 4 districts for PPH that were located in 3 provinces.

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
South Africa *					
Demographic Data				50,492,000	13,623,000
Prevention of mother-to-child transmission (PMTCT)	14	2	1		
Cervical cancer screening	30	Not Available	2		
HIV care & Treatment	N/A	52	9		
South Sudan					
Demographic Data				2,337,377	560,970
PPH prevention: uterotonic in third stage by SBA	74/1,065 (7%)	16/86 (18.6%)	2/10 (20%)		
PPH prevention: misoprostol for home birth	7/1,065 (0.65%)	2/86 (2.3%)	1/10 (10%)		
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	367/1,065 (34%)	16/86 (18.6%)	2/10 (20%)		
PNC interventions for newborn	74/1,065 (7%)	16/86 (18.6%)	2/10 (20%)		
Routine immunization	367/1,065 (34%)	16/86 (18.6%)	2/10 (20%)		
MIP: IPTp and ITN use as part of ANC	367/1,065 (34%)	16/86 (18.6%)	2/10 (20%)		
MIP: case management for pregnant women	367/1,065 (34%)	16/86 (18.6%)	2/10 (20%)		

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
MIP: intermittent screening and testing	74/1,065 (7%)	16/86 (18.6%)	2/10 (20%)		
PPFP	74/1,065 (7%)	16/86 (18.6%)	2/10 (20%)		
New vaccines: pneumococcal and rotavirus	N/A	16/86 (18.6%)	2/10 (20%)		
Routine immunization	74/1,065 (7%)	16/86 (18.6%)	2/10 (20%)		
Swaziland					
VMCM	3/144 (2%)	4/4 (100%)	N/A	1,231,000	
Tanzania					
Demographic Data					
VMCM	347/7,099 (5%)	18/169 (11%)	3/25 (12%)	46,012,926	
New vaccines: pneumococcal and rotavirus	5,027/7,099 (71%)	169/169 (100%)	25/25 (100%)	3,934,958	
Routine immunization	327/7,099 (5%)	11/169 (7%)	3/25 (12%)	46,012,926	
Timor Leste*					
Routine immunization	46	9/13	N/A	25,500 infants	
Uganda					
Routine immunization	312/5,229 (6%)	5/112 (4.5%)	3/10 (30%)	1,770,400	
Yemen					
Demographic Data					
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	1/5,225 (0%)	8/333 (2%)	3/21 (14%)	5,213,000	538,294

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
HBB newborn resuscitation	1/5,225 (0%)	8/333 (2%)	3/21 (14%)		
KMC (facility-based)	1/5,225 (0%)	8/333 (2%)	3/21 (14%)		
Routine immunization	88/5,225 (0.6%)	3/333 (0.3%)	3/21 (14%)		
PPFP	5/5,225 (0%)	10/333 (3%)	3/21 (14%)		
Zambia					
Demographic Data				1,313,313	288,929
PPH prevention: uterotonic in third stage by SBA	62/1,956 (3.2%)	2/89 (2.2%)	1/10 (10%)	449,503	98,891
PPH prevention: misoprostol for home birth	31/1,956 (1.6%)	1/89 (1.1%)	1/10 (10%)	234,618	51,616
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	62/1,956 (3.2%)	2/89 (2.2%)	1/10 (10%)	449,503	98,891
HBB newborn resuscitation	240/1,956 (12.3%)	7/89 (7.9%)	3/10 (30%)	1,313,313	288,929
KMC (facility-based)	62/1,956 (3.2%)	2/89 (2.2%)	1/10 (10%)	449,503	98,891
PPFP	31/1,956 (1.6%)	1/89 (1.1%)	1/10 (10%)	234,618	51,616
Zimbabwe*					
Demographic Data				1,833,213	211,206
PPH prevention: uterotonic in third stage by SBA	277	7/63 (11%)	1/10 (10%)	1,833,213	211,206

COUNTRY INTERVENTION	FACILITIES SERVED/TOTAL FACILITIES (%) Numerator/Denominator or (Percentage)	DISTRICTS OR DEPARTMENTS SERVED/TOTAL DISTRICTS OR DEPARTMENTS (%) Numerator/Denominator (Percentage)	REGIONS OR PROVINCES SERVED/TOTAL REGIONS OR PROVINCES (%) Numerator/Denominator (Percentage)	TOTAL POPULATION (IN TARGET AREAS)	NUMBER OF WOMEN OF REPRODUCTIVE AGE (15-49)
Essential newborn care interventions (e.g., immediate drying, skin-to-skin care, immediate breastfeeding)	277	7/63 (11%)	1/10 (10%)	1,833,213	211,206
HBB newborn resuscitation	277	7/63 (11%)	1/10 (10%)	1,833,213	211,206
KMC (facility-based)	8	2/63 (3%)	1/10 (10%)	613,303	70,171
PNC interventions for newborn	73	2/63 (3%)	1/10 (10%)	613,303	70,171
New vaccines: pneumococcal and rotavirus	277	7/63 (11%)	1/10 (10%)	1,833,213	211,206
Routine immunization	277	7/63 (11%)	1/10 (10%)	1,833,213	211,206
MIP: IPTp and ITN use as part of ANC	73	2/63 (3%)	1/10 (10%)	613,303	70,171
MIP: case management for pregnant women	16	2/63 (3%)	1/10 (10%)	613,303	70,171
MIP: intermittent screening and testing	16	2/63 (3%)	1/10 (10%)	613,303	70,171
iCCM	16	2/63 (3%)	1/10 (10%)	613,303	70,171
PPFP	73	2/63 (3%)	1/10 (10%)	613,303	70,171

Notes: Azerbaijan, Burma, Guyana, Ukraine, and Vietnam had country programs under MCHIP that worked at the national level; therefore, facility-, district-, regional- level coverage data are not included for these countries.

*The total number of health facilities in the country was not available for Bolivia, Dominican Republic, India, Kyrgyzstan, Pakistan, Paraguay, Philippines, Senegal, South Africa, Timor Leste, and Zimbabwe. Therefore the number in the table represents the total of facilities that MCHIP supported.

N/A means that the activities were not implemented at the facility level because they were either national, regional, community or pre-service training.

Annex 3: Global Monitoring and Evaluation Framework for MCHIP¹

MCHIP Global Monitoring and Evaluation Framework (* identifies an Investing in People/Operational Plan Indicator; ** identifies a global HIDN results pathway indicator; *** identifies a MDG Countdown/Common Evaluation Framework indicator)

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
1. Number of MCHIP countries demonstrating reductions in maternal mortality since the last survey	<p>This may be measured or statistically modeled using LIST at the national or sub-national level (data will be disaggregated), depending on the scale of MCHIP-supported interventions, and includes contributions by CSHGP grantees.</p> <p>Note: In selected countries, a valid and reliable estimate of maternal mortality will be generated either by adapting existing measurement methods, i.e., DSS, DHS, census or modeled methods (e.g., UN estimates for MMR); or through innovative primary data collection efforts, i.e., verbal autopsy follow-up of deaths of women identified in the census; community-based vital events informants; and use or adaptation of methods to acquire adequate sample sizes, such as the Sampling at Service Sites method. MCHIP uses a common data source across countries for consistency – the WHO/UNICEF /UNFPA estimates</p>	<p>Bangladesh – 340 Bolivia – 180 DRC – 670 Ethiopia – 470 Ghana – 350 Guyana – 270 India – 230 Indonesia – 240 Kenya – 530 Lesotho – 530 Liberia – 990 Madagascar – 440 Malawi – 510 Mali – 830 Nepal – 380 Nigeria – 840 Paraguay – 95 Rwanda – 540 Sierra Leone – 970 South Africa – 410 South Sudan – n/a Zimbabwe – 790</p> <p>Note: Two WHO data points, comparable across countries, from within the life of project, are not available. WHO/UNICEF 2008 data have been provided as a baseline for all MCHIP countries with maternal health activities.</p>	N/A	N/A	N/A	N/A	<p>Bangladesh- 170 Bolivia-200 Burma- 200 Egypt-45 Ethiopia-420 Guinea- 650 Kenya- 400 Madagascar- 440 Mali- 550 Namibia- 130 Nepal- 190 Rwanda- 320 South Sudan- 730 Yemen- 270 Zambia- 280 Zimbabwe- 470</p>	N/A	N/A

¹ MCHIP did not establish annual targets at the global level, only at the country level for specific countries where the Mission requested it.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
2. Number of MCHIP countries demonstrating reductions in newborn and under-5 mortality (U5MR) since the last survey	<p>This may be measured or statistically modeled using LIST at the national or sub-national level (data will be disaggregated), MCHIP-supported interventions. The indicator will be disaggregated by newborn and under 5. This includes contributions by CSHGP grantees.</p> <p>Note: U5MR estimates for CSHGP projects were modeled using any indicators collected during a project that showed a statistically significant change and could be modeled in LIST. Projections were made using the most recent (regional if available) U5MRs prior to the start of the project as a baseline.</p>	<p>NNMR Azerbaijan – 22 Bangladesh – 34 DRC – 48 Dom Rep – 18 Ethiopia – 38 India – 36 Indonesia – 20 Kenya – 30 Lesotho – 44 Madagascar – 26 Malawi – 33 Mali – 50 Mozambique – 43 Nepal – 33 Nigeria – 43 Paraguay – 16 Rwanda – 35 Senegal – 32 Sierra Leone – 49 South Africa – 22</p> <p>U5MR DRC – 181.4 India – 73.2 Indonesia – 43.7 Kenya – 97.5 Mali – 195.2 Rwanda – 127.8 Senegal – 95.0 Tanzania – 102.8 Zimbabwe – 100.2</p> <p>Data Source: WHO/UNICEF 2005</p> <p>U5MR Bangladesh – 88 (CSHGP, CRWRC 2004–2010) Cambodia – 101 (CSHGP, IRD 2006–2010) DR Congo – 145 (CSHGP,</p>	N/A	<p>NNMR Azerbaijan – 19 Bangladesh – 27 DRC – 46 Dom Rep – 15 Ethiopia – 35 India – 32 Indonesia – 17 Kenya – 28 Lesotho – 35 Madagascar – 22 Malawi – 27 Mali – 48 Mozambique – 39 Nepal – 28 Nigeria – 40 Paraguay – 14 Rwanda – 29 Senegal – 27 Sierra Leone – 45 South Africa – 18</p> <p>U5MR DRC – 169.90 India – 62.7 Indonesia – 35.3 Kenya – 84.7 Mali – 178.1 Rwanda – 91.1 Senegal – 75.8 Tanzania – 75.8 Zimbabwe – 79.8</p> <p>Data Source: WHO/UNICEF 2010</p> <p>U5MR Bangladesh – 81 (CSHGP, CRWRC 2004–2010)</p>	N/A	N/A	<p>NNMR Azerbaijan – 16 Bangladesh – 24 DRC – 38 Dom Rep – 16 Ethiopia – 28 India – 29 Indonesia – 14 Kenya – 26 Lesotho – 44 Madagascar – 21 Malawi – 23 Mali – 40 Mozambique – 30 Nepal – 23 Nigeria – 37 Paraguay – 12 Rwanda – 20 Senegal – 23 Sierra Leone – 44 South Africa – 15</p> <p>U5MR DRC – 119 India – 116 Indonesia – 29 Kenya – 71 Mali – 123 Rwanda – 52 Senegal – 55 Zimbabwe – 89</p> <p>Data Source: WHO/UNICEF/World Bank/UN 2013</p>	N/A	N/A

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		CRS 2005–2010) India – 47 (CSHGP HOPEWW 2006–2010) Indonesia – 44 (CSHGP Mercy Corps 2006–2010) Kenya – 144 (CSHGP, AMREF 2005–2010) Kenya – 77 (CSHGP, HealthRight 2006–2010) Liberia – 142 (CSHGP, MTI 2006–2010) Mozambique – 205 (CSHGP, FH 2005–2010) Uganda – 181 (CSHGP, HealthPartners 2005–2010) Zambia – 148 (CSHGP, SAWSO 2005–2010)		Cambodia – 88 (CSHGP, IRD 2006–2010) DR Congo – 134 (CSHGP, CRS 2005–2010) India – 44 (CSHGP HOPEWW 2006–2010) Indonesia – 44 (CSHGP Mercy Corps 2006–2010) Kenya – 128 (CSHGP, AMREF 2005–2010) Kenya – 66 (CSHGP, HealthRight 2006–2010) Liberia – 104 (CSHGP, MTI 2006–2010) Mozambique – 156 (CSHGP, FH 2005–2010) Uganda – 174 (CSHGP, HealthPartners 2005–2010) Zambia – 134 (CSHGP, SAWSO 2005–2010)					
3. Estimated number of lives saved among children under 5 in USAID MNCH focus countries as a result of MCHIP-supported	This will be disaggregated for CSHGP grantees versus achievements of other MCHIP country programs. These 10 focus countries include the five countries where MCHIP will scale up an integrated package of high-impact			19, 990 Bangladesh – 200 (CSHGP, CRWRC 2004–2010) Cambodia – 100 (CSHGP, IRD 2006–2010) DR Congo – 3,000			41,858 Nepal – 3,504 (CSHGP, HKI 2008–2012) Uganda – 18,188 (CSHGP, ERD 2008–2012)	N/A	N/A

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
interventions, including CSHGP and MCP-supported grants in these countries ²	MNCH interventions. Note: Additional lives saved estimates for CSHGP projects were modeled using any indicators collected during a project that showed a statistically significant change and could be modeled in LIST.			(CSHGP, CRS 2005–2010) India – 100 (CSHGP HOPEWW 2006–2010) Indonesia – 0 (CSHGP Mercy Corps 2006–2010) Kenya – 900 (CSHGP, AMREF 2005–2010) Kenya – 700 (CSHGP, HealthRight 2006–2010) Liberia – 1,300 (CSHGP, MTI 2006–2010) Mozambique – 4,000 (CSHGP, FH 2005–2010) Uganda – 2,000 (CSHGP, HealthPartners 2005–2010) Zambia – 700 (CSHGP, SAWSO 2005–2010)			Ethiopia – 8,784 (CSHGP, Save the Children 2007 – 2012) India – 11,382 (CSHGP, World Renew 2007 – 2012)		
4. Percentage of children aged 12–23 months who received three doses of DPT vaccine	Numerator: Number of children aged 12–23 months receiving three doses of DPT vaccine Denominator: Total number of children aged 12–23 months surveyed	Bangladesh – 90.1% (MICS Report 2006) Bangladesh – 35.9% (CSHGP, CRWRC 2004–2010) Benin – 76% (WHO/UNICEF, 2003) Bolivia – 81%	Zimbabwe – 66.6% (MICS 2009) Nepal – 24.0% (CSHGP, HealthRight 2009–2013)	Bangladesh ³ – 94%* (CSHGP, CRWRC 2004–2010) Benin – 83% (WHO/UNICEF 2009) Bolivia – 85%	Benin – 85% (WHO/UNICEF EF) Nepal – 91.7% (DHS 2011) Uganda – 71.5% (DHS 2011)	Kyrgyzstan – 80.6% (DHS Preliminary 2012) Nepal – 95.6% (CSHGP, CARE 2007–2011) Benin – 73.7%	Nepal – 96.8% (CSHGP, HKI 2008–2012) Uganda – 75.6% (CSHGP, ERD 2008–2012)	Nepal – 85.1% (CSHGP, HealthRight 2009–2013) Uganda – 91.7% (CSHGP, MTI, N/A	

² The CSHGP program will calculate Lives Saved for all CSHGP grants—a percentage of which are in non-MCHIP countries—for reporting purposes of the CSHGP's Annual Portfolio Review. MCP grantees are not required to conduct surveys, although several have done so, with support from MCHIP. Those data will be used to inform lives saved calculations for this indicator when available.

³ 2000+ Rapid CATCH indicator definition: Percentage of children age 12–23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday.

DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	(WHO/UNICEF, 2003) Cambodia – 78.0% (CSHGP, IRD 2006– 2010) DR Congo – 11.6% (CSHGP, CRS 2005– 2010) Ethiopia – 56% (WHO/UNICEF, 2003) Ghana – 83.5% (MICS 2006) Guinea – 43% (WHO/UNICEF, 2003) India – 64% (WHO/UNICEF, 2003) India – 33.9% (CSHGP HOPEWW 2006–2010) Indonesia – 27.4% (CSHGP Mercy Corps 2006–2010) Liberia – 62% (WHO/UNICEF, 2003) Liberia – 24.5% (CSHGP, Curamericas, 2008-2013) Liberia – 30.6% (CSHGP, MTI 2006–2010) Mozambique – 85.9% (CSHGP, FH 2005– 2010) Nigeria – 26% (WHO/UNICEF, 2003) Nigeria – 29.6% (MICS 2006) Pakistan- 58.5% (DHS 2006-07) Philippines- 85.6% (DHS 2008) Rwanda – 86% (WHO/UNICEF, 2003) Senegal – 52% (WHO/UNICEF, 2003) South Sudan – n/a	Uganda – 85.1% (CSHGP, MTI, 2009-2013)	(WHO/UNICEF 2009) Cambodia ⁴ – 81.2% (CSHGP, IRD 2006– 2010) Cambodia – 84.8% (DHS 2010) DR Congo ³ – 50.2%* (CSHGP, CRS 2005–2010) Ethiopia – 79% (WHO/UNICEF 2009) Ghana – 94% (WHO/UNICEF 2009) Guinea – 57% (WHO/UNICEF 2009) India – 66% (WHO/UNICEF 2009) India ⁴ – 51.5% (CSHGP HOPEWW 2006–2010) Indonesia ⁴ – 40.2% (CSHGP Mercy Corps 2006–2010) Liberia – 64% (WHO/UNICEF 2009) Liberia ⁴ – 87.6%* (CSHGP, MTI 2006–2010) Malawi – k 93.0% (DHS 2010) Mozambique ³ – 69.1% (CSHGP, FH 2005 – 2010)			Ethiopia – 71.5% (CSHGP, Save the Children 2007 – 2012) India – 55.4% (CSHGP, World Renew 2007 – 2012)	2009-2013) Liberia – 99% (CSHGP, Curamericas, 2008-2013)	

4 2006 Rapid CATCH indicator definition: Percentage of children age 12–23 months who received a DPT 3 vaccination before they reached 12 months.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		(WHO/UNICEF, 2003) Tajikistan - 86.3% (MICS 2005) Tanzania - 85% (WHO/UNICEF, 2003) Timor-Leste - n/a (WHO/UNICEF, 2003) Uganda - 76.7% (CSHGP, HealthPartners 2005–2010) Uganda - 72.1% (CSHGP, ERD 2008–2012) Ukraine - 99% ^x Yemen- 61% (MICS 2006) (WHO/UNICEF, 2003) Zambia - 32.6% (CSHGP, SAWSO 2005–2010) Zambia - 79.7% (DHS 2007) Zimbabwe - 75% (WHO/UNICEF, 2003) Note on WHO/UNICEF data: Data for MCHIP countries with population-based surveys and immunization activities.		Nigeria - 42% (WHO/UNICEF 2009) Rwanda - 97% (WHO/UNICEF 2009) Senegal - 86% (WHO/UNICEF 2009) South Sudan - n/a (WHO/UNICEF 2009) Tanzania - 85% (WHO/UNICEF 2009) Timor-Leste - 64.2% (DHS 2009–10) Ukraine - 90% (WHO/UNICEF 2009) Zimbabwe - 73% (WHO/UNICEF 2009) Uganda ³ - 60.4% (CSHGP, HealthPartners 2005–2010) Zambia ³ - 55.8%* (CSHGP, SAWSO 2005–2010)					
5. Percentage of children aged 0–59 months with diarrhea receiving oral rehydration	Numerator: Number of children aged 0–59 months with diarrhea in the 2 weeks prior to the survey receiving oral rehydration therapy (oral rehydration solution and/or recommended homemade fluids or increased fluids)	Bangladesh - 57.1% (CSHGP, CRWRC 2004–2010) Cambodia - 37.9% (CSHGP, IRD 2006–2010) Cambodia - 73.1% (CSHGP, IRD 2006–2010) DRC - 42.3% (UNICEF, 2007) Egypt 30.4% (DHS 2008)	Kenya - 42.6% (DHS, 2008–09) Nepal - 48.9% (CSHGP, HealthRight 2009–2013) Uganda - 47.2% (CSHGP, MTI, 2009–2013)	Bangladesh ⁵ - 72.3% (CSHGP, CRWRC 2004–2010) Cambodia ⁵ - 38.5% (CSHGP, IRD 2006–2010) India ⁵ - 72.4%* (CSHGP, HOPEWW)		Niger - 49.7% (CSHGP, Relief 2007–2011) *denominator = 0–23 months Rwanda - 32.5% (CSHGP, Concern 2006–2011) Zimbabwe - 73.7% (2010–)	Nepal - 64.6% (CSHGP, HKI 2008–2012) Uganda - 58.5% (CSHGP, ERD 2008–2012) Ethiopia - 60.9% (CSHGP, Save the Children 2007 –	Nepal - 72.7% (CSHGP, HealthRight 2009–2013) Uganda - 61.2% (CSHGP, MTI, 2009–2013) Liberia -	N/A

⁵ 2006 Rapid CATCH indicator definition: Percentage of children age 0–23 months with diarrhea in the last 2 weeks who received oral rehydration solution (ORS) and/or recommended home fluids (Note: neither continued feeding nor increased fluids is included).

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	Denominator: Total number of children aged 0–59 months with diarrhea in the 2 weeks prior to the survey	India – 74.3% (CSHGP HOPEWW 2006–2010) India – 34.9% (CSHGP HOPEWW 2006–2010) Indonesia – 49.0% (CSHGP Mercy Corps 2006–2010) Indonesia – 77.8% (CSHGP Mercy Corps 2006–2010) Kenya – 33.3% (UNICEF, 2003) Liberia – 43.2% (CSHGP, MTI 2006–2010) Liberia – 74.2% (CSHGP, MTI 2006–2010) Liberia – 47.9% (CSHGP, Curamericas, 2008–2013) Mozambique – 66% (CSHGP, FH 2005–2010) Nepal – 36.6% (CSHGP, HKI 2008–2012) Uganda – 42.0% (CSHGP, ERD 2008–2012) Tanzania – 53.0% (UNICEF, 2005) Zimbabwe – 46.7 (UNICEF, 2006) Note on WHO/UNICEF data: Data are included for MCHIP countries with child health activities that had population-based surveys before or during MCHIP.	Zimbabwe – 34.9% (UNICEF, 2009)	2006–2010) Indonesia ⁵ – 43.1% (CSHGP Mercy Corps 2006–2010) Liberia ⁵ – 84.1% (CSHGP, MTI 2006–2010) Mozambique ⁵ – 93%* (CSHGP, FH 2005–2010) Tanzania – 50.4% (DHS, 2010)		11 DHS) Rwanda – 48.1% (2010 DHS)	2012) India – 58.5% (CSHGP, World Renew 2007–2012)	82.7% (CSHGP, Curamericas, 2008–2013)	
6. Percentage of children aged 0–59 months with suspected pneumonia taken to an	Numerator: Number of children aged 0–59 months with suspected pneumonia in the 2 weeks prior to the survey who were taken to an	DRC – 41.9% (2007 DHS) [5yrs] Egypt – 79% (DHS 2008) Kenya – 53.0% (2003 DHS)	Kenya – 57.3% (2008–09 DHS) Nepal – 73.5% (CSHGP,	Rwanda – 50.2% (2010 Preliminary DHS) Tanzania – 71% (2010 DHS)	Zimbabwe – 47.4% (2010–11 Preliminary DHS)	Cambodia – 39.1% (2010 DHS) Rwanda – 66.3% (CSHGP, Concern 2006–2011)	Nepal – 38.8% (CSHGP, HKI 2008–2012) Uganda – 74.6% (CSHGP, ERD 2008–	Nepal – 94.5% (CSHGP, HealthRight 2009–2013) Uganda –	N/A

	DEFINITION AND DISAGGREGATION	BASILINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
appropriate health care provider	appropriate health care provider ⁶ Denominator: Total number of children aged 0-59 months with suspected pneumonia in the 2 weeks prior to the survey	Liberia – 42.9% (CSHGP, Curamericas, 2008-2013) Nepal – 59.9% (CSHGP, HKI 2008–2012) Rwanda – 23.7% (UNICEF, 2005) Rwanda – 28.6% (2007–08 Interim DHS) Tanzania – 60.6% (2004–05 DHS) Zimbabwe – 24.8% (2005–06 DHS) Zambia – 81.3% (CSHGP, SAWSO 2005–2010) Note on WHO/UNICEF data: Data are included for MCHIP countries with child health activities that had population-based surveys before or during MCHIP.	HealthRight 2009-2013) Uganda – 57.8% (CSHGP, MTI, 2009-2013)	Cambodia ⁷ – 66.7% (CSHGP, IRD 2006–2010) India ⁷ – 69.0% (CSHGP HOPEWW 2006–2010) Indonesia ⁷ – 75.0% (CSHGP Mercy Corps 2006–2010) Liberia ⁷ – 90.8%* (CSHGP, MTI 2006–2010) Zambia ⁷ – 89.4% (CSHGP, SAWSO 2005–2010)		Tanzania – 91.1% (CSHGP Wellshare 2006–2011) *denominator = 0-23 months	2012) Ethiopia – 46.6% (CSHGP, Save the Children 2007 – 2012) India – 91.6% (CSHGP, World Renew 2007–2012)	74.2% (CSHGP, MTI, 2009-2013) Liberia – 96.6% (CSHGP, Curamericas, 2008-2013)	
7. Percentage of children aged 0-59 months with suspected pneumonia receiving antibiotics	Numerator: Number of children aged 0-59 months with suspected pneumonia in the 2 weeks prior to the survey receiving antibiotics ⁸ Denominator: Total number of children aged 0-59 months with suspected pneumonia in the 2 weeks prior to the survey	DRC – 41.9% (DHS 2007) Egypt- 57.9% (DHS 2008) India – 69% (DHS 2005-06) Indonesia* – 65.9% (DHS 2007) Kenya* – 43.5% (DHS 2003) Lesotho – 58.8% (DHS 2004) Mali – 38.1% (2006) Rwanda – 28.0% (DHS 2007–08) Senegal* – 40.6% (DHS 2005)	Kenya – 55.9% (2008-09 DHS) Rwanda – 50.2% (2010 Preliminary DHS) Note for DHS data: Data for MCHIP countries child health activities and population-based surveys. The DHS in some countries	Malawi – 70.3% (2010 DHS)		Zimbabwe – 31% (2010-11 DHS) Senegal – 49.9% (2010-11 DHS)		Uganda – 68.5% (CSHGP, MTI, 2009-2013)	N/A

⁶ MCHIP used the DHS definition of appropriate health care provider.

⁷ 2006 Rapid CATCH indicator definition: Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last 2 weeks who were taken to an appropriate health provider.

⁸ MCHIP drew data from the DHS and child survival health grants program (CSHGP) household surveys. MCHIP did not report on this using HMIS data.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		Tanzania* – 56.6% (DHS 2004) Yemen – 37.9% (MICS 2006) Zimbabwe – 24.9% (DHS 2005–06) *Treatment of acute respiratory infection (ARI) and/or fever	with MCHIP child health activities did not include ARI treatment data. *Lesotho 2009 data available only in data set, not in report.						
8. Percentage of women attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy in the 5 years prior to the survey	Numerator: Number of women attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy in the 5 years prior to the survey Denominator: Total number of women who had a live birth occurring in the same period	Bangladesh – 20.6% (2007 DHS) Burkina Faso – 17.6% (2003 DHS) Egypt – 66% (DHS 2008) India – 37.0%; (2005–06 DHS) India – 53% (CSHGP HOPEWW 2006–2010) Indonesia – 81.5% (2007 DHS) Kenya – 52.3% (2003 DHS) Kenya – 32% (CSHGP, AMREF 2005–2010) Kenya – 28% (CSHGP, HealthRight 2006–2010) Lesotho – 69.6% (2004 DHS) Liberia – 66.0% (2007 DHS) Liberia – 24.7% (CSHGP, Curamericas, 2008–2013) Madagascar – 39.9% (2003–04 DHS) Malawi – 57.1% (2004 DHS) Mozambique – 53.1%	Kenya – 47.1% (2008–09 DHS) Lesotho – 70.4% (2009 DHS) Madagascar – 49.3% (2008–09 DHS) Nepal – 32.9% (CSHGP, HealthRight 2009–2013) Uganda – 35.3% (CSHGP, MTI, 2009–2013)	Malawi – 45.5% (2010 DHS) Rwanda – 35.4% (2010 Prelim DHS) India ⁹ – 68%* (CSHGP HOPEWW 2006–2010) Kenya ⁹ – 49%* (CSHGP, AMREF 2005–2010) Kenya ¹⁰ – 28% (CSHGP, HealthRight 2006–2010)		Zimbabwe – 64.8% (2010–11 DHS) Nepal – 50.1% (2011 DHS) Nepal – 84.1% (CSHGP, Plan 2007–2011) Nepal – 65.8% (CSHGP, CARE 2007–2011) Tanzania – 55.0% (CSHGP Wellshare 2006–2011) * denominator = 2 years prior to survey	Nepal – 70.8% (CSHGP, HKI 2008–2012) Uganda – 36.1% (CSHGP, ERD 2008–2012)	Nepal – 79.2% (CSHGP, HealthRight 2009–2013) Uganda – 57.8% (CSHGP, MTI, 2009–2013) Liberia – 74% (CSHGP, Curamericas, 2008–2013)	N/A

⁹ 2008 Rapid CATCH indicator definition: Percentage of mothers of children age 0–23 months who had four or more antenatal visits when they were pregnant with the youngest child.

¹⁰ Percentage of mothers of children 0–11 months who attended ANC at least four times during most recent pregnancy.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		<p>(2003 DHS)</p> <p>Nepal – 29.4% (2006 DHS)</p> <p>Nepal – 28.1% (CSHGP, HKI 2008–2012)</p> <p>Nigeria – 44.8% (2008 DHS)</p> <p>Pakistan – 28.4% (DHS 2006-07)</p> <p>Philippines – 77.8% (DHS 2008)</p> <p>Paraguay – 90.5 (2008 RHS)</p> <p>Rwanda – 23.9% (2007–08 Interim DHS)</p> <p>Uganda – 40.0% (CSHGP, ERD 2008–2012)</p> <p>Zambia – 60.3% (DHS 2007)</p> <p>Zimbabwe – 71.1% (2005–06 DHS)</p> <p>Note on DHS data: Data for MCHIP countries' maternal health activities and population-based surveys.</p>							
9.	Percentage of women who received intermittent preventive treatment for malaria during their last pregnancy	<p>Numerator: Number of women at risk for malaria who received two or more doses of a recommended antimalarial drug treatment to prevent malaria during their last pregnancy that led to a live birth</p> <p>Denominator: Total number of women surveyed at risk for malaria who delivered a</p>	<p>Burkina Faso – 64.3% (2003 DHS)</p> <p>Malawi – 81.8% (2004 DHS)</p> <p>Mozambique – n/a</p> <p>Nigeria – 22.3%; North West Zone – 10.6% (2008 DHS)</p> <p>Rwanda – 19.9% (2007–08 Interim DHS)</p> <p>Zambia – 87.2% (DHS 2007)</p> <p>Zimbabwe – 37.9%</p>	<p>Burkina Faso – 11% (2010 Preliminary DHS)</p> <p>Malawi – 55% (2010 DHS)</p> <p>Rwanda – 13.3% (2010 Preliminary DHS)</p> <p>Kenya¹² – 13%* (CSHGP, HealthRight)</p>	<p>Mozambique – 20.5% (2011 Preliminary MIS)</p> <p>Uganda – 62.2% (DHS 2011)</p> <p>Zimbabwe – 23.2% (2010–11 Prelim DHS)¹⁴</p>	<p>Tanzania – 57.3% (CSHGP Wellshare 2006–2011)</p>		<p>Uganda – 68.3% (CSHGP, MTI, 2009–2013)</p> <p>Liberia – 96.3% (CSHGP, Curamericas, 2008–2013)</p>	N/A

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PV1 DATA	FY2010/PV2 DATA	FY2011/PV3 DATA	FY2012/PV4 DATA	FY2013/PV5 DATA	FY2014/PV6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	live baby within the last 2 years ¹¹	(2005–06 DHS) Kenya – 4% (CSHGP, HealthRight 2006–2010) Kenya – 41.5% (DHS 2008–09) Zambia – 83.8% (CSHGP, SAWSO 2005–2010) Note: Data for MCHIP countries with malaria activities and recent population-based surveys and:		2006–2010) Kenya – 66.5% (MIS 2010) Zambia ¹³ – 87.7% (CSHGP, SAWSO 2005–2010)					
10. Percentage of live births attended by skilled health personnel (doctor, nurse, midwife, or auxiliary midwife)	Numerator: Number of live births to women aged 15–49 years in the 5 years prior to the survey attended during delivery by skilled health personnel (doctor, nurse, midwife, or auxiliary midwife) Denominator: Total number of live births to women aged 15–49 years in the 5 years prior to the survey (Note: This reference period may differ between surveys.)	Dominican Republic – 97% (DHS 2007) Egypt– 78.9% (DHS 2008) Ethiopia – 6.3% (2005 DHS) Kenya – 41.6% (2003 DHS) Lesotho – 55.2% (2004 DHS) Liberia – 49.4% (2008–09 DHS) Madagascar – 44.8% (2004 DHS) Malawi – 56.6% (2004 DHS) Mozambique – 49.1% (2003 DHS) Nepal – 25.0% (2006 DHS) Nigeria – Kano-12.7%, Katsina-4.7%, Zamfara-7.7% (2008 DHS) Rwanda – 57.8% (2007–08 Interim DHS)	Kenya – 45.2% (2008–09 DHS) Lesotho – 61.5% (2009 DHS) Madagascar – 43.3% (2008–09 DHS) Nepal – 22.4% (CSHGP, HealthRight 2009–2013) Uganda – 35.3% (CSHGP, MTI, 2009–2013)	Burma – 70.6% (MICS 2009–10) Malawi – 71.4% (2010 DHS) Rwanda – 69% (2010 Preliminary DHS) Bangladesh ¹⁵ – 19.1% (CSHGP, CRWRC 2004–2010) Cambodia – 83.5%* (CSHGP, IRD 2006–2010) DR Congo – 67.9% (CSHGP, CRS 2005–2010) India – 55.7% (CSHGP HOPEWW 2006–2010) Indonesia – 93.9%	Ethiopia – 10% (2011 Preliminary DHS) Nepal – 36% (2011 Preliminary DHS) Zimbabwe – 66.2% (2010–11 Preliminary DHS)	Nepal – 77.6% (CSHGP, Plan 2007–2011) Nepal – 52.1% (CSHGP, CARE 2007–2011) Niger – 52.8% (CSHGP, Relief 2007–2011) * denominator = 2 years prior to survey	Nepal – 29.7% (CSHGP, HKI 2008–2012) Uganda – 64.4% (CSHGP, ERD 2008–2012) Ethiopia – 15.0% (CSHGP, Save the Children 2007–2012) India – 64.3% (CSHGP, World Renew 2007–2012)	Nepal – 34.2% (CSHGP, HealthRight 2009–2013) Uganda – 83.9% (CSHGP, MTI, 2009–2013) Liberia – 82.5% (CSHGP, Curamericas, 2008–2013)	N/A

¹² Percentage of mothers of children 0–11 months who received IPT at least twice during ANC.

¹⁴ Percentage of last births in the 2 years preceding the survey for which the mother got intermittent preventive treatment (IPTp) during an antenatal visit.

¹¹ MCHIP used the DHS definition although it has limitations.

¹³ Percentage of mothers of children 0–23 months who received IPT for malaria during their last pregnancy (confirmed by maternal health card).

¹⁵ 2000+ and 2006 Rapid CATCH indicator definition: Percentage of children age 0–23 months whose births were attended by skilled personnel.

DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	<p>Zimbabwe – 67.3% (2005–06 DHS)</p> <p>Bangladesh – 13.3% (CSHGP, CRWRC 2004–2010)</p> <p>Cambodia – 40.0% (CSHGP, IRD 2006–2010)</p> <p>DR Congo – 64.7% (CSHGP, CRS 2005–2010)</p> <p>India – 50.0% (CSHGP HOPEWW 2006–2010)</p> <p>Indonesia – 94.2% (CSHGP Mercy Corps 2006–2010)</p> <p>Kenya – 25.6% (CSHGP, AMREF 2005–2010)</p> <p>Kenya – 28.2% (CSHGP, HealthRight 2006–2010)</p> <p>Liberia – 21.3% (CSHGP, MTI 2006–2010)</p> <p>Mozambique – 55.6% (CSHGP, FH 2005–2010)</p> <p>Pakistan – 38.8% (DHS 2006-07)</p> <p>Philippines - 62.2% (DHS 2008)</p> <p>Uganda – 47.4% (CSHGP, HealthPartners 2005–2010)</p> <p>Yemen – 35.7% (MICS 2006)</p> <p>Zambia – 41.6% (CSHGP, SAWSO 2005–2010)</p> <p>Zambia - 46.5% (DHS 2007)</p> <p>Nepal – 20.8% (CSHGP, HKI 2008–2012)</p>		<p>(CSHGP Mercy Corps 2006–2010)</p> <p>Kenya – 56.0%* (CSHGP, AMREF 2005–2010)</p> <p>Kenya¹⁶ – 28.4% (CSHGP, HealthRight 2006–2010)</p> <p>Liberia – 34.7% (CSHGP, MTI 2006–2010)</p> <p>Mozambique – 77.5%* (CSHGP, FH 2005–2010)</p> <p>Uganda – 63.7% (CSHGP, HealthPartners 2005–2010)</p> <p>Zambia – 52.6% (CSHGP, SAWSO 2005–2010)</p>					

¹⁶ Percentage of children age 0–11 months whose births were attended by skilled health personnel.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		Uganda – 38.2% (CSHGP, ERD 2008–2012) Liberia – 22.7% (CSHGP, Curamericas, 2008–2013) Note for DHS: Data for MCHIP countries' maternal health activities and population-based surveys.							
11. Percentage of live births delivered by cesarean section	Numerator: Number of live births to women aged 15–49 years in the 5 years prior to the survey delivered by cesarean section Denominator: Total number of live births to women aged 15–49 years in the 5 years prior to the survey	Dominican Republic – 20% (DHS 2007) Egypt – 27.6% (DHS 2008) Urban: 37.1% Rural: 22.0% Ethiopia – 1.0% (2005 DHS) Urban: 9.4% Rural: 0.3% Kenya – 4.0% (2003 DHS) Urban: 9.4% Rural: 4.0% Lesotho – 5.1% (2004 DHS) Urban: 8% Rural: 4.6% Liberia – 3.5% (2007 DHS) Urban: 5.4% Rural: 2.6% Madagascar – 1.0% (2003–04 DHS) Urban: 2.2% Rural: 0.8% Malawi – 3.1% (2004 DHS) Urban: 4.4% Rural: 2.9% Mozambique – 1.9% (2003 DHS) Urban: 5.3% Rural: 0.5%	Kenya – 6.2% (2008–09 DHS) Urban: 11.3% Rural: 5.1% Lesotho – 6.7% (2009 DHS) Urban: 11.4% Rural: 5.2% Madagascar – 1.5% (2008–09 DHS) Urban: 5.7% Rural: 0.9%	Malawi – 4.6% (2010 DHS) Urban: 8.3% Rural: 4.2%	N/A	Ethiopia – 1.5% (2011 DHS) Urban: 8.1% Rural: 0.5% Zimbabwe – 4.5% (2010–11 DHS) Urban: 7.8% Rural: 3.1% Nepal – 4.6% (2011 DHS) Urban: 15.3% Rural: 3.5% Rwanda – 7.1% (2010 DHS) Urban: 15.9% Rural: 5.9%			N/A

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		Nepal – 2.7% (2006 DHS) Urban: 8.4% Rural: 1.9% Nigeria – Kano-.6%, Katsina-.1%, Zamfara - 0.1% (2008 DHS) Urban (nat'l): 3.7% Rural (nat'l): 1% Pakistan – 7.3% (DHS 2006-07) Urban: 12.9% Rural: 4.9% Philippines – 9.5% (DHS 2008) Urban: 13.8% Rural: 5.3% Rwanda – 2.9% (2007–08 Interim DHS) Urban: n/a Rural: n/a Zambia – 3.0% (DHS 2007) Urban: 6.2% Rural: 1.6% Zimbabwe – 4.8% (2005- 06 DHS) Urban: 8.7% Rural: 3.2% Note: Data for MCHIP countries maternal health activities and population- based surveys.							
12. Percentage of newborns put to the breast within 1 hour of birth	Numerator: Number of women with a live birth in the X years prior to the survey who put the newborn infant to the breast within 1 hour of birth	Dominican Republic – 74% (DHS 2007) Egypt- 55.9% (DHS 2008) India – 25% (CSHGP HOPEWW 2006–2010) Kenya – 20% (CSHGP, HealthRight 2006–		India ¹⁷ – 34% (CSHGP HOPEWW 2006–2010) Kenya ¹⁸ – 66%* (CSHGP, HealthRight	Bangladesh - 47.1% (DHS 2011)	Ethiopia – 81.6% (CSHGP, GOAL 2007–2011) * denominator = 0-23 months Malawi – 94.7% (CSHGP, Save		Nepal – 46.5% (CSHGP, HealthRight 2009-2013) Uganda – 78.9% (CSHGP, MTI,	N/A

¹⁷ Percentage of newborns who were put to the breast within 1 hour of delivery.

¹⁸ Percentage of children aged 0–5 months who were exclusively breastfed within the first hour after birth.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	Denominator: Total number of women with a live birth in the X years prior to the survey (Note: This reference period may differ between surveys.)	2010) Liberia – 33.7% (CSHGP, MTI 2006–2010) Pakistan – 28.8% (DHS 2006–07) Yemen– 29.6% (MICS 2006) Zambia – 43.8% (CSHGP, SAWSO, 2005–2010) Zambia – 56.5% (DHS 2007) Note: Data not included for MCHIP countries due to limitations. Indicator definition is standard for MICS, but not DHS, which uses the denominator of children ever breastfed rather than all children; anticipate having updated MICS data from the current round of MICS surveys in PY4.		2006–2010) Liberia ¹⁹ – 87.0%* (CSHGP, MTI 2006–2010) Burma – 75.8% (MICS 2209–10) Zambia ²⁰ – 71.6%* (CSHGP, SAWSO, 2005–2010)		2006–2011) * denominator = 0–11 months Nepal – 79.9% (CSHGP, Plan 2007–2011) * denominator = 0–5 months Niger – 95% (CSHGP, Relief 2007–2011) * denominator = 0–23 months		2009–2013) Liberia – 91.3% (CSHGP, Curamericas, 2008–2013)	
13. Percentage of mothers who received postnatal care visit within 2 days of childbirth	Numerator: Number of women who received a postnatal care visit within 2 days of childbirth (regardless of place of delivery) Denominator: Total number of women aged 15–49 years with a last live birth in the 5 years prior to the survey (regardless of place of delivery)	Bangladesh – 27% (DHS 2007) Dominican Republic – .1% (2007 DHS) Egypt– 64.6% (DHS 2008) Ethiopia – 4.6% (2005 DHS) Kenya – 10.0% (2003 DHS) ²¹ Kenya – 23% (CSHGP, AMREF 2005–2010) Lesotho – 47.9% (2009 DHS) Madagascar – 32.1% (2003–04 DHS) Malawi – 20.6% (2004	Kenya – 42.1% (2008–09 DHS) Lesotho – 47.9% (2009 DHS) Madagascar – 46.3% (2008–09 DHS) Kenya ²² – 58%* (CSHGP, AMREF 2005–2010)	Malawi – 43% (2010 DHS)	Nepal – 44.5% (DHS 2011)	Ethiopia – 6.7% (2011 DHS) Zimbabwe – 27.1% (2010–11 DHS)		Nepal – 53.6% (CSHGP, HealthRight 2009–2013) Uganda – 50.3% (CSHGP, MTI, 2009–2013)	N/A

¹⁹ Percentage of newborns who were put to the breast within 1 hour of delivery and did not receive prelacteal feeds.

²⁰ Percentage of children 0–23 months who were breastfed within 1 hour of birth.

²¹ Percentage distribution of women who had a non-institutional live birth in the 5 years preceding the survey by timing of postnatal care for the most recent non-institutional birth.

²² Percentage of mothers 0–5 months who attend postnatal care within 2 days of delivery.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		DHS) Mozambique – 12.1% (2003 DHS) Nigeria – Kano-12.9%, Katsina-7.1%, Zamfara-13.7% (2008 DHS) Pakistan – 36.4% (DHS 2006-07) Philippines – 76.9% (DHS 2008) Paraguay – n/a Zambia – 38.7% (DHS 2007) Zimbabwe – 30.3% (2005–06 DHS) Note on DHS data: Data for MCHIP countries with population-based surveys and newborn health activities.							
14. Percentage of babies who received a postnatal care visit within 2 days of birth	Numerator: Number of babies who received a postnatal care visit within 2 days of birth (regardless of place of delivery) ²³ Denominator: Total number of last-born babies in the X years prior to the survey	Bangladesh – 27% (DHS 2007) Cambodia – 21.3% (CSHGP, IRD 2006–2010) Dominican Republic-82.1% (2007 DHS) Egypt- 7.8% (DHS 2008) India – 40.7% (CSHGP HOPEWW 2006–2010) Indonesia – 42.7% (CSHGP Mercy Corps 2006–2010) Kenya – 15.8% (CSHGP, HealthRight 2006–2010) Liberia – 7.0% (CSHGP, MTI 2006–2010) Pakistan – 39.4% (DHS	Nepal – 44.4% (CSHGP, HealthRight 2009-2013) Uganda – 16.3% (CSHGP, MTI, 2009-2013)	Cambodia ²⁴ – 67.0%* (CSHGP, IRD 2006–2010) India ²⁴ – 46.3% (CSHGP HOPEWW 2006–2010) Indonesia ²⁴ – 43.0% (CSHGP Mercy Corps 2006–2010) Kenya ²⁵ – 54.7%* (CSHGP, HealthRight 2006–2010) Liberia ²⁴ – 40.3%* (CSHGP, MTI 2006–2010)		Malawi – 30.9% (CSHGP, Save the Children 2006–2011) * denominator = 0–23 months Nepal – 71.1% (CSHGP, Plan 2007–2011) * denominator = 0–5 months Nepal – 46.1% (CSHGP, CARE 2007–2011) * denominator = 0–23 months, within 3 days Tanzania – 82.5%	Nepal – 26.6% (CSHGP, HKI 2008–2012) Uganda – 46.2% (CSHGP, ERD 2008–2012) Ethiopia – 13.9% (CSHGP, Save the Children 2007 – 2012) India – 60.3% (CSHGP, World Renew 2007–2012)	Nepal – 39.6% (CSHGP, HealthRight 2009-2013) Uganda – 40.8% (CSHGP, MTI, 2009-2013) Liberia – 99.2% (CSHGP, Curamericas, 2008-2013)	N/A

²³ This establishes there was contact with a health worker but does not tell us the content of the care received. The healthy newborn net website hosted by the saving newborn lives program recommends indicators for content of postnatal care.

²⁴ 2006 Rapid CATCH indicator definition: Percentage of children age 0–23 months who received a postnatal visit from an appropriately trained health worker within 3 days after birth.

²⁵ Percentage of mothers of infants 0–5 months who received neonatal care within 2 days of delivery.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		2006-07) Zambia 38.7% (DHS 2007) Note: Data for other MCHIP countries from DHS not included due to limitations. Indicator definition is standard for MICS, but not older DHS; anticipate having updated MICS data from the current round of MICS surveys in PY4.				(CSHGP Wellshare 2006–2011) * denominator = 0–23 months, within 3 days			
15. Percentage of mothers with children under 24 months who are currently using FP	Numerator: Number of mothers with children under 24 months who are currently using FP Denominator: Total number of mothers with children under 24 months Data for contraceptive prevalence rate are from DHS, which uses this definition: percent married women 15–49 using any form of contraception at the time of the survey.	Bangladesh – 55.8% (DHS 2007) Egypt– 60.3% (DHS 2008) Ethiopia – 14.7% (2005 DHS) Guinea – 9.1% (2005 DHS) India – 56.3%; UP – 56.3%; Jharkhand [urban] – 60.0%, [rural] – 28.2% (2005–06 DHS) Kenya – 39.3% (2003 DHS) Liberia – 2.0% (CSHGP, Curamericas, 2008-2013) Malawi – 32.5% (2004 DHS) Mali – 8.2% (2006 DHS) Nepal – 48.0% (2006 DHS) Nigeria – 14.6% (2008 DHS) Rwanda – 36.4% (2007–08 Interim DHS) Zimbabwe – 60.2% (2005–06 DHS) Note: Data for MCHIP countries with population-based surveys and family	Kenya – 45.5% (2008–09 DHS) Nepal – 21.8% (CSHGP, HealthRight 2009-2013) Uganda – 33.3% (CSHGP, MTI, 2009-2013)	Malawi – 47.4% (2010 DHS) Rwanda – 52% (2010 Preliminary DHS) Zimbabwe – 58.5% (2010 Preliminary DHS)	Ethiopia – 28.6% (2011 Preliminary DHS) Nepal – 49.7% (2011 Preliminary DHS)	N/A	Nepal – 29.4% (CSHGP, HKI 2008–2012) Uganda – 21.6% (CSHGP, ERD 2008–2012)	Nepal – 14.9% (CSHGP, HealthRight 2009-2013) Uganda – 28.1% (CSHGP, MTI, 2009-2013) Liberia – 61.4% (CSHGP, Curamericas, 2008-2013)	N/A

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
16. Percentage of women who received iron/folate during their last pregnancy	Numerator: Number of women who received iron/folate during their last pregnancy that led to a live birth ²⁶ Denominator: Total number of women surveyed who delivered a live baby within the last 2 years	planning activities. Bangladesh – 57.2% (2007 DHS) Burkina Faso – 70.3% (2003 DHS) Dominican Republic – 90% (DHS 2007) Egypt – 43.7% (DHS 2008) India – 64.8%; UP – 58.2%; Jharkhand – 49.5% (2005–06 DHS) Indonesia – 77.8% (2007 DHS) Kenya – 46.8% (2003 DHS) Lesotho – 37.8% (2004 DHS) Liberia – 87.4% (2007 DHS) Madagascar – 32.3% (2003–04 DHS) Malawi – 79.7% (2004 DHS) Mozambique – 59.7% (2003 DHS) Nepal – 62.8% (2006 DHS) Nigeria – 54.1%; North West Region – 30.6% (5 yrs) (2008 DHS) Pakistan – 43.3% (DHS 2006-07)*Iron only Philippines – 82.4% (DHS 2008) Paraguay – n/a (2008 RHS) Rwanda – 41.7% (2007–08 Interim DHS) Zambia – 90.4% (DHS 2007) Zimbabwe – 41.4%	Lesotho – 46.5% (2009 DHS) Kenya – 69.6% (2008–09 DHS) Madagascar – 58.0% (2008–09 DHS)	Malawi – 91.2% (2010 DHS) Burma – 83.6% (MICS 2009-10)	Nepal – 79.5% (DHS 2011)	Ethiopia – 35.1% (CSHGP, GOAL 2007–2011) Nepal – 79.5% (2010 DHS) Nepal – 82.3% (CSHGP, Plan 2007–2011) Rwanda – 73% (2010 DHS) Zimbabwe – 49.5% (2010–2011 DHS)		Nepal – 86.4% (CSHGP, HealthRight 2009-2013) Uganda – 91% (CSHGP, MTI, 2009-2013) Liberia – 65.3% (CSHGP, Curamericas, 2008-2013)	N/A ²⁷

²⁶ This indicator does not capture number of tablets/length of consumption.

²⁷ Not applicable.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
		(2005–06 DHS) Note: Data for MCHIP countries with population-based surveys and maternal health activities.							
17. Number of (national) policies drafted with USG support*	This refers to the number of national laws, policies, ²⁸ regulations, and strategy documents, including national service delivery guidelines and performance standards, developed or revised with MCHIP support to improve access to and use of high-impact MNCH services, including FP. The list of policies will be provided and disaggregated by country and technical area.	0	4	29	49	43	26	31	182 (See Annex 14 for list of policies drafted with MCHIP support)
18. Number of MCHIP countries that have introduced innovative health financing schemes/incentive mechanisms with MCHIP support	This includes performance-based incentive (PBI) schemes, pay for performance, client incentive mechanisms, franchising, vouchers, and insurance schemes at a national or sub-national level.	0	0	2	3 (Zimbabwe, Nigeria, India)	1 (Kenya)	3 (DRC, Kenya, Senegal)	3 (Kenya, Mali, Mozambique)	12
19. Number of people trained through USG-supported programs*	This indicator will be disaggregated by training topic and for CSHPG and MCP contributions as needed. Training topics include: MNH, child health and nutrition, malaria, FP/RH, HIV/AIDS	0	1,935 (Note: These are training participants and not unique individuals.)	23,348 (Note: These are training participants and not unique individuals.)	69,273 MNH:29,680 (core: 3,843, field: 25,837) CH/N:3,843 (core: 261, field: 2,822) Malaria:9,083	69,148 MNH: 34, 609 (core: 1,695, field: 32,914, HBB: 12,766) CH/N:13,207 (core: 445, field: 12,762)	118,130 MNH: 31,570 (core: 30,592, field: 978, HBB: 11,674) CH/N:44,448 (core: 244, field: 44,204)	25,925 MNH: 4,868 (core: 609, field: 4,259, HBB: 567) CH/N: 9362	307,759

²⁸ This includes national-level policies supporting: 1) notification of maternal deaths; 2) enactment of the International Code of Marketing of Breast-Milk Substitutes; 3) ratification of Maternity Protection Convention 183; 4) authorization of midwives to deliver lifesaving interventions; 5) authorization of community health workers to identify and manage pneumonia; and 6) incorporation into policy of promotion of low-osmolality oral rehydration salts and zinc for management of diarrhea. This indicator will be extended and improved as one activity under Sub-objective 2 of MCHIP.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	(PMTCT, male circumcision), and M&E/operations research.				(all field) FP/RH: 25,779 (all field) HIV/AIDS: 985 (all field) MER: 544 (core: 13, field: 531) Other: 119 (Note: These are training participants and not unique individuals.)	Malaria: 7,409 (core: 215, field: 7,194) FP/RH: 11,476 (core: 296, field: 11,180) HIV/AIDS: 1,048 (core: 310, field: 738) MER: 1399 (core: 350, field: 1,049) (Note: These are training participants and not unique individuals.)	Malaria: 2,548 (core: 22, field: 2,526) FP/RH: 25,978 (core: 29, field: 25,949) HIV/AIDS: 1,236 (core: 0, field: 1,236) MER: 12,762 (core: 1, field: 12,761) (Note: These are training participants and not unique individuals.)	(core: 1,452, field: 7,910) Malaria: 5,985 (core: 232, field: 5,753) FP/RH: 4,140 (core: 110, field: 4,060) HIV/AIDS: 663 (field: 663) MER: 310 (field: 310);	
20. Percentage of facilities that offer delivery services with MgSO ₄ available in the delivery room	Number of facilities that offer delivery services with MgSO ₄ available in the delivery room/Total number of facilities that offer delivery services	0	New indicator for Year 3	New indicator for Year 3	Guinea – 87%	94% – India	Kenya – 100% Mozambique – 100% Zambia – 100%	Bangladesh – .04% Mozambique – 100% Pakistan – 73% Zambia – 58%	N/A
21. Number of countries with pre-service education strengthened to improve skilled birth attendance**	This includes updating curricula and improving the skills of tutors. This indicator will be disaggregated by type of curriculum/cadre of provider, e.g., midwife, nurse, clinical officer, etc.	0	2 (Malawi, Ghana)	5 (DRC, India, Liberia, Malawi, Mozambique)	10 (DRC, Ethiopia, Ghana, Guinea, India, Malawi, Mozambique, Nigeria, Rwanda, Zimbabwe)	7 (Bangladesh, Ethiopia, Ghana, Guinea, India, Mozambique, Rwanda)	7 (Ghana, Guinea, Madagascar, Malawi, Mali, Mozambique, Zambia)	5 (Ghana, Guinea, Madagascar, Mozambique, Yemen)	16 unique countries (Bangladesh, DRC, Ethiopia, Ghana, Guinea, India, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Rwanda, Yemen,

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
22. Number of MCHIP-supported health facilities demonstrating increased compliance with clinical standards over baseline	Number of MCHIP-supported facilities that are implementing a quality improvement approach, such as Standards-Based Management and Recognition, that demonstrate increased compliance with standards over baseline. This will be disaggregated by country and type of facility (e.g., dispensary/health post, health center, hospital).	0	0	117	1,990 (Bolivia, Burkina Faso, DRC, DR, Guinea, India, Indonesia, Kenya, Malawi, Mozambique, Nigeria)	1,718 (Bolivia, Burkina Faso, Guinea, India, Kenya, Liberia, Malawi, Mali, Mozambique, Paraguay, Zambia, Zimbabwe)	278 (Dominican Republic, Ethiopia, Guinea, Liberia, Malawi, Mali, Mozambique, Zambia, Zimbabwe)	508 (Ethiopia, Ghana, Mali, Mozambique, Zambia, Zimbabwe)	4,611 health facilities in 18 countries. (Bolivia, Burkina Faso, DRC, DR, Ethiopia, Ghana, Guinea, India, Indonesia, Kenya, Liberia, Malawi, Mali, Mozambique, Nigeria, Paraguay, Zambia, Zimbabwe)
23. Number of countries with introduction of high-impact MNCH interventions through MCHIP-supported activities and	This includes: Maternal anemia control PPH prevention (at least 25% of facilities that offer delivery services in one district) ** PPH treatment (at least 25% of facilities that offer delivery services	0	Mat. anemia - 0 PPH/P - 2 PPH/T - 2 PE/E - 0 PNC/ENC - 0 KMC - 0 CKMC - 1 NB HW - 0 Asphyxia - 1	Mat. anemia - 1 PPH/P - 7 PPH/T - 7 PE/E - 2 PNC/ENC - 5 KMC - 7 (introduced/expanded) CKMC - 2	Mat. anemia - 1 PPH/P - 2 PPH/T - 2 PE/E - 2 PNC/ENC - 3 KMC - 8 (into/exp) CKMC - 2	Mat. anemia - 2 PPH/T - 2 PE/E - 5 PNC/ENC - 3 KMC - 0 CKMC - 0 NB HW - 0 Asphyxia - 4 NB infect. - 0	PE/E - 6 PPH - 1 NB HW - 1 Asphyxia - 5 NB infect. - 2 KMC - 4 PNC/ENC - 0 ORT/Zinc - 2 CCM/Pneu. - 0	Mat. anemia - 2 PPH/T - 0 PE/E - 0 PNC/ENC - 2 KMC - 3 CKMC - 0 NB HW - 1 Asphyxia - 1	Mat. anemia - 6 PPH/T - 15 PE/E - 15 PNC/ENC - 13 KMC - 22

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PV1 DATA	FY2010/PV2 DATA	FY2011/PV3 DATA	FY2012/PV4 DATA	FY2013/PV5 DATA	FY2014/PV6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
CSHGP grants in MCHIP-supported countries**	<p>in one district)**</p> <p>Pre-eclampsia/ Eclampsia programs (program model developed for prevention, detection, and treatment)**</p> <p>Postnatal and essential newborn care (less than three districts)**</p> <p>Kangaroo Mother Care (facility-based KMC services in less than three districts)**</p> <p>Community Kangaroo Mother Care</p> <p>Newborn handwashing promoted</p> <p>Management of asphyxia in the newborn (home and facility settings)**</p> <p>Newborn infection management</p> <p>Oral rehydration therapy/zinc</p> <p>Community case management/ pneumonia control</p> <p>New vaccines/ innovative technologies</p>		<p>NB infect - 0</p> <p>ORT/Zinc - 1</p> <p>CCM/Pneu. - 2</p> <p>New vaccines - 0</p>	<p>NB HW - 3</p> <p>Asphyxia - 2</p> <p>NB infect - 3</p> <p>ORT/Zinc - 1</p> <p>CCM/Pneu. - 0</p> <p>New vaccines - 1</p>	<p>NB HW - 1</p> <p>Asphyxia - 14</p> <p>NB infect - 1</p> <p>ORT/Zinc - 1</p> <p>CCM/Pneu. - 0</p> <p>New vaccines - 5</p>	<p>ORT/Zinc - 3</p> <p>CCM/Pneu. - 1</p> <p>New vaccines - 4</p>	<p>New vaccines - 1</p>	<p>NB infect. - 2</p> <p>ORT/Zinc - 0</p> <p>CCM/Pneu. - 0</p> <p>New vaccines - 0</p>	<p>CKMC - 5</p> <p>NB HW - 6</p> <p>Asphyxia - 26</p> <p>NB infect. - 8</p> <p>ORT/Zinc - 8</p> <p>CCM/Pneu. - 3</p> <p>New vaccines - 11</p> <p>(See Table 1 following this matrix for the list of countries.)</p>
24. Number of countries with expansion of high-impact MNCH interventions through MCHIP-supported activities and CSHGP grants in MCHIP-supported countries**	<p>This includes:</p> <p>Skilled birth attendance/ Essential obstetric care**</p> <p>PPH prevention** (at least 20% of facilities in the country that offer delivery services)**</p> <p>Postnatal and essential newborn care (three or more districts)</p> <p>Kangaroo Mother Care (facility-based KMC services in three or</p>	0 (with MCHIP support)	<p>SBA/EOC - 2</p> <p>PPH/P - 2</p> <p>PNC/ENC - 0</p> <p>ORT/Zinc - 0</p> <p>CCM/Pneu. - 1</p>	<p>SBA/EOC - 8</p> <p>PPH/P - 7</p> <p>PNC/ENC - 2</p> <p>ORT/Zinc - 1</p> <p>CCM/Pneu. - 1</p>	<p>SBA/EOC - 1</p> <p>PPH/P - 7</p> <p>PNC/ENC - 9</p> <p>ORT/Zinc - 2</p> <p>CCM/Pneu. - 1</p>	<p>SBA/EOC - 4</p> <p>PPH/P - 9</p> <p>PNC/ENC - 0</p> <p>ORT/Zinc - 3</p> <p>CCM/Pneu. - 2</p>	<p>SBA/EOC - 4</p> <p>PPH - 5</p> <p>PNC/ENC - 2</p> <p>ORT/Zinc - 0</p> <p>CCM/Pneu. - 2</p>	<p>SBA/EOC - 0</p> <p>PPH - 0</p> <p>PNC/ENC - 2</p> <p>ORT/Zinc - 0</p> <p>CCM/Pneu. - 0</p>	<p>SBA/EOC - 19</p> <p>PPH - 30</p> <p>PNC/ENC - 15</p> <p>ORT/Zinc - 6</p> <p>CCM/Pneu. - 7</p> <p>(See the Table 1 following this matrix for the list</p>

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	more districts)** Oral rehydration therapy/zinc Community case management/pneumonia control								of countries.)
25. Number of countries with strategies to revitalize oral rehydration therapy (ORT) use** *29	ORT/CDD revitalization strategy indicating explicit intent of MOH and partners to increase use of ORT	0	2	3	5 (DRC, Kenya, Malawi, Rwanda, Zimbabwe)	4 (Kenya, Mali, Rwanda, Zimbabwe)	4 (Kenya, Malawi, Mali, Zimbabwe)	5 (Kenya, Mali, Mozambique, Rwanda, Zimbabwe)	7 unique countries (DRC, Kenya, Malawi, Mali, Mozambique, Rwanda, Zimbabwe)
26. Number of clients attending essential MNCH services with integrated FP at MCHIP-supported facilities who received FP counseling ³⁰	Essential MNCH services include ANC, PAC, postpartum care, and well-baby/immunization services. Data will be disaggregated by country.	0	April–Sept. in Nigeria 105,953 ANC clients and 25,527 postpartum care	1,077,640	1,049,817 (Bangladesh, DRC, Guinea, India, Malawi, Mozambique, Nigeria, Rwanda)	701,422 (Ethiopia, Guinea, India, Mali, Mozambique, Rwanda)	647,652 (Ethiopia, Liberia, Mali, Mozambique, Philippines, Zambia)	390,558 (Ethiopia, Mali, Mozambique, Philippines, Yemen, Zambia)	3,998,569 in 14 countries (Bangladesh, DRC, Ethiopia, Guinea, India, Liberia, Malawi, Mali, Mozambique, Nigeria, Rwanda, Philippines, Yemen, Zambia)
27. Couple years of protection	CYP is the estimated protection provided by contraceptive methods during a 1-year period, based upon the volume of all contraceptives sold or distributed free of charge	0	New for Year 3	New for Year 3	404,807 (Bangladesh, Guinea, India, Malawi, Mozambique, Nigeria)	572,783 (Bangladesh, Guinea, India, Mali, Mozambique)	865,075 (Bangladesh, Bolivia, Guinea, India, Kenya, Liberia, Mali, Mozambique, South Sudan)	557,731 (Bangladesh, Guinea, India, Kenya, Mali, Mozambique, Zambia)	2,400,396 in 12 countries (Bangladesh, Bolivia, Guinea, India, Kenya, Liberia, Mali, Mozambique, South Sudan)

²⁹ Zinc is not included in this definition.

³⁰ As measured through routine monitoring and HMIS.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	to clients during that period.								India, Kenya, Liberia, Malawi, Mali, Mozambique, Nigeria, South Sudan, Zambia)
28. -Number of deliveries with a skilled birth attendant (SBA) in USG-assisted programs*	Number of deliveries with a skilled birth attendant (SBA). SBA includes: Medically trained doctor, nurse, or midwife. It does NOT include traditional birth attendants (TBAs). Data will be disaggregated by country.	N/A	Nigeria total from April–Sept. was 28,336	228,307	544,622 (Bangladesh, Bolivia, DRC, DR, India, Indonesia, Malawi, Mozambique, Nigeria, Paraguay, Rwanda, Zimbabwe)	344,865 (Bangladesh, Bolivia, DR, Ethiopia, Guinea, India, Indonesia, Kenya, Mali, Mozambique, Paraguay, Rwanda, Zimbabwe)	375,683 (Bangladesh, Bolivia, Egypt, Ethiopia, Guinea, Kenya, Liberia, Madagascar, Mali, Mozambique, Rwanda, South Sudan, Zambia, Zimbabwe)	216,992 (Bangladesh, Egypt, Ethiopia, Guinea, India, Kenya, Mali, Mozambique, South Sudan, Zambia, Zimbabwe)	1,738,805 in 21 countries (Bangladesh, Bolivia, DRC, DR, Egypt, Ethiopia, Guinea, India, Indonesia, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Nigeria, Paraguay, Rwanda, South Sudan, Zambia, Zimbabwe)
29. Number of women receiving active management of the third stage of labor (AMTSL) through USG-supported	Number of women giving birth who received active management of the third stage of labor (AMTSL) through USG-supported programs. Data will be disaggregated by country.	N/A (data not captured prior to program implementation)	15,688 (Nigeria)	108,873	469,654 (Bolivia, DRC, Guinea, Indonesia, Malawi, Mozambique, Nigeria, Paraguay, Rwanda)	118,775 (Bolivia, Guinea, Madagascar, Mali, Mozambique, Zambia, Paraguay)	240,116 (Bolivia, Guinea, Liberia, Madagascar, Mali, Mozambique, Rwanda, Zambia)	146,852 (Guinea, Mali, Mozambique, South Sudan, Zambia)	1,099,958 in 14 countries (Bolivia, DRC, Guinea, Indonesia, Liberia,

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
programs*									Madagascar, Mali, Malawi, Mozambique, Nigeria, Paraguay, Rwanda, South Sudan, Zambia)
30. Percentage of women receiving a uterotonic immediately after birth	Number of women receiving a uterotonic immediately after birth/Total number of women delivering at the target facility/area	Baseline data not available	New for Year 3	New for Year 3	Bangladesh – 85% Guinea – 81% India – 81% Zimbabwe – 87%	India - 100% Kenya - 94% Mali - 94% Mozambique - 74% Zimbabwe - 89%	India - 100% Kenya - 94% Liberia - 53% Madagascar - 80% Malawi - 100% Mali - 86% Mozambique - 98% Rwanda - 59% South Sudan - 32% Zambia - 90% Zimbabwe - 92%	Ghana - 100% India - 100% Mali - 95.17% Rwanda - 82.46% Zambia - 77.93% Zimbabwe - 99.13%	N/A
31. Number of newborns receiving antibiotic treatment from infection from appropriate health workers through USG-supported programs*	Number of newborn infants (identified as having possible infection) who receive antibiotic treatment from appropriate trained facility, outreach, or community health workers through USG-supported programs.	0 with MCHIP support	2,668	3,737	252,982 (DRC, Nigeria)	N/A	50,205 (Pakistan)	N/A	309,592 in 3 countries
32. Percentage of babies not breathing/crying at birth who were successfully resuscitated	Number of babies not breathing/crying at birth who were successfully resuscitated/Number of babies not breathing crying at birth	Baseline data not available	New for Year 3	New for Year 3		Zimbabwe - 92% Mali - 95%	Ethiopia - 100% India - 100% Malawi - 100% Mali - 95.78% Zambia - 82% Zimbabwe - 91%	Ghana - 100% Mali - 96.83% Zambia - 94.52% Zimbabwe - 92.78%	N/A
33. Number of children less than 12 months of age who received DPT3 from USG-supported	Number of children less than 12 months who received DPT3 in a given year from USG-supported programs	0	N/A	10,024,409	25,786,000 (DRC, India, Rwanda, Zimbabwe)	22,379,692 (India, Kenya, Malawi, Timor-Leste, Zimbabwe)	29,873,230 (India, Kenya, Pakistan, South Sudan, Zimbabwe)	693,408 (Kenya, Malawi, South Sudan, Uganda, Zimbabwe)	88,756,739 in 10 countries (DRC, India, Kenya,

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
programs*									Malawi, Pakistan, Rwanda, South Sudan, Timor-Leste, Uganda, Zimbabwe)
34. Number of cases of child diarrhea treated in USAID-assisted programs*	Number of cases of child diarrhea treated through USAID-supported programs with oral rehydration therapy (ORT) or zinc supplements	0	DRC: 1,595 children < 5 received zinc or ORS	55,742 Newborn cases: 1,889 Child cases: 49,854 Under-5 cases: 3,999	521,105 (DRC, Malawi, Rwanda, Zimbabwe)	22,712 (Ethiopia, Guinea, Mali, Zimbabwe)	139,319 (Egypt, Guinea, Mali, Pakistan, Zimbabwe)	90,074 (Egypt, Ethiopia, Guinea, Kenya, Mali, Zimbabwe)	307,847 in 10 countries (DRC, Egypt, Ethiopia, Guinea, Kenya, Malawi, Mali, Rwanda, Pakistan, Zimbabwe)
35. Number of cases of child pneumonia treated with antibiotics by trained facility or community health workers in USAID-supported programs*	Number of cases of child pneumonia treated with antibiotics by trained facility or community health workers in USAID-supported programs	0	DRC - 1,167	4,864	46,461 (DRC, Rwanda, Zimbabwe)	45,204 (Guinea, Mali, Zimbabwe)	93,220 (Ethiopia, Guinea, Mali, Pakistan, Zimbabwe)	32,775 (Ethiopia, Guinea, Mali, Zimbabwe)	223,691 in 7 countries (DRC, Ethiopia, Guinea, Mali, Pakistan, Rwanda, Zimbabwe)
36. Number of countries accepting new MNCH indicators for national collection and routine reporting	This includes service use and quality of care indicators related to maternity services, postpartum care, community case management, etc.	0	New for Year 3	New for Year 3	5 (Bangladesh, DRC, Kenya, Malawi, Rwanda)	3 (Mali, Mozambique, Rwanda)	5 (Bangladesh, Guinea, Mali, Mozambique, Rwanda)	7 (Bangladesh, Guinea, Mali, Mozambique, Rwanda, Senegal, Zambia)	10 unique countries (Bangladesh, DRC, Guinea, Kenya, Malawi, Mali, Mozambique, Rwanda, Senegal, Zambia)

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
37. Number of countries piloting new MNCH indicators	This includes service use and quality of care indicators related to maternity services, postpartum care, community case management, etc.	0	New indicator for Year 3	New indicator for Year 3	4 (Bangladesh, DRC, Kenya, Malawi)	4 (Bangladesh, Kenya, Rwanda, Zimbabwe)	7 (Bangladesh, Kenya, Liberia, Mali, Mozambique, Nepal, Rwanda)	5 (Bangladesh, Mali, Mozambique, Rwanda, Zambia)	11 unique countries (Bangladesh, DRC, Kenya, Liberia, Malawi, Mali, Mozambique, Nepal, Rwanda, Zambia, Zimbabwe)
38. Number of studies ³¹	This includes special studies, baseline and feasibility studies, and evaluations conducted with both core (SO2 and SO3) and field funds (under SO1). This includes mid-term and endline evaluations conducted by CSHGP grantees.	0	34	48 22 CSHGP 10 Malaria Communities Program 16 MCHIP	46 21 MCHIP 25 CSHGP	50 33 MCHIP 17 CSHGP	65 39 MCHIP 26 CSHGP	28 15 MCHIP 13 CSHGP	271 (See Annex 6 for list of studies completed under MCHIP)
39. Number of innovations or promising practices of CSHGP grants documented and supported by SO3	Demonstration of innovations and promising practices includes: CSHGP Operations Research Studies supported through TA from MCHIP SO3 Special analyses conducted across the portfolio of CSHGP grants by MCHIP SO3, such as innovation tracking, Lives Saved calculations, and including possible	0	5	11	6 (6 innovation grants started in YR3)	23 active Innovation awards		20 active Innovation projects	22 unique grants

³¹ Planned studies from the Results pathways include the global PE/E survey, PE/E country evaluations (2 countries), an evaluation of community-based KMC (2–3 countries), and mid-term and endline evaluations by the CSHGP grantees.

	DEFINITION AND DISAGGREGATION	BASELINE DATA (2008 OR EARLIER)	FY2009/PY1 DATA	FY2010/PY2 DATA	FY2011/PY3 DATA	FY2012/PY4 DATA	FY2013/PY5 DATA	FY2014/PY6 DATA (Oct 2013 – March 2014)	Life of Project TOTAL
	themes of integration/integrated packages, cost, effective delivery modalities, analysis for scalable components, equity	Documentation of successful projects							
40. Number of CSHGP grantee innovations or promising practices incorporated into MCHIP country programs	Demonstration of innovations and promising practices include: CSHGP Operations Research Studies supported through TA from MCHIP SO3 Special analyses conducted across the portfolio of CSHGP grants by MCHIP SO3 Documentation of successful projects	0	0	0	0	Total of 3: 1. Barrier Analysis Tool (Rwanda) 2. ICM scorecard (Rwanda) 3. World Renew sharing information and experience on MNH in Bangladesh and India.	0	0	3
41. Number of CSHGP-developed tools, reference materials and guides utilized to inform MCHIP country-level activities	Disaggregated by specific tool, reference material and guide. Examples are: KPC survey, including Rapid CATCH indicators; KPC TOAST curriculum (Training of Survey Trainers); Lives Saved Reference Materials; MAMAN package; Sustainability framework; Program Design Monitoring and Evaluation course (PDME).	0	1	1	1 (Equity guidance use for start-up of MCHIP Zimbabwe)	Total of 3: 4. Barrier Analysis Tool (Rwanda) 5. ICM scorecard (Rwanda) 6. World Renew sharing information and experience on MNH in Bangladesh and India.			6

Table 1. Details for Indicators 23 and 24 on high-impact MNCH interventions (Number of countries and country names)

INDICATOR	YEAR 1 RESULTS	YEAR 2 RESULTS	YEAR 3 RESULTS	YEAR 4 RESULTS	YEAR 5 RESULTS	YEAR 6 RESULTS	TOTAL TO DATE	LOP TARGET
High Impact Maternal Health Interventions								
Maternal Anemia Control	0	1 Bangladesh or Indonesia	1 Rwanda	2 Zimbabwe, Kenya	0	2 Egypt Yemen	6	5
Skilled Attendance at Birth (Essential Obstetric Care)	2 Mozambique, Nigeria	8 Malawi, Kenya, Madagascar, India, Liberia, Mali, Lesotho, DRC	1 Zimbabwe	4 Ghana, Bangladesh, Afghanistan, Ethiopia	4 South Sudan, Yemen, Burma, Pakistan	0	19	10
PE/E Prev./Treatment Introduced	0	2 Nepal, Mozambique	2 Tanzania, Zimbabwe	5 Bangladesh, Ethiopia, Indonesia, Bolivia, Paraguay	6 Pakistan, Guinea, Zambia, India, Yemen, Rwanda	0	15	7
PPH Prevention Expanded	2 Mali, DRC	7 Kenya, Mozambique, Madagascar, Liberia, India, Nigeria, Malawi	7 Zimbabwe, Nepal, Rwanda, Paraguay, Indonesia, Ethiopia, Bangladesh	9 Guinea, South Sudan, Angola, Peru, Nicaragua, Guatemala, Honduras, Tanzania, Afghanistan	5 Yemen, Burma, Philippines, Pakistan, Zambia	0	30	20
PPH Treatment Introduced	2 Nigeria, DRC	7 Mali, Kenya, Malawi, Mozambique, Madagascar, Liberia, India	2 Zimbabwe, Nepal	3 Paraguay, Bolivia, Ethiopia	1 South Sudan	0	15	15
High Impact Newborn Health Interventions								
Management of asphyxia introduced	1 Nigeria	2 Kenya, Bangladesh	14 Azerbaijan, India, Ethiopia, Nigeria, Zimbabwe, Ghana, Dominican Republic, Nicaragua, Guatemala, El Salvador, Honduras, Panama, Belize, Bolivia	4 Malawi, Tanzania, Mozambique, Zambia	5 Burma, Pakistan, South Sudan, Yemen, Paraguay	1 Mali	27	8
Newborn handwashing promoted	0	3 Indonesia, Bangladesh, India	1 Kenya	0	1 Dominican Republic	1 Mali	6	8

INDICATOR	YEAR 1 RESULTS	YEAR 2 RESULTS	YEAR 3 RESULTS	YEAR 4 RESULTS	YEAR 5 RESULTS	YEAR 6 RESULTS	TOTAL TO DATE	LOP TARGET
Newborn infection management introduced	0	3 Bangladesh, Nigeria, Dominican Republic	1 Paraguay	0	2 Liberia, Madagascar	2 Pakistan, Mali	8	8
Community KMC	1 Bangladesh	2 Malawi, Indonesia	2 Ethiopia, Mozambique	0	0	0	5	8
KMC introduced/expanded	0	7 Malawi, Bangladesh, Nigeria, DRC, Mali, Dominican Republic, Nicaragua	8 Rwanda, Indonesia, Guatemala, Honduras, El Salvador, Paraguay, Zimbabwe, Mozambique	0	4 Philippines, Burma, South Sudan, Yemen	3 Ethiopia, Liberia, Zambia	22	15
PNC/ENC expanded	0	2 Bangladesh, DRC	9 India, Nigeria, Malawi, Ethiopia, Zimbabwe, Mozambique, Mali, Guinea, Rwanda	0	2 Pakistan, South Sudan	2 India, Kenya	15	10
PNC/ENC introduced	0	5 India, Malawi, Mali, Nigeria, Dominican Republic	3 Azerbaijan, Indonesia, Paraguay	4 Kenya, Tanzania, Colombia, Mozambique	0	1 South Sudan	13	15
High Impact Child Health Interventions								
Expansion of ORT/Zinc	1 Senegal	2 DRC, Rwanda	3 Kenya, Mali, Zimbabwe	0	0	0	6	6
Introduction of ORT/Zinc	2 Kenya, Mali	1 Zimbabwe	3 DRC, Rwanda, Senegal	2 Zambia, Guinea	0	0	8	8
Expansion of CCM or Pneumonia Control	2 DRC, Senegal	1 Rwanda	2 Mali, Zambia	2 Guinea, Ethiopia	0	0	7	7
Intro. of CCM or Pneumonia Control	2 Kenya, Mali	0	1 Guinea	0	0	0	3	5
Immunization Interventions								
RI and Polio	3 DRC, India, Kenya	3 Nigeria, Afghanistan, Pakistan	3 Ukraine, Kyrgyzstan, Tajikistan	2 Uganda, Yemen	0	0	11	7
New vaccines/Innovative technologies	1 Rwanda	5 DRC, Kenya, Benin, Zimbabwe, Tanzania	4 Senegal, Malawi, India, Timor-Leste	1 Uganda	0	0	11	7

INDICATOR	YEAR 1 RESULTS	YEAR 2 RESULTS	YEAR 3 RESULTS	YEAR 4 RESULTS	YEAR 5 RESULTS	YEAR 6 RESULTS	TOTAL TO DATE	LOP TARGET
RED+ (RED plus MNCH/FP)	1 Liberia		3 Kenya, India, Zimbabwe	0	0	2 Tanzania Uganda	6	3
District RI planning/Management capacity	5 DRC, India, Kenya, Nigeria, South Sudan	2 Rwanda, Zimbabwe	5 Senegal, Malawi, Uganda, Tanzania, Timor-Leste	1 Kyrgystan	1 Yemen		14	8
Resources leveraged for RI	8 DRC, India, Kenya, Timor-Leste, Zimbabwe, Madagascar, Nigeria, South Sudan	1 Tanzania	4 Senegal, Malawi, Rwanda, Uganda	1 Yemen	0		14	6
One Year RI Coverage Increased	6 Rwanda, South Sudan, India, Madagascar, Nigeria, Timor-Leste	1 Kenya	5 DRC, Malawi, Tanzania, Timor-Leste, Zimbabwe	2 Senegal, Uganda	0		14	7

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MCHIP Country Brief: Azerbaijan



Health Area:

- Newborn Health

Selected Health and Demographic Data for Azerbaijan	
Maternal mortality ratio (deaths /100,000 live births)	38
Newborn mortality rate (deaths/1,000 live births)	27.6
Under-five mortality (deaths/1,000 live births)	50
Infant mortality rate (deaths/1,000 live births)	43
Modern contraceptive prevalence rate	14.3
Total fertility rate	2
Skilled birth attendant coverage	88.6%
Antenatal care, 4+ visits	45.2%
Sources: World Bank; Azerbaijan Demographic and Health Survey 2006; WHO.	



Program Dates	March 2011–April 2012					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Rachel Taylor, Anita Gibson					

INTRODUCTION

MCHIP Azerbaijan was implemented in a relatively short time frame (March 2011–April 2012) and is a successful example of how limited resources can have a large impact by leveraging global technical expertise, collaborating with local experts, and ensuring a country's (Ministry of Health [MOH]) sense of ownership of the process and products.

In Azerbaijan, 89%¹ of births are assisted by trained attendants. Nevertheless, there is a high rate of neonatal mortality (28/1,000),² including a high proportion of neonatal deaths due to birth asphyxia (23%),³ which prompted the request to MCHIP to develop training materials to complement new clinical practice guidelines on assessment and care of the healthy newborn and neonatal resuscitation. MCHIP developed the training materials in close collaboration with institutions responsible for both pre- and in-service training.

KEY ACHIEVEMENTS

MCHIP's competency-based training packages included two videos: *Assessment of the Healthy Newborn* and *Newborn Resuscitation*, as well as skills development checklists, clinical scenarios, and job aids. MCHIP also procured 60 NeoNatalie newborn simulators to strengthen skills labs at training institutions. Materials were developed in collaboration with the MOH and key stakeholders including the Public Health and Reforms Center, the Institute for Postgraduate Medical Education, Azerbaijan Medical University, the Scientific-Research Institute of Obstetrics and Gynecology, Republican Perinatal Center and the Scientific-Research Institute of Pediatrics.

The newly completed training packages were provided to five medical institutes: Scientific-Research Institute of Obstetrics and Gynecology, Republican Prenatal Center, A. Aliyev Institute for Postgraduate Medical Education, Scientific-Research Institute of Pediatrics and Azerbaijan Medical University. The training packages were accepted and included in the national medical education curriculum in June 2012.

WAY FORWARD

While MCHIP's support ended in 2012, it laid the groundwork for the sustainable incorporation of the training materials into pre-service, continuing education, and in-service training curricula for birth attendants. Through linkages with the U.S. Agency for International Development bilateral, MCHIP encouraged clinical teaching sites to continue to conduct competency-based training on newborn resuscitation and clinical examination of the newborn effectively. Continued close collaboration between the Ministry of Health, Scientific Research Institute of Obstetrics and Gynecology, Scientific Research Institute of Pediatrics, Republican Prenatal Center, Azerbaijan Institute for Postgraduate Medical Education and Azerbaijan Medical University—with support from partners in-country—will be critical to ensure continued use and updating of the MCHIP-supported training packages.

¹ Azerbaijan Demographic and Health Survey, 2006.

² Azerbaijan Demographic and Health Survey, 2006.

³ World Health Organization Statistics, 2006.

MCHIP Country Brief: Bangladesh



Health Areas:

- Newborn Health
- Maternal Health
- Family Planning
- Nutrition

Selected Health and Demographic Data for Bangladesh

Maternal mortality ratio (deaths/100,000 live births)	194
Neonatal mortality rate (deaths/1,000 live births)	32
Under-5 mortality rate (deaths/1,000 live births)	53
Infant mortality rate (deaths/1,000 live births)	43
Contraceptive prevalence rate	52.1%
Total fertility rate	2.3
Skilled birth attendant coverage	31.7%
Antenatal care, 4+ visits	25.5%
Sources: BMMS 2010*; 2 BDHS 2011**.	



Program Dates	November 1, 2009–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of divisions	100%	No. of districts	64	No. of facilities	N/A
Country and HQ Contacts	Ishtiaq Mannan, Chief of Party; Koki Agarwal, MCHIP Director; Pat Daly, Senior Director, Health and Nutrition; Joseph De Graft-Johnson, Newborn Health Senior Advisor; Angie Brasington, Community Health and Social Change Advisor; Jennifer Shindeldecker, Program Officer; Jaime Mungia, Senior Program Officer					

INTRODUCTION

The Maternal and Child Health Integrated Program (MCHIP) implemented a complex program for five years in Bangladesh in response to the continued challenges present in the health system. Bangladesh has achieved significant success in reducing child and neonatal mortality rates. The under-five child mortality rate decreased from 144 to 41 per 1,000 and maternal mortality fell from¹ 322 to 194 per 100,000 live births over a nine-year period.² However, substantial challenges remain in human resources for health, including a shortage of health care providers. There are only five physicians and two nurses for every 10,000 people in Bangladesh.³ Successes in health coverage are also not consistent across the country, with certain divisions seeing remarkable improvements in health indicators and quality services while other areas of the country have experienced more modest reductions. The government is committed to achieving Millennium Development Goals (MDGs) 4 and 5 and the international public health community has now focused attention on neonatal survival and is making extensive efforts to decrease newborn mortality.

In Bangladesh, the MCHIP initiatives included White Ribbon Alliance, Bangladesh (WRA,B), National Newborn Advocacy (NNA), Helping Babies Breathe (HBB), District Health Systems Strengthening (DHSS), Mobile Alliance for Maternal Action (MAMA) under the brand name of *Aponjon*, a Healthy Fertility Study (HFS), and Standard Operating Procedures (SOP) for Maternal Health. Additionally, there were two associate awards: MaMoni (2009–2014) and MaMoni Health Systems Strengthening (HSS) (2013–2017). MCHIP worked directly with the Ministry of Health and Family Welfare in Bangladesh (MOH&FW) and with other partners, including academia, professional organizations, development partners, civil society, and nongovernmental agencies to successfully implement initiatives.

KEY ACHIEVEMENTS

District Health System Strengthening Program

Building upon the strong successes of the MaMoni associate award, which worked through the public health system to deliver maternal and newborn health/family planning/nutrition (MNH/FP/N) in Habiganj and Sylhet using a district model approach, the DHSS program was an interim expansion of the district model to two new districts in advance of the follow-on associate award MaMoni HSS. Under DHSS, working with implementing partners DSK, DORP, BEES, RIC and RTMI, MCHIP rolled out a set of activities that aimed to strengthen the government of Bangladesh's (GOB) district health systems and the delivery of key maternal and newborn care services through the district-, upazila-, union-, and ward-level systems in two underserved districts in Bangladesh, Lakshmipur, and Noakhali.



Photo Credit: Development Organization of the Rural Poor.

Demonstration session by the participants of ANC and PNC training

¹ UNICEF 2011

² BMMS 2010

³ Ahmed SM, Hossain MA, Rajachowdhury AM, and Bhuiya AU. 2011. The health workforce crisis in Bangladesh: Shortage, inappropriate skill-mix and inequitable distribution. *Hum Resour Health* 9:3

Key accomplishments under DHSS include the following:

- 2,600 field workers, supervisors, and service providers received training on integrated MNH/FP/N package, antenatal care (ANC) and postnatal care (PNC), increasing the MOH&FW's capacity to deliver an integrated package of services as appropriate for the level of care.
- 50 key district- and upazila-level managers were trained on leadership and management and local human resources planning and task shifting.
- 29 paramedics were trained and deployed to strengthen union-level MNH/FP/N services in critical positions in Lakhsmipur and Noakhali districts in Union Health and Family Welfare Centers (UH&FWCs).
- 10 FWCs, one Upazila Health Complex (UHC), and one district hospital are using the automated Health Management Information System (HMIS) to process service data. Key district- and upazila-level managers and service providers received training on HMIS.
- 110 Union Health and Family Planning Standing Committees were trained on key MNH/FP/N issues and use standard tools to monitor the local MNH/FP/N situation and status. Unions hold committee meetings bimonthly after activation and are encouraged to allocate budget and spend money on MNH/FP/N community gaps.
- 2,800 community group members were trained on key MNH/FP/N issues and held monthly meetings.
- 750 traditional birth attendants (TBAs) were trained on conducting healthy MNH practices, minimizing harmful practices, and increasing referrals.
- More than 13,000 community volunteers (CVs) were selected in Noakhali and Lakhsmipur, with 70% trained on community action group (CAG) formation and facilitation. CAGs were formed in 70% of project target areas.

Helping Babies Breathe

HBB is an intervention that provides guidance to health care providers for treating newborns during the first minute of life and assisting babies who are experiencing difficulty breathing. Researchers have demonstrated that HBB can reduce newborn mortality due to asphyxia in controlled field trials. Globally, more than 60 countries have introduced HBB at some level, but relatively few have attempted a national rollout.

Under MCHIP, a group of key stakeholders in Bangladesh implemented HBB at scale to achieve impact at the population level. All 64 districts across Bangladesh received the first round of training and provision of equipment to facilities and private skilled birth attendants (SBAs). The MOH&FW led the effort to launch the HBB initiative and has received support from MCHIP, Save the Children, the Bangabandhu Sheikh Mujib Medical University, professional societies, and other partner



"We know the correct [resuscitation] technique now and the method works very fast. Referral rate will go down after the training."

– Nurse Fatema Khatun, Joypurhat District

organizations. Implementation of the HBB initiative has benefited from a well-funded, centrally driven, uniform approach to the scale-up and the first phase was completed in February 2014.

Key accomplishments under HBB include:

- As of February 2014, 23,579 SBAs and 1,881 doctors from the public, private, and non-governmental organization (NGO) sectors have been trained as trainers on HBB curriculum, increasing their knowledge, skills, and practices of immediate management of birth asphyxia.
- The HBB program developed nationally-adapted and accepted protocol of birth asphyxia management feasible for all levels of SBAs at facility and community levels. Additionally, under the field support program, standard HBB protocol was endorsed by the MOH&FW for all SBAs and HBB curriculum was included in the existing in-service and pre-service curriculum.
- Newborn care surveillance activities started in selected service delivery points (facility and community) in four districts and 490 service providers of GOB, NGOs, and the private sector were trained on surveillance data recording, reporting, and management.
- The Smiling Sun Franchise Program (SSFP), Urban Primary Health Care Project, BRAC Health Program and UN agencies, districts, and upazila health and FP managers were informed and involved in planning and implementation of HBB scale-up activities.
- 12 district advocacy and planning meetings on HBB scale-up were held with all district- and upazila-level Director General of Health Services (DGHS) and Director General of Family Planning (DGFP) managers.
- Weekly surveillance of newborn resuscitation cases in two medical college hospitals, two district hospitals, four Maternal and Child Welfare Centers (MCWCs) and eight UHCs in eight districts was established.
- Community-based surveillance in eight different upazilas of four districts, including 16 community SBAs, eight UH&FWCs, two private hospitals, and two NGO facilities was established.

Healthy Fertility Study

The HFS was designed in response to the need for improved integration of FP and MNH services. The study aimed to address unmet need for contraceptives in the first year postpartum and enable contraceptive use through the second year postpartum. It started in 2007 under the previous United States Agency for International Development (USAID) ACCESS FP project and, in December 2010, the study transitioned to MCHIP. Four intervention unions (i.e., the smallest rural administrative unit in Bangladesh) received the integrated FP/MNH package and four control unions received the MNH care package. The HFS enrolled women longitudinally from pregnancy through 36 months postpartum to assess the impact of the intervention package on key outcomes. The 36-month postpartum survey was completed in 2013



A Community Health Worker provides a contraceptive method to a postpartum woman as part of the HFS

according to the protocol; an endline survey was added in 2014 to examine the non-contraceptive health benefits of contraceptive use on women and their children. HFS findings throughout the 36-month postpartum period are available in a detailed report.⁴

Selected findings are as follows:

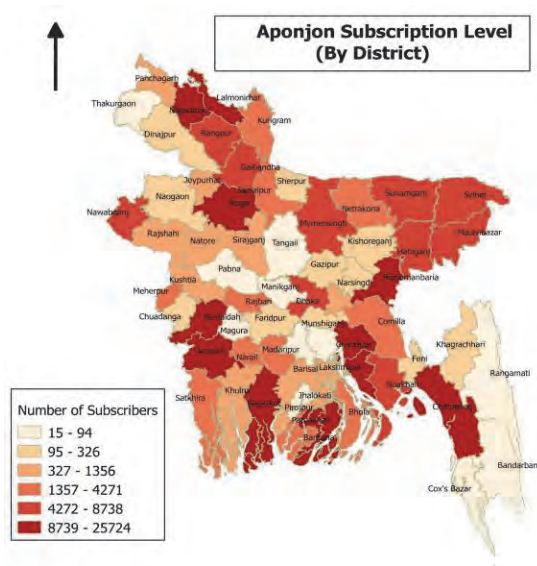
- The HFS model led to more than 20% increased cumulative probability of modern method adoption through 36 months postpartum.
- HFS activities led to a decrease in the incidence of pregnancy within the first 36 months of delivery, which is the period of highest risk for mother and baby.
- HFS activities were associated with a 21% reduction of probability of shorter birth intervals and 20% lower risk of preterm birth.
- Integration of FP services within a larger maternal, newborn, and child health (MNCH) platform is feasible and does not have a negative impact on service coverage or health impact.

Mobile Alliance for Maternal Action—Aponjon

The MAMA initiative was introduced to leverage Bangladesh's existing mobile phone network and address the need to expand access to critical health information, particularly for pregnant women and new mothers. Bangladesh has widespread mobile phone network coverage (97%), with approximately 67% of households owning a mobile phone, for a total number of approximately 116 million subscribers as of February 2014. With 39% of women owning their own phone, there is enormous potential to improve MNCH education using existing mobile phone technology.

In Bangladesh, MAMA, locally branded as *Aponjon*, meaning “someone very close,” delivers behavior change communication (BCC) messages to pregnant women and new mothers using mobile phone technology. The USAID-conceived global, public-private initiative is in association with Johnson & Johnson, Inc., Baby Center, mHealth Alliance, and the United Nations Foundation, and is supported by a wide variety of public and private resources and implementing partners. The country-owned, country-led initiative has strong support of the GOB and is in line with the Prime Minister's Digital Bangladesh initiative to increase access to information for all populations. Implementation and coordination in Bangladesh is directed by Dnet, a Bangladeshi social enterprise.

Aponjon began as a pilot in 13 districts in October 2011 and in December 2012, the service was launched nationwide.



⁴ *Healthy Fertility Study: Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet District, Bangladesh: Final Report.* Jhpiego: Baltimore, MD, USA.

With funding from USAID, Aponjon has made significant accomplishments:

- Reached 627,756 subscribers residing in all 65 districts of Bangladesh. These pregnant and new mothers now have access to critical health information to make healthy decisions for themselves and their babies.
- Partnered with six major telecommunication operators, which together cover 97% of the market.
- Maintained a highly complex technical platform that offers messages in both short message service (SMS) and voice format, based on subscriber preferences.
- Developed message content, which entailed a process of ethnographic research, review of national guidelines and international literature on MNCH, and an expert review by a panel of Bangladeshi physicians, researchers, and communications professionals. The content was approved by respective committees of the GOB.
 - Content is available for urban and rural populations, as well as dialect specific content for Sylhet and Chittagong. Content is delivered twice weekly to subscribers in one of two forms: SMS or a 60-second voice message. Voice messages are a mix of direct messages and mini-skits (i.e., dramas), with local actors playing the roles of a doctor, pregnant woman, mother, and mother-in-law. Examples of dialogues range from a doctor explaining the importance of consuming iron-rich food to reminding the pregnant character that it is time for her medical checkup.
- Created a unique service specifically for husbands and other household members that reinforces messages provided to the pregnant or new mother and encourages family involvement in healthy decision-making around pregnancy, birth, and infant care.
- Established and offered a counseling line for subscribers, which serves as a direct channel to communicate with a doctor about health problems.
- Completed a formative research phase to build local partnerships, tailor content, develop information delivery channels, and build brand awareness. Dnet, together with the support of the Johns Hopkins University Global mHealth Initiative, analyzed data to identify: a) the most effective programmatic strategies to guide the future implementation of Aponjon, based on preliminary evidence for the formative research phase; and b) gaps in the existing data monitoring and evaluation system and guide future avenues for implementation. A detailed results report is available.⁵
- Employed a multi-prong customer acquisition strategy, which includes assisted registrations, “brand promoters,” and media campaigns that encourage target groups to self-register or dial a hotline number.
- Applied innovative financing models, leveraged corporate social responsibility funding at local and global levels to subsidize the service for 80% of subscribers by charging nominal user fees and using advertising and sponsorship donations. These achievements have

“Aponjon has given me some insights that I didn’t have before. The information that I shouldn’t give honey or oil to the child to eat after birth, or that I should give breast milk within an hour of delivery, and that the delivery had to be done at the hospital were some invaluable information. It helped me gain support from my family, because they usually insist on the traditional ways. And yes, thanks to Aponjon, I also went for four checkups to the health center ... that boosted my confidence.”

– Anjona Pal (age 21, three-month-old baby),
Aponjon client, Puran Bazar, Chandpur

⁵ Rajan R et al. 2013. *MAMA ‘Aponjon’ Formative Research Report*. Johns Hopkins University Global mHealth Initiative: Baltimore, MD, USA.

advanced Aponjon toward its longer-term objective to become the first financially sustainable health information service utilizing mobile phones to improve health outcomes at national scale.

- Used qualitative (phone surveys) and quantitative (field survey) measures to monitor the program. In addition to project monitoring, an independent impact evaluation of the Aponjon program will be conducted by the International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) under the USAID project Transforming Research into Action (TRAction), to measure the impact of Aponjon's mobile-based health information service on women's behavioral health outcomes both qualitatively and quantitatively.

National Newborn Advocacy (NNA)

Following the endorsement and announcement of the Bangladesh Call for Action toward a Promise Renewed to End Preventable Child Deaths by 2035, the MOH&FW expressed its commitment to end preventable newborn deaths. To this end, the MOH&FW has taken several policy decisions to reduce newborn mortality and morbidity including the adoption of four new high-impact newborn interventions. The Newborn Technical Working Group (NTWG) developed national standards and guidelines for the relevant newborn interventions:

- Introduction and scale-up of use of antenatal corticosteroid (Dexamethasone) during preterm labor by skilled providers to reduce complications of preterm birth, specifically respiratory distress syndrome (RDS);
- Introduction and national scale-up of Kangaroo Mother Care (KMC) at the facility level, with its continuation to the community to manage preterm, low birth weight newborns;
- Strengthening of union-level facilities for management of newborn sepsis with upward linkages with UHCs; and
- Single early application of 7.1% chlorhexidine digluconate to all newborn umbilicus to prevent infection and newborn sepsis.

Although new to Bangladesh health systems, the National Core Committee (NCC) for Newborn Health of the MOH&FW has already endorsed these newborn interventions to be part of the national program going forward. Supported by a pipeline of funds under the WRA,B project, the MCHIP-funded NNA program, in collaboration with technical partners including the Gates-funded Saving Newborn Lives (SNL) program, rolled out a simple technical orientation for district- and upazila-level MOH&FW service providers on the four evidence-based interventions that address newborn morbidity and mortality.

Key accomplishments for this activity include:

- Four technical briefs on the above priority newborn interventions were developed, printed and distributed in partnership with SNL.
- 2,374 key district- and upazila-level managers/service providers in 47 districts were provided with a technical update and orientation on the newborn interventions. The remaining districts will be reached under MaMoni HSS.
- A stakeholder consultation meeting was held with 61 key professionals from Bangladesh Perinatal Society (BPS), Obstetrical and Gynecological Society of Bangladesh, Bangladesh Pediatric Association, Bangladesh Neonatal Forum, DGHS, DGFP, and development partners at the national level. Seven divisional meetings were held in Dhaka, Chittagong, Rajshahi, Khulna, Rangpur, Sylhet, and Barisal divisions to ensure

that divisional- and district-level health and FP managers were prepped on the technical orientation in advance of the district-wide rollouts.

White Ribbon Alliance, Bangladesh

The WRA,B is an international coalition of individuals and organizations formed to promote increased public awareness of the need to make pregnancy and childbirth safe for all women and newborns in developing as well as developed countries. MCHIP provided support to the WRA,B for advocacy, communications, media, and capacity-building around safe motherhood from November 2010–March 2013.

Key accomplishments include the following:

- With support from the Journalism Training and Research Initiative (JATRI) and Institute of Governance Studies (IGS), organized a workshop on Public Sector Accountability for Maternal Health Commitments in April 2012, to: understand the status of accountability of the public sector regarding maternal health, identify gaps, identify possible solutions and potential partners, and develop a roadmap for public sector accountability to ensure maternal health in Bangladesh.
- As part of the advocacy mandate, supported annual, national-level Safe Motherhood Day activities with stakeholders including the Prime Minister and key staff from the MOH&FW.
- Supported local Bangladeshi activities for the global Family Planning Summit in 2012, including the national coordinator of the WRA,B serving as the newscaster of the Citizen's Voice news channel on the Summit and participating in Citizen's Roundtable sessions at the Summit. Additionally, collaborated with the Health Ministry and DFID in preparations for the Health Minister's participation at the Summit as well as organizing Dhaka meetings around the Summit.
- Conducted a rapid, situational assessment of the quality of care in MNH services in 10 facilities with results and recommendations shared with media and national policymakers.
- Supported the development of a client charter of rights for MNH in consultation with DGHS, DGFP, and other stakeholders.

WAY FORWARD

HBB activities became a part of MaMoni HSS as of March 2014. Under the new phase, the HBB team will develop a broader Essential Newborn Care (ENC) Package ("HBB Plus"), which incorporates nationally adopted and internationally recommended newborn initiatives. Additionally, under MaMoni HSS, the HBB rollout will continue with refresher TOTs, and continued follow-up training of private facility providers will take place to continue what was started under the field support HBB project. Under MaMoni HSS, the data generation of newborn care surveillance activity, which started in December 2013, will continue through March 2015, with the data analyzed and used intermittently during the surveillance period.

Under MaMoni HSS, the MCHIP team will continue to follow up with incorporation of HBB protocol in pre-service and in-service training, including topics and questions within professional exams and case studies.

Due to strong, capable partnerships with a well-planned, cascade approach to the training and sufficient funding, the HBB project was successful in building widespread coverage to strengthen health professionals' knowledge on how to address newborn resuscitation across Bangladesh.

However, challenges of the scale-up still remain in retention of skills of those trained. The health providers' skills diminish with time, realizing a need to incorporate skills maintenance into the existing health system, ensuring availability of equipment and trainers at the local level. Under the HBB program, refresher training became a part of local monthly meetings, but it was not seen to be very effective, given that it competed with the many other priorities for health providers.

The HBB process documentation report documented lessons learned from the initial rollout phase of HBB which will guide the implementation of HBB in Bangladesh in the coming years.

While the MCHIP team was able to initially sensitize health care providers in many districts across Bangladesh on evidence-based newborn interventions, under MaMoni HSS, the team will need to continue to ensure that awareness of the issues is built with health professionals at all levels from national to local. As national standards have been developed, advocacy efforts under MaMoni HSS should focus on mobilizing resources and supporting the MOH&FW and partners at the national and district level to operationalize and rollout the interventions in order to ensure an impact for newborns.

As planned from the start of the DHSS program, MaMoni HSS will need to continue to implement its community and facility approaches and activities to ensure that impact is reached at scale in Noakhali and Lakshmipur.

MCHIP Country Brief: Bolivia



Selected Health and Demographic Data for Bolivia	
Maternal mortality ratio (deaths/100,000 live births)	180
Neonatal mortality rate (deaths/1,000 live births)	27
Under-five mortality (deaths/1,000 live births)	63
Infant mortality rate (deaths/1,000 live births)	50
Modern contraceptive prevalence rate	95.4
Total fertility rate	3.5
Skilled birth attendant coverage	71.1%
Antenatal care, 4+ visits	72.1%
Sources: World Bank; Bolivia 2008 Demographic and Health Survey; WHO; UNICEF. *UNICEF <5 mortality ranking (1 = highest mortality rate).	

Health Areas:

- Maternal Health
- Newborn Health
- Family Planning



Program Dates	October 1, 2009–May 2, 2013					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	22%	No. of districts	21	No. of facilities	120
Country and HQ Contacts	Patricia Arana, Jeffrey Smith, Patricia Taylor, Débora , Edgar Necochea, Connie Lee, Michelle Goshen					

INTRODUCTION

The MCHIP program in Bolivia began in 2009 with the goal of supporting the efforts of the national government to improve maternal and newborn health (MNH) and reproductive health (RH) services. MCHIP implemented a strategy developed to strengthen the capacity and competency of health care providers at various levels of care and enable them to apply evidence-based practices through clinical updates, training, and the institutionalization of evidence-based standards and best practices, thus contributing to significant reductions in maternal, newborn, and childhood mortality.

MCHIP focused on propelling Bolivia toward the accomplishment of Millennium Development Goals (MDGs) 4 and 5—to reduce child mortality by two-thirds and the maternal mortality (MM) ratio by three-quarters and to ensure universal access to RH services. To meet these goals, MCHIP worked to improve access to high-quality health care services, cultivate supervisory skills among health care administrators, and train health care providers on evidence-based clinical practices in MNH, including essential obstetric and newborn care (EONC) and emergency obstetric and newborn care (EmONC), family planning (FP), and postabortion care (PAC). The staff of the MCHIP Bolivia program collaborated with health network workers in target areas to improve the performance of and quality of RH and MNH services through the implementation and institutionalization of a quality improvement (QI) process that incorporated Jhpiego's Standards-Based Management and Recognition (SBM-R) approach.

In the last several decades, Bolivia has shown significant progress toward the achievement of MDGs 4 and 5; however, the most recent National Demographic and Health Survey (2008) and MDG Progress Report (2010) both indicated that Bolivia was far from reaching the MDG goals before the 2015 deadline.

In many Bolivian communities, maternal, perinatal, and neonatal fatalities occur so frequently that they have been accepted as natural, expected occurrences. Bolivia has the highest MM ratio in the region. Between 1994 and 2003, it was significantly reduced, from 390 to 229 maternal deaths per 100,000 live births. However, despite significant advances, Bolivia is still far from the MDG of reducing MM to 102 fatalities per 100,000 live births by 2015. Hemorrhage, infections during pregnancy, complications from abortion, hypertension, and prolonged labor cause 65% of MM; the other 34% is correlated with domestic violence, accidents, homicide, and suicide. Most maternal deaths (53%) occur at home in the highlands (*altiplano*) and are associated with rural settings, a high prevalence of anemia, and high vulnerability among the indigenous population. In addition, 37% of maternal deaths occur at health centers (INE, 2000) and are related to delays in accessing care and poor care. It is estimated that the use of skilled birth attendants could prevent seven of every 10 maternal deaths.

Bolivia has developed three strategies to reduce MM and neonatal mortality rates; they are aimed at increasing demand for and improving the quality of clinical care. First, *Seguro Universal Materno Infantil* (Universal Maternal-Infant Insurance, SUMI, est. 2003) provides free prenatal and postnatal care for women and free care for children under the age of five. Second, *Salud Familiar Comunitaria Intercultural* (Intercultural Family Health Grassroots Outreach, SAFCI, est. 2006) represents a model for universal access to health care for families and the communities through holistic, intercultural services that emphasize prevention and health promotion. And finally, the more recent *Plan Estratégico Nacional para Mejorar la Salud Materna, Perinatal y Neonatal* (National Strategic Plan to Improve Maternal, Perinatal and Neonatal Health, est. 2009–2015) aims to strengthen emergency obstetric and newborn care (EmONC) in Bolivia by applying evidence-based practices to improve maternal and newborn care.

KEY ACHIEVEMENTS

MCHIP supported programming in maternal, newborn, and child health, immunization, family planning, nutrition, malaria and HIV/AIDS, and encourages opportunities for integration of programs and services when feasible. In Bolivia, MCHIP worked to propel the achievement of MDGs 4 and 5. MCHIP focused on improving access to high-quality services and training health care providers on evidence-based clinical practices in MNH.

The MCHIP program in Bolivia addressed MNH needs in 19 health networks across five of nine departments: Santa Cruz, Beni, Tarija, Chuquisaca, and the most populous department, La Paz. Health Departments (SEDES) in these target locations were provided with financial support and technical assistance to initiate the QI process. During the period, MCHIP participated in two critically important USAID/Bolivia programs—*ENLACE en Salud* (Health Link) and *FORTALESSA*. These programs supported the national government, SEDES, and health centers in improving the health of women of reproductive age, pregnant women and newborns, and to reinforce the capacity of the health care system by transforming health networks into functional, responsive institutions.



Under *ENLACE en Salud*, MCHIP helped incorporate the SBM-R methodology into the “Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks,” a written guide commissioned by the Bolivian government and USAID. In addition, MCHIP introduced the QI process in 71 health facilities, and with the support of Jhpiego’s consultants and training materials, initiated the certification of 19 MNH master clinical trainers, who could replicate trainings for health network staff. MCHIP helped update and strengthen the supervisory skills of managers in the SEDES, health networks, and health care facilities to support this process. During the *FORTALESSA* program, MCHIP continued to introduce and implement the QI process to support the strengthening of health services in Chuquisaca and La Paz.

ENLACE EN SALUD
Objective 1: In collaboration with partners, separate the “Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks” into the components of MNH, FP, and PAC, applying the Guide in targeted health networks and departments
Objective 2: Improve the capacity and competencies of health care providers at various levels of care to apply evidence-based practices in maternal health (MH), FP, and PAC
Objective 3: Support the process of review and dissemination of national policies and norms in MH, FP, and PAC
Objective 4: Improve the availability and quality of MNH services with improved practices and services

FORTALESSA
Objective 1: Improve the availability and quality of MH, FP/RH, and PAC services in health facilities in the targeted high-need regions within the integrated health networks
Objective 2: Strengthen the capacity and competency of health care providers at various level of care to apply evidence-based practices in MH, FP, and PAC in the targeted high-need regions within the networks
Objective 3: Strengthen Skills Development Centers (<i>Centros de Desarrollo de Capacidades</i> , or CDCs) in MH and FP/RH in hospitals in the targeted high-need regions within the departments

It was expected that, at this stage, a clinical training team would be formed to support the development of a National Training Center, expected to propel clinician training and the uptake of evidence-based best practices over the long term. However, USAID's departure from Bolivia at the request of the current government resulted in the sudden termination of MCHIP activities. The unforeseen and abrupt departure of MCHIP and USAID from Bolivia has terminated the flow of financial support and technical assistance to developing programs at a critical time, meaning that many programs will not have the ability to continue with capacity building and QI.

During the MCHIP program in Bolivia, MCHIP staff participated in several national campaigns to improve the health of women of reproductive age, pregnant women, and newborns. MCHIP played a key role in *ENLACE en Salud*, the Safe Motherhood and Birth Technical Working Group, and *FORTALESSA*. MCHIP also supported the review and dissemination of policies on MH, FP, and care for hemorrhage during the first half of pregnancy.

ENLACE en Salud was created to advance the utilization of the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks"; improve the capacity and competency of health care providers; disseminate national policies around maternal health (MH), FP, and PAC; and improve the availability and quality of MNH services.

During the first period of *ENLACE*, MCHIP collaborated on the design of the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks," based on national health policies, which included QI methodology and content from the SBM-R model; throughout the program, MCHIP trained 452 providers on SBM-R. MCHIP also trained 545 providers at 66 facilities in EONC and EmONC and 190 providers in FP best practices. MCHIP provided certification to 19 medical professionals as master trainers, who in turn replicated trainings for 977 participants.

MCHIP's objectives under *FORTALESSA* were to improve the availability and quality of MH, FP/RH, and PAC services; strengthen the capacity and competency of health care providers; and strengthen *Centros de Desarrollo de Capacidades* (Skills Development Centers, or CDCs). Through *FORTALESSA*, MCHIP worked in 535 health facilities at three levels of care across 57 unique municipalities. In addition, MCHIP helped initiate a Training of Trainers program, which vastly increases the program's sustainability.

MCHIP participated in the Safe Motherhood and Birth Technical Working Group, which aimed to promote public health policies that reduce maternal, newborn, and child mortality through the provision of continuous care. MCHIP also collaborated on the development of national treatment standards for severe pre-eclampsia and eclampsia.

WAY FORWARD

From 2009-2013, MCHIP's goal was to sustainably improve access to high quality services and strengthen the capacity and competency of health care providers. During those four years MCHIP increased the capacity of more than 1,000 health care providers in MH, FP, and PAC, initiated and supported quality improvement processes in over 150 health facilities, and created a cadre of more than 100 qualified clinical MH trainers. Despite the sudden and unplanned end to the program in Bolivia, MCHIP is confident that its accomplishments remain, leaving behind an effective quality improvement approach and a skilled human resource base that the Bolivian government can build on to continue the work of improving the health of its people.

At the end of USAID's tenure in Bolivia, MCHIP worked closely with the Mission to develop a legacy report documenting USAID's history in Bolivia from 1961 to 2013. The report describes the accomplishments of its 50-year investment and commitment to the sustainable development of Bolivia. Although USAID closed its doors in Bolivia in 2013, there is hope for a renewed partnership in the future.

MCHIP Country Brief: Burkina Faso



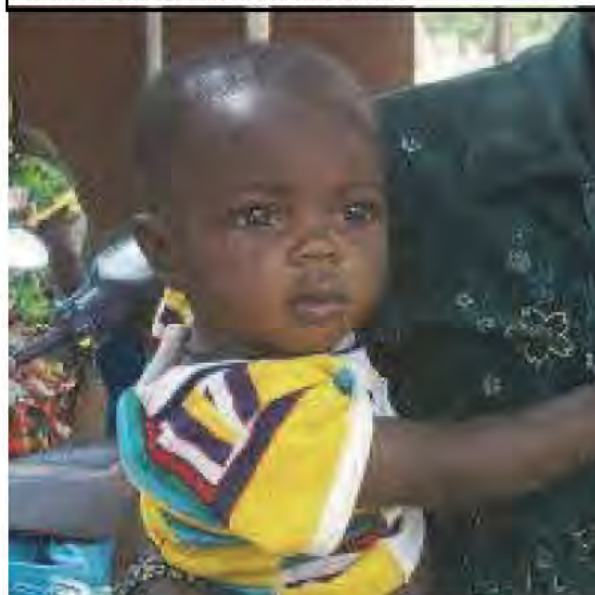
Health Area:

- Malaria

Selected Health and Demographic Data for Burkina Faso

Maternal mortality ratio (deaths/100,000 live births)	400
Neonatal mortality rate (deaths/1,000 live births)	28
Under-five mortality (deaths/1,000 live births)	129
Infant mortality rate (deaths/1,000 live births)	65
Modern contraceptive prevalence rate	14.3
Total fertility rate	6.0
Skilled birth attendant coverage	67.1%
Antenatal care, 4+ visits	33.7%

Sources: World Bank; WHO; DHS 2010.



Program Dates	October 2009–March 2013					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	29%	No. of districts	64	No. of facilities	1,657
Country and HQ Contacts	Stanislas Paul Nebie, Country Director, Ousmane Badolo, Senior Malaria Advisor, Rachel Waxman, Senior Program Officer					

INTRODUCTION

Burkina Faso, a landlocked country with a population of almost 17.5 million people, ranks 183 out of 187 on the UN Human Development Index scale. Eighty percent of its disease burden is attributable to communicable diseases, and malaria presents a serious burden to the health system. In 2011, 5.1 million consultations for suspected malaria were reported nationwide, accounting for 48% percent of all outpatient consultations, and 7,001 cases of malaria resulted in death. The burden on children under age five is worse, accounting for 70% percent of hospitalizations and 85% percent of deaths. This high burden from malaria drove MCHIP's program planning, which focused on building national-, regional-, and district-level capacities for managing malaria and in strengthening the health system to accelerate scale-up of malaria prevention and control interventions. MCHIP provided technical and programmatic support to the National Malaria Control Program (NMCP) to address comprehensive malaria prevention and control, with a particular focus on diagnostics, treatment, and malaria during pregnancy.

Over the three-year project period from 2011 to 2013, there were four objectives:

- **Objective 1:** Improve health care providers' knowledge and skills in integrated malaria prevention and control based on current policy, guidelines, and training materials¹
- **Objective 2:** Improve regional- and district-level supervisors' capacity to provide integrated malaria supervision to frontline providers, as well as national capacity to lead and manage malaria programming
- **Objective 3:** Develop and disseminate appropriate communication materials to improve knowledge, attitudes, and practices of two key target groups—health service providers and health facility clients
- **Objective 4:** Update malaria training content and teaching methods in pre-service education at national nursing and midwifery schools' pre-service education.



KEY ACHIEVEMENTS

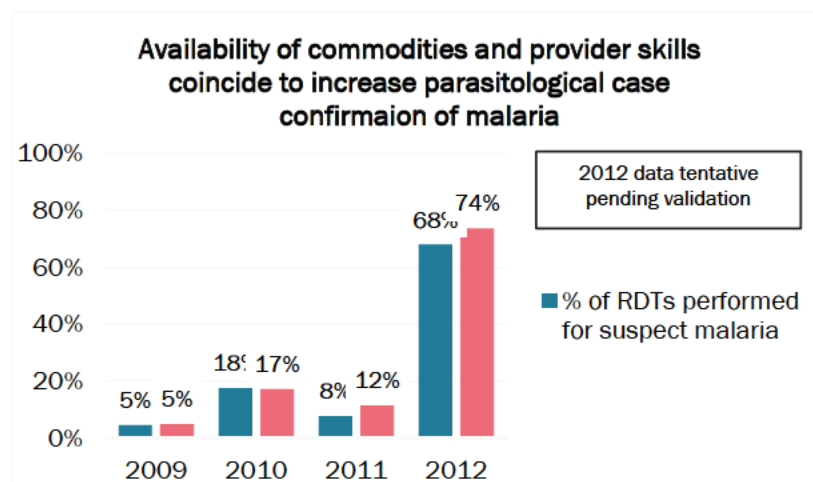
Taking a health systems approach, strategies included building training capacity, improving the supervision skills of front line workers, and improving national policies to reflect evidence-based practices, such as the use of Rapid Diagnostic Tests (RDTs) as part of the clinical treatment protocol. The primary accomplishments of the program included:

- Training 2,648 providers nationwide on the updated Integrated Malaria Training Package. An additional 4,867 providers in 41 districts were reached through cascade orientation, and an evaluation showed that 93.5% percent of those who had a cascade orientation believed they had the skills to combat malaria.
- Providing supportive supervision visits to reach 495 providers in 290 facilities across 63 districts.
- Distributing job aids and communication materials on malaria in pregnancy, case management, RDT use, and prevention strategies to 1,600 health centers, 45 district hospitals, and 12 regional and national hospitals.

- Updating malaria content of pre-service education curricula for seven cadres of health service providers, and training 20 instructors from the seven regional *Ecoles nationales de Santé publique* (national schools of public health) ENSP schools in effective teaching skills.
- Documenting best practices and lessons learned in malaria programming in Burkina Faso as part of a multi-country review.

The coordination of health system inputs to improve malaria prevention and treatment is essential to achieve intervention objectives and to maximize the efficacy of invested resources. Training should not take place without access to needed commodities; likewise, commodities should not be distributed until the clinical directives and provider skills exist to use them correctly. During MCHIP's training and

supervision activities, stock-outs were an ongoing challenge due to funding and procurement cycles. As seen in the graph below, a large stock of RDTs in early 2012 coincided with the cumulative training activities of 2011 and 2012 and led to an increase in case confirmation.



Overall, while although the program was successful and met most of its targets, there were some challenges, which included:

- Struggling to organize supervision visits. This challenge resulted from competing priorities of the NMCP staff, limited to no funding set aside for supervision; and resistance from regional and district supervisors to adding detailed supervision of malaria to the already-overloaded quarterly supervision visits.
- Trade-offs in taking the program to scale. This meant reducing the targeted cadres to be trained, so that the nurses in charge received the training, rather than the auxiliary midwives who actually conduct ANC care. The impact of this trade-off had not yet been determined at project end but warrants further study.
- Limited management capacity and delegation within the NMCP. This limitation was a persistent challenge to project implementation although the project was able to improve on this by conducting capacity-building workshops.
- System-wide problems beyond the scope of MCHIP that had an impact on how effective the program could be. An example of this challenge was linking changes in clinical practice with consistent availability of required commodities (such as RDTs) for malaria diagnosis and treatment, so that all suspected cases of malaria are tested and ACTs are provided only to those testing positive for malaria. This situation was due to procurement cycles.

Despite these challenges, Burkina Faso remains committed to improving its Malaria Control Program.

WAY FORWARD

- Continue dissemination of updated malaria protocols using a multidimensional approach to capacity-building that includes formal training, on-site orientation sessions, dissemination of job aids and post-training follow-up/supportive supervision.
- High-level advocacy may be needed to reassess and realign supervision to better support providers at their worksites and increase the focus on mentoring providers in addition to reviewing service statistics. To consistently support ore providers, resources for supervision should be invested at the district level, with occasional reinforcement from the central-level technical units like the NMCP.
- Although this project focused primarily on prevention and case management at the health center level, its accomplishment and challenges cannot be completely separated from those at referral facilities, where management of severe malaria is a matter of life and death. Additional inputs are needed to address this. Implementation of a performance and quality improvement approach that focuses on time-sensitive management of complex cases at referral facilities is one suggestion to improve case management and reduce the case fatality rate for severe malaria.
- Link the dissemination of job aids and information, education and communication materials to training so that dissemination complements and reinforces training. When this is not feasible or when it would lead to delays in dissemination, dissemination plans should ensure that new materials are received at facilities and that providers receive instructions to remove out-of-date materials.
- During this project, different treatment approaches were in use by providers at facilities and by CHWs (case confirmation with RDT versus syndromic treatment). As case confirmation with RDTs is scaled up in Burkina Faso, it will be important to foster partnerships between facilities and communities to extend the use of RDTs to CHWs. It will also be important to involve facility providers in the training and supervision of the large cadre of CHWs.
- Continue supporting the ENSP in implementing the revised malaria curricula. Strengthen ongoing coordination between the ENSP and technical leadership units such as the NMCP to maintain up-to-date pre-service education curricula for new human resources for health.
- Continue NMCP capacity-building to reinforce the technical leadership role in malaria and the support provided to regional and district health offices for implementation.
- Although slightly beyond the scope of this project, MCHIP did observe that data collection and analysis systems within the NMCP were poorly equipped to analyze data for decision-making and were conducted in parallel to HMIS. Streamlining of these systems and capacity-building for analysis would further support the NMCP's technical leadership capacity.

MCHIP Country Brief: Burma



Health Areas:

- Maternal Health
- Newborn Health

Selected Health and Demographic Data for Burma

Maternal mortality ratio (deaths/100,000 live births)	200
Neonatal mortality rate (deaths/1,000 live births)	33
Under-5 mortality rate (deaths/1,000 live births)	52
Infant mortality rate (deaths/1,000 live births)	41
Contraceptive prevalence rate	41
Total fertility rate	1.96
Skilled birth attendant coverage	64%
Antenatal care, 4+ visits	22%

Sources: Health in Myanmar 2012; Ministry of Health; Government of Myanmar, 2012; UNICEF; The World Bank, 2010; Republic of the Union of Myanmar "Millennium Development Goals Report" 2013.



Program Dates	January 2013–March 2014					
Total Mission Funding	Redacted					
Total Core Funding to Date by Area						
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Hnin Wai Hlaing, Kyaw Kyaw Cho, Kyi Kyi Ohn, Alyssa Davis, Jeffrey Smith, Joseph de Graft Johnson, Neena Khadka, Mandy Hovland, Jen Shindeldecker					

INTRODUCTION

Under the umbrella of the Survive & Thrive (S&T) Global Development Alliance, the Maternal and Child Health Integrated Program (MCHIP) provided national technical assistance for maternal and newborn health in Burma, with a special focus on improving midwifery. *Survive and Thrive: Professional Associations, Private Sector and Global Health Scholars Saving Mothers, Newborns and Children* is a global development alliance to improve survival rates for women and children around the world. The alliance mobilizes U.S. obstetric, pediatric, and midwifery professional associations alongside the United States Agency for International Development (USAID), private sector, and civil society organizations in partnership to improve the quality of maternal, newborn, and child health to reduce preventable deaths.



In Burma, S&T partners (The American Academy of Pediatrics, American College of Nurse-Midwives, American College of Obstetricians and Gynecologists, Johnson & Johnson, Laerdal Global Health, Jhpiego and Save the Children) worked under the mechanism of MCHIP to implement the program. MCHIP/S&T worked with the Ministry of Health (MOH) and national professional associations in laying the foundations for improving maternal and newborn health outcomes by reviewing the existing landscape of health care policy and practice; providing support for strengthening professional associations; and facilitating central-level discussions on proven, evidence-based, lifesaving interventions.

KEY ACHIEVEMENTS

PROGRAM OBJECTIVE	MAJOR ACCOMPLISHMENTS
Collaborate with the MOH to provide national technical assistance for maternal and newborn health	Gained a documented understanding of maternal and newborn health care in Burma to inform programming for better health outcomes
	Partnered with Myanmar professional associations for midwifery, obstetrics, and pediatrics to strengthen their capacity
	Achieved national-level consensus for the adoption of a high-impact, evidence-based intervention for newborn asphyxia

This program was USAID Burma's first investment in MCHIP; the program began in Year 5 and concluded in Year 6 of MCHIP. The 14-month program was designed to both capitalize on the recent commitment of the MOH to improve maternal and newborn health (MNH) outcomes and expand an understanding of working within the limitations of a country finding its footing as an emerging democracy.

WAY FORWARD

The accomplishments made during this program were important in contributing to the initial steps toward improved MNH outcomes in Burma. Building on this groundwork will require further investment and the coordination of implementing partners and the MOH.

MCHIP Country Brief: Democratic Republic of Congo



Health and Demographic Data for Democratic Republic of Congo	
Maternal mortality ratio (deaths/100,000 live births)	540
Neonatal mortality rate (deaths/1,000 live births)	47
Under-5 mortality rate (deaths/1,000 live births)	148
Infant mortality rate (deaths/1,000 live births)	92
Contraceptive prevalence rate	5.8%
Total fertility rate	6.3
Skilled birth attendant coverage	79%
Antenatal care, 4+ visits	45%
Sources: UNICEF, WHO, World Bank, MICS	

Health Areas:

- Newborn Health
- Child Health
- Immunization



Program Dates	April 2009-July 2011					
Total Mission Funding	Redacted					
Geographic Coverage:	No. (%) of provinces	27%	No. of districts	4	No. (%) of facilities	N/A
Country and HQ Contacts	Dr. Kanza Nsimba, Country Team Leader; Patricia Taylor, MCHIP Senior Advisor; Emmanuel Wansi, Child Health Technical Advisor; Indira Narayanan, Newborn Technical Advisor; Michel Othepa, Immunization Technical Advisor; Susheela Engelbrecht, AMTSL/FP Technical Advisor; Houeley Diarra, Kangaroo Mother Care Technical Advisor; Nathalie Albrow, Senior Program Officer; Fiker Befekadu, Program Coordinator; Kathy Haines, Program Coordinator					

INTRODUCTION

The Democratic Republic of Congo (DRC) experiences more than half-a-million deaths of children under five and between 20,000 and 30,000 maternal deaths each year. The country's maternal, newborn and under-five mortality rates have improved over the past decade; however, they are still among the highest in sub-Saharan Africa, and the country will not achieve either MDG 4 or MDG 5 by 2015.

The causes of maternal and child death in the DRC are largely preventable. Children die most frequently from malaria, pneumonia, diarrhea and newborn causes (prematurity, sepsis, birth asphyxia), and the majority of maternal deaths are the result of hemorrhage, eclampsia, sepsis and post-abortion complications.

The DRC has relatively high rates of institutional birth (70%) and delivery with a skilled birth attendant is common (74%), but the quality of antenatal, obstetrical, newborn and postpartum care is poor. Most women (85%) seek antenatal care, but fewer than half report attending four or more ANC visits during their last pregnancy, and many women who deliver in health facilities report no postpartum/postnatal care (87%). The country's total fertility rate (6.3 births per woman), adolescent fertility rate (24%) and unmet need for family planning (24%) are all high, while contraceptive prevalence is very low (6% modern methods).

Immunization coverage improved dramatically after 1995, but data quality is poor and for a variety of reasons, coverage has been over-reported in recent years. According to the most recent household surveys, DTP3 coverage was 45 percent in 2006 and 61 percent in 2009. Official coverage estimates were 80 percent or higher for all of the traditional vaccines during this same period, but over the past three years routine immunization coverage appears to have fallen.

DRC's malaria rate (31%), diarrheal disease (16%) and pneumonia (15%) are similar to those in other countries, but access to appropriate care for children is limited. An underlying cause of child death is malnutrition. The DRC has a high rate of stunting (46%), low rate of exclusive breastfeeding (36% to 6 months of age) and the proportion of children, 6-23 months of age, receiving a minimally acceptable diet is one of the lowest in the world.

The country's poor health infrastructure, lack of human resources and problematic access to existing health services – due to geographic, culture, gender, and poverty related challenges – all contribute to the DRC's high rates of maternal, infant and child death. There is a pressing need to increase the coverage of high-impact maternal, newborn and child health interventions and to address the quality of existing health services. Reassuringly, the DRC has support from many different donors and agencies in the health sector including USAID, UNICEF, WHO, UNFPA, the World Bank, the European Union, the GAVI Alliance, and other non-governmental (NGO) and faith-based organizations (FBOs) and networks.

MCHIP has been active in the DRC since April 2009, when activities started by several earlier global projects – BASICS, IMMUNIZATIONbasics, POPPHI and POUZN – and the staff who had worked for these projects in the DRC and the U.S. were brought together under the MCHIP umbrella. The MCHIP project was completed in July 2011.

MCHIP worked at the national level with the Ministry of Health (MOH) and its integrated management of childhood illness (IMCI), immunization (Expanded Programme of Immunization, EPI) and reproductive health (PNSR) programs. In addition, MCHIP collaborated with international and NGO partners who support these programs and have worked hand in hand with USAID's AXxes and Leadership, Management and Sustainability (LMS) projects for a number of years to improve the coverage and the quality of specific maternal, newborn and child health (MNCH) interventions in high-need health zones. MCHIP

staff members were active participants on the many different steering committees, interagency coordinating committees and technical working groups that directed policy and program development and implementation.

In Fiscal Year 2009 (FY'09), MCHIP's work was co-funded by the Health, Infectious Disease and Nutrition office of USAID's Global Bureau (G/HIDN) and the Africa Bureau's Office of Social Development (AFR/SD). MCHIP fully expended the Mission's field support by the end of July 2011. HIDN and AFR/SD approved the use of up to Redacted in immunization core funding in Fiscal Year 2011 (FY '11). This allowed MCHIP to continue to support immunization activities in the country and helped facilitate an orderly transition of strategic MCHIP activities to the new USAID bilateral health project – IHP/PROSANI.

MCHIP's goal in the DRC was to contribute to improved maternal, newborn and child health by providing technical support to the Ministry of Health and strengthening the capacity of USAID-supported projects to deliver evidence-based MNCH interventions.

MCHIP identified five objectives for its work in the DRC:

1. Increase access to child health services through Community Case Management by supervising existing CCM Community Health Workers (CHWs), working with the MOH and other partners to establish new CCM sites and advising on the integration of family planning counseling and service provision at CCM sites.
2. Strengthen case management of diarrhea in partnership with the MOH, UNICEF and local partners by promoting ORT and introducing zinc, by revitalizing ORT corners in hospitals and health centers, increasing awareness among community members and training CHWs and health providers to correctly assess and treat diarrheal disease.
3. Scale up declining immunization coverage rates in high-burden health zones and support new vaccine introduction by improving delivery systems in low-performance health zones.
4. Improve maternal and newborn health through the expansion of an integrated package of Essential Newborn Care (ENC) and the Active Management of Third Stage Labor (AMTSL) and other maternal health interventions.
5. Expand the promotion of a distribution of point-of-use water purification products (i.e., PUR and Aquatabs) and improve hygiene practices in cholera-endemic health zones.

Under each of these objectives, the DRC team assisted the MOH in updating relevant national policies and convening and mobilizing national and international partners to improve program coverage and quality. In FY '10, MCHIP also worked hand-in-hand with USAID's bilateral health project, AXxes, and with the global Leadership, Management and Sustainability (LMS) project to rollout updated policies, train and supervise health providers in hospitals, health centers, and communities and improve the quality of care provided in 80 Health Zones.

KEY ACHIEVEMENTS

Objective 1: Child Health – Community Case Management of Childhood Illness

The DRC is one of six countries that, together, contribute to over half of all childhood deaths in the world each year. Many of these deaths could be prevented through increased access to child health services and scaled up Community Case Management (CCM) of pneumonia, diarrhea, malaria and malnutrition. From October 2009 through June 2011, MCHIP worked with the MOH, AXxes and other partners to introduce CCM sites in 23 new health zones and expand CCM training and support to new communities in 9 health zones where the CCM treatment sites had already been established. As shown below (Table 1), by the end of June 2011, this brought the total number of

health zones providing CCM services to 101 (19.6%) of the total 515 health zones in the country. It also resulted in the creation of 513 new treatment sites (including 44 sites in health zones that already had some CCM activity) and raised the total number of CCM sites with trained CHWs to 1,357 by the end of June 2011.

Table 1: Expansion of CCM sites Fiscal Years 2008–2011

National CCM Indicators	FY'08	FY'09	FY'10	June 2011
Provinces with CCM sites	9	10	10	10
Total health zones with CCM sites	52	78	94	101
Number of new CCM sites established	286	206	401	138
Number of new CHWs trained in CCM	508	429	715	213
Cumulative number of CHWs trained end of Fiscal Year	929	1,358	2,073	2,286

MCHIP also supported the development of human resources to support CCM, offered post-training support and supervision to CHWs, monitored the quality of community health services, enhanced the technological capacity of provincial health offices and tested an integrated CCM and family planning (FP) service delivery model. MCHIP partnered with and trained members of local faith based communities to maximize community impact. At times, challenges with drug supply, provincial support and CCM data management hindered MCHIP's progress.

Objective 2: Child Health – ORT and Zinc in Diarrhea Case Management

According to the most recent DRC DHS data, diarrhea is still the third leading cause of mortality among children under five. Although the DRC was one of the first countries in Sub-Saharan Africa to incorporate zinc into national treatment guidelines for diarrhea, it is still not widely used as part of the diarrheal treatment regimen. Therefore, scaling up ORT and zinc utilization was a key priority for MCHIP.

MCHIP's strategy to revitalize and strengthen the case management of diarrhea through the promotion of ORT and the introduction of zinc included the following key activities: training health workers and CHWs to manage diarrheal disease according to best practice; establishing ORT corners in health facilities to ensure an expeditious start to rehydration therapy and to train mothers in home administration; increasing the supply of zinc in the health system; monitoring the quality of diarrheal case management in target health facilities and zones; supporting behavior change communication (BCC) activities to improve home-care and care-seeking; and scaling up marketing to increase the population's knowledge.

Through these activities, MCHIP trained 694 clinical care providers and 715 CHWs in ORT and zinc administration. MCHIP was also able to successfully establish ORT corners in hospitals across all 29 target health zones. Through a partnership with UNICEF, MCHIP procured over 25 million zinc tablets, which were distributed among all 11 provinces. Through a collaborative effort with UNICEF, the University of Kinshasa, WHO and the National Program for Diarrheal Control (PNLMD), MCHIP also supported the rollout of a national multimedia campaign to increase public awareness of diarrheal disease and to drive demand for treatment.

Objective 3: Routine Immunization and New Vaccine Introduction

Promoting routine immunization and introducing new vaccines in the DRC has been a consistent challenge. After nearly a decade of steady gains, immunization coverage fell in 2008 and 2010 – due in part to vaccine stock-outs and budgetary constraints. When USAID's IMMUNIZATIONbasics (IMMbasics) program ended in 2009, MCHIP continued to provide technical support to the national immunization program (EPI) through monthly technical meetings held by the DRC's Inter-Agency Coordination Committee (ICC) and ad hoc working group meetings. MCHIP contributed to the development of the annual Memorandum of Understanding (MOU) between the MOH and its immunization partners and collaborated on the enhancement of the DRC's EPI program. In addition, MCHIP provided direct support for the release of the Pneumococcal Conjugate Vaccine (PCV-13). Despite successes, immunization progress was delayed because of continuing stock shortages, an aggressive polio outbreak and the national government's inability to meet funding commitments.

Objective 4: Integrated Maternal and Newborn Health

Despite significant decreases in maternal mortality and slight decreases in under-five mortality, there have been minimal changes to the neonatal mortality rate (NMR) in nearly two decades. The primary causes of death in the neonatal period include sepsis, birth asphyxia and trauma and complications from prematurity. MCHIP built on the early achievements of several predecessor programs and aimed to update national MNH policies, adapt MNH tools for the DRC, train clinicians and CHWs in ENC/AMTSL and design an integrated CCM, family planning counseling, and contraceptive distribution model for AXxes health zones. The trial implementation of the integrated maternal and newborn care model showed positive potential for national implementation.

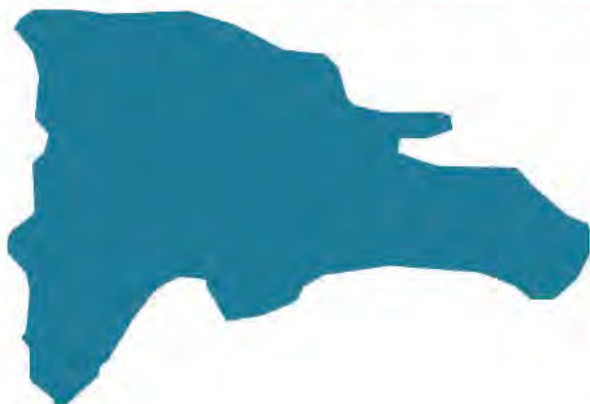
Objective 5: Point-of-Use Water Treatment

MCHIP designed and implemented a safe water, hygiene and sanitation model in four target health zones. During implementation, CHWs were trained on water treatment practices and key personal and household hygiene practices. A variety of communication tools were used to raise awareness, and MCHIP collaborated with partners to ensure that the supply of PUR, a point-of-use water treatment product, was able to meet rising demand. Distribution of PUR was carried out through community-based channels. Over 300,000 packets of PUR were sold through new and existing PUR sales points, enabling an estimated 4,100 people to produce their own safe drinking water over a one-year period. In addition, 14 percent of caregivers of children were able to show that they had PUR in the household at the time of survey, compared with just 2 percent in 2007. Infrastructure advancements are still necessary in many of DRC's provinces to ensure a readily accessible supply of water to communities.

WAY FORWARD

MCHIP's goal at the global level and in the DRC was to accelerate the scale up of high impact, evidence-based MNCH interventions. Across program areas, MCHIP has done this by helping the DRC's MOH put enabling policies and programs in place. It disseminated new information, and leveraged and coordinated the resources of USAID's projects and other bilateral, multilateral and NGO partners working in the health sector to scale up and refine program approaches, guidelines and tools. There is a continued need for technical support to expand the coverage and improve the quality of key intervention packages, monitor the results of program activities and the quality of MNCH care, and to strengthen the support systems required to sustainably increase the coverage of interventions across the technical areas.

MCHIP Country Brief: Dominican Republic



Selected Health and Demographic Data for the Dominican Republic	
Maternal mortality ratio (deaths/100,000 live births)	150
Neonatal mortality rate (deaths/1,000 live births)	21
Under-5 mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	27
Contraceptive prevalence rate	72
Total fertility rate	2.5
Skilled birth attendant coverage	98.5%
Antenatal care, 4+ visits	94.5%
Source: *World Bank 2012; DHS 2013; **UNICEF.	

Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- HIV/AIDS



Program Dates	April 2010—March 2012, extended through January 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	88%	No. of districts	N/A	No. of facilities	10 Centers of Excellence
Country and HQ Contacts	Nieves Rodriguez, Country Representative, Goldy Mazia, Latin America and Caribbean Newborn Advisor, Magdalena Serpa, Newborn Health Program Officer, Sarah Marjane, Project Administrator, Brianna Casciello, Program Assistant, Pat Taylor, Country Support Team Leader					

INTRODUCTION

The Dominican Republic (DR) has made significant progress in improving maternal, newborn, and child health over the past decade, but there is still room for improvement. Although more than 98% of all deliveries are attended in health facilities,¹ the DR has one of the highest neonatal mortality rates in the Latin American and Caribbean (LAC) region (23/1,000 live births in 2007, 21/1,000 live births in 2013). These rates suggest serious gaps in the quality of care provided in those public sector health facilities that attend births and care for newborns.

MCHIP's program in the DR focused its efforts on the main causes of newborn mortality in the LAC region and globally—newborn infections, complications of prematurity, and intrapartum deaths, mainly due to birth asphyxia. USAID/DR enlisted MCHIP's support to continue the work started by USAID's Basic Support for Institutionalizing Child Survival (BASICS) project. From 2007–2009, BASICS worked with the Ministry of Health and Abt Associates, UNICEF, and the Pan American Health Organization (PAHO) to address the prevention and treatment of newborn sepsis, the main cause of newborn mortality in the LAC region at the time.

Starting in 2010, MCHIP worked in collaboration with the USAID bilateral health project (Maternal and Child Health Centers of Excellence) with a continued focus on the prevention and treatment of newborn sepsis, increased attention to Kangaroo Mother Care (KMC) to reduce complications of prematurity, and Helping Babies Breathe (HBB) to teach and implement a simplified method for neonatal resuscitation and to decrease mortality from birth asphyxia. In 2013, the USAID Mission extended MCHIP's newborn work for an additional year, and with U.S. President's Emergency Plan for AIDS Relief (PEPFAR) funding, asked MCHIP to add elements of the prevention of mother-to-child transmission of HIV (PMTCT) to its newborn health scope of work.

MCHIP's primary areas of interventions and support to the Ministry of Health (MOH) and the Maternal and Child Health (MCH) Centers of Excellence Project included:

- Scaling up interventions for quality improvement of the prevention and treatment of newborn sepsis in selected MCH Centers of Excellence as part of the LAC Neonatal Alliance's regional strategy to improve newborn health
- Strengthening and promoting the KMC strategies in selected MCH Centers of Excellence
- Implementing the HBB approach in all MCH Centers of Excellence
- Improving the quality of PMTCT services for newborns in selected MCH Centers of Excellence

As a member and chair of the LAC Neonatal Alliance, and in conjunction with the project's support to the MCH Centers of Excellence, MCHIP engaged stakeholders at the national level to revitalize the Dominican Neonatal Alliance, which had become inactive. The LAC Neonatal Alliance is an interagency group that was formed to support countries in the region in their



USAID's Peg Marshall accompanies Dr. Ambrosio Rosario and a representative of the local government at a visit to San Vicente de Paul Regional Hospital (HSVP) by the LAC KMC Network event in December 2011.

¹Center for Social and Demographic Studies (CESDEM), ICF International, Ministry of Public Health and Social Assistance (Dominican Republic). *Dominican Republic Demographic and Health Survey 2013*.

efforts to reduce newborn mortality and morbidity. The alliance promotes evidence-based policy and programmatic interventions at the facility and community levels. MCHIP played a key leadership role in providing technical guidance to the alliance from 2009 to 2014.

KEY ACHIEVEMENTS

Objective 1: Scale-up the intervention for quality improvement of prevention and treatment of newborn sepsis in the MCH Centers of Excellence as part of the regional strategy to improve newborn health.

BASICS introduced activities to improve the quality of management of newborn sepsis as part of a LAC regional intervention. A virtual platform (Eluminate) was used to periodically connect participating countries for teaching purposes and the exchange of results. MCHIP continued to organize and facilitate Eluminate sessions that included stakeholders in the DR. This intervention was shared with MCHIP's similar activities in Paraguay.

Infection prevention activities led to a very important reduction in hospital-acquired infections in newborns in one referral center (Dr. Antonio Musa Hospital); the proportion of babies admitted with suspected nosocomial infection was reduced from 42% in 2007 (when the BASICS project started activities) to less than 10% one year later, which was further reduced and sustained below 5%. The center continues to monitor data on a routine basis and has become a mentor for other institutions. Three additional centers implemented these prevention activities and the proportion of admissions to the neonatal unit due to suspected nosocomial infection was reduced to less than 5% in all centers. During MCHIP, this success story was adopted by UNICEF, and currently in the DR, the infection prevention standards recommended by MCHIP are one of the conditions used to certify facilities as Mother and Baby Friendly.

Achievement: MCHIP contributed to the reduction of neonatal mortality rates in facilities in the DR; rates declined from 44/1,000 live births in 2009 to 24.5/1,000 in 2012, mainly due to improved care for and fewer deaths of premature and low birth weight babies.

(Data from San Vicente de Paul Regional Hospital, the national KMC training facility)

As all neonatal sepsis activities were focused on prevention during the last year of programming, MCHIP carried out a baseline assessment of the quality of the treatment of neonatal sepsis in four referral facilities, which showed many gaps and inconsistencies in care partially due to outdated and unenforced national guidelines. MCHIP, together with the MOH and UNICEF, developed/revised new national neonatal infection management guidelines that were launched in March 2014.

Objective 2: Strengthen the implementation of Kangaroo Mother Care strategies in trained Centers of Excellence; initiate expansion.

In the DR, one out of 10 newborns is born premature (23,300 preterm births per year) and 1,200 newborns die because of related complications each year.² The KMC program is a low-cost, highly effective standard method of care for all small newborn babies. KMC includes skin-to-skin contact, exclusive breastfeeding, and close follow-up and support to the mother-newborn dyad. MCHIP addressed prematurity and its complications by rolling out the expansion of the KMC program in four of the DR's nine health regions. The KMC program was first introduced in the DR in 2009 at the regional referral facility, San Vicente de Paul Regional Hospital (HSVP), in Francisco de Macoris. MCHIP supported the strengthening of HSVP's KMC program and its establishment as a national KMC training facility. Throughout the course of the project, personnel from three additional centers were trained at HSVP, including San Lorenzo de Los

² March of Dimes. <http://www.marchofdimes.com/mission/global-preterm.aspx>

Mina Hospital, which is located in East Santo Domingo and serves the poorest area of the capital, covering a population of roughly one million. The other two MCHIP-supported KMC programs were located in Dr. Antonio Musa Hospital in San Pedro de Macoris and in Dr. Luis Murillo King Hospital in La Vega. An electronic database developed by MCHIP for reporting indicators was field-tested and implemented in all KMC programs.

Four thousand eligible babies received KMC services through MCHIP's activities in the DR. These babies were followed through one year of age and received specialty evaluations that included ophthalmology, ear-nose-throat, and neurology exams to minimize disabilities that commonly affect premature babies. Prior to MCHIP, retinopathy of prematurity (ROP), the main cause of acquired blindness in the DR, was not routinely screened for in many of the country's facilities caring for premature babies. MCHIP support contributed to prompt diagnosis of ROP and timely treatment to prevent blindness among premature newborns.

Eighty-five percent of eligible premature and low birth weight babies were admitted to KMC programs in four implementing hospitals. The mortality rate across these sites was 1.5%.

MCHIP support for KMC contributed to significant reductions in newborn mortality in participating facilities. HSVP, for example, achieved a reduction of 45% in newborn mortality and 50% in hospital-acquired infections (mostly in small babies as they are being discharged early from facilities, decreasing the risk of acquiring such infections). Dr. Antonio Musa Hospital also achieved a reduction of 54% in newborn mortality and San Lorenzo de Los Mina achieved a reduction of 36% in newborn mortality.

"My mother said that this baby would not survive, that he was too tiny ... everybody said that to me ... only here in the program they give me hope and now I know that he will grow and thrive."

-Mother participating in KMC program



Dr. Nathalie Charpak and Dr. Goldy Mazia during an evaluation visit of the KMC program at Dr. Luis Morillo King Hospital in La Vega province in January 2014.

Hospitals staff reported that the program also had a positive influence on mental health and social problems such as postpartum depression (particularly in adolescent mothers). Staff also reported that the program promoted fathers' involvement in the care of babies and may have improved behaviors related to domestic violence and delinquency.

In recognition of the successes of the country's KMC programs, an event leading to the creation of the LAC KMC network was held in the DR in 2011. Ten countries at various levels of KMC implementation

participated in the three-day event.³ The KMC network currently interacts through a virtual community of practice and meets annually at an in-person event organized by MCHIP and partners, with stakeholders in the DR playing an important role.

The KMC program also gained increased visibility by earning the President's Quality Award in 2012, which was featured by several national media sources. Several non-implementing facilities have expressed interest in developing KMC programs; one university hospital in the

³ First Latin America and Caribbean Regional Kangaroo Mother Care Conference.

<http://www.healthynewbornnetwork.org/resource/first-latin-america-and-caribbean-regional-kangaroo-mother-care-conference>

second biggest city in the country (Cabral y Baez Hospital in Santiago) will be trained by the HSVP team with funds from La Leche League and others.

Objective 3: Implement the Helping Babies Breathe curriculum in MCH Centers of Excellence.

To address neonatal intrapartum deaths, MCHIP supported the DR to implement and scale up HBB. By the end of the MCHIP award, HBB had covered referral hospitals in eight of the nine health regions in the DR, and the trained staff committed to train their referring facilities. At the time of the launch—led by the American Academy of Pediatrics (AAP) and partners in June 2010 in Washington, D.C.—four master trainers from the DR were accredited. Following the launch, MCHIP, in collaboration with the MCH Center of Excellence Project, trained 59 facilitators and 573 providers through more than a dozen basic newborn resuscitation training sessions. MCHIP and MCH Centers of Excellence also provided technical indicators related to newborn resuscitation and essential newborn care at birth. MCHIP, with support from the USAID Mission, established a collaborative relationship with the Latter Day Saints Charities (LDSC), for further expansion of the HBB strategy. Continued scale-up of the HBB curriculum will be facilitated with training equipment and supplies donated by LDSC.

Objective 4: Improve the quality of prevention and treatment of HIV/AIDS (PMTCT) in the MCH Centers of Excellence as part of the regional strategy to improve newborn health.

MCHIP utilized PEPFAR funding in 2013 to conduct an assessment of PMTCT services to identify links with maternal and neonatal activities in four hospital facilities. Emphasis was on the potential for KMC services to address missed opportunities for care and treatment of families living with HIV/AIDS. The results of the evaluation showed gaps and challenges during labor and delivery, as well as during the postnatal period and beyond. For example, in these facilities MCHIP found that only 31% of HIV-positive pregnant women underwent an elective cesarean section, and that only 62% of exposed newborns received prophylactic antiretroviral therapy. Recommendations included solutions that could be implemented in labor and delivery rooms, in maternity services (rooming-in), in neonatal units, and, most important, through KMC services due to the extended contact time with families during follow-up. Findings and recommendations were included in a report and disseminated during MCHIP's dissemination meeting and closeout, which was held in January 2014, in Santo Domingo.

Objective 5: National workshop to present results of implemented newborn strategies, ratify commitments, and advocate for scaling-up and sustainability of newborn health priority interventions.

The MOH, USAID, UNICEF, and LDSC participated in MCHIP's national dissemination meeting in January 2014. During this one-day event, staff from the facilities where MCHIP had provided technical assistance showed that they are clearly owners of the activities and demonstrated their commitment to continue implementing, measuring, and scaling up the strategies that MCHIP promoted. For example, the regional trainers left the meeting with a work plan that called for taking HBB trainings to more peripheral health facilities; MCHIP donated the equipment and supplies to facilitate the trainings. The KMC training institution also plans to train and implement another KMC program in one of the university hospitals. The MCHIP team is committed to supporting the DR activities through the LAC Neonatal Alliance and LAC regional activities.

WAY FORWARD

The DR KMC program has been established and is owned by the implementing facilities/regions, with a number of national champions for the follow-up and expansion. MCHIP advocated for national uptake with the MOH in various opportunities but a decision is yet to be made by the government. The sustainability of the KMC program is at risk without the endorsement and funding at the central MOH level. The January 2014 evaluation funded and facilitated by MCHIP and conducted by the Colombian KMC Foundation accredited the program in the training institution (HSVP) and habilitated the program in the San Lorenzo de los Mina Hospital. The Foundation provided the other 2 national programs, formed recently in San Pedro de Macoris and La Vega provinces, with recommendations to strengthen and improve the program.

The ongoing data collection and analysis facilitated by the data collection tools developed by MCHIP will contribute to further tracking the interventions to reduce neonatal morbidity and mortality rates. The outcome and impact indicators can serve as an advocacy tool for uptake of the KMC program by the central authorities. The Colombian Foundation will provide assistance with information on a sellable KMC package of services for the health insurance companies to promote further sustainability. The DR KMC Program will continue to be part of the LAC KMC Network and receive technical assistance through that mechanism as needed and feasible, as well as through the virtual community of practice (created and managed by the URC/ASSIST Project). As observed at the closeout meeting, the four hospitals have ownership of newborn priority programs (HBB, KMC and quality improvement of management of newborn infections) as they were the presenters of their own experiences and led the discussions. The KMC champions have expressed their commitment to develop/adapt KMC guidelines for the country based on the Colombian KMC Foundation and ACCESS materials.

The HBB program implemented by MCHIP and partners in the DR, trained a critical mass of trainers and providers in 8 of the country's 9 regions. More than 70 sets of equipment and educational materials were donated at the closure of the program for further expansion. Joint advocacy efforts by MCHIP and the USAID Mission with the MOH for the incorporation of HBB in the national Integrated Management of Neonatal and Child Illness (IMNCI) guidelines have been unsuccessful to date. MCHIP also recommends the inclusion of HBB as part of the national IMNCI pre-service program. To promote sustainability of the program, MCHIP and the USAID Mission facilitated the coordination with the LDS Charities for continuation of activities and monitoring. Data collection about basic resuscitation and essential newborn care at birth developed and implemented by MCHIP will continue to generate valuable new information for program adjustments. The LAC HBB virtual community of practice, created and managed by USAID's ASSIST project, provides an avenue to continue engagement among program implementers at the facility level.

The prevention of infections activities have been incorporated into UNICEF's Mother and Baby Friendly Hospital Initiative. The new MOH guidelines for the management of neonatal sepsis will be disseminated and if adequately enforced, there will be an improvement in the quality of the case management of neonatal infections.

The report on the integration of facility-based PMTCT and maternal and newborn services was disseminated through a presentation during the closeout event, and also as a soft copy to all the participants including other partners participating in the national HIV/AIDS program (including PEPFAR, MOH, USAID, and Centers for Disease Control [CDC]). Clear recommendations for links between PMTCT and neonatal/postnatal services were contained in the document.

The LAC Neonatal Alliance will hire a consultant for the strengthening of national Alliances in the region. The DR is a priority for the renewal of the committee in the coming year.

MCHIP Country Brief: Egypt



Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- Nutrition
- Family Planning

Selected Health and Demographic Data for Egypt

Maternal mortality ratio (deaths/100,000 live births)	54/100,000
Neonatal mortality rate (deaths/1,000 live births)	16/1,000
Under-5 mortality rate (deaths/1,000 live births)	28/1,000
Infant mortality rate (deaths/1,000 live births)	25/1,000
Contraceptive prevalence rate	60%
Total fertility rate	3
Skilled birth attendant coverage	90.9%
Antenatal care, 4+ visits	66%
Source: EDHS 2008	



Program Dates	October 2011–June 2014					
Total Mission Funding to Date by Area	Redacted					
Geographic Coverage	Number of governorates	22%	Number of districts	12	Number of villages/ total population	100/ ~two million people
Country and HQ Contacts	Dr. Issam El Adawi, Chief of Party (COP); Dr. Ali Abdel-Megeid, Deputy COP; Dr. Koki Agarwal, MCHIP Director; Anita Gibson, MCHIP Deputy Director; Angie Brasington, Community Health and Social Change Advisor; Vikas Dwivedi, M&E Advisor; Dr. Justine Kavle, Nutrition Senior Program Officer and Principal Investigator of the Stunting Study; Rae Galloway, MCHIP Nutrition Team Lead; Dr. Neena Khadka, Newborn Health Advisor; Jennifer Shindeldecker, Program Officer					

INTRODUCTION

The United States Agency for International Development (USAID)/Egypt has supported Ministry of Health (MOH) maternal and child health programs in Egypt over the past 30 years, contributing to the notable decline in child and maternal mortality in the last two decades and improvements in several key maternal and child health indicators. However many challenges remain, including persistent high levels of child malnutrition: stunting among children under the age of five increased from 23% in 2005 to 29% in 2008 with increases concentrated in two regions (Lower Egypt and Frontier Governorates) according to the 2008 Egypt Demographic Health Survey (EDHS). The neonatal mortality rate has also stagnated despite declines in infant and under-five mortality.

The 2008 EDHS estimated neonatal mortality at 16 per 1,000 live births, a decrease in mortality of 33% from the 2000 EDHS estimate of 24 deaths per 1,000 live births. For the same period, infant mortality declined by 43% and under-five mortality by 48%. The neonatal mortality contribution to under-five mortality has therefore increased from 44% to 58% during the same time period.

Although almost all infants are breastfed, on average, only half are exclusively breastfed in the first six months. Feeding practices for children during the complementary feeding period (six to 23 months) are also not optimal—only 68% of children consumed the minimum number of food groups (a proxy for the quality of the diet) in 2008, and only 50% of children were fed the minimum number of meals per day (a proxy for energy intake). As a result, it is estimated that only 41% of all children are fed a minimally adequate diet in Egypt. Although most newborns are screened for iodine deficiencies, other newborn care interventions are not routinely provided. The major causes of neonatal death are preventable or treatable with simple, cost-effective interventions.

Preventing unintended pregnancies, particularly through pregnancy spacing, is a critical component of improving the health, nutrition, and survival of mothers and infants. According to the 2008 EDHS, 58% of currently married women 15 to 49 years of age were using a modern method of family planning (FP). Even though contraceptive use in Egypt has been increasing, overall trends in pregnancy spacing have not improved.

According to a 2010 gender assessment conducted by USAID/Egypt, persistent gender inequalities in Egypt continue to contribute to poor health outcomes for women, children, and even men. Unequal power relations based on gender are evident within families and communities, and are also reflected in health, educational, judicial, and economic institutions. These inequities severely affect women's capacity to make optimal decisions about their health care and the prevention of illness for themselves and their children. For instance, the 2008 EDHS reported that only 21% of ever-married women had knowledge of the danger signs during pregnancy and childbirth—vital information that should have been given to them during antenatal checkups.

Key SMART Activities

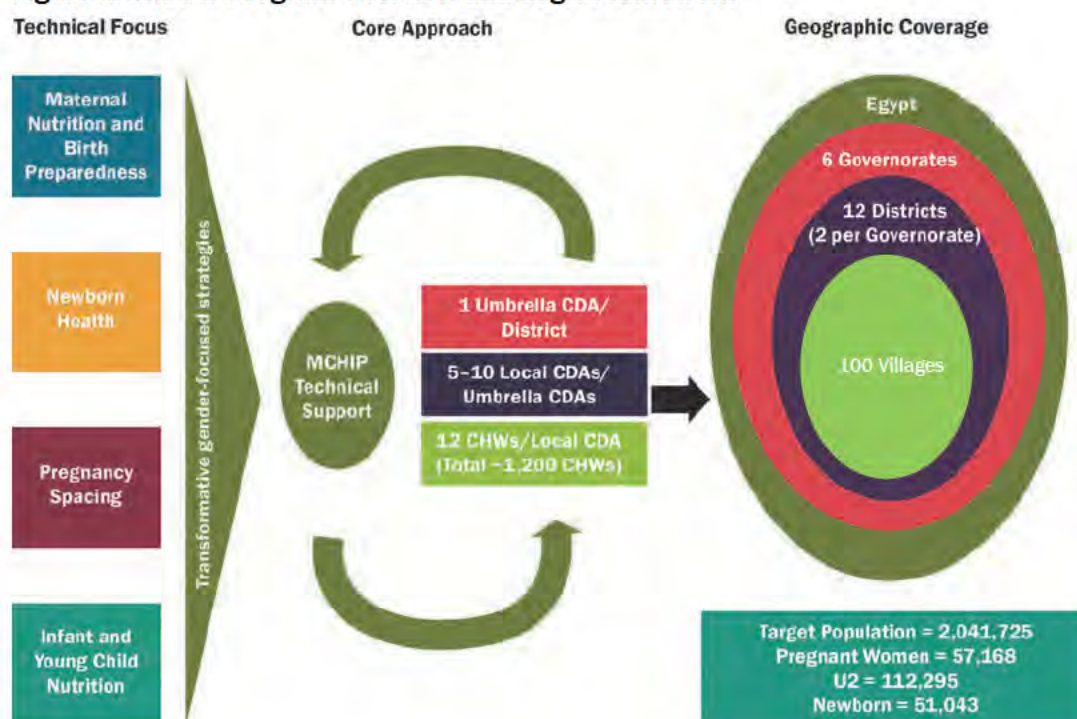
- Carry out community health outreach and communication activities that increase knowledge, skills, and practice of key maternal, neonatal, and child health behaviors, while creating demand for related services.
- Implement a nutrition education and rehabilitation program at the community level to address childhood malnutrition and stunting.
- Promote home-based neonatal care through a package of simple interventions that can save the lives of newborns, especially those delivered at home. Train outreach workers to counsel mothers about newborn care including, thermal regulation, cord care, kangaroo mother care for low birth weight, and initiation of breastfeeding within one hour after birth.
- Build capacity of local CDAs to respond to health care needs with a focus on sustainability.
- Conduct an in-depth study to understand the underlying causes of increased stunting in Lower Egypt.

In this context, SMART (Community-based Initiatives for a Healthy Life) was a two-and-a-half-year initiative under MCHIP that was implemented in six governorates of Egypt: Qalyubia and Sharqia in Lower Egypt, and Beni Suef, Asyut, Qena, and Sohag in Upper Egypt. Intervention areas were selected by considering malnutrition rates and low health indicators related to neonatal, child, and maternal health. SMART's aim was to reduce neonatal mortality and malnutrition for children under the age of two by increasing knowledge of and demand for quality antenatal care (ANC) services, neonatal care, and postnatal care (PNC), and providing nutritional information and support to caretakers of children under two years of age (U2) through a community approach. SMART sought to provide a package of proven, low-cost interventions during the first 1,000 days of life to improve children's health and nutrition.

For most of the duration of the SMART program—December 2011 through December 2013—Egypt was in a state of political upheaval, including a rise of religious conservatism in some SMART implementation areas. In this environment SMART sought to build on past experience working with local civil society organizations to provide direct implementation support to address malnutrition and newborn health with program activities that complemented services provided through the public health system. Building on the success of previous programs working with community development associations (CDAs), SMART partnered with 12 local organizations in the six governorates to implement community-based health initiatives. These 12 umbrella CDAs each oversaw an additional five to 10 local CDAs, building their capacity and supporting them to reach the community level effectively in all six governorates. The target population for SMART interventions was over two million people.

SMART's goal has been to improve neonatal health and child nutrition outcomes in Egypt, with a strategic objective to increase the use of key maternal, neonatal, and child health (MNCH) and nutrition behaviors and use of community-based MNCH-FP-Nutrition services. The integrated SMART approach is shown in Figure 1 below.

Figure 1. SMART Program Overview and Logic Framework



KEY ACHIEVEMENTS

1. Improved access to and quality of key MNCH-FP-Nutrition services by private, community-based providers
 - Approximately 1,200 community health workers (CHWs) have been trained through a 10-day, competency-based training program followed by supportive supervision by a strong team of experienced supervisors with the goal of ensuring that CHWs are performing their tasks. CHWs are committed to delivering health messages to women, making home visits during which they provide health and nutrition guidance and refer women to clinics. CHWs also conduct group nutrition counseling and health education sessions, including cooking demonstrations, for pregnant women, women with children under two years of age, their husbands, and mothers-in-law.
 - SMART has had a 98% retention rate of CHWs, many of whom will continue their work with CDAs after the end of the program as a result of funds secured for future SMART-modelled programs.
 - Approximately 38,000 women and children have received free health care from UCDA-facilitated mobile clinics arranged in villages with limited access to public services. SMART funds supported logistics and additional training to providers to ensure quality ANC and child assessments delivered from mobile units.
 - Approximately 149,000 women and their families received health messages as part of group counseling sessions and monthly home visits.
 - Over 4,241 mothers who gave birth during the program period received their first PNC home visit by a CHW within two days of delivery (i.e., nearly all mothers who participated in the program).
2. Increased knowledge and use of key MNCH-FP-Nutrition behaviors by women and men
 - SMART has built upon the previous materials developed by USAID-funded health programs and produced a variety of well-researched publications about MNCH and nutrition. SMART collected these materials in an “e-Library,” which was widely-disseminated to partners and stakeholders. These publications included the 1,000 Days¹ Protocol for physicians (shared with public and private sector doctors), a manual for nurses, CHW Guidelines and Health Messages, eight brochures on MNCH and nutrition, eight fact sheets for public information, and two posters. These publications have been well-utilized by key stakeholders and implementing partners.
 - Approximately 3,200 doctors, nurses, and CHWs have been trained in key SMART interventions, including essential newborn care (ENC), Helping Babies Breathe (HBB), kangaroo mother care (KMC), promotion of exclusive breastfeeding, healthy timing and spacing of pregnancy, nutrition counseling, and growth monitoring. Introduction of these interventions were accepted well among health care providers and have been utilized in their daily practices.
 - SMART collaborated with key national institutions including the National Nutrition Institute, Egyptian Association of Neonatology, and the Coalition of NGOs (nongovernmental organizations) against Pneumonia, and partnered with medical faculties of universities selected to include SMART key interventions in training programs for physicians.

¹ The period of 1,000 days refers to the window of opportunity for intervening to prevent and address poor health and nutrition from conception through the first two years of life.

- The Egyptian MOHP expressed an interest in the SMART approach and is considering scaling up key nutrition and neonatal health interventions using SMART materials and foundation.
 - Increased women's and men's knowledge of danger signs during a woman's pregnancy, delivery, and in newborns (see Table 3).
3. Increased capacity of CDAs to implement community-based strategies to improve MNCH-FP-Nutrition
- SMART supported and strengthened the 12 Umbrella CDAs to implement their own MNCH activities and fundraise for new projects and initiatives. These 12 CDAs, in turn, supported 100 local CDAs working in 100 villages. As a testament to the significant impact that SMART has had in building capacity among the CDAs to implement programs and secure funds for future initiatives, a combined **Redacted** has already been secured to fund an additional two years of programming to replicate the SMART model in areas not currently covered by the program.
 - In all six program governorates, 32 SMART partner CDAs were able to raise a total of **Redacted** to scale up the SMART model for community-based MNCH activities. Funding sources included the Japanese Embassy and the Social Fund for Development. LCDAs reported that SMART's organizational development training package, which included modules on program needs assessment and design, proposal writing, financial management and sustainability planning, supported them to successfully seek additional funds, as did the opportunity to network with other CDAs in their geographic area.
 - Fifteen of the 32 SMART-funded CDAs have received additional funding from non-USAID sources for 28 complementary MNCH programs. The total value of these additional program activities equals **Redacted**.
4. Increased knowledge base of factors associated with stunting (including those that are gender-specific) and approaches to reduce stunting and neonatal mortality
- SMART carried out a four-part study examining factors related to stunting within the Egypt context including the following:
 - Longitudinal study tracking 300 children's growth, health, and infant and young child nutrition practices during their first year of life
 - In-depth interviews with 120 pregnant and postpartum women
 - Trials of Improved Practices (TIPS) study with 150 mothers with children younger than two years of age to identify small-scale interventions mothers can take to improve their children's health and nutrition
 - In-depth interviews with 120 fathers, grandmothers, and health care workers
 - Four peer reviewed journal articles detailing results associated with the stunting study and SMART's community-based activities have been drafted.
 - SMART provided materials and training for professional associations, medical faculty and students, and for other strategic networks to increase awareness of MNCH as well as nutrition issues. Results of best practices under the program, such as simple and cost effective trainings to support evidence-based interventions like Kangaroo Mother Care (to enhance thermal regulation and promote optimal breastfeeding for premature and low birth-weight babies); Helping Babies Breathe (to assist babies who do not breathe spontaneously at birth); Child Nutrition and Development Counselling (to promote optimal Infant and Young Child Nutrition (IYCN) and education around child developmental milestones), and Post-Partum Family Planning, were shared broadly with key stakeholders

at all levels, raising awareness of the widespread problems of preventable newborn death, childhood illness, and malnutrition and the simple measures that are available as solutions.

5. Improved awareness of the impact of gender roles in improving MNCH-FP-Nutrition outcomes
 - A gender analysis was completed to gain an understanding of the differences and inequalities between men and women in program planning, implementation, and assessment of the planned SMART program activities. Staff used gender analysis results to support CDA partners with further gender awareness training and design of community-based activities to encourage greater social equality. The results of this analysis are discussed in greater detail under Objective 5, later in this document.
 - SMART developed and supported implementation of an innovative “Family Solidarity Training Guide” with four units. Local CDAs received training and support to use the guide in all 100 SMART villages in six governorates. The training units provided the basis for CHWs to begin conversations about gender and family decision-making in a culturally appropriate and non-threatening manner.

Presented below (in Table 1) are key indicators that SMART tracked in the baseline and endline surveys. Findings from these evaluations demonstrate the SMART program’s achievements in accelerating behavior change and improving knowledge about key areas that support newborn and maternal health including nutrition, despite the unrest and societal changes occurring in Egypt during the program period.

Please note that data presented in Table 1 are for survey respondents with children *less than 12 months in age*. This subset of respondents was optimally-exposed to the SMART intervention package beginning with home visits in pregnancy, continuing through childbirth and the postpartum period, and including breastfeeding support and nutrition promotion for their infants. Due to SMART’s short intervention period, which spanned only 15 months, women whose children were 12 months or older during the end line survey would not have interacted significantly with CHWs during their pregnancies.

Table 1. Key SMART Program Indicators

INDICATOR	UPPER EGYPT			p-value	LOWER EGYPT			p-value
	Baseline	Endline	Difference		Baseline	Endline	Difference	
% of women who received ANC 4+	73.6 (794)	85.4 (875)	11.8	0.001	75.4 (808)	86.7 (799)	11.3	0.001
% of women who consumed 90+ IFA during recent pregnancy	32.5 (477)	41.7 (693)	9.2	0.001	32.0 (528)	45.1 (638)	13.1	0.001
% of women with knowledge of at least three complications during delivery	4.9 (792)	46.1 (875)	41.2	0.001	6.6 (801)	19.2 (799)	12.6	0.001
% of women whose child was delivered by skilled birth attendant	89.0 (794)	95.1 (875)	6.1	0.001	89.2 (808)	98.1 (799)	8.9	0.001
% of women breastfeeding their newborn within one hour of delivery	43.0 (702)	43.6 (794)	0.6	0.828	41.0 (566)	40.8 (618)	-0.2	0.941

INDICATOR	UPPER EGYPT			p-value	LOWER EGYPT			p-value
	Baseline	Endline	Difference		Baseline	Endline	Difference	
% of women practicing exclusive breastfeeding for children under six months	38.8 (351)	55.2 (433)	16.4	0.001	43.9 (367)	57.8 (422)	13.9	0.001
% of women feeding their children at least three food groups (a sign of nutritional diversity)*	5.4 (443)	18.8 (442)	13.4	0.001	10.8 (441)	15.9 (377)	5.1	0.001
% of women with knowledge of benefit of two plus years of spacing between pregnancies	66.3 (789)	82.7 (872)	16.4	0.001	64.6 (791)	89.2 (799)	24.6	0.001
Number of women**	794	875			808	799		

* includes: (1) milk or other dairy products; (2) eggs; and (3) any green, leafy vegetables or yellow or orange fruits and vegetables.

** number of women varies by responses, hence actual number given in parenthesis

Table 2. Services offered during ANC, as reported by surveyed women

SERVICES OFFERED	UPPER EGYPT (%)			LOWER EGYPT (%)		
	Baseline	Endline	Difference	Baseline	Endline	Difference
Weight measured	66.7	90.4	23.7	76.2	94.6	18.4
Height measured	30.8	77.3	46.5	38.8	87.3	48.5
Blood pressure measured	79.0	89.7	10.7	85.2	93.1	7.9
Urine tested	67.4	79.9	12.5	77.5	90.0	12.5
Blood tested	69.0	86.7	17.7	80.3	90.7	10.4
Counseling on breastfeeding	60.7	85.1	24.4	60.4	90.9	30.5
Counseling on pregnancy spacing	49.6	80.8	31.2	52.5	86.3	33.8
Number of women	(794)	(875)	-	(808)	(799)	-

Although much work remains to be done to improve maternal and child health in Egypt, in a relatively short period the SMART program supported local organizations to create lasting change for Egyptian mothers and children by building the capacity of hundreds of community members and key individuals at the district and governorate levels who make decisions about and act upon health and nutrition issues. The strategic SMART approach of working through CHWs and CDAs, including building their capacity to fundraise for health programs, increases the likelihood that similar programming and demand for quality services will continue after the SMART program ends. The partnership developed with Egyptian professional associations for the rollout of training and the broad dissemination of key materials with service providers, pharmacies, governorate and district health managers, and national MOHP stakeholders will also help to ensure that what was developed under SMART will be used beyond the life of the program.

WAY FORWARD

Community-based approach to deliver health and nutrition messaging: A community-based approach to deliver health and nutrition information and counseling support to women and their families—the SMART approach—is an effective way to ensure community acceptance of healthy behaviors. CDAs are highly-connected with an extensive network in their catchment areas and should continue to be prioritized as development partners to deliver high-quality health and nutrition services that are appropriately targeted and relevant for the local population. CHWs can be agents of change in their communities, enabling knowledge acquisition and Improved behaviors at the household level; however, they need structured support and targeted capacity-building. For communities to adopt positive health and nutritional practices, service providers and NGOs should gain CHWs' trust, address their needs, and seek solutions that work within the local context. Early involvement of the community in designing and planning the intervention will ensure long-term sustainability of the healthy behaviors.

Initial social mapping of intervention areas defined a number of high-caseload, private health care providers whom SMART invited to participate in trainings on community health practices, new evidence-based medicine, and effective interventions like KMC, HBB and IYCN. As trainers were often well-known and even leaders in their fields, providers showed interest in attending the trainings. As a result of the trainings, many providers began offering services to their Communities that they were not offering before SMART due to lack of knowledge and/or skills to perform certain procedures. These health care providers were able to provide essential services, particularly maternal and child nutrition promotion and reinforcement of simple primary health care messages to poor families and rural communities through mobile clinics, maternal and child health consultation days, and health education campaigns.

Areas for Improvement of the SMART Approach: Despite increases in the majority of indicators, the SMART program fell short of reaching the ambitious targets set for five indicators (Indicators 1.2, 1.4, 1.7, 1.8, 1.9). These deviations from the achieved versus the targeted results could be attributed to a number of potential factors. As noted earlier in this document, the effect of commodity insecurities in Egypt during the period of political unrest led to decreased use of modern family planning methods and availability of iron folate acid across the country. In future programs, availability of key commodities must be addressed.

A longer period of implementation would likely yield even greater gains for the majority of indicators. During expansion of the SMART model, decision makers should consider further strengthening support and supervision of CHWs to ensure greater retention of knowledge and skills. It would also be important to explore further barriers and solutions to ensuring immediate postnatal home visits.

Further research, supervision and training for health care providers and CHWs in Egypt about nutrition and prevention of stunting is needed: The underlying causes of malnutrition and stunting, including the socioeconomic factors specific to Egypt, must be fully understood by health care providers and CHWs. Acknowledging these underlying causes and emphasizing the importance of role models and supportive supervision could prove to be very effective in addressing the key barriers and misconceptions related to infant and young child feeding. Education materials related to the prevention of stunting – beginning with exclusive breastfeeding and followed by healthy, complementary feeding practices – should continue to be developed for health care providers to use in counseling mothers and families about breastfeeding and complementary feeding practices. These educational materials should be based on WHO recommendations and should utilize culturally-appropriate, targeted messages developed during the program. In addition, mothers' support groups that also include grandmothers, applied in SMART intervention areas, and fathers' support groups will

strengthen knowledge and behavior change at the community level. Advocacy is needed to develop a national policy on junk food, and routine surveys (such as the EDHS) should collect data on junk food consumption by young children. Generating awareness in communities about optimal maternal nutrition and infant feeding, along with decreasing and eliminating the intake of junk food, can positively impact the growth of children and the entire family's health and well-being.

Uptake of SMART materials with Egyptian service providers from the NGO, private, and public sectors: Although SMART materials have been shared broadly in the six program governorates during the life of the program, the program's vast resources should be taken up by other NGOs, private providers, and the MOHP. SMART has focused the last six months of the program on developing and rolling out a dissemination plan in which key program stakeholders at the governorate and national levels have received SMART tools and resources and have been enabled to use these tools and resources as broadly as possible. Ideally, the MOHP will authorize inclusion of the SMART-developed 1,000 Day Series of guidelines for doctors and nurses, as well as the TIPs counseling guide, in all medical training curricula, and will provide in-service training for those who have not yet participated in this training. MOHP support for these initiatives is especially important to ensure that infant and young child feeding practices are improved for all children, the HBB neonatal resuscitation technique is used appropriately, and KMC/Warm Hug Care is provided for preterm babies.

Government scale-up and time are needed for long-term success and behavior change: Without government support and buy-in, health and nutrition interventions will remain localized. And although improving knowledge about health and nutrition can take place over short periods of time, behavior change takes a longer, more sustained effort. By providing the resources needed as well as evidence of the success of the SMART interventions, this program sought to enable the MOHP and local decision-makers to roll out similar activities in other areas of Egypt in alignment with national development goals. It is encouraging that the Social Fund for Development and other donors provided additional funding to CDAs to replicate the SMART model in areas that were not previously covered by the SMART program. Interestingly, the Social Fund for Development was also interested in SMART's approach because it promoted women's employment, thereby furthering women's opportunities to earn an income and contribute to the economic well-being of their families.

MCHIP Country Brief: Ethiopia



Health Areas:

- Maternal Health
- Newborn Health
- HIV/AIDS
- Malaria

Selected Health and Demographic Data for Ethiopia	
Maternal mortality ratio (deaths/100,000 live births)	676
Neonatal mortality rate (deaths/1,000 live births)	37
Under-5 mortality rate (deaths/1,000 live births)	88
Infant mortality rate (deaths/1,000 live births)	59
Contraceptive prevalence rate	29
Total fertility rate	4.8
Skilled birth attendant coverage	55.9%
Antenatal care, 4+ visits	19.1%
Source: EDHS 2011; World Bank ⁴ .	



Program Dates	October 1, 2010–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of regions	100%	No. of districts	72	No. of facilities	287 (54 Hospitals; 233 health centers)
Country and HQ Contacts	Hannah Gibson, Anita Gibson, Pat Taylor, Tracey Shissler, Sheena Currie, Tigistu Adamu, Tsigue Pleah, John Varallo, Barbara Rawlins, Young-Mi Kim, Joseph de Graft-Johnson, Jennifer Callaghan, Abdullah Baqui, Julia Bluestone, Jeff Smith					

INTRODUCTION

Although Ethiopia has seen a decline in maternal mortality to the current maternal mortality ratio (MMR) of 676 per 100,000¹ live births in the last 20 years, the country is still a long way from reaching its Millennium Development Goal (MDG) for MMR (MDG 5) of 267 per 100,000 live births by 2015.² The reduction of maternal, newborn and child mortality is the priority of the Government of Ethiopia (GoE). Ethiopia recently met its MDG 4 target for reducing child mortality of 68 deaths per 1,000 live births ahead of schedule. The introduction of the outreach health extension program with service provision led primarily by health extension workers (HEWs) is believed to have contributed to the reduction of mortality in children and toward achieving MDG 4 targets for the country.³ Even so, the utilization of proven high-impact interventions for the most common killers of infants and children under five is still very low. Obstructed labor, ruptured uterus, severe pre-eclampsia/eclampsia and postpartum hemorrhage account for most of the maternal death in the country.⁴

Other indicators for maternal health show a very low facility usage rate, with a skilled birth attendant delivery rate of 10%⁵, one of the lowest rates in Africa. Low facility usage rates undoubtedly also present as a barrier to Ethiopia's prevention of mother-to-child transmission of HIV (PMTCT) program services. Gains have been made in family planning (FP), with contraceptive usage increases from 14% to 27.3% (Ethiopia Demographic and Health Survey, 2005 and 2011); however, the unmet FP need remains high, particularly in the postpartum period. Additional key health indicators are shown in the Country Summary.

MCHIP's first activity in Ethiopia was to document the quality of care in selected hospitals in the Quality of Care for Prevention and Management of Common Maternal and Newborn Complications study. Conducted between 2009 and 2010 with core funding, MCHIP observed that the quality of care in the selected hospitals was often below internationally accepted standards for maternal and newborn health (MNH) care. MCHIP called for a concerted countrywide drive to improve the quality of care particularly focusing on the integration of evidence-based practices and quality assurance processes in health facilities.

Following this, in 2010 the United States Agency for International Development (USAID) asked MCHIP to assist the government's efforts to address MNH priorities. The goal of the MCHIP Ethiopia program was to contribute to reducing maternal and newborn morbidity and mortality in the country. The strategic objective was to increase use and coverage of high-impact maternal and newborn interventions including the reduction of mother-to-child transmission of HIV.⁶ MCHIP used the findings of the quality of care study to inform design of the new project.

- In collaboration with the Federal Ministry of Health (FMOH) and Regional Health Bureaus (RHBs) MCHIP was implemented in the four USAID priority regions: Amhara, Oromia, Southern Nations, Nationalities, and Peoples' Region (SNNPR), and Tigray. Selection of sites was done with extensive consultation with USAID, RHBs, their zonal counterparts and partners, including the Integrated Family Health Project (IFHP) to ensure there was no site overlap or duplication of effort. MCHIP later added the Afar region for Integrated Community

¹ Central Statistical Agency [Ethiopia] and ORC Macro. 2011. *Ethiopia Demographic and Health Survey 2011: Preliminary Report*. Central Statistical Agency and ORC Macro: Addis Ababa, Ethiopia and Calverton, Maryland, USA. Other estimates include 590 per 100,000 (Hogan MC, Foreman KJ et al. Maternal Mortality for 181 countries, 1980–2008: A systematic analysis of progress towards Millennium Development Goal 5. *Lancet* Volume 375:1609–1623.)

² Central Statistical Agency [Ethiopia] and ORC Macro. 2005. *Ethiopia Demographic and Health Survey 2005 – Preliminary Report*. Central Statistical Agency and ORC Macro: Addis Ababa, Ethiopia and Calverton, Maryland, USA.

³ Knippenberg R et al. 2005. Systematic scaling up of neonatal care in countries. *Lancet* 365: 1087–1098.

⁴ National Baseline Assessment for Emergency Obstetric and Newborn Care 2008.

⁵ Central Statistical Agency [Ethiopia] and ORC Macro. 2011. *Ethiopia Demographic and Health Survey 2011: Preliminary Report*. Central Statistical Agency and ORC Macro: Addis Ababa, Ethiopia and Calverton, Maryland, USA.

⁶ MCHIP Core funds were provided in 2009-2010 to conduct a national Quality of Care study.

Case Management (iCCM) activities upon request from the Afar RHB and USAID to support the iCCM expansion to the region's pastoralist communities. Overall, in addition to national-level support to the FMOH, national partners, and regional health bureaus (RHBs), MCHIP supported 49 hospitals, 235 health centers, and 843 health posts in 12 zones and 72 woredas/districts, as well as 10 health science colleges (see program timeline in figure below), during which MCHIP received numerous requests from the GoE for expansion, in particular, increasing the number of health centers supported by the project.

MCHIP's implementation strategy emphasized strengthening the enabling environment for MNCH and PMTCT care (Intermediate Result [IR]1), improving access to quality, high-impact interventions in MNH and PMTCT care at the health facility level—hospitals and health centers (IR 2), and improving knowledge and behaviors on MNCH/postpartum FP/PMTCT at the household level (IR 3).

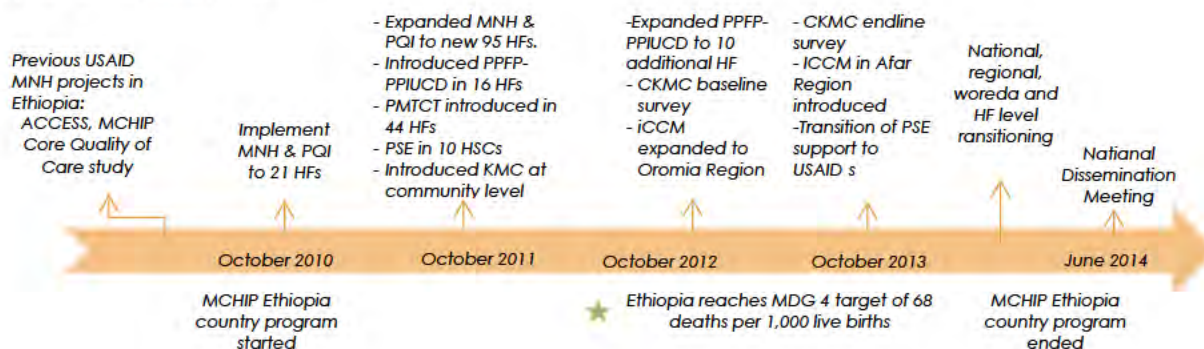
By health systems structure level, MCHIP's interventions included:

- **National and regional level:** strengthening MNH policies and initiatives, providing literature and evidence to improve MNH policies and scale-up, and building local capacity through the Ethiopian Midwives Association.
- **Facility level:** improving the quality of comprehensive MNH programs using a performance and quality improvement (PQI) approach with an integrated package of essential MNH care, including PMTCT and Kangaroo Mother Care (KMC), and introducing postpartum intrauterine contraceptive device (PPIUCD) insertion in selected facilities.
- **Community level:** implementing integrated community case management (iCCM) and implementing and evaluating the feasibility of Community KMC at the household level.
- **Education and training:** improving midwifery pre-service education (PSE) nationally and in selected regional midwifery colleges, and field-testing innovative approaches for in-service training in Basic Emergency Obstetrics and Newborn Care (BEmONC).

With support from MCHIP:

- 96,761 pregnant women were provided with quality ANC services
- 36,712 mothers who delivered in the facility received quality and respectful MNH care
- 42,540 pregnant women and mothers received HIV counseling and testing
- 20,000 pregnant women and mothers received PPFP counseling
- 1,062 were provided with PPIUCD insertion
- 4,627 newborns born asphyxiated were successfully resuscitated
- 24,245 newborns were kept in their mothers KMC at the facility and 5,022 at were kept in KMC at home
- 30,454 children under five years of age were registered and treated in iCCM

MCHIP Ethiopia Events



KEY ACHIEVEMENTS

IR 1: MNCH and PMTCT services improved by enhancing and strengthening the enabling environment for MNH care

MCHIP actively participated in national MNH technical working groups (TWGs) and provided highly visible technical and financial support in the adaptation and standardization of MNH and quality improvement national policies, strategies, and training packages (See text box, right).

MCHIP conducted two reviews of key areas influencing MNH care, access and utilization: a literature review of cultural barriers for women seeking maternal health care and a documentation of nine existing promising MNH, FP and Reproductive Health practices in Ethiopia. Based on the findings, MCHIP actively advocated for the inclusion of respectful maternity care (RMC) in MNH care to be a national standard and introduced RMC to its supported facilities; a recommendation for the scale up of promising practices nationally was made to the FMOH.

MCHIP worked to strengthen the core capacity of the Ethiopian Midwives Association (EMA) to lead the professionalization of Ethiopia's midwives. EMA now has a stronger organizational capacity and stronger regional chapters and a wider reach with newly established regional chapters where previously they had little presence. The association is also providing substantial technical support to the FMOH and partners in key issues related to MNH and midwifery including the development of national guidelines on Codes of Conduct and Scope of Practice for midwives.

National policies, strategies and guidelines MCHIP contributed to:

- MNCH Communication and Advocacy Plan
- Guidelines on Implementation of the Pregnant Women Forum
- Guidelines on Maternity Waiting Homes
- PMTCT Guidelines on Option B+ Treatment Protocols and National Roll-out
- Newborn Care Strategy
- Child Survival Strategy
- FP Training Strategy to include PPFP

National training packages that MCHIP contributed to:

- National BEmONC Training Package
- National FP Training Package inclusion of PPFP

IR 2: Availability, accessibility, and quality of key MNH and PMTCT services improved

Examples of MCHIP Scale-up in Ethiopia:

- Contracting out of quality improvement oversight
- Introduced and expanded facility-based KMC
- Introduced iCCM program in an emerging region
- Introduced and expanded PPIUCD services in Ethiopia
- Evaluated the feasibility of CKMC

MCHIP introduced the Standards Based Management and Recognition (SBM-R) approach as a performance and quality improvement (PQI) process to improve the quality of MNCH services in 116 supported facilities. Based on gaps identified during the SBM-R assessment, MCHIP provided need based BEmONC trainings to health providers in these facilities, donated essential equipment and supplies and ensured regular follow-up. As a result these health facilities were able to show marked increases in achieving MNH care standards from a baseline of 29% to 73% across three years. Improved facility services from the introduction of SBM-R matched with simultaneous community demand generation by HEWs and the newly formed Health Development Army (HDA)

volunteers, markedly increased institutional delivery from a baseline of 8.6% to 31% in MCHIP supported facilities. Similarly fourth antenatal care (ANC) visits increased from 5.9% to 21%. MCHIP also used a new “contracting-out of PQI” approach through direct financial assistance to build local ownership of facilities and woredas/districts to independently lead the PQI process even beyond the program.

MCHIP began implementing PMTCT services with PEPFAR funding in FY12, supporting 44 facilities to integrate PMTCT in different MNCH service outlets to make services available in a one stop shop approach for mothers. The integration of PMTCT activities such as community outreach programs contributed to increased facility utilization. In two years' time, ANC coverage in PMTCT supported sites increased from the baseline 4.7 % (ANC) and 29.4% (PMTCT in labor and delivery) to 38.2% and 78% respectively. MCHIP documented the effects of integrated services as well as frequent and enhanced facility-level support on PMTCT as part of its program learning.

In-service Training & mHealth:

- Provided various competency-based courses to a total of 5,207 health workers
- Piloted an innovative “blended learning” approach for in-service training for BEmONC to reduce time spent away from facilities.
- Tested the use of SMS technology for post training follow-up in BEmONC and PMTCT

MCHIP introduced Essential Newborn Care (ENC) services into 116 supported health facilities as part of comprehensive MNH care. MCHIP trained health workers in neonatal resuscitation for management of birth asphyxia, management of hypothermia in pre-term and low birth weight infants, and infection prevention and provided facilities with necessary equipment and materials, such as newborn suction and resuscitation devices. ENC services have visibly improved in all supported facilities.⁷ From the total of 36,954 reported institutional deliveries, records indicated that 4,627 asphyxiated newborns were successfully resuscitated. Moreover, 24,245 mothers (65.5% of the total deliveries) practiced skin-to-skin contact as a component of KMC at supported health centers and hospitals. Nationally, MCHIP supported the FMOH and the Ethiopian Pediatric Society (EPS) to standardize newborn resuscitation (through the Helping Babies Breathe program) and ensure inclusion of KMC in the national ENC and BEmONC training packages.

In 2011–2012 MCHIP introduced and established postpartum family planning (PPFP) and provision of post-partum intrauterine contraceptive devices (PPIUCD) in 26 facilities. MCHIP trained providers counseled over 20,000 mothers on PPFP during ANC and performed 1,069 PPIUCD insertions for mothers who chose the method, representing 3% of mothers delivering in the facilities. MCHIP shared its PPFP/PPIUCD experiences in national and international for a, demonstrating MCHIP's technical leadership in this area and helping to convince the FMOH to incorporate MCHIP's PPIUCD training package (adapted from the Access to Maternal and Newborn Health Program (ACCESS) into the national FP training package. MCHIP has created fertile ground for scale-up of quality PPFP/PPIUCD services in Ethiopia.

MCHIP was asked to support pre-service midwifery education nationally and in selected regional health science colleges. Nationally, MCHIP significantly contributed to the development of the curriculum for a new Accelerated Midwifery Education Program, a diploma-level program launched to address the national shortfall of midwives. MCHIP adapted the SBM-R approach to improve the quality of the education in 10 regional health science colleges and updated the existing educational standards for midwifery. MCHIP then built capacity of instructors to improve the quality of instruction with teaching skills and knowledge update courses. Skills labs were strengthened and equipped with anatomic simulation models and improving libraries with up to date national guidelines and resources. The overall support contributed to increasing the success rate of midwifery students in the national competency exam. The combined average exam pass of midwifery students from the supported schools

MCHIP's Gender Approach:

- Integrated culturally appropriate respectful maternity care in routine MNH services
- Improved male involvement in MNH care through PMTCT services; 14,950 (35.1%) of women were tested and received their results with their partners

⁷ Baseline data for ENC were not gathered; this is an observation from supportive supervision.

increased from 40.3% (highest 56%; lowest 25%) in 2011 to an average exam pass of 54.6% (highest 67%; lowest 47.6%) at the end of 2012. In 2012-2013 MCHIP transferred its education efforts to the USAID funded Strengthening Human Resources for Health project that encompasses all midwifery schools in Ethiopia.

IR 3: Caretakers' knowledge and behaviors on key MNH/Postpartum/FP/PMTCT household and care-seeking behavior

Given that most deliveries take place at home in Ethiopia, MCHIP and the FMOH assessed the feasibility of introducing Community Kangaroo Mother Care (CKMC) to mothers to initiate CKMC in their homes using the HEW and HDA volunteers. MCHIP followed this with implementation in 2012 in communities surrounding 89 selected health posts in all four supported regions through 174 trained HEWs and more than 13,000 HDA volunteers. As a result 5,022 newborns were kept in KMC position (79% of the total deliveries reported by HEWs) over the life of MCHIP. A systematic evaluation of the program indicated that CKMC can be practiced by postpartum mothers at home with the support of HEWs and HDA volunteers.

MCHIP supported 29 woredas/districts in Oromia and later five woredas in Afar regions through trained HEWs and other health workers. To sustain the program, HEW supervisors, health workers and woreda health officers were trained as iCCM supervisors. In Oromia, the quality performance of HEWs in assessing, classifying, and treating significantly increased in the second round of the iCCM Performance Review and Clinical Mentoring Meeting (PRCMM), 80% compared to the first 64%. Similarly, in Afar, quality performance improved from 84% in the first round to 96% in the second round. MCHIP's iCCM program was the first iCCM intervention in the pastoralist region of Afar which initially presented a challenge in introducing the program. The service was gradually introduced through awareness creation events organized with the local authorities and community leaders.

WAY FORWARD

- Facilities' efforts to provide RMC are appreciated by women and are felt to contribute to the increases in facility births. At policy level the FMOH should incorporate RMC as standard in the MNH care and educate communities about the importance of and improvements to facility-based care using existing HEW and HDA networks.
- The FMOH should pursue the finalization of the National Comprehensive Health Service Quality Management Manual. A national tool will support the integration of quality in MNH, and will be applicable to both hospitals and health centers and owned in the health system.
- The EMA needs to continue strengthening its management capacity while maintaining appropriate representation in key stakeholder discussions to play a greater advisory role
- The woreda-based blanket coverage of facility support initiated under MCHIP created more opportunities for cross-learning among facilities that were close to each other geographically, leveraged resources, and enhanced synergies. Coordination among partners is crucial to avoid duplication of efforts and where feasible, to work together in a harmonized effort.
- Health offices can improve outcomes of PMTCT services by using the "enhanced and integrated support" approach. Moreover for sustained results in PMTCT, MCHIP strongly recommends better coordination mechanisms among the FMOH, RHB, and the pharmaceutical supplies agency (PFSA).
- From MCHIP's FP program experience, there is a demand for PPIUCD and the FMOH should consider expanding PPF and PPIUCD services using the platform created by MCHIP.

- Future newborn care programs must complement community-based newborn care. A recent government priority includes community-based newborn sepsis management, and use of chlorhexidine gel for cord care. These practices should be integrated with community-based newborn care programs, as well as the inclusion of the rotavirus vaccine and zinc tablets into infant and child survival strategies, and antenatal corticosteroids for preterm birth at facilities.
- Results of the CKMC evaluation of CKMC show that CKMC can be practiced by postpartum mothers at home with the help of HEWs and HDAs. MCHIP recommends scale-up by integrating CKMC in the counseling package of these cadres.

MCHIP Country Brief: Ghana



Selected Health and Demographic Data for Ghana	
Maternal mortality ratio (deaths/100,000 live births)	450
Neonatal mortality rate (deaths/1,000 live births)	30
Under-5 mortality rate (deaths/1,000 live births)	80
Infant mortality rate (deaths/1,000 live births)	50
Contraceptive prevalence rate	34
Total fertility rate	4.0
Skilled birth attendant coverage	68%
Antenatal care, 4+ visits	87%
Sources: *World Bank 2012; **UNICEF; ***2008 Demographic and Health Survey; ****UNAIDS; ^WHO.	

Health Areas:

- HIV/AIDS
- Malaria
- Maternal Health
- Child Health
- Nutrition



Program Dates	October 1, 2009–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of regions	100%	No. of districts	N/A	No. of health education schools	61
Country and HQ Contacts	Country Director, Chantelle Allen, Senior Technical Advisor, Catherine Carr, Senior Program Officer, Heather Harrison, Senior Program Coordinator. Gahan Furlane					

INTRODUCTION

In order to meet Millennium Development Goals (MDGs) 4 and 5, the government of Ghana prioritized increasing the number of midwives to ensure that all births are attended by skilled providers. To meet this objective, the government opened 15 additional midwifery schools between 2010 and 2014 to train more skilled providers. Student numbers also increased from as low as 50 students per school per year to as many as 250 students in some schools.

Unfortunately, in some schools the required infrastructure and qualified tutors to support quality education for the increased number of students were not in place. For example, in one school the tutor-to-student ratio is 1:126. This shortage has contributed to poor performance by student midwives at licensure examinations.



The Ministry of Health is prioritizing training greater numbers of midwives.

Starting in 2010, MCHIP was invited by the U.S. Agency for International Development (USAID) to support the government of Ghana in enhancing quality improvement at all pre-service midwifery institutions. During the five years of implementation in Ghana, MCHIP, in close collaboration with the Human Resource for Health Development Unit (HRHD) of the Ministry of Health (MOH) of Ghana, and the National Programs of the Ghana Health Services (GHS), improved the quality of health education in 61 nursing and midwifery schools through the following initiatives: training tutors and preceptors in HIV, malaria, tuberculosis (TB), family planning (FP), basic emergency obstetric and neonatal care (BEmONC), neonatal resuscitation, and nutrition; and providing follow-up, on-site, and innovative mobile mentoring (mMentoring) to ensure retention of competencies.

KEY ACHIEVEMENTS

Table 1. Number of Tutors and Preceptors Who Participated in MCHIP Trainings and Technical Updates by Type of Training and Year

Technical Area	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Program Year 6	Total
	13 schools	13 schools	38 schools (6 target midwifery for BEmONC)	40 schools (6 target midwifery for BEmONC ¹)	61 schools (includes 21 general nursing schools)	
Postpartum family planning (PPFP) and FP/postabortion care (PAC)	74	80				154
FP		80		82		162
Malaria		80		82	21	183
HIV/AIDS		80		82	28	190
BEmONC			24	42		66
Helping Babies Breathe (HBB)		20	63			83
Nutrition				132		132

¹ Ashanti-Mampong, Goaso, Jirapa, Pramso, Hohoe, and Twifo Praso.

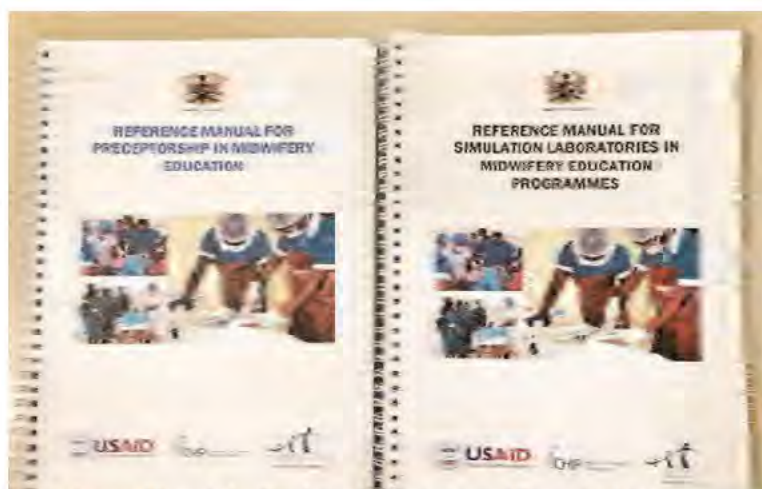
"The training in postpartum family planning has helped us a lot. We now know the right family planning information to give to our clients from antenatal care onwards. In my facility it has been established that family planning information is given to clients irrespective of where they are seen at the facility. It has been integrated in the services that we provide including the outpatient department where sick babies, children and adults are seen."

-Constance Serwah Peprah, a midwife from
Nsoatre Health Centre

As MCHIP's work in Ghana began to expand from introducing postpartum family planning (PPFP) at 13 schools in 2010 to covering six technical areas at 61 schools and related clinical training sites in 2014, MCHIP was obliged to find more efficient and effective ways to deliver traditional on-site training and coaching/mentoring visits. In collaboration with HRHD and GHS, MCHIP implemented and tested two new strategies, mMentoring and eLearning. Both of these promising strategies are important tools that MCHIP has left with the government of Ghana to support ongoing learning.

Over the course of the project, MCHIP, with GHS and HRHD, has also played a key role in developing and updating a number of much-needed tools that will be used in all midwifery schools, including:

- Performance standards for teaching content in midwifery, public health, and community health nursing training schools in PPFP, HIV, malaria, TB, FP, newborn resuscitation (HBB), and nutrition
- Development and publication of the *Reference Manual for Simulation Laboratories in Midwifery Education Programmes*
- Development and publication of the *Reference Manual for Preceptorship in Midwifery Education*
- Strategic inputs into the curriculum revision process of the Nursing and Midwives Council (NMC) of Ghana, ensuring that the technical updates implemented are sustained



The Reference Manuals for Simulation Laboratories and Preceptorship were developed jointly with the MOH.

Overall, the implementation of the MCHIP program progressed well as a result of strong collaboration with the Ghana Health Service and the HRHD unit of the MOH. Based on the lessons learned from the MCHIP initiatives as well as the Ghanaian priorities, midwifery education should continue to be a focus. This will ensure that the momentum and work that MCHIP, in collaboration with the MOH, has done to improve the teaching and technical competencies of tutors and preceptors in technical domains is maintained so that the number of quality midwives who graduate increases. These improvements include:

- Strengthening skills labs (provision of needed resources) at new schools
- Supporting the integration and utilization of skills labs into teaching calendars and structure
- Increasing support to preceptors and clinical care sites to ensure standardization of practice

- Continuing to scale up eLearning to new schools and develop new content;
- Emphasizing effective teaching skills in addition to updated technical work with the MOH to scale up mMentoring, not only for use after clinical training, but also for supervision and support

WAY FORWARD

Based on lessons learned and Ghana priorities, midwifery education should continue to be a focus to ensure that the momentum and work that MCHIP and MOH/HRHD have done together to improve the teaching and technical competencies of the tutors and preceptors in technical domains is maintained. Specific recommendations include:

- **Improve skills labs:** All midwifery schools in Ghana need at least a minimum package of models and teaching materials as outlined in the *Standardized Skills Lab Reference Manual* produced by MCHIP. This is essential to provide students with the opportunity to gain competence before practicing on patients. The MOH requires support to roll out this standardized package to all schools.
- **Support the integration and utilization of skills labs into teaching calendars and structure:** Once all schools have the models and teaching equipment that they need, it is recommended that tutors are supported to develop an integrated teaching approach to incorporate practice into classroom learning. In addition, as the schools are so severely overcrowded, this requires particular thought to develop strategies to use smaller groups and peer supervision as there are insufficient tutors to manage practice sessions.
- **Increase support to preceptors and clinical sites:** As students learn new skills and become competent it is essential for them to practice in a clinical environment that reinforces what they have learned in the classroom. Using the *Preceptor Management Reference Manual* produced by MCHIP, this process needs to be strengthened to ensure that students receive adequate support and to ensure standardization of practice.
- **Scale-up eLearning:** Based on the positive response from the feasibility study, eLearning should be scaled up to all midwifery schools. In addition, additional methodologies such as smart phone-based learning needs to be explored and tested. This seems to be one of the most effective supportive approaches to provide standardized content to students and to enable self-study.



A tutor at Sekondi Midwifery School teaches a midwifery class



Effective Teaching Skills enables tutors to use diverse methods of learning with their students.

- **Update technical content work with MOH and NMC:** The Midwifery Procedure Manuals were last updated in early 2000 and these are in desperate need to be updated. The National Curriculum for Midwives has been updated twice already but these manuals used for teaching content and examinations remains out of date. This is causing problems in examinations for students as examiners sometimes use these manuals to set exam questions.
- **Scale up mMentoring for clinical training and supervision and support:** mMentoring was found to be highly appreciated and accepted in addition to enabling the maintenance of clinical competence in essential lifesaving skills. This very cost effective approach needs to be expanded to support supervision and management for both principals and tutors.

MCHIP leaves a legacy of competent tutors and preceptors, improved skills labs, and manuals that teach how to implement and manage skills labs and preceptorship programs. In addition, MCHIP has provided the necessary training materials to the MOH/HRHD and the NMC at national level and to the 61 schools with which the program worked so that they can continue to implement quality pre-service education over the long term.

MCHIP Country Brief: Guinea



Selected Health and Demographic Data for Guinea	
Maternal mortality ratio (deaths/100,000 live births)	724
Neonatal mortality rate (deaths/1,000 live births)	33
Under-5 mortality rate (deaths/1,000 live births)	123
Infant mortality rate (deaths/1,000 live births)	67
Contraceptive prevalence rate	7
Total fertility rate	5.1
Skilled birth attendant coverage	45%
Antenatal care, 4+ visits	57%
Sources: World Bank; Ministère Plan 2012; DHSIV.	

Health Areas:

- Family Planning
- Maternal Health
- Newborn Health
- Child Health
- HIV/AIDS
- Malaria



Program Dates	October 2010–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	50%	No. of districts	20	No. of facilities	234
Country and HQ Contacts	Prof. Yolande Hyjazi; Gassim Cisse; Rachel Waxman; Bethany Arnold; Tsigué Pleah; Blami Dao; Serge Raharison; Winifride Mwebesa					

INTRODUCTION

In Guinea, the maternal mortality ratio is one of the highest in the world, reported to be 724 deaths per 100,000 live births.¹ This high rate is due in part to very low use of modern contraceptive methods, with only 7.0% of women aged 15–49 using a modern method, and continued high fertility of 5.1 total births per woman in 2012.^{2,3} Unmet need for family planning (FP) is estimated at 24%, lower than many countries in the West Africa region, yet the demand for postabortion care remains high. The leading cause of maternal deaths is postpartum hemorrhage (PPH), mostly due to a lack of quality maternity services that are adequately prepared to respond to emergencies, referred to as emergency obstetric and newborn care (EmONC). In countries such as Guinea where malaria is endemic, malaria is a significant cause of morbidity and mortality for pregnant women and children under the age of five. In Guinea the infant mortality rate was 67 deaths per 1,000 live births in 2012 and the child mortality rate among children under the age of five was 123 deaths per 1,000 live births.

In 2010, the Maternal and Child Health Integrated Program (MCHIP) began working in Guinea to strengthen the integration of FP with maternal, newborn, and child health and to strengthen the continuum of care from the community to the health center to the hospital. MCHIP has engaged with the Ministry of Health and stakeholders at the national level to maintain up-to-date health policies and national guidelines, and to support strengthening the national health management information system (HMIS). The geographic focus of MCHIP's work has reached all intervention areas of the United States Agency for International Development, including the five communes of the capital Conakry and the 15 prefectures of the three eastern regions of Faranah, N'zerekore, and Kankan. MCHIP's interventions cover a population of 6.4 million, 234 facilities, and 1,700 villages.

Starting with a focus on family planning and quality improvement in the first year of activities, MCHIP/Guinea greatly expanded its scope of work and reach in the second year to include, among others: comprehensive EmONC, management of the sick child, pre-service education at the national midwifery school, malaria prevention and treatment, prevention of mother-to-child transmission of HIV (PMTCT), and gender-based violence.

KEY ACHIEVEMENTS

Family planning interventions have focused on expanding the method mix to include long-acting reversible and permanent methods and ensuring that women are better able to access and select a method that meets their needs. Particular attention was given to linking FP to postpartum and postabortion care (PAC) as entry points to promote healthy timing and spacing of births and the avoidance of unwanted pregnancies. By the end of MCHIP, 110 facilities offered implants (Jadelle), 125 offered interval IUDs, 110 facilities provided counseling to pregnant women on postpartum FP options, 34 facilities offered postpartum IUDs in the maternity ward, and 20 MCHIP-supported facilities offered laparoscopic tubal ligation. The provision of these services is the result of the training of:

- 502 providers on different long-acting FP methods,
- 332 providers in counseling for postpartum care and PAC, and

¹ Institut National de la Statistique (INS) et ICF International. 2013. *Enquête Démographique et de Santé et à Indicateurs Multiples de Guinée (EDS-MICS 2012)*. Calverton, MD, USA: INS and ICF International.

² Ibid. Total fertility rate represents the number of children who would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.

³ UNFPA. 2014. *State of the World Population 2013: Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy*. New York: UNFPA. <http://www.unfpa.org/webdav/site/global/shared/swp2013/EN-SWOP2013-final.pdf>.

- 1,130 community health workers on an integrated package of FP/reproductive health/maternal, newborn, and child health messages to accompany community-based distribution of short-acting methods (pill and condoms).

The training was accompanied by site strengthening activities such as provision of instrument kits and communication and data collection materials; quality improvement using the Standards-Based Management and Recognition (SBM-R) approach; and supportive supervision. MCHIP also developed a pool of 35 trainers and 64 community health worker (CHW) supervisors capable of providing ongoing training and supervision of FP services in facilities and in communities. As a result of MCHIP's support for FP service expansion and quality improvement, HMIS data collected by the project have shown steady increases in:

- The number of women receiving counseling as part of PAC or postpartum services
- The number of women adopting a modern method
- PAC and postpartum services
- New and continuing FP users
- Couple-years of protection

Long-acting and reversible contraception, as a proportion of all methods distributed, increased steadily from 10.5% in the first semester of 2013, to 11% in the third quarter, 15% in the fourth quarter, and 16.6% and 17.2% respectively in the first two quarters of 2014.

Service Delivery Indicators for FP Services by Fiscal Year: 2011–2014

INDICATORS	2011	2012	2013	2014 (SIX MONTHS)
Number of new acceptors of modern contraceptive methods	7,107	176,281	197,222	96,418
Number of continuing users of FP methods	—	153,677	131,620	84,370
Couple-years of protection	10,759	66,858	116,032	66,871

Maternal and newborn health interventions have focused on quality improvement and comprehensive EmONC in particular, and, in 2013, expanded to include PMTCT. Eighty-three providers from 20 facilities were trained and updated on clinical skills for comprehensive EmONC and a total of 48 facilities are implementing performance standards for EmONC as part of SBM-R. Training was again accompanied by technical support for the development and updating of training materials, job aids and performance standards, support for site strengthening through the provision of key materials and instruments, including locally fabricated delivery tables and privacy screens, as well as supportive supervision. To support sustainability, 17 trainers in teams of three to four were qualified to provide EmONC clinical training and supervision, an additional 34 trainers were qualified for focused antenatal care, and 22 trainers were qualified to support improved infection prevention practices. As a result of these activities, consistent use of key clinical actions during labor and delivery has improved, including active management of third stage labor, use of the partograph to monitor labor, management of pre-eclampsia and eclampsia using magnesium sulfate, and essential newborn care. An analysis of 16 initial SBM-R facilities showed a decline in postpartum hemorrhage (2% to 1.5%) and post-operative/post-procedure infections (1.1% to 0.5% and 2% to 0%).

MCHIP/Guinea also conducted a pilot study of community-based distribution of misoprostol for PPH prevention, which is contributing to multi-country learning on operationalizing this intervention. A total of 31 health facilities and 219 providers were included in the

implementation in 5 sub-prefectures. CHWs and TBAs distributed misoprostol to 555 pregnant women. 43% of the women received the misoprostol through ANC and 57% received it from a CHW. Among the 555 women, 59% gave birth in a facility and 41% gave birth at home. All the women who delivered at home took the misoprostol as recommended.

Specific to PMTCT, MCHIP supported the PMTCT policy review for the adoption of the World Health Organization's option B+ in Guinea prior to the training of 20 providers from 10 facilities. MCHIP worked closely with UNICEF to quantify HIV testing and antiretroviral needs for the new services. In the first six months of PMTCT services, all women attending antenatal care received HIV counseling and testing (n=1,925) and a further 728 women received counseling and testing during labor or postpartum. All women who tested HIV-positive (n=30) received antiretroviral prophylaxis for PMTCT and were referred for ongoing care.

Child health interventions were initiated in 2012 to strengthen the availability and quality of care for sick children. Particular emphasis was given to promotion of the revised and shortened training program of integrated management of newborn and child illness (IMNCI), including developing country-level experience with integrated community case management (iCCM). Working in a pilot area of 20 facilities and their surrounding communities, 38 providers and 101 CHWs were trained and supported to implement the updated package of facility and community interventions.

Facilities were provided with supplies, job aids, and revised registers and record-keeping tools. CHWs were provided a kit of supplies, initial stocks of medications, and communication and record-keeping tools for community-based services. In the 18 months following the trainings, more than 20,000 sick children were treated using updated protocols (91% in health facilities). Performance standards for IMNCI were also developed and introduced in three of the pilot facilities, which expanded the use of SBM-R as a quality improvement tool across multiple technical domains.



CHW uses the updated protocol to assess a child's health.

Community health interventions were implemented to improve access to quality health services and health information in rural and urban communities to contribute to a reduction in maternal and child mortality in Guinea. CHWs in Guinea provide a package of services, approved by the Ministry of Health and focused on health promotion messages, including maternal, neonatal, and child health and family planning. They also offer non-prescription FP services and support the management of simple cases of the most common diseases in children under five years. MCHIP reinforced the skills of 1,092 existing CHWs through refresher training, supportive supervision, and provision of bicycles and other materials to support their work in the community. MCHIP also worked closely with the CHW supervisors to strengthen their capacity for supervision and monitoring. While most of the work in Guinea with CHWs was focused on reaching rural communities with health information and services, MCHIP also implemented innovative approaches to reach urban communities with health interventions through community organizations and through hair salons, training 241 community organizers and 58 new CHWs. MCHIP-supported CHWs conducted 103,805 group education sessions on FP, maternal and newborn health, and IMNCI over the four years of the project. In the final 18 months of activities, 74,346 group discussions reached 292,164 people. Community-distributed FP services contributed approximately one-third of all new and continuing users in MCHIP-supported zones.



MCHIP worked closely with the faculty at ENSK to improve education and training of health care providers in Guinea.

MCHIP supported **pre-service education (PSE)** interventions with the Faculty of Medicine in Conakry and the midwifery program at the National Public Health School in Kindia (ENSK). Activities included support for the development of skills labs where students can get hands-on experience using anatomic models and simulators, and training sessions for faculty and preceptors on effective teaching skills, student performance assessment, and clinical training and mentoring skills for maternal and newborn health. MCHIP worked closely with ENSK to revise the midwifery training curriculum in accordance with recommendations from West African Health Organization and the International Confederation of Midwives to ensure a competency-based approach to education. Quality improvement using SBM-R included adapting performance standards for PSE, training

faculty in the problem-solving methodology, completing a baseline assessment, and supporting ongoing follow-up. A review of action plans shows a positive evolution in performance along the five domains of theory, practice, evaluation, infrastructure, and management, with global performance improving from 11% to 67% of standards met between the baseline in December 2012 and January 2014.

Guinea became a focus country for the President's Malaria Initiative (PMI) in November 2011. MCHIP was asked to incorporate interventions to strengthen the prevention and treatment of malaria as part of its 2012 workplan. MCHIP provided technical and financial support for the revision of national policies and protocols for the prevention and treatment of malaria to include updated protocols on case confirmation using rapid diagnostic tests, intermittent preventive treatment of malaria for pregnant women, and communication messages. In PMI's four focus regions, 34 supervisors and trainers were updated as a means to train 136 providers and 102 CHWs using the updated training materials, job aids, and monitoring tools.

SBM-R is a quality improvement methodology developed by Jhpiego to address the need for ongoing attention to the quality of care. By developing an agreed-upon set of performance standards, providers, managers, and community stakeholders are better able to assess the status of health care services at any given time, develop action plans to address gaps, and recognize improvements between assessments. Over the life of the project, SBM-R was introduced in 48 MCHIP-supported facilities. The initial focus included standards for FP services, EmONC, and infection prevention, while additional standards were also adapted and integrated into selected facilities for the surgical and anesthesia skills required for comprehensive EmONC, PMTCT, IMNCI, and PSE. A total of 224 stakeholders, including providers, managers, and community representatives, were trained on SBM-R. To promote sustainability, six trainers were qualified to support SBM-R activities and a further 35 prefectural and regional supervisors were trained to support the process. The Ministry of Health has been highly supportive of this process, forming the National Recognition Committee, and included it in the national maternal mortality reduction strategy. By the end of the project, 16 facilities achieved recognition for consistent high performance,



A symbol of recognition was placed at the entrance of each facility that met consistent high performance of SBM-R standards.

while others were continuing to see progress and improvements. To address gaps in performance, facility teams successfully leveraged support from local partners as well as their own initiative to make improvements.

While **monitoring and evaluation** is a routine part of project management, MCHIP's efforts to improve data recording and reporting in MCHIP-supported facilities led to a request to support the updating of indicators and tools for the national HMIS. MCHIP's implementation of data quality assurance sampling methods also led to a request to train HMIS staff at all levels on the methodology.

Infection prevention was identified as one of the weakest elements of service delivery and therefore MCHIP developed targeted activities to reinforce trainers' and supervisors' capacity to model good infection prevention skills in conjunction with the National Department for Health and Public Hygiene.

MCHIP supported two initiatives to use mobile phone technology—**mHealth**—to strengthen health care service delivery. A network of 264 mobile phones was distributed to providers and managers to facilitate communications for referrals, stock management, coordination, and epidemiological surveillance, as well as colleague-to-colleague consultation. Over three years of operation, more than 120,000 calls were made. Initial costs for the network were Redacted
[REDACTED] The second initiative was a pilot using mobile phones to provide mentoring—**mMentoring**—to providers following training in place of an in-person supervision visit.

The USAID Guinea Mission successfully applied for incentive funding to address **gender-based violence reduction**. In collaboration with the American Bar Association, MCHIP initiated activities during the final project year to better understand the scope of the problem and what resources exist in order to prepare for a comprehensive intervention that addresses the health, social support and legal aspects of victims of GBV, as well as communications to increase community awareness and prevention efforts. MCHIP conducted a literature review to inform the situation analysis on GBV, developed a survey protocol for the situation analysis, designed data collection tools, selected and trained 15 interviewers and 5 supervisors. MCHIP also developed a 3-year workplan for work that will continue under another funding mechanism.

With all its activities and accomplishments, MCHIP/Guinea has contributed extensively to program learning in several domains of the global MCHIP program, including: integration of services for EmONC and postpartum FP; scale-up of integrated PAC and FP services; linking SBM-R performance improvement with health outcomes; operationalization of community-based distribution of misoprostol for PPH prevention; innovative community interventions to reach urban residents; implementation of the revised IMNCI/iCCM training model and updated protocols; and mHealth technology to support providers and increase access to health care.

WAY FORWARD

Over the course of three and half years, a number of important improvements were made in the provision and quality of health care services in USAID-supported regions. In order to continue to build on these gains, and assist the Ministry of Health of Guinea to continue to improve its capacity to lead and sustain quality services for the people of Guinea, it will be important for donors and partners to sustain their support. The Guinean health system is still very dependent on external assistance and gains can be quickly lost when support fluctuates and/or is accompanied by conflicting strategies and advice.

- The MOH should be encouraged and supported to continue to institutionalize SBM-R as a quality improvement process.
- The MOH should also be supported to strengthen and institutionalize its coordination and policy setting role in health care and public health in general.
- MOH and partners should be encouraged to make use of the national trainers that were trained by MCHIP in various technical areas and then in training skills. (See Annex 7 for the list of trainers by topic.) These national resources and the training materials adapted in collaboration with the MOH under MCHIP can serve to systematize in-service, continuing education efforts.
- **Family planning:** The integration of LARC into family planning services should continue, as well as continued integration of FP and maternal health services through postpartum family planning counseling and access to immediate postpartum methods (PPIUD, and implant if guidance changes). An expanded method mix and linking FP to ANC and maternity services increases the opportunities for women to find a method that suits their needs at a time when they interact with the health care system and may desire to space or limit future pregnancies.
- While FP methods posed a particular commodity challenge, the overall supply chain remains weak and ultimately FP commodities need to part of an integrated supply management system to effectively ensure that facilities and community health workers have the drugs and materials to offer the services that other resources are invested in for their education and training.
- **Maternal and newborn health:** The MOH and partners need to continue to identify opportunities to strengthen and perpetuate the capacity of the facilities providing Comprehensive EmONC and PMTCT services and the providers working there to respond effectively to urgent care needs of pregnant women and sick children.
- Continued support to the midwifery school at ENSK is another important way to ensure that student midwives are adequately prepared from the beginning of their careers to provide quality maternal and newborn care.
- **Misoprostol for prevention of postpartum hemorrhage:** CHW and ANC distribution of misoprostol for use at home births represents an important opportunity to put in place a practice that can save many women's lives. It will be important to support the
- MOH to extend the use of this medication at community level, by integrating its use into policy and norms and supporting the scale-up of its implementation.
- **Child health:** Lessons should continue to be gathered from the pilot of the updated IMNCI protocols and training in 20 sites.
- **Community health:** The extensive investment in training CHWs to date merits focused efforts to continue to support their work, ensure their work is properly recorded and reported, and to provide periodic refreshers and updates.
- **mHealth:** The mobile phone network is a promising approach to improve the connections between and communications among providers for multiple elements of health service delivery at a reasonable cost.

MCHIP Country Brief: Guyana



Health Areas:

- HIV/AIDS

Selected Health and Demographic Data for Guyana

Maternal mortality ratio (deaths/100,000 live births)	270
Neonatal mortality rate (deaths/1,000 live births)	19
Under-5 mortality rate (deaths/1,000 live births)	40
Infant mortality rate (deaths/1,000 live births)	38
Contraceptive prevalence rate	43%
Total fertility rate	2.8
Skilled birth attendant coverage	92%
Antenatal care, 4+ visits	78.5%

Sources: UNICEF; Guyana Demographic and Health Survey; WHO; World Bank.



Cervical Cancer
Screening
done here every
1st & 3rd Wednesday
of the month.

Program Dates	October 2010–September 2012					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	N/A	No. of regions	9	No. (%) of facilities	N/A
Country and HQ Contacts	Patricia Singh, Consultant; Patricia Taylor; John Varallo; Maureen Reinzel; Laura Goodman					

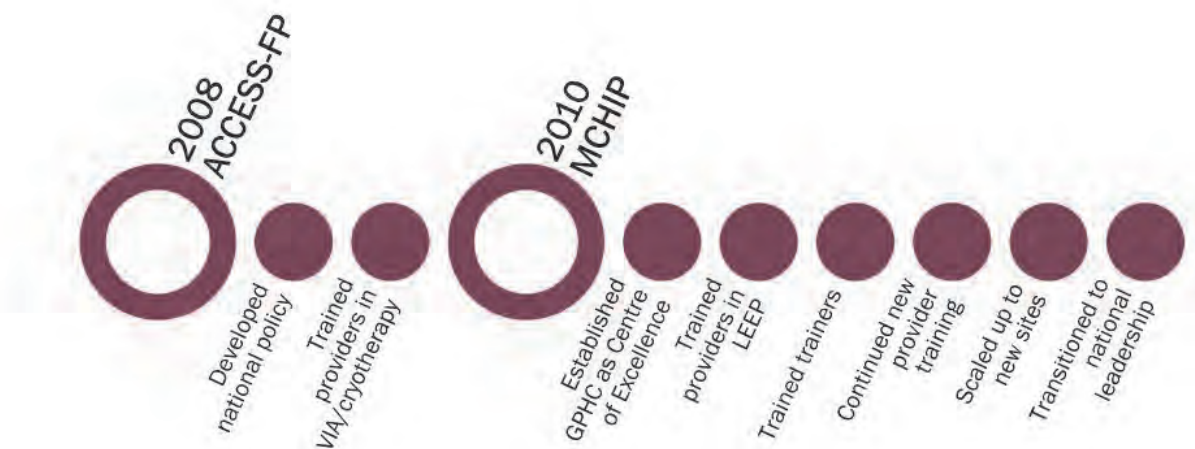
INTRODUCTION

The Maternal and Child Health Integrated Program (MCHIP) aims to assist in scaling up evidence-based, high-impact maternal, newborn, and child health interventions and thereby contribute to significant reductions in maternal and child mortality and hasten progress toward Millennium Development Goals (MDGs) 4 and 5. MCHIP is funded by the United States Agency for International Development (USAID).

In October of 2008, the ACCESS-FP Program, an Associate Award under USAID that preceded MCHIP, expanded and supported cervical cancer screening and treatment activities in Guyana. Building on the success of those efforts, MCHIP's program in Guyana began in October 2010 to scale up and strengthen cervical cancer prevention (CECAP) with a focus on HIV-positive women. MCHIP collaborated closely with the Georgetown Public Hospital Corporation (GPHC) and the Ministry of Health (MOH) to train providers in cervical cancer prevention, raise awareness of cervical cancer and preventative measures, and improve quality of CECAP care.

MCHIP established 18 CECAP service delivery sites across nine of 10 regions in Guyana, achieving nearly national geographic coverage. In addition, the MOH, in collaboration with MCHIP, developed and enacted a national cervical cancer prevention policy that dovetailed with MCHIP's strategy to reach all Guyanese women with cervical cancer prevention services. Following the passage of this national policy, MCHIP worked to rapidly expand CECAP service access. During the last year of the MCHIP program in Guyana, consolidation of gains, transfer of program responsibility to local stakeholders, and continued quality improvement became the priorities (see figure below).

Project Timeline and Major Milestones



Since the initiation of the MCHIP program in Guyana in 2010, MCHIP has arranged for the handover of project management to local partners. During the program, MCHIP provided technical assistance on the integration of CECAP into HIV/AIDS care and treatment and trained and updated providers in visual inspection with acetic acid (VIA) and cryotherapy.

KEY ACHIEVEMENTS

Integration of Guyana Cervical Prevention Project into National Program

The ultimate goal of the Guyana Cervical Cancer Prevention Project was to institutionalize a sustainable and effective national approach to cervical cancer prevention. MCHIP achieved this goal through its work with local partners to develop protocols for national CECAP implementation, which were formally adopted by the National AIDS Programme Secretariat.

Currently, new providers receive in-service training at GPHC, the established Centre of Excellence and Training Resource Centre. GPHC is working to incorporate VIA and cryotherapy into the curriculum of the new obstetrics and gynecology residency program and the pre-service medical education curriculum. MCHIP trained 11 master trainers, eight of whom will continue to provide training and supportive supervision through GPHC.

Integration of CECAP into HIV Treatment

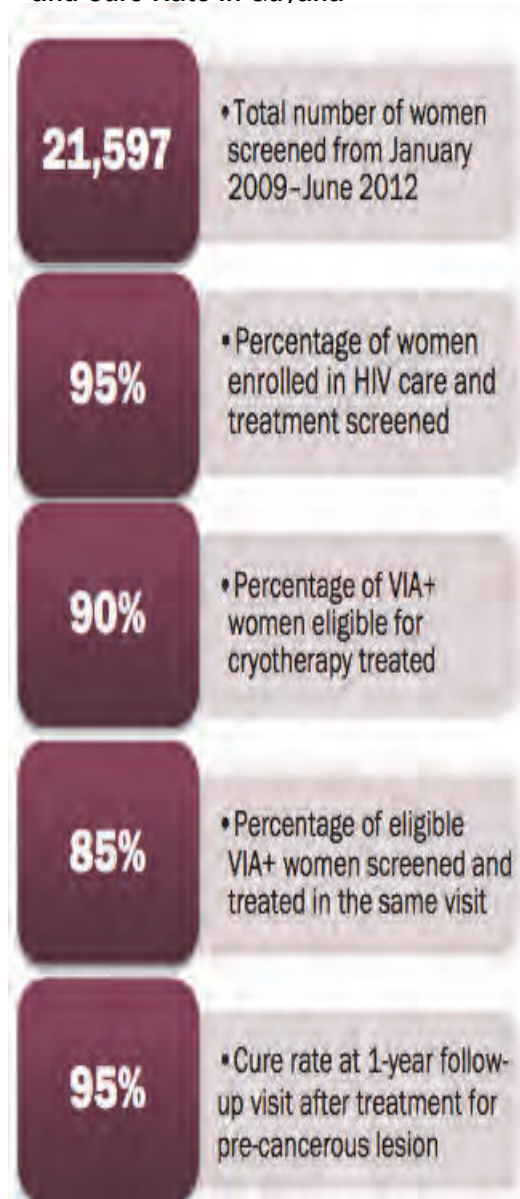
HIV-positive women are at the highest risk of developing cervical cancer. Between January of 2009 and June of 2012, the Guyana CECAP Project screened 95% of women enrolled in HIV care and treatment. In addition, the CECAP Project reached 17% of all women aged 25–49 countrywide with at least one cervical cancer screening. In total, the CECAP Project screened 21,597 women and helped identify 2,806 (13%) VIA-positive cases.

To document cure rates, the CECAP Project also tracked one-year follow-up results for women who received a VIA-positive diagnosis and had treatment. Most patients received a client card with follow-up instructions. The cure rate at one year was 95% (980); however, only 50% (1,027) of patients returned for this follow-up visit.

The Single Visit Approach (SVA)

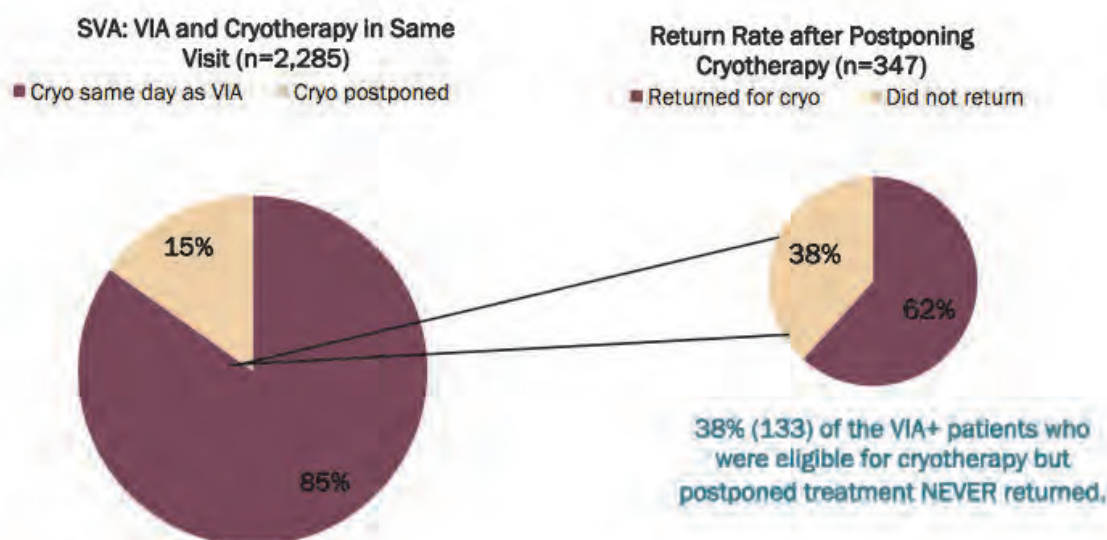
VIA provides immediate results, thus promoting the integration of screening and treatment. The SVA protocol for VIA testing followed by the immediate provision of cryotherapy for women with abnormal results mitigates loss to follow-up because no follow-up appointments are required. The SVA model increases program effectiveness, efficiency, and client satisfaction. Out of the 2,285 VIA-positive women found eligible for cryotherapy throughout the 42-month project period, 85% (1,938) were treated on the same day that they were screened (see figure below). At the GPHC VIA clinic, the flagship clinic in Guyana, the SVA rate was consistently near 100% throughout 2011 and 2012. Over the life of the project, of the 347 women who postponed cryotherapy, 214 (62%) returned for treatment. Improved counseling and tracking of women who postponed treatment increased the return rate from 49% in 2009 to 88% in 2012.

Cervical Cancer Screening, Treatment, and Cure Rate in Guyana



Over the life of the project, 64% of women referred for treatment of large lesions received loop electrosurgical excision procedure (LEEP) treatment. In Year 3, 71% of referred women received LEEP treatment. This increase was attributed to a rise in the number of trained LEEP providers, improved counseling and tracking, and better engagement with the GPHC Obstetrics and Gynecology Department. The overall treatment rate for VIA-positive women was 90% (2,405) over the life of the project. This rate improved from 83% in Year 2 to 98% in Year 3.

SVA and Return Rates



Increased Training and Improved Service Delivery

Beginning in 2010, MCHIP trained VIA and cryotherapy master trainers to ensure a sustainable source of quality education and supervision for new providers. The project also trained 71 providers in VIA, cryotherapy, and LEEP. At the end of the project, 69% of providers trained by MCHIP were still delivering services (see table).

Targeted provider selection was critical to provider retention. Although the sample size was relatively small, Medex, nurses, and midwives were more likely than doctors to continue to provide services once trained, as well as to remain in the country. Based on this evaluation, MCHIP recommended to the MOH that future in-service training focus primarily on increasing the number of Medex¹, nurses, and midwives trained.

Provider Retention: Guyana Providers Trained since 2009

PROVIDER TYPE	NUMBER TRAINED	NUMBER (%) STILL PROVIDING SERVICES AT END OF PROJECT
Doctor	30	16 (53%)
Medex	7	7 (100%)
Nurses/Midwives	34	26 (76%)
Total	71	49 (69%)
Trainers	11	8 (72%)

¹ Medex stands for medical extension workers, who are often trained midwives who receive additional training. Their role is to provide primary and secondary levels of care where doctors are not available.

Forty-seven percent of the screenings (10,127) were carried out at the GPHC VIA Clinic; other clinics screened between 24 and 2,159 women over the course of the project (average: 675 screenings/site). High-performance sites benefited from highly committed service providers, supportive facility leadership, consistent human resource availability, community awareness of services, and limited competing priorities. Sites that were unable to provide services consistently faced one or more of the following challenges: unexpected personnel changes, lower provider commitment, lack of support from facility leadership, inconsistent supplies, lack of consistently functioning equipment, and competing service delivery priorities.

Improving Facility-Level Use of Data

After each provider training session, clinicians were trained in data collection and use of data for decision-making. In 2010, each site was provided with a data tracking poster to facilitate visual performance tracking on key indicators. Providers used data to make decisions at the facility level to improve service delivery. Sites tracked their own results and were able to systematically brainstorm solutions to problems and improve their results.

The data collection tools MCHIP introduced at project sites built on the already prevalent use of log books and added client cards, a screening map to visually track the pre-cancerous lesions of VIA-positive women, a monthly summary form, and a collation and analysis tool in Microsoft Excel, along with the data tracking poster. Every month, data were reviewed by the project manager and Medex at GPHC and reported to MCHIP, which then provided feedback.

The availability of quality data allowed the project to track trends and contributed to program learning. Although not formally measured, the overall ability of providers to collect, analyze, and use data seemed to improve over the project period, which should have positively affected their service delivery activities.

During the course of the project, MCHIP staff collaborated on several efforts to expand knowledge about cervical cancer programming, using the lessons learned and results of the Guyana project. MCHIP also contributed to a multi-country analysis of CECAP among HIV-positive women.

In 2011, MCHIP conducted an evaluation of the project's implementation to determine its strengths and weaknesses and to identify any necessary course corrections for the project's final year. Results and recommendations for strengthening the national cervical cancer program were shared with USAID, the MOH, and GPHC.

WAY FORWARD

Although the trainers and providers voiced their commitment to continuing CECAP services, the maintenance of a truly national program requires national leadership. The MOH provided significant support during project implementation, but a change in the national government caused a leadership shift and administration changes in the MOH that may impact government priorities in the coming years.

MCHIP managed monitoring and evaluation (M&E) throughout the project. However, during the project's final two years, MCHIP encouraged the MOH to identify someone to take over responsibility for M&E to ensure that services continue to be delivered where and how they are needed. Unfortunately, the MOH plans for the national health information system to be changed. Consequently, M&E has not been fully integrated with the national M&E system.

A decline in the number of screenings in 2012 was noted and attributed to a combination of factors, including changes in administration at the MOH, the concurrent budget freeze, and a reduction in the number of short-term technical assistance visits from MCHIP headquarters. The MOH and GPHC also assumed a greater role in project management in Guyana, and their reduced budget and conflicting priorities may have contributed to the decline.

Based on the findings from the process evaluation conducted in 2011 as well as project monitoring in 2012, MCHIP presented the following recommendations to the MOH and GPHC at the project closeout presentation. These recommendations were also included in the final process evaluation report, copies of which were provided to the MOH and GPHC and are on file with MCHIP. Recommendations were as follows:

- In addition to the continued integration of CECAP into HIV counseling and testing services,
- look for opportunities to integrate CECAP into family planning and postpartum care
- Strengthen and coordinate awareness-raising efforts
- Consider modifying clinic schedules to meet client, provider, and facility needs
- Encourage individual sites to promote the program and conduct patient education
- Incorporate recommendations from remote sites and regions into communications plan
- Use monitoring and evaluation data to motivate providers and make informed programming decisions
- Monitor supplies more accurately to prevent shortages; quickly respond to equipment problems
- Strengthen the CECAP referral and treatment system
- Focus training on cadres with low rates of attrition
- Facilitate supportive supervision visits by trainers to ensure ongoing quality improvement.
- Integrate CECAP into pre-service education
- Develop a five-year CECAP strategy with an M&E plan

With the continued support of the Minister of Health and attention to the recommendations listed above, MCHIP believes that the national CECAP program will continue to be successful in reducing the incidence of cervical cancer in Guyana, especially among HIV+ women.

MCHIP Country Brief: India



Health Areas

- Maternal Health
- Newborn Health
- Child Health
- Family Planning
- Immunization

Selected Health and Demographic Data for India

Maternal mortality ratio (deaths/100,000 live births)	200
Neonatal mortality rate (deaths/1,000 live births)	32
Under-5 mortality rate (deaths/1,000 live births)	74
Infant mortality rate (deaths/1,000 live births)	57
Contraceptive prevalence rate	54.8%
Total fertility rate	2.7
Skilled birth attendant coverage	53%
Antenatal care, 4+ visits	51%

Sources: *World Bank; **WHO India statistics summary 2002–2012; ***UNICEF 2013.



Program Dates	October 1, 2009–August 30, 2014			
Total Mission Funding	Redacted			
Geographic Coverage	No. (%) of States	24%	No. of districts	92
Country and HQ Contacts	Bulbul Sood and Karan Singh Sagar (MCHIP Country Representatives); Team Leaders: Rajesh Singh (RMNCH+A), Somesh Kumar (PPFP/ PSE), Dr. Vijaya Kumar Mentey and Bhupendra Tripathi (Imm), Anju Puri and Pawan Pathak (Newborn); Patricia Taylor (Country Support Manager and RMNCH+A); Elaine Charurat and Anne Pfitzer (FP); Dr. Jeffrey Smith (MNH and PSE); Lora Shimp (Imm); Dr. Joseph de Graft-Johnson; and Rachel Taylor (Newborn)			

INTRODUCTION

Between 1990 and 2012, India's mortality rate in children less than five years of age declined by more than half (from 126 to 56/1,000 live births). The infant mortality rate also fell steadily (from 88 to 44 deaths per 1,000 live births).¹ The country's maternal mortality ratio also decreased by two-thirds during the last decade (from 370 to 190 per 100,000 live births), and the total fertility rate fell from 3 to 2.4 children per woman. Despite these improvements, at the current rate of decline in maternal mortality and under-five mortality, India will fall short of Millennium Development Goals 4 and 5. With a neonatal mortality rate (NMR) of 31 per 1,000 live births, newborn deaths account for about 55 percent of all child mortality, which is estimated at 56 per 1,000 live births.¹ Given the significant contribution of NMR to the under-five mortality rate, India must reduce newborn deaths if it is to achieve its Millennium Development Goal 4 target of 41 deaths per 1,000 live births. In addition, the major causes of maternal mortality in the country are preventable, and most of the births are inadequately spaced and happen too early in the life of the mother. To improve maternal and neonatal survival, there is an urgent need to focus efforts on healthy timing and spacing of pregnancy through family planning, as well as on the major causes of maternal and neonatal death.

In 2005, the Government of India (GOI) established the National Rural Health Mission (NRHM) with the goal of improving the quality of health centers and health providers and addressing barriers to the delivery of maternal, newborn, and child health (MNCH) services. By channeling funding to state and district health offices for priority programs (Janani Suraksha Yojana [JSY] or conditional cash transfers to encourage institutional births and uptake of, accredited social health activists [ASHAs], and others), NRHM has contributed to increasing institutional deliveries, expanding mechanisms for providing skilled attendance at births, increasing access to postpartum family planning (PPFP) services, strengthening routine immunization standards and services, and scaling up provider knowledge and best practices in newborn care and resuscitation, among others. Despite significant progress since the introduction of the NRHM and the strengthening of national programs (Universal Immunization Program, reproductive health, child health, other), there is still much that needs to be done along the continuum of care.

The goal of USAID's Maternal and Child Health Integrated Program (MCHIP) is to assist in scaling up evidence-based, high-impact MNCH interventions to contribute to significant reductions in maternal and child mortality. MCHIP has worked in India since 2009, with national, state, and district-level health departments and national programs as well as development partners to strengthen reproductive, maternal, and child health. The program built on lessons learned from four earlier USAID global technical assistance programs—IMMUNIZATIONbasics, ACCESS, ACCESS/FP, and Save the Children's Saving Newborn Lives. During its first three years, MCHIP India worked with a number of national programs to: (1) revitalize family planning, with an emphasis on PPFP and increasing contraceptive choice by expanding access to postpartum intrauterine contraceptive device (PPIUCD) insertion; (2) reform and strengthen pre-service education for nurses and midwives working through the India Nursing Council; (3) strengthen routine immunization services and support national disease control efforts and the introduction of new vaccines by working with the Universal Immunization Program, and (4) strengthen the national Navjaat Shishu Suraksha Karyakram (National Newborn Care and Resuscitation Initiative, or NSSK) program and develop a package of interventions to improve care for newborns in government health facilities. Programmatic successes include dramatic improvements in access to PPFP in three USAID-supported states and in all districts of the six high-focus states where funding has been leveraged to expand PPFP and revitalize family planning; the establishment of a more robust nursing

¹ World Health Organization. Child Mortality Levels. <http://apps.who.int/gho/data/node.main.ChildMort-2?lang=en> (accessed May 8, 2014).

and midwifery education network, including the establishment of national and state nodal centers for nursing education; the development, demonstration, and rollout of national standards, capacity-building packages, job aids, and tools (best practices) to improve the coverage and quality of routine immunization and the introduction of new vaccines; and the establishment of demonstration sites for training in newborn care and resuscitation and cross-training in “best” immunization practices.

In Program Year 5, after co-hosting the Global Call to Action for Child Survival with USAID, UNICEF, and the Government of Ethiopia, the Government of India held its own National Summit on the Call to Action for Child Survival and launched a new National Reproductive, Maternal, Neonatal, Child and Adolescent Health (RMNCH+A) initiative. At USAID’s request, MCHIP served as the secretariat for the Call to Action Summit and then worked with the Ministry of Health and Family Welfare (MOHFW)/NRHM to develop and roll out a nationwide RMNCH+A initiative. In the following paragraphs, key achievements are summarized in relation to the RMNCH+A roll out and in each of the project’s programmatic priorities.

KEY ACHIEVEMENTS

Call to Action/RMNCH+A: Following the Global Call to Action co-convened by the United States, Ethiopia, and India in April 2012 in Washington, DC, MCHIP supported India’s National Summit on the Child Survival Call to Action in February 2013. The three-day meeting was attended by global experts, GOI officials, and representatives from state governments, the private sector, and nongovernmental and civil society organizations (NGOs and CSOs). The major conclusion of the conference was that, if the rate of decline in maternal and child



mortality is to be accelerated, India must take action across all life stages and should ensure continuum of care. The GOI launched *A Strategic Approach to Reproductive, Maternal, Newborn, Child and Adolescent Health* (the RMNCH+A initiative) at the National Call to Action Summit. Following that event, the *National Consultation on Intensification of Efforts in High Priority Districts for Improved Maternal and Child Health* was held in April 2013. The meeting was attended by representatives of the MOHFW and various development partners, including USAID, and discussions were held on (1) the roadmap for follow-up to the Global Call to Action, (2) the need for intensification of efforts in high-priority districts (those with a high burden of maternal and child mortality and morbidity), and (3) modalities and mechanisms for harmonizing partner technical assistance for integrated programming and monitoring.

Development partners, including USAID, UNICEF, and UNFPA, realized that they could play a significant role at the national, state, and district levels as the country accelerated the pace of implementation of interventions to reduce maternal, neonatal, infant, and under-five mortality. The partners recognized the need to establish a mechanism for harmonized support to national and state government efforts as they worked toward the Millennium Development and 12th Five-Year Plan Goals. They agreed to shift priorities so that they could commit to the RMNCH+A rollout. This was a paradigm shift toward direct coordination with Government of India and an emphasis on making an impact on policy based on evolving global evidence rather than small-scale, decentralized efforts.

The MOHFW identified 184 high-priority districts (HPDs) across 29 states for the rollout of the RMNCH+A initiative. Lead development agencies working in those states (USAID, the Bill and Melinda Gates Foundation, DFID, UNICEF, UNFPA, and NIPI) agreed to harmonize their efforts in the HPDs and provide technical assistance to state governments. USAID was mandated to support 33 HPDs in six states (Delhi, Haryana, Himachal Pradesh, Jharkhand, Punjab, and Uttarakhand) in the rollout of the strategy. Mechanisms at the national and state levels were put into place, with MCHIP support, including a national RMNCH+A unit and state RMNCH+A units, as well as state unified teams (SUTs).

Postpartum Family Planning: MCHIP India helped to revitalize PPFP, emphasizing intrauterine contraceptive devices for use in the immediate postpartum period (within 48 hours of delivery), and advocated for PPFP as a maternal and child health intervention through extensive work in training and advocacy. After experiencing the limitations of off-site training, the training process was improved using an innovative approach of training service providers onsite at their own facilities to rapidly saturate the facility with trained providers and hence institutionalize service delivery. Activities were implemented in 117 facilities across three states: Uttar Pradesh, Uttarakhand, and Jharkhand. Through this work, 645,000 women were counseled in PPFP, with 43,000 women accepting the PPIUCD as a method for spacing or limiting subsequent births. Strengthening the PPFP program with the introduction of the PPIUCD was a shift in the GOI's approach to promoting birth spacing, and the approach is being scaled up throughout the country, with more than 300,000 women provided PPIUCDs since its

introduction. Following the encouraging results of this intervention in the three MCHIP states, the Ministry of Health and Family Welfare decided to scale up the PPFP/PPIUCD services to all districts in the six high-focus states of India. The majority of the funds for this scale-up are being derived through the GOI National Health Mission program implementation

plans of these states. Technical assistance to support implementation in 247 districts of the six states (with a total population of 500 million) is being provided by multiple donors, including the Bill & Melinda Gates Foundation, the David & Lucile Packard Foundation, and the Norway-India Partnership Initiative (NIPI).

Status of PPIUCD Services in MCHIP States, 2010–2014

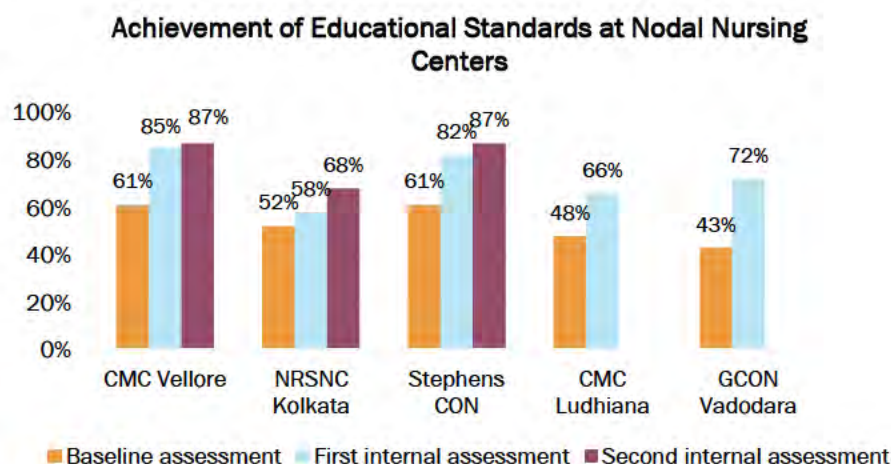


* Data till Feb-14

Nursing and Midwifery Pre-Service Education: As one step in strengthening pre-service education (PSE) for nurses and midwives, MCHIP India helped establish a robust and technically focused system, network, and approach for nursing and midwifery education strengthening, marked by the launch of the national nodal center (NNC) for nursing education in Kolkata, and provided technical assistance to four other new NNCs co-located at the country's premier nursing institutions. Each NNC was designed as a key demonstration and training site for the nursing faculty from the region. MCHIP has trained the faculty of 121 schools for auxiliary nurse-midwives and general nurse-midwives (ANMs and GNMs) at the NNC at Kolkata. At the request of the state governments, MCHIP facilitated the development of state nodal centers (SNCs) in Uttarakhand and Jharkhand; these SNCs were created to train the nursing faculty and provide mentorship to ANM/GNM schools within the states. This

approach was first taken up by the Government of Bihar, through support from NIPI, to strengthen PSE for the nursing and midwifery cadre in the state. Later, the MOHFW, the GOI, and the Indian Nursing Council (INC) decided to scale up this program model to all high-focus states and have earmarked funds

through the respective state program implementation plans (PIPs). NIPI and DFID are supporting this initiative in their respective focus states, which are a part of the 10 high-focus states. Replicating the approach used by MCHIP for establishing the SNC at Dehradun, Uttarakhand, Patna has established a similar SNC at the Indira Gandhi Institute of Medical Science, and 15 participants from ANM/GNM schools have been trained in the first six weeks of training at the SNC.

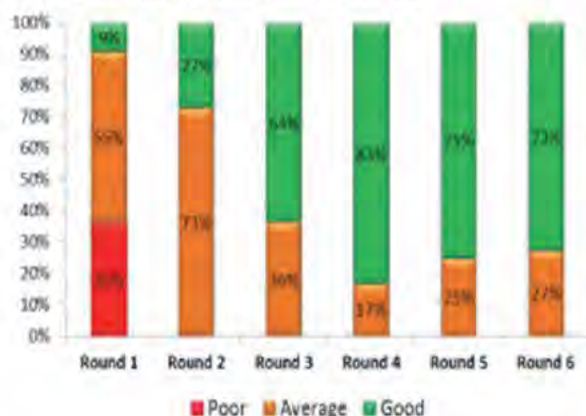


The approach pioneered by MCHIP was adopted by the MOHFW and INC to develop the “Operational Guidelines for Strengthening PSE for Nursing and Midwifery Cadre in India.” These guidelines provide a comprehensive roadmap that will help program managers, state nursing cells, faculty of the midwifery institutions, and other stakeholders strengthen pre-service nursing and midwifery education throughout the country, particularly in the high-focus states.

Immunization: MCHIP contributed to national-level immunization initiatives, including the Year of Routine Immunization Acceleration, measles campaigns, maternal and neonatal tetanus (MNT) state-level certifications, and the introduction of new and underutilized vaccines, including Hepatitis B, Measles 2nd dose and Pentavalent vaccine. In addition, MCHIP worked to build the capacity of the national and state governments and leverage GOI and development partner resources for immunization performance improvement through Regular Appraisal of Program Implementation in District (RAPID).

To achieve these goals, MCHIP worked in five low-performing districts to improve the coverage and quality of services, establish demonstration sites, and provide supportive supervision. Successful immunization initiatives have been taken to scale and adopted by state governments. Using the RAPID supportive supervision approach and tool at selected district facilities in Jharkhand and Uttar Pradesh, MCHIP India demonstrated progressive improvement in attainment of quality indicators. Sites in Jharkhand district improved from just 9% of quality indicators achieved in the first RAPID round, to 73% achieved by round six of the process. The approach has now been adapted and scaled up by governments in four states (Haryana, Jharkhand, Madhya Pradesh, and Orissa) and UNICEF in India’s largest state, Uttar Pradesh. RAPID is used not only as a quality improvement approach for routine

RAPID -- Grading of Health Facilities Based on Composite Scoring for Quality Indicators, Jharkhand



immunization but also for essential newborn care and resuscitation and, in the state of Haryana, to assess the quality of the full RMNCH+A package of care.

Newborn Care and Resuscitation: MCHIP

India helped to select and establish 10 newborn care demonstration sites in Jharkhand and Uttar Pradesh for district-level primary care provider training in newborn care (including the establishment of newborn care corners) as well as resuscitation techniques to reduce neonatal asphyxia. These sites are also used to provide innovative cross-learning opportunities for program managers and health providers from other states and non-MCHIP-supported facilities and districts. Through these efforts, MCHIP trained 1,551 NSSK trainers and health facility workers in essential newborn care/newborn resuscitation.



MCHIP staff member demonstrates correct use of resuscitator.

WAY FORWARD

Continued support to the RMNCH+A initiative should include ensuring effective implementation of key performance indicators/quality indicators and performance-based incentives under the RMNCH+A mandate; ensuring accomplishment of targets set by the GOI under RMNCH+A and the 12th Five-Year Plan; ensuring the availability of quality health services in urban areas; and institutionalizing the involvement of the private sector and CSOs to ensure saturation of services to all areas. USAID and other development partners should strongly advocate to take the RMNCH+A agenda forward and provide technical support to the new government to ensure that all components of RMNCH+A are effectively implemented across the HPDs. USAID and other development partners should orient the new government on evidence-based interventions and suggest corrections to the existing service delivery system and issues related to health systems, governance, and accountability.

Continue to scale up PPFP/PPIUCD services, especially to high-delivery load subdistrict-level facilities in states where services have been initiated; increase involvement of ASHA workers in educating clients and their families about PPFP/PPIUCD services during ANC and delivery periods; strengthen supportive supervision for family planning services; and incorporate PPFP services data into routine data reporting and review mechanisms.

To build on progress in strengthening PSE for nurses and midwives, continue to support the NNCs, SNCs, and ANM/GNM schools—including full recruitment of faculty and faculty capacity-building for ANM/GNM schools; national-level review of the progress in upgrading the ANM/GNM schools and establishing SNCs; and initiation of PSE strengthening activities, mentorship and support to ANM/GNM faculty, strengthening the teaching infrastructure, supporting students, improving clinical sites, and improving the regulation of educational quality.

Continued progress in India's immunization program calls for sustaining and expanding use of the RAPID supportive supervision process as a tool for continuous quality improvement of services at the district level; disseminating quality improvement protocols and best practices used at demonstration sites by continuing to present them at public health conferences and events and demonstrating them in the states; advocating for best practices to be scaled up by national and international governments and development partners; supporting establishment of demonstration sites in high-priority districts for continuous training and peer-to-peer

mentoring; and incorporating My Village, My Home data into routine reporting and data analysis to improve the tracking of infant vaccinations against the established schedules. MCHIP also recommends establishing demonstration sites for maternal and newborn care in all districts of the focus states, which can then be used for cross-learning for the remaining district facilities; strengthening linkages between communities and facilities; improving the referral system for stabilizing and managing sick newborns; institutionalizing Kangaroo Mother Care for low birth weight babies in facilities where deliveries are taking place and in all newborn stabilization units and SNCs; ensuring support to mothers to continue skin-to-skin care in the home; and institutionalizing newborn immunization before discharge.



Nurse prepares vaccine for an infant.

MCHIP Country Brief: Indonesia



Selected Health and Demographic Data for Indonesia	
Maternal mortality ratio (deaths/100,000 live births)	220
Neonatal mortality rate (deaths/1,000 live births)	15
Under-5 mortality rate (deaths/1,000 live births)	40
Infant mortality rate (deaths/1,000 live births)	32
Contraceptive prevalence rate	43
Total fertility rate	2.6
Skilled birth attendant coverage	79%
Antenatal care, 4+ visits	82%
Sources: World Bank 2012; Indonesia 2012 DHS; WHO.	

Health Areas:

- Family Planning
- Maternal Health
- Newborn Health
- Child Health



Program Dates	January 2010–December 2012					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	9%	No. of districts	3		20 centers/hospitals 185 midwiferies
Country and HQ Contacts	Dr. Wita Sari; Patricia Taylor; Presha Rajbhandari; Young-Mi Kim; Joseph De-Graft Johnson; Salim Sadruddin					

INTRODUCTION

The main goal of the Maternal and Child Health Integrated Program (MCHIP) in Indonesia was to facilitate the uptake of evidence-based and integrated maternal, newborn, and child health (MNCH) programs and policies at the district level. The USAID Mission in Indonesia bought into the global MCHIP mechanism in 2010, as a two-year program for US\$ 4.8 million that was later extended to three years for a total of US\$ 9.8 million.



In Indonesia, Jhpiego—with implementing partners Save the Children (SC) and John Snow, Inc., and a host of local institutions—collaborated with the Ministry of Health (MoH) and district health offices (DHOs) to design and implement a dynamic and innovative approach to providing technical assistance to the MNCH program in three selected program districts. Officially launched in June 2010, MCHIP served as the bridge between the two USAID MNCH bilaterals—Health Services Program (HSP) and Expanding Maternal and Neonatal Survival (EMAS)—as the former ended in 2010 and the latter was initiated in 2011.

When MCHIP started working in Indonesia, it still had one of the highest maternal and newborn mortality rates in Southeast Asia, despite significant development success. One of the explanations was that, at the central level, Indonesia has several evidence-based policies, materials, tools, and high-impact approaches developed, introduced, and endorsed by the MoH, yet few remote districts succeeded in implementing these policies. To address this gap, MCHIP was tasked with demonstrating how integrated, high-impact MNCH approaches can be scaled up throughout the remote districts. The MoH and MCHIP selected three districts that ranked low in the MoH composite index for development and community health—classified as “Health Problem Areas.”

Major Activities

- Postpartum hemorrhage (PPH)
- Pre-eclampsia/eclampsia (PE/E)
- Integrated postnatal care
- Handwashing for newborn survival
- Facility quality improvement
- Emergency obstetric and newborn care
- Essential newborn care (ENC)
- Newborn asphyxia
- Kangaroo Mother Care (KMC)
- Community case management (neonatal sepsis)
- Early initiation of and exclusive breastfeeding
- Maternal and perinatal audits
- Evidence-based maternal, newborn, and child health (MNCH) planning at all levels of health system

Program Target Population

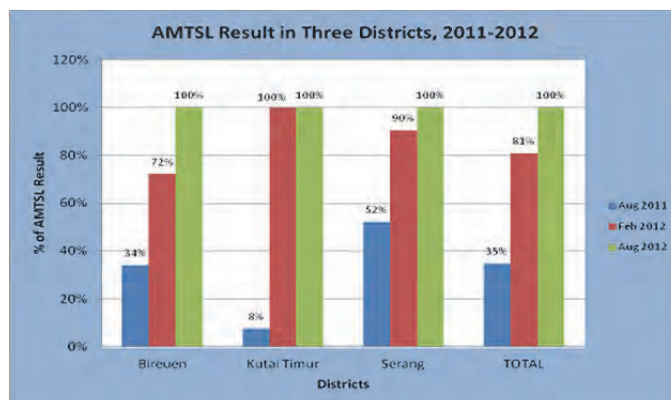
DISTRICT	TOTAL POPULATION	TOTAL NUMBER OF NEWBORNS	TOTAL NUMBER OF DELIVERIES	TOTAL NUMBER OF PREGNANT WOMEN	HIGH-RISK PREGNANT WOMEN	HIGH-RISK NEWBORNS
Bireuen	389,288	7,708	8,093	8,479	1,696	1,156
Serang	1,402,818	28,758	30,196	31,634	6,327	4,314
Kutal Timur	255,637	4,678	4,912	5,146	1,029	702
TOTAL	2,047,743	41,144	43,201	45,258	9,052	6,172

MCHIP facilitated the implementation of MoH-approved, community-based programs—such as health information classes for pregnant women and mothers, the Traditional Birth Attendant (TBA)-Midwife Partnership, and Handwashing with Soap (HWS)—in 17 sub-districts across the three districts. In addition to these MoH-approved programs, MCHIP also modeled new

programs such as Community Case Management (CCM) and Integrated Postnatal Care (IPNC). These community-based programs were designed to increase the demand for and awareness of key MNCH messages and services. Lessons learned from these community health programs were funneled up to the national level to enhance the national guidelines, policies, and job aids.

To meet the demand for MNCH services, MCHIP facilitated the strengthening of three district hospitals, 17 community health centers, and 185 midwifery practices using a quality improvement approach called Standards-Based Management and Recognition (SBM-R®).

All facilities and midwifery practices complied with 80% or more of the evidence-based MNCH standards. For the midwives who are frontline health care providers, lifesaving skills such as active management of the third stage of labor



(AMTSL), management of pre-eclampsia/eclampsia, and essential newborn care were reinforced through on-the-job training and supportive supervision. As a result, 100% (400) of the midwives observed showed compliance with standards in all three steps of AMTSL; the majority of women with severe pre-eclampsia and eclampsia cases at the community health centers received magnesium sulfate before referral; and at the three district hospitals, approximately 46% (302) of low birth weight (LBW) babies received Kangaroo Mother Care (KMC)—with 66% (199) of the LBW babies who received KMC showing an increase in weight.

MCHIP also facilitated strengthening of the district health management system. After political decentralization in 2001, the districts were provided the autonomy to lead and manage their health programs. However, districts lack the technical resources and management capacity to do so. MCHIP facilitated the rollout of the District Team Problem-Solving (DTPS) process to ensure evidence-based planning and budgeting for district-level programs. As a result, the districts saw an increase in the percentage of allocation in the total district budget toward MNCH. Maternal and perinatal audits to conduct verbal autopsies of 100% of the maternal and newborn deaths and review of selected cases, ranging from the community to the district level, were facilitated by MCHIP in all three districts. And finally, to ensure that the MNCH programs are sustained over time, MCHIP facilitated the development and adoption of 148 MNCH local laws and regulations.

To disseminate accomplishments of and lessons learned from the MCHIP districts in adopting the national MNCH programs, as well as to generate the interest of other districts and provinces, MCHIP facilitated a Mini-University in each of the three districts. Over 650 participants representing 42 districts were in attendance. The district teams included the head of the district, head of the district hospital, *Bappeda* staff, head of the DHO, and head of the Family Welfare Department of the DHO. Representatives from the MoH, USAID, and MCHIP target districts also attended. The district-level ownership was outstanding and clearly visible in all three MCHIP districts. The Mini-University was truly a showcase of the district's achievements and efforts, with districts tirelessly advocating for adoption of the programs. There was also strong participation from non-MCHIP districts. The districts were excited to hear about and learn from the MCHIP model district. They asked questions, expressed enthusiasm and commitment, and in some cases held strong discussions—sharing their own experiences related to why or why not the MCHIP model could be replicated in their area.

One of the goals of the Mini-University was to help establish commitment from the participating districts to implement similar MNCH programs in their districts. The

participating districts selected the MNCH programs they intend to implement using the following criteria: 1) district need; 2) availability of budget; and 3) availability of human resources. The districts also felt that if the program was deemed necessary, funds could be requested for implementation in the district's planning and budget cycle. MCHIP developed a package of tools and guidelines in support of program replication for non-MCHIP districts and set criteria for districts interested in MCHIP replication. All 42 participating districts selected programs for replication after the Mini-University, and 34 of these districts participated in training-of-facilitator events for at least one program intervention.

KEY ACHIEVEMENTS

Increased the actual number of deliveries assisted by skilled birth attendants by 28% and facility-based deliveries by 20% in MCHIP-assisted sites.

Increased the proportion of newborns who receive postnatal visits during the first week of life by 6% and mothers who receive postnatal visits during the first week postpartum by 10 %.

Decreased the proportion of births attended by TBA by 5% and increased the number of births attended by TBA-midwife partnerships by 14% in two of the three MCHIP-assisted sites.

Contributed to reaching an estimated 12,025 mothers and pregnant women with maternal and newborn health messages through the mother support group classes.

Provided on-the-job mentoring and/or training to a total of 5,335 providers and community health workers on various clinical and non-clinical skills related to maternal, newborn, and child health.

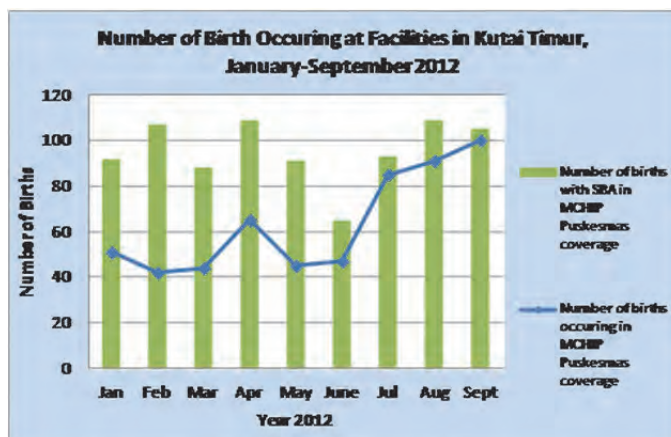
A total of 46% (302) of the low birth weight babies born received Kangaroo Mother Care, and 66% (199) of those who received KMC gained weight in the MCHIP-assisted sites.

Assisted all three MCHIP districts in submitting an allocation request for MNCH funding based on real need. In two of the three districts, allocation for MNCH, as a part of the MoH budget, increased by 12%.

Tested a new community case management (CCM) model for children 2 to 59 months of age (pneumonia and diarrhea) and infants less than 2 months of age (newborn sepsis) delivered by community midwives. In Bireuen and Kutai Timur, with training and support, the midwives were able to provide CCM services (identify, refer, and treat cases) in their communities. Lessons learned from these community health programs were funneled up to the national level to enhance the national guidelines, policies, and job aids.

Assisted the passage of laws and regulations in three MCHIP districts and 85% of the MCHIP villages. These laws represent the commitment of the local government to MNCH and may lead to sustained allocation of resources over time.

Conducted dissemination of the program findings and experiences in the form of Mini-Universities in three provinces and Jakarta. As a result of the dissemination, all 42 participating districts (100% of the districts in the three MCHIP provinces) showed interest in replication.



WAY FORWARD

Community members in general preferred that midwives, rather than community health workers, facilitate community classes, as midwives were trusted more. MCHIP developed a model for the village level classes in which the midwife *acted* as the supervisor and the community health worker *acted* as a facilitator, which was also accepted by the community. This model allowed the midwives more flexibility and an opportunity for the community health workers to be engaged.

Selection of community health workers should be well thought out. Midwives with strong supervision skills can support weak community health workers.

Monitoring and supervision of midwives and community health workers is essential. Monthly visits to the health facility and quarterly visits to the program site are recommended.

In areas with very small populations, midwives do not see enough deliveries to keep up their skills, and other methods must be used to ensure this.

Internship experience at the hospital for the community health center's Basic Emergency Obstetric and Newborn Care team is necessary to strengthen their skills.

A clear linkage between the Maternal and Perinatal Audit process is essential. Quality improvement and supportive supervision teams can be revised to address identified gaps.

Once the planning is complete, advocacy and development of local laws and regulations should be prioritized. This is often a challenge because of limited funds to finance these activities. Advocacy to ensure proper allocation is intensive and essential at every step in the planning process; the time needed to develop a law that remains consistent, despite changes in government, is longer than the one- to two-year program cycle. A "public figure" with access to executive and legislative teams should be nurtured as a MNCH advocate.

The process and time required to initiate, develop, and pass regulations were different in all three MCHIP districts, but equally complicated. MCHIP recommends a District Team Problem-Solving workshop as an orientation to MNCH for all parties before initiating the regulation development process. Commitment and involvement from other sectors are stronger when they are tasked with a specific deliverable.

MCHIP Country Brief: Kenya



Selected Health and Demographic Data for Kenya

Maternal mortality ratio (deaths/100,000 live births)	488
Neonatal mortality rate (deaths/1,000 live births)	31
Under-5 mortality rate (deaths/1,000 live births)	74
Infant mortality rate (deaths/1,000 live births)	52
Contraceptive prevalence rate	45.5
Total fertility rate	4.6
Skilled birth attendant coverage	43.8%
Antenatal care, 4+ visits	47.1%

Sources: *World Bank; **Kenya Population and Household Census, 2009; ***Kenya Demographic Health Survey, 2008–09.

Health Areas

- Nutrition
- Immunization
- Child health
- Maternal Health
- Newborn Health
- HIV/AIDS
- Malaria



Program Dates	October 2009–September 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of Counties	6%	No. of Sub-counties	3	No. of facilities	80
Country and HQ Contacts	Dr. Isaac Malonza, Kenya Country Director; Dr. Muthoni Magu-Kariuki, MCHIP Program Director; Nancy Koskei, Senior Program Advisor; Patricia Taylor, Country Support Team Leader; Natalie Hendler, Senior Program Officer; Lena Mutui, Senior Program Coordinator					

INTRODUCTION

Kenya has experienced tremendous development since 2000, including advancements in the economic, educational, and health sectors. Because of its strategic importance and motivated population, Kenya is a priority country for USAID's investments.

The most recent Kenya Demographic and Health Survey (KDHS), from 2008–09, saw some significant improvements in infant and child health but stagnation in the areas of maternal health and family planning as compared to the previous survey in 2003–04. For example, in 2003, the under-five mortality rate was 115/1,000 live births and the infant mortality rate (IMR) was 77/1,000 live births. By 2008, these figures had dropped to an under-five mortality rate of 74/1,000 and IMR of 52/1,000. Matching this were gains in coverage of key child health interventions such as treatment for acute respiratory infections (45.5% coverage in 2003 vs. 55.9% in 2008), use of oral rehydration therapy for treatment of diarrhea (50.6% in 2003 vs. 72% in 2008), and vaccination coverage of 3+ doses for diphtheria-pertussis-tetanus (72% in 2003 vs. 86% in 2008).

However, in maternal health there was little progress, as the maternal mortality ratio was measured at 414 per 100,000 live births in 2003 and 488 per 100,000 live births in 2008; this was not a statistically significant difference. In addition, skilled birth attendance increased minimally from 42% coverage in 2003 to 44% coverage in 2008, and antenatal care coverage for four or more visits actually decreased from 52.3% in 2003 to 47.1% in 2008. Family planning indicators saw similar sluggishness with the total fertility rate declining only from 4.9 in 2003 to 4.6 in 2008. Finally, the neonatal mortality rate—which is closely linked to maternal health—reduced slightly from 33/1,000 live births in 2003 to 31/1,000 in 2008. The next KDHS survey is currently under way in Kenya and the expectation is that there will be improvements in all areas.

Around the time that these data were emerging, the U.S. Agency for International Development (USAID)/Kenya began investing in large-scale, integrated health and HIV programs in different zones across the country, known as APHIAs (AIDS, Population and Health Integrated Assistance Programs). While these programs support service delivery and local governance within their respective zones, there was a need for national coordination and technical guidance. The Division of Family Health (DFH) under the Ministry of Health (MOH) made this request for support to USAID in 2009, and as a result, the MCHIP program was engaged to assist the DFH, and its divisions, to provide management, coordination, and technical leadership in maternal, newborn, and child health (MNCH) across the country.

Since 2009, MCHIP has built the management, supervision, information technology, monitoring and evaluation (M&E), institutional, and technical capacity of the divisions and strengthened the DFH's overall capacity to lead effective health programs countrywide. An element of technical leadership has also included supporting the DFH to demonstrate innovations and high-impact interventions in MNCH and develop strategies for scale-up. These demonstrations were implemented in selected districts of Bondo, Igembe North, and East Pokot. In 2012, MCHIP's role expanded to implementing activities in reproductive health (RH), malaria in pregnancy (MIP), infection prevention, maternal and newborn health, and HIV-related areas such as Prevention with Positives and



Nyamonye community unit: A CHW uses the FP/MIYCN counseling flip chart to counsel a young mother on family planning and MIYCN.

prevention of mother-to-child transmission (PMTCT). All strategies are geared to attaining four main objectives:

Objective 1: To strengthen the technical leadership, coordination, and management capacity of the DFH and its principal divisions.

Objective 2: To promote the scale-up of high-impact MNCH, family planning, nutrition, malaria, and HIV interventions and best practices through implementing partners.

Objective 3: To develop, test, and share promising innovations and best practices in scaling up high-impact MNCH, family planning, nutrition, malaria, and HIV-related interventions.

Objective 4: To improve RH, MNCH, FP, and FP indicators through implementation of the Community Strategy in the MCHIP demonstration districts.

Within these four main objectives, the MCHIP program has been working to attain 10 separate sub-objectives, which have guided and focused the program.

MCHIP Kenya Sub-Objectives

1. Strengthen technical and management capacity of the DFH
2. Address maternal, infant, and young child nutrition in high-priority areas
3. Increase immunization coverage for low-performing districts; introduce rotavirus vaccine
4. Address diarrhea and pneumonia in children
5. Improve the quality of maternal and newborn health and family planning services
6. Improve quality and uptake of PMTCT using an adapted Reaching Every District (RED) approach
7. Plan, coordinate, monitor, and implement malaria in pregnancy (MIP) interventions in Nyanza, Western, and Coast
8. Roll out Community Prevention with Positives (cPwP)
9. Promote infection prevention and control, including injection safety and medical waste management in the community
10. Scale up cervical cancer prevention and control (CECAP) interventions

KEY ACHIEVEMENTS

Organizational Capacity Building

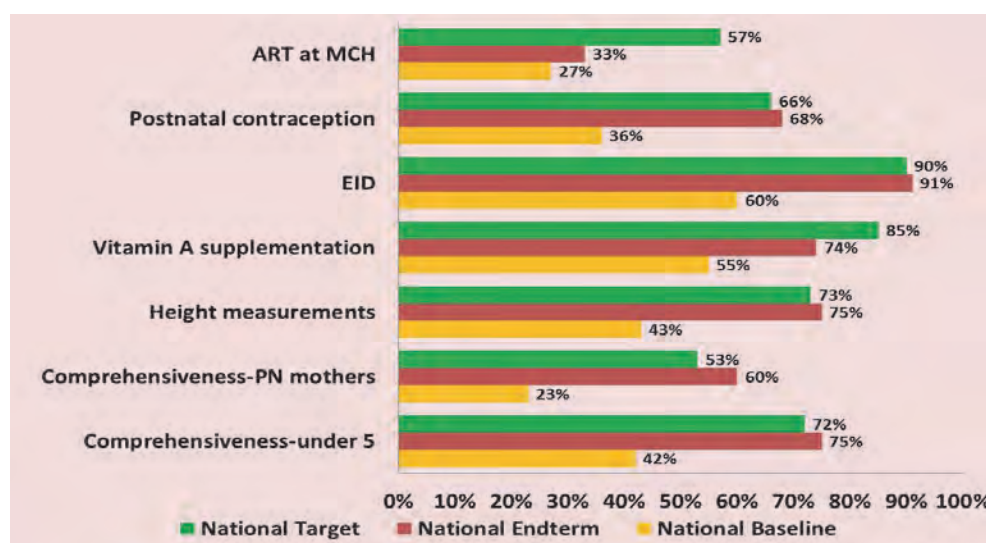
One of the key roles of the MCHIP program was to build the skills and capacity of the national-level MOH managers. MCHIP worked with the MOH to institute essential management strategies such as setting up regular, effectively run meetings; coordinating partners; and creating a more streamlined process for developing and reviewing policies, guidelines, and strategies. In particular, MCHIP was able to assist the DFH to functionalize Inter-Agency Coordinating Committees (ICCs) that led the process of endorsing and approving national documents such as the iCCM (integrated community case management) Operational Guide and the Maternal and Newborn Health Roadmap. In addition, MCHIP worked closely with Program Officers within DFH to improve their supportive supervision and training skills so that policies are implemented effectively. In collaboration with the Division of Child and Adolescent Health, MCHIP supported the revision, adoption, and launch of a new national vaccination policy that had stagnated for more than 10 years. This policy was complemented by the introduction of three new vaccines in Kenya—PCV-10 (Ten Valent Pneumococcal Conjugate Vaccine) to address pneumococcal disease; rotavirus vaccine, to prevent one of the leading causes of childhood diarrhea; and HPV vaccine, to eliminate one of the causes of cervical cancer. Furthermore, MCHIP supported the Division of Nutrition (DON) to develop an M&E framework for key nutrition indicators. After approval by the ICC, the M&E Framework was launched, resulting in tracking of exclusive breastfeeding until six months of age, tracking of fortification of maize flour and baby food, and tracking of management of breastfeeding complications, among others. MCHIP facilitated the compilation of evidence on community use of zinc, which led to a policy change moving zinc from prescription to over-the-counter availability. This means that

Community Health Workers (CHWs) are now able to provide zinc to children with diarrhea at the household level and scale up this evidence-based intervention. With MCHIP's technical assistance, the MOH now has an effective structure for managing health interventions at a national level.

Demonstrating Success in Service Delivery

MCHIP supported selected aspects of service delivery, mainly in its target districts of Bondo, Igembe North, and East Pokot, but also in other areas of the country as needs arose. For example, MCHIP worked in the 64 districts with high malaria endemicity to address MIP through intermittent preventive treatment in pregnancy (IPTp) with sulfadoxine-pyrimethamine (SP). MCHIP supported the Division of Malaria Control and the Division of Reproductive Health to update 5,759 service providers in IPT-SP—exceeding targets, with 117% coverage—from 1,165 facilities (94% of target). The facility work was complemented by updating CHWs on community MIP where pregnant women were registered and referred to antenatal care services. These inputs led to increased coverage of two doses of IPTp, measured as rising from 25% to 63% in one independently evaluated district. Another example of successful service delivery was supporting the MOH to use the rapid result initiative (RRI) approach to integrate HIV services at maternal and child health (MCH) clinics in 40 facilities. The RRI approach was focused on reducing missed opportunities for linking HIV and MCH services. Targets were set for indicators such as postnatal contraception, early infant diagnosis (EID) of HIV, vitamin A supplementation for newborns, and others. During the RRI interventions, MCHIP measured baseline provision of these services and endline provision. The facilities surpassed the targets for five out of the seven indicators, as shown below. For example, at baseline EID was being provided at a level of 60%. After the RRI, EID coverage was 91%, higher than the 90% target.

National Achievements on the MNCH RRI Indicators among 40 Health Facilities



Key: EID – Early Infant Diagnosis; ART – Antiretroviral Therapy; PN – Postnatal

Scaling Up through Partners

MCHIP developed strong relationships with all USAID-funded partners—including the APHIAPlus partnerships—as well as non-USAID partners. MCHIP linked the MOH with APHIAPlus programs to scale up selected interventions. In Eastern and North Eastern regions, MCHIP worked with APHIAPlus Kamili and Imarisha, respectively, to roll out essential newborn care (ENC) training. MCHIP supported the training of 45 APHIAPlus staff as mentors in ENC. These mentors then scaled up ENC training to more than 300 health workers. In addition to providing technical assistance, MCHIP also led the process of bringing partners together to tackle challenges. Seven districts were identified by the Division of Vaccines and Immunization as low-performing districts in terms of immunization coverage, with high numbers of unvaccinated children. MCHIP coordinated efforts with the United Nations Children’s Fund (UNICEF) and APHIAPlus to address these gaps. MCHIP supported the training on Reaching Every District (RED)¹ in each district while UNICEF and APHIAPlus provided the funds to implement the micro-plans developed. MCHIP then also provided technical support to follow up these plans. Due to these joint efforts, the seven districts recorded significant reductions in the numbers of unvaccinated children and, in 2012, five of the districts were weaned off of donor support.

Innovative Implementation Approaches

Finally, in the target districts, MCHIP demonstrated successful, innovative approaches to addressing MNCH, which included adapting strategies from one technical area to another, piloting and testing different models, and sharing its lessons learned with partners. The RED approach, which was so successful for vaccination coverage, was also adapted and applied to increase PMTCT coverage. Between 2010 and 2012, there was an increase in coverage of the district with CHW interventions from 38% to 100%. This led to marked improvements in the proportion of HIV-exposed infants getting tested at six weeks of age: 27% to 78%. MCHIP also tested a client referral model using HIV support groups in Bondo and Igembe East districts increase the numbers of people living with HIV/AIDS (PLWH) coming in for HIV care and treatment services.

This approach connected the support groups to the facilities and enabled PLWH peer educators to do referrals as well. To elevate levels of family planning use, MCHIP supported the Bondo Sub-County Health Management Team to roll out distribution of family planning commodities through CHWs. This was measured in April 2014, and preliminary findings show impressively high contraceptive prevalence rates of 64% among all women and 72% among married women. MCHIP worked with the DON to demonstrate the Baby Friendly Community Initiative (BFICI) in Bondo and Igembe North. The BFICI package implements interventions at primary care facilities and in the community to improve maternal nutrition, breastfeeding rates, and complementary feeding. Following the training, supervision, and support group activities in Bondo, new mothers had improved knowledge and skills in infant feeding practices. To address infection prevention and control (IPC) at health facilities, MCHIP pioneered the on-site, whole-site training approach. This approach facilitates practical exposure to IPC for everyone at the facility, which resulted in the development of plans and allocated collective responsibility for IPC at the facility. MCHIP shared

“There has been a threefold increase in enrolment into our HIV services in this health facility; we are seeing mothers referred by their partners to the PMTCT and MCH for HIV testing. We are also seeing index clients referring their sexual partners for testing and HIV care at our HIV comprehensive clinic.”

– HIV clinic nurse in-charge at Bondo district hospital, Siaya County

¹ RED is an operational strategy for reaching every child with vaccinations by: addressing planning and management of financial and human resources; extending services to target population; creating community links with the health facility; providing supportive supervision; and monitoring data.

these and other innovative approaches with APHIAPlus Kamili, APHIAPlus Nuru Ya Bonde, FHI 360, and African Medical Research Foundation partners during several learning field visits to Bondo over the course of the program.

WAY FORWARD

- Counties should scale up proven approaches and best practices: community strategy (stipends, outreaches, dialogue days), RED, and SBM-R.
- Counties should institutionalize proven community innovations.
- Adequate preparation of service providers to meet high demand for services is needed to:
 - Avoid frustrations to caregivers who come for the newly introduced vaccines and other vaccines but are turned away due to stock-outs or miscommunication (e.g., child too old); and
 - Enable catch-up with other vaccines and thereby reduce missed opportunities.
- There is a need for appropriate and well-scripted communication on target ages for vaccination when introducing a new vaccine.
- To benefit more children, donors such as GAVI should consider funding vaccines for the entire under-one year-old catch-up cohort.
- To advance equity in vaccination, there is a need to deliberately target populations not normally reached by immunization services.
- The RED approach is practical and effective in reducing the numbers of unvaccinated children but continued advocacy for and implementation of the RED approach at district level is important for sustainability.
- Community engagement, such as the use of village elders to create demand and track defaulters, is essential for success of fully immunized child (FIC) coverage.
- Innovations such as the use of tickler files, immunization diaries, and cell phone contacts complement CHVs' responsibilities of creating demand and following up on defaulting children.
- There is a need to maintain adequate vaccine supplies in order for the RED approach to succeed.
- New vaccine introduction provides an excellent opportunity to refresh health worker knowledge on vaccine management and to reach populations previously underserved by immunization services.
- Initial external funds to jumpstart the RED approach and local funds to sustain it are essential for its success.
- Effective MOH leadership and management are key at all stages of the planning and implementation of immunization to encourage ownership and sustainability.
- Continued updates to health workers through job aids, on-the-job training, refresher courses, and supportive supervision are essential, especially when a new vaccine is introduced.

National-Level Recommendations

- The National iCCM task force's M&E team must spearhead the achievement of the M&E plan's objectives in order to have meaningful measurement of progress in iCCM moving forward.
- A proper iCCM policy landscape analysis, which incorporates existing and new initiatives/thinking, is important to inform current and future debates/programming in iCCM and to identify new opportunities for future engagements.
- It is important to convene a national learning symposium to share the outcomes of the various researches that were done to provide evidence and guide future scale-up of ICCM.
- A national and sub-national iCCM scale-up plan is one of the key ingredients for Kenya as it plans for scale-up.

Sub-National Recommendations

- An environment where IMCI at facility level is strengthened among HCWs alongside community case management ensures that coverage of lifesaving interventions is improved.
- Mentorship for IMCI and iCCM are critical to skills and knowledge retention and hence quality of service delivery among the HCWs and CHWs.
- Kenya must embrace the community health strategy in order to make significant improvements in reducing serious morbidity.

MCHIP Country Brief: Kyrgyzstan



Selected Health and Demographic Data for Kyrgyzstan	
Maternal mortality ratio (deaths/100,000 live births)	75
Neonatal mortality rate (deaths/1,000 live births)	14
Under-5 mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	27
Contraceptive prevalence rate	36.3
Total fertility rate	3.6
Skilled birth attendant coverage	99.1%
Antenatal care, 4+ visits	3.6%
Sources: *WHO; **UNICEF. (2012)	
†UNICEF <5 mortality ranking (1 = highest mortality rate)	

Health Area:

- Immunization



Program Dates	July 2011–March 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Azamat Imakeev, MCHIP/Kyrgyzstan National Technical Officer; Kelli Cappelier, MCHIP Immunization Technical Manager					

INTRODUCTION

After a 2010 polio outbreak in Tajikistan, which resulted in the largest number of laboratory-confirmed cases in the world (458), the United States Agency for International Development (USAID) Central Asia Bureau requested technical assistance from the Maternal and Child Health Integrated Program (MCHIP) to assist with routine immunization (RI) system strengthening in Kyrgyzstan and Tajikistan. The goal of the MCHIP/Kyrgyzstan program was to ensure the eradication of polio and prevent future outbreaks of vaccine preventable diseases (VPDs) by: 1) improving Ministry of Health's (MoH) capacity for identifying risk factors and risk groups contributing to inadequate immunization coverage; and 2) promoting an integrated, public health approach for maintaining optimal immunization coverage at the Rayon (district) and community levels. The program provided national-level support to the MoH Republican Center for Immunoprophylaxis (RCI) and the Sokuluk rayon health authorities from July 2011 to March 2014. MCHIP/Kyrgyzstan achieved its goal by working within the existing health system at national, Oblast (region) Rayon, and health facility levels to better and more reliably monitor immunization services by identifying high-risk groups and by working more effectively with local community resources. MCHIP's impact was achieved in close partnership with the MoH, RCI, Sokuluk Rayon Center for Disease Prevention and Sanitary Epidemiological Surveillance (CDSES), Family Medical Center (FMC), Family Group Practices (FGPs), local nongovernmental organizations (NGOs), and the United States Peace Corps.

KEY ACHIEVEMENTS

Strengthened Community-Based Partnerships

MCHIP/Kyrgyzstan initiated a community-based, bottom up, quality improvement approach to more effectively work with communities and marginalized populations for increasing the uptake and use of vaccination services. MCHIP's simple and effective interventions resulted in strengthened partnerships between the health system and communities, which improved the quality of services provided. This was achieved by bringing together the curative sector and community partners with the Rayon SES by establishing an Initiative Group (IG) that was composed of 10 members from all levels of the health system, including representatives from the MoH/RCI, Health Promotion Unit (HPU), Village Health Committees (VHCs), and a United States Peace Corps Volunteer. The IG was established near Bishkek, in the Sokuluk rayon, one of the largest Rayons, with a population of about 160,000 people and the largest number of migrants.

MCHIP's approach emphasized better monitoring and utilization of data for evidence-based decision making to improve immunization coverage and timeliness of vaccination. With technical support and training from MCHIP, IG members worked with local Rayon health officials to apply epidemiologic skills to better define the status of immunization and resources in their Rayon. This effort included collecting data from all levels of the Rayon health structures, identifying gaps in immunization services, and then developing an action plan to address barriers tousing resources at little or no cost. This strengthened active monitoring and promoted evidenced-based decision making and planning for improved immunization services at Rayon and service delivery levels.



Improved Monitoring and Use of Data for Decision Making

Linking IG capacity building activities with the health facility level, MCHIP observed notable gaps in the monitoring and reporting of immunization data. Health workers use Form N°5 to report immunization data, which is supported with the “Manual on Recording, Reporting, and Monitoring Immunization,” otherwise known as “KR MOH Decree N°36.” This manual had been used to guide health workers in the reporting and monitoring of immunization data since 2011. Upon further review, MCHIP and its RCI counterpart identified areas where the manual could be improved to address issues that were contributing to unreliable practices in the monitoring, recording, and reporting of immunization data. As the most sustainable and cost-effective solution to address the issue on improving data reporting and monitoring nationally, MCHIP worked with the RCI to update this manual, which was published by the Ministry of Health under Decree N°112 titled “Guidelines to the Manual on reporting, recording, and monitoring of immunization service.” Manuals were printed and distributed to all vaccination points nationally. All Oblast-level managers were trained on the implementation and use of the manual, and the RCI has committed to supporting trainings at the Rayon level.

Computerized Information System for Immunization (CISI) Pilot



MCHIP piloted the CISI software in two Family Medical Centers (FMCs) (Bishkek FMC N°11 and Issyk-Ata Rayon FMC) and at the Issyk-Ata Rayon SES to refine its utility in the monitoring and use of immunization data, and to identifying what systems would be needed to roll out CISI nationally. MCHIP's pilot of CISI was instrumental in understanding practical use of the software, in addition to identifying weaknesses in its utility for the end user and its functionality for improved monitoring and use of data for decision making. The software was significantly improved under the MCHIP pilot, and the MoH recommended expansion of CISI nationally after

conducting an external evaluation. While CISI has the potential to strengthen immunization data management, there are a number of considerations that should be addressed before full scale-up of the software is realized. Currently, the health system structure will need substantial investment to support the use of CISI nationally in all health points, including the procurement of computers, servers, availability of internet and investment human resource capacity to operate the software. To optimize use of the system, CISI should improve efficiency of health worker performance without increasing workload, and it should not only improve the reporting of data, but also its use for decision making.

WAY FORWARD

A key component to MCHIP's approach was harnessing mutual respect that cultivated information sharing and learning between different levels of the health system and community-based organizations (e.g. NTOs and VHCs), increasing transparency and leading to improved service delivery while expanding access to services for high-risk populations.

While there is political will and support for immunization programs through the MoH and RCI at national level, efforts need to continue to build on and maximize past investments in the RI system.

Such investments could further develop the quality of RI services at the local level and thereby sustain the absence of polio and other VPDs, rather than reactive investments in a crisis and retrospective manner based on outbreaks of polio or other VPDs. An integral component that determined the success of this model was active participation and engagement by all members of the IG, most notably national-level RCI support and empowerment of VHCs through training on immunization and bringing them together with the health systems, which resulted in strengthened partnerships with communities.

I think this model is an ideal model. As a member of the VHC and IG, I have increased my knowledge on immunization, but more importantly through this work I have strengthened my knowledge to disseminate information and mobilize my communities. I have also helped my health worker friends increase their knowledge. VHCs should continue to be engaged in this kind of work. MCHIP taught us how to work properly, how to work with our medical staff, understand how to access information, and the importance of monitoring and use of data.

– VHC and IG member

Kyrgyzstan has been experiencing a major exodus of qualified health workers owing to poor salaries and depressing working conditions. More than 20 years after independence from the Soviet Union, the human resource capacity and infrastructure developed during the Soviet era is no longer sustainable. Unless there is substantive change, both by the government and donors, the International Crisis Group (ICG) forecasts that in less than 20 years, Kyrgyzstan will have no medical practitioners to treat patients or provide immunizations. Consequently, it could be argued that human factors, not technical, present the greatest obstacle against strengthening immunization programs in Kyrgyzstan. However, the GAVI Alliance has committed Redacted Health System Strengthening (HSS) funds over the next five years. This funding is an opportunity to address neglected gaps in the system and prepare for the introduction of new vaccines. In addition to addressing the need for skilled health workers, the MoH needs to ensure that vaccinators are adequately trained, which has not happened in recent years. Providing Immunization in Practice (IIP) and Mid-Level Manager (MLM) trainings will be a good start toward equipping health workers and managers with basic skills that are needed for managing and delivering vaccination programs. Addressing these gaps will be essential as the MoH prepares to introduce new and expensive vaccines. Kyrgyzstan has been approved for support from GAVI to introduce the pneumococcal conjugate vaccine (PCV), and hopes to introduce rotavirus vaccine (RV), inactivated polio vaccine, and *human papillomavirus* (HPV) vaccines in the next five years.

Kyrgyzstan has experienced an increased number of vaccine refusals due to religious and other reasons. While a national immunization communication strategy was developed in 2012 under UNICEF's leadership, it has not yet received allocated funds to support its rollout.

Implementation of this strategy will be a first step to counter anti-vaccination rumors circulating over the Internet and television. The MoH should also increase its engagement with religious and community leaders to promote vaccination services. The Deputy Minister of Health reported that there are 8,000 to 10,000 volunteers who are officially promoting religious messages house-to-house, primarily in the southern part of Kyrgyzstan. These volunteers are

also spreading health messages within the context of Islam that are frequently incorrect. These volunteers are an “untapped” resource that could be trained and engaged in disseminating health messages and IEC materials, and could help mitigate vaccine refusals based on religious reasons.

Using MCHIP’s experience and recent initiatives implemented by the Health Insurance Fund, strategies to register internal and external migrants need to be expanded to ensure that all populations have access to health services, including vaccination.

The IG model implemented under MCHIP specifically addressed immunization; however, this model should be considered for national scale-up to address ongoing weaknesses in the health system. The Sokuluk Rayon IG made great strides in forming a sustainable and effective working relationships and gained recognition from FAPs, FGPs, the Rayon-level health and education, and most notably with their communities. The United States Peace Corps was a strong partner, dedicating a volunteer to work with the IG, and has committed two more to work with the IG to train other volunteers on implementation of the model, so it can be spread where volunteers are working. The IG Sokuluk PCV will continue to work with members of the group to strengthen their skills in grant writing and serve as a resource for identifying opportunities for funding sources that will support their work beyond immunization. This model could support implementation of a Decree issued in 2013 mandating FMCs and VHCs to strengthen their link with communities and bring them in more regular contact with the health system, as part of the Den Solook Health Reform Strategy.

Before health workers just controlled, but through MCHIP they now have increased partnership through VHCs and increased awareness within communities. We have a literate population that has the capacity to understand information, which is why our medical staff should be competent to communicate with the population on the information they want to know and are capable of understanding. Thank you, MCHIP, for strengthening partnerships with our communities and improving communication through a simple way they can understand. We had high expectations for MCHIP in Sokuluk to be a model for other rayons. We will continue in Sokuluk because we have a well trained staff. This has provided a good opportunity for me to work better with my staff. We are moving forward stronger and at the primary health level. It is hard work, but we are better equipped now.

– Sokuluk rayon manager

MCHIP Country Brief: Lesotho



Selected Health and Demographic Data for Lesotho	
Maternal mortality ratio (deaths/100,000 live births)	1155
Neonatal mortality rate (deaths/1,000 live births)	47
Under-5 mortality rate (deaths/1,000 live births)	117
Infant mortality rate (deaths/1,000 live births)	91
Contraceptive prevalence rate	46
Total fertility rate	3.3
Skilled birth attendant coverage	90.2%
Antenatal care, 4+ visits	70.4%
Sources: Demographic information and health systems 2010, UNICEF Annual Report on Lesotho 2011, WHO Lesotho Health Profile 2011	

Health Area:

- HIV/AIDS: Pre-Service Education and VMMC



Program Dates	Pre-Service Education: January 1, 2010– June 30, 2014 VMMC: October 1, 2011–December 30, 2013					
Total Mission Funding	Redacted					
Geographic Coverage	No. of provinces	N/A	No. (%) of districts	100%	No. of facilities	50 (PSE) 17 (VMMC)
Country and HQ Contacts	Laura Skolnik, Stephanie Reinhardt, Isatou Jeng, Alice Christensen, Tigistu Adamu					

Redacted

PRE-SERVICE EDUCATION

INTRODUCTION

As a country with one of the highest HIV-prevalence rates in the world at 23.3%, Lesotho has a dire need to address the state of HIV/AIDS care and treatment by urgently and effectively preparing nurses in HIV/AIDS care, treatment, and support systems. The vision of the Maternal and Child Health Integrated Program (MCHIP) has been to accelerate the reduction of maternal, newborn, and child mortality in 30 priority countries by increasing the use of a focused set of interventions that address the major causes of death among mothers, newborns, and children under five years of age. MCHIP recognizes that successful interventions must employ multifaceted, high-impact, innovative strategies to achieve quantifiable improvements in neonatal, infant, and maternal mortality rates. One such approach—strengthening pre-service nursing education in order to improve the quality of nurse-delivered care in countries facing significant constraints in skilled human resources for health—has the potential to improve the overall level of care across national systems.

The MCHIP Lesotho nursing pre-service education (PSE) program began in May 2010 to improve the quality of nurse- and midwife-delivered care in the country. In addition to the Lesotho Ministry of Health (MOH), MCHIP worked closely with the Christian Health Association of Lesotho (CHAL) to provide technical assistance and build capacity, provide support to nursing and midwifery training institutions and clinical sites, and improve the clinical experiences of graduating nursing and midwifery students¹ to prepare them to address community health needs.

The capacity at nursing training institutions in Lesotho has been a major limitation to increasing the intake of trainees to match service demands. Poor infrastructure at some of the training institutions, particularly at CHAL schools, is an added challenge. There is a general concern about the quality of nurse preparation at these institutions. Training is mainly theoretical with limited guided skills development and practicums to enable graduates to provide services without the need for immediate in-service training. The majority of practicum training sites are inadequate due to poor infrastructure, staff shortages, lack of practice standards, and communication gaps between the schools and clinical site staff.

KEY ACHIEVEMENTS

The program goal has been to build sustainable capacity in nursing PSE in Lesotho, focusing on CHAL institutions. The program has contributed to increasing the number and quality of nursing and midwifery graduates in Lesotho with skills appropriate to the context of the country, taking into account the burden of disease and government priorities. The specific objectives were to:

1. Strengthen the capacity of CHAL Schools of Nursing to house and educate nursing and midwifery students;
2. Strengthen current didactic and clinical teaching practices; and
3. Support the development of an enabling regulatory environment for nursing education by strengthening the Lesotho Nursing Council.

Figure 1. Key Elements

Key Elements of PSE Activities



MCHIP's nursing and midwifery PSE program has strengthened the key element areas outlined in MCHIP's Lesotho PSE Strategic framework as shown in Figure 1. The program has developed an innovative primary health care (PHC) clinical placement program to improve the clinical education of nursing students and to strengthen the infrastructure of the nursing schools. The PHC clinical placements expose students to varied clinical activities in health centers, thereby strengthening students' clinical education experience, as well as improving the student-to-preceptor ratios at the clinical sites. Exposure to comprehensive PHC clinical services during training contributes to nursing students being more confident and competent to assess, prevent, diagnose, and treat common conditions, as well as develop skills in community outreach. Given the distribution of the population within this remote, mountainous country, it is essential to ensure clinicians, including nurses and midwives, are able to provide essential services in rural settings, which will more broadly impact the recruitment and retention of nurses to these clinics. To date, all four CHAL schools have implemented over 600 PHC clinical placements with nursing and midwifery students.



Photo: Alice Christensen

Student nurse observing patient education techniques

Since strengthening the current didactic and clinical education practices has been a key area of focus in the program, MCHIP provided training to many preceptors at the CHAL schools, who consequently identified gaps in the availability of tools and resources for teaching and assessing students and also noted a lack of communication between CHAL schools and clinical sites. As a result, MCHIP supported the development of standard tools, checklists, and logbooks to facilitate capacity building efforts, and facilitated communication between the CHAL schools and clinical sites to foster collaboration. Overall, MCHIP improved the clinical teaching practices among nurse clinicians and educators by providing training in clinical teaching methodology and student

performance assessment, and by conducting related supportive supervision visits.

In the area of policy and regulatory development, MCHIP developed a very close working relationship with the Lesotho Nursing Council (LNC). MCHIP developed scopes of practice for nursing, midwifery, and nursing assistants in partnership with the LNC and provided a tool to ensure that standard qualifications are met. This focus on regulation has aimed to ensure that the quality of education, service delivery, and safety of the public meets established quality standards. To further strengthen the LNC's regulatory work, MCHIP provided technical assistance in drafting a revised Nurse and Midwifery Act and developed a framework for the accompanying rules and regulations. Furthermore, MCHIP supported the LNC by providing logistical and technical assistance, including building the capacity of the LNC's board to undertake regulatory work needed to strengthen nursing and midwifery education.

Notably, MCHIP worked hand-in-hand with the LNC in the development and implementation of LNC's five-year strategic plan and two-year operational plans to outline specific regulatory activities that will strengthen the nursing profession. MCHIP also worked with the LNC to develop an electronic database of all nurses in Lesotho. This database has been vital to ensuring that nurses are correctly licensed and qualified to work in hospitals and clinics.

MCHIP's approach to improving the quality of nursing care has centered on strengthening nursing education, the primary health care system, and the accrediting bodies.

All of these are important structures in ensuring retention of nurses in Lesotho and the provision of quality health care. MCHIP's approach to building the capacity of nurse educators and clinicians to provide supportive supervision to students has also had a positive influence on their job satisfaction and retention. Finally, the documents that MCHIP assisted the LNC to develop have created a sustainable enabling environment for the growth and development of the nursing profession in Lesotho. In order to expand upon these achievements, it is critical that nursing and midwifery institutions and students continue to be supported to improve the quality of health care in Lesotho.

WAY FORWARD

Since a large proportion of the Basotho people live in rural areas, access to health care remains a challenge. PHC is as an important strategy that addresses the main health problems in communities through the provision of promotive, preventive, curative and rehabilitative services. MCHIP developed a an unique and sustainable strategy that unifies three key elements for provision of quality nursing care, namely strengthening nursing education, PHC and the accrediting bodies (See Figure 2). All these are important structures in ensuring retention of nurses in Lesotho, which also remains a challenge.

The development of nurses from the early stage of their education and training - so that by the time they complete their training, they are well prepared to be placed anywhere in Lesotho - motivates them as young professionals to see that there is growth and development in nursing. When placed at these facilities, student nurses acquire critical thinking and problem solving skills. Placement at PHC settings further instills a love and willingness among nurses to serve people in primary health care settings – another important aspect for retention. Supportive supervision for students as well as for the clinicians has been found one of the key issues in the retention of staff working in rural settings. Therefore, building capacity for educators and clinicians to provide supportive supervision to students has a positive influence to the nurse educators and clinicians' job satisfaction and retention.

The LNC has developed a continuing professional development (CPD) program which is a prerequisite for all nurses to renew their licensure annually. One of the aspects to acquire a CPD point is reading/studying relevant nursing/medical literature. Placement of SLC and PCs at the PHC settings will assist these nurses to access reading resources at their working sites and to acquire the needed CPD points for re-licensure with LNC, while at the same time studying will improve the quality of work-life for these practitioners. The documents that MCHIP assisted the LNC to develop have created a sustainable enabling environment for the growth and development of the nursing profession in Lesotho.

The MCHIP program has worked hand-in-hand with local nursing professionals for all program activities, ensuring skills building and program sustainability. These important initiatives should be continued for the betterment of nursing and the provision of quality health care for Basotho.

Continue improvements in clinical education

- Clinical placements relevant to the country context should be continued to close the gap between theory and practice.
- Education and practice should be strongly linked to ensure that education changes at the same time (or before) practice does. Educators should be included in policy discussions so that they can prepare nursing and midwifery graduates with the required skills.
- Clinical placements should be institutionalized, with schools and facilities taking joint responsibility. Co-funded pre- and in-service preceptorship training initiatives should be explored to ensure competency in specific clinical skills.

- There is a continued need to find housing solutions for students in clinical placements, as some of the housing was inadequate.
- Model sites for clinical placements should be developed to showcase best practices, through ensuring preceptors are trained and remunerated for their role in precepting students, addressing the issue of housing sites, and ensuring that patient volume is adequate for the clinical experience to be fruitful.

Continue training preceptors and nursing educators for skills improvement

- Continue to support the education of nurse educators to ensure they are delivering effective didactic and clinical education to students.
- Continue to support the teaching of clinical skills for nursing and midwifery students and ensure the teachers themselves are up-to-date.
- Support the development of a formal job description for clinical preceptors, in order to make this position desirable and competitive. The position should include remuneration.
- Follow-up a cohort of students to assess the long-term aspect of clinical placements and education particularly in the area of recruitment and retention.

LNC should continue to implement the systems and tools developed with MCHIP to increase the effectiveness and quality of nurses in Lesotho

- The LNC should be supported to increase registration and licensure rates of nurses in Lesotho to ensure nurses are working legally and professionally in the country.
- The LNC should continue to implement its advocacy plan as well as the strategic plan to increase its effectiveness as a regulatory body.

On-going support is needed to continue strengthening and expanding the effectiveness the LNC. Examples of future support and collaboration possibilities include:

- LNC is still in need of office space to accommodate the needs of the organization.
- LNC should be supported to hire a Support Education Officer, Professional Practice Officer and Registration and Licensure Officer to support the registrar's heavy workload and increase its ability to implement key regulatory activities.
- LNC should be supported to implement a registration and licensure campaign. Ensuring that nurses and midwives are working with current licenses is important for the regulatory structure as well as the financial stability of the LNC.
- LNC should be provided with IT support to improve the efficiency of current systems.
- LNC should be provided with support to accredit training institutions:
 - Support national and internal SBM-R teams;
 - Provide technical support to accredit clinical sites;
 - Collaborate with Council on Higher Education (CHE) on accreditation activities.
- The LNC should be supported to expand the continuing professional development (CPD) program:
 - Provide support to the LNC to register CPD providers;
 - Develop LNC courses for CPD credit and as income generators for LNC;

- Conduct formal evaluation of CPD program at 2 years.
- LNC should be supported to ensure national competencies are integrated into curriculum, as the current curriculum uses unknown competencies.
- Roll out a PSE Regulation Module to all nursing and midwifery schools to increase graduates knowledge in the importance of regulation and licensure.

Continue to support the MOH to implement practice standards related to nursing and midwifery

- Support national and internal SBM-R/MOH accreditation teams.
- Provide technical support to develop QA tools in collaboration with the MOH to integrate nursing standards with their current QA tools.

VOLUNTARY MEDICAL MALE CIRCUMCISION

INTRODUCTION

In 2011 the Government of Lesotho, facing an HIV prevalence rate of 23 percent, revitalized its HIV prevention strategy. As part of these revitalization efforts, the Lesotho Ministry of Health (MOH) asked MCHIP to introduce and scale up voluntary medical male circumcision (VMMC) services throughout the country.² The government's willingness to introduce VMMC services, based on advocacy by MCHIP and other stakeholders, was seen as a major achievement by the international community, as Lesotho was the last of the 14 priority countries to launch services.³

The Lesotho MOH's approach to introducing and scaling up VMMC service delivery has been to integrate facility-based services in all hospitals in the country. Due to cultural sensitivities related to traditional initiation practices, the MOH initially focused on keeping services confined to hospitals, with limited demand creation and no outreach at the outset of the program.⁴ The shortage of providers in facilities presented a challenge. In most government facilities doctors who are assigned to work in male circumcision (MC) clinics must maintain their roles in other departments concurrently, making it difficult to keep up with demand during the winter season when demand for MC services is at its peak. To date, doctors are the only cadre that can perform male circumcision, and nurses may only assist.

"My brother came to Carewell and got circumcised. He said the doctors and nurses did a good job and it decreases the chances of getting HIV and it will be easier to keep myself clean. And my brother said it was a good service."
—Client at Jhpiego's Carewell Clinic, October 2013

Against this backdrop, MCHIP worked hand-in-hand with the MOH to implement a "step-wise" approach to VMMC, scaling up services to a few hospitals at a time, engaging in limited demand creation activities, and training a large number of providers. Using this approach, the program has achieved remarkable results within a short two-year timeframe. Through an intensive scale-up effort, between February 2012 and December 2013, more than 43,900 VMMCs were

² VMMC refers to adult/adolescent male circumcision, while MC refers to both adult/adolescent circumcision and infant circumcision.

³ The VMMC program began in late 2011 with the receipt of MOH concurrence for program implementation and USAID approval to proceed. MCHIP had been working with USAID since late 2009 (with a USAID-approved work plan) in collaboration with the MOH and stakeholders as the MOH began its deliberations about whether to implement a VMMC program.

⁴ The traditional circumcision procedure performed during initiation is not protective against HIV as it is only partial removal of the foreskin.

conducted at 17 MCHIP-supported sites, made possible by the training of 311 doctors, nurses, and counselors. This effort has dramatically increased the number of men accessing services (from less than 1,000 per year before MCHIP). According to the Lesotho modeling study, approximately 7,000 future potential new HIV infections will be averted due to MCHIP's work.⁵ This is a major contribution in a country that has an estimated incidence of 26,000 new HIV infections annually.

MCHIP's goal has been to increase the number of circumcised men in Lesotho. The program has three objectives:

1. Support and strengthen MOH capacity to scale up VMMC services
2. Scale up facility-based VMMC and introduce early infant male circumcision (EIMC) services in selected hospitals and health facilities
3. Increase demand for VMMC and EIMC services

KEY ACHIEVEMENTS

MCHIP has significantly strengthened the MOH's capacity to scale up VMMC services, providing technical assistance and mentorship to the MOH and collaborating on the development of VMMC guidance documents and national tools, including monitoring and evaluation (M&E) and quality assurance (QA) tools such as client records forms and VMMC registers. In addition, through MCHIP technical support, the Lesotho national VMMC program has developed standard operating procedures (SOPs) for service provision, tools for data collection, and other guidance documents.

After the initial introduction of VMMC services at 10 district hospitals, MCHIP successfully scaled up facility-based VMMC services to 17 sites throughout the country. The program has trained providers on VMMC service provision and oriented stakeholders at the district level to ensure follow up with VMMC clients.

Through its innovative branding of *Rola Katiba* ("take your hat off"), MCHIP was able to define VMMC as a concept distinct from traditional initiation practices and increase demand for VMMC services in health care facilities throughout Lesotho. MCHIP has also established partnerships in both the public and private sectors with private clinics, international organizations such as the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), and local organizations such as Apparel Lesotho Alliance to Fight AIDS (ALAFA) and Lesotho Planned Parenthood Association (LPPA) to support the rollout of VMMC services.

Main interventions have included:

- Assessing facilities
- Training providers
- Introducing VMMC services
- Scaling up VMMC services
- Providing VMMC services throughout country
- Revitalizing the MC technical working group
- Building capacity at the MOH
- Developing national tools and standards
- Implementing QA practices
- Providing supportive supervision
- Creating partnerships with NGOs, the UN, and private sector partners
- Developing *Rola Katiba* demand creation strategy

⁵ Njeuhmeli E, Forsythe S, Reed J et al. 2011. Voluntary medical male circumcision: Modeling the impact and cost of expanding male circumcision for HIV prevention in Eastern and Southern Africa. *PLoS Med* 8(11): e1001132.doi:10.1371/journal.pmed.1001132



A key innovation is the program's integration within the health system. Hospitals and providers have benefited from the assessment and upgrade of MC services, and learned from MCHIP's approach to quality assurance. The MOH gained the capacity to lead a national health program, and MOH staff were mentored in technical and program management issues. The VMMC program was implemented as part of a comprehensive HIV prevention package, also positively affecting men's uptake of HIV testing and counseling (HTC). VMMC clients who test HIV-positive have been actively

linked to referrals for HIV testing and counseling and other care and treatment services.

WAY FORWARD

Over the last two years, MCHIP has quickly and efficiently scaled up VMMC services in Lesotho. Within this short timeframe, the program has worked successfully with the MOH to provide quality services, strengthen MC sites, train providers, and create demand. Scale-up of MC services will make a deep and lasting impact on the HIV/AIDS epidemic in Lesotho. To achieve a broader impact and continue to meet national targets, VMMC and EIMC services should be continued. Barriers to access should be assessed to determine effective strategies for overcoming obstacles to efficient service delivery, including continued advocacy for task-shifting for nurses, working with private providers, and launching a PrePex™ acceptability and safety study.

It is vital to continue to scale up services to reach 80% of the eligible male population and to maintain the momentum of VMMC in Lesotho as part of a comprehensive approach to HIV prevention.

- Continuity of services should be maintained through district hospitals, ISDs, and health center outreach to ensure that demand is met.
- VMMC sites should be supported to ensure quality service delivery and to maintain current national geographic service coverage.
- VMMC in Lesotho has also demonstrated success in encouraging men to get tested for HIV; the work on expanding innovative linkages between VMMC services and HTC/ART treatment should be continued. The strong progress on linking VMMC with HTC and referral for HIV-positive individuals should be continued through expanded application of innovative point-of-care diagnostics.
- Health center collaboration should be continued and expanded to enable health center nurses to book clients for VMMC and support VMMC client follow-up.
- Research should be conducted to bridge the “research-to-use” gap for the PrePex™ device for circumcision (through a safety and acceptability study).
- Quality assurance efforts should be continued to ensure high-quality VMMC services.
- EIMC scale-up should be continued.

Partnerships for VMMC and EIMC should continue to be scaled up.

- Expanded private-sector collaboration should be explored, including training of private providers and collaboration with private organizations for service delivery.
- Partnerships and innovative service delivery models should be continued.

Human resources for MC should be continuously developed and trained.

- Advocacy for task-shifting to allow nurses to perform MCs should be continued.
- Training and supportive supervision for MOH providers and sites should be continued to ensure quality MC and satisfaction of providers.

The MOH should be supported to continue its leadership of the VMMC program.

- Support for the MOH's leadership of the VMMC response in Lesotho, including the effort to address adequate pharmaceuticals and stock-outs, should continue.
- The national VMMC database should be fully operationalized and linked to the national electronic medical records system.
- Collaboration with the Global Fund, the UN, and other stakeholders should be continued to ensure a coordinated VMMC/EIMC response.

Demand for VMMC and EIMC services should be further increased.

- The innovative *Rola Katiba* campaign should be expanded to encourage service uptake, particularly among men ages 10–29, in collaboration with a range of partners (UN, NGO, local organizations).
- Innovative methods of increasing demand and matching supply and demand for MC should be continued (e.g., transportation reimbursement, collaboration with health centers on client booking).
- Partnerships with local organizations, district officials, and community mobilizers to promote VMMC service uptake should be expanded.
- EIMC demand creation activities should be scaled up after the pilot phase is concluded.

MCHIP Country Brief: Liberia



Health Areas:

- Family Planning
- Newborn Health
- Maternal Health

Selected Health and Demographic Data for Liberia	
Maternal mortality ratio (deaths/100,000 live births)	770
Neonatal mortality rate (deaths/1,000 live births)	26
Under-5 mortality rate (deaths/1,000 live births)	94
Infant mortality rate (deaths/1,000 live births)	54
Contraceptive prevalence rate	19.1
Total fertility rate	4.7
Skilled birth attendant coverage	61.1%
Antenatal care, 4+ visits	66%
Sources: *World Bank; **Liberia DHS, 2013; *** UNICEF; ^WHO.	



Program Dates	September 2009–December 2013					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of counties	80%	No. of districts	80	No. of facilities	80
Country and HQ Contacts	Marion Subah, Comfort Gebbeh, Nyapu Taylor, Varwo Sirtor-Gbassie, Alishea Galvin, Emmanuel Otolorin, Gahan Furlane, Anne Pfitzer, Gbenga Ishola, M&E Advisor, Technical Support: Holly Blanchard, Chelsea Cooper, Rebecca Fields, and Jeffrey Smith					

INTRODUCTION

In Liberia, although important achievements have been realized in maternal, newborn and child health (MNCH), there is still need for improvement. Postpartum hemorrhage (PPH) remains the leading cause of maternal mortality in Liberia and accounts for about 34% of maternal deaths.¹ The maternal mortality ratio decreased from 994/100,000 live births in 2007 to 770/100,000 in 2013, while neonatal mortality decreased from 32/1,000 live births in 2007 to 26/1,000 in 2013.² The contraceptive prevalence rate (CPR) increased from 10.3% in 2007 to 19% in 2013. Continued dedication and support to address MNCH programming is necessary to sustain and replicate successes. As is outlined in Liberia's National Health Policy 2007–2011 and the Essential Package of Health Services, the government of Liberia (GOL)/Ministry of Health and Social Welfare (MOHSW) is committed to comprehensively address MNCH programming to improve health outcomes for pregnant women and their families.

The original goal of USAID's Maternal and Child Health Integrated Program (MCHIP) in Liberia was to address the country's provision of FP services by updating the skills of all cadres of health workers for providing a wider range of family planning and reproductive health (FP/RH) methods, in particular hormonal and long-acting methods, as well as advocate and provide public education to support a positive and stronger FP/RH environment. The scope was later expanded to initiate a program to reduce postpartum hemorrhage for women who deliver at home and improve newborn health by assessing and developing a plan to address gaps in essential newborn care. Since then, MCHIP has been providing support to the MOHSW to help operationalize the national FP/RH Strategy and implement the Accelerated Action Plan to Reduce Maternal and Neonatal Mortality, thereby contributing to significant reductions in maternal, newborn and child mortality toward the Millennium Development Goals (MDGs) 4 and 5.



MCHIP/LIBERIA Project: Goals and Objectives

Objective 1: Support the MOHSW in implementing the national RH/FP program and advocating for the FP agenda;

Objective 2: Increase access to high-quality FP services;

Objective 3: Increase knowledge of and demand for FP services at the community level;

Objective 4: Expand coverage of FP services and reach to the community through innovative approaches;

Objective 5: Reduce the incidence of PPH at home births through a prevention of PPH program that includes use of misoprostol at home births; and

Objective 6: Contribute to improvement of newborn health by working with the MOHSW and implementing partners to access and develop a plan to address gaps in essential newborn care, including management of newborn sepsis.

KEY ACHIEVEMENTS

MCHIP was well-positioned to support the Liberian MOHSW to address MNCH interventions, drawing on technical and programmatic expertise from previous



One of 25 national trainers learns IUD insertion during training.

global programs. MCHIP Liberia's FP strategy took a four-pronged approach, including national- and county- level advocacy, increasing access to quality FP services, increasing coverage of FP services, and raising awareness/stimulating demand at the community level for FP services.

MCHIP ensured an approach of no missed opportunities and advocacy in supporting high-impact and evidence-based interventions, as well as building the country capacity in MNCH and FP by working with the MOHSW at the national level and with the Montserrado, Margibi, Grand Bassa, Lofa and Bong county health teams (CHTs) at the facility and community levels. Thanks to the strong partnership with the Liberian MOHSW and other implementing partners and support from USAID, many achievements were observed throughout the duration of the project.

MCHIP supported and worked with the Reproductive Health Technical Committee (RHTC) to revise the service delivery guidelines and standards for FP and developed an FP training course, including all natural, short and long-acting reversible methods, for providers that is endorsed by the MOHSW and is the basis for pre-service FP training. Using this course, MCHIP held the first MOHSW-sponsored FP technical updates for frontline health care providers since the war ended. Building on these technical updates, MCHIP strengthened Redemption Hospital to create an FP "Center of Excellence" as a teaching institution to further develop competent FP providers.



In further support of the Liberia National Family Planning Strategy and the Accelerated Action Plan for the Reduction in Maternal Mortality, MCHIP amended the RAPID model to help the MOHSW at the central and county levels to reprioritize and strengthen its leadership to advocate for additional resources and the integration of FP into the basic package of health services. Additionally, at the request of USAID, MCHIP reviewed USAID's portfolio within the context of the Liberian environment to produce an internal strategy, *USAID's Liberia Family Planning Roadmap to Support the MOHSW in Reducing Unintended Pregnancies*, based on the Best Practices at Scale in the Home, Community and Facilities (BEST) approach as strategic guidance for cooperating agencies to assist the MOHSW on implementation.

Over the course of the project, MCHIP has also played a key role in contributing to a number of much-needed strategies and training materials that will be used nationwide including:

- National Family Planning Strategy
- National Family Planning Standards
- National Community-Based Family Planning Training Materials
- Adolescent Reproductive Health Strategy
- USAID's Liberia Family Planning Roadmap to Support the MOHSW in Reducing Unintended Pregnancies
- Accelerated Action Plan for the Reduction of Maternal and Neonatal Mortality in Liberia



A patient is counseled on FP methods after being referred through immunization services, Lofa County.

- Community Health Policy and Strategy and Roadmap
- WHO home-based maternal and newborn care training materials for curriculum of community health volunteers, including trained traditional midwives (TTMs), adapted for the Liberian context
- EPI/FP Implementation Guide and Training and BCC materials
- National Kangaroo Mother Care (KMC) Guidelines
- Chlorhexidine for Cord Care
- National Implementation for Chlorhexidine
- Postpartum Hemorrhage Clinical Guidelines
- Prevention of Postpartum Hemorrhage Counseling Cards and Flipbooks for TTMs

In an effort to improve demand for FP, MCHIP worked to bring health education information and services closer to the community in rural and urban areas, using already proven effective and innovative approaches. As part of this effort, MCHIP conducted behavior change communication (BCC) strategies at the community level to work with religious leaders, barber shop and beauty salon workers, and market vendors, aimed at addressing the many cultural practices and accessibility issues that result in early teen pregnancy and low use of modern methods of contraception. One market volunteer provider stated: *“We are grateful, because this program is really good for us. It helps us to space our children and it also makes it easier for us to get our refill without taking much of our time because we are busy people.”* In total, 100,367 people have been reached with these healthy timing and spacing messages from all community-level activities.

Through the MOHSW, MCHIP carried out a demonstration project of immunization and FP integration in selected facilities in Bong and Lofa counties. This approach involved vaccinators providing a few short, targeted FP and immunization messages and same-day FP referrals to mothers bringing their infants to the health facility for routine immunization. This effort resulted in an increase in new contraception users by 90% in Lofa County (517 to 983) and 73% in Bong County (1,182 to 2,039) for a total increase of 1,323 new contraception users. Service providers and clients reported that the integrated service delivery process had increased their knowledge and changed their views about FP. Moving forward with the expansion and scale-up of activities will include the reinforcement of reminder messages about the next vaccination to clients by vaccinators and community midwives (CMs) at every point of contact and to remind EPI-referred clients about the child’s return date for the next vaccine before they leave the FP room to help mitigate the potential dropout of EPI clients.

To contribute to the prevention of PPH, which is the leading cause of maternal death in Liberia, MCHIP conducted an initiative in Grand Bassa for the prevention of PPH for both facility and home deliveries. This introductory program was designed to increase use of uterotonics for all births. Misoprostol was distributed during antenatal care (ANC) visits or by trained MOHSW clinical staff to women in the community who were at risk of not making it to the facility to give birth. Using this approach, the project was able to reach only 22% of women who delivered at home because of long distances to communities, limited road infrastructure and transportation.



TTMs hold misoprostol distribution job aids, Fenutoli Clinic, Bong County.

Misoprostol as a PPH prevention intervention was embraced by pregnant women. Based on the data from this initiative, the MOHSW approved moving forward with the distribution of misoprostol at the community level as well as expanding this lifesaving initiative to additional communities in Liberia. To improve newborn survival and reduce under-five mortality, Liberia's MOHSW has focused its efforts on addressing the leading causes of newborn deaths. In 2012, MCHIP supported the MOHSW to undertake a newborn situational analysis (SITAN) and conducted a review of Liberia's readiness to introduce and scale up select newborn health interventions. Several RHTC working groups were formed to facilitate the rapid review, approval and implementation of KMC, chlorhexidine for umbilical cord care, and home-based MNH care. MCHIP facilitated the training of 23 national KMC trainers from five hospitals where KMC was to be introduced. KMC units were established in all five hospitals, where a total of 26 preterm/low birth weight babies were attended to in the units. To improve home visits by community health workers (CHWs) to pregnant women and newborns, the MOHSW was supported with the design and printing of counseling cards/booklets for the Home-Based Maternal New Born Health Care Training Manual. A total of 25 midwives were trained as trainers and 120 CHWs were trained in rural Montserrado County using the curriculum. Forty-three newborns were visited during the postnatal follow-up visit.

WAY FORWARD

Based on the lessons learned from the MCHIP programs as well as the Liberian priorities, MNCH needs to continue to be a focus to ensure that the momentum and work that MCHIP has done to date to improve the technical competencies of frontline health care workers and community volunteers is maintained. MCHIP leaves a legacy of competent frontline health care workers and empowered community members, as well as training materials for how to implement facility- and community-level MNCH initiatives and scale up facility- and community-based distribution of misoprostol for PPH reduction and EPI/FP programs. In addition, MCHIP has provided all the training materials to MOHSW at the national and county levels as well as to other implementing partners so they can continue to implement the program long term. In the near future, intense efforts will be needed to maintain quality MNH and FP care while combatting the emerging Ebola epidemic.

MCHIP Country Brief: Madagascar



Selected Health and Demographic Data for Madagascar

Maternal mortality ratio (deaths/100,000 live births)	500*
Neonatal mortality rate (deaths/1,000 live births)	24
Under-5 mortality rate (deaths/1,000 live births)	72**
Infant mortality rate (deaths/1,000 live births)	48
Contraceptive prevalence rate	4.8
Total fertility rate	4.8
Skilled birth attendant coverage	43.9%
Antenatal care, 4+ visits	49.3%

Sources: World Bank, Madagascar 2008–2009 Demographic and Health Survey, WHO, UNICEF.

* 2008–2012 reported MMR which is not adjusted for underreporting and misclassification. A 2010 adjusted ratio reports MMR as 240 according to WHO and UNICEF.

**UNICEF Under-5 mortality ranking (1 = highest mortality rate)

Health Areas

- Maternal Health
- Newborn Health
- Family Planning



Program Dates	September 30, 2008–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of Regions	22%	No. of Districts	66	No. of Facilities	392
Country and HQ Contacts	Jean Pierre Rakotovoao, Chief of Party, Rachel Favero, Nancy Ali, Patricia Gomez, Jeffrey Smith, Lyndsey Wilson-Williams, Blami Dao					

INTRODUCTION

As part of efforts to combat the main causes of maternal and neonatal mortality, which are respectively 498/100,000 live births and 24/1000 live births, MCHIP Madagascar implemented maternal and newborn health (MNH) interventions that aimed to: 1) contribute to improving the quality of MNH care in Madagascar through improved policies, standards, strategies, and implementation approaches; 2) demonstrate an effective scalable model of MNH services, on a household-to-hospital continuum, incorporating innovative technical interventions and implementation approaches; and 3) address system factors that have an important bearing on the effectiveness of service delivery at community and health facility levels.

During the life of the project, MCHIP did not work with public entities given the restrictions imposed by the U.S. Government in response to the 2009 political coup. Therefore, to attain the above goals at the facility level, MCHIP Madagascar employed a strategic approach working through professional health associations and private/faith-based organizations. MCHIP worked at the community level through existing partners, including USAID's Santénét 2 program and local associations such as ASOS (*Action Sociosanitaire et Organisation Secours*), to implement activities. MCHIP established three main objectives:

1. To provide support and technical leadership in maternal, newborn, and child health (MNCH) at the national level;
2. To contribute nationally relevant program learning on integrated community and peripheral health facility approaches to MNH, based on demonstration activities in three districts (Ambatondrazaka, Fénérive Est, and Tolagnanro); and
3. To increase uterotonic coverage to prevent postpartum hemorrhage (PPH) at the health facility and community levels in the district of Fénérive Est.

KEY ACHIEVEMENTS

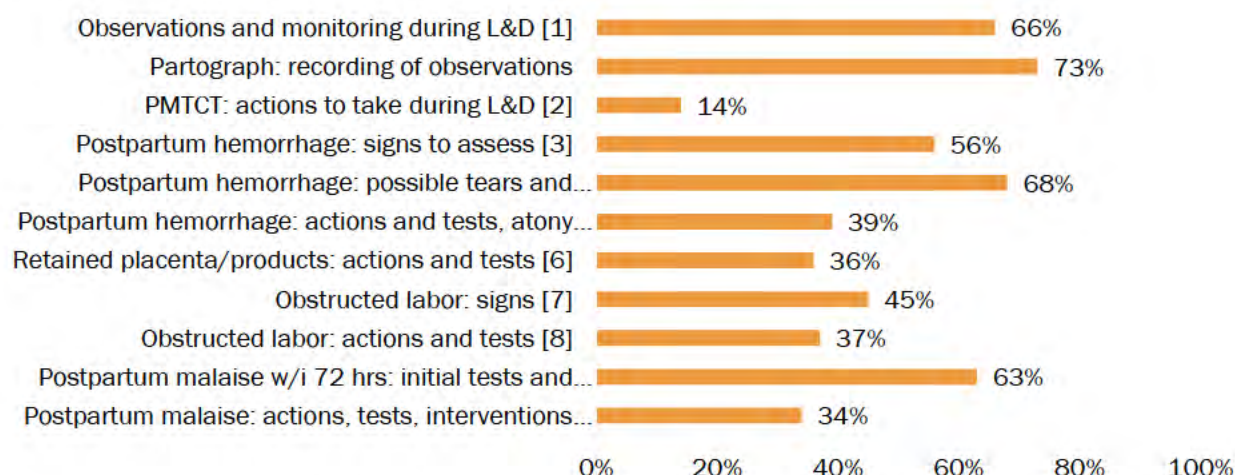
Activities can be divided into three categories:

1. Collecting information to guide activities
2. Conducting MNH interventions according to the country's needs
3. Carrying out interventions to demonstrate best practices for improving MNH in the context of Madagascar

Collecting Information

- A **desk review** included gathering and analyzing information on: the health status of mothers, newborns, and children in Madagascar; interventions conducted to improve MNCH; gaps needing to be addressed to improve health outcomes; and recommendations for MCHIP interventions and activities adapted to the local context.
- A **quality of care (QOC) study of emergency obstetric and newborn care (EmONC)** reported data on health services readiness and the QOC offered by providers for the main causes of morbidity and mortality among mothers and newborns (e.g., knowledge and care of pre-eclampsia/eclampsia, PPH, and infection for the mother; and newborn resuscitation). The findings of the QoC assessment indicated that despite a number of areas of strong performance, gaps remain at all stages of the care of pregnant women and newborns, representing opportunities for action by stakeholders. These findings served to orient the work plan of MCHIP's intervention in Madagascar and was also used as a reference in the development of the national gap analysis in maternal and child health and the national five-year plan for reproductive health. Figure 1 below shows the gap in health providers' knowledge.

Figure 1. Mean Scores for Health Care Providers' Knowledge



- A **baseline survey in three districts** collected general health information, specifically on MNH. Information gathered allowed the project to measure MNH changes throughout the intervention. The main findings show that: magnesium sulfate is not available in all community health centers in the three districts, providers' knowledge about PPH care is low (ranging from 17.2% to 33%), providers' knowledge about pre-eclampsia/eclampsia ranged from 0% to 20%, and knowledge of active management of the third stage of labor was only 8% to 17.2%.

Conducting MNH Interventions

At the National Level

- MCHIP Madagascar shared MNH information and knowledge with MNH stakeholders during health partner coordination meetings and medical and midwifery association meetings, and by collaborating with international and national experts. Topics included good practices in MNH, prevention of the neonatal asphyxia, humanized maternal care, and respectful care. More than 1,114 people benefitted from this information sharing.
- **MNH skills development** was carried out to contribute to the improvement of MNH by strengthening and updating providers' capacity to offer high-quality services. MCHIP Madagascar worked with professional associations, faith-based organizations, and private associations such as Top Reseau, Blue Star, and Santé Sud. Over 15 organizations developed a memorandum of understanding to partner with MCHIP (ONM, Federation des Sages femmes, Somaped, Salfa, SAF, Santé Sud, Mercy Ministry, ASSOS, ACCESS Zon'olombelona, ODDIT, CARE, CROM, ONSF, QMM, EKAR). Activities for MNH skills development include training 51 trainers to then go on and train 873 providers to offer high-quality MNH service at 392 health centers in 19 regions of Madagascar.
- **Post-training follow-up** is an evidence-based practice that aims to maintain a high level of acquired competencies. A total of 89.6% of trained providers received post-training follow-



up. Although time-consuming and expensive, this follow-up is necessary to maintain a high quality of MNH services. Other partner organizations including JSI/Mahefa, Intrahealth and UNFPA will use the same approach for their projects.

Strengthening of pre-service training was implemented by working with 13 private midwifery training institutes (UAZ, ESFI, IFSPA, IFSPR, SEFAM, ESISF SFA, ISPARAMED, INFOSUP, ISMATEC, ESPM, ISCAMEN, ISISFA, INSPAM), and the National Order of Midwives (*Ordre National des Sages Femmes*). MCHIP helped update the midwifery curriculum, improve the management capacity of the private training institute, increase the skills of 37 educators and teachers, and train 13 private institute managers in simulator skills lab management. MCHIP also gave some materials and equipment to 10 private training institutes. At the end of the three-year course, 1,532 midwives are capable of offering high-quality MNH services. Working only with the private sector and *Ordre National des Sages Femmes* limited the impact of the project and made it challenging to change national policy for midwifery schools.

At the District Level

- MCHIP conducted an **MNH intervention** in Taolagnaro, Ambatondrazaka, and Fénérive Est districts to demonstrate the feasibility of an evidence-based practice in the Madagascar context targeting the main causes of maternal and neonatal mortality. MCHIP trained community agents (CAs) in MNH, allowing CAs to offer counseling in danger signs, emergency plans, delivery plans, ANC attendance, and delivering in health care centers. CAs were also trained to perform pre-transfer emergency acts such as reducing PPH using uterine manual compression or skin-to-skin contact to protect the baby. Other CAs from Moramanga and Amparafaravola were trained in community MNH (in total, 756 CAs). With MCHIP support, CAs in the five above-mentioned districts offered services to 6,845 pregnant women, 2,455 women in postpartum, 2,329 newborns; and referred 615 women and 94 newborns. These CAs also benefited from post-training follow-up visit to maintain their competencies.
- The **emergency plan** is a community mechanism conceived to organize and make easier the transfer of patients with health complications from the community to health centers or between two health centers. The emergency plan is composed of five pillars: a decision-making mechanism, a transport mechanism, an urgent funds mechanism, people who help to give blood in case of transfusion and to provide support, and an information system which provides information about the health center and presence of qualified providers. The emergency plan was institutionalized by the mayor in some communes. Within the three districts, 20 of 27 (74%) communes worked with MCHIP to set up emergency plans in Taolagnaro District, 14 of 20 (70%) communes have them in Ambatondrazaka District, and six of 12 (50%) communes have them in Fénérive Est District. Currently, 272 of 389 (69.92%) of Fokontany have functioning emergency plans. The existing emergency plans enabled 615 women to survive from complications. To increase usefulness, the emergency plan should be linked to other community activities such as micro banking which increases the capacity of the member to overcome problems.



- MCHIP Madagascar also **tested registers** to collect data during the delivery and postpartum/postnatal periods. The objective was to improve quality data collection particularly for indicators that track complications. Providers found that registers save time and reduce their workload; registers also remind them of the steps or activities to be carried out during the delivery or postnatal visit. Because all MCHIP interventions were relatively limited in terms of coverage and duration, and were designed to demonstrate feasibility in the local context only, it was difficult to collect outcome or impact data to show changes.

Conducting Evidence-Based Practices

- MCHIP implemented an informative project for **prevention of newborn infection by using chlorhexidine 7.1% in the Mahabo District**. The project had two phases and four components.
 - During **Phase 1**, MCHIP partnered with PSI to assure formative research and the protocol received authorization from the Johns Hopkins University Institutional Review Board (JHU IRB and the local Malagasy Ethics Committee). The objectives were to: assess current cord-care practices among women and select influential family members and providers commonly attending and participating in decision-making related to delivery care; assess whether chlorhexidine (in this formulation) is acceptable to women and selected influential family members for cord care; determine any existing or possible future barriers and motivators among women and selected influential family members that might affect the feasibility of using chlorhexidine programmatically for newborn umbilical cord care; and assess the willingness among women and selected influential family members to pay for chlorhexidine at multiple price points and places of distribution. **Phase 1** resulted in the brand name (AroFoitra) and a logo, as well as information about the knowledge, attitude and practice about cord care.
 - **Phase 2** was implemented by the USAID-funded Malagasy Healthy Families (JSI/MAHEFA) Project at the community level. MCHIP is still involved through the technical working group and ensures technical compliance of the project. The technical working group included UN partners with USAID projects (JSI/MAHEFA and a primary health care project, MIKOLo) and plans to scale up the program to their intervention zones.
 - The second informative project is the introductory program **to increase uterotonic coverage for prevention of PPH at births in health facilities and at home in Fénérive Est District**. MCHIP received authorization from the JHU IRB and local ethic committee. The aim of this project is to generate evidence and inform future policy on the expansion of uterotonic coverage for all women giving birth to prevent PPH using both facility-based and community-based approaches. MCHIP requested an amendment for the protocol timeframe to be extended in Fénérive Est and for Vohemar District to be added. The project in Vohemar is slightly different from the Fénérive one in that MCHIP is working with the JSI/MAHEFA Project to test an integrated program of PPH prevention using misoprostol and newborn infection prevention using chlorhexidine 7.1% at the community level. Due to the post-coup restrictions issued by USAID, the project was only



Simple instructions for the application of CHX included in each insert of the medication



implemented at the community level. Information collected from the Fénérive project shows that the intervention is feasible and acceptable for both the health agent and beneficiary (see Table 1 below). For pregnant women registered by CAs, 56.9% (2,788 of 4,903) received misoprostol (Famonjy) during a home visit (distribution coverage) but 78.3% (2,182 of 2,788) effectively used the product (protection coverage). As the two projects were integrated in Vohemar, the scope of work of the chlorhexidine technical working group was changed to include misoprostol. The group will work to change MNH policy to include misoprostol and chlorhexidine 7.1% programs as essential interventions to improve MNH in Madagascar.

Table 1. Women's Reported Satisfaction with Misoprostol among Enrolled Women Interviewed Postpartum Who Received Misoprostol, Delivered at Home and Ingested the Drug (n=1,920)

INDICATOR	NUMBER	PERCENTAGE (N=1,920)
Women Who Expressed Satisfaction With Misoprostol		
Would recommend to a friend or relative	1,919	99.9%
Plan to use in future deliveries	1,919	99.9%
Be willing to pay between 500 and 1500 ariary	1,755	91.4%

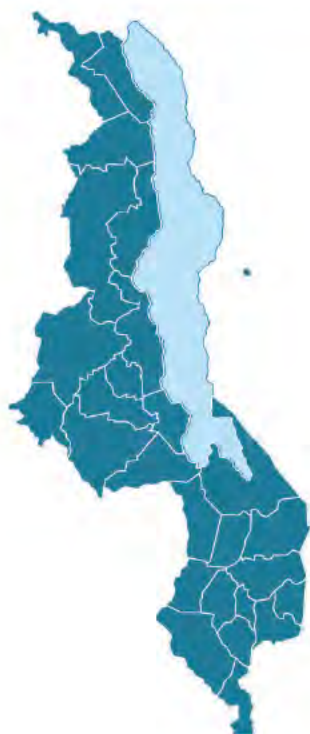
WAY FORWARD

Despite the restrictions concerning work with the government, MCHIP succeeded in showing results that are worth consideration by the Ministry of Public Health and MNH implementing partners. The innovative approaches outlined in this report can be duplicated in resource-scarce countries.

- Favor a long-term vision in human resource development by promoting appropriate and operational training activities (e.g., improving the teaching skills of educators and reviewing educational programs to fit with the needs of the country and the International Confederation of Midwives norms).
- Invest in private/nongovernmental and faith-based organizations to improve health services in cases where the public sector does not succeed in responding to health demands of the population.

Organizations and programs funded by USAID should assure the continuity of these promising interventions that can improve the health of vulnerable populations.

MCHIP Country Brief: Malawi



Health Areas:

- Immunization
- Newborn Health
- HIV/AIDS

Selected Health and Demographic Data for Malawi	
Maternal mortality ratio (deaths/100,000 live births)	675
Neonatal mortality rate (deaths/1,000 live births)	31
Under-five mortality rate (deaths/1,000 live births)*	112
Infant mortality rate (deaths/1,000 live births)	66
Modern contraceptive prevalence rate	42.2
Total fertility rate	5.7
Skilled birth attendant coverage	72%
Antenatal care, 4+ visits	45.5%
Sources: World Bank; Malawi Demographic and Health Survey 2010; WHO; UNICEF.	
*UNICEF < 5 mortality ranking (1=highest mortality rate).	



Program Dates	October 2011–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of zones	100%	No. of districts	28	No. of facilities	30
Country and HQ Contacts	Tambudzai Rashidi, Amoruso, Aleisha Rozario, Jennifer Berg, Tigistu Adam, Asnakew Tsega, Shivam Gupta					

INTRODUCTION



The Principal Secretary, Dr. Charles Mwansambo, giving a symbolic dose of rotavirus vaccine with the Minister of Health, Honorable Khumbo Kachale, holding the baby.

Malawi is a southern African nation of approximately 13.3 million people. In 2009 it had a human development index rank of 160 out of 182. Sixty-eight percent of women and 81% of men are literate. The country has a young population and a total fertility rate of 5.7, the fifteenth highest in the world. The maternal mortality ratio rose 80% from 1990 to 2000, to a rate of 1,120 maternal deaths per 100,000 live births (National Statistical Office and ORC Macro 2001), before declining to 984 (DHS 2005) and then to 675 (DHS 2010).

Family planning use has increased dramatically since 2004, when only 28% of married women were using a modern method. Currently, 42% of women use a modern method, with the increase primarily due to the

continued increase in the use of injectable contraceptives. In Malawi, HIV prevalence is 12.9% for women and 8.1% for men, but HIV testing has increased significantly since the last DHS in 2004. Currently, 72% of women and 51% of men have ever been tested and received their test results. During the last decade, government expenditures on health have increased from 7.3% in 2000 to 17.1% (2006) of total government expenditure. Because Malawi is eligible for funds from the Global Fund, the President's Emergency Plan for Aids Relief (PEPFAR), the President's Malaria Initiative, and other large programs, much of the increase in the use of reproductive health services can be attributed to the increase in donor funding (as a percentage of total health expenditure), from 26.9% to 59.6% of general government expenditures, over the same period.

Against this background of health challenges, the Maternal and Child Health Integrated Program (MCHIP) began in 2009 and had two phases. The first phase, which built on work done by the USAID ACCESS Project, focused on the Household-to-Hospital Continuum of Care model, which simultaneously addressed maternal and newborn health issues at the community and facility level and within the enabling environment, using evidence-based interventions and best practices. The program also concentrated on pre-service education for all 13 of the country's pre-service institutions, including the clinical skills laboratory, so providers could improve their practices and approaches. This first phase of activities, which ran from 2009 to 2011, also included efforts to improve the use of bed nets, social marketing for increasing contraceptive sales and infection prevention practices, as well as laying the groundwork for an expanded effort in voluntary medical male circumcision (VMMC). In 2011, a bilateral USAID Mission-funded program, Support for Service Delivery Integration-Services (SSDI-Services), began implementing a wide range of activities, adding on to some of the MCHIP successes. The full accomplishments of MCHIP's first phase are detailed in the end-of-project report submitted in 2012.

In 2011, the USAID Mission asked MCHIP to move to its second phase of assistance and to concentrate on three specific areas: the introduction of two new vaccines; continuing to expand the VMMC program; strengthening injection safety as an infection prevention intervention; and measuring the quality, coverage, and impact of the Helping Babies Breathe newborn resuscitation intervention at the facility level in Malawi. This phase of assistance was implemented from 2011 to 2014 and is the focus of this end-of-project report.

Malawi's immunization program reflects the inherent difficulty of implementing a complex public health approach. On one hand, it had adequate to high coverage rates for basic vaccines,

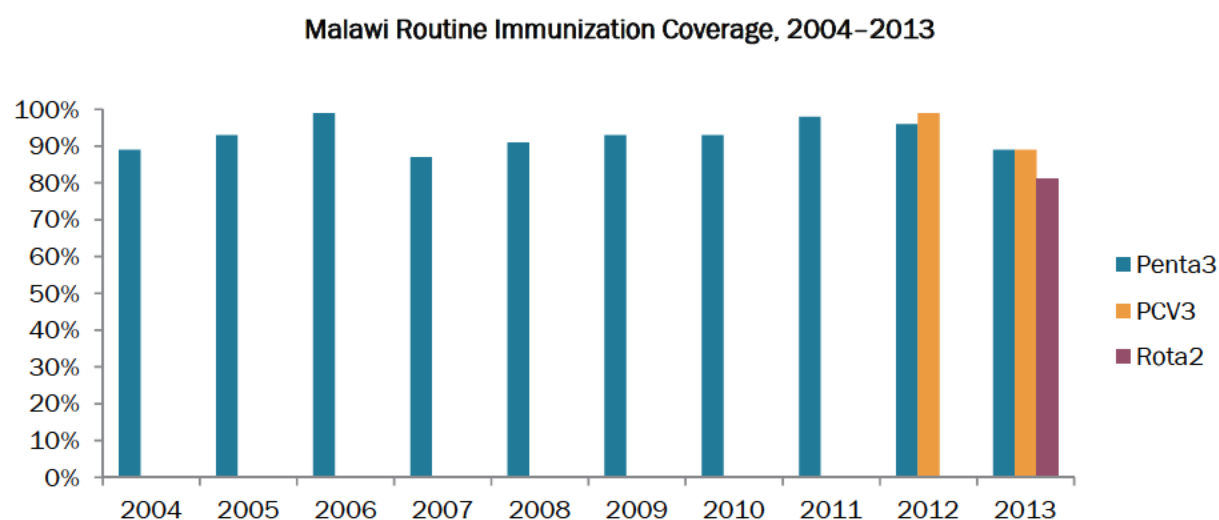
but on the other hand, its vaccine cold chain management and staff skills in running routine immunization programs were subpar. Thus, MCHIP had three objectives for its immunization programming:

- Successfully introduce, nationwide, two new lifesaving vaccines—the pneumococcal vaccine (PCV) in November 2011 and the rotavirus vaccine in October 2012—and assist with the application process for the Global Alliance for Vaccines and Immunization for the measles second dose vaccine.
- Improve the capacity of the Ministry of Health (MOH) and the Expanded Program on Immunization (EPI) in skills development and improve the performance of staff in new vaccine introduction and routine immunization.
- Strengthen the platform for new vaccine introduction by improving routine immunization monitoring and evaluation, data quality, and vaccine cold chain management at the national, zonal, district, and health facility levels.

KEY ACHIEVEMENTS

Immunization

MCHIP used cascade training to prepare providers for the new vaccine program, ensured that the social mobilization materials were updated and disseminated, and contributed to ensuring that all the tools used to record and monitor vaccinations reflected the two new vaccines. A post-introduction evaluation revealed that the introduction of both vaccines was smooth and successful, the vaccines were well accepted by professionals at all levels and by the community, and both vaccines had been fully integrated into the national immunization program. National coverage is equivalent to that for the other antigens administered at the same time, including the pentavalent and polio vaccines. At the end of 2013 national coverage of PCV3 was 89% and coverage of rota2 was 81%; this is equivalent to the pentavalent3 coverage of 89%.



To improve the performance of immunization staff, MCHIP first conducted an assessment to understand the scope of the problem. Among the findings were the following: storage capacity was inadequate at the regional and district levels; distribution of vaccines was a challenge at the district level; and stock management was poor at the district and health facility levels. The team developed recommendations to address these deficiencies. One strategy that MCHIP implemented was producing 750 vaccine and injection material stock books for health facilities to help improve stock management and reduce vaccine wastage. MCHIP also trained more than

1,800 providers in improved immunization practices. At the end of the Immunization in Practice (IIP) training, there were three trained health workers in every health facility providing immunization services, and the quality of service delivery improved significantly in all health facilities providing immunization.

Because of MCHIP's role in improving immunization practices, the Ministry also drew on the program's technical assistance in the supplementary polio campaign, which was integrated with nutrition services. MCHIP supported the national launch of the integrated campaign through the training of more than 1,600 health workers and orientation of more than 650 district officials. In addition, the project supported social mobilization activities for the campaign, which included 140 drama performances, briefings of 28 major media houses, and construction of two floats that stopped at all trading centers on the way from Mulanje and Mwanza to Blantyre, where the national launch was conducted. This activity also provided global evidence on the successful integration of nutrition interventions and immunization campaigns.

Voluntary Medical Male Circumcision (VMMC)

VMMC has been very successful in Malawi and is an essential approach in combatting the increase in HIV prevalence, as well as cervical cancer. Current HIV prevalence rates are 12.9% for women and 8.1% for men, and the Malawi MOH has established an ambitious district-level target of a minimum of 80% coverage for males accessing VMMC services by 2016. Globally, MCHIP is one of the most successful PEPFAR partners in introducing VMMC, and it has continued this success in Malawi. MCHIP organized major outreach VMMC campaigns that coupled demand-generation activities with increased supply through the establishment of static VMMC sites that practice the principles of Models for Optimizing Volume and Efficiency (MOVE). Campaigns showed strong numbers: for example, in Thyolo, a total of 3,416 male circumcisions were conducted during a 17-day campaign. This is 228% greater than the initial campaign target of 1,500 circumcisions. The national campaign from July to September 2013 yielded 8,798 male circumcisions by MCHIP, bringing the total circumcisions for the fiscal year to 13,499. Overall, MCHIP contributed 22% to the total of 39,886 male circumcisions performed during the national campaign.

Results of the National Circumcision Campaign

The campaign from July to September 2013 yielded 8,798 male circumcisions by MCHIP, bringing the total circumcisions for the fiscal year to 13,499.

MCHIP reached 58.6% of the set target for the campaign, and the national campaign yielded a total of 39,886 male circumcisions (66.5% of the set target), with MCHIP contributing 22% of this total.

MCHIP used a number of approaches and strategies that contributed to its success, including the following:

- Engagement of community-based organizations at campaign sites (taking services closer to the homes of clients to encourage clients who would prefer not to seek care at health centers)
- Active involvement of traditional leaders from the target communities in serving as champions and advocates for VMMC
- A combination of community-wide motivational talks, school visits, engagement of tea estate managers, and public lectures in which the communication team moved with the technical team (all innovations in outreach)
- Strong leadership and support of the District Health Officer (DHO), which resulted in district ownership of the campaign and highly motivated and inspired teams of providers

Overall, MCHIP learned that sound demand creation and community mobilization were essential for reaching national goals. When one partner was given the task of community mobilization, they were not able to adequately cater to the differing information needs at the district level. In addition, when demand creation and service delivery were separated, results were not as strong. The MOH recommends that demand creation happen at least two weeks before the onset of a campaign, and MCHIP supports this. When demand-creation activities start only days before a campaign, it limits the number of participants coming in for services.

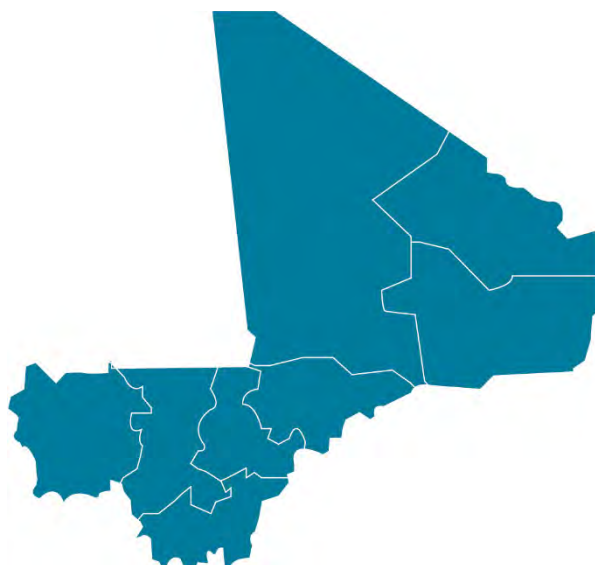
Newborn Health

The third activity in phase two was assessing how the program Helping Babies Breathe (HBB) had been implemented. HBB is an evidence-based educational program to teach essential neonatal resuscitation techniques to health workers in resource-limited areas. It was first rolled out in 2011 to 14 districts in Malawi, of which 10 were supported by MCHIP. During the rollout, there was need for further study, so a multiyear evaluation of the HBB program in Malawi was implemented in late 2011. The study aimed to measure the quality, coverage, and impact of the HBB newborn resuscitation intervention at the facility level in Malawi, and it was unique in that it included direct observation of routine delivery care and management of newborns not breathing at birth.

WAY FORWARD

MCHIP's program in Malawi has been successful and sustainable. Tools and policies that were created by MCHIP have been integrated into the national health system and will drive practices in the future. MCHIP successfully documented the activities and experiences it initiated so that other donors and programs could benefit, and those programs are now continuing the efforts. For example, Jhpiego, an MCHIP partner and now the lead on implementing the bilateral support program for USAID Malawi, is continuing the infection prevention practices initiated with MCHIP funding. All VMMC technical activities are now being implemented under the MCHIP Associate Award and follow-on to this project, *Sankhani Moyonela* ("Smart Choice").

MCHIP Country Brief: Mali



Selected Health and Demographic Data for Mali

Maternal mortality ratio (deaths/100,000 live births)	464
Neonatal mortality rate (deaths/1,000 live births)	35
Under-5 mortality rate (deaths/1,000 live births)	95
Infant mortality rate (deaths/1,000 live births)	56
Contraceptive prevalence rate	10
Total fertility rate	6.1
Skilled birth attendant coverage	59%
Antenatal care, 4+ visits	35.4%

Sources: World Bank; Mali DHS 2006 and 2012–2013.

Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- HIV/AIDS
- WASH
- Malaria
- Nutrition
- Family Planning



Program Dates	October 1, 2010–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of Regions	25%	No. of Districts	7	No. of facilities	166
Country and HQ Contacts	Aissata (Aida) Lo, Anita Gibson, Pat Taylor, Rebecca Levine, Erin Fleming, Alyssa Om'Iniabohs, Winnie Mwebesa, Karen Waltensperger, Eric Swedberg, Serge Raharison, Nefra Faltas, Soo Kim, Holly Blanchard, Anne Pfitzer, Tsigue Pleah, Devon Mackenzie, Bethany Arnold, Ian Moise, Aimee Dickerson					

MATERNAL, NEWBORN, AND CHILD HEALTH; FAMILY PLANNING; MALARIA

INTRODUCTION

The USAID-funded Maternal and Child Health Integrated Program (MCHIP) was launched in Mali in 2010 following the identification of the country as one of USAID's 30 priority maternal and child health countries for increased investment. MCHIP/Mali's vision was to significantly contribute to accelerated and sustainable improvement in maternal, newborn, and child health (MNCH) in Mali, through the scaling up of evidence-based, high-impact, integrated public health interventions. MCHIP/Mali worked strategically at the national, regional, and districts levels, building and expanding on existing platforms to promote proven and effective maternal, newborn, and child health and family planning (MNCH/FP) programming.

From 2010 to 2014, MCHIP/Mali's activities were informed by the following objectives (which were refined during the course of the project):

- **Objective 1.** Contribute to improved national health strategies, policies, and programs that increase the population's access to an affordable integrated package of high impact MNCH/FP interventions;
- **Objective 2.** Improve access to and the quality and efficiency of, the essential community package (SEC) through implementation and monitoring and evaluation (M&E) support in the two Regions of Kayes and Sikasso; and
- **Objective 3.** Improve access to and the quality and efficiency of facility-based integrated maternal, newborn health and family planning (MNH/FP) services.

In keeping with these objectives, MCHIP/Mali's key technical areas included:

- **Maternal health:** in order to reduce morbidity and mortality associated with pregnancy, labor and delivery, and the postpartum period;
- **Newborn health:** to reduce illness and death associated with newborn asphyxia, prematurity, and low birth weight;
- **Child health:** to reduce morbidity and mortality associated with the most common causes of childhood illness including diarrhea, malaria, and pneumonia;
- **Postpartum family planning:** to reduce maternal, infant, and child mortality and morbidity, avert unintended pregnancies, and support healthy pregnancy spacing; and
- **Cross-cutting:** capacity-building and training; monitoring and evaluation (M&E); health management information systems (HMIS); research; health promotion; communication; and advocacy.

MCHIP's activities were designed to increase access to and utilization of quality, integrated, evidence-based MNCH/FP interventions across the household-to-hospital continuum of care (HHCC) and spanned the antenatal care period up to a child's fifth year of age, the prevent-protect-treat continuum, and the policy, health facility, and community levels.

MCHIP worked hand in hand with the Ministry of Health (MOH) and with other key partners, supporting activities at the national level as well as in selected regions and districts. MCHIP began work in the Districts of Kita and Diéma in the Kayes Region and expanded to the Districts of Bougouni, Selingué, Kolondieba, Yanfolila, and Yorosso in the Sikasso Region in

2013. Over the life of the project (LOP), MCHIP strengthened the quality of MNCH/FP services available, at the community and facility levels, to a population of over 1.49 million. Critical to the success of many of MCHIP's activities was the forging of key strategic partnerships within the Malian public health community. From 2010–2014, the MCHIP team built strong relationships and formed close collaborations with numerous departments/units within the MOH as well as with other key partners and stakeholders including other USAID-support projects, international organizations such as UNICEF and WHO, NGOs and CBOs, and key professional societies and associations.

Through focused and consistent cooperation, coordination, and collaboration with these stakeholders, MCHIP realized several important program successes over the life of the project. Life-of-project performance is shown in the table below for selected project indicators.

Summary of Life-of-Project Performance by Selected Project Indicators

INDICATOR	BASELINE	LOP PERFORMANCE	NOTES
Number of national policies guidelines or documents developed or revised with MCHIP support	0	6	Includes both the SEC and Reproductive Health National Strategic Plans
Number of new family planning acceptors in the last 12 months in MCHIP-supported districts	5,198	20,294	Figure includes both acceptors at the health facility level and via ASCs
Percentage of sick children with malaria receiving appropriate treatment by ASCs in MCHIP-supported districts	61%	96%	Data collected during quarterly ASC supervision visits
Percentage of mothers with a postpartum/newborn visit within 2 days of birth by ASCs in MCHIP-supported districts	33%	61%	Data source: Baseline and endline survey conducted in Kita and Diema (2011 and 2014)
Percentage of women delivering in MCHIP-supported facilities receiving AMTSL	72%	85%	HMIS Data

Endline Survey Results

Noteworthy results from MCHIP's endline survey conducted in April 2014 in the Kayes districts of Kita and Diema are highlighted below:

- Birth spacing:** Baseline and endline survey results suggest that women are now more aware of the need for adequate birth spacing. Indeed, the proportion of women who think there should be at least 24 months between two consecutive births rose from 50% in 2011 to 66% in 2014. Moreover, the tendency to rely on God for the number of children to have declined considerably from 33% at the start of the program to just 12% by the end.
- Contraception:** Knowledge of contraceptive methods is almost universal (98% in 2014), with use of a modern method increasing from 11% in 2011 to 14% in 2014. Among those who used modern methods, findings showed women are more likely to use long term methods such as injectables and implants.



"The villagers call me 'Doctoro Muso' (Lady Doctor). I like my work – the villagers respect me! They always greet me properly and invite me to their baptisms and weddings. The fact that I am respected enables my messages to get through and helps me better care for people."

- MCHIP trained ASC, Soulouba Village

- **ANC & SBA:** While not statistically significant, increases were seen in the number of women attending ANC visits (74% to 80%) and those giving birth in a health facility (47% to 50%).
- **Essential newborn care practices:** Findings show progress was made in delaying the first bath for newborns from 52% in 2011 to 61% in 2014. A noteworthy increase in the administration of colostrum was found with an increase from 79% at the start of the project to 89% by 2014.
- **Postnatal care:** As highlighted above, postnatal care visits for mothers and newborns within 2 days of birth, increased dramatically from 33% in 2011 to 61% in 2014.
- **Management of childhood illness:** Feeding practices during an episode of diarrhea among children under five years of age showed positive change in the behavior of mothers. There was a significant increase in mothers who reported giving more fluids or breast milk during an episode of diarrhea and those who reported administering ORS.
- **Exposure to MNCH/FP messages:** Exposure to mass media messages related to maternal and child health increased dramatically among mothers interviewed from 24% in 2011 to 53% in 2014.
- **Health facility readiness:** Findings showed that the availability and stock of key commodities including oxytocin, vitamin K, and magnesium sulfate increased between 2011 and 2014. Of particular note is the increase in facilities with oxytocin available at the time of the survey, from 50% in 2011 to 100% in 2014.

KEY ACHIEVEMENTS

- **MCHIP served as a major catalyst for improved national policies in support of MNCH/FP.** For example, MCHIP supported the updating, review, development, and/or finalization of several key MNCH policies and guidelines such as the National Reproductive Health Strategic Plan, the “Soins Essentiels Communautaires” (SEC) Implementation Guide and Strategic Plan, and focused antenatal care (FANC) guidelines to include revised WHO guidance on intermittent preventive treatment of malaria for pregnant women. In addition, MCHIP strengthened the leadership and stewardship role of the MOH at national, regional, and district levels.
- **MCHIP supported the development, rollout, and implementation of the SEC.** At the community level, MCHIP supported the effective implementation of the “Soins Essentiels Communautaires” (SEC), which is delivered by a new cadre of salaried community health workers (Agents de Santé Communautaire or ASC) to extend simple preventive and curative services into communities located greater than five kilometers from a *Centre de Sante Communautaire*/Community Health Center (CSCOM). By identifying, training, equipping, and supporting ASCs in its target districts, MCHIP ensured that a package of evidence-based prevention- and treatment-focused interventions including integrated community case management of childhood illnesses (iCCM), postpartum and postnatal care visits for mothers and newborns, and family planning were available to vulnerable communities. Over the course of the project, MCHIP trained 426 ASCs and 3,318 *relais* (community volunteers who conduct health promotion activities).
- **MCHIP supported scaling-up of under-utilized and newer MNCH interventions in target districts.** MCHIP supported the introduction or revitalization of several evidence-based, high-impact MNCH interventions including Kangaroo Mother Care (KMC) for managing low birth weight (LBW) babies; Helping Babies Breathe (HBB) for newborn resuscitation; long-acting and reversible contraception (LARC) such as implants and

postpartum intrauterine devices (PPIUD); and integrated community case management (iCCM) for managing sick infants and children in the community.

- **MCHIP introduced an innovative, skills-based training approach to improve effectiveness of MNH/FP clinical training.** MCHIP introduced an integrated MNH/FP training approach at the regional and district levels, which emphasized acquisition of skills and competencies for AMTSL, essential newborn care (ENC) including the Helping Babies Breathe (HBB) newborn resuscitation training; and postpartum family planning with an emphasis on long-acting methods. As part of this program approach, MCHIP developed training materials, prepared trainers, and oriented supervisors to plan for and conduct post-training follow-up and provide supportive supervision. Between 2010 and 2014, MCHIP trained over 600 facility-based health care workers.
- **MCHIP supported various program learning activities with documented results which have influenced national learning and policy.** Learning from various MCHIP led and/or supported studies including the National SEC Evaluation, SEC LQAS Household Survey, and SEC Qualitative Study, were utilized to inform national policy and practice. This includes, most notably, the National Strategic Plan for the SEC recently developed by the Secretary General's office, which details the scale-up of the SEC throughout the nation and outlines the government's plan for financing the SEC, which has been a key issue since the outset of the SEC initiative. MCHIP also implemented a demonstration study to assess the feasibility and safety of midwifery assistants (*matrons*) providing contraceptive implants at CSCOMs, with the assumption that task-shifting long-acting family planning methods to *matrons* will safely increase the availability and choice of family planning methods for all women, specifically during the first year postpartum.



MCHIP-trained midwife, counseling mother of an 8-hours-old newborn on postpartum family planning options.

"Nothing is insurmountable; it is just a matter of having the right competencies to get the work done. I would never have imagined that I would ever one day insert either an IUD or a Jadelle implant. Before, at the CSCOM, we would only observe when teams would come out from Bamako to carry out Jadelle insertions."

– MCHIP trained midwife

WAY FORWARD

Mali, while showing some encouraging data gains in combating mortality and morbidity, still has a long road ahead to reverse the unacceptably high mortality levels among women and children under five. Below are some key recommendations for the way forward based on MCHIP's experience and learning over the last four years of program implementation.

- Advocacy for/support provision of high-level coordination for MNCH/FP activities within the MOH in order to strengthen national-level strategic planning, coordination, and program implementation.
- Advocacy for inclusion and standardization of high-impact MNCH/FP packages and competency-based training approaches into pre-service education curricula.

- Strengthening of MOH capacity in the area of health information systems and monitoring and evaluation.
- Strengthening of supervision of ASCs through the integration of supportive supervision with other outreach activities to reduce the burden on the health system. In addition, consideration of extending supervisory roles to other health cadres, including the nurses at the CSCOM level, rather than leave the responsibility solely on the head doctor in charge.
- Increased and improved community preparation and engagement for ASCs to ensure that they are fully integrated into the community upon posting.
- Prioritize the capacity-building of civil society organization in an effort to strengthen their ability to mobilize communities for improved knowledge, access to, and utilization of MNCH/FP services. The capacity-building of local CSOs will foster further community engagement in health programs and facilitate sustainability and local ownership of community interventions.

CONDOM SOCIAL MARKETING

INTRODUCTION

The goal of the U.S. Agency for International Development's (USAID's) Maternal and Child Health Integrated Program (MCHIP) was to assist in scaling up evidence-based, high-impact maternal, newborn, and child health (MNCH) interventions to thereby contribute to significant reductions in maternal and child mortality and progress toward Millennium Development Goals 4, 5, and 6. The MCHIP component executed by PSI/Mali specifically contributed to:

- Increasing the availability and use of high-quality modern contraceptive methods among women of reproductive age;
- Reducing infant and child morbidity and mortality due to diarrhea by increasing the employment of point-of-use water treatment, oral rehydration salts (ORS), and zinc; and
- Reducing morbidity and mortality due to HIV and AIDS by increasing access to and use of safer sex products, HIV counseling and testing, and AIDS treatment and care in Mali.

KEY ACHIEVEMENTS

In the execution of the project, PSI focused on promoting sustainable, country-led programming through the implementation of sound research, best practices, monitoring and evaluation, and advocacy techniques, to influence national policies.

Despite Mali's unstable socio-political situation, PSI and its partners have been able to make significant progress in executing the project's main deliverables. Through its focus on research-based behavior change communication (BCC) and social marketing, the MCHIP program in Mali implemented by PSI and its partners has had the following impact on health between October 2011 and June 2014:

MCHIP Project Contributions to Health Impact between October and June 2012

HEALTH AREA	COUPLE YEARS OF PROTECTION (CYP) OR DISABILITY-ADJUSTED LIFE YEARS (DALYS) GENERATED	DEATHS AVERTED
Family -planning (FP)	1,320,829 CYPs	1,425 maternal deaths averted and 506,993 Unintended Pregnancies averted
HIV prevention	236,201 DALYs	4,453 HIV cases averted
Water, sanitation, and hygiene (WASH)	36,518 DALYs	441 diarrhea related deaths averted

Source: PSI Mali Management Information System.

Strategies used to achieve the results above include:

Focus On Capacity Building

Under MCHIP, PSI/Mali contributed to the development of local capacity in order to foster effective, country-led programming that will help strengthen the health system. The project focused on expanding and transitioning expertise and capacity to local private clinic providers and community-based centers and organizations to offer high-quality counseling and services for the full range of family planning (FP) methods and develop evidence-based communication strategies and high-quality materials for each audience.

Strong Public Private Partnership

The implementation focused on engaging the private sector actors, such as clinics owners and local cell phone and mining companies, to contribute to improvement in health outcomes. This area of implementation contributed to strengthen public-private partnership by showing concrete examples of private sector engagement.

Strategic Integration of Services

The strategic integration of services is a universally recognized, high-impact best practice under USAID's integration strategies within the Global Health Initiative, and has been noted as an effective way to encourage the adoption of safer behaviors through the provision of a comprehensive package of services. Under MCHIP, PSI broadened family planning, HIV/AIDS, and WASH services offered to key populations: Women of Reproductive Age, People Living with HIV/AIDS, Men Who Have Sex with Men (MSM), and Youth. A list of major activities undertaken is available on page 6 of this report.

Main Interventions and Coverage

TARGET POPULATIONS	WOMEN OF REPRODUCTIVE AGE	PEOPLE LIVING WITH HIV	MOST AT RISK POPULATIONS (MARPS) (MSM, COMMERCIAL SEX WORKERS, INJECTION DRUG USERS)	YOUTH
HEALTH AREAS ACTIVITIES				

TARGET POPULATIONS			MOST AT RISK POPULATIONS (MARPS) (MSM, COMMERCIAL SEX WORKERS, INJECTION DRUG USERS)	
HEALTH AREAS ACTIVITIES	WOMEN OF REPRODUCTIVE AGE	PEOPLE LIVING WITH HIV		YOUTH
Family planning and reproductive health	Demand creation and support to long-acting reversible contraceptive (LARC) service delivery in community health centers in Bamako, Kayes, and Sikasso via mobile outreach model	FP demand creation and referral to services	FP demand creation and referral to services	FP demand creation through school theaters on prevention themes and referral to services
HIV/TB prevention and linkage to services	HIV counseling and testing services offered through ProFam TB screening is also offered during counseling and testing for HIV	Design and production of targeted BCC materials, and prevention kits for local nongovernmental organizations (NGOs) to use and refer to services	Design and production of targeted BCC materials for local NGOs to use and refer to services	Community radio show designed and animated by youth volunteers School theaters on prevention themes in Bamako
Water, sanitation, and child survival	Demand creation for ORS/zinc and Aquatabs, especially in rural and peri-urban areas	Distribution of Positive Living ("Keneyasabati") kit	N/A	School theaters on prevention themes

WAY FORWARD

Mobile rural/urban outreach based on dedicated providers is an important service delivery model in family planning that has the potential to quickly help close the gap in service delivery between urban and rural areas. Furthermore, in low-resource and low contraceptive prevalence rate settings, this model significantly increases LARCs uptake by providers, hence helping to disseminate task shifting, and by women of reproductive age. The success of this project has prompted Mali's MOH to include the mobile rural and urban outreach model as one of the best practices to use during the implementation of its new FP strategic plan, to be adopted soon.¹

¹ Mali National Family Planning Strategic Plan, final draft version, March 2014.



Midwife Kouma Diawara consults with long-term FP client

TB integration into HIV counseling and testing: During the implementation of the project, it was noticed that there was a missed opportunity to offer TB screening and referrals to diagnosis to vulnerable population such as people living with HIV, miners, commercial sex workers (living in crowded compounds), and women of reproductive age. The project was able to demonstrate that TB screening can be integrated in HIV counseling and testing with minimal adjustments, for example, to the time needed by providers and clients for the counseling session. The project also helped to reveal a lack of governance in integrated

activities. There is therefore a need to define a national lead on integrated activities in the country to allow better coordination and uptake of integrated activities at the lowest level of the health care system, and during mobile service delivery. Additionally, improvement in coordination will lead to better data collection and analysis on a national scale.

Integration of cervical cancer screening into LARC service delivery: Over the last year of implementation, the project team saw an opportunity to improve women's health by taking advantage of LARCs, especially intrauterine device (IUD) service provision, to offer low-cost cervical cancer screening using acetic acid to women, if they consented. Over the past few months, this experience has demonstrated that there is minimal resistance to the service from women when the offer is preceded by comprehensive counseling on FP and cervical cancer. Additionally, in a context where women do not regularly seek gynecologic/obstetric care, this type of integration presents an opportunity to provide a potential lifesaving screening.

Overall, the MCHIP project in Mali significantly contributed to increased awareness and adoption of healthy behaviors, while also increasing access to lifesaving health services and products.

MCHIP Country Brief: Mozambique



Selected Health and Demographic Data for Mozambique

Maternal mortality ratio (deaths/100,000 live births)	408
Neonatal mortality rate (deaths/1,000 live births)	30
Under-5 mortality rate (deaths/1,000 live births)	97
Infant mortality rate (deaths/1,000 live births)	64
Contraceptive prevalence rate	12.1
Total fertility rate	5.9
Skilled birth attendant coverage	54.3%
Antenatal care, 4+ visits	53.1%

Sources: World Bank; Instituto Nacional de Estatística Web site, 2010 projection; Mozambique 2011 Demographic and Health Survey; Mozambique Multiple Indicators Cluster Survey 2008; Population Reference Bureau 2011 World Population Data Sheet; WHO; UNICEF.

Health Areas:

- Maternal Health
- Child Health
- Newborn Health
- Family Planning
- Cervical and Breast Cancer Prevention and Control Program
- Condom Social Marketing (CSM)



Program Dates	MNCH: May 2009–January 2011 CSM: March 2011–June 2012					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	100%	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Débora Bossemeyer, Jim Ricca, Iulian Circo, Koki Agarwal, Jeff Smith, Connie Lee, Edgar Necochea, Veronica Reis, Mary Drake					

¹ MNCH: \$3,115,947
CSM: \$2,250,000

MATERNAL, NEWBORN AND CHILD HEALTH/FAMILY PLANNING

INTRODUCTION

Since 2001, the expansion of emergency obstetric and neonatal care (EmONC) has been one of the main national strategies to reduce maternal and neonatal mortality in Mozambique. Coverage, however, remains low, with a little more than half of births in institutions nationwide, and the quality of those services has not been verified externally on a consistent basis. In 2008, the Government of Mozambique (GOM) disseminated the Integrated National Plan to Achieve Millennium Development Goals (MDGs) 4 and 5, proposing nine priority areas for intervention:

1. Implementing intervention packages based on evidence of impact for: reducing maternal, neonatal, and child morbidity and mortality, including the expansion of EmONC; prevention of mother-to-child transmission of HIV (PMTCT); intermittent preventive treatment of malaria (IPT); integrated management of childhood illness (IMCI); and a school health package, as well as integrating services for adolescents; improving nutritional status of women, children, and adolescents; and expanding the “reach every district” strategy
2. Updating and implementing national norms and protocols of care and treatment, based on international and national standards
3. Strengthening transport, communication, and reference systems
4. Improving health infrastructure
5. Strengthening safety and availability of commodities for maternal, newborn, and child health (MNCH)
6. Increasing availability of skilled professionals by training and updating providers’ skills
7. Increasing community awareness about, demand for, and provision of basic community-based services
8. Strengthening supervision, and monitoring and evaluation (M&E) of MNCH services
9. Carrying out operations research and disseminating best practices

The Maternal and Child Health Integrated Program (MCHIP) began field-supported activities in Mozambique in May 2009. The program was designed to contribute to achievement of priorities 1, 2, 6, and 8 of the above national MDG strategy. The original field-funded award continued until January 2011. Starting in 2011, these activities initiated with field support funds through the Global MCHIP award were scaled up through an Associate Award, and contributed in additional areas.

The goal of USAID’s MCHIP activities is to assist in scaling up evidence-based, high- impact maternal, newborn and child health (MNCH) interventions to contribute to significant reductions in maternal and child mortality. The objective of the MCHIP Mozambique program was to assist the Ministry of Health (MOH) to increase service provision in maternal, newborn, child, school, and adolescent health with increased quality of care. MCHIP provided support to the MOH’s Reproductive Health (RH) Program, which includes MNCH. The focus has been health service strengthening of MNCH/RH, focusing on the “Model Maternity” Initiative (MMI), cervical and breast cancer prevention (CECAP), and postpartum family planning (PPFP).

The “Model Maternity” Initiative promotes birthing practices that recognize a woman’s preferences and needs and focuses on humanistic care and the scaling-up of high-impact interventions, including a strong focus on PMTCT. More than 270,000 women have received HIV counseling and testing for PMTCT and their test results at Model Maternity Initiative facilities. During the period April to June 2013, 95 percent of pregnant women presenting at their first antenatal care visit were tested for HIV.

Specifically, MCHIP provided technical assistance to improve the quality of maternal and child health (MCH) services with an emphasis on Essential Maternal and Newborn Care (EMNC) and basic EmONC, including malaria in pregnancy (MIP) and PFP. MCHIP worked at the central level to advance MCH/RH policies, strategies, guidelines, and protocols and supported implementation in key facilities to improve the quality and efficiency of services of two MOH priority MNCH programs, MMI and CECAP. Each of MCHIP Mozambique’s intermediate results contributed to USAID Mozambique’s Strategic Objective 8 (SO8): *“Increased use of child survival and reproductive health services in target areas by directly strengthening and supporting health systems at the central level and lower levels.”*

KEY ACHIEVEMENTS

The MCHIP/Mozambique team underpinned its work in supporting improved service delivery by also providing assistance to the MOH to develop, update, and disseminate RH/family planning (FP) and MCH policies, strategies, and plans. Participatory approaches were employed to guide and promote discussion with MOH staff and partners. MCHIP worked in conjunction with the MOH and partners to develop, update, and disseminate a total of 16 policies and strategies. These include: the National Plan for the Humanization of Healthcare (which includes the MMI); the Plan for Expansion and Strengthening of the National Cervical and Breast Cancer Screening and Treatment Program; the National Strategy and Guidelines for Family Planning; the Plan for Expansion and Strengthening of the National Cervical and Breast Cancer Screening and Treatment Program; Guidelines for Maternal and Neonatal Audit Committees; Guidelines for Integrated Supervision of MCH and RH/FP Services; Monitoring and Evaluation Guidelines for Model Maternities; and Technical Quality Standards to Improve the Quality of VIA [visual inspection with acetic acid], Cryotherapy, Colposcopy, and LEEP [Loop Electrosurgical Excision Procedure] Services.

“By integrating these services, we simultaneously strengthened both the family planning program and the program for breast cancer and cervical cancer screening,” remarked Nurse Carolina Eventina Rafael. “We missed no opportunities, and we didn’t lose any clients.”

Major Accomplishments in MNCH/FP included:

- Establishment and institutionalization of the MMI in 34 of the country’s largest EmONC facilities, covering 21% percent of all institutional births nationwide. Services are delivered by 416 skilled birth attendants trained in EMNC, Basic EmONC, PFP, and quality improvement methodology. MMI has increased both quantity and quality of maternal and neonatal health services. The MCHIP Associate Award continued to support health facilities in EMNC and EmONC service provision and clinical training.



- Establishment of the country's first nationwide cancer prevention program (for cervical and breast cancer) in December 2009. These services are integrated with FP and RH services. Seventy-four health professionals working in 17 health facilities provide services using visual inspection with acetic acid (VIA) and cryotherapy. Six of these facilities are referral hospitals and also provide colposcopy, biopsy, and treatment with the loop electrosurgical excision procedure (LEEP). As of the end of 2010, more than 8,500 women had received breast and cervical cancer screening nationwide.
- National launch of a set of seven new data collection and reporting tools (logbooks and forms) for facility-based MNCH services, adapted to fit the MOH's concept of integrated and evidence-based MNCH service provision. Training was rolled out nationally at the end of 2010 and the system is currently being implemented in 19 of the 34 Model Maternity sites.
- Assistance in the development of 16 national MNCH strategies, norms, standards, and guidelines. Chief among these is the overarching strategy document for integrated RH/FP/MCH services and in-service training packages, approved by the Minister of Health in December 2010.
- Incorporation of a client-centered (humanized) approach to the care of laboring/delivering women and their newborns in the training curricula for health professionals; 30 trainers from 11 training institutes were trained in EMNC, EmONC, PFP, and quality improvement methodology using a client-centered approach.
- Dissemination of experiences in MCHIP/Mozambique to a wider audience, through presentations at four international conferences.

KEY OUTCOMES IN FACILITIES SUPPORTED BY MCHIP			
Indicator	Baseline	Target	Achieved
MMI (34 facilities)*			
% of births with partograph complete and correct	0	50%	37.9%
% of births with use of active management of the third stage of labor (AMTSL)	0	50%	78.4%
% of women with pre-eclampsia/eclampsia (PE/E) treated with magnesium sulfate	<20%	50%	70.0%
% of newborns with skin-to-skin contact	0	50%	76.8%
% of newborns breastfed within 1 hour of birth	0	50%	77.3%
CECAP Program (17 facilities)			
No. of women screened for cervical cancer	0	3,000	8,506
% of women VIA+ treated same day (SVA rate)	0	N/A	63.8%
No. of women screened for breast cancer	0	N/A	8,086

* Endline figures are for last quarter of 2010 for the 27 facilities reporting.

WAY FORWARD

The lessons learned that informed the way forward in Mozambique (including the Associate Award) are:

- Progress in the MMI and CECAP requires a comprehensive approach that includes strengthening the leadership capacity of the MOH, partner organizations, and other development organizations in practical training experiences for health care providers, in donation of key equipment and supplies, and in improvement of the supervision system.
- Balanced improvement along the continuum of preventive and curative services is essential. In the Associate Award, MMI expanded activities to include community-based interventions and CECAP, which increased facility capacity.
- Supportive supervision is a critical component in all programming to ensure measurement of progress and ongoing improvement. As the MMI and CECAP initiatives expand, maintaining and improving the strength of the supervisory system are critical. Hiring key points of contact in each province will strengthen the supervisory system.
- Of the targets for quality service delivery, use of the partograph is the only target not met. A plan for improvement was developed for the Associate Award.
- To improve the humanization of labor and delivery care, the infrastructure of some maternities is a limiting factor, and improvements in key facilities will be made under the Associate Award.
- To ensure continued progress, gains made already must be maintained. This is illustrated by the need for preventive maintenance of equipment for cryotherapy, colposcopy, and LEEP. The process of training provincial technicians in maintenance/repair of equipment began in the CECAP program and will be critical during the MOH's expansion to additional sites.
- To institutionalize progress, a supportive national system for both pre-service and in-service training is required. Progress was slow for pre-service training because of the need to fit with the schedule for curriculum review and the academic year. The Associate Award continued to focus in this area.

MOZAMBIQUE CONDOM SOCIAL MARKETING PROGRAM

INTRODUCTION

Mozambique faces a generalized HIV epidemic with nationwide HIV prevalence estimated at 11.5 of the adult population.² Adults over the age of 25 comprise the majority (68%) of heterosexual HIV transmission.³ Multiple concurrent partnerships (MCP), relatively low condom use, and low male circumcision (MC) prevalence in some areas are key drivers of the epidemic in Mozambique. As part of Mozambique's comprehensive approach to HIV prevention and family planning programming, USAID has been supporting the social marketing and free distribution of condoms to improve condom availability and use among most at risk behavior groups. While consistent exposure to condom social marketing (CSM) has influenced positive behavior change, condom demand and use in Mozambique continues to be lower than in some other countries in the Southern Africa region. This highlights the need to maintain CSM activities to increase correct and consistent condom use to reduce HIV prevalence.

² Instituto Nacional de Saúde (INS), Instituto Nacional de Estatística (INE), e ICF Macro. 2010. Inquérito Nacional de Prevalência, Riscos Comportamentais e Informação sobre o HIV e SIDA em Moçambique 2009. Calverton, Maryland, EUA: INS, INE e ICF Macro

³ Analysis of HIV Prevention Response and Modes of HIV Transmission, UNAIDS Mozambique, 2009.

MCHIP's vision and focus is to accelerate the reduction of maternal, newborn, and child mortality in 20 priority countries by increasing the use of a focused set of high impact maternal, newborn, and child health (MNCH) interventions that address the major causes of death among mothers, newborns, and children under five. Delivery strategies will address barriers to access and use of these interventions along an MNCH continuum of care that links communities, first-level facilities, and hospitals. One of the main goals of the MCHIP Program is to contribute to the reduction of the under-five mortality rate and maternal mortality ratio (MMR) by 25% in high mortality-burden countries.

The goal of this MCHIP program in Mozambique is to reduce HIV prevalence and the number of unwanted pregnancies through increased sales and distribution of condoms. The CSM program was a continuation of condom social marketing and targeted BCC interventions and integrated three broad complementary objectives to achieve this goal.

Objective 1: Increase sales of subsidized branded condoms and increase distribution of free non-branded condoms to targeted groups and in targeted areas.

Objective 2: Implement effective information, education, and communication (IEC) campaigns promoting HIV prevention, changed behaviors, and increased condom use.

Objective 3: Qualitative and quantitative research to track sales and assess changes in attitudes towards condoms.

Specifically, MCHIP supported Population Services International (PSI) to work with both the public and subsidized private sector to increase condom demand and use in Mozambique. USAID and UNFPA provide free, generic (branded and non-branded) condoms for distribution through the public sector. Despite the increase in the number of condoms procured, weaknesses in supply chain management capacity meant that significantly fewer condoms reached end users than were procured. This MCHIP program provided funds to PSI to help improve the public sector's capacity for condom and contraceptive distribution. To increase demand and use of condoms distributed through the subsidized private sector, MCHIP provided support to PSI to conduct a series of in depth interviews to better understand condom use, with the purpose of creating in depth profiles of segments of the target audience that will not "compete" with the public or private sectors but will increase total condom use nationally. PSI in Mozambique is a national provider of subsidized condoms through the private sector. PSI launched the **Jeito** brand condom in 1994. **Jeito** has gained significant brand awareness and recognition. However, the structure of the market has changed recently and some consumer segments, including urban youth, have more choice and exposure to condom-related communications while other segments have been less targeted.

The program used a Total Market Approach (TMA) to increase condom use. TMA is a way to make markets work for the poor. It aims for all segments of society to be reached with high quality products and services according to their ability to pay. In a balanced market, the poorest access products and services through free distribution, those who are somewhat better off have access through subsidized products and services, and those with greater ability to pay use the commercial sector. In a



PSI launched the Jeito brand condom in 1994 and has gained significant brand awareness and recognition

total market approach, social marketing organizations are essential to growing the overall market by attracting new users through mid-priced brands and opening up new markets, particularly in rural areas. In this way, social marketing grows the overall market so there is greater scale and consumer willingness to pay, which results in a more conducive environment for the commercial sector.

KEY ACHIEVEMENTS

- 5,309 new condom outlets opened (65% of outlets in high risk areas)
- 2,000 condom dispensers installed in different outlets such as Ministry buildings in Maputo, Zambezia and Nampula
- 250 vending machines installed in restaurants, night clubs and bars
- 28,198,424 male condoms sold
- 6,358,146 male and 518,811 female condoms distributed through free mechanisms
- HIV prevention-related theatre presentations reached 62,329 participants to create debates around HIV risk and encourage community based discussions around how best to reduce personal risk of HIV (via consistent condom use, staying out of sexual networks or cross generational sexual relationships and the importance of knowing one's HIV status)
- 420,631 individuals reached with individual and/or small group level interventions seeking to increase risk perception and self-efficacy around using condoms, partner reduction and the importance of HIV counseling and testing
- An agreement for condom distribution at night clubs and pubs signed with Too Sexy – a Mozambican company working on event promotion and online advertisement. Too Sexy is distributing Sedutor condoms, targeting young urban middle class people at locations where they are more exposed to high risk behaviors.

WAY FORWARD

Through other funding sources, PSI will continue to implement national level efforts to combat the spread of HIV/AIDS through condom social marketing.

Condom Distribution Data – March 2010 to June 2011

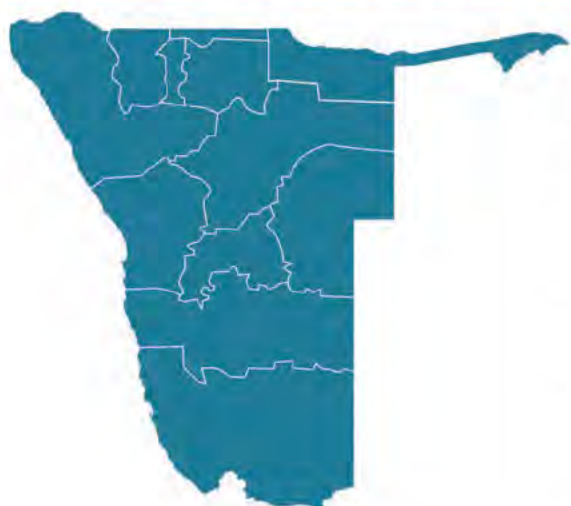
PROVINCE	MALE CONDOMS SOLD	FREE MALE CONDOMS	FEMALE CONDOMS	TOTAL
Maputo	7.280.57	2.317.52	366.7	7.647.36
Gaza	1.157.64	17.340	2.001	1.159.641
Inhambane	876.21	90	0	876.21
Sofala	3.709.36	756.50	13.08	3.722.44
Manica	2.076.40	675.71	8.509	2.084.91
Tete	1.967.76	0	0	1.967.76
Zambezia	3.299.83	459.69	38.42	3.338.25
Nampula	4.675.03	398.50	89.00	4.764.03
Niassa	1.550.78	96.000	0	1.550.78
Cabo Delgado	1.604.80	1.637.00	1.005	1.605.81
TOTAL	28.198.424	6.358.362	518.811	28.717.235

Lessons learned and the way forward:

1. **To better realize a Total Market Approach, JeitO needs to be repositioned to target market segments that are underserved by the current condom brands, while also striving to grow the total condom market without providing direct competition to any other product.** As a consequence, qualitative research was completed which informed a “market mapping” exercise aimed at identifying such market segments, defined by five different variables that define behavior (Who, Where, When, With Whom, Why). A target profile was defined and two possible positioning statements developed. PSI will finalize pre-tests to better define the final positioning statement, and the new JeitO will be re-launched.
2. **To improve targeting, increase working with existing large scale retailers and wholesalers rather than targeting each and every small outlet.** PSI continues to increase sales and expand geographic reach but working with wholesalers.
3. **Private partners can manage condom brands and promote condom use in a sustainable way and are willing to invest their own resources in growing the condom market.** PSI Mozambique transferred one of its brands *Sedutor* to a company called “Too Sexy”, a young Mozambican company specializing in events management, online advertising and marketing, and has strong entrepreneurial spirit. Leveraging social media and other innovative, low cost strategies, Too Sexy started promoting this premium brand condom among middle class and affluent young adults in early 2011. *Sedutor* quickly become available in 42 premium, high visibility, high risk outlets and approximately 10,000 condoms had been distributed or sold through these outlets by the end of 2011.
4. **Local organizations can and should be trained to take over condom social marketing locally.** As part of the strategy to increase sustainability of interventions, PSI transferred CSM activities to ESTAMOS (a local organization).
5. **Community mobilization should be motivated through performance based financing.** PSI transitioned from working directly with community agents or CAs to contracting them as *Activistas* and paying them based on their performance and quality of their work.
6. **Local communities should be involved in the development of messages and mobilization efforts from the start.** PSI now involves the *Activistas* in creating the communications modules in their communities, in their own language.

PSI's support of a national level condom social marketing program will continue with funding from other donors.

MCHIP Country Brief: Namibia



Selected Health and Demographic Data for Namibia	
Maternal mortality ratio (deaths/100,000 live births)	210
Neonatal mortality rate (deaths/1,000 live births)	18
Under five mortality (deaths/1,000 live births)*	69
Infant mortality rate (deaths/1,000 live births)	46
Modern contraceptive prevalence rate	55.1
Total fertility rate	3.6
Skilled birth attendant coverage (%)	81.4%
Antenatal care, 4+ visits (%)	70.4%
Sources: World Bank; WHO; UNPAF; UNICEF; MOHSS; Population & Housing Census 2011.	
*UNICEF <5 mortality ranking (1=highest mortality rate)	

Health Areas

- HIV/AIDS
- Family Planning



Program Dates	October 2012–August 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of regions	100%	No. of districts	35	No. of facilities	411
	HEP: 3 regions; 7 districts; 49 health facilities HIV Integration: 1 region; 2 districts; 9 facilities TP: 1 region; 3 districts; 5 facilities HIS: 14 regions; 35 districts; 411 health facilities VMMC: 2 regions; 2 districts; 48 health facilities					
Country and HQ Contacts	Styn Jamu (Chief of Party); Patricia Taylor (Country Support Team Leader); Jennifer Melgaard (Senior Program Officer)					

INTRODUCTION

The Government of the Republic of Namibia (GRN), with substantial foreign assistance and strong political commitment, was able to achieve a 35% decline in AIDS deaths and a 65% drop in HIV incidence (WHO 2012). The U.S. Agency for International Development (USAID) began providing assistance to Namibia at independence in 1990, and in 2003 increased support through the President's Emergency Plan for AIDS Relief (PEPFAR) for AIDS and TB prevention, care and treatment, and education (GHI 2012). Despite successes, Namibia still lacks sufficient human resources for health; rural communities are underserved; and vertical service delivery has resulted in a fragmented health information system.

Due in part to declines in HIV incidence and AIDS deaths, PEPFAR recently reclassified Namibia as a PEPFAR “transitioning country,” resulting in a reduction in the prevention, care and treatment budget. The GRN is thus faced with developing and managing a reform agenda to improve the coordination of health service delivery, especially in rural areas, and in integrating HIV/AIDS services into existing primary health care services (PHC)—including providing staff salaries and capacity building.



As part of this agenda, the GRN's Ministry of Health and Social Services (MOHSS) established a cadre of Health Extension Workers (HEWs) to strengthen access to health care. USAID provided technical assistance to the MOHSS, focusing on strengthening health and strategic information systems, and strategic coordination of partners and resources in the health sector (USAID 2012). The key partners supporting the MOHSS include: USAID, UNICEF, the World Health Organization (WHO), UNAIDS, the Namibia Planned Parenthood Association (NAPPA) and nongovernmental organizations (NGOs) such as LifeLine/ChildLine, C-Change, and IntraHealth International.

In September 2012, USAID/Namibia asked MCHIP to provide technical assistance to strengthen the quality of and access to health services. From October 2012–July 2014, MCHIP provided support to the GRN related to the HEW cadre; integration of HIV into PHC systems; the development of a Health Information System (HIS); a teen pregnancy prevention program in Kavango Region; and, a voluntary medical male circumcision (VMMC) program. Activities were implemented in Kunene, Osamuti, Ohangwena, Hardap, and Khomas regions.

KEY ACHIEVEMENTS

Institutionalization of the Health Extension Program (HEP)

MCHIP/Namibia and partners supported the MOHSS to develop and finalize the HEP strategy and SOP, both of which are critical to implementation and scale-up of HEP and were approved by the National Steering Committee. MCHIP also provided technical support to strengthen the Regional Health Team for Kunene, Ohangwena, and Omusati, which will in turn support district teams with HEP implementation. MCHIP/Namibia supported the MOHSS to identify and refine a cost-effective HEW training methodology aimed at institutionalizing the Health Extension Worker cadre into the Namibia health system. MCHIP/Namibia also offered technical support in the development of a HEP supportive supervision package, which is used by the Regional and District Health Supervisory Teams to support HEWs in implementing and improving the quality of HEP services. Significantly, the HEP child health training module includes screening and treatment of malaria and pneumonia, and treatment of diarrheal disease with zinc.

Lessons Learned Include:

- Continuous engagement with health facilities, government ministries, and other partners is a necessary foundation to scale up the HEP.
- Continuous supportive supervision must be a part of the HEP scale-up plan.
- High-quality training for HEWs, including refresher training, is necessary to ensure that HEWs have the skills and knowledge to perform, especially when new concepts, such as iCCM, are introduced.
- Introducing and implementing new interventions in selected districts prior to scaling up is important because it provides an opportunity to evaluate what works before scale-up to the entire HEP.

HIV/AIDS Integration into PHC Services

MCHIP supported the Hardap Regional Health Team to identify HIV integration gaps in service delivery, and use the information to develop an action plan for strengthening integrated, essential health care service at the primary care level. In collaboration with the MOHSS, the Hardap Regional Health Team led a facility gap analysis. The methodology and tools used for the assessment were based upon the current evidence related to patient-centered primary care and integration of vertical services. MCHIP maintained an element of standardization with the assessment by expanding upon the previously used UNFPA assessment tools, broadening the scope of integration to HIV and PHC services from HIV and sexual and reproductive health services.

MCHIP developed a technical report to document results and findings from the facility assessment, action planning with the regional managers and health facility staff, and results dissemination to inform the development of a “framework” for HIV integration with primary health services.

Lessons Learned Include:

- In order to assure full integration within facilities, it was important to clearly define the minimum package of care and offer comprehensive services regularly at primary care facilities.

Teen Pregnancy Prevention in Kavango Region

Addressing the high rates of teenage pregnancy in Kavango required a multi-pronged and sustainable approach. Recognizing the complexity of the problem, MCHIP supported “activation” of a regional task force, the KTPTF, drawn from government ministries, community leaders, and development partners, to leverage resources through a sector-wide approach. The key components of the program included planning for an intervention to prevent teen pregnancy, behavior change communication, and training of health service providers in youth-friendly sexual and reproductive health services. MCHIP also took into consideration the need to integrate the teen pregnancy prevention approach into other HIV prevention programs, particularly focusing on HIV infection among sexually active teens and school drop-out when pregnancy occurs. During the same period, MCHIP guided the KTPTF to develop and incorporate clinical components into the teen pregnancy prevention annual work plans.

Lessons Learned Include:

- Strengthen adolescent-friendly services. Parent and community sensitization is required as a means of strengthening services in this arena.

Health Information Systems

MCHIP supported the development of a five-year health information system strategy (2013–2017), which was approved by USAID in February 2014 and submitted to the MOHSS (Permanent Secretary’s Office) for review. MCHIP also supported development of the Namibia

essential hospital and primary health care indicators, and provided capacity building for government officers to strengthen competencies in data analysis, use, and dissemination.

Lessons Learned Include:

- Link programs with essential indicators to monitor the effects of implementation over time.
- Health information systems should be integrated with all levels of service provision.

Voluntary Male Medical Circumcision

MCHIP supported NawaLife Trust to manage, develop, and disseminate information on VMMC. A formative assessment was conducted to explore attitudes, beliefs, and practices surrounding VMMC, which resulted in a strategy for future VMMC demand creation, advocacy, and service delivery activities.

The completion of the formative assessment had a positive impact on achieving immediate results. These results included completing training materials for community mobilization; identifying and designing VMMC activities among partners; reviewing and tailoring the MOHSS/Nawalife IEC materials; establishing regional trainers for VMMC community mobilization; training community mobilizers using the developed training manuals; and mass printing IEC materials for use in districts scaling up VMMC.

Lessons Learned Include:

- Demand creation is a key component to increasing the number of VMMCs. The demand and supply sides must be interrelated for any future success in this program area.

WAY FORWARD

MCHIP technical support contributed significantly to each of the five technical components described above. However, future efforts will need to focus on greater coordination between the MOHSS and other government ministries, regional agencies, and other partners including USAID and other development partners. As Namibia is a highly consultative environment, this collaboration is and must remain a key priority in order for the consortium of partners to attain the desired outcomes.

Expanding coverage can be done using integrated approaches. MCHIP experienced that integration approaches must be sector-wide to expand service coverage. The integration approach can focus on the health information system, HIV and primary health care services, and establishment of a strong link between the formal health system and the community.

MCHIP Country Brief: Nepal



Health Area

- Family Planning

Selected Health and Demographic Data for Nepal

Maternal mortality ratio (deaths/100,000 live births)	229
Neonatal mortality rate (deaths/1,000 live births)	33
Under-5 mortality rate (deaths/1,000 live births)	54
Infant mortality rate (deaths/1,000 live births)	46
Contraceptive prevalence rate	43
Total fertility rate	2.6
Skilled birth attendant coverage	78.5%
Antenatal care, 4+ visits	50%

Sources: * The Himalayan. Daily Newspaper. April 29, 2014; ** Central Bureau of Statistics (CBS). 2012; *** Nepal Maternal Mortality and Morbidity Study 2008/09; **** Nepal Demographic and Health Survey 2011 (NDHS); ***** WHO Nepal Country Health Profile



Program Dates	January 2010–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	60%	No. of districts	4	No. of facilities	65
Country and HQ Contacts	Kusum Thapa, Regional Technical Advisor, Dr. Nabeel Akram, Presha Rajbhandari, Barbara Rawlins, Dr. Jeffrey Smith, Katherine Lilly					

INTRODUCTION

Nepal is one of the few countries that are poised to meet Millennium Development Goals by 2015. Improvement in maternal health has been accompanied by a reduction in maternal mortality, decline in the total fertility rate, and an increase in skilled birth attendant (SBA) rate. Despite these improvements, significant challenges remain. Postpartum hemorrhage (PPH) was once the leading cause of maternal mortality but it has been reduced greatly. Current evidence reveals PE/E as a leading cause of maternal mortality when the antepartum and postpartum hemorrhage are disaggregated. Despite political challenges in the past decade, Nepal has implemented numerous innovative interventions such as community-based distribution of misoprostol for prevention of PPH and application of chlorhexidine for umbilical cord care to prevent newborn sepsis. The scale-up of these innovations as well as the provision of traditional maternal and newborn health (MNH) services at the facility and the community levels needs to be uniform in all 75 districts. The Ministry of Health and Population (MoHP) in Nepal is making a greater effort to pilot innovative interventions, it is crucial to strengthen its capacity and that of government research agencies on research and data for decision-making. Finally, monitoring the scale-up of new programs is essential to ensure their quality as well as their impact on the provision of existing MNH services.

KEY ACHIEVEMENTS

With these gaps in mind, the Maternal and Child Health Integrated Program (MCHIP), in collaboration with the MoHP, designed objectives and interventions to address PE/E and to move toward a common framework for providing uniform and universal access to MNH services in Nepal. A key component is government capacity-building on research and use of data for decision-making. The MCHIP interventions are shown in the table below.

MCHIP Interventions in Nepal

Provide technical and financial assistance for the calcium supplementation for prevention of PE/E.
Provide technical and financial assistance for proteinuria test pilots.
Support implementing partners for advocacy, evaluation, documentation, and dissemination of evidence-based maternal, neonatal, and child health (MNCH)/family planning (FP) interventions at the national level.
Support capacity-building to institutionalize research for decision-making to improve health outcomes

The major accomplishments of the country program by interventions are:

Provide technical and financial assistance for the calcium supplementation for prevention of PE/E:

PE/E is one of the leading causes of maternal mortality in Nepal and globally. The World Health Organization (WHO) recommends calcium supplementation for pregnant women in low-resource settings to prevent PE/E. MCHIP conducted a pilot to assess the acceptability of two forms of calcium (tablet and powder) in two village development committees (VDCs) of Banke district. Another pilot was conducted to assess the coverage and compliance of antenatal calcium distribution to prevent PE/E in Dailekh district in Nepal. Although global evidence exists to show that calcium supplementation during pregnancy reduces the incidence of PE/E, this pilot is the first of its kind to test the integration of antenatal calcium distribution into the existing health system to prevent PE/E.



*Pregnant women received calcium tablet from health facility.
Photo credit: Dipendra Rai*

Through the pilot, MCHIP reduced the risk of PE/E occurrence in 9,246 pregnant women who received calcium and counseling from health workers and female community health volunteers (FCHVs) on the benefits of taking calcium. The findings from the pilot show that the antenatal care (ANC) supplementation of calcium is feasible with high coverage and compliance. The ANC providers and FCHVs reported that calcium distribution is acceptable and feasible to incorporate into their current responsibilities. The findings from the survey of the sample of women who received calcium are summarized in the table below.

The health care workers and FCHVs gave positive feedback on their willingness to distribute and promote the distribution of calcium for the prevention of PE/E. One provider said: "PE/E has been controlled, and because of calcium program, ANC checkup has become regular among pregnant women in their health facilities."

Findings from the Calcium Pilot

Coverage of calcium among pregnant women	High, 95.0% (1,178/1,240) of all women surveyed received calcium.
Compliance among women who received calcium	High, 67.0% (789/1,178) of women who received calcium taking the full course (150 days).
Level of knowledge among ANC providers and FCHVs on calcium for prevention of PE/E	High. Among ANC workers more than 94% (102 /109) reported that calcium prevents PE/E and more than 97% (105/109) demonstrated correct knowledge about calcium intake.
Iron consumption	Did not reduce iron absorption. Of the RDW who received both calcium and iron tablets (n=1,157), 99.8% (n=1,155) reported taking them at separate times of the day, as instructed



Sunita Adhikari is one of the 9,426 pregnant women in Dailekh who received calcium to prevent PE/E. Sunita attended ANC regularly during her third pregnancy. The local FCHV told her that the local health clinic was now giving out calcium for free to all pregnant women. The next day, she went to the clinic. There, health workers did a thorough checkup (including testing her urine and measuring blood pressure), counseled her on calcium, and gave her a bag containing two bottles of calcium and an information brochure. When she met a MCHIP staff person later in her pregnancy, she shared, "I already finished one bottle and started the second bottle and I am feeling better. I have recovered from the weakness which I was experiencing."

Through this intervention, MCHIP has demonstrated that ANC distribution is feasible and can maximize coverage, thus reducing the risk of PE/E and ultimately saving lives of women and newborns. As a next step in Nepal, MCHIP recommends the scale-up of calcium distribution in the country. Leadership from the MoHP is essential for the scale-up, which should integrate the training, supervision, and procurement of calcium into the existing government system. MCHIP's contribution toward the prevention of PE/E is valuable not only for Nepal, but also globally. The resources developed, such as the training and counseling materials and brochures, can be adapted for use in other countries. Looking at the encouraging results, the GON is committed to scaling up the calcium supplementation starting in two terai districts.

Provide technical and financial assistance for proteinuria test pilots:

Jhpiego, in collaboration with the Johns Hopkins Whiting School of Engineering, developed a simple, low-cost point-of-care test to detect elevated protein in urine. Protein in urine is one of the symptoms of PE/E, which is one of the leading causes of maternal death in Nepal and globally. In resource-poor settings such as Nepal, many women are often not tested during

pregnancy for elevated proteinuria because they are not able to make it to a health facility. Our new screening test for proteinuria was designed to be prepared by the existing Female Community Health volunteer (FCHV) handles the pen, prepares the test paper, and distributes the test paper to the pregnant woman, who then uses the self-test at home. The low cost point-of-care test that diagnoses PE/E can save the lives of mothers and newborns if appropriate care is received in a timely manner.

A three-phase pilot project was designed to test the diagnostic tool. This component of the project was cost shared with other United States government (USG) and non-USG funding sources. Findings from or the individual steps are shown in the table below.

Findings from the Three-Phase Pilot for the PE/E Low-Cost Point-of-Care Test

STEP 1	Johns Hopkins University laboratory	Formulation of the proteinuria agent and the delivery platform of the proteinuria agent were finalized.
STEP 2	Routine ANC clinic in Nepal	Sensitivity, specificity, positive predictive value and the negative predictive value of the new protein test were identified against the standard dipstick urinalysis and the Esbach test.
STEP 3	Rural ANC clinic in Nepal	Conducted to determine the acceptability of self-test and the majority found the test to be acceptable.
STEP 4	Rural ANC clinics and community in Nepal	It was conducted to determine the acceptability and feasibility of PW in the community to perform proteinuria screening self-test and to interpret the color of the test. Unacceptably high positive rate on the screening was encountered: Overall, 388 pregnant women were recruited by 27 FCHVs and carried out the self-test. The percent positive on the self-test as determined by pregnant woman and FCHV during the FCHV visit to the women's homes was 68% (262/388). All positive women were referred to the primary health care center (PHC) by FCHVs, of these 58% (152/262), arrived at the PHC. Of the women who arrived at the PHC for further testing only 10% (14 women) were confirmed with elevated protein. Hence, the further enrollment was suspended.

In conclusion, given the high positive rate identified in Step 4, the decision was made to discontinue the study. During the course of implementing Step 4, it was observed that the community study was well-received by local health authorities, the facility in-charge, and the FCHVs. Women in the community were also enthusiastic about the ability to self-test for proteinuria. Pregnant women performed the self-test after they received orientation and education from the FCHVs. The existing FCHV program platform in Nepal was highly effective at reaching hundreds of pregnant women in a short amount of time (1–7 November 2011).

The initial tests on the self-diagnostic model for PE/E provided valuable information to re-design and refine the product further. The recommended next step is to redesign the test to correct the high positive rate. In the meantime, strengthening the recommended PE/E detection practices, such as blood pressure measurement and dipstick urine tests at health facilities during ANC visits is important. To date, prevention, diagnosis, and management interventions in Nepal were implemented separately, either in different geographic locations or during different time periods. As a next step, MCHIP recommends that a combined PE/E prevention, diagnosis, and management intervention be piloted in a few sites in Nepal and the government is planning to pilot in two districts in the terai region where the incidence of PE/E is high.

Support implementing partners for advocacy, evaluation, documentation, and dissemination of evidence-based MNCH/FP interventions at the national level.

MCHIP provided technical assistance to HealthRight International (HRI), a child survival grant recipient to implement the quality improvement process for maternal and newborn health services in health facilities of Argakanchi district in summer 2011.

The MoHP was interested in developing a core set of prioritized community-focused MNCH interventions in a package that can be scaled up by mobilizing FCHVs. Hence MCHIP supported NFHP and other local and international experts and stakeholders, to assist the MoHP in defining integration and to develop various tools to guide integration.

Products Developed with assistance from MCHIP for Community-Focused MNCH Interventions Package for Scale-Up

A common framework for MNH in Nepal	The framework provides a common way of thinking and talking about various MNH interventions, showing how all the pieces should relate to each other and guiding the MoHP and the stakeholders in planning and management. The framework is governed by the principle of highest coverage for interventions directly leading to improved health outcomes with a flexible strategy for implementation.
Concept note on the evolution of an integrated training program for community-based MNCH interventions	The concept note presents a framework for addressing trainings for a variety of interventions for community-based approaches in a streamlined manner. The conceptual framework would: allow the government and partners to fill in the gaps by completing core training for all currently approved interventions; reorganize training guidelines and materials to remove redundancy and establish a continuum of care approach; include a modular approach that allows introduction of new interventions as evidence establishes their value; and simplify the work of FCHVs by organizing activities around client needs.

The Community Based Newborn Care Package (CB-NCP) was developed by Saving Newborn Lives/Save the Children under the leadership of the Child Health Division and Family Health Division (FHD) of the MoHP to address the high and stagnant rates of newborn mortality. CB-NCP was initially piloted in 10 districts and rapidly scaled up. Currently it is in 41 districts. MCHIP facilitated the assessment in 10 initial pilot districts. MCHIP provided technical input during CB-NCP assessment design, finalization and printing the report. Findings from the CB-NCP assessment provided valuable information on the strength and weakness of the CB-NCP program. MCHIP organized meetings with MoHP officials, USAID and a small group of external development partners and stakeholders. Subsequently the CB-NCP package was revised and some content was changed. MCHIP printed 300 copies of the assessment report and shared it with the Child Health Division Department of Health Services (DoHS), MoHP.

The development of a common framework for MNH and evaluation of interventions are all important steps toward building the capacity of the MoHP to streamline MNH service delivery. MCHIP supported to initiate discussions on a common framework for MNH and provided products to facilitate these discussions, but this is just the beginning. A significant amount of leadership, commitment, and work is required from all stakeholders to develop a common pathway toward provision of rationalized and integrated MNH services. The quality of these interventions, as well as their impact on routine MNH services, should be assessed periodically. With the CB-NCP evaluation, MCHIP has helped establish precedence for the MoHP and other agencies to take the lead in reviewing and evaluating new interventions that are piloted and subsequently scaled up. The MoHP and stakeholders now need to ensure that feedback is absorbed by the program.

Support capacity-building to institutionalize research for decision-making to improve health outcomes.

The MoHP aims to increase the capacity of local institutions in Nepal on qualitative and quantitative research design and use of MNCH/ FP data at the national level. Nepal Health Research Council (NHRC) is a government body responsible for setting the agenda for research, conducting research, giving ethical approval, and monitoring other research being done in country. MCHIP helped identify ways to strengthen the capacity of the NHRC as a research regulating body.

Under this objective, MCHIP facilitated a workshop on “Evidence Based Policy and Programming in Public Health in Nepal” in September 2011 led by NHRC with MCHIP/USAID support. The workshop identified a set of priorities for evidence-based policy and program in public health. In order to follow up the recommendations and action points, NHRC with support from MCHIP/USAID organized a follow on meeting on 16th June 2014 at NHRC. All members in the meeting agreed that the initiative taken by the MCHIP was a very useful platform. Health for life and other concerned stakeholders will continue the initiative started by MCHIP

WAY FORWARD

Objective 1:

The MoHP should consider scaling up the piloted model of calcium distribution to other districts in Nepal. Leadership from the MoHP and the TAG, which was fundamental to help guide program implementation and monitoring, will be important in the future as well. The scale-up plan was discussed during the calcium TAG meeting held on November 21, 2013 and Advocacy meeting held on March 2014. The FHD has planned to scale up the program in 2014/2015 in two Terai districts in which PE/E caseload, number of pregnancies, and availability of partner agencies are high. To make this scale-up happen, the GON/FHD has requested support from concerned stakeholders and partners. Official memo (Tippani) from the FHD for scale-up of calcium supplementation in additional district and formation of PE/E TAG was approved on April 2014 by the MoHP. FHD has formed PE/E Technical Advisory Group and first meeting was held on 27 May 2014. Similarly, discussion is initiated in DOHS/MoHP to include calcium in the government essential drug list.

- If calcium supplementation is scaled up to additional districts, the MoHP can consider integrating training of health care workers and FCHVs into regular district review meetings or other ongoing meetings, and calcium procurement and distribution to health facilities could be incorporated into the government’s logistics management system.
- Jhpiego will continue supporting TAG meetings to support GON in its scale up efforts.

Objective 2:

- Jhpiego is supporting to redesign the proteinuria test to address the high positive rate. In the meantime, strengthening the recommended PE/E detection practices, such as blood pressure measurement and dipstick urine test, at health facilities during ANC visits.

Objective 3:

- The integration of MNH requires a pathway or a step-by-step guideline for MNH integration and provision of uniform and universal access to services in all 75 districts. A mechanism to periodically evaluate new programs that are in the process of scale-up is also needed.

Objective 4:

- H4L and other concerned stakeholders will take this initiative forward.

MCHIP Country Brief: Nigeria



Selected Health and Demographic Data for Nigeria	
Maternal mortality ratio (deaths/100,000 live births)	545
Neonatal mortality rate (deaths/1,000 live births)	40
Under-five mortality rate (deaths/1,000 live births)	128
Infant mortality rate (deaths/1,000 live births)	69
Modern contraceptive prevalence rate (%)	10%
Total fertility rate	5.5
Skilled birth attendant coverage	39%
Antenatal care, 4+ visits	44.8%
Sources: Nigeria 2008 Demographic and Health Survey; *World Bank 2011; **World Bank 2014.	

Health Areas:

- Maternal Health
- Newborn Health
- Family Planning
- Immunization (Polio)



Program Dates	April 1, 2009–December 31, 2011					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of states	8.3%	No. of districts	28 local government areas	No. of facilities	57
Country and HQ Contacts	Country: Emmanuel Otolorin, Headquarters: Alishea Galvin, Emmanuel Otolorin, Technical Support: Joseph de Graft-Johnson, Barbara Rawlins, Edgar Necochea					

INTRODUCTION

The 2008 Nigeria Demographic and Health Survey revealed that while Nigeria had made some progress in maternal, newborn, and child health indices, this progress was inadequate. These findings reinforced the opinion that Nigeria belonged to the group of countries making “insufficient” progress toward the attainment of Millennium Development Goals 4 and 5,¹ especially in the Northwest geopolitical zone of Nigeria. This zone has a particularly high maternal mortality ratio of 1,025 compared to the national average of 800 deaths per 100,000 live births.² Skilled attendance at birth, antenatal care attendance, and contraceptive prevalence rate were also very low in this zone while the total fertility rate was high. As outlined in the National Integrated Maternal, Newborn and Child Health (IMNCH) strategy and Midwifery Service Scheme (MSS), the government of Nigeria (GoN) is committed to improving health outcomes for pregnant women and their families.

Summary of Achievements

- Implemented evidence-based EmONC interventions in three states (representing 8.3% national coverage) in continuation of the ACCESS Program.
- Supported 57 health facilities in 28 local government areas (LGAs).
- Project-trained skilled birth attendants supervised 879,385 antenatal visits, 183,355 institutional deliveries, provided active management of third stage of labor to 156,498 women, used the partograph for 81,437 deliveries, and provided essential newborn care to 175,906 newborns seen within three days of birth.
- 449 trained male birth spacing motivators counseled and referred 11,371 men, of whom 28.3% accepted a family planning (FP) method for themselves or their spouses. The contraceptive prevalence rate for modern methods in the region is 2.5%.
- 477 trained female household counselors reached 32,926 women and referred 12,481 to health facilities.
- 2,919 members of 109 Mothers’ Savings and Loans Clubs that were established raised over **Redacted** to be used as loans for small-scale businesses or for health care.
- 352 health care workers were trained in the “Helping Babies Breathe” program and 60 NeoNatalie anatomic models were donated.
- Long-acting reversible contraception (LARC) services were provided to 466 women through FP outreaches.
- More than 20 videos on newborn care produced in partnership with Global Health Media Project (all now online through WHO’s Reproductive Health Library website).

The goal of the U.S. Agency for International Development’s (USAID’s) Maternal and Child Health Integrated Program (MCHIP) in Nigeria was to contribute to the reduction of maternal and neonatal mortality by achieving its life-of-project (LOP) objective of increased utilization of quality emergency obstetric and newborn care (EmONC) services by pregnant women, mothers, and their newborns in selected local government areas (LGAs) in three states—Kano, Zamfara, and Katsina. MCHIP was well-positioned to support the GoN to address MNCH interventions, drawing on technical and programmatic expertise from the previous ACCESS Nigeria program. MCHIP continued the implementation of the ACCESS Program’s integrated community- and facility-based essential maternal and newborn care interventions focusing on antenatal care (ANC), comprehensive and basic EmONC, postpartum care, and family planning for healthy timing and spacing of pregnancies using a household-to-hospital continuum of care (HHCC) approach.

KEY ACHIEVEMENTS

MCHIP advocated for supporting high-impact and evidence-based interventions as well as building the country’s capacity in MNCH and FP, working with the GoN. Thanks to a strong partnership with the GoN and other implementing partners and support from USAID, many achievements were observed throughout the duration of the project (see text box above).

¹ Countdown to 2015, 2008 Report.

² FMOH, 2000.



MCHIP supported and worked with a variety of maternal and child health/family planning/ reproductive health stakeholders to develop National Performance Standards for EmONC and FP, which led to an increase in the quality of care consciousness in the health sector. Additionally, the program advocated with other implementing partners for the creation of the Midwifery Service Scheme to increase the number of skilled birth attendants deployed throughout the country. Concurrently, MCHIP reviewed the pre-service midwifery curriculum in project states to ensure the inclusion of evidence-based EmONC and FP interventions.

MCHIP also participated in the Family Planning Action Group (FPAG), which successfully advocated for the GoN policy change in FP commodities in April 2011, making access to FP commodities free of charge. These are some of the many interventions that may have contributed to the reduction in Nigeria's maternal mortality.

In order to increase access and improve the quality of care, MCHIP trained 2,678 people on health-related subjects. Eighteen health centers were refurbished and basic obstetric equipment was donated. The skilled birth attendants from 57 facilities supervised 879,385 antenatal visits, 183,355 institutional deliveries, provided active management of third stage of labor (AMTSL) to 156,498 women, used the partograph for 81,437 deliveries, and provided essential newborn care to 175,906 newborns seen within three days of birth.³

The program also established 19 community mobilization teams to guide communities to prioritize maternal, newborn, and FP issues and to leverage additional resources (emergency transport and communication) and support from philanthropists and traditional/political leaders.⁴ Through 477 trained household counselors and 449 Male Birth-Spacing Motivators, the program was able to increase pregnant women's knowledge about danger signs in pregnancy and during and after childbirth, and inform couples about healthy timing and spacing of pregnancies and use of modern contraception.

After the end-of-project financial adjustments, available funds were used, at the request of USAID, to conduct a baseline assessment of the readiness of three states (Akwa Ibom, Benue, and Imo) on their readiness to provide basic and comprehensive EmONC to pregnant women and their newborns. This led to an assessment of 30 health facilities' infrastructure and human and material resources as well as knowledge and skills assessment of about 118 frontline health care workers. Details of the assessment findings are available in a separate report.⁵

In Immunization, MCHIP began a 2-phase research study to help inform national strategy on polio eradication. This study will help identify household factors affecting demand for polio vaccination and rates of missed children in northern Nigeria. MCHIP completed the first phase which consisted in data collection and the beginning of analysis. The second phase will continue in the follow-on project, MCSP.

³ MCHIP/Nigeria Routine Service statistics template.

⁴ MCHIP project report.

⁵ MCHIP Nigeria. Project Report: An Assessment of Health Facilities in Akwa Ibom, Benue and Imo States on Their Readiness to Provide Emergency Obstetric and Newborn Care.

WAY FORWARD

The MCHIP programs have demonstrated that the implementation of an HHCC approach consisting of a package of community and facility interventions can lead to increased knowledge of communities about maternal and newborn health issues and increased utilization of health facilities for maternal, newborn, and FP services. However, these efforts need to be sustained and scaled up statewide and nationally for the full impact of the interventions to meet the 2015 targets of the Millennium Development Goals. MCHIP leaves a legacy of competent frontline health workers to provide basic maternal and newborn services and empowered community mobilizers. All the training materials and job aids developed by MCHIP have been provided to the GoN at the national and county levels as well as to other implementing partners so they can continue to implement the program over the long term.

Some recommendations for the way forward include:

- Advocacy for the passage of the National Health Bill must be intensified. This bill has been in the national assembly for 8 years. When passed, it will provide approximately 2 percent of the national budget for primary health care and is intended to support the national health insurance scheme, procure essential drugs and medications, and renovate dilapidated PHC structures while developing the capacity of health care workers within the PHC system. If passed and implemented as designed, this will address the problem of under-funding of the PHC system in the country and reduce donor-dependency while bringing quality basic health care nearer the people.
- In the interim, the findings from this project and other similar projects which emphasize the importance of skilled attendance at birth should be disseminated widely at national and sub-national levels for replication. State Governments must take advantage of the MSS and SURE-P projects initiated by the Federal Government and replicate the positive lessons learnt in their states. By and large, this means establishing additional 'hospital-PHC clusters' and attracting nurse-midwives who will be deployed like in the MSS program. Thereafter and using the funds from the National Health Bill, build the capacity of frontline health care workers in PHCs to provide basic emergency obstetric and newborn care.
- Advocacy for the approval of the proposed Jhpiego supported and MacArthur funded National Task Shifting policy by the National Council on Health (NCH) to allow CHEWs to provide basic emergency obstetric and newborn care. In states with an acute shortage of midwives, community health extension workers (CHEWs) should be identified and trained to provide BEmONC. Hospitals that are attached to the MSS clusters should be made functional to provide comprehensive EmONC sites which will include Caesarean delivery, blood transfusion and anesthesia services.
- While the implementation of the SBM-R framework helped raise quality of care consciousness, the sheer number of set standards and numerous verification criteria has made SMB-R implementation highly human resource intensive. Therefore, the performance monitoring tools should be revised to significantly reduce the number of standards and verification criteria to a manageable number. For example, an expansion of WHO's new one-page Safe Birth Checklist will be a good starting point. The use of these tools should be tied to output indicators such as use of active management of the third stage of labor and use of magnesium sulphate.
- Future programs should assist States to implement the recently approved Maternal and Perinatal Death Reviews of the GoN.
- Critical interventions for the prevention and/or treatment of the common causes of maternal and newborn mortality should be prioritized for scale up. These should include the following:

- Scale-up of AMTSL, including use of misoprostol at home births to prevent PPH.
- Scale-up of the application of chlorhexidine at home and institutional births to prevent umbilical cord sepsis
- Scale-up of use of Magnesium Sulphate for the prevention and treatment of eclampsia. This will involve the enactment of the task-shifting or task-sharing policy that will allow CHEWs to provide these services at PHCs before referral to general hospitals.
- Use of the partograph to monitor active labor and to identify slow progress for intervention before adverse events like obstructed labor occur.
- Scale-up of essential newborn care and the 'Helping Babies Breathe' program with provision of infant Ambu bags and Penguin bulb syringes to all health facilities
- Scale-up of the use of MVA for evacuation of products of conception in unsafe abortion.
- Scale-up of appropriate infection prevention practices including use of parenteral antibiotics for treatment of puerperal and neonatal sepsis.
- Focused antenatal care which integrates malaria in pregnancy and PMTCT interventions should be scaled up to all LGAs in all the states.
- Education of the community about healthy timing and spacing of pregnancies (HTSP) and use of family planning to achieve this should be a priority. Promotion of exclusive breast feeding in the postpartum period which will assure lactational amenorrhea as a contraceptive method transitioning to long-acting methods after six months. Training of nurse/midwives and CHEWs to provide long-acting reversible contraception (LARC) will be a critical intervention for HTSP.
- States should map out existing community coalition groups and select volunteers to be trained as household counselors, male birth spacing motivators and community champions for maternal and newborn health care. These community groups should be empowered to leverage resources from within and outside the community to improve access to quality services. CBOs may be engaged to implement this arm of the HHCC framework given their integration in the community. A basket on incentives to retain trained community health volunteers should be designed and implemented.
- Efforts should be made to enforce GoN's new free FP commodity policy. In order to remove the often quoted excuses for continuation of formal and informal user fees, GoN should invest in the procurement of essential consumables for providing these contraceptive services e.g. gloves, lotions, gauze swabs, local anesthetics etc. Funds should also be provided for transporting the commodities out of the Federal Government's Central Medical Stores to State Medical Stores and eventually to the end user clinics. The release of funds committed by the GoN for FP during the 2012 FP2020 conference in London requires continuing advocacy to the FMOH, the Federal Ministry of Finance and the Appropriation Committee of the National Assembly.
- The findings from the MCHIP/MCSP Polio research, once available, should be utilized as part of a comprehensive review process to inform and operationalize timely strategic implementation for polio eradication.

MCHIP Country Brief: Pakistan



Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- Family Planning

Selected Health and Demographic Data for Pakistan

Maternal mortality ratio (deaths/100,000 live births)	276
Neonatal mortality rate (deaths/1,000 live births)	55
Under-5 mortality rate (deaths/1,000 live births)	89
Infant mortality rate (deaths/1,000 live births)	74
Contraceptive prevalence rate	35.4
Total fertility rate	3.8
Skilled birth attendant coverage	52.1%
Antenatal care, 4+ visits	28.4%

Sources: National Institute of Population Studies (NIPS) [Pakistan] and ICF International. 2013. *Pakistan Demographic and Health Survey 2012-13*. Islamabad, Pakistan, and Calverton, Maryland, USA: NIPS and ICF International.



Program Dates	February 1, 2012–December 31, 2012					
Total Funding to Date	Redacted					
Geographic Focus	No. (%) of Provinces	13%	No. of Districts	N/A	No. of Facilities	N/A
MCHIP In-Country Contact	Farid Midhet (Chief of Party) farid.midhet@jhpiego.org					
HQ Managers and Technical Advisors	Nabeel Akram, Presha Rajbhandari, Laura Fitzgerald, Jeffrey Smith, Anita Gibson, Wendy Castro					

INTRODUCTION

MCHIP in Pakistan, aligned with the U.S. Agency for International Development (USAID) as a part of a larger USAID-funded consortium, operated from February 1, 2012 until December 31, 2012 with \$1 million dollars in field funding. This Project was the startup phase prior to being awarded an Associate Award. MCHIP's work during this time focused on building a foundation for scaling up evidence-based integrated maternal, newborn, and child health (MNCH) and family planning services in Pakistan's Sindh Province. Though the majority of activities accomplished in this time frame were not quantifiable, the Project was able to establish pivotal relationships by collaborating with public and private partners, conducting technical assessments, and supporting national partners in designing integrated packages of services. These relationships, in turn, were essential to work planned under the Associate Award.

During this startup phase, the MNCH Services Project worked in concert with Save the Children, PSI, Marie Stopes International, and the DELIVER Project. Though each partner in the portfolio was responsible for specific activities and deliverables, all partners worked in close coordination to achieve the same goal: improved health outcomes for newborns, children, and women. The overall program goal is to build Pakistani capacity to deliver high-quality MNCH and reproductive health services via the public sector in underserved rural and urban areas, primarily in Sindh Province.

The overall objectives of the five-year MNCH Services Project are:

1. To decrease maternal and neonatal mortality
2. To decrease morbidity rates of childhood illness

Over 11 months, the field-funded MNCH Services Project collaborated with various partners as well as the Department of Health and government of Sindh to develop a plan for achieving the following program goals under the Associate Award:

- Increase contraceptive prevalence (modern and traditional methods)
- Increase the percentage of facility births
- Increase the percentage of births with a skilled provider
- Increase the quality and availability of emergency obstetric care
- Increase the quality and availability of essential newborn care
- Increase exclusive breastfeeding rates through the first six months of life

KEY ACHIEVEMENTS

The MNCH Services Project followed a rapid startup plan that achieved the following major accomplishments in a short period:

- Advocated for the inclusion of misoprostol on the Essential Drug List in Punjab as part of the Postpartum Hemorrhage Prevention and Management Plan.

Figure 1. USAID/Pakistan's Maternal and Child Health Program



- Finalized midwifery-led birthing clinic (MLBC) standards and established MLBC technical advisory groups.
- Organized meetings with several public and private sector organizations such as DKT International (a nonprofit social marketing organization), Health and Nutrition Development Society (HANDS), and PSI/Greenstar to identify the priorities for Year 1 activities under the Associate Award.
- Liaised with business advisory firms to gauge their interest and capacity in conducting a household survey in Sindh and Punjab provinces.
- Collaborated with DELIVER, PSI/Greenstar, and Marie Stopes International to complete mapping of the five focus districts in Sindh Province.
- Established office space in Karachi, hired key staff members, and set up operational systems.

WAY FORWARD

During the startup phase, the Project team concentrated on developing the necessary infrastructure and partnerships to sustain and support the remaining phases of the project. During this period, MCHIP secured and opened a functional office space in Karachi, hired key staff, and set up operational systems. To further solidify partnerships and ensure a cohesive Project strategy, the MNCH Services Project held a work planning meeting in January 2013 with representatives of partnering organizations, USAID, and the Sindh MNCH Program.



The MCHIP Associate Award/MNCH Services Project will focus on the following for Year 1:

- Following the mapping completed with MCH partners in 2012, the Project will define the geographic areas of focus for Year 1 activities.
- Outline partnerships with DKT, Aman Foundation, and HANDS to formalize these relationships through Memoranda of Understanding.
- Project staff will prepare an MLBC Implementation Guide and supply, equipment, and drug lists, and well as MLBC space specifications for the TAG's imminent review and endorsement.
- The MNCH Services Project will begin working at the district level to map and track trained and deployed community midwives. In Year 1, 60 community midwives will be engaged to develop MLBCs and 40 MLBCs will be established.
- Moving forward, the Project will begin critical work with two midwifery training institutions: AZIMS (Koohi Goth Hospital) and HANDS Midwifery School of Jam Kanda. Both institutions will be upgraded to Midwifery Centers of Excellence in Year 1.

MCHIP Country Brief: Paraguay



Health Areas:

- Maternal Health
- Newborn Health

Selected Health and Demographic Data for Paraguay	
Maternal mortality ratio (deaths/100,000 live births)	100
Neonatal mortality rate (deaths/1,000 live births)	12
Under-5 mortality rate (deaths/1,000 live births)	23
Infant mortality rate (deaths/1,000 live births)	20
Contraceptive prevalence rate	79.4
Total fertility rate	2.5
Skilled birth attendant coverage	82%
Antenatal care, 4+ visits	90.5%
Sources: World Bank+, UNICEF.	



Photo by: Maria S. Pena; MCHIP/Paraguay

Program Dates	October 1, 2009–September 30, 2012					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	12%	No. of districts	8	No. of facilities	8
Country and HQ Contacts	Vicente Bataglia; Carmen Sheehan; Bertha Pooley; Jennifer Luna: Jennifer.WinestockLuna@icfi.com; Goldy Mazia: gmazia@path.org; Jeffrey Smith: Jeffrey.Smith@jhpiego.org.					

INTRODUCTION

Despite notable gains in maternal and child health (MCH) and family planning (FP) over the last decade, Paraguay continues to confront significant gaps in health. The Ministry of Health and Social Welfare's (MOHSW's) online database reported in 2012 that the maternal mortality ratio (MMR) remains persistently high at 125.3/100,000 live births. Furthermore, inequality is a major problem, with the poorest 20% of the population accounting for 26.8% of the MMR, while the richest 20% account for 14.5% of the MMR. The risk of maternal mortality for the lowest economic quintile is 1.65 times greater than for those in the highest economic quintile. The health workforce is also inequitably distributed: 70% of health workers are concentrated in the area around Asunción, where just 30% of the population lives (WHO).

In addition, only 11% of Paraguayan hospitals provide comprehensive emergency obstetric and newborn care (CEmONC), and are mostly concentrated in urban areas. Moreover, 65% of hospitals provide these services incompletely, or do not offer them at all.¹ Less than 50% of hospitals have the necessary equipment, supplies, or trained staff to provide basic newborn care. The health system is also weakly regulated: Paraguayan midwives, or *Licenciadas en Obstetrica*, are not bound by formal legal regulations; there is no standardized curriculum in place for Paraguayan midwifery schools, and the quality of training and the clinical skills of nurse-midwives are below par. Often, maternal and newborn health (MNH) care does not comply with the international recommendations.

MCHIP Approach and Activities

In this context, the U.S. Agency for International Development (USAID) aims to support the government of Paraguay (GOP) in improving the public health system, decreasing corruption, and providing better access to key health care services. The goal of MCHIP-Paraguay was to improve access to high quality MNH services and increase use of best practices in MNH by communities and families in targeted underserved areas and facilities in the Regions of Central and Alto Paraná. To this end, throughout the project duration (2009-2012), MCHIP carried out the project activities outlined in its work plans for MNH and community mobilization components.

With the assistance of MCHIP's Technical Team, the MOHSW selected the targeted services for implementation of the program interventions for Year 1 (September 2010–September 2011) and Year 2 (October 2011–September 2012). The intervention areas related to the program objectives were: Maternal Health, Neonatal Health, and Community Mobilization.

The objectives were as follows:

- **Objective 1:** To support the MOHSW's efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.
- **Objective 2:** To increase the availability of quality, high-impact essential and basic emergency obstetric and newborn care (BEmONC) services.



Dr. Bogarin, Kangaroo Mother Care Specialist, and Baby Denis

¹ Monitoring of availability and utilization of services CONE in health facilities in Paraguay, November 2005.

- **Objective 3:** To improve communities' and families' knowledge and practices in relation to pregnancy, childbirth, and newborn care.

In addition to the activities carried out with local funds, MCHIP also carried out two activities with regional LAC funds: neonatal sepsis prevention activities and the South-South cooperation between midwifery schools in Peru and Paraguay.

KEY ACHIEVEMENTS

During the course of the program, MCHIP/Paraguay:

- Formulated, updated, and validated newborn care protocols from the Newborn Care Manual published in 2011.
- Formulated, updated, and validated National Norms and Protocols for essential and basic emergency obstetric care.
- Incorporated updated norms and protocols into supervision tools for use by providers of targeted services during Years 1 and 2.
- Provided two rounds of Technical Updates and Clinical Skills Standardization in BEmONC services, with the participation of staff from six hospitals in the two targeted regions.
- Delivered workshops on newborn resuscitation and inpatient newborn care with the participation of hospital health workers, nurses, and doctors in Year 1 and Year 2 targeted services.
- Established one clinical training site in each of the program regions: Central (Asuncion) and Alto Parana (Ciudad del Este).
- Implemented the use of the Standards-Based Management and Recognition (SBM-R) approach in six targeted facilities in two program regions. Created quality committees and developed baselines and action plans:
- Observed improvement in the use of recommended practices in obstetric and newborn care, such as: restricting routine episiotomies; active management of the third stage of labor; shock management and basic newborn resuscitation; and, to a lesser degree, use of the partograph.
- Completed an assessment of client behaviors related to MNH, which aided development of learning materials related to Objective 2.
- Developed culturally appropriate materials to promote key messages for best practices in MNH by the communities and families, including: *My Birth Plan* (pamphlet), a pregnancy booklet, and a community radio campaign to broadcast key messages.
- Conducted three advocacy workshops with community health councils to strengthen their role in improving MNH outcomes: two workshops took place in Alto Parana and one in the Central Region. These workshops developed strategies for collaboration among the family health units, the community, and the local health councils.
- Established two Kangaroo Mother Care (KMC) demonstration sites: Hospital San Pablo and Hospital Regional de Ciudad del Este. Provided technical assistance to establish another KMC demonstration site at Hospital Regional de Coronel Oviedo.

WAY FORWARD

Training should be participatory, offer opportunities to practice skills, and minimize interruptions in service provision.

Based on the situational analysis of health care providers, MCHIP/Paraguay adopted a training strategy for updating/standardizing clinical skills in essential and emergency maternal and newborn care. Training was structured into 13 modules and delivered weekly. Weekly classes allowed participants time during the work week to put lessons into practice and minimized

interruptions in provision of services because participation did not require their absence from their jobs for an extended period of time.

MOHSW leadership and active participation are key for SBM-R scale-up.

It is critical to involve the MOHSW from the earliest stages of SBM-R development, including in developing the standards themselves, in order for the standards to be adopted nationally. MOHSW participation also increases the likelihood that SBM-R will be adopted and sustained at low-level facilities once the MCHIP, or other USAID program, ends.

Formative research on community and family health behaviors can ensure that health messaging is relevant to the local context.

MCHIP/Paraguay carried out an evaluation to better understand the drivers behind sub-optimal health behaviors in communities and families, such as weak attendance at prenatal and postnatal care. Lessons were incorporated into health messaging and job aids, helping to ensure that the information provided was relevant to the community's needs.

The participatory process of adapting the KMC Guide to the local context increases acceptance nationwide.

MCHIP/Paraguay worked with the MOHSW to adapt the Kangaroo Mother Care Guide to local realities. Although changes were minor, the adaptation *process* contributed to its acceptance nationwide. MCHIP/Paraguay also collaborated with the Instituto Andrés Barbero (Midwifery School, IAB) to ensure that KMC was incorporated into the school's curriculum.

Connections to regional networks are valuable for promoting key newborn health interventions.

MCHIP/Paraguay helped to establish connections between the government of Paraguay and two regional groups: the Regional KMC Network and the Neonatal Alliance. Through these partnerships, experts from Paraguay were able to influence regional experts, based on their experiences and lessons learned, and also to be influenced by others—participation in these regional bodies strengthened the government's commitment to implementing key MNH interventions.

Empowering health service providers to improve their performance contributes to SBM-R sustainability.

Several SBM-R participants noted that empowering health service providers was a key factor in sustaining the quality improvement process. Dr. Carlos Gomez, Quality Team Leader at the Regional Hospital of Ciudad del Este, said that the most notable aspect was “showing improvements in health quality due to small actions; this is attributable to empowerment and constant teamwork, which demonstrates the importance of the changes made.” Dr. Ruben Ruttia, Quality Team Leader at Hospital San Pablo, underscored this point: “empowering people through the process of quality improvement and implementing best practices in obstetric care led to the creation of an empowered team that has sustained itself over recent years with the support of ongoing oversight and supervision.”

Sustaining the gains made during MCHIP requires continuing support from the MOHSW; institutionalizing interventions; commitment from health care managers and providers; and the use of low-cost, high-impact interventions.

MCHIP aimed to institutionalize interventions from the start, and worked with facility representatives to create action plans specifying ways to sustain activities after MCHIP concluded. Dr. Diego Scalzadona, Coordinator of Southern Programs at Hospital San Pablo, said “I am more than convinced that this is sustainable, because it aims at creating acceptance among health personnel and these strategies are effective and low-cost.” Furthermore, the MOHSW and partners agreed to provide support in specific areas, post-MCHIP.

MCHIP Country Brief: Philippines



Selected Health and Demographic Data for Philippines	
Maternal mortality ratio (deaths/100,000 live births)	162
Neonatal mortality rate (deaths/1,000 live births)	14
Under-5 mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	23
Contraceptive prevalence rate	34
Total fertility rate	3
Skilled birth attendant coverage	62%
Antenatal care, 4+ visits	75%
Sources: Population Reference Bureau, 2012 World Population Data Sheet, WHO Global Health Observatory Data Repository, Philippines	

Health Areas

- Family Planning
- Maternal Health
- Child Health



Program Dates	July 1, 2012–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of Provinces	47%	No. of Districts	31	No. of Facilities	10
Country and HQ Contacts	Dr. Bernabe Marinduque, Senior Technical Advisor; Koki Agarwal, Country Support Manager; Presha Rajbhandari, Program Officer; Molly Strachan, Sn M&E Advisor; Katherine Lilly, Senior Program Coordinator; Ricky Lu, Director of Family Planning and Reproductive Health; Uzma Syed, Newborn Health Advisor; Jennifer Shindeldecker, Program Officer; Alyssa Om'Iniabohs, Program Coordinator					

INTRODUCTION

The Philippines National Demographic and Health Survey (DHS) reported that in 2008, 40 percent of postpartum (PP) women who wanted to space or limit their pregnancy for the next 2 years were not using any family planning (FP) method. One of the gaps identified is the lack of access to long-acting or permanent methods (LAPM), including immediate placement of PP intrauterine devices (PPIUD), during the PP period. Improving access to LAPM by integrating PPF services into established maternal and child health programs has been proven as a viable approach in reducing unmet need for FP and promoting healthy birth spacing among women living in low-resource settings. Lessons learned from other Maternal and Child Health Integrated Program (MCHIP) sites demonstrate the feasibility of this approach.

Global research has shown that birth-to-pregnancy intervals in developing countries are too short. An analysis of DHS data from 52 developing countries, including the Philippines, found that short birth-to-pregnancy intervals are associated with adverse pregnancy outcomes, increased morbidity in pregnancy, and increased infant and child mortality. Specifically, the 2008 Philippines DHS reports that the mortality rates for Filipino infants and children decrease by almost half with longer birth-to-pregnancy spacing, from 35 infant deaths and 54 under-five child deaths for every 1,000 live births at shorter birth-to-pregnancy intervals of 15 months to just 18 infant deaths and 26 child deaths for every 1,000 live births at longer birth-to-pregnancy intervals of 27 to 38 months.

Because of the clear evidence of the benefits of spacing from countries like the Philippines, the World Health Organization has recommended that women wait at least 24 months after giving birth before attempting to become pregnant again to reduce maternal, perinatal, and infant health risks. In the Philippines, 50 percent of all non-first pregnancies occur within 24 months of a previous birth, putting both mother and child at unnecessarily high risk.

Pregnancies that occur too soon after a previous birth (during the “postpartum” period) can present serious health risks to mothers and children. Most Filipino couples want to delay or limit future pregnancies after giving birth, but many do not use modern methods of family planning and are unaware of the potential for future pregnancy when they are sexually active following a birth. Postpartum family planning (PPFP) for healthy timing and spacing of births addresses women’s need for family planning and saves countless lives by preventing high-risk pregnancies. PPIUDs are presently the only PPFP method for couples requesting a highly effective and reversible, yet long-acting, family planning method that can be initiated during the immediate postpartum in lactating women. Postpartum intrauterine contraceptive devices (PPIUDs) can be placed within 10 minutes to 48 hours of the delivery of the placenta or during cesarean section. PPIUDs are cost-effective and can be inserted by a trained, mid-level skilled birth attendant.



PPIUD insertion demonstration during Family Planning: State of the Art event in March 2014

In addition to the challenges presented by short birth intervals, the Philippines also has the highest burden of low birth weight (LBW) newborns in the region. About 15% of all births in the Philippines are preterm, making this condition a significant contributor to newborn deaths in the country. Kangaroo Mother Care (KMC) is a low-cost intervention that helps regulate the body temperature of a LBW newborn and facilitates early initiation of breastfeeding. Although the Philippines was one of the pioneer countries in Asia to implement KMC, it is not practiced regularly in every facility. To address this issue, MCHIP in the Philippines worked to promote and integrate KMC services in facilities.



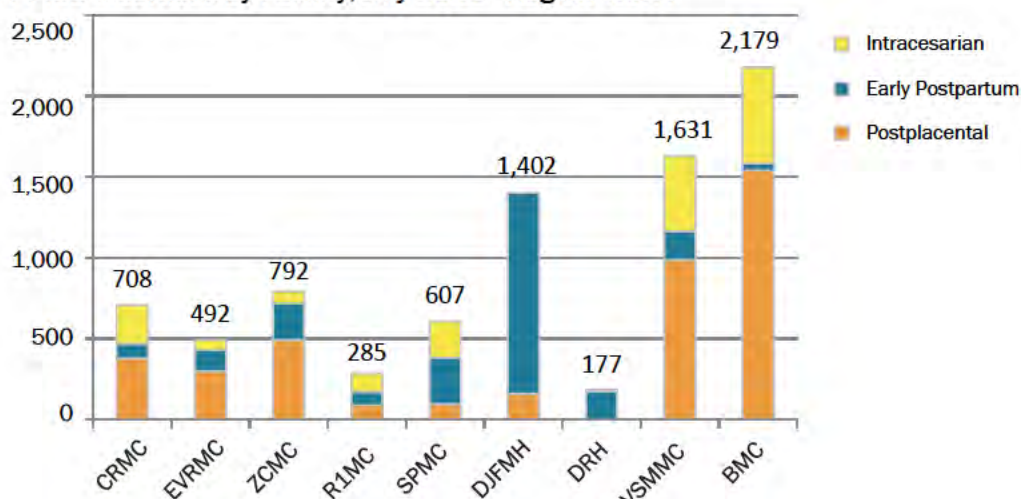
Instructions on proper PPIUD insertion given during MCHIP training in Manila

In early 2012 MCHIP was asked to conduct an assessment in the Philippines in order to develop a program to strengthen capacity-building for long-acting and permanent family planning (FP) methods in the postpartum period, and strengthen FP and child health integration. MCHIP received [Redacted] for this activity, and the assigned period of performance was July 2012–March 2014. The USAID mission in the Philippines approved an additional [Redacted] MCHIP in July 2013, and the period of performance was extended through June 2014. MCHIP's visibility and support to the regional projects and the newborn scope was increased with this new funding.

KEY ACHIEVEMENTS

- MCHIP established nine Centers of Excellence (COE) for PPFP/PPIUD across Philippines.** Through a comprehensive development process, out of the ten facilities provided with MCHIP technical assistance, nine COE for PPFP/PPIUD were established and strengthened. The COE are located in Luzon, Visayas, and Mindanao, and the catchment area of these nine sites covers 31 provinces. These COEs are envisioned to serve as model delivery sites that: (1) provide quality PPFP-PPIUD services to postpartum women, (2) train PPFP-PPIUD service providers and clinical trainers, and (3) serve as a technical resource to initiate adoption and scale-up of PPFP-PPIUD services in their respective regions or localities. From July 2012 to June 2014, a total of 6.7% (n=8,273) of all women who delivered at these COEs received PPIUD insertions. Within the same time frame, the project capacitated 23 PPFP-PPIUD service providers and 20 PPFP-PPIUD trainers at these sites. An additional 43 PPFP-PPIUD service providers from other facilities outside these sites were also trained.
- 69 trainers for PPFP/PPIUD were developed.** These trainers have the capacity and certification to provide PPFP/PPIUD training for providers, thus building the available pool of qualified PPFP/PPIUD service providers and improving women's access to quality PPFP counseling and services when needed. The training of 38 trainers was funded by MCHIP Philippines while the rest were financed by other USAID health projects with technical assistance of MCHIP Philippines. Fifty-three of these trainers are from the COE while the others are from partner organizations, e.g. private facilities, regional health offices, and other USAID health projects.
- Over 200,000 clients accessing essential MNCH services at MCHIP-supported facilities received FP counseling,** either during the antenatal period, early labor period, or postpartum period. Access to FP counseling during these periods has historically been very limited. Through MCHIP's efforts, postpartum women who want to space or limit their pregnancies for the next two years have increased access to information about the FP options available to them.

Figure 1: PPIUD Insertions by Facility, July 2012 - August 2014



- MCHIP's efforts to train and build capacity of regional projects are beginning to catalyze the implementation of PPFP/PPIUD in some areas. For example, the Cebu
- DOH Regional Office has already conducted training on PPFP/PPIUD with the technical assistance of Visayas Health.
- MCHIP facilitated the inclusion of PPIUD in the Clinical Practice Guidelines on Family Planning and the Philippines Clinical

Standards Manual on Family Planning. MCHIP worked with the DOH to include information on the PPIUD in the first edition of the Clinical Practice Guidelines on Family Planning published by the Philippine Family Planning Society, Inc. and the Philippine Obstetrical and Gynecological Society (Foundation), Inc. The section recommends proper IUD insertion during the postpartum period as a safe and effective contraceptive method. Inclusion of PPIUD in the Clinical Practice Guidelines has the imprimatur of the DOH, making the method official in a sense. It allays the fears of some obstetrician-gynecologists that this method is not acceptable in the Philippines, which may increase the likelihood that providers will counsel patients on their FP options leading up to and during the postpartum period. MCHIP also finalized a service delivery manual for PPFP/PPIUD to supplement the current Philippine Clinical Standards Manual on Family Planning, which was approved and endorsed by the DOH. The supplement is expected to aid FP service providers with updated information on PPFP technologies, strengthen the adaptation and scale-up of PPFP-PPIUD services in health facilities, and increase stake holder buy-in among the cadre of FP service providers.

- **KMC implementation at two tertiary hospitals and inclusion of KMC and EINC indicators in accreditation checklists.** A Memorandum of Understanding (MOU) was signed between the two hospitals and the KMC Philippines Foundation for duration of three years. The KMC programs will be managed by a KMC committee composed of trained KMC core staff authorized by the hospital administrations. Due to MCHIP's advocacy efforts the Department of Health also expressed that KMC and EINC indicators will be included in the Mother-Baby Friendly Hospital accreditation checklist which is currently being revised.



Postpartum Family Planning supplement to the Philippines Clinical Standards Manual on Family Planning

WAY FORWARD

In family planning, the success of adoption and implementation of the program is due to the effective competency-based training given to highly motivated providers who can echo their learning and skills to equally motivated and supported FP providers in their respective hospitals. Integration of the program in MCH services, specifically in antenatal, intrapartum, and postpartum care, has been key in driving and sustaining the demand for PPFP-PPIUD services and strengthening the capacity of both hospitals and their FP providers. The administrative support of hospital leadership, assistance of the three USAID regional projects, and diligent supportive supervision from MCHIP staff has also been critical in achieving the objectives of the program. Nevertheless, consideration for diligent and consistent FP data reporting and recording needs to be further enforced and addressed both by the COE and through the assistance of MCHIP staff. Similarly, MCHIP is also encouraging COE to seek and advocate for the support of their local health offices to ensure that a supportive policy environment for PPFP-PPIUD services is put in place.

MCHIP Country Brief: Rwanda



Selected Health and Demographic Data for Rwanda	
Maternal mortality ratio (deaths/100,000 live births)	487
Neonatal mortality rate (deaths/1,000 live births)	27
Under-5 mortality rate (deaths/1,000 live births)	76
Infant mortality rate (deaths/1,000 live births)	50
Contraceptive prevalence rate	45
Total fertility rate	4.6
Skilled birth attendant coverage	69%
Antenatal care, 4+ visits	35%
Sources: World Bank; Rwanda 2010 Demographic and Health Survey; Rwanda 2012 population and housing census; WHO; UNICEF.	
*UNICEF <5 mortality ranking (1 = highest mortality rate)	

Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- Malaria
- Family Planning
- HIV/AIDS
- Nutrition



Program Dates	October 1, 2009–March 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	100%	No. (%) of districts	27	No. (%) of facilities	331 HC; 33 DH
Partners	MCHIP Organizations: Jhpiego, JSI, Save the Children, Path Key Partners: USAID, MOH-MOPDD and MCH, WHO, UNICEF					
Country and HQ Contact	Jérémie Zoungana, Koki Agarwal, Nancy Ali, Rachel Favero, Bill Brieger, Jeff Smith, Elaine Roman					

INTRODUCTION

Although important achievements have been realized in maternal, newborn, and child health (MNCH) in Rwanda, there is still a need for improvement. The maternal mortality rate decreased from 750/100,000 live births in 2005 to 476/100,000 live births in 2010, while neonatal mortality decreased from 37/1000 live births in 2005 to 27/1000 live births 2010. Malaria decreased from the first cause of mortality in 2005 to the eighth cause of mortality since 2011. Continued dedication and support to address MNCH programming is necessary to sustain and replicate these successes. As outlined in Rwanda's Health Sector Strategic Plan (HSSP) II 2009–2012 and then HSSP III (2012–2018), the government of Rwanda/Ministry of Health (MOH) is committed to comprehensively addressing MNCH programming to improve health outcomes for pregnant women and their children.¹

The goal of USAID's Maternal and Child Health Integrated Program (MCHIP) in Rwanda was to assist in scaling up evidence-based, high-impact MNCH interventions, including malaria, malnutrition, family planning (FP), immunization, and HIV/AIDS, thereby contributing to significant reductions in maternal, newborn and child mortality toward Millennium Development Goals 4 and 5.

MCHIP/Rwanda has been well-positioned to support Rwanda to address MNCH interventions, drawing on technical and programmatic expertise from previous global programs including BASICS, IMMBasics, and the ACCESS Program. Since 2009, with support from the U.S. Government, through both core and field support funds, MCHIP has provided technical support to the National Malaria Control Program and the Community Health Desk to accelerate efforts in malaria in pregnancy (MIP) at both the health facility and community levels, as well as in integrated community case management (iCCM).

In October 2010, MCHIP was awarded a bridge project to build upon the successes of multiple awards that were ending in Rwanda, including ACCESS, BASICS, Twubakane, and Capacity, and the beginning of a new USAID bilateral, the Family Health Project. In addition to the malaria program, the bridge project extended to more districts and more technical areas including MNCH, FP, nutrition, pre-service education, HIV/AIDS, and support to MOH entities.

MCHIP ensured an approach of no missed opportunities in supporting high-impact, evidence-based interventions as well as building the country capacity in MNCH, FP, malaria, nutrition, and HIV/AIDS, reaching a total number of 26,912 health care providers both at the facility and community level. Thanks to a strong partnership with the Rwandan MOH and other implementing partners and support from USAID, achievements were observed in the following technical areas.

KEY ACHIEVEMENTS

Malaria

Before MCHIP interventions, many health care providers working in antenatal care (ANC) services were not updated on the new MIP policy or trained in focused antenatal care (FANC). Therefore, MCHIP trained 895 health care providers from 20 of the 30 districts in FANC including malaria prevention, diagnosis, and treatment. This training allowed providers to focus on assessment and actions needed to make decisions and provide care for pregnant women seeking services at project-supported sites.

¹ DHS 2005 and 2010.

Due to the increase in skilled ANC providers in MCHIP assisted facilities, ANC services that were formerly only available twice a week are now offered on a daily basis. Data from formative supervision and provided in program reports show a decrease in waiting time from more than six hours to less than two hours, allowing health care providers to allocate enough time for counseling, examination, and care of pregnant women.

Community involvement is an important factor to the success of health programs because it is the conduit through which people outside of the health system receive messaging and information about available care. Buy-in from the community is essential to the proliferation of health programming. In Rwanda, each village selects a female community health worker (CHW)—called an *Animatrice de Santé Maternelle* (ASM)—to deliver services in maternal and newborn health (MNH). Using especially designed curricula, MCHIP trained 9,556 female ASMs from 11 of the 30 districts on the topics of early ANC attendance, birth preparedness, skilled birth attendance, and malaria prevention. As a result, 61,010 women in labor were accompanied by an ASM to deliver at the health facility, and 45,344 pregnant women in their first trimester were referred to ANC services in 2013. By working in 28 of 30 districts, MCHIP contributed to national trends in combating MIP where, according to Rwanda's DHS 2010, 96% of pregnant women register for ANC in both rural and urban areas. The rate of pregnant women sleeping under a bed net at night increased from 60.3% in 2008 to 72.3% in 2010.

MCHIP also conducted a study on the prevalence of MIP in six districts. The study population included 4,037 women who were tested for malaria during ANC visits. Three different malaria tests revealed the following results: polymerase chain reaction, or PCR (5.6%), rapid diagnostic test (2.5%), and microscopy (1.6%). The study also showed that insecticide-treated bed net (ITN) users were more protected against malaria than non-users (4.9% of ITN users tested positive for malaria using the PCR, while 8.5% of non-users tested positive). As such, ITN use will continue to be highly recommended to all pregnant women during ANC visits. These results call for more vigilance regarding MIP control interventions as many cases are asymptomatic and malaria tests are not yet given routinely during ANC service provision. The next step will be to revise the current MIP policy to integrate a systematic screening and testing approach for malaria during ANC for all pregnant women at both the facility and community levels.

In Rwanda, effective case management of malaria remains a very important component of malaria control. Before 2010, malaria treatment in children under five years old was based mostly on clinical diagnosis. With decreasing malaria transmission due to ITN use, indoor residual spray, iCCM program implementation, and the introduction of artemisinin-based combination therapy (ACT), national policy shifted to parasitological confirmation prior to treatment in all age groups. At the community level as well, use of the RDT was not integrated with the Community Case Management (CCM) program. To align the CCM program with the change in national treatment policies, CHWs needed to be trained or updated. MCHIP trained and equipped 8,960 CHWs from five districts, integrating RDT into the CCM training package. After the training, CHWs conducted 64,186 RDTs between May 2011 and June 2012. Of these RDTs, 18,616 were positive and as a result patients received correct treatment based on national guidelines and protocols.

Child Health

With the spread of antimalarial drug resistance, accurate diagnosis has become an important means of ensuring that malaria treatment is administered on the basis of confirmation of malaria parasites. Moreover, with decreasing malaria transmission and the introduction of ACT, presumption of malaria in all cases of fever could lead to an overestimation of the incidence and excessive use of the ACT. In response to these trends, MCHIP, along with other stakeholders, led the revision of the Facility Integrated Management of Childhood Illness (IMCI) training package which reduced the duration of training from 11 to six days. The

training time was reduced in response to feedback from providers that the long training took them away from their jobs and increased absenteeism in the workplace. The shortened training also focuses more on the practicality of IMCI implementation and is more cost-efficient due to the reduction of days. MCHIP trained 550 health workers from eight districts in Facility IMCI which led to higher coverage of quality facility-based IMCI services.

The findings of the latest national health assessment on the quality of malaria case management at the facility level (October 2013), which was conducted by the National Malaria Control Program with technical and financial support from MCHIP, revealed that care for sick children is available every day in 100% of health facilities and most of the health centers have basic equipment for services including functioning scales, timers, thermometers, microscopes, and hemoglobin tests. In addition, 92% of health centers had first-line antimalarial drugs and more than 60% of health workers were trained in malaria case management and RDT use. The assessment found that 96.4% of simple malaria cases were correctly managed and 100% of severe malaria cases were correctly managed at the health center level. As a follow-up to this, MCHIP supported the Malaria and Other Parasitic Diseases Division to conduct an assessment of severe malaria and malaria deaths in patients admitted to district hospitals in Rwanda. Findings from this assessment provided evidence for the MOH to revise its policy and strategies for malaria prevention and case management. According to Health Management Information System (HMIS) data, malaria incidence decreased from 83.7/1,000 in 2008 to 26/1,000 in 2011.

In general, Rwanda made great progress with iCCM interventions due to the leadership of the MOH in partnership with MCHIP and other implementing partners. The following factors have also contributed to the progress of iCCM interventions:

- High coverage of health insurance for all Rwandans (90.7%)
- Institution of performance-based financing at the community and facility level
- Capacity building and support to providers at the community and facility level
- Large distribution of ITNs free of charge and high ITN use rate of 72.3% (DHS 2010)

Maternal and Newborn Health

According to the DHS (2005) the maternal mortality ratio in Rwanda was 750 deaths/100,000 live births. Hemorrhage was listed as the leading cause of death (46.1%) in the MOH's 2008 Maternal Death Audit Report. The neonatal mortality rate was 28/1,000 and the main causes of death were prematurity, infections, and low birth weight.

The MOH, in partnership with the Rwandan development partners, calls for innovative approaches to saving lives in order to combat these staggering statistics. Among the interventions proposed, MCHIP supported the improvement of MNH programs at the national level, starting with the revision and adaptation of the Integrating Lifesaving Interventions training package, which includes Kangaroo Mother Care (KMC), Helping Babies Breathe®, active management of the third stage of labor (AMTSL), prevention of pre-eclampsia and eclampsia, and prevention of postpartum hemorrhage (PPH) at the community level using misoprostol.

As a result of MCHIP contributions—which included revision of the emergency obstetric and newborn care (EmONC) training package, training of health care providers, post-training follow-up, and provision of basic equipment—the Integrating Lifesaving Interventions training package has been used at the national level by all partners to train providers. There was a need for refresher training for many providers who, according to the MCHIP needs assessment report, had spent more than three years without any in-service training. A total of 16 providers were trained as clinical trainers for other providers using the revised training package. They, in turn, trained 261 providers on basic EmONC and 39 in comprehensive EmONC in eight districts. Due to capacity building and systems strengthening, a total of 11 district hospitals

now have KMC units that function without the support of MCHIP. From October 2010 to September 2012, 7,741 low birth weight babies received KMC services.

To better understand the status of quality of care in Rwanda, in 2010 MCHIP conducted a health facility survey on quality of care for prevention and management of common maternal and newborn complications. The survey revealed the following key findings:

- All policies were in place to support AMTSL use in Rwanda at the time of the survey
- Administration of oxytocin was universal at all facilities (100%)
- 56% of providers gave oxytocin intramuscularly within three minutes following delivery
- Only 7% of deliveries observed received all components of AMTSL
- The most dramatic differences were due to delays in administration of uterotonic
- 75% of women who received iron folic acid were counseled on how to use it
- 44% of women were asked about bleeding during their current pregnancy and only 36% about bleeding in a previous pregnancy

Using the results of the survey, the MOH with MCHIP and other stakeholders drafted the following recommendations to improve MNH services in Rwanda:

- Disseminate and orient providers to in-service training in basic EmONC
- Standardize data collection tools at the facility level to collect information for the MOH and the project, including data on delivery, the status of the mother and baby, and use of uterotonic for the AMTSL
- Update the national guidelines and integrate the recent inclusion of the use of the misoprostol
- Magnesium sulfate should be made available at all health facilities that offer EmONC services
- All facilities should maintain effective procedures for procurement and distribution of key EmONC drugs and supplies (magnesium sulfate, oxytocin, and misoprostol)

The number of maternal deaths in district hospitals decreased from 211 in 2010 to 134 in 2012 according to HMIS. A decrease occurred in neonatal mortality (from 37/1,000 in 2005 to 27/1,000 in 2010), as did an increase in skilled birth attendance (from 39% in 2005 to 69% in 2010). With MCHIP targeted interventions in these areas, the project hopes that these trends will continue to improve.

To contribute to prevention of PPH, MCHIP implemented a combined approach at both facility and home deliveries, designed to increase the use of uterotonics at all births. ASMs for MNH were mobilized to counsel pregnant women and administer misoprostol at the time of delivery. The program measured uterotonic use at facility-based deliveries to provide an overall picture of uterotonic coverage for PPH prevention at all births. The program was conducted in four districts of Rwanda (Rubavu, Musanze, Gakenke, and Nyanza) from September 2012 to February 2013. The next step of this introductory study is to scale up PPH prevention using misoprostol at the community level throughout the country. The training package, guidance, job aids, and information, education and communication (IEC) materials developed by MCHIP will be used for the scale-up.

Family Planning

MCHIP's contributions to FP improvement began with an assessment of the comprehensiveness and effectiveness of the existing FP policy developed for 2006–2010. After reviewing the results, MCHIP developed a new FP policy in 2012 that promotes integration, quality, accessibility, voluntarism, community, male and youth participation, and women's empowerment. MCHIP operationalized the revised FP policy by strengthening health care providers' capacity to provide long-term and permanent FP methods as well as to scale up FP provision at the community level. Until May 2011, health care providers (relevant cadres) could not offer tubal ligation without general anesthesia or during a caesarian section. These methods were not only risky for women but were also not accessible due to the lack of trained providers in tubal ligation. MCHIP was the first program to initiate the training of 41 health care providers in tubal ligation under local anesthesia and 11 trainers in tubal ligation. MCHIP also trained 77 nurses in IUD insertion and 325 health care providers in all FP methods. The MOH decided to use the training package and the pool of trainers developed by MCHIP to scale up tubal ligation training nationwide.

Based on HMIS data, IUD use increased and data shows that with MCHIP support, 4,340 IUDs were inserted between 2011 and 2013 and 1,301 tubal ligations were performed between 2011 and 2013.

At the community level, a total of 177 providers were trained to become trainers of CHWs for community based provision (CBP) of FP methods. Training in CBP of FP teaches CHWs where and how to find FP products, how to use them, contraindications, and distribution methods. It also reminds CHWs how to make referrals to a health facility in case of contraindications and/or emergencies. MCHIP trained 2,798 CHWs from five of the 30 districts, subsequently validating and equipping them to provide FP methods at the community level including pills, injectables, condoms, and the Standard Days Method®.

HIV/AIDS Prevention

MCHIP supported HIV/AIDS prevention through two main interventions: strengthening of the MOH pediatric HIV/AIDS program, and increasing voluntary medical male circumcision (VMMC) service provision with the Rwandan National Police (RNP).

To strengthen the pediatric HIV/AIDS program, MCHIP introduced a mentorship approach in 13 out of 30 districts where trained mentors coached providers on a monthly basis to improve the quality of pediatric HIV/AIDS services and to make sure that providers were following standards.

HIV prevalence within the RNP is 0.4 percentage points lower than the national average (3%). This slightly lower rate is attributed to the intense HIV prevention activities conducted across the country and especially the IEC messages targeting policemen since 2005 through mobile voluntary counseling and testing activities. MCHIP initiated the VMMC program in four RNP health facilities by training 60 health care providers in the procedure; these providers subsequently performed 1,226 male circumcisions within six months. In Rwanda, when 44 men are circumcised, one new HIV infection is averted and \$3,304 is saved.²

For increased infection prevention management, MCHIP also procured a modern incinerator in Kayonza District. This incinerator not only serves the district hospital's waste management needs, but is also used to fill the gap in a lack of modern incinerators in the region. In addition, it generates income for the district.

² Emmanuel N et al. Voluntary Medical Male Circumcision: Modeling the Impact and Cost of Expanding Male Circumcision for HIV Prevention in Eastern and Southern Africa. *PLoS Medicine*. (2011)

Other Areas Supported

- MCHIP provided technical assistance to the Expanded Program of Immunization (EPI) team in preparation of the rotavirus vaccine introduction as well as revising the country's comprehensive multi-year plan for immunization (cYMP) and in developing proposals for measles-rubella (MR) catch up campaign proposal. The rotavirus vaccine, MR catch up introduction plan and measles second dose (MSD) have now all been introduced into the routine immunization system.
- To fight against malnutrition at the community level, MCHIP strengthened the capacity of 1,993 community members in the establishment of family kitchen gardens. 156,601 (76%) family kitchen gardens out of 204,860 have been established in 717 villages. At the facility level, 162 health care providers have been trained to monitor and counsel in the areas of infant and child nutrition.
- To improve pre-service education, MCHIP collaborated with the Nursing and Midwifery Council to conduct a needs assessment of five nursing and midwifery schools and develop a plan for improvement. A total of 72 preceptors and teachers have been trained on Effective Teaching Skills followed by formative supervision. In addition, 282 students have been supported to complete clinical practicums.
- In partnership with the White Ribbon Alliance for Safe Motherhood, an international coalition of individuals and organizations was established to promote increased public awareness of the need to make pregnancy and childbirth safe for all women and newborns. MCHIP supported the training of 27 journalists who organized radio shows to help change public behavior on safe motherhood and FP and also increase the level of commitment from stakeholders towards this issue. Nationally, 16 media houses participated and published or aired stories; regionally, an article was published in The New Vision in Uganda during WRA Citizen Voice coverage of the IPU General Assembly. At the international level, the Huffington Post published three articles to increase awareness within the public and with stakeholders.
- MCHIP led the process and provided financial support for the development of the Social Behavior Change Communication sub-strategy for MNCH. After this sub-strategy was finalized, MCHIP initiated its implementation in the two districts of Nyabihu and Nyanza.

WAY FORWARD

Malaria

- As Rwanda moves to the pre-elimination phase of malaria elimination phase of malaria, support is needed for the NMCP in malaria prevention, case management, and scale-up of best practices documented for the fight against malaria.
- According to the MIP study findings, malaria cases identified by the PCR test have been found in districts with low endemicity of malaria and where no confirmed malaria cases were revealed using RDTs and microscopy. Therefore, it is important to support the process of revision of Rwanda's malaria policy and advocate for MIP, systematic RDT during ANC, and PCR in districts with low endemicity.

Child Health

- Due to a lack of information on the causes of death in children under five that can lead to erroneous decision-making, support is needed for the process of death audits for children under five years old in Rwanda.

Maternal and Newborn Health

- Since PPH is still the leading cause of maternal mortality and there is still a high proportion of home births in Rwanda, it is important to scale up an integrated PPH prevention and management program both at the community and facility levels.
- Because uterotonic coverage at the community level is low, qualitative formative research should be conducted among ASMs to better understand the barriers to uterotonic coverage, understand better ways to reach pregnant women, and improve misoprostol counseling and administration.
- Since community health interventions are an integrally important factor to the success of health programs, support is needed for Rwanda to strengthen the capacity of CHWs in areas such as:
 - Training of newly recruited CHWs and regular refresher training of CHWs based on findings of the CHW performance assessment.
 - Use of rapid SMS as a tool to track indicators of community interventions using electronic medical records.
 - Support to the department of health community interventions in program management and data processing
- Given that newly graduated nurses and midwives in Rwanda are not competent in new MNH skills (e.g., AMTSL, HBB, KMC, Helping Mothers Survive, and integration of early infant male circumcision into postpartum care) all nurses and midwives should be trained in these new areas. In addition, these topics should be integrated into the pre-service curriculum of nurses and midwives.
- Given that PPH and AMTSL indicators are not yet integrated in the current HMIS tracking tools, HMIS data collection tools should be updated with new MNCH indicators like PPH

Family Planning

- Since the new FP policy for Rwanda and the SBCC sub-strategy for MNH are not accessible to all and are not made available to future users, support should be provided for the dissemination of Rwanda's new FP policies, norms, standards, and guidelines.
- Based on innovations developed in the new FP policy and the BCC strategy for MNH, support is needed to scale up new technologies in FP (including tubal ligation under local anesthesia, no scalpel vasectomy, IMPLANON®, and task shifting for nurses to provide IUD insertions).

HIV/AIDS Prevention

- Given the potential for VMMC to reduce HIV transmission from HIV-positive females to HIV-negative circumcised males by almost 60%, and given that Rwanda is a traditionally non-circumcising society, continued support should be provided for Rwanda to reach the target set in the national HIV strategic plan to reduce the burden of HIV/AIDS and the human papilloma virus, which is responsible of cervical cancer.
- Continued assistance should be provided to the MOH to increase early identification, management, and referral of people living with HIV/AIDS

MCHIP Country Brief: Senegal



Health Area:

- Immunization

Selected Health and Demographic Data for Senegal

Maternal mortality ratio (deaths/100,000 live births)	390
Neonatal mortality rate (deaths/1,000 live births)	26
Under-5 mortality rate (deaths/1,000 live births)	72
Infant mortality rate (deaths/1,000 live births)	47
Contraceptive prevalence rate	16.1
Total fertility rate	5
Skilled birth attendant coverage	90.7%
Antenatal care, 4+ visits	50%

Sources: World Bank, UNICEF, WHO as of September 2014; DHS 2012-13
*Indicates urban [rural]



Program Dates	January 2012–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of regions	21%	No. of districts	76	No. of facilities	1,315
Country and HQ Contacts	Dr. Hassane Yaradou, National Immunization Advisor, Dr. Mamadou Adama Diallo, Regional Immunization Technical Advisor, Dr. Michel Othepa, Immunization Technical Advisor, Nefra Faltas, Program Officer					

INTRODUCTION

Senegal achieved high immunization coverage in recent years, peaking at a reported 94 percent in 2007, but rates declined to 70 percent in 2010—with some regions showing coverage as low as 30 percent. This reduced coverage contributed to polio and measles outbreaks in 2009 and 2010, which prompted the Global Alliance for Vaccines and Immunization (GAVI) to support the introduction of new vaccines in Senegal.

In response to declining DTP3 (diphtheria+tetanus+pertussis 3rd dose) coverage, and to prepare for new vaccine introduction, MCHIP was invited to lead and coordinate a multi-agency external Expanded Program on Immunization (EPI) review. This 2010-2011 review aimed to identify factors that had contributed to recently declining immunization coverage and lay the groundwork for strategies to address system and other challenges. MCHIP assisted the Senegal Ministry of Health in analyzing and presenting EPI review findings and recommendations, which were then used to develop an implementation plan to strengthen the National Immunization Program.

In 2012, USAID/Senegal requested that MCHIP support the National EPI in implementing this plan. An MCHIP country project was formally launched in Senegal in January 2012.

Meanwhile, GAVI had just approved proposals for the introduction of two new vaccines, pneumococcal conjugate vaccine (PCV13) and the MenAfriVac™ vaccine (MenA). MCHIP/Senegal's objectives evolved from Program Year 5 (PY5) to PY6, but can be summarized as follows:

Objective 1: Reinvigorate the routine immunization (RI) system to increase immunization coverage, maximize investments in new and underused vaccines, improve data quality, and reduce inequities among hard-to-reach populations.



Photo: JSI/MCHIP

A health worker explains the importance of early childhood vaccinations to a mother visiting her health facility.

Objective 2: Provide technical assistance to the MOH/EPI for the successful introduction of new vaccines—including Meningitis A conjugate vaccine (MenAfriVac™) and pneumococcal conjugate vaccine (PCV-13), and by conducting a measles-rubella (MR) catch-up campaign—and for the development of new proposals for submission to GAVI.

KEY ACHIEVEMENTS

MCHIP/Senegal worked with the Ministry of Health and other USAID partners at the national, regional, and district levels to strengthen RI, introduce new vaccines, improve linkages between the health facility and community levels, and ensure the sustainability of the efforts. Over the course of the project, MCHIP:

- Contributed to national, regional, and district-level planning for the introduction of numerous vaccines, including MenAfriVac™, PCV13 and MR vaccine as a catch-up campaign. For other vaccines, measles second-dose (MSD) with introduction of rubella containing vaccine (MR) into the routine immunization (RI) system, as well as rotavirus vaccine, MCHIP played a key technical role in the development of proposals and preparing

for their introduction. In recognition of Senegal's ambitious plans to introduce several new vaccines in the coming year, and continued technical assistance needed from MCHIP to support these efforts, USAID/Senegal asked the project in March 2013 to continue to work beyond its originally planned September 2013 end date, until the end of June 2014.

- Trained 743 health providers including nurses, other health facility- (*poste de sante*) based health workers, community health workers, and community relays.
- Supported key national-, regional-, and district-level efforts to strengthen the RI system. This included contributing to the revision of the country Multi-year Plan (cMYP) in 2012 and a National Immunization Coverage Survey (NICS) in 2013, the results of which were used by all regional and district health teams to develop district-level work plans using the Reaching Every District (RED) approach.
- Contributed to the Vaccine Management Assessment and to the national cold chain inventory in January 2013. Findings were used to address cold chain gaps and to develop logistics and data collection tools, with financial support from the Ministry of Health, GAVI, and UNICEF.
- Co-convened monthly technical Inter-Agency Coordinating Committee (ICC) meetings at the central level, and championed the reinvigoration of ICC technical sub-committees in which MCHIP's technical country staff actively participated.
- Supported the smooth introduction of MenA through a ten-day campaign in November 2012, and provided technical assistance for a post-campaign coverage survey. The campaign targeted one- to 29-year-olds in 35 districts in eight regions with the highest risk of meningitis A spread, reaching 95 percent of a targeted cohort of 3.9 million people in most health districts.
- Provided technical leadership and coordinating support for the introduction of PCV13 and rubella-containing vaccine through the MR catch-up campaign. This included supporting the reinvigoration of four ICC technical subcommittees and participating in a workshop, during which key planning and management tools for the MR campaign were developed or revised, including the Using Measles Activities to Strengthen Immunization and Surveillance (UMASIS) tool. To sustain routine immunization strengthening, four job aids for health workers to use during and after the MR campaign were developed, pre-tested and distributed to districts.
- Helped launch introduction of PCV13 on November 5, 2103. PCV13 is now administered in all 76 health districts in Senegal.
- Participated in the MR campaign conducted from November 18th to 27th, 2013 and in the post-MR vaccine campaign coverage survey (December 11th to 20th, 2013). Survey results showed 97 percent coverage nationwide.
- Provided extensive technical support toward the development of proposals for new and underutilized vaccine introduction (NUVI), and of introduction plans for rotavirus vaccine, measles second-dose (MSD) vaccine and injectable polio vaccine (IPV). Proposals were endorsed by the High-Level ICC and submitted to the GAVI Board.



Photo: JSI/MCHIP.

Pre-testing of MCHIP-developed job aids introduced during Senegal's MR campaign in November 2013, based on evidence from the UMASIS tool.

- Spearheaded collaboration with IntraHealth-led *Renforcement Prestation Santé* (RPS) project and Child Fund-led *Programme Santé/Santé Communautaire* (PSSCII) project, also funded by USAID, to strengthen the RI system by implementing the RED approach in four target, underperforming districts (Koki, Koungheul, Mallem-Hoddar and Thiadiaye). Collaboration has led to increased district-level technical support in terms of supportive supervision, monitoring of completeness of EPI reporting data, immunization training for health workers and community volunteers, stronger linkages between facility- and community-based RI programming, and improved coordination among all partners.

Summary of MCHIP interventions by technical area, 2012–2014

TECHNICAL AREAS	FINDINGS	MCHIP ROLE	RESULTS
Planning	cMYP not up-to-date	MCHIP identified this problem and recommended revising the cMYP during its first visit after the EPI review.	New cMYP revised for 2012-2016 and submitted to GAVI, along with PCV13 proposal.
	Annual, district-level workplans available but lacked plan to secure financing for activities in hard-to-reach areas.	MCHIP flagged issues during technical ICC meetings; in response, most districts revised their microplans along with their workplan budgets.	Issues flagged during technical ICC meetings accounted for during planning for district-level outreach.
	The RED approach was being implemented in the districts; however, very few districts were implementing all five components.	MCHIP and partners conducted training sessions on RED approach in target and other districts.	Implementation of RED approach improved considerably in most health districts.
ICC and partnership	ICC was expanded to include more partners, but ICC subcommittees still lacked terms of reference and not all subcommittees were holding regular meetings.	MCHIP played a key role in opening ICC meetings to more partners, and in drafting ICC subcommittee terms of reference. ICC subcommittees conducted trainings, monitoring meetings, and supportive supervision.	More immunization partners now attending ICC meetings; ICC subcommittees created and terms of reference developed. ICC technical subcommittees now regularly hold monitoring meetings, with financial support from partners such as UNICEF, IntraHealth.
Policy documents	Senegal had been planning to introduce new vaccines, but most of the country's relevant policy documents were not up to date.	In coordination with other partners, MCHIP revised key policy documents for immunization.	Recording and reporting tools were revised; training materials were adapted and used.
Data Quality and reporting	Senegal did not report immunization data for more than two years, due to health worker strikes. When the strike ended in March 2013, monthly EPI data was still missing and/or still failed to be reported by most districts. Monitoring of (including key indicators for) report completeness did not exist.	MCHIP raised the issue with ICC technical team arguing for district report completeness to be monitored at the central level.	MCHIP initiated the high-level ICC's establishment of an indicator for tracking percent completeness of monthly, district-level EPI reports; MCHIP led creation of a quarterly EPI bulletin developed to encourage information sharing and accountability (2 bulletins developed, printed, and disseminated through MCHIP funding); district report

			completeness increased from 10% to about 60% from November 2013 to March 2014.
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Improvements in vaccination indicators under MCHIP

INDICATORS	NICS 2010	NICS 2013
Immunization card possession	75.7%	81.1%
Never vaccinated "0 dose"	3.5%	1.3%
Penta 3 (card+recall)	74.1%	91.6%
FIC by 12 months of age	16.7%	27.1%

WAY FORWARD

- Ensure more rigorous technical support around new vaccine introduction—balancing this need with the concurrent need for intensified efforts to reinforce the RI system to be able to support these new vaccines.
- Support RI system strengthening activities, with a focus on all five components of the RED approach, and through other proven strategies such as PIRI and using SIA activities to strengthen immunization and surveillance.
- Strengthen partnerships with other USAID implementing partners and other key immunization stakeholders in country, including through joint/coordinated work planning, and through contractually formalizing collaborative efforts to strengthen immunization programming links between the health facility and community levels.
- Intensify efforts to improve EPI data quality (e.g., through data quality surveys, continued supportive supervision, and cultivating M&E champions), particularly at the district level.
- In close consultation with USAID, ensure handover and continuity of MCHIP/Senegal's investments in immunization beyond the project's closeout.

MCHIP Country Brief: South Africa



Health Area:

- HIV/AIDS



Selected Health and Demographic Data for South Africa	
Maternal mortality ratio (deaths/100,000 live births)*	300
Neonatal mortality rate (deaths/1,000 live births)*	19
Under-five mortality (deaths/1,000 live births)	59
Infant mortality rate (deaths/1,000 live births)*	45
Contraceptive Prevalence rate	62.8
Total fertility rate	2.9
Skilled birth attendant coverage**	91%
Antenatal care, 4+ visits*	87%
Sources: WHO Countdown 2015*, World Bank 2012+, UNICEF, DHS 2003**, UNAIDS 2012++.	

Program Dates	September 1, 2009–June 30, 2011					
Total Mission Funding	Redacted					
Geographic Coverage	No. of provinces	100%	No. of districts	52	No. of facilities	30
Country and HQ Contacts	Ida Asia, Country Director, Aleisha Rozario, Senior Program Officer:					

Redacted

INTRODUCTION

South Africa has undertaken the enormous task of providing treatment, care, and support to more than 5.3 million persons living with HIV/AIDS and their family members (2003 South Africa Demographic and Health Survey (SADHS, published 2007), Statistics South Africa 2013). HIV/AIDS was and is currently the biggest public health concern for women and children in South Africa. In 2009, the antenatal HIV prevalence was 29.4% and adult (15–49 years) HIV prevalence was 17.8% (South Africa Department of Health, 2009). Maternal mortality in South Africa is high relative to other middle income countries, up to three times the average of other such countries. From 2005 to 2007 there was an increase of 20% in the number of maternal deaths compared to the 2002–2005 period.² In addition, in those mothers with HIV, maternal mortality is five times higher than non-HIV infected mothers and nearly 75% of deaths of HIV-infected mothers occurred in the week after childbirth.³

The top causes of maternal death are AIDS, complications of hypertension, obstetric haemorrhage, and sepsis—all preventable and treatable conditions.

The primary goal of the Maternal Child Health Integrated Program (MCHIP) in South Africa was to reduce maternal mortality but such a goal also requires reducing the incidence of AIDS as the leading cause of maternal mortality in South Africa. MCHIP's work in South Africa started in 2009 with a focus on support for HIV prevention, care, and treatment. Working in close collaboration with the South African National Department of Health (NDOH) and Provincial Departments of Health (PDOHs), MCHIP aimed to consolidate interventions that were implemented under the Access to Maternal and Newborn Health (ACCESS) global award from 2004–2008. These included strengthening of prevention of mother-to-child transmission (PMTCT) services; dissemination of national HIV/AIDS related guidelines, expansion of cervical cancer prevention training, and support for services targeting HIV-positive women. The NDOH and the United States Agency for International Development (USAID) also requested that MCHIP focus on providing technical support to the NDOH on voluntary medical male circumcision (VMMC), and together with the NDOH, conduct a national situational analysis of VMMC.

Toward that end, the program introduced a program model with four main objectives:

1. Strengthen and improve integrated PMTCT service delivery in line with the new PMTCT guidelines
2. Decrease the incidence of cervical cancer among HIV-infected women in South Africa through early disease detection and treatment to prevent progression to invasive cancer
3. Strengthen NDOH and PDOH capacity on HIV treatment, care, and support
4. Support the NDOH capacity in the Prevention Directorate for Medical Male Circumcision (MMC) policy and services in South Africa

Within the targeted districts, and in line with the PDOH requests, MCHIP implemented an integrated model focused on contributing to the high-impact maternal and child health interventions. Activities focused on the North West and KwaZulu-Natal provinces. In North West province, MCHIP conducted activities in Dr. Ruth Mompati and Dr. Kenneth Kaunda districts. In KwaZulu-Natal province, MCHIP's activities were implemented in uThukela and eThekweni Metropolitan districts, just outside of the city of Durban.

² Saving Mothers 2005–2007: Fourth Report on Confidential Enquiries into Maternal Deaths in South Africa; 2009.

³ Black V. et al. Effect of HIV treatment on maternal mortality at a tertiary centre in South Africa. *Obstet and Gynecol.* 2009 Aug; 114(2), 292–299.

KEY ACHIEVEMENTS

Objective 1: Strengthen and improve integrated PMTCT service delivery in line with the new PMTCT guidelines

MCHIP was requested by the North West and KwaZulu-Natal PDOHs in 2009 to conduct PMTCT service strengthening activities to ensure that staff in selected health facilities were up to date on the then-new PMTCT policies and guidelines in order to improve service delivery. In Program Year 1, this support focused on 23 health facilities in North West and KwaZulu-Natal provinces. In Program Year 2, this technical support was concentrated on 14 North West PDOH facilities (four hospitals and 10 primary health care centers). Over two years MCHIP trained 106 health providers (professional nurses) using the NDOH PMTCT clinical training manual and the new national PMTCT policy and guidelines. Regular technical support included data management mentoring for facility managers involved in collecting and collating PMTCT program data.

Objective 2: Decrease the incidence of cervical cancer among HIV-infected women in South Africa through early disease detection and treatment to prevent progression to invasive cancer

At the time of MCHIP's cervical cancer intervention, cervical cancer was, and continues to be, the second leading cancer among South African women, with one in 35 women diagnosed with cervical cancer in her lifetime, according to the National Cancer Registry in 2011. Additionally, at the time MCHIP began work in South Africa, only 17% of women received Pap smears in South Africa.

In response to this, MCHIP provided training in cervical cancer detection followed by on-the-job mentoring and supportive supervision to professional nurses and doctors in 21 health facilities in North West Province and nine health facilities in KwaZulu Natal (KZN) province over the two years of the program. Forty-five health providers in eThekweni district (within KZN) and 58 health providers in North West province received training on visual inspection with acetic acid (VIA) and cryotherapy for managing cervical pre-cancer. VIA is complementary to the current cytological screening, making it possible for more women to be screened and to receive their result in one visit rather than having only a Pap smear test, and then waiting weeks to months for a result.

Technical assistance was also provided on supply chain management of consumable materials necessary for VIA and cryotherapy, such as the coolant gas necessary to provide cryotherapy. MCHIP strengthened the supply chain of coolant gas, for which supply had often been erratic, through engagement with both gas suppliers and the district DOH. Ensuring that supplies are available onsite supports the single visit approach (SVA), whereby a woman can be screened, diagnosed, and treated on the same day. Women who were found to have advanced cases of cervical cancer were provided with referrals.

Data from the 30 supported facilities show that of the women screened for cervical cancer using the VIA method, 1,710 were HIV-positive, surpassing the yearly targets of 800 HIV-positive women reached per year. HIV-negative women are also screened as services in facilities cannot be restricted. Fifty-four of the HIV-negative women screened (4.7%) and 38 (6%) of the HIV-positive women screened were found to have pre-cancerous cervical lesions. These women were either treated on site the same day, given the option of returning another day, or referred for treatment at another facility.

This is a hard to reach population of women and it is a wonderful thing to see MCHIP extending its resources to ensure that women in prison receive cervical cancer screening and treatment.

~North West Province community health worker

In addition to training health care workers on VIA and the cryotherapy screen and treat method, MCHIP also trained and successfully engaged 50 local traditional leaders, health care promoters, including those working in women's prisons, and home-based care providers in one-day cervical cancer awareness workshops. These workshops increased attendees' awareness of cervical cancer prevention, care, treatment, and how to use their knowledge for promoting community awareness. In some cases, this resulted in community-led cervical cancer screening campaigns, such as one held for inmates in Potchesftroom Prison. With complimentary funding from GlaxoSmithKline, through Jhpiego/South Africa, MCHIP also distributed 10,000 information pamphlets to raise awareness of cervical cancer screening and management in communities in North West province.

Visual inspection with acetic acid and cryotherapy are not part of the current national clinical guidelines for cervical cancer management, which presents a challenge for scaling up services in low-resource settings outside of major cities. Some quarters in the PDOH have expressed interest in VIA and cryotherapy. With their support, MCHIP advocated for the inclusion of VIA and cryotherapy, however by the end of the project, the NDOH maintained the position that the use of the Pap smear would remain the South African approach for cervical cancer detection. Through an appointment on the NDOH technical team, Jhpiego continued to engage stakeholders on the issue of including VIA and cryotherapy in the national guidelines after MCHIP's activities conclude in South Africa. There remains a need for training health workers in effective cervical cancer management.

Objective 3: Strengthening NDOH and PDOH capacity on HIV Treatment, Care, and Support

MCHIP's two years in South Africa were during a time when the government was finalizing and rolling out major HIV policies and guidelines. To support this effort, MCHIP provided technical support to the NDOH's HIV Directorate through the secondment of a Senior Technical Advisor, Dr. Mandla Duma, to the NDOH's HIV Directorate. Under the direction of the NDOH, Dr. Duma provided extensive technical training assistance on antiretroviral therapy (ART), nurse initiated and managed antiretroviral therapy (NIMART), and PMTCT to health providers and health managers in all nine provinces. Thirty service outlets received training on dissemination of guidelines on HIV-related care services (with a focus on PMTCT) from the NDOH and PDOH with technical assistance from MCHIP. Additionally, 48 senior provincial health managers and supervisors were trained to facilitate the dissemination of new HIV-related guidelines or policies, with a focus on PMTCT.

Objective 4: Support the NDOH capacity in the Prevention Directorate for Medical Male Circumcision (MMC) policy and services in South Africa

MCHIP began Program Year 3 by completing the *National Situation Analysis for Male Circumcision for HIV Prevention in South Africa* in November 2011 to help inform and support the roll out of VMMC nationally. Submitted to the NDOH and PEPFAR, the situation analysis was based on facility audits and 334 service provider interviews in 35 health facilities countrywide. The findings showed that with minimal resources, the infrastructure and systems, at that time, could be improved to support MMC roll out. Service providers needed more information and training in providing MMC services for HIV prevention. Knowledge gaps concerning the protective effect of male circumcision on the reduction of HIV and sexually transmitted infections were also identified. Key informants' attitudes and perceptions towards MMC were mixed, but positive attitudes seem to outweigh the negative ones. In areas where challenges were anticipated, education and media campaigns could be used.

MCHIP's seconded Biomedical Technical Advisor to the NDOH, Dr. Sehlangu Kekana, supported the NDOH's capacity to develop MMC policy and clinical guidelines. MCHIP specifically provided input into the drafting of the implementation guidelines, strategy, and

plan. All the provinces of South Africa are now implementing VMMC services, either through the DOH staff or through nongovernmental partners. Additionally, Dr. Kekana also represented the NDOH and MCHIP on the South African National AIDS Council (SANAC) technical task team for prevention.

While VMMC training was expected to occur under MCHIP at some time during the program period, there was a delay in the MMC policy and clinical guidelines, which delayed implementation of VMMC training under MCHIP. The MCHIP technical advisor worked in support of moving these guidelines forward, consulting with MCHIP VMMC advisors to help ensure these were based upon up-to-date and evidence-based research.

Main Interventions and Coverage

	COVERAGE
Objective 1: Strengthen and improve integrated PMTCT service delivery in health facilities; train health providers in PMTCT and provide ongoing supportive supervision and facility support	1,065 health providers trained in 23 health facilities in 2 districts of North West province and one district in KZN
Objective 2: Provide technical assistance (TA) to health facilities and training in VIA and cryotherapy	103 health providers trained, 45 in KZN and 58 in North West province; 30 facilities supported
Objective 3: Provide TA on ART, NIMART, and PMTCT to NDOH and PDOH senior health providers and managers	Seconded advisor to NDOH's HIV Directorate provided technical support to all 9 provinces through NDOH technical team visits
Objective 4: Provide TA to the NDOH Prevention Directorate to support development and application of VMMC policy and services	National VMMC situation analysis conducted, which included interviews of 334 service providers in 35 health facilities nationwide; MCHIP's Biomedical Advisor seconded to NDOH to support development of VMMC policy and guidelines

WAY FORWARD

- New clinical guidelines for HIV/AIDS and TB management which were rolled out in April 2010 required that all the health professional offering PMTCT services be re-oriented and/or retrained. Changes in the set of national PMTCT indicators resulted in many providers having challenges with understanding the new indicators and hence some data was found to be incorrectly collected and presented; data was recollected and follow up training on data recording provided. Continued reinforcement will be needed to assure that the new indicators are being recorded correctly.
- In Dr. Kenneth Kaunda and Dr. Ruth Mompati districts of the North West province, some supported facilities have continued to use varying PMTCT register templates and to some degree collect differing indicators. At the time of this project's conclusion, these facilities still await the provision of a standardized PMTCT register from the NDOH.
- There is still some resistance to VIA and cryotherapy implementation as cervical cancer screening and management methods VIA and Cryotherapy are not part of the current national clinical guidelines for cervical cancer management, presenting difficulty in up-scaling the services. Additionally there remains a need for training of health workers in effective cervical cancer management, as an alternative or additional area for a health training intervention. Some quarters in the provincial Departments of Health have expressed interest in VIA & cryotherapy, Jhpiego, through a recent appointment to site on the NDOH technical team, will continue to engage stakeholders including the NDOH Reproductive Health to include the methods in the national guidelines.

- Regarding cervical cancer screening in HIV infected women using VIA and cryotherapy, at times the supply of coolant gas to perform treatment with cryotherapy was erratic. Additionally, the movement of specially VIA-trained providers from supported implementing sites negatively impacted on the level of service the program achieved. MCHIP strengthened the supply chain of coolant gas through deeper engagement with both the gas suppliers and the district DOH. This engagement is important and should be maintained.
- Nationally there was a delay in the Male Circumcision policy and clinical guidelines, which delayed implementation of MC training under MCHIP in South Africa overall. The MCHIP Technical Advisor worked in support of moving these guidelines forward.

MCHIP Country Brief: South Sudan



Selected Health and Demographic Data for South Sudan	
Maternal mortality ratio (deaths/100,000 live births)	2,054
Neonatal mortality rate (deaths/1,000 live births)	52
Under-5 mortality rate (deaths/1,000 live births)	135
Infant mortality rate (deaths/1,000 live births)	102
Contraceptive prevalence rate	3.5%
Total fertility rate	5
Skilled birth attendant coverage	13%
Antenatal care, 4+ visits	17%
Sources: Southern Sudan Center for Census, Statistics, and Evaluation 2010; World Bank; Southern Sudan Household Health Survey 2010; WHO; 2012 South Sudan HIV/AIDS Epidemiologic Profile.	

Health Areas

- Maternal Health
- Child Health
- Immunization
- Family Planning
- HIV/AIDS



Program Dates	October 1, 2007–April 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of states	10%	No. of counties	2	No. of facilities	31
Country and HQ Contacts	Catharine McKaig, Integrated Service Delivery Program Chief of Party; Jaime Mungia, Senior Program Officer					

INTRODUCTION

Since the signing of the Comprehensive Peace Agreement in 2005 and subsequent independence in 2011, the Republic of South Sudan has made laudable achievements to improve the health of its citizens. With the highest maternal mortality ratio in the world, estimated at 2,054 per 100,000 live births, and other challenging reproductive health indicators, the Ministry of Health (MOH) has committed to improving and expanding access to quality reproductive health (RH) services. Together with the South Sudan MOH, the United States Agency for International Development (USAID)-funded Maternal and Child Health Integrated Program (MCHIP) worked in South Sudan from October 2007 to April 2014 to improve reproductive, maternal, newborn, and child health (RH/MNCH). The technical priorities under MCHIP were:



- Prevention of postpartum hemorrhage (PPH) through (a) clean and safe delivery, including active management of the third stage of labor and immediate newborn care, and (b) advance distribution of misoprostol for self-administration at home delivery;
- RH and family planning (FP);
- Expanded Program on Immunization (EPI); and
- Monitoring and evaluation (M&E) in the area of HIV/AIDS.

KEY ACHIEVEMENTS

Building on the commitment of the MOH to advance these technical priorities, MCHIP made notable achievements:

- Technically supported the National RH Department to finalize the National FP Policy, RH Policy, and RH Strategy, which form the policy cornerstone and roadmap for the delivery of RH/MNCH services in South Sudan.
- Assisted the National HIV/AIDS Division with meeting its reporting and other data requirements, including MOH reports, the South
- Sudan HIV and AIDS Commission (SSAC) annual report, global reports (UNAIDS, UN
- Senior FP/RH Advisor opens FP training.
- General Assembly high-level meeting targets, World Health Organization [WHO] treatment), the HIV/AIDS 2013–2017 strategic plan, proposal development for the Global Fund's transitional funding mechanism (TFM), the antiretroviral therapy (ART) scale-up plan (test and treatment cascade), and the prevention of mother-to-child transmission (PMTCT) of HIV scale-up plan. This assistance supported the MOH's efforts to apply for funding from donors and plan for the expansion of HIV/AIDS services.
- Assisted the National HIV/AIDS Division with key surveys, including Round 3 of HIV Sentinel Surveillance, mapping and estimation of numbers of female sex workers, Centers for Disease Control and Prevention (CDC) Epi-Aid Investigation on high HIV prevalence in Western Equatoria State (WES), and the modes of transmission (MOT) study. These studies expanded understanding of the HIV/AIDS epidemic in South Sudan and can be used by the MOH and partners to inform programming.

- Provided technical leadership to a multi-agency EPI review, reviewed program performance, contributed to a report summarizing findings and recommendations, which ultimately informed the comprehensive multi-year plan.
- Completed a learning phase on a comprehensive program to prevent PPH in two rural counties of South Sudan. In Mundri East County, 94 percent uterotonic coverage was achieved, and 99 percent of women with home births who had misoprostol reported taking it. Before the intervention, there was limited use of uterotonics for PPH prevention in the hospital and no use in health centers. The program continued implementation after the completion of the learning phase, and a total of 2,240 women received a uterotonic. Following the MOH's approval of expanding the intervention in the country, the program began expansion to other counties in Western Equatoria State, under the Integrated Service Delivery Program (ISDP), and to the six other states under the Health Pooled Fund, with technical support from MCHIP and ISDP.

"The findings from our trip [to Mundri East] show great potential for the reduction of maternal mortality in South Sudan if we successfully roll out the program and implement it nationally. This conclusion has been reached unanimously by the trip team."

- Dr. Alexander Dimiti, Director General of Reproductive Health, National Ministry of Health

Indicators under the Learning Phase of the Prevention of PPH Program, September 2012–March 2013

INDICATORS	NUMBER
Training under the Learning Phase	
Eligible home health promoters in the intervention areas	270
Home health promoters trained on birth preparedness/complication readiness and misoprostol distribution	260
Eligible health facility staff in intervention areas	124
Health workers trained on birth preparedness/complication readiness and misoprostol distribution	60
Service Delivery under the Learning Phase	
Pregnant women who received misoprostol in the study area	1,895
Women who had a home delivery	1,411
Women who delivered at home at took misoprostol	1,395
Women who delivered at the health facility and received misoprostol	133
Women who received oxytocin within three minutes of delivery	712
Women who reported any complications after consuming misoprostol	0
Referrals from community to health facility after consuming misoprostol	0
Maternal deaths among clients recruited	0

WAY FORWARD

MCHIP had important successes that can be used as a platform for future work in South Sudan. While these achievements are an important step in improving RH/MNCH at the national level, much work remains. The following are selected recommendations, based on program experience and lessons learned, that the MOH and partners can consider for the future.

"The good thing about miso: I could carry it with me when I ran."

-Wilma Awowa, Home Health Promoter

- The prevention of PPH program showed remarkable potential for impact and continued amid the crisis in South Sudan; it should be expanded to all states. High uterotonic coverage was achieved in the learning phase of the program in rural areas of the country, and the MOH commissioned ISDP to continue expanding the intervention in WES and Central Equatoria State (CES). Furthermore, the intervention was continued in Mundri East and Mvolo Counties after the crisis in South Sudan began on December 15, 2013. More than 100 pregnant women gave birth in December 2013 and January 2014—and they survived, thanks to ISDP-supported health providers who administered a uterotonic to provide protection against PPH. This underscores the value of providing misoprostol to women in advance of childbirth, particularly in light of the many challenges faced in a conflict or post-conflict environment.
- The HIV/AIDS Division should consider creating an M&E unit, which will be responsible for strategic information functions, along with a unified HIV strategic information team. The team can be formed from the existing M&E and surveillance personnel serving under various stakeholders, such as the HIV/AIDS Division, the MOH M&E Directorate, and partners who support the MOH's HIV M&E and surveillance under the leadership of the MOH M&E Directorate.
- The national and state M&E unit personnel should undergo skills assessments in HIV M&E to identify any gaps and develop action plans to address the gaps.
- The HIV/AIDS Division should ensure that the strategic information and capacity strengthening strategic plans are implemented in the context of the overarching strategic and M&E framework at the sector and national HIV/AIDS response levels, including plans for data analysis, dissemination, and utilization

MCHIP Country Brief: Swaziland



Health Area:

- HIV/AIDS

Selected Health and Demographic Data for Swaziland

Maternal mortality ratio (deaths/100,000 live births)	589
Neonatal mortality rate (deaths/1,000 live births)	22
Under-5 mortality rate (deaths/1,000 live births)	120
Infant mortality rate (deaths/1,000 live births)	85
Contraceptive prevalence rate	65
Total fertility rate	3.9
Skilled birth attendant coverage	69%
Antenatal care, 4+ visits	79.3%
Sources: World Bank** (2012); DHS 2006-2007*; SHIMS (2010)***; MOH 2012 Annual Report.	



Program Dates	June 1, 2010–June 30, 2014					
Total Mission Funding to Date by Area	Redacted					
Total Core Funding to Date by Area	Redacted					
Geographic Coverage	No. of provinces	N/A	No. (%) of districts	100%	No. of facilities	3
Country and HQ Contacts	Laura Fitzgerald, MCHIP Maternal Health Advisor, Pat Taylor, Country Support Manager, Tracey Shissler, Senior Program Officer, Tigistu Adamu, HIV/AIDS Team Leader					

INTRODUCTION

Three randomized clinical trials determined unequivocally that male circumcision (MC) reduces female-to-male HIV transmission by approximately 60%.^{1,2,3} Modeling studies demonstrate that MC could prevent up to 5.7 million new HIV infections among men, women, and children over the next 20 years. With an HIV prevalence rate of 31%⁴ among adults and 41.1%⁵ among pregnant women, the Kingdom of Swaziland faces the highest HIV and AIDS burden in the world.

To address an HIV/AIDS epidemic of this magnitude, the government of the Kingdom of Swaziland (GKOS), Swaziland's Ministry of Health (MOH), and MC Task Force, in collaboration with the World Health Organization and the President's Emergency Plan for AIDS Relief (PEPFAR), finalized a National Strategic Plan for MC in 2010. This set a goal of circumcising 80% of Swaziland's HIV-negative, uncircumcised males aged 15–24 over the next five years.

The MOH's plans for MC expanded into adolescent and early infant male circumcision (EIMC) to ensure a protective benefit of MC in the future. In October 2009, the MOH began laying the foundation for EIMC programming by hosting an international expert consultation on EIMC. Subsequently, EIMC surgical guidelines were incorporated in the National MC Surgical Protocol. In preparation for establishing an EIMC pilot, in 2010 PSI conducted a "Knowledge, Attitudes, and Practices (KAP) Survey on Neonatal Male Circumcision among Mothers and Fathers Expecting or Already Having a Male Newborn Baby." This KAP study found that almost a quarter of respondents were aware of EIMC but many were unsure about the appropriate timing for the intervention. The MOH later opened a first pilot site in 2010 at Raleigh Fitkin Memorial (RFM) Hospital in Manzini, the largest city in Swaziland.

With more than 4,000 EIMCs conducted by early 2014, Swaziland now leads the East and Southern African regions in the scale-up of EIMC. Swaziland is also providing regional technical assistance in EIMC, hosting a MOH-supported study tour and clinical training for a delegation from Botswana. Swaziland is the first PEPFAR MC priority country to draft a costed operational plan inclusive of EIMC. Preparation for the 2014–2018 Swaziland Male Circumcision Strategic and Costed Operational Plan for HIV Prevention involved a highly participatory consultative process with both voluntary medical male circumcision (VMMC) and EIMC stakeholders.

The goal of MCHIP's work in support of the MOH in Swaziland was to provide technical assistance in the rollout of safe EIMC in Swaziland in accordance with Swaziland's National Policy on Male Circumcision for HIV Prevention, and to ensure long-term sustainability of neonatal circumcision services by supporting the MOH in the development of the EIMC operational plan. MCHIP supported the MOH and the MC Task Force in laying the technical groundwork for an additional safe, evidence-based neonatal circumcision pilot in 2010 at Mankayane Government Hospital and its two associated health centers with high delivery rates.

MCHIP's efforts in 2010 and 2011 concentrated primarily on training, quality assurance, and ongoing provider support at the three health facilities, concentrating in the Manzini region. In 2012, via a subgrant from PSI under the USAID-funded Combined Prevention Program,

¹ Auvert B et al. 2005. Randomized controlled intervention trial of male circumcision for reduction of HIV infection risk: The ANRS 1265 trial. *PLoS Med.*

² Bailey R et al. 2007. Male circumcision for HIV prevention in young men in Kisumu, Kenya: A randomized controlled trial. *The Lancet.*

³ Gray R et al. 2007. Male circumcision for HIV prevention in men in Rakai Uganda: A randomized trial. *The Lancet.*

⁴ Government of Swaziland, Ministry of Health. 2012. *Swaziland HIV Incidence Measurement Survey (SHIMS).*

⁵ Swaziland Ministry of Health. 2010. 12th Round of National HIV Serosurveillance in Women Attending Antenatal Care Services at Health Facilities in Swaziland. Mbabane, Swaziland.

Jhpiego later provided additional training nationally to all four regions of the country, followed by supportive supervision inclusive of the MCHIP EIMC pilot sites.

In the last year of the MCHIP award, MCHIP was requested by the MOH and PEPFAR to ensure long-term sustainability of EIMC services by supporting the MOH in the development of the EIMC component of the national 2014–2018 Swaziland Male Circumcision Strategic and Costed Operational Plan for HIV Prevention. MCHIP also supported documentation of the MOH's efforts, experience, and successes in EIMC to raise awareness regionally and beyond through success stories with the MOH and development of a manuscript for potential publication on successes and lessons learned.

KEY ACHIEVEMENTS

To achieve these goals, MCHIP concentrated on the following objectives and activities:

Objective 1: Fostering sustainability of EIMC services to ensure long-term increases in MC prevalence

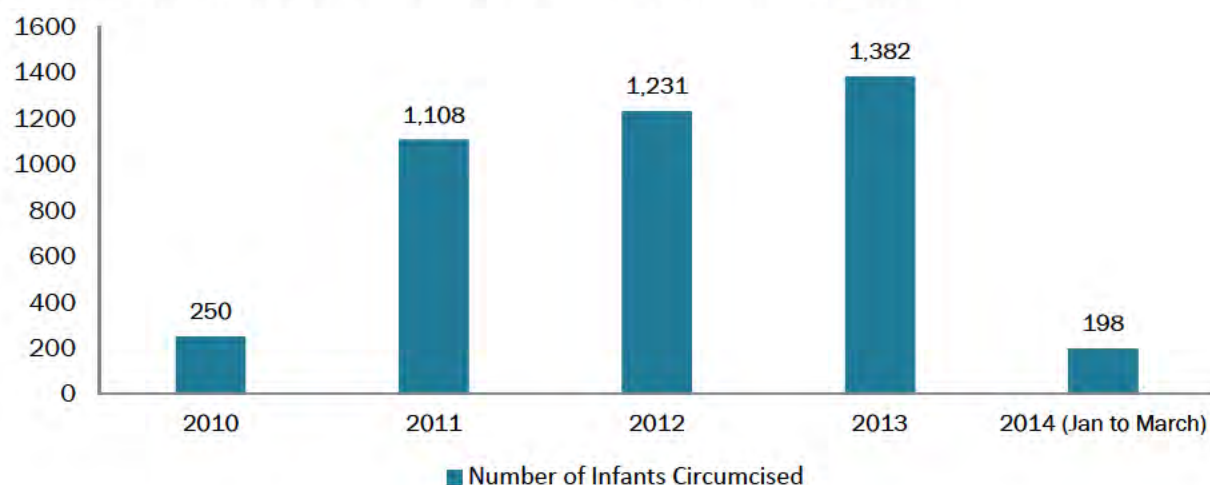
- MCHIP contributed to increasing access to EIMC by developing and providing the first EIMC training in the country to 14 health care workers (five doctors and nine nurses) from the three public health facilities—Mankayane Government Hospital and two affiliated high-delivery health centers. As a result of MCHIP, providers from that first training were able to begin to advise families about how to access EIMC services.



2011 EIMC clinical training

- As of April 2014, 123 health care providers—45 doctors and 78 nurses—had undergone clinical training on EIMC via 10 additional trainings conducted under other programs. The figure below illustrates the trends in EIMC in Swaziland over the project period, January 2010 to March 2014. Although 4,169 EIMCs have been conducted, there has not yet been a single reported adverse event for the EIMC program in Swaziland.

EIMC Trends in Swaziland, January 2010–March 2014 [Data source: PSI]



Objective 2: Improving the quality of EIMC services

- Ensuring that EIMC is introduced safely, comprehensively, and uniformly requires close follow-up. To that end, with support from MCHIP, a package of quality assurance tools, “Performance Standards for Early Infant Male Circumcision,” was developed. Providers and facility staff from the three EIMC pilot sites were oriented to the quality assurance approach as well as the standards in order to assume local ownership of the process and ensure program sustainability. These tools were taken up by the MOH and implementing partners for use nationally in EIMC implementation rollout.

Objective 3: Provide support to the MOH’s development of an EIMC component to the operational plan

- Since the first rollout of EIMC training, Swaziland has made significant progress in EIMC, with 15 sites now providing services; all health facilities with doctors are now providing EIMC services. Leading this effort, and to guide this process, in late 2013 the MOH requested technical assistance from PEPFAR and MCHIP in the development of an EIMC operational component to the 2014–2018 Swaziland Male Circumcision Strategic and Costed Operational Plan for HIV Prevention. MCHIP has supported the MOH, Management Sciences for Health (MSH), and other involved partners to assemble the most up-to-date and comprehensive information in order to provide background and the current status of EIMC services.

Objective 4: Support the MOH’s documentation of the efforts, experiences, and successes in EIMC to raise awareness regionally and beyond

- MCHIP developed external documents including success stories and a manuscript on behalf of and with leadership from the MOH that summarize the status and successes found in Swaziland, with the intent to share best practices regional and globally.
- These external documents will be important to record the government of Swaziland’s collective efforts to date in EIMC development and service delivery. They will serve as useful references for other MOHs and HIV prevention donors and partners that are moving through the establishment of EIMC services.

WAY FORWARD

The facility-level assistance under MCHIP and throughout the country under partner projects, in addition to MCHIP’s support to the MOH to develop the national EIMC operational plan and document the MOH’s efforts to date in EIMC, has provided MCHIP with a perspective to make the recommendations below. These recommendations are in line with recommendations made by MCHIP in the development of the strategic plan.

- The provision of EIMC services should not be an isolated and vertical intervention.

An EIMC program must be integrated into the maternal, newborn, and child health (MNCH) platform that the MOH recognizes. This integration starts during the pre-pregnancy period and continues through to the postnatal period. EIMC messages accompany messages about birth preparedness, proper prenatal and antenatal care, and comprehensive “Day of Birth” care for the mother and the newborn. Contrary to some beliefs, adding HIV prevention, care, and treatment services within the maternal and child health (MCH) setting does not necessarily compromise the quality of MCH services but has the potential to increase the use of reproductive health services and improve infant outcomes.⁶ The focus of health care providers should continue to be: to provide

⁶ Van den Akker T et al. 2012. HIV care need not hamper maternity care: A descriptive analysis of integration of services in rural Malawi. (January)

comprehensive information and education for parents and guardians to make informed choice about EIMC; to provide high-quality and safe EIMC services; and to provide families the opportunity to access other health care services when they are in contact with the health system. Implementation of EIMC in Swaziland follows the reproductive cycle and therefore should enhance the use of services during pre-pregnancy, pregnancy, birth, and the postnatal period.

- Expand EIMC services into the private sector.

According to the 2006/2007 Swaziland Demographic and Health Survey, 31% of deliveries take place in the private sector. Building demand among privately insured and self-paying clients, as well as introducing EIMC services to all private facilities with antenatal care, delivery, and postpartum services, will have a significant impact on reaching EIMC targets.

- Strengthen linkages between community and facility and referrals.

A well-structured MOH system for community referrals to public sector facilities, as well as facility-to-facility referrals, is newly in place. EIMC will be one of the services to which clients can be linked and referred through this mechanism. Further, PSI's HIV testing and counseling referral and linkages program, which traces clients with mobile phones and confirms referrals with facilities, has a 65% linkage success rate. Such linkage and referral innovations should be tested for EIMC.

- Address policy and structural concerns related to human resources for EIMC.

EIMC is currently offered in all MOH facilities where doctors are available for EIMC backup and supervision, that is, it is available in all public sector hospitals and health centers. While EIMC is intended as a midwife-led intervention, regulations are not yet in place to provide full, legal protection to the nursing cadre in independently performing the procedure. This leads to a concern that, should a severe adverse event take place, the midwife who performed the procedure will be at legal risk, even if nurses and midwives are viewed as the backbone of service delivery.

- Facilities will need to actively prepare to include EIMC surgical instruments and consumables in their routine logistics and procurement processes.

As EIMC is integrated within the MNCH platform, procurement for EIMC equipment and consumables will be routinized through the existing systems, with the national budget accommodating the needs of the EIMC services. Transitioning the procurement for EIMC services to government mechanisms means that these services will be vulnerable to existing supply chain challenges in the public sector. Meeting these challenges will require advocacy and careful supply chain forecasting from facilities.

MCHIP Country Brief: Tajikistan



Health Area:

- Immunization

Selected Health and Demographic Data for Tajikistan

Maternal mortality ratio (deaths/100,000 live births)	65
Neonatal mortality rate (deaths/1,000 live births)	19
Under-five mortality (deaths/1,000 live births)	43
Infant mortality rate (deaths/1,000 live births)	34
Modern contraceptive prevalence rate	26
Total fertility rate	3.8
Skilled birth attendant coverage	87%
Antenatal care, 4+ visits	53%

Sources: World Bank, World Health Organization, UNICEF, Demographic and Health Survey. USD: US dollar.



Program Dates	February 2011 to September 2013					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Lola Sattori, MCHIP/Tajikistan National Technical Officer, lola_sattori@mail.ru Kelli Cappelier, MCHIP Immunization Technical Manager, kcappelier@jsi.com					

INTRODUCTION

Despite Tajikistan being certified polio free in 2002, and consistently reporting immunization coverage above 90%, the country experienced the world's largest polio outbreak in 2010, with 458 laboratory confirmed cases of paralytic poliomyelitis, or one half of all cases reported in that year. UNICEF's Tajikistan Living Standards Survey (TLSS) in 2007 had given a clear warning that such an outbreak was imminent when it revealed that only 50% of Tajik infants nationwide had received a third dose of oral polio vaccine (OPV3). Unfortunately, this warning was not heeded in time, the outbreak occurred, and a very expensive mass polio campaign was required to control it.

The United States Agency for International Development (USAID)/Central Asia provided the Maternal and Child Health Integrated Program (MCHIP) with funding, beginning in late 2011, to strengthen routine immunization in both Tajikistan and Kyrgyzstan. The goal was to assist the ministries of health to prevent future outbreaks of polio and other vaccine preventable diseases. MCHIP conducted an assessment and planning mission in September 2011; this was followed by a series of external technical assistance visits and the hiring, in January 2012, of a national coordinator who worked under the direction of MCHIP's regional and U.S.-based immunization technical officers and was an active participant on the national Interagency Coordination Committee (ICC) and other Ministry of Health (MoH) and Republican Center for Immunoprophylaxis (RCIP) working groups.

Upon the resignation of the national coordinator in September 2013 after challenges with the registration, instead of attempting to recruit a new coordinator and continue with registration for a short period, USAID/Tajikistan made the decision to suspend the work and approved MCHIP's proposal to shift all remaining funding to the MCHIP program in Kyrgyzstan.

KEY ACHIEVEMENTS

From January 2012 through September 2013, MCHIP/Tajikistan:

- Participated in and provided technical assistance during the planning for the first and second rounds of Tajikistan's nationwide diphtheria vaccination campaign;
- Played a key technical role, in collaboration with the MoH and other international partners, in Tajikistan's National Immunization Program Review, which produced recommendations to the MoH for further strengthening routine immunization and maintaining high levels of coverage;
- As a member of the ICC and the Maternal and Child Health and Reproductive Health Advisory Council (MCH & RHAC), forged relationships with national-level partners and contributed to National Immunization Program decision making;
- Completed a baseline assessment in two villages across two districts and identified key areas for district-level support; and
- Provided financial and technical assistance for the 2013 World Immunization Week.

WAY FORWARD

Programmatic

MCHIP/Tajikistan faced a challenging startup, both administratively and programmatically. The unexpected departure from the project of MCHIP's Bishkek-based regional immunization consultant in January 2013 (the same month the Letter of Implementation with the MOH was signed) made it difficult for MCHIP to provide the continuous guidance and support needed by the national coordinator during the year. The delayed decision to register John Snow, Inc. (JSI), the MCHIP lead organization in Central Asia, and subsequent delays in securing the registration itself, resulted in an insecure situation for the national coordinator, in particular, and it also limited the support that MCHIP was able to provide at district level. These challenges resulted in the resignation of the national coordinator. With only three months left in program implementation and in light of these challenges, it was decided that moving forward with registration would not be possible. Unfortunately, without registration in place, MCHIP was not able to achieve full program implementation. In the future, whether working under a bilateral agreement between the U.S. Government and the Republic of Tajikistan, or another country, registration of USAID implementing partner organizations should be given the highest priority.

National Technical

As Tajikistan looks ahead to plan for the introduction of new vaccines, there are a number of challenges that need to be addressed. Serious issues with data quality and the monitoring of immunization coverage persist; irregular training and problems with the retention of qualified health workers make it difficult to achieve quality immunization services; and vaccine management, injection safety, and an aging cold chain that is non-existent below the district level in many areas are all problems that Tajikistan and its partners must continue to address. If investments and technical support to the National Immunization Program do not increase to address these fundamental weaknesses in the health system, the country will continue to be susceptible to outbreaks of vaccine preventable diseases and to require costly episodic vaccination campaigns.

MCHIP Country Brief: Tanzania



Health Areas:

- HIV/AIDS
- Immunization

Selected Health and Demographic Data for Tanzania

Maternal mortality ratio (deaths/100,000 live births) ²	450
Neonatal mortality rate (deaths/1,000 live births) ²	21
Under-five mortality (deaths/1,000 live births) ²	54
Infant mortality rate (deaths/1,000 live births) ²	38
Modern contraceptive prevalence rate ²	34
Total fertility rate ²	5.3
Skilled birth attendant coverage ²	49%
Antenatal care, 4+ visits ²	43%

Sources: ¹ World Bank; ² UNICEF Statistics 2012



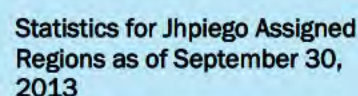
Program Dates	VMMC: September 30, 2008–September 29, 2014 Immunization: December 2011–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage (VMMC)	No. (%) of regions	8.3%	No. of districts	15/169	No. of facilities	347
Geographic Coverage (Immunization)	No. (%) of regions	8.3%	No. of districts	11/169	No. of facilities	327
Country and HQ Contacts	<p>VMMC: Hally Mahler, HIV Director, Natalie Hendler, Senior Program Officer, Brenda Rakama, Alice Christensen, Tigistu Adamu, and Kelly Curran</p> <p>Immunization: Dr. Caroline Akim, National Immunization Technical Advisor, Lora Shimp, Senior Immunization Technical Officer, Asnakew Tsega, Immunization Technical Officer, Kelli Cappelier, Senior Program Officer, Kerry Ann Dobies, Program Coordinator</p>					

Redacted

INTRODUCTION

Following the WHO recommendation, Tanzania convened its first Male Circumcision Technical Working Group (MCTWG) in 2007. The MCTWG recommended the implementation of two national situation assessments, one in circumcising communities and another in non-circumcising communities, and proposed the implementation of a VMMC pilot. In 2009 USAID asked the Maternal Child Health Integrated Program (MCHIP) to collaborate with the Ministry of Health and Social Welfare (MOHSW) to pilot VMMC in Tanzania. In September 2009, the country's first VMMC site opened at Iringa Regional Hospital. The scope and field support funding level for VMMC have grown steadily, and during the past five years the MCHIP Tanzania VMMC program has been lauded as one of the highest quality and most efficient and innovative programs in the region. With the support of the MOHSW, VMMC services have been established in three priority regions (Iringa, Njombe, and Tabora) and delivered as routine services at fixed sites and in outreach and mobile settings through campaigns. As of March 2014, VMMC services had been provided in 347 unique health facilities across the three regions where a total of 323,650 clients were provided with services.

<ol style="list-style-type: none"> 1. Scale up male circumcision services in Iringa, Njombe, and Tabora regions 2. Pilot early infant male circumcision (EIMC) services in Iringa region 3. Develop and/or adapt key tools, curricula, and materials, as necessary 4. Collaborate with US Government (USG) VMMC partner agencies in Tanzania 5. Provide technical assistance to the Government of Tanzania health authorities 6. Collect and disseminate programmatic and research lessons learned within Tanzania and elsewhere 	<p>program: 103,891</p> <ul style="list-style-type: none"> • Target VMMCs remaining for next five years: 212,752 <p>Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12 and the 2014 National VMMC Country Operational Plan (draft)</p>
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- HIV Prevalence: 9.1%
- MC Prevalence 60%
- Number of VMMCs done by program: 127,634
- Target VMMCs remaining for next five years: 87,076

- HIV Prevalence: 14.8%
- MC Prevalence: 49%
- Number of VMMCs done by program: 92,125
- Target VMMCs remaining for next five years: 74,333

- HIV Prevalence: 5.1%
- MC Prevalence: 56%
- Number of VMMCs done by program: 103,891
- Target VMMCs remaining for next five years:

Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12 and the 2014 National VMMC Country Operational Plan (draft)

In 2009 it was impossible to foresee that the Tanzania VMMC program would reach more than 1 million VMMCs by 2014. At the launch of the program, MCHIP was part of a multi-agency partnership to pilot VMMC services, in collaboration with the United States Department of Defense (DOD) partner, Walter Reed Medical Center (through Mbeya Referral Hospital); and the Centers for Disease Control and Prevention (CDC) partner, the International Center for AIDS Programs (ICAP). MCHIP led the development of monitoring and evaluation (M&E) and counseling tools. Jhpiego experts traveled to Tanzania to facilitate the national adaptation of the *WHO/UNAIDS/Jhpiego Manual for Medical Male Circumcision Under Local Anesthesia* (WHO/UNAIDS/Jhpiego 2009). In September 2009, the first VMMC clinician training was held at Iringa Regional Hospital for providers from all partners, and services were officially established in October 2009. Since that date, Iringa Regional Hospital has remained as a center of excellence for the VMMC program, and a large majority of trained VMMC providers in Tanzania were either trained there or trained by the Master Trainers who normally work there. In May 2010, the first VMMC campaign in Tanzania was held in Iringa region, providing evidence that there was high demand for services, and both high volume and high quality VMMC services were feasible. In early 2011, MCHIP opened an office in Njombe region to coordinate the expansion of the program there, and in 2012 MCHIP opened an office and initiated services in Tabora. Decentralization of the daily management of the VMMC program has facilitated the management and scale up of the growing program. It also facilitated the program's strategy of "bringing VMMC to the people," rather than expecting people to come to the VMMC service.

KEY ACHIEVEMENTS

During the first five years of implementation, the MCHIP VMMC program played a significant role in the further development and expansion of VMMC through technical support in training providers and counselors, development of tools for quality assurance, supervision and counseling, contributions to demand creation, commodity logistics, national and local level advocacy efforts, and institutionalization of the national VMMC M&E systems and tools.

With funding from USAID and research institutions, research has been conducted to determine the acceptability and safety of the PrePex device in Tanzania and the challenges of EIMC to ensure that Tanzania can develop policies and tools for an EIMC scale up. In 2013, MCHIP introduced Tanzania's first EIMC pilot project in the Iringa region. MCHIP VMMC interventions served as an "innovation lab" for Tanzania by constantly adapting the program based on implementation experience, M&E data, and research activities designed to hasten the speed and quality of the VMMC scale-up. This support was provided to partners and the National AIDS Control Program (NACP), and by MCHIP staff, to other countries, including South Africa, Namibia, Zambia, Lesotho, Kenya, Malawi, and Botswana. More than 60 people from donors and partners in other countries and health professionals from other regions of Tanzania visited the MCHIP program during study tours of Iringa and Njombe. As a result of this leadership, contributions to peer-reviewed publications, the development of case studies, and participation in various international conferences, MCHIP has played an important role in advancing the global VMMC agenda.

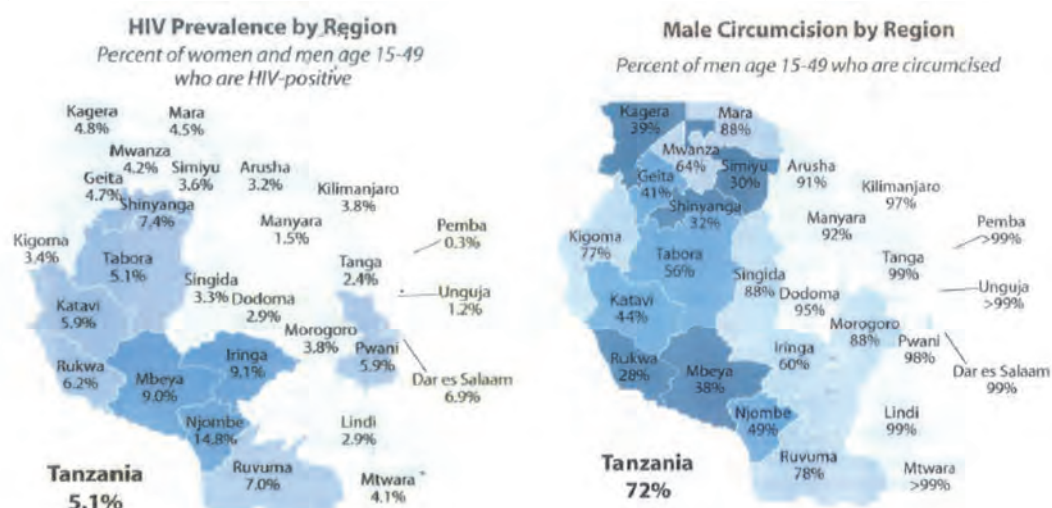
Regional prevalence data are consistent with the M&E data collected by the program. During the past five years, all three MCHIP regions have experienced declines in HIV prevalence and significant increases in MC prevalence, as noted above. Although these improvements cannot be attributed solely to the MCHIP VMMC program, the program may have played some role in the decline in HIV prevalence and likely accounts for the majority of improvements in VMMC prevalence.

Three randomized clinical trials have determined unequivocally that male circumcision reduces female-to-male HIV transmission by approximately 60 percent; post-trial surveillance data suggest that risk compensation has not been a problem in the clinical trial sites. Modeling

studies demonstrate that VMMC could prevent up to 5.7 million new HIV infections among men, women, and children over the next 20 years

In Tanzania, adult HIV and MC prevalence is 5.1 percent and 72 percent, respectively (Tanzania National HIV and Malaria Indicator Survey 2011/12). However, there is tremendous variability in both HIV and MC prevalence by region. The proportion of men aged 15–49 years who reported being circumcised in the most recent national survey ranged from a low of 28 percent in Rukwa region, to a high of more than 99 percent, in multiple regions along the Indian Ocean coastline (see Figure 1).

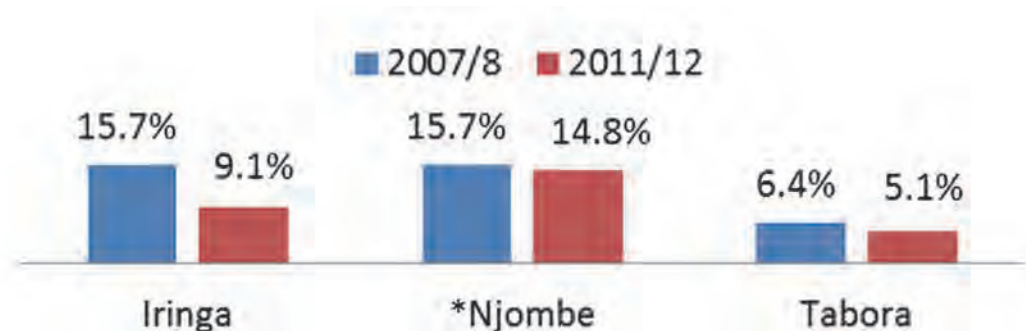
Figure 1. Maps of HIV Prevalence and Male Circumcision Prevalence by Region: 2011–12



Source: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12

As noted in Figure 2, when the program began in 2009, an HIV indicator survey showed that HIV prevalence was 15.7 percent in Iringa and Njombe (which used to be a single region called “Iringa”) and 6.4 in Tabora in 2007/08. HIV prevalence rates have declined to 9.1 percent in Iringa, 14.8 percent in Njombe, and 5.1 percent in Tabora.

Figure 2. Prevalence of HIV in MCHIP MC regions: Iringa, Njombe, and Tabora, 2007/8 and 2011/12



*Njombe was part of Iringa region in 2007-8. Since disaggregated data do not exist for that time period, the same HIV prevalence has been cited for both regions. HIV prevalence pertains to all adults aged 15–49.

Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2007–08: Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and Macro International Inc. 2008. *Tanzania HIV/AIDS and Malaria Indicator Survey 2007-08*. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and Macro International Inc.

Tanzania HIV/AIDS and Malaria Indicator Survey 2011–12: Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF International 2013. *Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12*. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and ICF International.

Prior to the program launch in 2009, MC prevalence was 29 percent among males aged 15–49 in Iringa and Njombe and 38 percent in Tabora. Subsequently, MC increased to 60 percent in Iringa, 49 percent in Njombe, and 56 percent in Tabora by 2011/12, as noted in the Tanzania HIV/AIDS Malaria Indicator Surveys. In addition, 200,000 VMMC were performed between 2011–12 and March 2014.

The National VMMC Strategy prioritizes VMMC for males aged 10–34 years, particularly in the 12 regions characterized by high HIV prevalence and low MC prevalence. Since 2009 323,650 VMMCs have been provided through 347 unique MCHIP-supported MOHSW sites. MCHIP has played a leadership role in Tanzania, working with the MOHSW, USG agencies, international partners, implementation partners, and local communities to bring high quality VMMC services to Iringa, Njombe, and Tabora Regions. MCHIP has demonstrated, both within Tanzania, and to other countries seeking to establish VMMC services, that it is possible to implement high-volume VMMC campaigns. Financial and human resources have been maximized through significant investments in community advocacy and mobilization, and the program has developed a model of balancing supply and demand, which has been replicated by other organizations.

WAY FORWARD

Throughout its operation, the program has faced challenges and found solutions, by reducing seasonality of demand, dispelling myths and misconceptions about VMMC, and efficiently managing human resources. The program has implemented research and analyzed program data to understand the ideal mix of services for older men, reasons why adverse event (AE) rates were dropping, and the potential barriers to the uptake of EIMC services. When solutions were not possible, the program advocated for change (e.g., USG-accepted age of VMMC clients). The MCHIP Tanzania VMMC program has embraced the use of technology to help enhance programmatic elements. For example, geographic information systems (GIS) identified gaps in the VMMC scale up and identified sites to ensure the success of VMMC campaigns. Text messaging increased accessibility to information on VMMC for clients and providers through Text to Change and *Tohara* Texts.

MCHIP improved the quality of VMMC services through refresher training for VMMC providers in Tanzania, training special AE ombudsmen to review AE rates and ensure accurate reporting, and incorporating robust supervision, mentoring, and quality assurance and external quality assurance systems.

MCHIP also provided significant technical assistance to the MOHSW. MCHIP led the process of reviewing and finalizing the national VMMC training curriculum and developed training curricula for VMMC counselors, refresher training, and peer promoters. From the outset of the program, MCHIP worked with the NACP's M&E Unit to develop, test, and finalize national VMMC M&E tools and assisted the MOHSW to incorporate VMMC into the national district health management system. MCHIP also provided the NACP with technical support for the development of VMMC costing and modeling.

By the end of five years, VMMC had progressively and rapidly expanded in MCHIP's implementation regions. As of mid-2014 more than one million VMMCs had been performed in the 12 priority regions. The new 2014 National VMMC Country Operational Plan estimates that there are an additional 2.1 million clients to serve in the 12 priority regions between 2014 and 2017; these men stand to gain the epidemiological benefits of VMMC and be part of an AIDS-free generation.

INTRODUCTION

In the mid-1990s, Tanzania's national immunization program was among the strongest in sub-Saharan Africa, with national routine immunization coverage estimated at approximately 80 percent.² However, coverage fluctuated thereafter following the health sector reforms of 1996 and the creation of the Sector Wide Approach (SWAp), which pooled and channeled government and donor funding to the districts for the first time. After 2001, when the country began receiving GAVI Alliance support, routine immunization coverage rose once again, from approximately 79 percent in 2000 to 94 percent in 2004. However, due to challenges ensuring dedicated funding for the Expanded Programme on Immunization's (EPI) recurrent operational costs, routine coverage by one year of age has not been sustained at the 2004 level.

The 2010 Tanzania Demographic and Health Survey (DHS) found that coverage (based on immunization card plus history) was still much lower by one year of age than is considered optimal. It also found that performance varied significantly by region, with Kigoma, Mbeya, Rukwa, Tabora, and Mara achieving less than 80 percent DTP-HepB-Hib coverage (in children 12 to 23 months of age). A formal EPI review conducted in July 2010 by the Ministry of Health Immunization and Vaccine Division (MOH/IVD) and its international partners identified a number of gaps in the immunization system that would have to be addressed to further improve and sustain coverage and guarantee the successful introduction of new vaccines.

In 2011, USAID/Tanzania requested technical assistance from MCHIP to address some of the persisting challenges for routine immunization to achieve optimal coverage, in addition to supporting the introduction of new lifesaving vaccines. Following an initial assessment, and several subsequent MCHIP technical visits, an agreement was made with the MOH/IVD, USAID/Tanzania, WHO, UNICEF, and the Canadian International Development Agency (CIDA) on a technical assistance and program support plan, including assistance through MCHIP. The first year of the MCHIP involvement in Tanzania (January 2012 to January 2013) focused on support to the successful simultaneous introduction of two new vaccines—pneumococcal conjugate vaccine (PCV) and rotavirus (RV) vaccines. Objectives 1 to 3 were developed at the inception of the project, with objectives 4 to 5 added in program year six.

MCHIP/Tanzania Immunization Program Objectives:

1. Assist the MOH/IVD and partners at national level in introducing and sustaining new vaccines and strengthening routine immunization
2. Build the capacity of MOH/IVD's staff to support and improve the performance in routine immunization and new vaccine introduction
3. Collaborate with the MOH/IVD to improve the coverage and quality of routine immunization services in poorer performing regions provide a platform for new vaccine introduction
4. Strengthen the capacity of lab technicians for RV surveillance
5. Complete obligatory close-out procedures and transition some or all of MCHIP's support for new vaccine introduction and routine immunization strengthening to other USAID mechanisms, MOH/IVD, and partners

² The proxy indicator for routine immunization coverage is measured by the third dose of diphtheria-tetanus-pertussis containing vaccine administered prior to 12 months of age.

KEY ACHIEVEMENTS

Objective 1: Assist the MOH/IVD and partners at national level in introducing and sustaining new vaccines and strengthening routine immunization

- In partnership with the MOH/IVD, MCHIP played a key leadership role within the Interagency Coordinating Committee (ICC) to assist in planning for and implementing the simultaneous introduction of two new lifesaving vaccines: PCV and RV. MCHIP participated in all of the ICC technical sub-committees (New Vaccine Training; Cold Chain and Logistics; and Social Mobilization and Communications Coordinating Committees), in addition to working with partners to coordinate the training of 361 national and zonal level health staff on new vaccine introduction.
- MCHIP supported the MOH/IVD in revisions of key national policies, most notably revision of the immunization schedule to align with the target ages for the new vaccines (i.e., from 4, 8, and 12 weeks to 6, 10, and 14 weeks).
- MCHIP provided key support in the development of information, education, and communication (IEC) materials for PCV and RV vaccines, including the field pre-testing, finalization, distribution, and launching of these messages and materials through different media outlets (e.g., television, radio, posters, leaflets).
- Logistics guidance was provided by MCHIP for financing of (through CIDA) and planning for installation of walk-in cold rooms installed in 19 regions to accommodate the additional space needed for the new vaccines.
- MCHIP supported the introduction planning, training, and rollout of measles second dose (MSD), including updating monitoring tools and training materials in April 2014.
- Stock management tools and reports were updated to include PCV, RV, and MSD vaccines and commodities.
- MCHIP played an integral role in the planning and implementation of the RV and PCV post-introduction evaluation in November 2014.
- In collaboration with partners, MCHIP assisted in drafting the National Immunization Communication Strategy and Plan for Tanzania Mainland and Zanzibar.
- MCHIP provided the MOH/IVD with technical assistance to update Tanzania's comprehensive multi-year plan for 2011 to 2016.
- MCHIP assisted MOH/IVD and worked with partners in compiling all necessary documents for submission of applications for the MSD vaccine, the measles and rubella vaccine, and inactivated polio virus vaccine, and to the GAVI Alliance.

Objective 2: Build the capacity of MOH/IVD staff to support and improve the performance in routine immunization and new vaccine introduction

As part of MCHIP's technical assistance to the MOH/IVD and partners:

- Mid-level Manager (MLM) materials and training protocols were adapted and finalized. Trained 42 national-level trainers on MLM.
- Key MLM modules were finalized for sub-national MLM trainings.
- PCV and RV training materials were developed, printed, and disseminated.

- Council and Regional Health Management Teams and health facility workers were trained in PCV and RV introduction.
- Regional and district-level health worker capacity was strengthened on routine immunization and management of new vaccines.
- All regional and district microplans were updated to include new vaccines.
- Immunization reporting and monitoring tools were updated and printed to include new vaccines.
- PCV and RV vaccine supportive supervision activities were conducted in all regions following introduction.

MCHIP also participated as a key technical partner in:

- Rapid district cold chain inventory (conducted through multi-agency collaboration in 130 districts, with 105 vaccine stores identified as having a shortage of refrigerators). Guidance for the installation of cold rooms in 19 regions in advance of new vaccine introduction, with 12 installed after introduction.
- Training 149 District Immunization and Vaccine Officers (DIVOs) from 24 regions on vaccine management. Out of those, 75 were financially supported by MCHIP while the rest were funded by both WHO and UNICEF.
- Training 50 Regional Immunization and Vaccine Officers (RIVOs) and national IVD/MOHSW officers and 34 Regional Vaccine Storekeepers on vaccine management.
- Training 26 Regional Cold Chain technicians on maintenance and repair of installed walk-in cold rooms and standby generators.

Objective 3: Collaborate with the MOH/IVD to improve the coverage and quality of routine immunization services in poorer performing regions and provide a platform for new vaccine introduction

MCHIP (in consultation with the MOH/IVD), identified 11 lower performing districts across three regions (Kagera, Tabora, Simiyu) in Mainland and Zanzibar that account for >40 percent of under-vaccinated children in Tanzania (Kagera—Karagwe, Kyerwa, Ngara Muleba; Tabora—Urambo, Kaliua, Tabora Urban; Simiyu—Baradi Town Council, Bariadi District Council, Itilima and Maswa). MCHIP conducted situational assessments in these districts to identify gaps in routine immunization service delivery that were contributing to lower vaccination coverage.

Assessments found the following key weaknesses:

- Lack of microplans at district and health facility levels.
- Inadequate mapping of communities and identification of hard-to-reach populations.
- Insufficient frequency of supportive supervision due to lack or delay of funding for the activity.
- Inadequate transportation for vaccine distribution; a problem exacerbated after PCV and RV vaccines were introduced due to increased volume of the vaccines without additional vaccine carriers and/or vehicles/trucks to accommodate them.
- Poor data quality and inaccurate vaccine forecasting, due to the target population not being well-known or accurately calculated. Inadequate knowledge on the interpretation and use of electronic temperature monitoring devices for action.

- Inadequate use of data at health facilities for decision making and action.
- Inadequate defaulter tracing mechanisms at health facilities.
- The following trainings had not been conducted in recent years:
 - MLM training
 - Immunization in Practice (IIP) training
 - Reach Every Child (REC) training
 - Vaccine Management Training

To address these issues, MCHIP achieved the following results:

- Skills among District Health Management Teams in Zanzibar and Council Health Management Teams (CHMTs) across focus districts in Tanzania Mainland were strengthened for microplanning and implementing the REC approach through trainings and follow-up visits during quarterly review meetings.
- MCHIP supported primary health care meetings, working with facility level staff to address issues in need of management attention.
- Regional level technicians were trained to strengthen their skills in cold chain equipment maintenance. This was part of the national capacity building support to RIVOs and DIVOs.
- Finalized adaptation of MLM and IIP training modules.
- Conducted training for REC among CHMTs in all districts within the focus regions, and one health worker from all health facilities in all focus districts.
- Strengthened supervision skills of the MOH staff, RHMTs, and CHMTs for on-the-job mentoring to vaccinators.
- Improved vaccine and related supply distribution for DIVOs by encouraging bundling of supplies through the development and use of a simplified electronic forecasting tool, which was also accepted and used in non-focus regions and districts.
- Assisted health workers to better calculate vaccine and related supply needs based on their target population and community mapping, in addition to understanding and using their data for decision making.
- Strengthened community linkage with immunization services and improved defaulter tracing mechanisms through development of community health worker (CHW) immunization package and oriented CHWs on immunization services, emphasizing defaulter tracing from all health facilities in the focus districts.

Objective 4: Strengthen the capacity of lab technicians for rotavirus surveillance

- Supported national and regional level surveillance officers to receive training in routine vaccination surveillance.

WAY FORWARD

Data quality

Data quality, management, and use are important areas that need to be addressed. RIVOs and DIVOs should be more engaged and their capacity built to ensure that discrepancies in data at all

levels are being resolved and so that data reported through the system to regional and national levels are harmonized. Increasing their participation in the Comprehensive Council Health Plan planning process and review meetings would also improve their engagement.

In addition, Data Quality Self-Assessment training in the lower performing focus districts is needed to address the continued problem of poor data quality at health facilities.

Capacity building

The REC strategy should continue to be implemented, in addition to using the rapid assessment checklist as a monitoring tool to evaluate progress of implementation. This should be part of the process that includes updating microplans and identifying children being missed by vaccination services to increase coverage in focus areas as well as for expansion of these practices to other regions.

The MOH/IVD will need to work with WHO to finalize the adapted MLM and IIP training modules so training can be conducted at sub-national level. MOH/IVD will continue to work with all partners to ensure coordination with zonal health resource centers so that MLM training is rolled out and IIP modules are used beyond the Maternal and Child Survival Program-supported districts.

Supportive supervision visits will need to be strengthened in under-performing districts as well as through the MOH/IVD system at all levels, by providing more on-the-job mentoring, strengthening this component within REC, and ensuring that the system verifies implementation of recommendations from previous visits.

Pre-service training

Within the current medical and nursing school system, the curricula lack basic competencies around administration and management of vaccination services. Current training focuses primarily on broad epidemiology and public health concepts, leaving a reliance on in-service training for health workers to understand key concepts in delivering and managing vaccination as well as with compilation, analysis, and use of data for planning. Pre-service curriculum should be integrated into the learning program of Environmental Health Officers (who become DVOs), Public Health Nurse B, and nurses—the health professionals that are most likely to deliver and manage vaccination services.

Vaccine management

Insufficient knowledge of vaccine management among health care workers at all levels and inadequate or lack of cold chain transportation equipment are resulting in stock outs and increased trips between districts and health facilities. To ensure availability of vaccines and related supplies that are kept safe and ready to administer at the last mile, MOH/IVD will need to continue working with its partners to invest in vaccine management and build capacity for maintaining cold chain equipment and addressing transport needs at sub-regional level.

Linking services with the community

To increase and sustain community demand and utilization of immunization services, there is a need to have appropriate mechanisms by which community and civil society organizations can actively participate in the planning of immunization services. Through the MOHSW, the government of Tanzania should capitalize on the current momentum around the recently developed CHW Strategy and put policies in place that will recognize CHWs as part of the health system. This should include implementation of sustainable mechanisms for motivating them in their work and building their knowledge and capacity to effectively support the delivery of integrated community-based interventions, including immunization services.

MCHIP Country Brief: Timor-Leste



Selected Health and Demographic Data for Timor-Leste

Maternal mortality ratio (deaths/100,000 live births)	557
Neonatal mortality rate (deaths/1,000 live births)	24
Under-5 mortality rate (deaths/1,000 live births)	64
Infant mortality rate (deaths/1,000 live births)	45
Contraceptive prevalence rate	22
Total fertility rate	5.7
Skilled birth attendant coverage	30%
Antenatal care, 4+ visits	55%

* Sources: *UN data; **WHO; ***Timor-Leste 2009 Demographic and Health Survey; ****UNICEF; *****World Bank.

Health Area

- Immunization



Program Dates	April 1, 2011–December 31, 2013					
Total Mission Funding	Redacted					
Geographic Focus	No. (%) of Districts	54%	No. of Secondary Districts	2	No. of facilities	342
Country and HQ Contacts	Dr. Ruhul Amin, Country Representative, Pat Taylor, Country Support Team Lead, Kelli Cappelier, Immunization Technical Manager					

INTRODUCTION

The Millennium Challenge Corporation's Threshold Project on Immunization (MCC-TPI) in Timor-Leste was implemented by John Snow, Inc. (JSI), through USAID's global Maternal and Child Health Integrated Program (MCHIP), from April 2011 to October 2013. Known as *Imunizasaun Proteje Labarik* (Immunization Protects Children, or IPL), the project worked with the Ministry of Health (MOH) at the national, district, and local levels to increase child immunization coverage.

IPL was an effective project in a difficult environment. At the start of project implementation, Timor-Leste reported the lowest administrative and official immunization coverage in the WHO/SEARO, estimating 66.7% DTP3¹ and 68.2% measles coverage, with a slight downward trend reported by the Ministry of Health in 2011.² The goal of IPL was to raise the national average of DTP3 and measles vaccination in infants from 67.5% to 81.5%. As a practical strategic decision, IPL focused its efforts in the seven (of 13 total) districts with the largest number of unvaccinated children, which were identified based on HMIS data, and in its last six months extended activities to two additional districts.

Detailed Major Activities

ACTIVITIES	LOCATION	TOTAL SESSIONS	TOTAL PARTICIPANTS
Community leaders training	Suco Council Offices	138	2,894
Uma Imunizasaun tool at sucos	Suco Council Offices	156	4,851
School orientations	Junior High Schools	41	2,115
Uma Imunizasaun tool at CHCs	CHCs	87	2,303
Micro-planning at CHCs	CHCs	216	-
Health worker training	CHCs	21	401
SISCa, outreach, and mobile clinics supported	Communities	2,796 (424 SISCa and 2,372 outreach)	-
Total supervision visits at different health facilities	CHCs and HPs	228	-

IPL focused activities on the aspects of the immunization system that needed to be strengthened: community participation, local government and civil society engagement, communication, SISCa and outreach, health staff capacity and performance, cold chain and logistics, micro-planning, and district- and national-level partnerships. IPL's positive impact was the result of its balanced approach that addressed both the supply (immunization services) and demand (public understanding and participation) deficiencies described in IPL's baseline study.

KEY ACHIEVEMENTS

Various analyses of vaccination coverage, including comparisons between IPL and non-IPL focus districts, and analyses based solely on numbers of children vaccinated (a logical approach, given the unreliability and yearly ups and downs in target populations) show significantly better coverage in IPL districts. The average coverage of DTP3 and measles, based on national coverage, was reported at 61.6% in 2011 compared to 78% in 2012, toward the end of IPL implementation. This increase is very close to achieving the target of 81.5%, but the target could

¹ Third dose of diphtheria-tetanus-pertussis containing vaccine.

² 2009/2010 Timor-Leste Demographic and Health Survey (TLDHS).

not be attained in large part due to a national stock-out of measles vaccine the first half of 2013. The project had no control over this, but worked diligently with partners to resolve the stock-out crisis. Before IPL implementation, a decline in coverage of all antigens had been reported, reaching a low in 2011. However, data from 2012 illustrated a sharp rise in coverage for all antigens. In IPL focus districts an increase of almost 16% was reported, while that for non-focus districts was only 7%. This increase corresponds to the uptake of IPL's field interventions (and also the MOH's determination of a smaller target population, although the changes attributable to IPL support still appear to be significant.) While the individual effects of various project interventions cannot be identified, it seems very likely that together the package of activities contributed to this increase.

Selected Indicators for IPL's First Quarter (April–June 2011 and April–June 2012)

INDICATORS	APRIL– JUNE 2011	APRIL– JUNE 2012
Average coverage of DTP3 + measles*	61.6%	78%
% of CHCs with current micro-plans, maps, full-service strategies	31%	92%
Improved vaccinator ranking on quality measures	0%	54%
Number of staff in focus districts trained in IIP and CCVM	0	192
% of health facilities with good vaccine management	17%	74%
% of health facilities reporting vaccine stock-out in past three months**	8%	73%
Number of teachers and religious leaders who received EPI orientation in the quarter	0	46
% of CHCs with updated list of missed children by <i>suco</i>	0%	31%
% of CHCs holding quarterly micro-plan reviews with wide civil society participation	24%	92%
% of CHCs with active system for identifying and following up left-outs and drop-outs	4%	33%

IIP: Immunization in Practice; CCVM: Cold Chain and Vaccine Management

*National coverage

**National measles stock-out in 2013

Partnering with communities

At baseline, IPL documented minimal community advocacy for or participation in the delivery of health services. To address this deficiency, IPL implemented activities to increase awareness, demand, and use of services. Results were achieved through engaging community and religious leaders, partnering with schools and the Ministry of Education (MOE) to transmit health lessons, and the use of the *Uma Imunizasaun* (*my village, my home*) tool. After receiving training from IPL on immunization and other health topics, community leaders in many low-coverage sub-districts became effective vaccination advocates in their communities. IPL partnered with the MOE to develop health lessons and gave orientations on vaccination and other health topics in middle schools throughout its focus districts. Use of the *Uma Imunizasaun* (UI) tool enabled local volunteers to monitor vaccinations of their community's infants and guide home visits to motivate parents when a child fell behind. Use of the tool greatly increased community engagement in vaccination and resulted in more infants being vaccinated as soon as they were eligible. The



IPL program review found the UI tool was one of IPL's most effective activities. Community respondents said that it helped them to track which children were up to date on their immunizations and which were not. It enabled them to motivate parents of children who had not received all immunizations to get them immunized. Implementation of this tool was taken up by the local civil society organization (CSO) Clinic Café Timor (CCT), which expanded its use in 28 sub-districts.

Strengthening human resource capacity and planning of services

IPL's baseline survey documented that health workers had not received training on Immunization in Practice (IIP) or Cold Chain and Vaccine Management (CCVM) in recent years. In addition, the recording and reporting of data were very weak and supportive supervision needed further strengthening. To address these issues, IPL helped revise standard tools for district, sub-district, and outreach supportive supervision and participated in

"Before supportive supervision, we did not fully understand vaccine management, vaccine storage, and how to fill in and use the immunization monitoring chart. Before supportive supervision began, some vaccinators didn't know if immunization coverage was going up or down."

-Mr. Izaquil Boaventura de Silva, Assistant District
Public Health Officer, Liquica DHS

numerous supportive supervision visits. IPL also helped to involve MOH staff in supportive supervision visits and systematizing supportive supervision forms and procedures. The program also mentored local staff and participated in formal in-service training. IPL designed new tools (e.g., a *suco*-level vaccination register and an out-of-catchment-area form) and worked to improve staff skills in registering, reporting, analyzing, and using data.

In 2011, IPL documented an absence of or weakness in district and sub-district micro-planning, which, done well, can improve the efficiency and effectiveness of immunization. IPL collaborated with national partners to adapt the standard WHO micro-planning guidelines, then helped facilitate annual micro-planning and quarterly updates at district and sub-district levels. Better use of data and mapping, as well as civil society engagement in planning, resulted in better locations for and scheduling of vaccination services.

Improving Service Provision

At baseline, many health facilities could not maintain the cold chain equipment properly nor fix minor problems with their refrigerators. IPL provided training within its focus districts for improved human resource capacity to maintain equipment to keep vaccines potent and safe. IPL also provided resources (new motorcycles and gasoline) and practical assistance (transport in project vehicles, help in vehicle management, and help in service provision) with delivery of vaccinations and other health services. Motorcycles and vehicles were donated to the MOH at the close of the project.

National-Level and Partner Engagement

The program participated with other key national partners in the high-level national EPI Working Group, which provided regular support and guidance to the MOH, reviewing and formulating policy papers, strategic guidelines, and training and communication materials for both EPI and the wider health system. IPL participated actively in national immunization activities.

IPL carried out several practical studies, the results of which were immediately used to improve immunization services:

- The baseline study (2011) of the immunization program in IPL's seven focus districts;

- A primarily qualitative study in the national capital, Dili, to understand factors leading to poor coverage despite good access to services (2012); and
- A program review aimed at extracting lessons learned and recommendations for continuing and expanding IPL's tools and approaches (2013).

The project organized closeout workshops in each of the project districts and, with funding from WHO, a national workshop to share project lessons and recommendations and to discuss parallel initiatives from other partners. Feedback on IPL's contributions at these workshops was gratifying: there were abundant laments that the project was ending too soon and many commitments from the MOH and partners to continue supporting IPL's tools and activities.

WAY FORWARD

Interventions implemented under IPL that appear to have achieved the greatest impact on service delivery and demand generation include support to SISCa services; mobile and outreach services with fuel, transport, maintenance, and mentoring; use of the UI tool to increase community participation and stimulate demand; and the introduction and support of micro-planning in districts and sub-districts. There is political will for IPL activities to continue in focus districts and for the other districts to adapt the same package of activities.

IPL's immediate impact on coverage was limited by national weaknesses in personnel and their distribution, the health information system, and vaccine procurement, distribution, and management, as well as by the difficulty of providing services for families in hundreds of villages with limited if any road access. These issues present Timor-Leste immunization partners with two challenges:

1. Maintaining political will and allocating human and other resources needed to address supply and demand sides of immunization, and
2. Addressing the national health system weaknesses that affect immunization as well as other health programs.

MCHIP Country Brief: Uganda



Health Area:

- Immunization

Selected Health and Demographic Data for Uganda

Maternal mortality ratio (deaths/100,000 live births)	430
Neonatal mortality rate (deaths/1,000 live births)	27
Under-5 mortality rate (deaths/1,000 live births)	90
Infant mortality rate (deaths/1,000 live births)	54
Contraceptive prevalence rate	30
Total fertility rate	6.2
Skilled birth attendant coverage	42.6%
Antenatal care, 4+ visits	47.2%

Sources: Uganda DHS 2011;
*WHO/UNICEF estimates, 2012; **MOH administrative reports, 2012.



Program Dates	June 2012–June 2014					
Total Mission Funding	Redacted					
Total Core Funding						
Geographic Coverage	No. (%) of provinces/regions	3%	No. of districts	5	No. of facilities	310
Country and HQ Contacts	Dr. Gerald Ssekitto, Country Director USAID/MCHIP; Pat Taylor, Country Support Manager, Jennifer Melgaard, Senior Program Officer, Jenny Sequeira, Senior Technical Officer					

INTRODUCTION

Despite improvements to Uganda's health system in recent years, reports such as the Expanded Program on Immunization (EPI) reviews and coverage survey data from the 2011 Demographic and Health Survey (DHS) identify stagnation in Uganda's routine immunization (RI) portfolio. Between 2010 and 2013, Uganda faced outbreaks of yellow fever, measles, polio, and hepatitis B—events that highlighted the need for additional technical and financial investment in and political support for RI. Inconsistent progress in RI over the past eight years is attributable in part to persistent, systems-based problems within the country's operational components related to management, immunization, and surveillance.

The United States Agency for International Development (USAID) has a long history of supporting Uganda's immunization programs. More recently, projects with a key focus on RI have included: BASICS II (1999–2004), which focused on strengthening health worker interactions and partnerships with communities as part of immunization—a precursor to the Reaching Every District (RED) approach; UPHOLD bilateral (2003–2007); and Africa Routine Immunization System Essentials (ARISE-2011–2012), exploring quality improvement in RI in Masaka district.

The Maternal and Child Health Integrated Program (MCHIP), USAID's flagship maternal and child health global program, was asked by USAID Uganda to lead the 2010 EPI review. Based on the findings of the review, which identified persistent systems-based problems within the country's operational components of immunization and surveillance, USAID Uganda provided funding from June 2012 to June 2014 to implement a program to strengthen RI. Each of these programs worked closely with the Ministry of Health (MOH) and the Uganda National Expanded Programme on Immunization (UNEPI) to strengthen and expand routine immunization services.

UNEPI and program partners focused implementation efforts on using the RED¹ strategy, developed by UNICEF and the World Health Organization (WHO) with support from BASICS II technical experts. This strategy supports greater “links between community and service—regular meetings between community and health staff” and states that “immunisation services need to integrate better into community structures in an environment of consultation between the community and health managers.”²

The RED strategy comprises five key components: planning and management of resources, community linkages, revitalized outreach, supportive supervision, and active monitoring. The MCHIP program built upon these components and included additional focus on capacity building, strengthening community linkages and ownership, and monitoring and supervision. MCHIP also took lessons from the Community Problem Solving and Strategy Development Approach (CPSSD), which was used successfully in Uganda and elsewhere by BASICS/USAID in the early 2000s, and the ARISE project completed in Masaka district in mid-2012. The work done in Masaka formed the foundation for the conceptualization of the MCHIP program, which emphasized operationalizing Uganda's national RED program (or Reaching Every Community, REC)—which is designed to increase vaccination coverage and improve health service delivery—with strengthening elements of quality improvement (QI) and Plan-Do-Study-Act (PDSA) performance improvement cycles.

The approach hereafter referred to as “REC-QI,” addresses high-priority problems by identifying their root causes and introducing small, rapid, doable changes that can be quickly

¹ For more information on REC/RED, see “Implementing the Reaching Every District Approach” guide at http://www.who.int/immunization_delivery/systems_policy/AFRO-RED_Aug2008.pdf.

² Increasing Immunisation Coverage in Uganda, The Community Problem Solving and Strategy Development Approach; BASICS II, November 2003. Accessed online at http://pdf.usaid.gov/pdf_docs/Pnacw611.pdf.

tested and vetted for adoption, adaptation, or abandonment at local level. The REC-QI approach also expands on Uganda's basic REC guidelines to provide more in-depth steps for District Health Teams (DHTs)—particularly to empower district and management teams to better understand the details of operationalizing REC (e.g., going beyond REC general guidance to map all catchment areas, providing practical and detailed steps to identify catchment areas and population with macro/micro mapping guidance). Overall, the REC-QI methodology promotes a learning environment and provides DHTs and health workers with user-friendly tools to better understand root causes of the symptoms impacting routine immunization in their communities.

During the MCHIP Uganda program, MCHIP worked closely with USAID/Uganda, UNEPI, MOH officials, National Medical Stores, WHO, UNICEF, and Sabin's Sustainable Immunization Financing project at the national level and in five selected USAID-focus districts: Iganga in Jinja Region, Busia and Kapchorwa in the Eastern/Mbale Region, and Kabale and Rukungiri in the Southwestern Region. MCHIP Uganda's two main objectives were to:

- Improve the capacity of UNEPI to plan, manage, implement, monitor, and coordinate support for RI at the national level; and
- Strengthen the capacity of the DHT to manage and coordinate support for immunization in these selected USAID focus districts: Busia, Iganga, Kabaale, Kapchorwa, and Rukungiri.

MAIN MCHIP INTERVENTIONS TO IMPROVE ROUTINE IMMUNIZATION THROUGH REC-QI	
Macro/micro mapping	Mapping catchment and service areas to improve accountability, active use of data for decision-making, and coverage.
PDSA cycles	Using team problem-solving techniques for quality improvement in order to reach every child in each of the five districts targeted with routine immunization—by breaking larger problems into smaller, doable parts.
Cold chain improvement	Using PDSA cycles to implement a gas cylinder inventory, tracking, and purchasing system. Now all gas cold chain refrigerators have a back-up system to ensure that vaccines are kept between 2° and 8° Celsius.
Supportive supervision	Strengthening regular and supportive visits to all health facilities in a district, and combining QI coaching concepts into mentoring of QI teams during supportive supervision.
Quarterly review meetings	Regularly engaging partners and districts to evaluate progress; combining QI learning session concepts into quarterly meetings as part of expanding and institutionalizing a peer learning/sharing environment.

KEY ACHIEVEMENTS

MCHIP Uganda was an immunization-only funded program that worked closely with UNEPI and program partners during the implementation period. Following are key achievements:

- Operationalized RED/REC with QI approaches.
- As a focus area of REC-QI, strengthened capacity development: improved supportive supervision, built skills of mentors, trained on basic EPI as well as continuous quality improvement methodologies. All of these achievements enabled the districts to use their data to identify problems (poor access or utilization), identify areas with under-immunized children, and work together (district, health sub-district, and community) to identify solutions and develop implementation plans (PDSA).
- Supported New and Underused Vaccines Implementation (NUVI): supported successful PCV 10 introduction in five MCHIP focus districts as part of the national effort to introduce PCV10 countrywide. The PCV10 introduction training covered the whole range of national strategies for pneumonia prevention and treatment as described in the Global Action Plan for Prevention and Control of Pneumonia (Protect, Prevent and Treat).

At the national level, key MCHIP accomplishments include:

- Provided ongoing technical support to UNEPI via participation in: a comprehensive multi-year plan for immunization (cMYP) update; ongoing monthly EPI technical meetings; finalization of EPI draft policy; district planning meetings (led by Strengthening Decentralization for Sustainability (SDS)/USAID); WHO South East EPI Managers' meeting in Harare (2013 and 2014), to ensure RI strengthening was incorporated as a priority.
- Supported the development and follow-up of UNEPI's revitalization plan 2012–2014, which included a renewed focus on reducing inequities in coverage.
- Supported UNEPI to conduct and follow up after a national Data Quality Self-Assessment to address persistent data quality challenges.
- Worked with UNEPI and the MOH Resource Center in revitalizing a regular review of all-district immunization data, published quarterly in *New Vision*, one of Uganda's newspapers with national distribution.
- Supported UNEPI in finalizing its national EPI immunization policy, currently sitting with the Cabinet for approval.
- Supported the MOH, UNEPI, and Ministry of Education in updating its in-service Continuing Medical Education EPI curriculum for nurses, midwives, and doctors (ongoing).
- Supported training of 11,115 (F 6,583 and M 4,532) Village Health Teams (VHTs) in the five supported districts on EPI (EPI vaccines, Vaccine Preventable Disease [VPD], RI schedule, mobilization for RI, use of child register and child health cards to guide parents/guardians on the remaining doses). VHTs are representatives of the community—linking services with the community.
- Supported the training of national-level Training of Trainers in EPI, REC, QI, and supportive supervision.
- Provided technical support to UNEPI and partners such as WHO and UNICEF in introduction of pneumococcal vaccine (PCV-10) at the central level and in three regions and served as a member of PCV National Coordination Committee training as well as surveillance sub-committees. The training included national strategies for pneumonia prevention and treatment as described in the Global Action Plan for Prevention and Control of Pneumonia (Protect, Prevent and Treat).
- Introduced a methodology to boost REC for RI with a quality improvement focus (REC-QI) in five districts, 310 health facilities, and 706 (F 368 and M 338) health workers.



At district level, key accomplishments include:

- Worked with five DHTs in conducting a baseline assessment to identify programmatic issues and assets to assist with further development of REC-QI.
- Assisted DHTs in setting up a continuous and systematic macro mapping of all health facilities so as to avoid duplication of service areas.

- Activated the RED immunization strategy and categorization tool whereby all health facilities key immunization data are tracked, compared, and shared on a quarterly basis to analyze problems of access and utilization.
- Operationalized a focused approach to REC with QI strengthening elements (REC-QI approach).
- Supported two cross-district knowledge sharing and learning initiatives as well as cross-country learning between Uganda and Ethiopia, both implementing the REC-QI approach.
- Trained 1,034 (F 683 and M 351) operational-level health workers in EPI.
- Supported 25 review meetings (15 in 2013 and 10 in 2014), including use of data and feedback of data to lower levels and sub-county administrative leadership (non-traditional leaders).
- Trained 706 (F 368 and M 338) health workers and facilitated initiation of a REC-QI methodology to sustainably and affordably strengthen RI.

WAY FORWARD

Following is a summary of recommendations and lessons learned from this two-year project:

- To institutionalize REC-QI in medium-to-weak district health systems in Uganda, approximately 20 months of technical support is needed.
- Scale up the “lightened” REC-QI implementation approach to more districts in Uganda and to other countries.
- Ensure that local context is taken into consideration when introducing REC-QI and throughout implementation.
- Build an environment that supports the DHTs and their management to feel ownership of the REC-QI process.
- Use PDSA cycles to improve how districts forecast and quantify their own vaccine needs.
- Use macro and micro mapping as a key tool when implementing REC-QI.
- Support health sub-districts and health facilities to solve their own problems associated with RI at the district level; if problems persist, advocate with district-level administrative leaders to help foster solution-seeking.
- Use the basic REC-QI components to assess and adapt management changes as well as improve service delivery problems.
- Consider using REC-QI elements to strengthen other health interventions, not only RI but also PHC interventions.
- Build on-the-job supportive supervision into REC-QI programs as it will build staff capacity, and provide an enabling environment for staff to raise and solve issues.
- Develop the expanded “How to Guide” using the technical steps developed by MCHIP under this program to support scale-up in Uganda and in other countries in future programs.

MCHIP Country Brief: Ukraine



Selected Health and Demographic Data for Ukraine, 2012	
Maternal mortality ratio (deaths/100,000 live births)	23
Neonatal mortality rate (deaths/1,000 live births)	9
Under-5 mortality rate (deaths/1,000 live births)	17
Infant mortality rate (deaths/1,000 live births)	14
Contraceptive prevalence rate	80
Total fertility rate	1.2
Skilled birth attendant coverage	88%
Antenatal care, 4+ visits	29%
Sources: World Bank 2013; 2007 DHS	

Health Area:

- Immunization



Program Dates	June 2011–June 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
HQ Contacts	Patricia Taylor, Country Support Manager, Robert Steinglass, Immunization Team Leader, Mike Favin, Senior Immunization Technical Officer, Kelli Cappelier, Immunization Program Officer					

INTRODUCTION

Ukraine is at high risk for vaccine-preventable disease outbreaks due to low vaccination coverage caused by fear of vaccines and vaccination, as well as intermittent and inadequate vaccine supplies for routine operations. This situation is of concern both regionally and globally because Ukraine is a large country with nearly half a million babies born each year and a total population of almost 46 million. Ukraine's immunization program has confronted serious issues of public distrust since 2008. At that time, widespread publicity over the death of a recently vaccinated adolescent in Donetsk—at the start of a nationwide measles and rubella (MR) vaccination campaign—ignited a highly active anti-immunization lobby, exacerbated public fears, and raised doubts about the value and safety of vaccination.



In 2011, the U.S. Agency for International Development (USAID)/Ukraine provided funding through the Maternal and Child Health Integrated Program (MCHIP) to contribute to restoring trust in childhood vaccinations. After a visit to Ukraine in July 2011, MCHIP developed a plan of action that included participation in a national immunization review and development of communication and training materials.

The program began with participation in an Expanded Program on Immunization (EPI) review, organized by the World Health Organization (WHO) with the Ministry of Health (MOH), to gain a better understanding of the Ukrainian context and the national immunization program, and specific issues related to lack of trust in

vaccination among both health care providers and the public.

KEY ACHIEVEMENTS

To address vaccine hesitancy and improve communication between health workers and caregivers, MCHIP, in collaboration with the MOH, UNICEF, and WHO, developed 19 communication materials. These materials included simple, practical tools and job aids to enhance health workers' knowledge and attitudes regarding immunization. They also were designed to improve the ability of health workers to deal with parental concerns more effectively, a very difficult task for many health professionals.

Ukrainian and Russian versions of these materials were thoroughly pretested with health professionals and parents, and reviewed by technical experts. The materials were provided to the MOH, WHO, and UNICEF in January 2014, and are awaiting final approval for dissemination. A local MCHIP consultant also began to develop immunization materials that could be used in health professionals' pre-service and in-service training, but it is unclear at the time of this report if these materials will be completed.

An unanticipated but complementary activity was participation in a multi-partner polio outbreak simulation exercise in Ukraine in May 2013. The aim was to increase the level of preparedness for a possible importation of wild poliovirus and to improve the government's capacity to respond rapidly to the detection of circulating polio viruses. MCHIP's consultant contributed to the follow-up report, which is intended to lay the foundation for the national strategy for epidemic control.

WAY FORWARD

The task of restoring trust is a challenge due to the country's traditional Soviet perceptions of immunology and immunization. Immunization in Ukraine is perceived as a risky medical intervention, appropriate only for completely healthy children. A physician must authorize each vaccination after the child has undergone a physical examination and blood test. At this point, many children are referred to specialists if anything slightly abnormal is present. The national contraindications policy and consent process encourage fear of vaccination. Health staff feels unprotected against punishment if a child they immunize develops a serious side effect, so most are extremely cautious. Vaccine procurement is very inefficient and apparently corrupt, which has resulted in low trust in the vaccines offered and in severe vaccine stock-outs since 2010.

The main challenges faced in Ukraine include MCHIP's extremely limited budget; lack of in-country staff; lack of technical guidance from the MOH on some key areas, such as proper vaccination administration; as well as many existing policies that do not follow globally recommended ones. The current political crisis has also delayed the completion of MCHIP's work.

MCHIP Country Brief: Vietnam



Health Area:

- HIV/AIDS

Selected Health and Demographic Data for Vietnam

Maternal mortality ratio (deaths/100,000 live births)	56
Neonatal mortality rate (deaths/1,000 live births)	12
Under-5 mortality rate (deaths/1,000 live births)	24
Infant mortality rate (deaths/1,000 live births)	18
Contraceptive prevalence rate	79
Total fertility rate	.9
Skilled birth attendant coverage	98.8%
Antenatal care, 4+ visits	59.6%

Source: State of the World's Midwifery 2011—Vietnam
 *worldpopulationstatistics.com/vietnam-population-2013.
 **World Bank data, 2011
 *** factfish.com—Vietnam 2011



Program Dates	October 1, 2011–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	National TA	No. of districts	N/A	No. of facilities	N/A
Country and HQ Contacts	Ha Thanh Binh – Northern Program Manager, Le Thi Thuy Duong – Project Manager, Anita Gibson – Country Support Manager, Rachel Taylor – Senior Program Officer, Scott McGill – Senior Advisor HIV&AIDS, Asia Region					

INTRODUCTION

The Vietnamese Government developed the Ninth Action Program to control the spread of HIV/AIDS among vulnerable target groups. A specific aim is to increase access to antiretroviral (ARV) prophylaxis for HIV-positive individuals. Although technical guidance and protocols for HIV prevention and ARV treatment already exist for several target groups, there are no official guidelines concerning the provision of holistic care for HIV-exposed and infected children at the health center level. The lack of guidelines has resulted in limited implementation of holistic care and confusion among health care staff regarding procedures.

In 2011–2012, with technical assistance from the Centers for Disease Control and Prevention (CDC), the Maternal and Child Health Integrated Program (MCHIP) through Save the Children in Vietnam collaborated with the Ministry of Health (MOH) to develop National Guidelines on care for HIV-infected pregnant women and children exposed to and infected with HIV. These National Guidelines will constitute a framework for health care workers to provide health care and treatment for pregnant women, exposed infants, and HIV-infected children. In 2013–2014, with additional funding from the United States Agency for International Development (USAID), MCHIP through Save the Children in Vietnam assisted the MOH in developing a National Training Package for the Care of Newborns and Children Exposed to and Infected with HIV. This training package is designed to equip providers with the skills needed to perform the functions outlined in the 2012 National Guidelines.

The purpose of the project was to develop and obtain approval for National Guidelines and a National Training Package for the Care of Newborns and Children Exposed to and Infected with HIV. The guidelines collected information on care and treatment of HIV-positive individuals in the Vietnamese health care infrastructure. The guidelines include information from many policy and practice documents on HIV/AIDS prevention and treatment and provide concise and consistent procedures for health care workers interacting with these groups. Based on the initial



assessment of the government's existing documents, the guidelines provide updated information about care and treatment of pregnant women and children exposed to and infected with HIV/AIDS. These guidelines are derived from the World Health Organization (WHO) and the United States President's Emergency Plan for AIDS Relief (PEPFAR) standards and guidelines.

KEY ACHIEVEMENTS

With technical input from the Vietnam Administration of HIV/AIDS Control (VAAC), Maternal and Child Health Department (MCHD), and other international nongovernmental organizations (INGOs), training packages were developed. These packages were based on the National Guidelines with updates from the new guidance and HIV/AIDS treatment protocols from WHO, as well as Vietnam's MOH, which were issued after the National Guidelines were approved.

Special emphasis was placed on treatment for HIV-positive mothers to prevent transmission to their infants. Local experts on HIV/AIDS were consulted to ensure that the training contents were contextually appropriate, understandable, and could be followed by the trainees.

Several INGOs and HIV/AIDS programs in Vietnam are conducting training and developing different training materials on similar issues, such as Family Health International (FHI), the

Global Fund to Fight AIDS, Tuberculosis and Malaria, Life Gaps, UNICEF, and the Clinton Health Access Initiative (CHAI). Therefore, these groups were invited to provide input and share their training materials or references as part of the development of this training package. These programs and organizations expect to have standardized training materials that can be pilot tested and used by everyone.

Many meetings were organized to obtain input and feedback from these stakeholders regarding the development of the National Guidelines and the complementary training package. The National Guidelines were officially approved and distributed throughout the health care system on March 19, 2013. After the second draft of the training package was completed, a trial training course was conducted to pilot test the package content before it was finalized and submitted to the MOH Scientific Committee for final review. Thereafter, the training package was approved by VAAC, the MCHD. The approval from MOH will need more time, it is anticipated that this process will be completed by the end of 2014.

WAY FORWARD

After the approval of the guidelines, the MOH directed all provincial health centers, including Reproductive Health Centers where there is currently limited care for HIV-positive individuals, to follow the guidelines.

Once approved, the training package should be used by the MOH to train all health care workers who are involved in providing HIV-related services to pregnant women, newborns, and children exposed to and infected with HIV. The training package should also be used by other INGOs, NGOs, UNFPA, and UNICEF, which implement HIV programs for these populations.

The process to secure approval from the MOH for training materials is lengthy. Given time limitations, the training package will be approved first by VAAC and MCHD, which are directly responsible for all HIV-related programs as well as PMTCT work integrated with Maternal and Child Health Care. These departments, with continuous support from Save the Children in Vietnam as well as other INGOs and NGOs, will continue to pursue the MOH approval, which is anticipated by the end of 2014.

MCHIP Country Brief: Yemen



Selected Health and Demographic Data for Yemen

Maternal mortality ratio (deaths/100,000 live births)	200
Neonatal mortality rate (deaths/1,000 live births)	32
Under-5 mortality rate (deaths/1,000 live births)	105
Infant mortality rate (deaths/1,000 live births)	75
Contraceptive prevalence rate	27.7
Total fertility rate	6.5
Skilled birth attendant coverage	35.7%
Antenatal care, 4+ visits	14%

Sources: World Development Indicators, 2011; World Bank; Global Health Observatory, 2010–2011; WHO, Countdown Profile 2012.

Health Areas

- Family Planning
- Maternal Health
- Child Health
- Newborn Health
- Immunization



Program Dates	October 2012–March 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of governorates	15%	No. of districts	12	No. of facilities	37
Country and HQ Contacts	George Sanad, Country Director, Nathalie Albrow, Country Support Manager: Victoria Rossi, Senior Program Officer, Kate Brickson, Senior Program Officer: Margot Paulson, Program Coordinator, Anne Pfitzer, Family Planning Team Leader, Sheena Currie, Maternal Health Advisor, Raharison, Child Health Advisor, Rae Galloway, Nutrition Team Leader, Neena Khadka, Newborn Advisor, Asnakew Tsega, Immunization Advisor, Molly Strachan, M&E Advisor:					

INTRODUCTION

The Maternal and Child Health Integrated Program (MCHIP) in Yemen was launched in October 2012, with field support funding from the U.S. Agency for International Development (USAID)/Yemen that was used to design and implement an 18-month “Quick Start” (QS) technical assistance program. The QS program objectives were to support the Ministry of Public Health and Population (MoPHP) to strengthen its reproductive, maternal, newborn, and child health and nutrition (RMNCH/N) services at the national level and in four selected governorates—Sana’a City, Sana’a, Aden, and Dhamar Governorates.

KEY ACHIEVEMENTS

During this first phase of the project, MCHIP conducted needs assessments, gap analyses, and reviews across a number of key technical areas, which are summarized below:

- An in-country situational analysis for the maternal and child health and family planning (FP) sectors was conducted in October 2012 to provide recommendations for appropriate intervention areas and strategic approaches. A detailed *Yemen Maternal, Newborn and Child Health Situation Analysis* report was developed summarizing the key information gathered, findings, impressions, and recommendations.
- Several reviews were conducted with the Higher Institute of Health Sciences (HIHS) in Sana’a to support the new, three-year community midwifery education program and improve access to high-quality midwifery services.
- In collaboration with the United Nations Children’s Fund (UNICEF), technical assistance was provided to the evaluation of the community-based maternal and newborn care program (CBMNC).
- A gap analysis of Dhamar Hospital was performed, focusing on how to improve the prevention and management of postpartum hemorrhage (PPH).
- A training needs assessment at Al Rawdah Hospital in Sana’a was conducted, which resulted in a plan to focus on capacity-building training for the hospital midwives, particularly in infection prevention and active management of the third stage of labor (AMTSL).
- A needs assessment of routine immunization services was conducted to identify gaps in the national immunization program.
- An Immunization Review Meeting was carried out in Dhamar Governorate in November 2013 for 39 participants from 12 districts. The objectives of the meeting were to review the implementation of the 2013 districts’ micro-plans, identify the main problems that prevent children from being vaccinated, propose applicable interventions, and develop outlines for the districts’ plans for 2014.
- A maternal, infant, and young child nutrition and family planning (MIYCN-FP) study was conducted in two districts of Dhamar Governorate. Using the Trials of Improved Practices (TIPs) methodology, the study explored current MIYCN-FP practices, the reasons for the practices, and knowledge, barriers, and facilitating factors of optimal practices.
- A study protocol and tools were developed to assess the current practices of trained health care workers providing long-acting and reversible contraception (LARC), which were reviewed by the MoPHP and approved by the Johns Hopkins Institutional Review Board. MCHIP established relationships with the Dhamar Governorate Health Office (GHO) and the University of Dhamar to ensure that all the processes are in place for implementation of the LARC study during the Associate Award.
- In collaboration with the MoPHP, MCHIP organized a postpartum family planning (PPFP) stakeholders’ meeting with more than 40 attendees inclusive of five Governorate Reproductive

Health Managers, with representatives from the MoPHP, midwifery education, health communication, religious affairs, USAID, and 10 international organizations.

- To support the improvement of newborn and child health interventions and immunization at peripheral health facility and community levels, MCHIP partnered with the Dhamar GHo and University of Dhamar to design a gap analysis exercise to identify the gaps in management of sick newborns, infants, and children under five.

As the information on gaps and technical training needs was identified throughout the QS period, MCHIP adjusted its workplan accordingly. Many of the activities during QS included competency-based training (CBT) courses for:

- Twenty-one midwives on clean and safe delivery; initial follow-up visits showed promising results, with midwives improving their competency in AMTSL and immediate newborn care
- Ten midwifery faculty and clinical preceptors on clean and safe delivery
- One hundred twelve providers for a contraceptive technology update and orientation to PPF
- Twelve providers from seven facilities on postpartum intrauterine device (PPIUD) services; MCHIP followed up these providers with supportive supervision visits
- Two doctors on facilitation of Kangaroo Mother Care (KMC) and Helping Babies Breathe (HBB) training; 15 in-service providers from Al-Wahdah Hospital on HBB and KMC; and 33 in-service providers from Al-Wahdah Hospital on monitoring of KMC and HBB
- Thirty vaccinators on Immunization in Practice (IIP) in Dhamar Governorate



Vaccinator demonstrating competency after CBT course

Overall, including these CBT courses, the training efforts of MCHIP have exceeded training targets established in the QS Performance Monitoring Plan by reaching 528 providers, partners, decision-makers, and other key stakeholders.

MCHIP also provided technical support for pre-service education (PSE) curriculum standardization, quality improvement (QI), and on-the-job training (OJT) for community midwives, in addition to establishment of the first KMC unit in the country, as summarized below:

- Beginning the process of standardization and QI for the three-year community midwifery PSE program, a three-day workshop on Standards-Based Management and Recognition (SBM-R) for 21 midwifery faculty from 10 institutions was conducted. Draft standards were translated into Arabic, and on completion of the workshop, a tool consisting of 69 educational performance standards and the QI process were agreed upon.
- Following the SBM-R workshop, OJT visits were conducted to all HIHS sites to support completion of baseline assessments, using the tools to identify gaps and then develop action plans to address the gaps.

- Based on the results of the SBM-R workshop, MCHIP conducted a follow-up stakeholders' meeting in March 2014 to share the assessment findings and improvement action plans, explore expansion to other institutions, and advocate for support to mobilize resources and capacity building of trainers.
- In Al-Wahdah Hospital in Aden Governorate, MCHIP supported establishment of a KMC unit in the newborn care unit, including procurement of equipment and materials.

During the QS phase, MCHIP has also focused on developing its network of partners in order to work in a coordinated fashion and leverage the resources and achievements of existing programs. MCHIP has worked with the United Kingdom Department of International Development and the European Union on the multi-sector Scaling up Nutrition (SUN) program, and with UNICEF on the CBMNC evaluation. In cooperation with UNICEF and the World Health Organization (WHO), MCHIP supported the Expanded Program on Immunization initiative at the national level and in Dhamar Governorate. MCHIP also collaborated with the Japanese International Cooperation Agency and WHO on work with the Community Livelihoods Project, and with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on the Quality Improvement Program. In addition, MCHIP collaborated with the United Nations Population Fund to support the education of community midwives and general advocacy for strengthening midwifery and LARC. MCHIP has also formed strong local partnerships with the Faculty of Medicine and the Faculty of Applied Sciences at the University of Dhamar, Yamaan Foundation, National Safe Motherhood Alliance, Yemen Midwives Association, and Yemen Family Care Association. Additionally, MCHIP's Chief of Party and Maternal Health Advisor facilitated the Development Partner and MoPHP retreat in Sana'a in June 2013 and developed the meeting report.

In addition to strong in-country collaboration, MCHIP allocated resources to sponsor participation in key global meetings, including support for three people to attend the International Conference on Family Planning in Addis Ababa. The MCHIP Reproductive Health Officer also traveled to India to learn about the implementation of PPH programs there, and how they could be adapted to the Yemeni context.

WAY FORWARD

Over the next five years, MCHIP will apply the key lessons learned and address the gaps identified during the QS period to develop a detailed plan of action for implementation under the subsequent five-year Associate Award.

Through the Associate Award, MCHIP will use existing resources, networks and systems to put a focus on the neglected technical areas of newborn care and child nutrition (particularly prevention of chronic malnutrition or stunting), and FP as part of an integrated community-based package focusing on maternal, newborn, infant and child health outcomes, applying a focused gender lens throughout these areas of intervention. This will be done by supporting the finalization of key RMNCH/N policies and strategies needed to create an enabling environment for program implementation; advocating for the adoption, revitalization, and scaling up of selected HIIs whose implementation has not started or is lagging behind; working through national coordination platforms and leveraging other partner resources to strengthen the capacity of the MoPHP to implement RMNCH/N interventions; generating demand within communities for RMNCH/N interventions by implementing appropriate behavior change communication (BCC); and strengthening information systems to improve accountability for high quality program delivery and use of data in making decisions. Cross-cutting approaches such as gender, equity, and integration will underpin activities across the project.

MCHIP Country Brief: Zambia



Health Areas:

- Newborn Health
- Child Health
- Maternal Health
- Family Planning

Selected Health and Demographic Data for Zambia

Maternal mortality ratio (deaths/100,000 live births)	591
Neonatal mortality rate (deaths/1,000 live births)	34
Under-5 mortality rate (deaths/1,000 live births)	119
Infant mortality rate (deaths/1,000 live births)	70
Contraceptive prevalence rate	32.7
Total fertility rate	6.2
Skilled birth attendant coverage	82.6%
Antenatal care, 4+ visits	60.3%

Sources: Zambia International Monetary Fund, Zambia 2010 Census of Population and Housing Preliminary Results, 2007 Demographic and Health Survey.



Program Dates	October 1, 2011–June 30, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	30%	No. of districts	7	No. of facilities	244
Country and HQ Contacts	Kwame Asiedu, Country Representative, Michelle Wallon, Project Manager, Brenda Rakama, East and Southern Africa Regional Director, Samantha Holcombe, Senior Program Coordinator, Patricia Gomez, Senior MNH Advisor					

INTRODUCTION

Although significant achievements in maternal, newborn and child health (MNCH) have been realized in Zambia, there is still much room for improvement. Currently Zambia ranks 156 out of 180 countries for maternal deaths globally with an estimated 2,600 maternal and 20,400 newborn deaths each year. Currently, 47% of deliveries are attended by a skilled birth attendant and only 48% take place in health facilities. While the maternal mortality ratio has decreased from 729 to an estimated 440 per 100,000 live births from 2001 to 2010, the lifetime risk of maternal death stands at 1 in 37. However, these deaths can be avoided. Of the complications that lead to death, 90% can be averted when women in need have access to quality prevention, diagnostic, and treatment services.

In an effort to achieve Zambia's Millennium Development Goal (MDG) targets of a 162/100,000 maternal mortality ratio and 35/1,000 infant mortality ratio by 2015, the Zambia Ministry of Health (MOH) and Ministry of Community Development, Mother and Child Health (MCDMCH) strategized to increase access to skilled delivery services at health facilities. Through the U.S. Government (USG)-led *Saving Mothers, Giving Life* (SMGL) endeavor, Zambia was selected as a pilot country to examine the effects that concentrated investments in demand creation and health facility improvement can have on maternal survival. Through its public-private partnership, SMGL set the aspirational goal of reducing maternal mortality by 50% in target districts in one year by increasing the availability and use of high-impact maternal health services, particularly in the labor/delivery and immediate postpartum periods.

Under SMGL, MCHIP is designated as the main clinical implementing partner for Mansa and Samfya districts, where MCHIP is working to improve the delivery of high-impact maternal and newborn health services in 62 target facilities. MCHIP is also designated as the *Helping Babies Breathe* (HBB) clinical implementing partner for Chipata, Choma, Kalomo, Lundazi, and Nyimba districts, where the project reaches a total of 179 target facilities.

In order to achieve the goal of 50% reduction in maternal mortality in Mansa and Samfya districts, reduce neonatal mortality in all seven districts and improve postpartum family planning, MCHIP is guided by three main objectives:

1. Increase the quality of labor/delivery and postpartum/postnatal care services in MOH/MCDMCH facilities in SMGL target districts
2. Build capacity of MOH/MCDMCH facilities in Mansa District to increase uterotonic coverage through use of active management of the third stage of labor (AMTSL) in facilities and through distribution of misoprostol for home birth
3. Expand the availability of quality postpartum family planning services in MOH/MCDMCH facilities in Mansa District

MCHIP's approach to reaching these goals and objectives was to work closely across national, district, and community levels to revise and standardize national training packages, implement activities to improve the quality of clinical care and generate demand for maternal health services.

Key interventions included:

- Scaling up emergency obstetric and neonatal care (EmONC) services by training, equipping, and mentoring health care providers at all MOH and MCDMCH facilities that provide labor and delivery services



- Scaling up the *Helping Babies Breathe* (HBB) newborn resuscitation approach by integrating it with the national in-service EmONC curriculum, the National Newborn Framework and the Essential Newborn Care Guidelines, training HBB district trainers and providers, and providing target facilities with resuscitation equipment
- Assisting MCDMCH in the scale-up of misoprostol for postpartum hemorrhage (PPH) prevention by developing a standardized approach based on national policy and developing a three-day PPH prevention refresher training package for health care providers and a five-day safe motherhood action group (SMAG) training package focusing on community education
- Strengthening long-acting reversible contraception (LARC) and postpartum family planning (PPFP) services by training providers with a combined LARC/postpartum intrauterine contraceptive device (PPIUCD) training package and equipping facilities
- Developing a district clinical mentorship program that trained teams in mentorship, coaching, and clinical simulations. Teams were deployed on a monthly basis to all health facilities providing labor and delivery and LARC/PPFP services in Mansa and Samfya districts.

MCHIP has been recognized for its successful implementation of these key interventions and its accomplishments have had a wide reach across each objective.

KEY ACHIEVEMENTS

Objective 1: Increase the quality of labor/delivery and postpartum/postnatal care services in MOH/MCDMCH facilities in SMGL target districts

MCHIP supported trainings for over 90% of labor/delivery providers (N=141) in Mansa District. As a result, 31 out of 32¹ facilities that provide delivery services in Mansa have at least one trained EmONC/HBB provider who is able to apply his/her skills and bring lifesaving services closer to the community and the home. During its first six months of implementation, 34% (N=122) of labor/delivery providers in Samfya District were trained. In Mansa, the overall case fatality rate dropped from 3.4% to 2.7%. The proportion of women receiving care according to national standards increased for PPH (87.5% to 94.7%), pre-eclampsia (PE) (50% to 100%), and eclampsia (75% to 100%).

MCHIP spearheaded the inclusion of HBB into the National Newborn Framework, bringing into focus gaps in neonatal resuscitation, especially misclassification of asphyxiated babies

“After my training in EmONC and HBB, I developed confidence in handling obstetric emergencies. The labor ward has become one of my favorite places to work.”

*Aloysius Mulenga Kakungu, Clinical Officer,
Senama UHC*



¹ One additional rural health center that provides labor and delivery services was established in Mansa District as MCHIP came to a close and thus did not benefit from MCHIP-supported interventions.

as stillbirths and incorrect resuscitation technique. Overall, MCHIP trained 346 providers in HBB across the seven districts. With HBB included in the national EmONC curriculum, a greater number of providers will be reached, more cost-effectively.

Finally, MCHIP worked in close collaboration with the Mansa and Samfya district community medical offices (DCMOs) to develop district clinical mentorship programs. The program adapted the evidence-based “low dose, high frequency” training method and obligated mentors and providers to approach quality improvement as a team, rather than as adversaries. Mentorship promoted retention of skills, especially in facilities with infrequent need to perform many basic emergency obstetric and newborn care (BEmONC) functions. Mentorship also promoted adherence to clinical guidelines. Over the life of the project, 85.4% of PE cases were treated according to clinical guidelines and 91% of PPH cases were treated according to clinical guidelines. And in Mansa District, from baseline to Y6 Q2, use of the partograph increased from 6.1% to 44.3%, with 77.1% of partographs appropriately filled out and used for clinical decision-making. At the close of the MCHIP project, Mansa District was continuing to fund the mentorship program in order to continually improve adherence to clinical guidelines and the quality of services delivered.

Objective 2: Build capacity of MOH/MCDMCH facilities in Mansa District to increase uterotonic coverage through use of AMTSL in facilities and through distribution of misoprostol for home birth

MCHIP collaborated with Population Services International (PSI) to develop standard training curriculums in PPH to accompany the misoprostol national guidelines. The collaboration resulted in two draft national training packages: one to train health care providers responsible for distributing misoprostol to women at the first antenatal visit and one to train SMAGs to educate communities about misoprostol and the benefits of facility deliveries. These curriculums can ensure a standard training methodology regardless of the implementing partner and situate misoprostol within a comprehensive approach to PPH prevention, which includes facility delivery and AMTSL as the foremost interventions.

Using this package, MCHIP worked in partnership with the Mansa DCMO and trained 20 providers at high-volume health facilities in PPH prevention, including the distribution and tracking of misoprostol for home deliveries. Due to an unexpected national-level stock-out of misoprostol after this activity was undertaken, no further trainings incorporating misoprostol were conducted under MCHIP. Funds were instead utilized to support capacity development through additional EmONC training. Trainings and implementation of the improved curriculum should commence once misoprostol is back in stock.

Objective 3: Expand the availability of quality postpartum family planning services in MOH/MCDMCH facilities in Mansa District

MCHIP and the Mansa DCMO rolled out LARC and PPFP, including the intrauterine contraceptive device (IUCD) and PPIUCD to seven high-volume facilities in the district. MCHIP trained district clinical mentors in LARC/PPFP for incorporation into monthly mentorship visits and an additional 26 providers from the target facilities in the district and provided them with necessary supplies. Despite slow initial uptake, in Y6 Q2, the number of women receiving an insertion of Jadelle® contraceptive implants increased from 0 at the baseline to 634 for all facilities and from 0 to 552 in MCHIP FP target facilities. Uptake in PPIUCD has been slower to increase; the proportion of women delivering at a facility receiving an PPIUCD insertion prior to discharge increased from 0 at baseline to 0.8% in all facilities and from 0 to 1.2% in MCHIP FP target facilities during Y6 Q2, but providers and SMAGs are currently working to further sensitize communities. Providers and SMAGs are demonstrating that effective training and

mentorship can overcome provider resistance to these methods and that when competent, confident providers are available, women will access LARC and PPF, including the IUCD. MCHIP promoted community awareness and acceptance of the PPIUCD by training SMAGs at target health facilities. SMAGs learned about messaging that focuses on the benefits and availability of family planning and addresses common misconceptions about LARC. Since SMAGs were trained and began activities in their communities, increases have been seen in the uptake of Jadelle implants and PPIUCD.

WAY FORWARD

During its three years of SMGL implementation, MCHIP saw promising results leading toward achievement of its goals and objectives. However, as with any project, lessons were learned and recommendations were made for improvement moving forward.

- *Intensive investment in limited geographic/administrative areas can produce quick and potentially sustainable results*
Rather than spreading efforts widely across many districts or provinces, concentration in a specific location enables partners to focus resources and form strong partnerships with buy-in from local governments.
- *Collaboration among implementing partners is best achieved when partners share common, key priorities*
The common SMGL goal of achieving a 50% reduction in maternal mortality aligned partner interventions and encouraged active cooperation. The lesser focus on neonatal mortality reduction did, however, result in less collaboration and a more challenging rollout of HBB outside of Mansa and Samfya districts.
- *Mentorship is a low-cost, high-impact intervention that can effectively build upon and sustain the benefits of higher cost interventions in training and site strengthening*
At a cost of a few thousand dollars a month, MCHIP and the DCMOs were able to provide on-site clinical support to every health facility in the districts on a monthly basis. Practice with a mentor ensured consistent delivery of high-quality EmONC services and created a collaborative relationship between providers and mentors.
- *New health interventions are most likely to succeed when the community is actively engaged in their implementation*
By engaging SMAGs to educate communities about the use of LARC, MCHIP was able to debunk common myths and misconceptions and build trust between health care providers and patients to increase uptake of the interventions.

MCHIP Country Brief: Zimbabwe



Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- Immunization
- Malaria
- Nutrition

Selected Health and Demographic Data for Zimbabwe

Maternal mortality ratio (deaths/100,000 live births)	960
Neonatal mortality rate (deaths/1,000 live births)	31
Under-5 mortality rate (deaths/1,000 live births)	84
Infant mortality rate (deaths/1,000 live births)	57
Contraceptive prevalence rate	57
Total fertility rate	4.1
Skilled birth attendant coverage	66%
Antenatal care, 4+ visits	65%

Sources: Zimbabwe Population Census, 2012; World Bank; Zimbabwe Demographic and Health Survey, 2010–2011.



Program Dates	October 1, 2010–May 31, 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	10%	No. of districts	7	No. of facilities	277
Country and HQ Contacts	Rose Kambarami, Nefra Faltas, Pat Taylor, Lauren Anneberg, Elena Kanevsky, John Varallo, Renata Schumacher, Rae Galloway, Asnakew Tsega, Stella Abwao, Gail Snetro-Plewman, Stephanie Reinhardt, Rebecca Levine:					

INTRODUCTION

The USAID-funded Maternal and Child Health Integrated Program (MCHIP)/Zimbabwe was launched in 2010 as a strategic response to the alarming increase in levels of maternal, newborn, and child deaths in the country. MCHIP/Zimbabwe's vision was to significantly contribute to accelerated and sustainable improvements in maternal, newborn, and child health in Zimbabwe through scaling up of evidence-based, high-impact, integrated public health interventions. The goal of the program was to support Zimbabwe's Ministry of Health and Child Care (MOHCC) in its ultimate aim of attaining the Millennium Development Goals, particularly the ones related to maternal and child health and nutrition.

From 2010 to 2014, MCHIP/Zimbabwe's activities were informed by the following objectives (which were refined during the course of the program):

- *Objective 1:* Support for national policies, strategies, and guidelines
- *Objective 2:* Improve maternal, newborn, and child health (MNCH) at health facilities in learning sites and support national-level scale-up plans
- *Objective 3:* Improve MNCH/family planning at community level by village health workers (VHWs) and other agents
- *Objective 4:* Increase routine immunization coverage in Manicaland and support nationwide introduction of pneumococcal conjugate (PCV13) and rotavirus vaccines

As such, MCHIP/Zimbabwe's key technical areas included:

- *Maternal health/postpartum family planning/prevention of mother-to-child transmission of HIV (PMTCT):* to reduce morbidity and mortality associated with pregnancy, labor and delivery, and the postpartum period
- *Newborn health:* to reduce illness and death associated with newborn asphyxia, prematurity and low birth weight, and infection
- *Child health:* to reduce morbidity and mortality associated with the most common causes of childhood illness
- *Immunization:* to reduce illness and death in children associated with vaccine-preventable diseases through support for activities to improve routine immunization coverage as well as national introduction of new vaccines
- *Malaria:* to reduce illness and death in pregnant women and children caused by malaria
- *Nutrition:* to help reduce stunting and underweight in children
- *Cross-cutting/health systems strengthening:* including quality of care improvement; capacity-building and training; monitoring and evaluation (M&E), health management information systems (HMIS), and research; and health promotion, communication, and advocacy initiatives

MCHIP's MNCH interventions were guided by the MNCH priorities laid out in the National Health Strategy. MCHIP's activities were designed using the continuum-of-care approach, from the antenatal care period up to a child's fifth year of age, spanning the prevent-protect-treat continuum, and implemented at policy, health facility, and community levels.

MCHIP began work in Manicaland, a seven-district province with the highest under-five mortality rate reported in the country.¹ Over the life of the program, MCHIP extensively supported 22 health facilities in two learning districts in Manicaland (Mutare and Chimanimani) to deliver high-quality MNCH services, and scaled up immunization interventions across all seven Manicaland districts. MCHIP also supported various community-based activities throughout Manicaland, with a specific focus on strengthening the quality of community-based health services in Mutare and Chimanimani districts.

MCHIP/Zimbabwe worked hand in hand with the MOHCC and other partners to support activities at the national level as well as at selected provincial and district levels. MCHIP/Zimbabwe's strategic approach was guided by key principles, including: 1) scaling up proven, evidenced-based interventions; 2) maximizing resources through strategic integrated programming; 3) building on existing efforts of programs and partners; and 4) focusing on program learning.

Critical to the success of many of MCHIP's activities was the forging of key strategic partnerships within the Zimbabwean public health community. From 2010–2014, the MCHIP team built strong relationships and formed close collaborations with numerous departments/units within the MOHCC, as well as with other key partners and stakeholders, including other United States Agency for International Development (USAID)-supported projects and partners, nongovernmental and community-based organizations, other technical partners, and key professional societies and associations.

Through focused and consistent cooperation, coordination, and collaboration with these stakeholders, as well as strategic leveraging of resources for maximum efficiency, MCHIP realized several important program successes over the life of project. Life-of-project (LOP) performance is shown below for selected project indicators.

Summary of Life-of-Project Performance, by Key Project Indicator

KEY PROJECT INDICATOR	BASELINE (JANUARY–DECEMBER 2009)	LIFE OF PROJECT PERFORMANCE (OCTOBER 2010–MARCH 2014)	NOTES
Facility-based maternal mortality ratio	296/100,000 live births (data from 79 health facilities (HFs) in the 2 learning districts) (Jan–Dec 2009 data; source: MOHCC, 2009)	246/100,000 live births	Life of project (LOP) figure is from the two districts, Mutare and Chimanimani, representing the average over the period Oct 2010–Mar 2014. There were challenges in completeness of data at baseline.
Facility-based early neonatal mortality rate	63/1,000 total births (data from 79 HFs in the 2 learning districts) (Jan–Dec 2009 data; source: MOHCC, 2009)	37/1,000 total births	LOP figure is from the two districts, Mutare and Chimanimani, representing the average over the period Oct 2010–Mar 2014. There were challenges in completeness of data at baseline.
% of MCHIP Standards-Based Management and Recognition (SBM-R)-supported facilities achieving set target for maternal and newborn health (MNH) clinical standards	0% of HFs reached at least 80% of MNH standards	76% of HFs (13/17) reached at least 80% of MNH standards	LOP data figure is from the two districts, Mutare and Chimanimani, covering the period Oct 2010–Mar 2014 and represents performance measured in the August 2013 assessment.

¹ Zimbabwe Demographic and Health Surveys Key Findings 2010/11.

KEY PROJECT INDICATOR	BASELINE (JANUARY–DECEMBER 2009)	LIFE OF PROJECT PERFORMANCE (OCTOBER 2010–MARCH 2014)	NOTES
% of MCHIP SBM-R-supported facilities achieving set target for child health (CH) clinical standards	0% of HFs reached at least 60% of CH standards	71% of HFs (15/21) reached at least 60% of CH standards	LOP data are from the two districts, Mutare and Chimanimani, covering the period Oct 2010–Mar 2014 and represents performance measured in the 2013 assessment.
Number of pregnant women receiving first antenatal care (ANC) visit	17,215 (data from 79 HFs in the 2 learning districts) (Jan–Dec 2009 data; source: MOHCC, 2009)	68,021	LOP data are from the two districts, Mutare and Chimanimani, and is the cumulative total over the period Oct 2010–Mar 2014. There were challenges in completeness of data at baseline.
Number of pregnant women receiving at least four ANC visits (ANC 4+)	9,139 (calculated given 71% utilization rate for ANC 4+ reported in ZDHS* 2005/06, multiplied by ZIMSTAT† 2011 expected pregnancies for Mutare and Chimanimani)	65,518	LOP data are from the two districts, Mutare and Chimanimani, and is the cumulative total over the period Oct 2010–Mar 2014. There were challenges in completeness of data at baseline.
% of pregnant women receiving two doses of intermittent preventive treatment (IPTp2) for malaria during ANC	14% (Source: national estimate, MIMS‡ 2009)	52%	LOP figure is from the two districts, Mutare and Chimanimani, and represents the average over the period Oct 2011–Mar 2014.
Number of deliveries with a skilled birth attendant	10,460 (data from 79 HFs in the 2 learning districts) (Jan–Dec 2009 data; source: MOHCC, 2009)	47,484	LOP data are from the two districts, Mutare and Chimanimani, and is the cumulative total over the period Oct 2010–Mar 2014. There were challenges in completeness of data at baseline.
% of low birth weight newborns admitted in Kangaroo Mother Care (KMC)	0%	24%	LOP figure is from the two districts, Mutare and Chimanimani, and represents the average over the period Oct 2011–Mar 2014.
% of children less than 12 months of age who received 3 doses of the Pentavalent vaccine	52.1% (Source: Manicaland provincial estimate, ZDHS 2010/11)	94%	LOP figure is from the two districts, Mutare and Chimanimani, and represents the average over the period Oct 2010–Mar 2014.
% of children less than 12 months of age who received measles vaccination	64.5% (Source: Manicaland provincial estimate, ZDHS 2010/11)	92%	LOP figure is from the two districts, Mutare and Chimanimani, and represents the average over the period Oct 2010–Mar 2014.
* ZDHS = Zimbabwe Demographic and Health Survey † ZIMSTAT = Zimbabwe National Statistics Agency ‡ MIMS = Multiple Indicator Monitoring Survey			

KEY ACHIEVEMENTS

With the support of MOHCC stakeholders and other implementation partners, MCHIP/Zimbabwe facilitated major MNCH-related accomplishments during the life of the project. These included:

- **MCHIP/Zimbabwe served as a major catalyst for improved national policies in support of MNCH.** For example, MCHIP supported the updating, review, development, and/or finalization of several key MNCH policies and guidelines; mobilized/leveraged critically needed resources for priority MNCH activities at national and sub-national levels; and strengthened the leadership and stewardship role of the MOHCC at national, provincial, district, and community levels.
- **MCHIP/Zimbabwe raised national awareness of the importance of delivering high-quality health care services and improved the quality of MNCH care at district and community levels through implementation of quality improvement models.** On average, among the 22 MCHIP-supported health facilities in Mutare and Chimanimani districts, a majority met or exceeded quality of care standards for key MNCH interventions. In Mutare and Chimanimani communities, the quality of services provided by VHWs was also improved through implementation of an innovative community-based performance-quality improvement approach.
- **MCHIP/Zimbabwe introduced an innovative, skills-based training approach to improve effectiveness of MNCH clinical training.** MCHIP introduced a comprehensive MNCH training approach at provincial/district level, which emphasized acquisition of skills/competencies (not just knowledge) and included developing training materials, preparing trainers, and orienting MNCH supervisors to plan for and conduct post-training follow-up and to provide supportive supervision. Between 2010 and 2014, MCHIP trained nearly 3,500 health care workers at all levels in a wide variety of key MNCH topics.
- **MCHIP/Zimbabwe supported scaling-up of under-utilized and newer MNCH interventions in Manicaland.** MCHIP supported national-, provincial-, and district-level MOHCC stakeholders to introduce and/or revitalize several evidence-based, high-impact MNCH interventions including: KMC for managing low birth-weight babies; Helping Babies Breathe for newborn resuscitation; and Integrated Management of Newborn and Childhood Illnesses (IMNCI) for managing sick infants and children.
- **MCHIP/Zimbabwe supported revitalization of routine immunization in Manicaland and the introduction of new and under-utilized vaccines nationally.** MCHIP supported the Manicaland Expanded Programme on Immunizations unit to roll out the Reach Every District approach in all seven districts and supported successful national-level planning, introduction, and roll out activities for the new pneumococcal conjugate vaccine (PCV13) in 2012 and the rotavirus vaccine in 2014.
- **MCHIP/Zimbabwe strengthened integrated community-based MNCH.** At community level, MCHIP piloted a quality improvement approach that, for the first time in the history of community-level MNCH care, measured the quality of care provided by VHWs during ANC, postnatal care, and community case management for sick children and adults using a structured approach. Results from Chimanimani, where VHWs were included in the program, showed a statistically significant improvement in the quality of MNH care provided at community level when compared against VHWs who did not receive the quality improvement package.

- **MCHIP/Zimbabwe supported “program learning” activities, with results documented and dissemination plans under way by the project’s end.** Designed as a “learning project,” MCHIP identified a handful of priority operations-research-type topics early on in the project and developed standard program learning protocols for each. By early 2014, each of these studies had been completed and results were disseminated (or are being planned for dissemination) as appropriate.

It may not be possible to directly attribute health outcomes seen in Manicaland from 2010 to 2014 to MCHIP/Zimbabwe’s interventions, but some positive trends in maternal, newborn, and child health outcomes have been observed, including:

- Decreasing facility-based, early neonatal and intrapartum deaths per 1,000 births, by month, for the period October 2010 to March 2014 for the 17 SBM-R-supported facilities.
- Decreasing number of facility-based deaths among children under five years of age due to pneumonia and malaria: pneumonia-case fatality rates decreased from 7.4% in 2012 to 5% in 2013 and to 3% during January–March 2014. Case fatality rates from malaria decreased from 6.9% in 2012 to 1.6% in 2013, a 77% reduction. These gains coincided with the interventions supported by the project in scaling up IMNCI trainings, expanding quality-improvement activities for child health, introduction of PCV13, and the improvement in community case management for malaria by VHWs.
- There was a 25% reduction in the total number of severe pneumonia cases in Mutare and Chimanimani between 2011 and 2013, potentially related to PCV13 introduction in 2012 and other MCHIP-supported interventions at facility and community levels.
- The proportion of diarrhea cases in children under five with dehydration decreased from 11.8% in 2011 to 7.6% in 2012 and then to 6.5% in 2013, which might be due to early treatment in the community as well as expanded access to oral rehydration solution and zinc at MCHIP-supported facilities.

WAY FORWARD

Zimbabwe, while showing some encouraging data gains in combating mortality and morbidity, still has a long way to go to reverse the unacceptably high mortality levels among women and children under five. In early-2014, MCHIP/Zimbabwe will transition to a new three-year, USAID-funded associate award, and, as during the October 2010–May 2014 period, will continue supporting the Zimbabwe MOHCC’s MNCH efforts. During this next phase of the project, MCHIP/Zimbabwe will incorporate the following recommendations into its programmatic design.² The MCHIP team is confident that doing so will increase the odds of success in the future, with the ultimate project goal remaining improving the health of the country’s women, children, and families.

At National Level, Recommendations for MCHIP’s Way Forward Include:

- Continue to advocate for/support provision of high-level coordination for MNCH activities within the MOHCC to strengthen national-level strategic planning, coordination, and program implementation.

² Many of these recommendations originate from a USAID external evaluation that was conducted by USAID/Zimbabwe in late 2013.

- Continue to support the MOHCC's efforts in developing key, evidence-based national policies, standards, guidelines, and training packages.
- Continue to advocate for a “beyond the numbers” approach to providing high-quality health care nationwide and assist the MOHCC to identify a single national approach to quality improvement.
- Advocate for inclusion and standardization of high-impact MNCH packages and competency-based training approaches in pre-service education curricula.
- Improve MNCH service integration by working with partners and providing technical support to MOHCC counterparts to ensure that current national ANC and postnatal care platforms are used to strengthen malaria in pregnancy, maternal nutrition and anemia, infant and young child feeding, PMTCT, and postpartum family planning/intrauterine contraception devices interventions.
- Continue to provide support to the MOHCC in the area of health information systems and M&E.
- Continue technical assistance and support for national MNCH advocacy, communication, and social mobilization activities.

At Provincial/District Level, Recommendations for MCHIP's Way Forward Include:

- Improve, expand, and maintain facility-based MNH SBM-R activities in Manicaland, including:
 - Expand coverage of SBM-R activities to new districts to equip health workers to deliver evidence-based, integrated services that are humanistic, respectful, and client-centered.
 - Increase focus on provincial hospital and high-volume referral sites (i.e., non-learning site district hospitals in Manicaland). Prioritize all Manicaland district hospitals and Mutare provincial hospitals for additional targeted interventions.
 - Seek ways to simplify SBM-R tools/reduce the number of SBM-R performance standards/verification criteria without compromising the resulting quality of care. Adapt SBM-R tools such that they have a greater focus on the main causes of maternal and newborn mortality and morbidity (for example, greater focus on critical pathways).
 - Revise the SBM-R scoring system to make it less punitive and more encouraging.
 - Change the SBM-R approach such that participating health workers are recognized in an appropriate manner earlier in the process to increase motivation and retention.
 - Continue to revise/improve the SBM-R approach as piloted in Zimbabwe for child health, for example, make tools more responsive to changes in the quality of care delivered to children. Pilot new quality improvement tools to address quality of services provided to sick children at provincial/district hospital level. In addition, work with Mutare Provincial Hospital, specifically, to improve in-patient care for sick children.
 - Involve more partners and engage more policymakers in the quality improvement process to facilitate national-level adoption, scale-up, and rollout.
 - Test new ways to link quality of care improvements to maternal, newborn, and child mortality/outcome data.
- Prioritize support for districts with high maternal, newborn, and child mortality and morbidity, and within these, prioritize support for high-impact MNCH interventions and activities such as emergency obstetric and newborn care, KMC, Helping Babies Breathe, malaria case management, and Reach Every District.

- Continue to utilize a competency-based training approach for capacity-building at sub-national level, with a sustained emphasis on post-training follow up, on-the-job training, and supportive supervision.
- Continue to support strategic planning, coordination, data review/M&E, and evidence-based decision-making at provincial/district/facility levels. Continue focus on providing technical assistance to the MOHCC and seeking opportunities to leverage partner resources in order to amplify MCHIP's technical reach within the province/districts.

At Community Level, Recommendations for MCHIP's Way Forward Include:

- Scale up community-based child survival interventions (e.g., early care seeking for pneumonia, reducing indoor air pollution, community infant and young child feeding, malaria community case management, use of long-lasting insecticide-treated bed nets), in conjunction with strengthening health facility service provision. A key recommendation is to continue, refine, and expand the community performance-quality improvement approach to one or more additional Manicaland districts and further assess results in six to 12 months.
- Prioritize civil society capacity-building by partnering with local civil society organizations and strengthening their capacity to mobilize communities for improved knowledge about, access to, and utilization of MNCH services. Working with civil society organizations will foster further community engagement and facilitate sustainability and local ownership of community interventions.

Regional Funding Summary: Asia Bureau

INTRODUCTION

MCHIP's partnership with the Asia Bureau gave the project a platform on which to consider regional epidemiology and priorities, as well as share lessons learned across multiple countries that were supported by the bureau. Through **Redacted**, the partnership enabled innovative, multi-country initiatives to target quality of care issues of importance to multiple countries in the region; including the regional bureau in Washington, country missions, and to the ministries of health with which we partnered.

KEY RESULTS AND ACHIEVEMENTS

Maternal Health

MCHIP has shown leadership through close collaboration with the newborn team and partners to focus attention on the importance of integrated perinatal approaches that target key maternal health interventions to address prematurity and improve outcomes for newborns. In close collaboration with key stakeholders such as Born too Soon, Survive and Thrive, BMGF, and the UNCoLSC, MCHIP spearheaded an innovative research study to advance a perinatal approach to reducing complication of preterm birth, including newborn asphyxia and infection, through appropriate administration of Antenatal Corticosteroids (ACS) for preterm birth. This research study was conducted in three countries (Indonesia, Cambodia, and the Philippines) to measure the results of a simple quality improvement intervention to increase the use of ACS at facilities. Findings from this study will be disseminated after analysis, and will provide evidence around the key elements and potential barriers to the success of the implementation of ACS interventions. In partnership with the UNCoLSC, MCHIP has demonstrated leadership in the appropriate use of ACS, spearheading the development of new training materials, and promoting the use of ACS at numerous global forums.

In part, Asia Bureau funds were used to launch the Survive and Thrive Global Development Alliance in Burma. S&T partners (The American Academy of Pediatrics, American College of Nurse-Midwives, American College of Obstetricians and Gynecologists, Johnson & Johnson, Laerdal Global Health, Jhpiego and Save the Children) worked under the mechanism of MCHIP to implement the program. MCHIP/S&T worked with the Ministry of Health (MOH) and national professional associations in laying the foundations for improving maternal and newborn health outcomes by reviewing the existing landscape of health care policy and practice; providing support for strengthening professional associations; and facilitating central-level discussions on proven, evidence-based, lifesaving interventions. This program was USAID Burma's first investment in MCHIP.

Asia bureau funds were also used to help lay the foundation to roll out long-acting reversible contraceptive (LARC) programming in two Asian countries. During PY6, MCHIP performed exploratory work in concert with professional association members. Future work should build upon ongoing efforts to develop capacities of international professional associations to include training of local PA leaders in advocacy and quality assurance for LARC services.

RECOMMENDATIONS AND WAY FORWARD

Through support from the Bureau for Asia, MCHIP was able to accomplish activities that will move forward the agendas of priority technical health areas. In the area of maternal health, the results of the study to measure the results of an intervention to increase the use of ACS at facilities will be used to inform future policies and programs involving the use of ACS. Based on MCHIP's multi-country study looking at provider use of antenatal ACS, along with findings

from other ongoing research including the Antenatal Corticosteroids Trial (ACT), future programming should consider appropriate program strategies for incorporation of ACS into PTB management services with consideration of facility level (tertiary versus peripheral level) and availability of other essential MH and NB services (e.g. accurate gestational age assessment, adequate care for preterm newborns, and adequate identification and management of maternal infections).

Regional Funding Summary: Africa Bureau

INTRODUCTION



Africa Bureau funds are used strategically to support Africa Bureau priorities as well as to strengthen and advance specific technical components under MCHIP. Complementary use of Africa Bureau funds has reached over 25 countries in Africa. The Africa Bureau provided Redacted over the life of the MCHIP project. Together with a combination of core and field funds, AFR/SD funds were used to support the following activities.

KEY ACHIEVEMENTS AND RESULTS

Maternal Health

Global Leadership

MCHIP continued to advance the agenda related to PPH and pre-eclampsia by bringing partners together for an Africa Regional Meeting on *Interventions for Impact in Essential Obstetric and Newborn Care* in February 2011 during year 3. Working in partnership with global and regional partners including WHO/AFRO, RCQHC, ECSA, WAHO and Africa's Health in 2010, more than 250 came together to exchange ideas and have access to the latest research and program developments on key maternal and newborn health interventions.

Collaboration also took place with WHO/AFRO, RCQHC and ECSA and the West African Health Organization (WAHO). Meetings were held in Brazzaville with the AFRO team regarding collaborations and the content of the Africa Regional Meeting. WHO/AFRO colleagues met with MCHIP and Jhpiego to request further technical assistance in the development of a resource kit for training in EmOC in Africa.



In PY4, 5 and 6, MCHIP worked in collaboration with USAID, WAHO, ECSA and WHO/AFRO to develop MNH champions in Africa for advocacy and training. This activity was designed to cultivate maternal and newborn health champions to promote policies, practices and programs that will help achieve MDGs 4 and 5 in their respective countries and regions through advocacy and action. A cohort of 30 technical experts from 10 countries in West Africa and East/Southern Africa were selected in PY4 out of over 100 applicants. The 10 country teams of 3 champions each come from Kenya, Liberia, South Sudan, Uganda, Zambia, Benin, Guinea, Madagascar, Mali and Senegal. E-learning courses and three regional workshops (3 Anglophone trainings for the 5 East/Southern Africa champion teams and 3 Francophone trainings for the 5 West Africa champion teams) were held for the champions to develop skills to create country action plans, and action plans were refined for improving MNH outcomes in their respective countries. The trainings took place in PY 4 and 5 and included:

1. Clinical training update and standardization
2. Training and education competencies
3. Advocacy and technical updates in the prevention of mother-to-child transmission of HIV (PMTCT) and MIP

Follow-up visits were made to all Champion teams following the first training, and reports were finalized with recommendations for development of advocacy and training action plans. The champions were oriented to the “Qstream” web-based EONC training platform promote distance learning education. In PY5, champions led trainings in BEmONC, PMTCT, and long-acting, reversible contraception (LARC) and participated in evaluations of postabortion care (PAC) programs and integration of FP and cervical cancer screenings in their respective countries. In PY6, MCHIP provided remote and regional technical assistance to follow up with the champions’ progress in-country and document their impact.

Development and Dissemination of Tools

A Pre-Service Education toolkit was developed through an extensive collaborative process with WHO, USAID and other partners. The Toolkit includes an implementation guide, which highlights the pathway toward sustainable change in the structure and function of PSE programs, as well as an extensive collection of tools and resources for improved education and educational management. The Toolkit was launched during program year 3 and is being used by MCHIP programs and partners in Bangladesh, Ghana, Liberia and South Sudan. An EONC literature review was conducted of 150 articles; 20 selected for the development of the annotated bibliography for the EONC toolkit. The WHO/AFRO EONC Resource Package of materials on Policy, Advocacy, Service Delivery, Quality Improvement, Education and Training, Monitoring and Evaluation K4Health toolkit was created and launched online. During year 2, AFR/SDfunds also helped support implementation of the maternal and newborn complications QoC survey in Tanzania. See the Maternal Health section for more details on this survey.

Newborn Health

Global Leadership

The Global Newborn Health Conference brought together more than 450 researchers, health officials, policymakers, health experts, and advocates from over 50 countries to review progress made to reduce newborn deaths and what can be done to address this challenge in countries where the needs are greatest. This exchange of information and experiences was followed by a one-day planning session during which multi-organization teams from MCHIP, SNL, USAID, BMGF, and UNICEF countries began discussions of national strategies for scale-up of priority newborn health interventions. These discussions continued and, in many cases, connected newborn health programming with resources and political commitment associated with the UN SG’s global Every Woman/Every Child strategy, the “Promise Renewed” Call to Action to eliminate preventable child deaths, and the UN Commission on Life-Saving Commodities. Importantly, the Global Newborn Health Conference also served as a launch pad for the Every Newborn Action Plan (ENAP), which takes forward the UN Global Strategy for Women’s and Children’s Health by focusing specific attention on newborn health. In May 2014, the ENAP was officially endorsed at the World Health Assembly and launched at the PMNCH Forum. The global document and country level plans will provide guidance and momentum for improving newborn survival through 2015 and beyond.

MCHIP participated in the newborn sepsis management technical working group, which is presently focused on the development of a Newborn Sepsis Management Implementation Guide. MCHIP continued to participate in a multi-agency technical working group on newborn sepsis management.

Technical Assistance

During Year 3, MCHIP strengthened newborn pre-service by training 20 tutors from 18 pre-service midwifery schools in Ghana who in turn trained 625 midwifery and nursing students prior to their graduation from the schools. MCHIP also provided support to strengthen skills labs for newborn care (with a focus on resuscitation) in 10 pre-service institutions in Malawi.

Helping Babies Breathe: Immediately following the January 2011 Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care meeting, MCHIP and partners hosted a Helping Babies Breathe (HBB) training of master trainers (TOT) to facilitate the implementation of neonatal resuscitation in the context of essential newborn care using the HBB training materials and approach across multiple countries. One hundred and twenty-one (121) trainers from Ministries of Health and NGOs in 25 sub-Saharan African countries, and two from non-African countries, were trained.

Research

In collaboration with the Ministry of Health and Social Welfare (MoHSW), MCHIP undertook a situation analysis of newborn health in Liberia. Using the results of the assessment, MCHIP used AFR/MCH funds to support introduction of several interventions and approaches, including community-based management of newborn infection and use of CHX for cord care. Less than a year later, through a national stakeholder process supported by MCHIP, the Liberia MoHFW endorsed CHX for cord care. In addition, the results of the analysis helped prioritize the establishment of KMC services and the MoHSW officially endorsed KMC “at National, Regional, County and health facility levels to ensure survival and optimal development of preterm and low birth weight babies” in 2013. The rapid adoption of KMC services in Liberia offers one example of MCHIP’s catalytic influence at country level.

Quality improvement

In PY3, MCHIP worked with the Regional Center for Quality Health Care (RCQHC) and the East, Central and Southern Africa – College of Nursing (ECSA-CON) to improve newborn care including resuscitation in pre-service institutions in the East, Central and Southern African countries. MCHIP provided support to strengthen skills labs for newborn care (with a focus on resuscitation) in 10 pre-service institutions in Malawi. MCHIP provided a total of 56 NeoNatalies to 12 pre-service institutions for use by tutors and students, as well as HBB training materials.

Child Health

Global Leadership

In collaboration with child health core funds, Afr/SD supported MCHIP in conferences and meetings that helped advance the child health agenda. These events included:

iCCM Joint-Work Plan: With WHO and UNICEF, MCHIP co-facilitated three regional Global Action Plans for Prevention of Pneumonia and Diarrheal Disease (GAPPD) conferences in Bangladesh, Kenya, and Senegal.

Diarrheal Disease Advocacy: MCHIP and USAID advocated for increased attention to diarrheal disease in the context of GAPP meetings, making diarrheal disease a key meeting agenda item. MCHIP presented the public sector’s perspective on challenges in scaling-up the use of zinc with low-osmolality ORS to treat diarrheal disease at the Zinc e-Conference and participated in the meeting organized by London School of Hygiene and Tropical Medicine (LSHTM) and Unilever

In October 2011, MCHIP participated in the *Global Action Plan for the Prevention and Control of Pneumonia/Diarrhea (GAPP) meetings* in Rwanda.

Following an invitation from UNICEF, MCHIP co-facilitated a *national workshop on the Health for the Poorest Populations (HPP) project* funded by CIDA, which focused on UNICEF’s new district strengthening strategy.

In March 2013, MCHIP and UNICEF co-facilitated the iCCM Evidence Review Symposium in Accra, Ghana.

iCCM Scale up

Throughout the life of the project, MCHIP steadily increased its child health activities at the country level. MCHIP moved ahead with documentation of iCCM scale-up in four of the nine African countries where MCHIP provided TA for the implementation and scale up of iCCM. . In addition, Mali's MOH contributed to the country's landmark decision to proceed with a national iCCM program and to USAID/Mali's request that MCHIP support the development of the strategic plan. MCHIP served as Secretariat of the CCM Task Force and supported the finalization of CCM indicators. During year 5, MCHIP also supported a Child Health and Nutrition Research Initiative (CHNRI) process on iCCM, which provided a revised iCCM research agenda, both as identified by global researchers, but more importantly by iCCM program managers and academics at the country level.

Using AFR/SD funds, MCHIP also developed and oversaw a number of subgroups. They include:

Operations Research Subgroup: MCHIP supported monthly teleconferences to bring together leaders in CCM to prepare joint panels on iCCM at various academic and programmatic conferences, as well as an ongoing CHNRI process to establish an updated prioritized research agenda for iCCM.

Supply Chain Management (SCM) Subgroup: MCHIP supported the subgroup in starting an inventory of available SCM tools for iCCM and in developing a SCM Tips resource tool to provide guidance to individuals, organizations, and communities as they begin to plan iCCM programs.

iCCM Costing and Financing Subgroup: MCHIP worked with several different TF members working on costing to establish a subgroup that will review the various iCCM costing tools and develop an accompanying training package on how partners should use these tools with Ministries of Health to plan funding.

Development and Dissemination of Tools

MCHIP developed tools and managed the website www.CCMCentral.com which serves as a global CCM resource center and provides the latest updates, key links, meeting updates and outcome reports, in addition to a vast selection of tools to improve management of and access to program materials, for managers implementing country-level programs.

Immunization

Global Leadership

Multi-agency EPI reviews: AFR/SD funds contributed to MCHIP's participation in 8 out of 10¹ EPI reviews (Liberia, DRC, Senegal, Uganda, Ghana, Zimbabwe, Tanzania, and South Sudan) over the life of project, providing technical input into the strengths, weaknesses, and recommendations for national EPI programs.

*EPI Managers Meetings*²: MCHIP headquarters and field staff participated annually in each of the three WHO-hosted regional meetings, providing technical input on routine immunization strengthening and operationalizing new vaccine introduction plans at country level.

Immunization in Practice Communication Module: At the request of WHO/AFRO, MCHIP provided extensive revisions to the WHO/AFRO MLM Communication Module, which was published in an updated series of immunization MLM modules for use throughout Africa. MCHIP staff had previously assisted in co-drafting and reviewing other modules.

¹ The other two countries where MCHIP conducted EPI reviews are Tajikistan and Ukraine, which were supported by other funding.

² WHO hosts annual regional meetings for Central, West, and East and Southern Africa (ESA) to evaluate the current state of the EPI program, share cross-cutting lessons learned among countries, and discuss major themes such as new vaccine introduction, polio eradication and accelerated disease control.

Vaccine Logistics meeting: MCHIP participated in the first ever vaccine logistics meeting in the West African region. MCHIP provided technical contributions that were incorporated into a final report with recommendations, including:

- definitions, country-level issues, expected skills, and incentives to motivate country health logisticians
- actions necessary to scale up training and rational use of health logisticians at all levels of health systems in the Africa region
- strategies for advocacy with governments and institutions to take into account resource requirements of logistics of health programs in human resource development
- a mechanism for information exchange at regional and country levels on the development of professional logisticians.

Bi-Annual Eastern and Southern Africa GAVI sub-regional working group meeting: MCHIP country representatives participated in bi-annual GAVI sub-regional working group meetings, providing new vaccine introduction updates on progress and challenges in MCHIP countries (e.g., Kenya, Tanzania, Zimbabwe, Malawi, Uganda). Other topics were reviewing the status of different GAVI support mechanisms provided to eastern and southern African countries and discuss coordinated technical support.

cMYP Regional Meeting: MCHIP representatives participated in regional cMYP meetings with country MoH and partners to update country cMYPs for applications submitted to GAVI for new vaccine introduction planning.

AFRO MLM Training: At the request of WHO/AFRO, MCHIP co-facilitated an MLM course for East and Southern African countries in Zimbabwe, facilitating sessions, reviewing modules, and providing guidance and feedback on the MLM course for finalization of the MLM module series (which MCHIP has assisted in revising).

WHO Africa Regional Conference on Immunization (ARCI): MCHIP provided technical guidance in discussions, including strengthening routine immunization systems and innovations in the field. MCHIP also participated in sessions that examined the innovative strategies being executed to combat poliovirus transmission, in addition to discussing the critical role that new technologies can play in reaching the hard-to-reach populations toward accelerating the control of vaccine preventable diseases. MCHIP staff chaired one of the parallel sessions on *Immunization Systems Support* and another MCHIP staff shared MCHIP's commitment to supporting AFRO and African countries in strengthening their immunization efforts.

GAVI Annual Reports Peer Review Meeting: MCHIP served as a country-level representative in the GAVI Annual Reports Peer Review Meeting in Benin in April 2013. This meeting provided GAVI with input on their quality reports. MCHIP provided technical guidance in planning a new road map to enable countries to receive GAVI funds more easily.

EPI Curriculum Review Meeting: Several MCHIP staff participated in the Regional Workshop to revise EPI curriculum for nursing and medical schools, hosted by WHO in May 2013. MCHIP worked with other partners to gain consensus on the content of the EPI prototype curricula which each country will adapt to their country context and educational system. Under MCHIP, EPI pre-service curriculum was successfully introduced into medical school training, and progress was made in Senegal, Malawi, and Tanzania.

WHO/AFRO External Evaluation: MCHIP served on a multi-agency evaluation panel to review WHO/AFRO's Regional Immunization and Vaccine Division (IVD) strategic plan in June 2013. MCHIP co-wrote the section on Communications as well as provided input into the sub-section

on integration. The final evaluation was shared with WHO/AFRO IVD and will be widely disseminated within WHO/AFRO's staff.

New and underutilized Vaccine Introduction (NUVI) Meeting: MCHIP participated annually in this WHO-hosted meeting, in addition to providing input into the planning of the meeting, presenting MCHIPs lessons learned on NUVI, and co-facilitating a workshop on NUVI.

Country Support

MCHIP provided technical assistance to address low coverage by targeting hard-to-reach populations through implementing all five components of the RED approach. AFR/SD funding was used in combination with core MCH and Polio funding in DRC and Kenya to provide country level technical assistance in routine immunization strengthening and polio elimination activities.

RECOMMENDATIONS AND WAY FORWARD

Through support from Afr/SD, MCHIP was able to accomplish activities that will move forward the agendas of multiple priority technical health areas.

Maternal Health

- In maternal health, future projects should build upon the momentum of the MCHIP QOC study and include comprehensive RMC components. Future efforts should include improved methods of defining and measuring RMC to advance the quality of care that women receive. With regard to PE/E, efforts in PE/E management can still be enhanced. Given that the diagnosis and treatment of PE requires frequent contact with the health system, uptake has been slow. Building upon the important work of MCHIP with funding from Afr/SD, future efforts should expand across the continuum of care.

Child Health

- Afr/SD funding also enabled MCHIP to continue to promote learning and provide state-of-the-art tools for the implementation of child health programs, notably iCCM and revitalization of use of ORS and introduction of zinc in the management of diarrheal disease. At the global level, MCHIP has brought iCCM learning together on factors influencing scaling up iCCM in three countries and also on how countries have adapted global iCCM training and supervision guidelines in six countries. Future programming should help continue to improve the linkage between community and facility-based health services.

Newborn

- The findings of the MCHIP HBB process documentation exercise in Malawi, and the regional KMC assessment in Africa, highlighted that while the intense focus on training and site strengthening for both interventions is warranted, it is not sufficient to achieve implementation at scale. Future programs and efforts, notably the full suite of HBB learning materials, should take a more comprehensive HSS approach.

Immunization

- Finally, one main area of focus for the future of immunization programming will be to support technical capacity for immunization and continuing to promote strong routine immunization programs. Building upon the important work that MCHIP accomplished with Afr/SD funding, future programs should work to strengthen both aspects of immunization implementation in order to reach more individuals.

Regional Funding Summary: LAC Bureau

INTRODUCTION

Over the past six years, MCHIP has contributed to reductions in maternal and newborn morbidity and mortality in the Latin America and Caribbean (LAC) region by implementing priority evidence-based interventions and providing technical leadership, leading to notable achievements in both maternal and newborn health. Maternal health initiatives have focused on generating global evidence on the feasibility of Oxytocin in the Uniject™ injection system (OiU), increasing the uptake of active management of the third stage of labor (AMTSL), reducing episiotomy rates where there is not a clear indication, understanding how physicians view cesarean birth, spearheading competency-based midwifery education and exchanges, strengthening the capacity of the Caribbean Regional Midwives Association (CRMA), and providing technical assistance to the Regional Maternal Mortality Reduction Task Force. Newborn interventions have targeted the primary causes of mortality through a technical focus on Essential Newborn Care (ENC), Kangaroo Mother Care (KMC), Helping Babies Breathe (HBB), and the prevention of hospital acquired infections.

Crucial to the success of LAC maternal and newborn health initiatives has been MCHIP's ability to utilize regional platforms to promote information sharing, scale up priority interventions, and improve maternal and newborn health outcomes in the region. Assuming a leadership role on several regional forums and taskforces, MCHIP has been strategically positioned to influence the LAC maternal and newborn health agenda, in collaboration with partners such as Pan American Health Organization (PAHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), Regional Professional Associations, Church of Latter Day Saints Charities, USAID's ASSIST project (through its implementer, University Research Corporation (URC)), Bill and Melinda Gates Foundation (BMGF), Caribbean Regional Midwives Association (CRMA), and others. Through key participation on advisory groups for HBB and KMC implementation, the Global Every Newborn Action Plan (ENAP), the Promise Renewed, as well as the LAC Regional Maternal Mortality Reduction Task Force, the LAC Neonatal Alliance and the CRMA, MCHIP has conducted advocacy and supported progress toward increased uptake of maternal as well as newborn priority interventions addressing the main causes of mortality at the national and regional levels.

KEY ACHIEVEMENTS AND RESULTS

Maternal Health

Oxytocin in Uniject™ (OiU) injection system

From 2010 to 2012, MCHIP, through its partner PATH and the HealthTech program, worked with the Ministry of Health (MoH) in three LAC countries (Honduras, Guatemala and Nicaragua) to pilot the introduction of OiU with the Time-Temperature-Indicator (TTI) for use during active management of the third stage of labor (AMTSL) at the institutional level. Although the strong evidence showing the efficacy of oxytocin in preventing PPH, its use remains suboptimal. The majority of providers who used OiU believed it reduced time to prepare the oxytocin for injection, improved the quality of AMTSL services provided and facilitated the correct practice of AMTSL. Based on the positive results, providers and MOHs expressed interest in including OiU in their list of essential medications if the price per unit could be decreased. MCHIP staff approached PAHO to request the inclusion of OiU in its Regional Revolving Fund for Strategic Public Health Supplies (RRFSPHS) and, as part of this process, worked with PAHO during PY5 to conduct an Economic Evaluation of OiU for the prevention and initial treatment of PPH in Latin-America. The objective of the evaluation, comparing OiU versus standard use of oxytocin, was to evaluate the cost-effectiveness of OiU in Latin America and the Caribbean (LAC). Results showed that OiU could prevent more than

40,000 PPH episodes annually in LAC. In 27% of the countries included in the study, OiU use was shown to be cost saving or very cost-effective.

An abstract was submitted and accepted for poster presentations at the Health Technology Assessment International (HTAi) and International Society for Pharmacoeconomics and Outcomes Research (ISPOR) 2014 meetings. In addition, a website (http://www.iecs.org.ar/iecs-visor.php?cod_producto=825) with an interactive tool in Spanish was developed to evaluate cost-effectiveness of OiU. The study report is available in English.

Multi-faceted intervention to increase use of prophylactic oxytocin in third stage of labor and reduce unnecessary episiotomies

An uncontrolled before-and-after study measured rates of oxytocin use in the third stage of labor, AMTSL, and episiotomies in vaginal births in 8 hospitals and health centers in Nicaragua after implementation of a multi-faceted facility-based intervention. The multi-faceted intervention combined the use of opinion leaders, interactive workshops to develop and implement evidence-based guidelines, academic detailing, the use of reminders, and feedback on rates of oxytocin use, AMTSL, and episiotomies. A survey conducted in Nicaragua in 2006 by USAID's Prevention of Postpartum Hemorrhage Initiative (POPPHI) project found that while a uterotonic drug was almost universally administered during the third or fourth stages of labor, only three-tenths of a percent of observed vaginal births received AMTSL according to the FIGO/ICM¹ definition. In addition, the prevalence of episiotomy in Nicaragua is as high as 86.3%² for primiparous women (Graham et al, 2005)—with no clear evidence base for this practice.

The use of oxytocin was high at the time of the intervention (95.3%), in contrast to findings at the 2006 survey. This is likely due to interventions to increase uptake of AMTSL carried out by the Nicaraguan MOH in collaboration with the POPPHI project. In spite of the high rates of oxytocin use, there was still a statistically significant increase (p value = 0.001) in its use by the time of the evaluation (97.7%). Findings were similar for individual elements of AMTSL: delayed cord clamping increased from 94.6% to 97.2%; controlled cord traction increased from 97.3% to 99.6%; and uterine massage remained stable (100% at baseline to 99.9% at time of evaluation).

The episiotomy rate dropped significantly from 31% to 21% in all women, and from 59.6% to 40.50% in primiparous women. Based on these positive findings, the study team concluded that the multi-faceted intervention improved the targeted care practices during childbirth; further decrease in routine use of episiotomy would nevertheless be desirable.

While the study showed a sustained reduction in episiotomies and maintenance of high rates of AMTSL over the period of the study, activities in Nicaragua were suspended by USAID at the time the study was closed and further follow-up was not possible. The results of the study were disseminated in Nicaragua, presented at a national conference in Nicaragua, and published in the *International Journal of Obstetrics and Gynecology*.

¹ POPPHI. Active Management of the Third Stage of Labor: Data obtained from the National Health Network Hospitals of Nicaragua-July to August 2006. POPPHI: Washington, DC, 2006. Available at: <http://www.pphprevention.org/files/Nicaraguafinalreport.pdf>

² Graham ID, Carroli G, Davies C, Davies BA, Medves JM. Episiotomy rates around the world: An update. *Birth* 32:3 September 2005.

Formative research on Nicaraguan physicians' viewpoints on mode of childbirth in low-risk pregnancies

MCHIP conducted a qualitative study to explore attitudes toward cesarean birth of physicians attending births in the public and private sectors and at the managerial level in Nicaragua. This study was intended to be a first step in developing an intervention to reduce cesarean births performed without an obstetric or medication indication. The results of the study identified five actions that could facilitate a reduction of the number of unnecessary cesarean operations: establishing standards and protocols; preparing women and their families for labor and childbirth; incorporating cesarean birth rate monitoring and audit systems into quality assurance activities at the facility level; strengthening the movement to humanize birth; and promoting community-based interventions to educate women and families about the benefits of vaginal birth. Unfortunately, activities with the MOH in Nicaragua were suspended by USAID at the time the study was completed and it was therefore not possible to use the results of the study to work with the MOH to develop an intervention to reduce cesarean operations performed without a medical or obstetrical indication. An article describing results of the findings was accepted by the *Maternal and Child Health Journal*, and findings will be disseminated.

Technical assistance, South-to-South learning and sharing best practices in support of midwifery education in Paraguay

Since 2011, MCHIP has been working with the Midwifery and Nursing Faculty of Universidad San Martin de Porres (USMP) to assist the Midwifery School of the Instituto Andres Barbero (IAB) of the Universidad Nacional de Asuncion, and since 2012, with five Midwifery Schools of private universities (UNINORTE, UTCD, U del Guairá, UNICHACO and ISPA) to include ICM competencies in their respective pre-service curricula. With technical oversight from MCHIP, the USMP has supported the IAB and the five private universities through workshops and professional exchanges, providing some of this support remotely, through distance-based learning, and some through in-person learning including a visit of faculty teams to USMP in Lima to observe how the Competency-Based Curriculum (CBC) works. MCHIP and USMP oriented the Paraguayan faculty on the process used in Peru for developing and implementing an ICM competency-based curriculum, including certification and accreditation. With continued support from MCHIP and USMP in Year 5, the universities in Paraguay began discussions about the midwife profile, core competencies, and the basic structure of the CBC. Then they worked to develop their own CBCs and received training in how to develop a syllabus and evaluation tools to complement the new curriculum. In PY6, MCHIP and USMP continued to strengthen the faculty skills to complete their own CBCs and build consensus for the adoption of a unified national approach to midwifery teaching and management of midwifery schools according to ICM educational standards. Thanks to the concerted efforts of MCHIP and its partners, the deans of the six universities agreed to approve and implement the competency-based midwifery curriculum during 2014.

MCHIP and USMP also supported the development of a National Association of Professional Paraguayan Midwifery Schools (ACUFOPY), in coordination with the National Paraguay Midwives Association and the MOH Midwifery Department, to build support and buy in for the adoption and implementation of a national standardized midwifery curriculum based on competencies.

Technical assistance, South-to-South learning and support of professional association development and strengthening of Caribbean regional leaders in midwifery

Recognizing a need and the opportunity for targeted technical assistance to strengthen competency-based education (CBE) in the Caribbean region, specifically for the small English-speaking countries, MCHIP supported the development of a Caribbean Regional Midwives Association (CRMA) that helps the small island nations- in addition to Suriname and Guyana- work together to identify and address midwifery needs, including development of a framework for updating provider knowledge and skills through continuing professional education using distance learning. MCHIP has been providing organizational development assistance for the CRMA by creating linkages with other regional associations (Caribbean Nurses Association), by facilitating leadership development, and by guiding the development of capacity for distance learning through instruction and practice using distance learning methods available both online and offline. While previously small Caribbean countries did not have a voice alone, through the CRMA they together have been able to join the CARICOM Regional Nursing Board and also join as a group the International Confederation for Midwives (ICM).

With MCHIP's support, CRMA development has continued with the adoption of a constitution and registered address, as required by CARICOM (Caribbean Community). For the first time, professional midwifery is represented at CARICOM by the CRMA. MCHIP created linkages between the CRMA and other regional groups such as the Caribbean Nurses Association for strategic input and regional development, to facilitate leadership development, and to promote resource support of the CRMA at national levels. In coordination with the CRMA, ICM, PAHO, and UNFPA, MCHIP developed and conducted an eLearning workshop at the ICM Regional Congress in Quito, Ecuador, in April 2013. With the goal of developing capacity for distance learning, 31 participants were assisted in downloading eLearning modules. Participants registered for online courses (Qstream and ModCAL). Post-meeting support was provided by technical staff from MCHIP and Jhpiego, who continued providing ongoing remote support in PY6 for use of eLearning modalities, including BEmONC modules and Qstream. As part of CRMA capacity development, MCHIP technical staff worked with five CRMA members to draft abstracts for submission to the ICM triennial meeting in Prague, Czech Republic; four abstracts were selected for presentation at the meeting.

In PY6, MCHIP built upon these activities through the use of blended learning methods to increase regional educator capacity in competency-based education. The train the trainer (TOT) process used a combination of group and distance methods. In collaboration with selected CRMA educators, PAHO and UNFPA, MCHIP conducted a CBE workshop in Trinidad in PY6, with 21 participants from seven countries. The initial 4 workshops have documented the development of 6 master trainers (in Trinidad and Tobago and St. Lucia) and 4 trainers (Surinam and Barbados) who will be able to provide South to South support for midwifery education; both pre-service and in-service. This activity has contributed to the further development of processes for e-learning and a nascent continuing education program. To inform future programming, MCHIP has developed a brief highlighting whether blended learning is a feasible model for continuing professional development in small countries and for regions with little infrastructure for professional learning.

Support to the Regional Maternal Mortality Reduction Task Force

MCHIP has promoted MNH high-impact interventions and guideline development for the region through remote technical assistance and in person support to the Maternal Mortality Reduction Task Force (RTF). MCHIP TA has focused on revisions to and support for implementation of the RTF's annual work plan. Specifically, MCHIP is helping revise and translate the "Interagency Strategic Consensus for Latin America and the Caribbean" document that serves as the guiding framework for the prevention of maternal mortality and morbidity followed by the Task Force agencies, including PAHO, UNFPA, UNICEF, UNESCO, ICM,

FLASOG, FCI, Pop Council, IDB, World Bank and USAID. MCHIP has actively participated in the process of updating the 1996 version of the “Maternal Mortality Surveillance Guides,” which aim to strengthen the MM Surveillance system, based on the premise that every maternal death is an event that requires mandatory reporting. The updated version provides information for action including how to improve the quality of healthcare. MCHIP has participated in a joint effort to build “A Promise Renewed” for the Americas to reduce inequities in reproductive and maternal child health. The main partners in this effort are PAHO/WHO, Inter-American Development Bank (IADB), UNAIDS, UNFPA, UNICEF, USAID, the World Bank, and Country Representatives. MCHIP has also participated in the sub-group to discuss mechanisms to improve the use of best practices, including skilled attendance at birth, and in the sub-group for coordinating activities between the Regional Maternal Mortality Reduction Task Force and the Neonatal Alliance.

Technical assistance, South-to-South learning and sharing best practices in support of midwifery education in Guatemala

During PY6, the Guatemalan Ministry of Health (MOH), USAID/Guatemala, USAID/Regional, UNFPA/Guatemala, and UNFPA/Regional joined together in a multi-year collaboration to assist the Government of Guatemala to develop a new cadre of professional midwives. Toward this goal, MCHIP was requested to initiate a South-to-South midwifery education exchange program between Peru (specifically, the Universidad San Martin de Porres) and Guatemala, modeling a similar exchange supported by MCHIP between Peru and Paraguay. USMP faculty (two trips) and MCHIP (one trip) traveled to Guatemala to work with the MOH to review and revise the three-year training program for midwives proposed by the MOH Midwifery Committee, to develop the specific training program for midwifery professors, and to design the profile of midwifery professors. The MOH Committee discussed and agreed upon an action plan and timeline of activities to begin this training, to be facilitated by USMP faculty. Due to recent changes in the government and the installment of new MOH authorities, official approval of the action plan is still pending.

Newborn Health

MCHIP effectively used regional leadership to catalyze scale-up of high impact interventions, despite diminishing resources and donor funding. By forging strategic partnerships with other donors, namely members of the LAC Neonatal Alliance, MCHIP successfully scaled- up country and global initiatives, such as HBB and KMC. MCHIP’s achievements in LAC clearly demonstrate the value added of its integrated approach, evidenced by its influential role in regional forums representing the LAC Neonatal Alliance, which includes maternal as well as newborn health experts who define regional policy and action. As many of USAID’s MCH programs in the region have closed, MCHIP has maximized efforts under a regional scope to continue to support activities in these countries through targeted technical assistance and capacity building of local and regional alliances.

LAC Neonatal Alliance

MCHIP regional leadership is most visible and successful through its participation in the LAC Neonatal Alliance, which has served as an important platform through which MCHIP provided technical support to the region. MCHIP initially served as a member in PY1 and PY2, when it lead advocacy efforts to position newborn health priority interventions (ENC, including postnatal care, HBB, and KMC) and worked with partners to finalize a recommended priority list of newborn indicators. Elected consecutively as Chair of the LAC Neonatal alliance since 2011 (PY3), MCHIP provided critical technical leadership during a dynamic growth period for the Alliance, and laid the groundwork for a smooth transition to PAHO as the new leader of the Alliance

Through this Alliance, MCHIP, USAID and partners have worked to foster a consensus among countries in the region on essential actions for newborn health through the establishment of a regional strategy. In February 2012 and in June 2013 (PY5), MCHIP co-organized and co-funded annual LAC Neonatal Alliance workplan meetings with the participation of representatives of the professional associations and other partners from the region in Washington DC and El Salvador, respectively. Also, with TA and support from the LAC Neonatal Alliance, new national neonatal alliances have been formed in Bolivia, El Salvador, Peru and most recently, Haiti and Paraguay. As a result of its high visibility, the LAC Neonatal Alliance was invited to participate in global efforts such as the Promise Renewed, the UN Commission on Life Saving Commodities for Women and Children (UNoLSC) for newborn commodities, the Every Newborn Action Plan, the KMC acceleration Group and others.

Kangaroo Mother Care (KMC)

MCHIP has worked closely with partners to develop regional strategies to promote newborn health, by coordinating and leveraging common efforts, and developing networks for interventions such as for KMC. MCHIP has worked during Years 1–6 to achieve regional and country scale-up of KMC, including the implementation and scale-up of a strong KMC program in 8 of the 9 health regions in the Dominican Republic (DR). MCHIP helped to spearhead the development of a KMC regional network through a virtual community of practice (CoP) by coordinating the efforts and measurements of KMC implementation, as well as facilitating the regional standardization of the KMC implementation approach, tools, and indicators.

MCHIP also provided technical assistance (TA) through the regional KMC network, facilitating problem-solving for countries participating in this CoP. MCHIP shared the electronic data collection tool that was adapted and is currently being used by the KMC program in Nicaragua. In PY5, the MCHIP Newborn team presented a panel on experiences implementing KMC in LAC at the International KMC Conference in India in November 2012 and at the Global Newborn Conference in South Africa in April 2013. The information shared during this presentation led to the inclusion of the LAC KMC experiences in the Global Experts consultation, co-sponsored by the Bill and Melinda Gates Foundation and Saving Newborn Lives (SNL), in Turkey in November 2013. MCHIP also attended the KMC LAC Regional Scientific meeting in November 2013 in Colombia and collaborated in the KMC Indicators virtual forum via Kangaroo Mother Care Community of Practice website, hosted in December 2013 by the ASSIST Maternal Newborn Child Health (MNCH) team in Ecuador. MCHIP is in the process of writing up the experience of scale-up and standardization of KMC in LAC led by MCHIP, adding to the global evidence base about the critical elements of a regional platform to support advocacy and uptake of evidence-based interventions at the regional and global levels.

Helping Babies Breathe (HBB)

MCHIP successfully utilized the LAC Neonatal Alliance platform to pioneer and support the implementation and scale-up of HBB in the region, including direct collaboration with the ASSIST project, Pan American Health Organization (PAHO), the professional associations (mainly pediatric, ICM, and neonatology), various Ministries of Health (MOH), the Latter Day Saints (LDS) Charities and carrying out regional and national trainings of trainers for various cadres of professionals. Notably, MCHIP succeeded in scaling up HBB interventions in the Dominican Republic and Colombia, by mobilizing resources from PAHO and LDS Charities. MCHIP also supported HBB trainings to initiate or strengthen implementation at the regional and/or country level in the Dominican Republic, Colombia, Peru, Trinidad and Tobago (for the English Caribbean), Paraguay, and Guyana (including a core group of trainers from Haiti). MCHIP regularly organized trainings in conjunction with regional meetings of partner professional organizations and others.

As part of the HBB Global Development Alliance (GDA) implementation advisory group , MCHIP provided inputs related to the LAC experience, thus contributing evidence toward the development of a more successful, cost effective scale-up strategy, focused on engaging stakeholders and key decision-makers in the discussions about the benefits, and promoting country ownership and resource mobilization to support this end.

RECOMMENDATIONS AND WAY FORWARD

In future programming, the Newborn Alliance work will continue, and more opportunities will be sought to strengthen national alliances. Additionally, efforts will focus on increased coordination with the Regional Maternal Working Group (GTR), as well as on infections and neonatal mortality surveillance, for example, at the next annual meeting in Colombia in late summer 2014.

In the area of competency-based midwifery education, future programming will build on initial efforts to develop a cadre of midwives in Guatemala. To date, regional and Guatemala USAID and UNFPA offices have been working together to support this initiative and these efforts should be actively supported, given the current interest from the Guatemalan government.

The development and roll-out of a national CBC is a long process, needing at least four years to complete along with follow-up to ensure proper implementation. Even though university authorities and faculty in Paraguay have demonstrated great interest and understanding about the need to implement a CBC, increased focus and dedication are essential to ensure success. This activity has proved challenging since participants often have more than one job and therefore don't have sufficient time to dedicate to this e authorities- must be assigned to provide close support and follow up, to be complemented by dedicated ongoing external TA.

OiU is well-liked by providers and has the potential to increase access to oxytocin for prevention and initial management of PPH, but many challenges exist: (1) Two manufacturers, in Argentina and India, produced limited quantities of OiU but are reluctant to make an investment in ongoing production unless there is adequate demand to make it economically lucrative for them, and (2) Many organizations do not look beyond the comparatively higher cost of OiU and have not sought to understand cost-effectiveness of its inclusion into country programs. If PAHO puts it on the RRFSPHS, there is the potential that demand will be adequate enough to stimulate manufacturers to either continue or start to produce it, and this will then lead to lower prices and, hopefully, greater adoption.

The multi-faceted intervention to increase use of oxytocin and AMTSL and reduce episiotomies has been successful in several countries and now needs advocates to disseminate the methodology and scale it up in countries where it was introduced in selected facilities.

While the results of the formative research on cesarean births showed findings similar to studies carried out in other countries, it is an important first step in designing behavior change programs for providers and users of maternal health care services. Moving towards such an intervention will require both advocacy and funding to develop, implement, and evaluate the interventions. MCHIP has been a key mechanism to maximize the limited funding available for TA and support for programming in the LAC Region. MCHIP has provided critical TA to strengthen the quality of midwifery education in the region by supporting opportunities for South-to South learning, recognizing competencies already in the region can help create sustainability. One of the key lessons learned, however, is the difficulty of ensuring continuity of in-country activities by relying solely on external TA. For example in Paraguay, due to social and political challenges related to the midwifery profession, coordinating activities and facilitating discussions between the various midwifery schools without having local presence slowed the process of implementation. In the future, ensuring local ownership and responsibility

of activities is recommended. With MCHIP support, the LAC Neonatal Alliance has also been a successful strategy to promote and scale-up regional and global priorities to address the main causes of newborn mortality. Its visibility globally has achieved a “seat at the table” in the Technical Advisory Group for the Every Newborn Action Plan (ENAP) and other global strategies.

List of DEC Uploads of the Country EOP Reports

Country/ Program	Document Title	Date of Publication	Authorizing Organization	DEC Upload Date	DEC URL
Azerbaijan	MCHIP Azerbaijan End-of-Project Report: March 2011-April 2012	Apr-12	STC	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUwMDU0
Bangladesh	MCHIP Bangladesh End-of-Project Report: November 2009-June 2014	Jun-14	Jhpiego, STC	4-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUyNTI0
Bangladesh MaMoni (AA)	MCHIP Bangladesh MaMoni Integrated Safe Motherhood, Newborn Care, and Family Planning Project: August 2009-April 2014	Jun-14	Jhpiego, STC	4-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUyNTI0
Bolivia	MCHIP Bolivia End-of-Project Report: October 1, 2009-May 3, 2013	5-Apr-13	Jhpiego, ICF International, PATH, STC	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUwMDU0
Burkina Faso	MCHIP Burkina Faso End-of-Project Report: October 2009-March 2013	Apr-13	Jhpiego	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUwMDU0
Burma	MCHIP Burma End-of-Project Report: January 2013-March 2014	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUxNzIx
Dominican Republic	MCHIP Dominican Republic End-of-Project Report: April 2010-January 2014	May-14	Jhpiego, PATH	4-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUxNzIx
DRC	MCHIP DRC End-of-Project Report: April 2009-July 2011	Jul-11	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUwMDYw
Egypt	MCHIP Egypt SMART End-of-Project Report: October 2011-June 2014	Sep-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	26-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUxNzIx
Ethiopia	MCHIP Ethiopia End-of-Project Report: 2010-2013	Jul-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	8-Oct	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUwMDU0
Ghana	MCHIP Ghana End-of-Project Report: October 2009-June 2014	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YyMiOOYjRmLTkxNiktZTcxMmM2NDBmY2Uy&rID=MzUxNzIx

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Guyana	MCHIP Guyana End-of-Project Report: October 2010-September 2012	Sep-12	Jhpiego	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwMDYy
India	MCHIP India End-of-Project Report: October 2009-August 2014	Aug-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUxNzNm1
Indonesia	MCHIP Indonesia End-of-Project Report: January 2011-December 2012	Dec-12	Jhpiego, JSI, STC	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwMDYz
Kenya	MCHIP Kenya End-of-Project Report: October 2009-September 2014	Sep-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	26-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUzNzE3
Lesotho PSE	MCHIP Lesotho Pre-Service Education End-of-Project Report: May 2010-June 2014	Feb-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwOTA1&lnr=VHJ1ZQ==&dc=YWRk&bckTol=
Lesotho VMMC	MCHIP Lesotho VMMC End-of-Project Report: October 2011-December 2013	Feb-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwOTA2&lnr=VHJ1ZQ==&dc=YWRk&bckTol=
Liberia	MCHIP Liberia End-of-Project Report: September 2009-December 2013	Jun-14	Jhpiego	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwODk1
Madagascar	MCHIP Madagascar End-of-Project Report: September 2008-June 2014	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	21-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwOTM4
Malawi***	MCHIP Malawi End-of-Project Report: October 2009-February 2012	Sep-12	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwMDUw
Malawi	MCHIP Malawi End-of-Project Report: October 2011-June 2014	Aug-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	4-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUyNTI1
Mali Classic	MCHIP Mali End-of-Project Report: October 2010-June 2014	Aug-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	11-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUyODM0
Mali PSI	MCHIP Mali PSI End-of-Project Report: October 2011-August 2014	Jun-14	Jhpiego, PSI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUxNzU0
Mozambique Field	MCHIP Mozambique End-of-Project Report: May 2009-January, 2011	Mar-11	Jhpiego, STC	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNjktZTcxMjM2NDNmY2Uy&rID=MzUwMDow

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Mozambique PSI	MCHIP Mozambique Social Marketing Award End-of-Project Report: March 2010-June 2011	Sep-11	Jhpiego, PSI	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwMDY3
Namibia	MCHIP Namibia End-of-Project Report: October 2012-July 2014	Sep-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	25-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUzNiY4
Nepal	MCHIP Nepal End-of-Project Report: January 2010-June 2014	Jun-14	Jhpiego	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUxNzU1
Nigeria	MCHIP Nigeria End-of-Project Report: April 2009-June 2013	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwODk2
Pakistan	MCHIP Pakistan End-of-Project Report: February 2012-December 2012	Apr-14	Jhpiego	4-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwMDkx
Paraguay	MCHIP Paraguay End-of-Project Report: October 2011-September 2012	Dec-12	Jhpiego	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwMDUx
Philippines	MCHIP Philippines End-of-Project Report: July 2012-June 2014	Sep-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	25-Sep	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUzNiY5
Rwanda	MCHIP Rwanda End-of-Project Report: October 2009-March 2014	Jun-14	Jhpiego, STC, JSI, PATH	22-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwMDI1
South Africa	MCHIP South Africa End-of-Project Report: January 2010-June 2011	Jun-11	Jhpiego	3-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwMDUz
South Sudan	MCHIP South Sudan End-of-Project Report: October 2007-April 2014	Jun-14	Jhpiego, JSI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUxNzU2
Tajikistan	MCHIP Tajikistan End-of-Project Report: 2011-2013	Nov-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUwOTEx
Tanzania VMC	MCHIP Tanzania VMMC End-of-Project Report: September 2008-September 2014	Aug-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	26-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=0DVhZik4NWQtM2YvMiOOYIRmLTkxNiktZTcxMiM2NDBmY2Uy&rID=MzUyNTMy

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Timor-Leste	MCHIP Timor Leste End-of- Project Report: April 2011- December 2013	Dec-13	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTA3&inr=VHJ1ZQ==&dc=YWRk&backTol_ =
Uganda	MCHIP Uganda End-of- Project Report: July 2012- June 2014	May-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTA4&inr=VHJ1ZQ==&dc=YWRk&backTol_ =
Ukraine	MCHIP Ukraine End-of- Project Report: June 2011- June 2014	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTA5&inr=VHJ1ZQ==&dc=YWRk&backTol_ =
Vietnam	MCHIP Vietnam End-of- Project Report: October 2011-June 2014	Jul-14	Jhpiego, STC	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTEx&inr=VHJ1ZQ==&dc=YWRk&backTol_ =
Yemen	MCHIP Yemen End-of-Project Report: October 2012-March 2014	Jun-14	Jhpiego, JSI, STC, PATH, ICFI	18-Aug	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUxNzU4
Zambia	MCHIP Zambia End-of- Project Report: October 2011-June 2014	Jun-14	Jhpiego	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTEx&inr=VHJ1ZQ==&dc=YWRk&backTol_ =
Zimbabwe	MCHIP Zimbabwe End-of- Project Report: October 2010-April 2014	Jun-14	Jhpiego, JSI, STC, PATH, JHU/IIP, BBA, PSI, ICFI	23-Jul	https://dec.usaid.gov/dec/content/Detail.aspx?ctlD=ODVhZik4NWQtdM2YvMiOOYiRmLTkxNjktZTcxMjM2NDBmY2Uy&rlD=MzUwOTEx&inr=VHJ1ZQ==&dc=YWRk&backTol_ =

Annex 5: Associate Award Briefs

Associate Award Brief—Bangladesh



Selected Health and Demographic Data for Bangladesh	
Maternal mortality ratio*	194
Neonatal mortality rate**	32
Total fertility rate**	2.4
4 or more antenatal care visits**	25.5%
Contraceptive prevalence rate**	52.1%
Skilled attendance at birth**	31.7%
Postnatal care (two days)**	29.6%
Sources: *National Institute of Population Research and Training (NIPORT), MEASURE Evaluation, and icddr, b. 2012. Bangladesh Maternal Mortality and Health Care Survey 2010; ** NIPORT, Mitra and Associates, and ICF International. 2013. Bangladesh Demographic and Health Survey 2011.	

Major Activities:

MaMoni:

- Over 14,000 unpaid community volunteers were selected from and by the communities and trained to mobilize communities around health issues and jump-start community action group meetings.
- In Habiganj and Sylhet districts, 5,056 CAGs in 3,613 villages met routinely to discuss health issues and identify beneficiaries for MNH/FP/N services. In Habiganj, more than 2,100 CAGs have been formed in 2,101 villages. More than 100,000 community members participate in these groups, around half of them female.
- Close to 100% of CAGs arranged transportation for community members during an emergency; more than 85% of CAGs collected funds used for transportation of women and newborns to health services, purchase of medicine, and even for repair of roads to health facilities. Innovative *community microplanning* allowed community members to raise health issues directly with public sector health workers and jointly improve health management information system data.
- Collaboration with local and national government and professional agencies and national and international partners, stakeholders, and donors allowed for advocacy of key MNH/FP issues and leveraging of funds for community health issues. Learning from the MaMoni experience resulted in national health policy reforms as well as initiatives to streamline the national health management information system.
- The Standards-Based Management and Recognition (SBM-R®) approach was introduced in five facilities.
- Community health workers and paramedics were deployed to fill critical staff vacancies or to complement providers in high population areas.
- 25,122 eligible couples received long-acting and permanent methods of contraception, 114,886 pregnant women received antenatal care from skilled providers, 42,524 pregnant women were provided with misoprostol tablets for prevention of postpartum hemorrhage, and 51,576 deliveries were conducted by skilled birth attendants.
- Over 19,000 community- and facility-based health service providers were trained in various MNH/FP interventions and strategies including community-based management of pre-eclampsia/eclampsia, Emergency Triage Assessment and Treatment for newborns, postpartum intrauterine contraceptive device insertion, and community mobilization across the program districts of Sylhet and Habiganj. As part of the MaMoni package of care, 610 outreach workers have been trained in infant and young child feeding.
- Integrated training curricula and materials were developed for community health workers in MNH/FP interventions that are used by the government, NGOs, and private providers in Bangladesh.
- All 77 Union Parishads in the program implementation area have active Education, Health and Family Planning Standing Committees that meet every two months to discuss local health issues, a practice initiated as a result of MaMoni advocacy. Additionally, MaMoni has successfully sensitized Union Parishads to allocate budgets for local MNH/FP/N priorities.
- With project resources and additional matching funds, MaMoni renovated two district-level facilities, two upazila-level facilities, and seven union-level facilities, and increased the number of planned satellite clinics from 484 in 2010 to 597 as of September 2013. CAGs and Union Parishads also contributed by providing support to 13 subdistrict-level health facilities providing 24/7 delivery care and satellite clinics.

MaMoni HSS:

The goal of MaMoni HSS is to improve utilization of integrated maternal, newborn, and child health (MNCH)/FP/N services in seven districts in Bangladesh. The project will achieve this goal by increasing availability and quality of high-impact interventions through strengthening district-level local management and health systems. MaMoni HSS proposes a set of high-impact activities to achieve four intermediate results (IRs):

1. Improve service readiness through critical gap management;
2. Strengthen health systems at district level and below;
3. Promote an enabling environment to strengthen district-level health systems; and
4. Identify and reduce barriers to accessing health services.

MaMoni Program Dates	August 3, 2009–April 30, 2014					
Overall Budget	Redacted					
Geographic Coverage	No. of divisions	1/7	No. of districts	2/64	No. of upazilas (counties)	15
MCHIP In-Country Contacts	Ishtiaq Mannan, Chief of Party					
HQ Managers and Technical Advisors	Koki Agarwal, MCHIP Director; Pat Daly, Senior Director, Health and Nutrition; Joseph De Graft-Johnson, Newborn Health Senior Advisor; Angie Brasington, Community Health and Social Change Advisor; Jennifer Shindeldecker, Program Officer; Jaime Mungia, Senior Program Officer					
Partners	Jhpiego, Save the Children, and national partners icddr,b (International Centre for Diarrhoeal Disease Research, Bangladesh), Shimantik, and Friends In Village Development Bangladesh					
MaMoni Health Systems Strengthening (HSS) Program Dates	September 24, 2013–September 23, 2017					
Overall Budget (ceiling)	Redacted					
Geographic Coverage	No. of divisions	3/7	No. of districts	7/64	No. of upazilas (counties)	49
MCHIP In-Country Contacts	Ishtiaq Mannan, Chief of Party					
HQ Managers and Technical Advisors	Koki Agarwal, MCHIP Director; Pat Daly, Senior Director, Health and Nutrition; Joseph De Graft-Johnson, Newborn Health Senior Advisor; Angie Brasington, Community Health and Social Change Advisor; Jennifer Shindeldecker, Program Officer; Jaime Mungia, Senior Program Officer					
Partners	Jhpiego, SC, John Snow, Inc., Johns Hopkins University/Institute for International Programs, national partners icddr,b, DNet, Bangabandhu Sheikh Mujib Medical University, and more than 10 local implementing partners					

Acronyms and Abbreviations

CAG	Community Action Group
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
FP	Family Planning
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GOB	Government of Bangladesh
HMIS	Health Management Information System
HSS	Health Systems Strengthening (MaMoni follow-on project)
icddr,b	International Centre for Diarrhoeal Disease Research, Bangladesh
IR	Intermediate Result
MaMoni	MaMoni Integrated Safe Motherhood, Newborn Care, and Family Planning Project
MaMoni HSS	MaMoni Health Systems Strengthening Project
MIS	Management Information System
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn, and Child Health
MNH/FP	Maternal and Newborn Health and Family Planning
MNH/FP/N	Maternal and Newborn Health, Family Planning, and Nutrition
MOH&FW	Ministry of Health and Family Welfare
QA	Quality Assurance
SBM-R®	Standards-Based Management and Recognition
SCANU	Special Care Newborn Unit
UP	Union Parishad

Background

Bangladesh has made great progress in reducing maternal and child mortality in the past decade and is on track to achieve targets for both Millennium Development Goals 4 and 5. In the same period, the country has made significant progress in lowering maternal and child mortality. Since 2001, the maternal mortality ratio has declined 40% from 322 per 100,000 live births to 194 in 2010.¹ Between 2007 and 2011, under-five mortality declined from 65 to 53 per 1,000 live births. Skilled attendance at birth nearly doubled between 2004 and 2011, reaching 32%, with much of this due to increased facility deliveries. Notably, the contraceptive prevalence rate reached 61% for all methods and the total fertility rate declined to 2.3.2

However, improvement has not been uniform throughout the country, such as in the case of the Sylhet division (where Sylhet and Habiganj districts are located). It has consistently lagged behind in most health indicators, and, over the past several years, this trend has not changed

¹ Bangladesh Maternal Mortality Survey, 2010.

² Bangladesh Demographic and Health Survey (BDHS), 2011.

significantly. For example, the national maternal mortality rate (MMR) declined from 322 per 100,000 live births in 2001 to 194 in 2010. During the same 10 years, MMR declined from 352 to 60 (an 83% decrease) in Khulna division. In the Sylhet division, however, MMR only declined from 471 to 425 (less than a 10% change). The neonatal mortality rate in the Sylhet division was 43% higher in 2007 than the national average (53 deaths per 1,000 live births compared with 37 per 1,000 live births across Bangladesh). Significant inequalities persist. MaMoni and MaMoni HSS focus on historically underserved areas of Bangladesh.

Approach/Activities

OVERALL APPROACH: MAMONI

MaMoni focused on supporting the government of Bangladesh's (GOB's) Ministry of Health and Family Welfare (MOH&FW) Health Population and Nutrition Sector Development Program strategy to reduce maternal and neonatal mortality; the project sought the attainment of Millennium Development Goals 4 and 5 in Bangladesh. MaMoni used a comprehensive service delivery model, designed to demonstrate a sustainable approach to strengthening public sector health care delivery systems, to reduce maternal and neonatal mortality and morbidity. Using a district-wide approach, the delivery strategy linked households with health systems and involved local health care providers and strong community groups to promote and sustain household and community practices.

Major Activities: MaMoni

More than 14,000 unpaid community volunteers were selected from and by the communities and trained to mobilize communities around health issues and jump-start community action group (CAG) meetings.

In Habiganj and Sylhet districts, 5,056 CAGs in 3,613 villages met routinely to discuss health issues and to identify beneficiaries for maternal and newborn health, family planning, and nutrition (MNH/FP/N) services. More than 100,000 community members participate in these groups, around half of them female.

Close to 100% of CAGs arranged transportation for community members during an emergency; more than 85% of CAGs collected funds used for transportation of women and newborns to health services, purchase of medicine, and even for repair of roads to health facilities. Innovative community microplanning allowed community members to raise health issues directly with public sector health workers and to jointly improve health management information system data.

Collaboration with local and national government and professional agencies and national and international partners, stakeholders, and donors allowed for advocacy of key MNH/FP issues and for leveraging of funds for community health issues. Learning from the MaMoni experience resulted in national health policy reforms as well as initiatives to streamline the national health management information system.

The Standards-Based Management and Recognition (SBM-R®) approach was introduced in five facilities.

Community health workers and paramedics were deployed to fill critical staff vacancies or to complement providers in high population areas.

Under MaMoni, 25,122 eligible couples received long-acting and permanent methods of contraception, 114,886 pregnant women received antenatal care from skilled providers, 42,524

pregnant women were provided with misoprostol tablets for prevention of postpartum hemorrhage, and 51,576 deliveries were conducted by skilled birth attendants.

More than 19,000 community- and facility-based health service providers were trained in various MNH/FP interventions and strategies including community-based management of pre-eclampsia/eclampsia, Emergency Triage Assessment and Treatment for newborns, postpartum intrauterine contraceptive device insertion, and community mobilization across the program districts of Sylhet and Habiganj. As part of the MaMoni package of care, 610 outreach workers have been trained in infant and young child feeding. Integrated training curricula and materials were developed for community health workers in MNH/FP interventions that are used by the government, NGOs, and private providers in Bangladesh.

All 77 Union Parishads (UP; local government bodies at the union level) in the program implementation area have active Education, Health and Family Planning Standing Committees that meet every two months to discuss local health issues, a practice initiated as a result of MaMoni advocacy. In addition, MaMoni has successfully sensitized UPs to allocate budgets for local MNH/FP/N priorities.

With project resources and additional matching funds, MaMoni has renovated two district-level facilities, two upazila-, or county-, level facilities, and seven union-level facilities and has increased the number of planned satellite clinics from 484 in 2010 to 597 as of September 2013. CAGs and UPs also contributed by providing support to 13 subdistrict-level health facilities providing 24/7 delivery care and satellite clinics.

Overall approach: MaMoni HSS

The goal of MaMoni HSS is to improve utilization of integrated maternal, newborn, and child health (MNCH)/FP/N services in seven districts in Bangladesh. The project will achieve this goal by increasing availability and quality of high-impact interventions through strengthening district-level local management and health systems. MaMoni HSS proposes a set of high-impact activities to achieve four intermediate results (IRs):

1. Improve service readiness through critical gap management;
2. Strengthen health systems at district level and below;
3. Promote an enabling environment to strengthen district-level health systems; and
4. Identify and reduce barriers to accessing health services.

Results

MaMONI

Project data indicate that MaMoni has achieved significant increases in deliveries with skilled birth attendants, referrals for maternal complications, and postnatal care, as well as modest improvements in utilization of family planning (FP) services. These gains were realized through the active participation of community volunteers, CAGs, and UPs; testing of new implementation models in hard-to-reach areas (e.g., upgrading union health and family welfare centers); and an integrated approach to health systems strengthening that included providing temporary frontline health workers (community health workers, paramedics), renovating facilities, ensuring adequate medicines and supplies for normal delivery, postpartum hemorrhage prevention, and postpartum FP, and strengthening supervision. Microplanning meetings introduced under MaMoni have significantly improved data quality and local-level

planning among the Directorate General of Health Services (DGHS) and Directorate General of Family Planning (DGFP) workers and the community.

MaMoni's achievements go beyond improved utilization rates. MaMoni is the only project in Bangladesh to have delivered an integrated package of lifesaving interventions for mothers and newborns through the existing health system. Using a district-wide model, MaMoni grafted itself to the health system and supported delivery of services from community level to district hospital.

Perhaps most notable among MaMoni's achievements are the scale to which CAGs functioned in Habiganj and how these groups were formally linked to the health system through the innovation of community microplanning. More than 2,100 CAGs met routinely throughout Habiganj, covering 93% of all villages in the district, to discuss health issues and identify possible beneficiaries for maternal and newborn health, FP, and nutrition (MNH/FP/N) services. Representatives from those groups, in turn, participated in routine union-level microplanning meetings to raise health issues with public sector frontline health workers. This allowed for a previously unseen level of communication between communities and health providers, with the added benefit of streamlining surveillance of communities' health needs (e.g., new pregnancies, eligible couples) for targeted services by community-level health providers who are otherwise unable to visit all households in person. This microplanning process has already been demonstrated to reduce discrepancies in data collected by the DGHS and DGFP and has been used to pinpoint specific weaknesses within the data pathway with respect to data quality.

Another of MaMoni's important achievements has been its ability to leverage additional funding for complementary initiatives. Particularly notable are funds leveraged to upgrade union-level facilities in remote and underserved areas to provide 24/7 safe delivery care services. The result has been dramatic increases in the rate of facility delivery among these catchment populations, in most cases exceeding the GOB's targets for skilled birth attendance. These initiatives have caught the attention of the GOB, which is integrating union-level safe delivery into national programs. Leveraged funds have also been used to procure misoprostol for community-based use. Misoprostol, approved for use by the GOB but not yet distributed at the community level, is a lifesaving drug taken after pregnancy to reduce postpartum hemorrhage—the largest cause of maternal mortality in Bangladesh.

In Habiganj, MaMoni introduced the Standards-Based Management and Recognition (SBM-R®) approach for quality assurance of facility-based services at district-level facilities. Use of SBM-R will expand under the follow-on MaMoni Health Systems Strengthening (HSS) Project within Habiganj and in six other targeted districts. In addition, facility renovation is now an important component within MaMoni HSS.

MaMoni has been a credible and effective actor in policy and program discussions at both national and local levels. Learning from the MaMoni program experience has resulted in valuable input and insight into national health policy reforms, especially regarding newborn health interventions (e.g., chlorhexidine), as well as in initiatives to streamline the national health management information system. The MaMoni team is recognized not only for its program delivery but also for its technical competencies. In 2012, the MaMoni team was asked by the MOH&FW to facilitate the process of developing national standard operating procedures for maternal health and a revision to the national maternal health strategy.

MaMoni has worked effectively with other large-scale health initiatives in Bangladesh to provide services to its beneficiaries. For example, linking with national initiatives (e.g., USAID's Mayer Hashi program) to provide long-acting and permanent methods of contraception, MaMoni CAGs referred nearly one-third of long-acting and permanent method services provided in the district. MaMoni's next phase expands this trend and includes additional collaborations with Systems for Improved Access to Pharmaceuticals and Services and other complementary health initiatives operating in Bangladesh.

MaMoni has also served as an important platform for innovation and learning. Through close collaboration with the Translating Research into Action Project, several studies have been initiated, including use of magnesium sulfate at community level to reduce maternal deaths caused by pre-eclampsia/eclampsia. Another successful effort was a collaboration with a UNICEF-funded initiative to establish SCANUs (Special Care Newborn Units) in district-level hospitals. MaMoni established a SCANU at the upazila level and tested a community outreach referral mechanism targeting accessibility of services for sick newborns in the community.

Although MaMoni HSS only began in September 2013, below are key expected results:

Expected MaMoni HSS Key Results

MAMONI HSS GOAL	<ul style="list-style-type: none"> Increased proportion of pregnant women who deliver by a medically trained provider and seek care for antenatal care, postnatal care, and emergency obstetric needs Increased proportion of eligible couples use a contraceptive method
OBJECTIVE	<ul style="list-style-type: none"> Increased number of districts with enhanced MOH&FW leadership and management Increased number of districts with key facilities having: 1) functional comprehensive QA system, 2) updated health management information system (HMIS) and 3) updated logistics management information system
IR1: IMPROVE SERVICE READINESS THROUGH CRITICAL GAP MANAGEMENT	<ul style="list-style-type: none"> Increased percentage of vacant staff positions filled Increased number of service delivery points ready to provide care on relevant components of integrated MNCH/FP/N package
IR2: STRENGTHEN HEALTH SYSTEMS AT DISTRICT LEVEL AND BELOW	<ul style="list-style-type: none"> Increased number of districts develop a joint, data-driven MNCH/FP/N district plan and use that for periodic performance review Increased number of health facilities providing services at optimum standard of quality as a result of comprehensive QA mechanism in place National HMIS includes all essential indicators pertinent to integrated MNCH/FP/N and provides real-time, district-level service coverage estimates
IR3: PROMOTE AN ENABLING ENVIRONMENT TO STRENGTHEN DISTRICT LEVEL HEALTH SYSTEM	<ul style="list-style-type: none"> Increased number of high-priority national and district critical policies/strategies/guidelines on MNCH/FP/N are developed/finalized and are in effect
IR4: IDENTIFY AND REDUCE BARRIERS TO ACCESSING HEALTH SERVICES	<ul style="list-style-type: none"> Increased number of women practicing healthy MNCH/FP/N behaviors (e.g., exclusive breastfeeding, delayed bathing, and birth spacing) Increased number of communities proactively engaged in local health improvement through Community Action Group and Community Support Group membership, through community microplanning, and through facilitating referral network

Next Steps/Looking Ahead

Over the last five years, MaMoni has successfully addressed MNH/FP/N issues in partnership with the MOH&FW and key stakeholders in Bangladesh. Building on these achievements, the MCHIP consortium has received funding to scale up MaMoni in seven new districts through the follow-on MaMoni HSS Project, which will continue through September 2017. MaMoni HSS will build upon the lessons learned under MaMoni to address the MNCH/FP/N recommendations summarized below:

An integrated and comprehensive approach is key to cost effective intervention: To ensure that lifesaving interventions are available and accessible along the household-to-hospital continuum of care, it is essential that a comprehensive approach is used in the provision of health services. MaMoni strengthened MNH/FP/N services within this framework. Instead of introducing vertical programs, MaMoni sought to create change within the districts through an integrated approach with multifaceted structural, technical, and operational systems. This method of working allowed the interventions to be more cost effective and obtained widespread leverage and support from diverse stakeholders at the community and national levels, ultimately ensuring acceptance and success.

Participation of local governments and community groups provided important leverage opportunities: Local institutions, including elected public representatives, played an important role in bolstering the success of health care services in Sylhet and Habiganj. MaMoni secured widespread local government support and engagement on health and nutrition issues, including funds provided by local government, a key achievement of the project. CAGs were present in 93% of the 2,245 villages in the Habiganj implementation area and have collectively set aside around BDT 1 million for emergency funds. Some of the emergency funds have been used to support health facilities and workers with activities such as repair of tube wells and facility access roads and provision of blood pressure monitors, weight scales, furniture, and privacy curtains.

Partnership is critical to success: Partnership with local NGOs and professional bodies, not only directly through grants but also through collaboration on advocacy and programming, paid back well. In many situations, the long-term experience and expertise of local NGOs lent MaMoni broad acceptance in communities. In national advocacy forums, Bangladeshi professional bodies stepped up to prompt changes that would have been impossible for MaMoni to achieve alone. For the first time, injectable magnesium sulfate is being administered at a union level, chlorhexidine is being applied by government providers both at home and health facilities, neonatal resuscitation using the Helping Babies Breathe protocol is being applied in the home setting by community skilled birth attendants in Habiganj, and a Special Care Newborn Unit (SCANU) is operating at the upazila level in Sylhet. These successes were possible because of champions within the MOH&FW and professional bodies.

Partnership with the GOB has been rewarding. Initially, earning mutual trust was challenging, but trust was reached through dialogue. MaMoni has shown that it is possible to work closely with the GOB as the government and program change and develop through mutual support.

Continuous innovation is critical to maintaining visibility and acceptance: MaMoni has served as a testing ground for state-of-the-art interventions such as misoprostol, SCANU, chlorhexidine, calcium supplementation, injectable magnesium sulfate, infant and young child feeding counseling by government providers, and postpartum iron and folic acid distribution by family welfare assistants in home visits, among numerous examples. In many ways, piloting initiatives and then demonstrating results to advocate for scale-up to the national level provided MaMoni with credibility, visibility, and a leadership role in Bangladesh. Through innovations in interventions and service delivery mechanisms, MaMoni has not only improved

the health system but also changed the MOH&FW's vision and targets for developing the health system.

Another key example of MaMoni's piloting of an intervention was the way the program temporarily filled staff gaps as a method of convincing the MOH&FW to address critical human resource issues, since the ministry does not typically have sufficient resources to fill all positions. MaMoni was able to use gap management as an opportunity to educate the MOH&FW and have them focus on active recruitment for vacancies.

Training and capacity-building needs to be linked to supervision and quality assurance for performance improvement: While a not-insignificant gap in service provider capacity needs to be addressed through trainings, MaMoni found that a comprehensive systems approach includes focusing on supervision and quality assurance to improve provider motivation and retention of skills and increase service utilization. In many areas, additional investment beyond initial planning, including provision of job aids, was required to achieve a high level of performance. Trainings need to be linked with performance and providers require support to achieve a results- and performance-oriented manner of working. MaMoni collaborated with the MOH&FW, Ministry of Local Government, Rural Development and Cooperatives, and communities to keep health care providers, local NGOs, and the government accountable.

Data reporting and use: Using government MIS data within the project, MaMoni realized quickly that these data are not complete for decision-making purposes and that data quality is a critical issue at many levels. The Bangladesh Demographic and Health Survey's division-level estimates do not allow for district-level decision-making. MaMoni piloted the Poil union model, which uses family welfare volunteer registers and community microplanning to determine union-level data estimates on population-based health indicators. This pilot demonstrated that, without investing heavily and by simply making slight adjustments to MIS data, health providers can have an improved ability to make decisions. MaMoni not only provided support to improve the GOB's health management information and data collection systems but also invested in giving providers the skills to use the data for decision-making at all levels.

Demonstration followed by advocacy is critical for health systems reforms: Decision-makers need solid evidence to embrace reform. MaMoni, through continuous engagement, caught the attention of policymakers who then supported MaMoni's issues. Advocacy successes were shaped by MaMoni undertaking demonstration activities at the district, upazila, and union levels and using lessons learned and small-scale accomplishments to advocate for change nationally.

Associate Award Brief—Malawi



Selected Health and Demographic Data for Malawi

GDP per capita (USD)	309.73
Total population	15,263,417
Maternal mortality ratio (deaths/100,000 live births)	675
Skilled birth attendant coverage	72
Antenatal care, 4+ visits	45.5
Neonatal mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	66
Under-five mortality (deaths/1,000 live births)	112 [30]*
Treatment for acute respiratory infection	65.7
Oral rehydration therapy for treatment of diarrhea	70.1
Diphtheria-pertussis-tetanus vaccine coverage (3 doses)	93
Modern contraceptive prevalence rate	42.2
Total fertility rate	5.7
Total health expenditure per capita (USD)	19.07

Sources: World Bank; Malawi Demographic and Health Survey 2010; WHO; UNICEF.

*UNICEF <5 mortality ranking (1=highest mortality rate)

Program Activities

1. Strengthen National and District Level VMMC Quality Assurance System using Continuous Quality Improvement Model
2. Access to and availability of VMMC services increased
 - a. Health worker capacity to deliver VMMC increased
 - b. Access to quality VMMC services improved
3. Increase demand for VMMC in focus districts
4. Strengthen the capacity to monitor, evaluate and research VMMC

Program Dates	July 2013 – July 2017					
Total Mission Funding (ceiling)	Redacted					
Geographic Coverage	No. (%) of provinces	5	No. of districts	28	No. of facilities	30
MCHIP In-Country Contacts	Program Management Officer, David Amoruso: david.amoruso@jhpigo.org, +265 881 597 008.					
HQ Managers and Technical Advisors	Sr. Program Officer, Aleisha Rozario: aleisha.rozario@jhpigo.org, 410-537-1809; Sr. Program Coordinator, Jennifer Berg: jennifer.berg@jhpigo.org, 410-537-6553; VMMC: Associate Medical Director: Tigistu Adamu: tigi.adamu@jhpigo.org, 202-835-3100;					
Partners	<ul style="list-style-type: none"> Partners: Jhpigo is the prime and there are no subs on the award. Jhpigo will work closely with the Ministry of Health (MOH), Christian Health Association of Malawi (CHAM), village leadership and communities, the National AIDS Commission (NAC), HIV Unit and District Health Management Teams (DHMTs), along with other donors. 					

Acronyms and Abbreviations

AE	Adverse Event
ART	Antiretroviral Therapy
CBO	Community-Based Organization
CHAM	Christian Health Association of Malawi
DHMT	District Health Management Team
EIMC	Early Infant Male Circumcision
GOM	Government of Malawi
HBB	Helping Babies Breathe
HTC	HIV Testing and Counseling
IR	Intermediate Result
M&E	Monitoring and Evaluation
MC	Male Circumcision
MOH	Ministry of Health
MOVE	Models for Optimizing Volume and Efficiency
NGO	Nongovernmental Organization
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
QA	Quality Assurance
STI	Sexually Transmitted Infection
TOT	Training of Trainers
USAID	United States Agency for International Development
USG	United States Government
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

Overview

The agreement period for Sankhani VMMC project is 4 years (31 July 2013 to 30 July 2017), during which it will work with the Malawi MOH to establish and strengthen VMMC services in MOH and CHAM - supported facilities. In the first year, three districts (Thyolo, Chikwawa and Zomba), were targeted. In year 2, Sankhani will focus on 1 district for high impact VMMC service delivery.

The total estimated USAID amount of this cooperative agreement is **Redacted** with the recipient (Jhpiego) agreeing to expend **Redacted** of the total as a cost sharing measure.

The goal of the SANKHANI program is to scale up VMMC services targeting males 15- 49 in five districts by providing 150,000 circumcisions by 2017. The expected program results to reach this goal are:

1. Access to and availability of VMMC services increased
 - Health worker capacity to deliver VMMC increased
 - Access to quality VMMC services improved
2. Increase demand for VMMC in focus districts
3. Strengthen the capacity to monitor, evaluate and research VMMC

In program year 1, Sankhani focused on rapidly increasing the availability of services in the three focus districts of Thyolo, Chikwawa and Zomba. In addition, Sankhani supported the capacity building of MOH, CHAM and Jhpiego staff in key areas of VMMC implementation. Sankhani also made progress in the development and harmonization of key VMMC monitoring and evaluation tools, leading the process to eventual national tool harmonization. Finally, Sankhani has developed revolutionary demand creation strategies to sensitize communities on VMMC; used primarily in the Zomba campaign, the strategy is innovative, responsive and grounded within the community.

Sankhani spent quarter one implementing start up activities which included workplan development, office sourcing, staff hiring, procurements, and facilitating district stakeholders meetings. Sankhani used three modalities to expand access to VMMC services: static, outreach and campaigns. Sankhani opened two static sites and supported 2 existing static sites within the three districts; static sites offer continuous services throughout the year. In PY1, static sites completed 1,088 VMMCs. In line with the Ministry of Health campaign plans, Sankhani supported a total of 7 campaigns in program year 1. The first three were concurrent 2-week mini-campaigns in all focus districts in December and three mini-campaigns again in March conducting 11,081 VMMCs in all mini-campaigns combined. And in July/August/September Sankhani supported a major campaign in Zomba for 6 weeks conducted 5,468 VMMCs as of August 27, 2014. Throughout the year, Sankhani's rapid response team offered outreach services in areas where there was demand for services. While outreach services were hindered by delays in vehicle procurement, in PY2 Sankhani expects to build on this service and offer continual outreaches in the focal districts to ensure availability of services for the hard-to-reach. To date, Sankhani has conducted 17,637 VMMCs in program year 1, completing 73% of the 24,000 VMMC target. It is estimated that by the end of PY1 Sankhani will have reached 90% of the target.

Sankhani's key areas of focus in PY2 are to develop capacity in the districts and therefor sustainability in VMMC implementation in Malawi. Increasing access to services in order to

saturate the districts will be needed to reach the target of 16,000 VMMCs in PY2. Sankhani will utilize a 'hub and spoke' model in the primary district that allows for consistent service delivery year round through static site service delivery, with 'spoke' services through mobile and outreach services. The 'hub' static site will house a district level rapid response team inclusive of community mobilizers, rapid response vehicles and VMMC commodities. The rapid response teams will then be deployed to sites after the demand creation teams have generated interest in a geographic area. Sankhani envisions three static sites in the district that will host multiple outreaches and mobile services per month. Static sites are sustainable and will be able to be maintained past the Sankhani project with MOH or CHAM providers. This model will allow for more continuous services year round, and Sankhani will transition away from the campaign approaches through the life of the project. While ramped up services are expected during campaign times, consistent VMMC services will also be offered throughout the year.

In PY 2 the major expected outcomes are:

- Provide 16,000 VMMCs through outreach, campaign and static service delivery;
- Train 100 providers in VMMC surgical techniques, Infection Prevention Control, Refresher Trainings, and VMMC Site Management;
- Open 3 static sites in the focus district;
- Increase demand for VMMC in Sankhani focus districts through innovative and community driven activities;
- Strengthen district level capacity to monitor and evaluate VMMC through technical assistance, and support of district reporting structures;

Background

With an estimated adult HIV prevalence rate of 11.8%, approximately 920,000 Malawians are living with HIV/AIDS and an estimated 70,000 new infections occur annually. Malawi has made tremendous progress in its response to the HIV/AIDS epidemic; however, progress has slowed. The 2010 Demographic and Health Survey (DHS) findings show that there has been no statistically significant change in HIV prevalence in the past four years.

Three randomized controlled trials in sub-Saharan Africa have demonstrated that voluntary medical male circumcision (VMMC) reduces female-to-male HIV transmission by approximately 60%. Although the direct effect of VMMC on male-to-female transmission of HIV is not clear, reduced HIV incidence among men will lead to reduced HIV transmission among women, ultimately protecting the entire community. VMMC is not only cost-effective, but it is also cost-saving when compared with the costs of lifelong care and treatment, including antiretroviral treatment (ART) and opportunistic infection drugs, monitoring tests, and adherence counseling for people living with HIV/AIDS. In 2007, the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) issued guidance that strongly encouraged countries with high HIV prevalence, low male circumcision (MC) rates, and predominantly heterosexual epidemics, such as Malawi, to rapidly scale up safe VMMC services as part of a comprehensive HIV-prevention strategy. A 2009 statistical model based on Malawi's HIV epidemic suggested that by scaling up VMMC to 80% coverage of eligible men by 2015, the country would avert more than 265,000 adult HIV infections and would net cumulative savings of more than US\$1.2 billion over the time period of 2009 to 2025.

In this context, in 2009, the government of Malawi (GOM) made its first strides toward the adoption of VMMC as a nationally endorsed HIV-prevention intervention by including it in the

National Action Framework and the National Prevention Strategy Operational Plan. Beginning in 2010, the MOH and its partners, including MCHIP, supported the development of the National VMMC Standard Operating Procedures for service provision, which was followed by the launch of the National Policy on VMMC in September 2012.

In early 2011, four years after the VMMC guidance was issued, the GOM, through the Office of President and Cabinet, made the landmark declaration that Malawi would adopt VMMC as one of its HIV-prevention strategies. In 2011, United States Government (USG) funding other than that for the President's Emergency Plan for AIDS Relief (PEPFAR) was utilized by MCHIP, in collaboration with the GOM, to provide VMMC service delivery training to 42 service providers in nine districts. MCHIP also spearheaded a successful four-week VMMC campaign in Mulanje district, resulting in 4,348 men being circumcised, with 98% uptake of HIV testing and counseling (HTC). This campaign was conducted with the support and close coordination of PEPFAR partners, the MOH, Population Services International, the BRIDGE II project, the Malawi Defense Force, and Banja La Mtsogolo.

In February 2012, the MOH convened a meeting of the country's VMMC stakeholders, with multiple U.S. Agency for International Development (USAID) partners in attendance. The forum provided an opportunity to initiate the national planning process and for partners of USAID to share their achievements and plans. During the meeting, it was clear that partners must quickly move forward with VMMC acceleration plans to take advantage of the current fertile environment. At another stakeholder meeting in February 2013, the MOH urged all partners and donors to treat VMMC scale-up as an emergency response to the epidemic and to consider innovations to maximize efficiency. Given Jhpiego's global leadership and expertise in VMMC, MCHIP is uniquely positioned to bring high-quality VMMC services to scale rapidly in five districts, in collaboration with USAID and the MOH.

Approach and Activities

APPROACH

The USG strategy for scaling up VMMC service delivery follows a three-pronged approach: service delivery, commodities, and communications. The prongs include work at the national level to build the necessary systems and capacity to plan, support, and monitor an effective and efficient national VMMC program while at the same time supporting achievement of VMMC targets with focused interventions at the service delivery level.

Our approach strengthens access to quality VMMC services and empowers providers and community agents to employ VMMC as a critical strategy in the prevention of HIV. The SANKHANI Moyonela program, or "Smart Choice," will also use a multi-pronged approach that targets VMMC program strengthening, quality service delivery, and demand generation at the district and community levels to ensure rapid scale-up in five focus districts.

Efficient and effective programming requires close collaboration with other USAID programs, with the World Bank's commodity support partners, and with the Centers for Disease Control and Prevention (CDC) I-TECH interventions in Lilongwe. SANKHANI will work closely with the Mission to forecast needed supplies of commodities using USAID's Supply Chain Management System—a central mechanism that provides VMMC kits, local anesthesia, HIV test kits, and drugs for sexually transmitted infections (STIs)—to ensure that sufficient commodities are available to conduct 150,000 VMMCs under the SANKHANI program.

SANKHANI will work with the MOH to establish VMMC services in MOH- and CHAM-supported facilities in three districts in Year 1 (Thyolo, Chikwawa, and Nsanje) with a focus on intensified service delivery in 1 district in Year 2.

Lessons learned from the MCHIP 2011 VMMC campaign in Mulanje and the current VMMC program in Thyolo, as well as Jhpiego's successful VMMC programs in Tanzania, Mozambique, Zambia, and Kenya, will be critical in ensuring that maximum efficiency strategies are adopted to support rapid scale-up. This includes utilizing both surgical and nonsurgical efficiencies such as ensuring availability of skilled VMMC human resources, especially VMMC and HTC counselors, and conducting targeted community mobilization throughout the project life. To ensure continuity of VMMC demand generation activities, SANKHANI will closely liaise with the Health Education Unit of the MOH and USAID's BRIDGE II program, both currently engaged in behavior change communication interventions including rollout of a national VMMC communication strategy, while supporting district-level community mobilization efforts.

The MOH has ambitious national and district VMMC targets for the next three years (see table below for MOH targets in three focus districts starting from Year 1). In order to achieve approximately 50% coverage of youth and men ages 15 to 49 in selected districts, for a total of 150,000 circumcisions, SANKHANI will need to promote efficiencies that rely on the availability of skilled service providers, innovative methods of generating demand, and establishment of effective measurement systems to monitor progress.

To accomplish its goal of reaching 50% of the targeted population, SANKHANI will focus on task shifting (shifting of some surgical roles, HTC, and group education from clinical officers to trained professional nurses and nurse assistants, counselors, and lay counselors when possible); task sharing (assigning less complex tasks to lower credentialed but highly trained health care cadres); allocation of more than one surgical bed per surgeon; time-saving surgical techniques (e.g., forceps-guided method of circumcision); pre-bundled VMMC "kits" of instruments (reusable or disposable) with commodities; and electrocautery to quickly achieve hemostasis.¹

ACTIVITIES

Year 1 activities by results area:

- National VMMC quality assurance (QA) system strengthened:
 - Conduct quality assurance assessments in all VMMC sites of the focus districts
- Health worker capacity to deliver VMMC services in focus districts increased:
 - Develop a comprehensive VMMC training plan
 - Conduct VMMC surgical skills training
 - Conduct VMMC orientation for HTC counselors
 - Conduct training of Rapid Response-MOVE members
 - Orient facility staff to VMMC
- Access to quality VMMC services improved:

¹ This approach is based on WHO guidelines, *Male Circumcision: Models for Optimizing Volume and Efficiency (MOVE)*. Service delivery points that utilize the MOVE process report a 100–150% increase in the number of procedures conducted in one day.

- Provide routine VMMC services (fixed site, outreach, mobile) in the three focus districts
- Conduct outreach services
- Conduct VMMC mobile services
- Conduct VMMC campaigns at district level
- Strengthen the routine VMMC QA activities in the focus districts
- Reinforce VMMC demand creation at community level
- Monitoring and evaluation (M&E): Strengthen the capacity to monitor, evaluate, and research VMMC:
 - Support the MOH in integrating VMMC M&E into the national M&E framework
 - Strengthen capacity to monitor and evaluate VMMC in the focus districts (integrating VMMC into the district MOH M&E systems)
 - Conduct quarterly data quality assessments in the focus districts
 - Conduct VMMC quarterly review meetings at district level

Results

SANKHANI will implement a comprehensive M&E system that includes the following: operational review to inform the implementation of an effective VMMC strategy; monitoring of health care provider training using a training information monitoring system (TrainSMART) and VMMC client forms and registers to ensure complete and accurate recordkeeping on characteristics and number of clients circumcised; accurate recording and timely reporting of adverse events (AEs) using reporting forms; monitoring of linkages to other services by recording referrals from HTC sites and referrals to STI treatment and HIV care and treatment services for HIV-positive men; and midterm program evaluations to assess progress and quality of services.

Next Steps

Malawi's national Voluntary Medical Male Circumcision (VMMC) program is still in its formative phase and additional effort is needed to bring it to a point where a comprehensive national plan supported by service delivery standards effectively guide delivery of VMMC services. SANKHANI will work closely with the VMMC technical working group, which is chaired by the MOH and includes various partners—National AIDS Commission (NAC), World Bank, UNICEF, USG, PSI, Banja La Mtsogolo CHAM, and Jhpiego—to facilitate adoption of national systems, particularly a VMMC Operational Plan and QA system, that will support and improve VMMC programming.

Output and Outcome Indicators and Targets

OUTPUT AND OUTCOME INDICATORS	DATA SOURCE	ANNUAL TARGET				TOTAL
		Year 1	Year 2	Year 3	Year 4	
Training						
Number of health workers who successfully completed an in-service training program by specific types*	TrainSMART, program reports	92	100	60	60	328

OUTPUT AND OUTCOME INDICATORS	DATA SOURCE	ANNUAL TARGET				TOTAL
		Year 1	Year 2	Year 3	Year 4	
Coverage						
Number of males circumcised as part of the minimum package of MC for HIV prevention services (PEPFAR), by age*: <1, 1–14, 15–24, 25–34, 35–49, 50+	VMMC Register; VMMC Facility Monthly Report Form; and VMMC electronic database	24,000	16,000	42,000	42,000	150,000
Number of individuals who received HIV counseling services as part of MC services	VMMC Register; VMMC Facility Monthly Report Form; and VMMC electronic database	24,000	16,000	42,000	42,000	150,000
Number of individuals who received HTC services as part of MC services and received their test results (by HIV status)	VMMC Register; VMMC Facility Monthly Report Form; and VMMC electronic database	21,600	14,400	37,800	37,800	135,000
Quality of Care						
Number and percentage of clients circumcised who experienced one or more moderate or severe AEs within the reporting period,* disaggregated by severity	VMMC Register; VMMC Facility Monthly Report Form; and VMMC electronic database	<480 (<2%)	<320 (<2%)	<840 (<2%)	<840 (<2%)	<2,480(<2%)
Number of boys and men circumcised within the reporting period who return at least once for postoperative follow-up care (routine or emergent) within 14 days of surgery	VMMC Register; VMMC Facility Monthly Report Form; and VMMC electronic database	19,200	12,800	33,600	33,600	99,200
Percentage of sites achieving at least 80% of VMMC QA standards	QA assessment reports	—	40	60	80	80% for Phase 1 districts; 60% for Phase 2 districts
Service Delivery						
Number of sites providing MC services, disaggregated by site (fixed or outreach)*	Program reports; VMMC Facility List database	27	27	45	45	Minimum of 45 sites (1 fixed site per district and 8 outreach sites per district)
Number of program sites with an established referral system to and from other services by service (HTC, STI treatment, HIV treatment and care)	Health facility records	27	27	45	45	Minimum of 45 sites (1 fixed site per district and 8 outreach sites per district)
Percentage of HIV-positive men circumcised who are linked to HIV care and treatment services	VMMC Register; VMMC Facility Monthly Report Form	100	100	100	100	100

* Denotes PEPFAR indicator, next generation guidance.

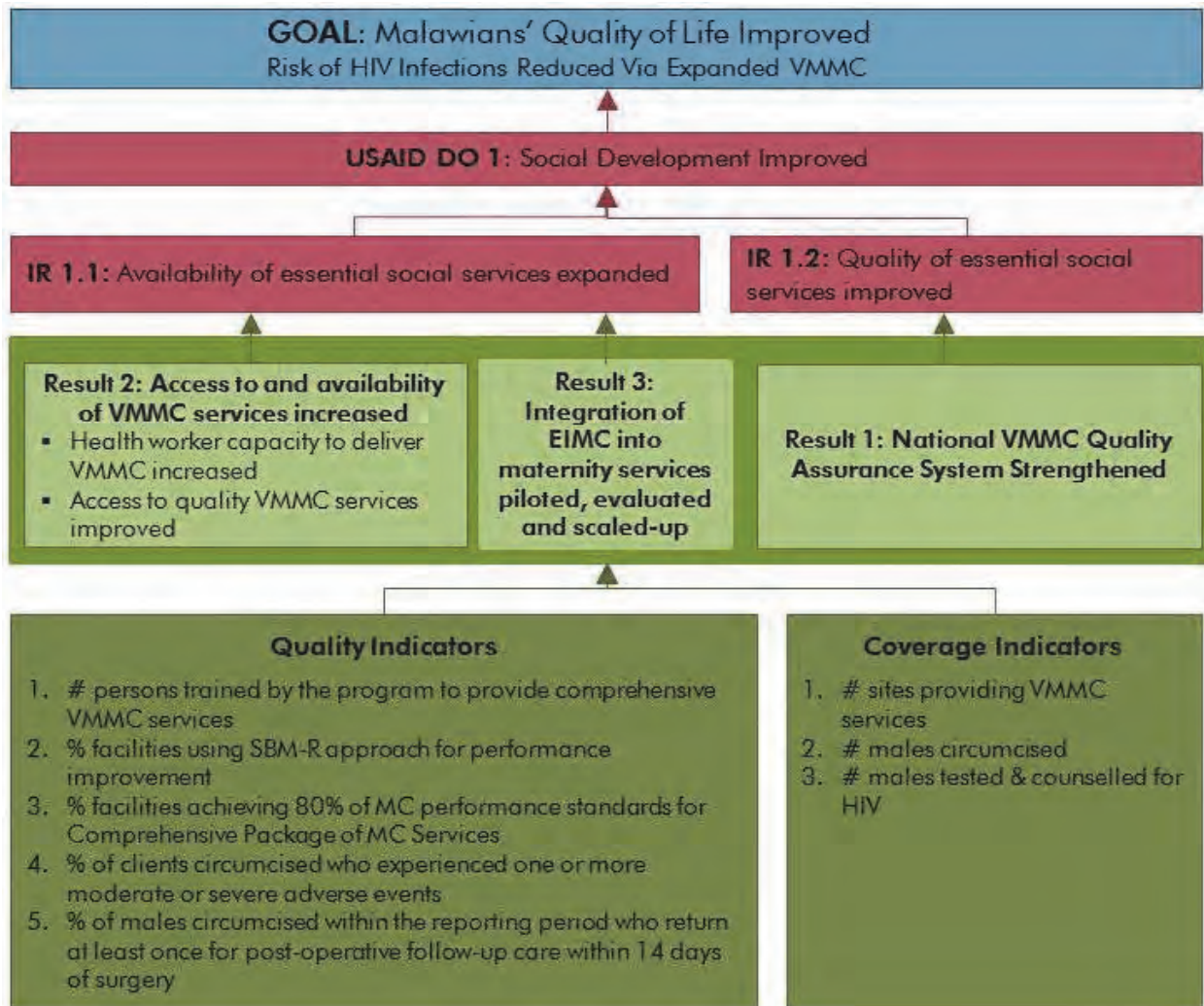
Progress toward Key Indicators

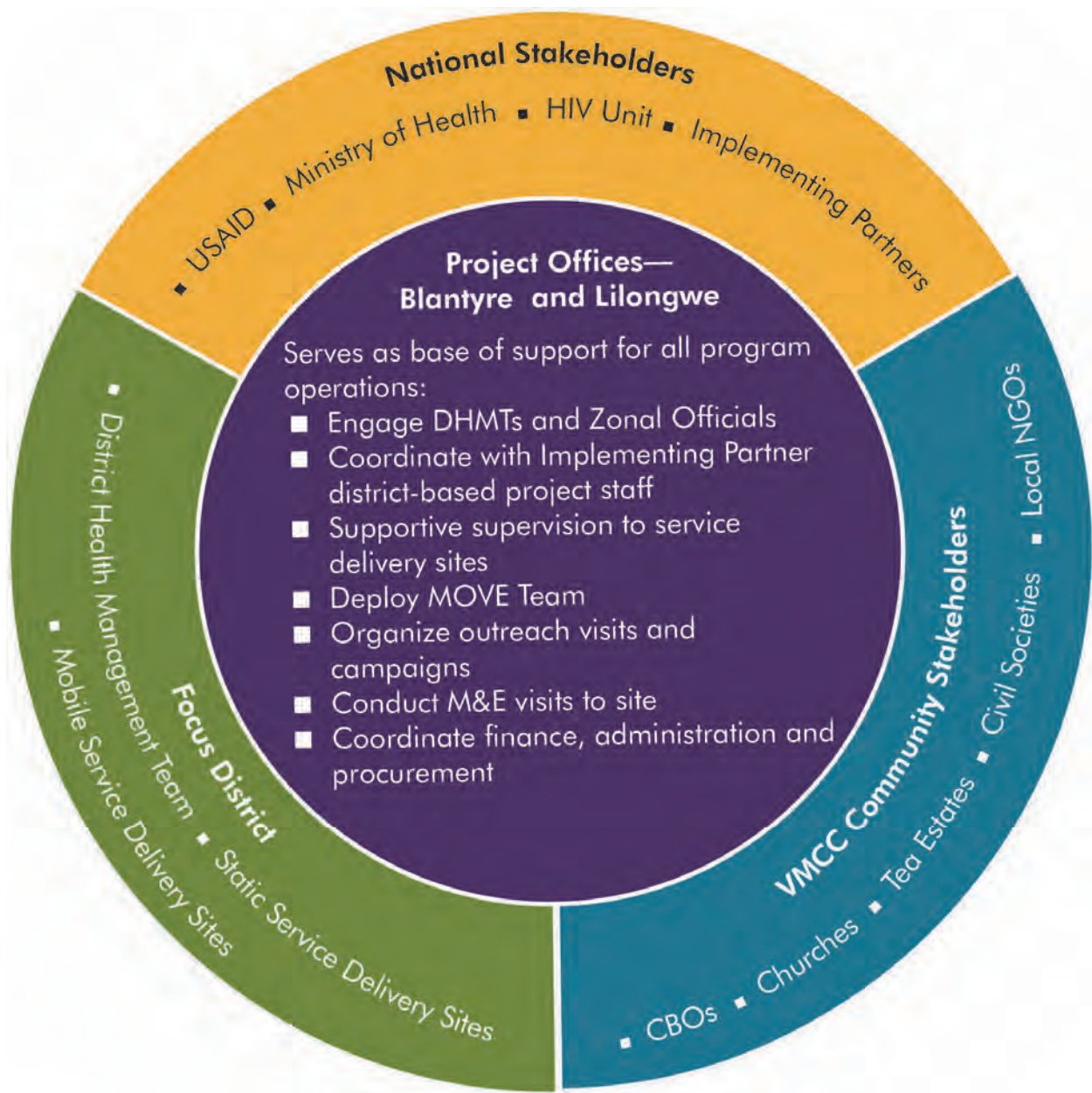
INDICATOR	FY 2014 TARGET	FY 2014 ACHIEVEMENT TO DATE	NOTES
1a. Number of health workers who successfully completed an in-service training program by specific type of VMMC skills training	92	0	All trainings involving national staff have been postponed to Year 2 because of the lack of participation by MOH staff due to the daily subsistence allowance (DSA) guidelines and financial challenges that SANKHANI is experiencing.
1b. VMMC skills TOT (clinical skills training)	12	0	
1c. Site management skills training	15	0	
1d. HTC counselors training in VMMC package	60	0	
2. Number of boys and men circumcised as part of a minimum package of MC for HIV prevention services	24,000	19,272 (80.3%) Age group 1-9 = 318 10-14 = 7,136 15-19 = 6,986 20-24 = 2,526 25-49 = 2,198 50+ = 108 HIV status: HIV-positive = 166 (75 already known HIV-positive) HIV-negative = 19,047 Indeterminate = 59 Follow-up visit = 11,298 No follow-up visit = 7,974	318 circumcisions of boys below the age of 10 were done during the December 2013 campaign. The program circumcises only males 10 years old and above since January 2014 as recommended in PEPFAR VMMC programs and emphasized during PEPFAR M&E training.
3. Number of individuals who received HIV counseling services as part of MC services	24,000	19,272	All clients, including known HIV-positive, are counseled on HIV appropriately.

INDICATOR	FY 2014 TARGET	FY 2014 ACHIEVEMENT TO DATE	NOTES
4. Number of individuals who received HTC services for HIV as part of MC services and received their test results (by HIV status)	21,600 (90%)	19,138 (99.3 %) HIV-positive = 91 HIV-negative = 19,047 Known HIV-positive = 75 (44 on ART) Not tested/refused = 59	More than 99% of clients had HIV test and the remaining 1% includes those with known HIV-positive status and those who opted out of testing. 91 clients were found to be HIV-positive. HTC counselors linked these individuals to HIV care and treatment services and enrolled them into the care and treatment services. 75 clients had a known HIV-positive status at the time of circumcision and 44 of them were already on ART treatment, whereas 59 clients were not tested or had refused testing.
5. Number and percentage of clients circumcised who experience one or more moderate or severe AEs within the reporting period disaggregated by severity	<480 (<2%)	Intra-op: moderate = 15 (0.08 %) Severe = 4 (0.02 %) Post-op: moderate = 140 (1.2 %) Severe = 8 (0.07 %)	AEs during procedure were less than 1% while AEs at postop review were high, at 2.8%, beyond the 2% mark of the project. Most postop AEs are due to lack of good care of the wound at home, and there is need therefore for increased counseling about wound care at home.
6. Number of boys and men circumcised within the reporting period who return at least once for postoperative follow-up care (routine or emergent) within 14 days of surgery	19,200 (80%)	11,298 (58.6 %)	The rate of postop follow-up care is below the target of 80%. The providers have therefore intensified postop counseling, with emphasis on the importance of postop follow-up care to clients.
7. Number and percentage of health facilities/sites achieving recommended minimum (80%) VMMC QA standards	—	—	QA assessments were not done to determine sites' achievements on VMMC QA standards. The project does not expect to have sites that will reach the minimum standard in this fiscal year.
8. Number of facilities/sites providing MC services, disaggregated by type of site	27	30 (4 static sites; 26 outreach sites)	The outreach sites were mainly utilized during campaign periods, although a few were utilized during routine service provision.
9. Number of program sites with an established referral system to and from other services by service (HTC, STI treatment, HIV treatment and care)	27	30 (4 static sites; 26 outreach sites)	All sites are set with referral system in place to offer VMMC as a package of care for HIV prevention.

INDICATOR	FY 2014 TARGET	FY 2014 ACHIEVEMENT TO DATE	NOTES
10. Percentage of circumcised HIV-positive men who are linked to HIV care and treatment services	100%	100%	All newly identified HIV-positive men are linked to HIV care and treatment services for further counseling, continuous support, and treatment by referring clients to HIV care and treatment units.
11. Number of targeted facilities implementing VMMC QA standards including infection prevention	27	30 (4 static sites; 26 outreach sites)	All sites established are made to implement VMMC QA standards in an effort to maintain quality services.
12. Number of facilities with a facility-specific written waste management plans	27	30 (4 static sites; 26 outreach sites)	The site-specific waste management plan will be written after identifying issues that might affect an ideal waste management plan in order to address the issues in the site waste management plans. However, each site offering VMMC services is assessed and a suitable waste management plan specific to the site's needs is recommended and put in place.
13. Number of facilities practicing appropriate waste segregation	27	30 (4 static sites; 26 outreach sites)	The established sites are well-supported to practice appropriate waste segregation.
14. Number of facilities with functional waste disposal site (incinerator and/or waste pit)	3	30 (4 static sites; 26 outreach sites)	2 static sites in Thyolo (Thyolo District Hospital and Malamulo Hospital), 1 static site in Chikhwawa (Chikhwawa District Hospital), and 1 static site in Zomba (Police College Clinic) have incinerators, while every outreach site providing VMMC services has at least a waste pit.
15. Number of demand creation activities conducted	>12	≥50	The demand creation activities included talking to district teams and traditional leaders, conducting public talks in communities using a PA system, holding sports bonanzas mixed with VMMC messages, and use of Health Surveillance Assistants and a door-to-door approach.

Note: Dash indicates information is not available.





Associate Award Brief—Mozambique



Selected Health and Demographic Data for Mozambique	
GDP per capita (USD)	565
Total population	22.9 million
Maternal mortality rate (deaths /100,000 live births)	408
Skilled birth attendant coverage	54.3
Antenatal care, 4+ visits	53.1
Neonatal mortality rate (deaths/1,000 live births)	30
Infant mortality rate (deaths/1,000 live births)	64
Under-five mortality (deaths/1,000 live births)	97
Treatment for acute respiratory infection	50.2
Oral rehydration therapy for treatment of diarrhea	61.5
Diphtheria-pertussis-tetanus vaccine coverage (3 doses)	76.2
Modern contraceptive prevalence rate	12.1
Total fertility rate	5.9
Total health expenditure per capita (USD)	37
Sources: World Bank, Instituto Nacional de Estatística Web site, 2010 projection, Mozambique 2011 Demographic and Health Survey, Mozambique Multiple Indicators Cluster Survey 2008, Population Reference Bureau 2011 World Population Data Sheet, WHO, UNICEF	



Major Activities

- **Model Maternities Initiative (MMI)/integrated maternal, newborn, and child health (MNCH) package:**
 - Antenatal care, **malaria in pregnancy, prevention of mother-to-child transmission of HIV**
 - Essential obstetric and newborn care and **basic emergency obstetric and newborn care skills**
 - Helping Babies Breathe and Kangaroo Mother Care
 - Postnatal care/**postpartum family planning**
 - Humanization of care
- **Integrated family planning**
- **Cervical and breast cancer prevention**
- **Quality improvement**
- Community mobilization in support of MMI and the Cervical Cancer Prevention Program (CECAP)
- Integration of services
- Health Management Information System

Program Dates	April 12, 2011–March 13, 2015					
Mission Funding to Date	Redacted					
Geographic Coverage	No. (%) of provinces	11 (100%) National	No. of districts	66	No. of facilities	128
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MCHIP Partners	Jhpigo (prime): MNH, FP, CECAP Save the Children: Newborn Health, Community Mobilization					

Acronyms and Abbreviations

AA	Associate Award
CECAP	Cervical Cancer Prevention Program
FY	Fiscal Year
FP	Family Planning
FP/RH	Family Planning and Reproductive Health
ISCISA	Higher Health Science Institute
M&E	Monitoring and Evaluation
MMI	Model Maternities Initiative
MNCH	Maternal, Newborn, and Child Health
MOH	Ministry of Health
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PPH	Postpartum Hemorrhage
QHC	Quality and Humanization of Care
RH	Reproductive Health
SBM-R®	Standards-Based Management and Recognition
TOT	Training of Trainers

Background

With one in 37 women at a lifetime risk of maternal death, and with 42 newborn deaths per 1,000 live births, Mozambique faces serious challenges in meeting Millennium Development Goals 4 and 5 (Save the Children 2011). Drivers of the persistence of maternal and neonatal mortality in Mozambique include poor availability of essential services and low quality of care. A 2011 quality of care survey conducted by MCHIP and the Mozambican Ministry of Health (MOH) revealed that addressing health worker shortages; increasing competencies through on-the-job training and low-dose, high-frequency supportive supervision; and ensuring simple material and infrastructural improvements were necessary to improve the quality of care.

The goal of the MCHIP Associate Award (AA), which began in Mozambique in April 2011 and will continue through March 2015, is to reduce maternal, newborn, and child mortality through the scale-up of high-impact interventions and increased use of maternal, newborn and child health (MNCH), family planning and reproductive health (FP/RH), and HIV services. Building on the first phase of MCHIP support in Mozambique (2009–2010), the Associate Award supports scale-up of MNCH interventions by consolidating services in existing Model Maternities and expanding the Model Maternities Initiative (MMI) to new sites.

The MCHIP Associate Award focuses on building a supportive national policy environment while assisting the MOH to scale up MMI, which includes malaria in pregnancy and the prevention of mother-to-child transmission of HIV (PMTCT), and the Cervical and Breast Cancer Prevention/Control Program (CECAP). MCHIP also supports the provision of family planning (FP) services through the MMI and CECAP initiatives.

Activities

MCHIP AA support will focus on several key areas: expanding MMI and CECAP, increasing training, and supporting health systems strengthening.

In accordance with national expansion plans for the MMI and CECAP programs, MCHIP will support the MOH to expand the MMI to a total of 124 health facilities, covering more than half of institutional births nationwide, and to expand the CECAP program to a total of 106 health facilities by the end of the project. MCHIP will support all of these facilities through training in technical areas and quality improvement methods, as well as through assisting the Provincial Health Directorates in their supportive supervision. Of these health facilities, 34 MMI sites and 33 CECAP sites were chosen in consultation with the MOH National Directorate of Public Health for intensive support (i.e., supervision linked to Standards-Based Management and Recognition [SBM-R®] standards, data collection, infrastructure improvement, and community activities) over the life of the project. MCHIP's goal is to help the MOH certify 22 of these as Model Maternities by the end of the project. Model Maternity sites are those that reach a sustained pattern of 80% achievement of all quality standards; those reaching this goal will be recognized for this achievement through an MOH-defined process for accreditation.

As part of MMI, MCHIP is focusing on increasing uptake of postpartum FP in MMI facilities and strengthening the integration of CECAP into reproductive health (RH) services. MCHIP gives special attention to the introduction of long-acting reversible contraceptives, namely postpartum IUDs and implants. The Lactational Amenorrhea Method is also strengthened in the MMI health facilities, as is the range of MOH-approved FP methods at integrated RH sites.

MCHIP is also supporting the MOH in its rollout of Integrated Training and Service Packages—modular, integrated training materials for MNCH and FP/RH that address the continuum of care throughout the life cycle, as well as the different levels of health care and provider cadres.

Finally, MCHIP provides technical assistance in strengthening the health system more generally at the national, provincial, facility, and community levels. MCHIP supports policy and strategy development; health information system strengthening, including updating and rolling out national registers; human resource development through training, especially with the new Integrated Training and Services Packages; and strengthening of the quality improvement process based on the SBM-R approach. MCHIP also contributes to the harmonization and coordination of efforts through strengthening partnerships and technical leadership of the US Government and other implementing partners for MNCH and FP/RH.

Results

Improved enabling environment

- **High-Level Planning:** MCHIP provided technical assistance to the MOH, in collaboration with Mozambican Association of Obstetricians and Gynecologists (AMOG) and the Maternal and Neonatal Health working group, to develop a national strategy for the prevention and management of postpartum hemorrhage (PPH), as well as a rollout plan, which will serve as the basis for implementation of misoprostol initiatives. The strategy includes a costed operational plan and was submitted to the MOH for approval at the end of fiscal year (FY) 2013.
- **Strengthening Information Systems:** MMI and CECAP indicators are now included in the National Health Information System, which has been used since January 2012. In addition, the following new indicators are also included:

- Number of women who received IUD insertion in the immediate postpartum period (new indicator in register books and monthly summary forms)
- Number of Depo-Provera doses dispensed to clients (now included in monthly summary form)
- Number of women who had a postpartum visit within first 48 hours after delivery
- Prenatal and postpartum care monthly summaries are now done by cohort to avoid double-counting of women in PMTCT and other interventions
- Number of women who received misoprostol in prenatal care (for prevention of PPH in births that take place in the community)
- Number of newborns successfully resuscitated
- **Learning:** MCHIP completed the study “Health Facility Survey for Quality and Humanization of Care (QHC) in Mozambique’s Model Maternity Facilities.” Findings were used by the MOH and MCHIP to highlight successes (e.g., almost universal use of oxytocin) and prioritize urgent needs for improvement (e.g., use of the partograph, readiness for emergencies such as neonatal resuscitation). This study included a component to validate self-reports on care received by women giving birth in public health facilities in Mozambique. In FY12, MCHIP implemented this component of the study. In May 2013, the results of this study were published in a peer-reviewed paper in PLOS ONE entitled “Measuring Coverage in MNCH: Testing the Validity of Women's Self-Report of Key Maternal and Newborn Health Interventions during the Peripartum Period in Mozambique.”
- **Creating Champions:** MCHIP provided technical and financial support to the MOH and the First Lady of the Republic of Mozambique’s Cabinet to host the 7th Stop Cervical Cancer in Africa International Conference in July 2013. Nearly 2,000 participants attended the conference, including the President of the Republic of Mozambique, the First Lady of Mozambique, the Minister of Health of Mozambique, 10 African First Ladies, representatives of other First Ladies and Ministers of Health, parliamentarians, donor and UN representatives, health workers, and civil society representatives. During the conference, the President, the First Lady and the Minister of Health of Mozambique reaffirmed their commitment to support cervical cancer prevention in Mozambique and in Africa in general. The First Lady of Mozambique was named as the New Chairperson of the Forum of African First Ladies Against Breast and Cervical Cancer and Co-Convener of the World Forum of First Ladies and Women Leaders.

Scale-up of the Model Maternities Initiative and Integrated Cervical Cancer Prevention and FP/RH services

- Between April 2011 and September 2013, the MMI expanded from 34 to 102 health facilities, with MCHIP providing direct support in the form of training (771 health care workers trained in MNCH and 358 national trainers), supportive supervision and technical assistance, and materials and supplies to facilities. Since the beginning of the project, 376,035 deliveries have been assisted by a skilled birth attendant at USAID/MCHIP-supported Model Maternities.
- As part of its participation in the scale-up of MMI, MCHIP supported various trainings and supervisions, including the following:
 - District-level malaria case management courses in FY12 and FY13, resulting in training a total of 1,306 health care workers.
 - Regional meetings to introduce the Mozambique National Plan for Elimination of PMTCT (2012–2015), discuss the rollout of Option B+, and provide technical assistance

to revise the provincial plans, targets, and indicators in order to align them with the national plan. As a result of these meetings, all provinces have a road map to work toward the nation's goals of eliminating vertical transmission and saving the lives of mothers and children.

- Supportive supervision to 95 MMI facilities in FY13.
- Training of Trainers (TOT) in Helping Babies Breathe. Forty trainers were trained from all 11 provinces, including maternal and newborn health nurses and pediatricians from the provincial health services, provincial training institutions, the Higher Health Science Institute (ISCISA), and the Health Sciences Institute.
- Two hundred sixteen Health Committees have been created or revitalized and, through implementation of the Community Action Cycle, have developed action plans that include steps to improve MNCH indicators in their communities, such as addressing emergency transport, the creation of support groups for pregnant women and new mothers; and home-based visits for the identification of pregnant women, newborns, and postpartum women demonstrating danger signs/signs of complications, and promoting birth-preparedness planning.
- The number of health facilities offering integrated RH services, which includes CECAP Program activities, has increased from 17 in 2011 to 95 in September 2013; 72,818 women have been screened for cervical cancer lesions since the beginning of the project. MCHIP's support has included training (483 health care workers trained in integrated CECAP and RH/FP) and supportive supervision to Provincial Health Directorates and health facilities.

Integrated In-Service Training

- Finalization of the Integrated In-Service Training Packages in MNCH/FP/RH, and the first National TOT in the methodology for utilization, testing, and validation of the Integrated In-Service Training Packages was conducted with 49 health professionals from all provinces. These activities included representatives from the provincial health directorates, training institutes, health facilities, MOH central level, USAID, WHO, and MCHIP; and 31 members of partner organizations.
- MCHIP continued its support of strengthening pre-service education in MNCH/FP/RH; in partnership with higher education institutions, MCHIP provided support to ISCISA, Unilurio, UniZambeze, and Catolica to adopt performance standards to monitor the quality of education.¹

Assist in the development, implementation, and management of FP/RH services for selected health facilities

- MCHIP provided technical support to the MOH to revise and update the National Family Planning Norms and Guidelines, the final draft of which was sent to the Minister of Health for approval. MCHIP has also supported the drafting and finalization of the National Supervision Guidelines for Family Planning Services, which includes sections related to contraceptive logistics management at facility, district, and provincial levels.
- MCHIP has regularly provided intensive technical support to the national-level Reproductive Health Commodity Security Task Force on the following: 1) quarterly revision

¹ In FY13, MCHIP supported a TOT for 18 ISCISA faculty in the area of MNCH and provided technical assistance to ISCISA to conduct a revision of the Maternal Health and Hospital Administration curricula. The first phase of revision was completed during this quarter, and the second phase of revision was scheduled to be completed by December 2013. MCHIP also provided support to higher education institutions (ISCISA, Unilurio, UniZambeze, Catolica) to adopt performance standards to monitor the quality of education in MNCH.

of provincial contraceptives requests; 2) quarterly provincial needs forecast and distribution plans (adjusting the requests made by provinces); and 3) national and provincial needs forecasting and distribution plans for syphilis tests.

- In July 2013, MCHIP was elected as co-chair of the FP Technical Working Group. Since then, MCHIP has been providing technical guidance to the group on the development of other important documents and guidelines, such as the Terms of Reference for a consultancy to develop a FP Communication and Advocacy Strategy, National Guidelines for Community Distribution of Contraceptives, and the FP Acceleration Plan.
- In FY12, MCHIP supported the MOH to conduct a national-level postpartum IUD TOT course with 13 MOH participants (and three participants from MCHIP), as well as three regional trainings in implants for 69 health professionals. In FY13, MCHIP supported the MOH to conduct three regional postpartum IUD trainings in collaboration with Pathfinder International, resulting in the training of a total of 57 health professionals.

Pilot neonatal circumcision

- In the draft National Male Circumcision Strategy developed in 2012, the MOH stated that neonatal male circumcision is not a priority for the next five years. MCHIP continued to work with the MOH on advocacy and to further explore the design of a pilot.

Leadership in quality improvement

- In November 2012, MCHIP supported the MOH to hold the National Quality and Humanization of Care (QHC) Meeting, presided over by the Minister of Health. Approximately 250 participants attended the meeting, including members of QHC Committees from the health facility, district, provincial, and national levels. The meeting demonstrated active participation by all attendees, including religious leaders, community leaders, traditional medicine practitioners, representatives from the League of Human Rights, health workers, and partners. During the meeting, participants shared and exchanged progress, experiences, innovations, and major challenges in the area of quality and humanization of care.
- MCHIP has supported the MOH to develop/update and finalize performance standards in the areas of MMI (including malaria, PMTCT, TB in pregnancy, and newborn care), CECAP, and FP. Alongside the MOH and Pathfinder, MCHIP supported the testing of the CECAP and FP standards and is currently working to incorporate the findings and recommendations from this testing exercise into the performance standards. In addition, MCHIP supported the development of draft performance standards for integrated management of childhood illness, nutrition, TB, and malaria and submitted them to the MOH for review and revision.

Next Steps

Looking ahead, MCHIP will focus on the following:

- Strengthening the role of quality improvement teams within health facilities and promoting benchmarking visits.
- Strengthening health managers' skills to articulate/coordinate, supervise, monitor, and evaluate health initiatives for health and quality improvement.

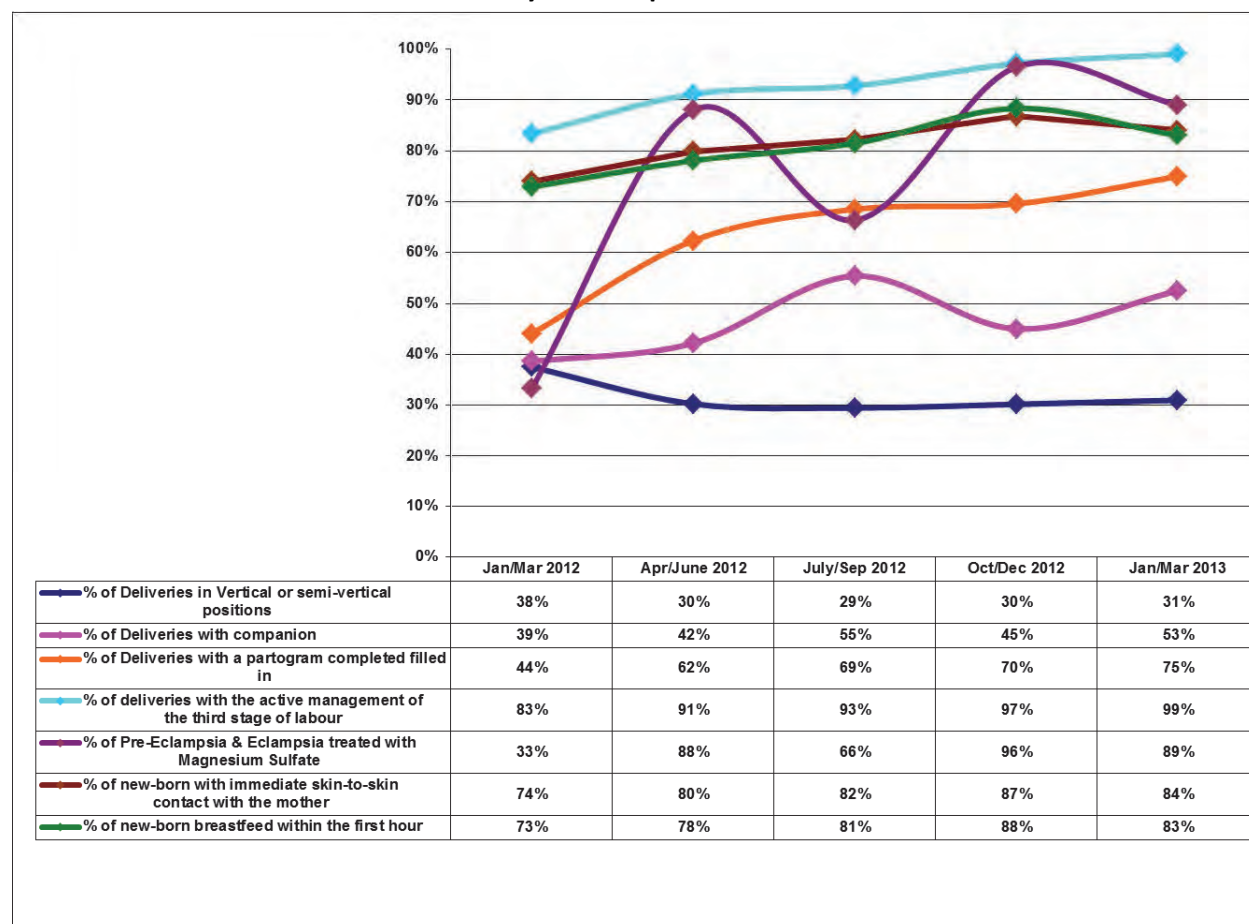
- Promoting harmonization and implementation of recognition and reward mechanisms at all levels.
- Strengthening MOH capacity to document and share lessons learned from interventions.

MCHIP Mozambique: Challenges and the Way Forward

CHALLENGE	WAY FORWARD
Shortage/retention of qualified staff at health facilities Frequent rotation of trained personnel	MCHIP is supporting the MOH to mitigate the negative effects of turnover by ensuring that maternity staff are trained on the job through the Modular In-Service Training Packages. Similarly, MCHIP is also training MNCH nurses on the job to increase the number of trained personnel providing FP/CECAP services. MCHIP is working with the Elizabeth Glaser Pediatric Aids Foundation to pilot a Performance-Based Incentives Program for Model Maternities Facilities.
Weak health information system and monitoring and evaluation (M&E)	MCHIP is helping the MOH to address the weakness of the health information system, providing: <ul style="list-style-type: none"> ▪ Technical support to revise all MNCH registers books and monthly summary forms, as well as on-site technical assistance at the provincial level to improve data collection and reporting ▪ Financial and technical support to supervisors located at Provincial Health Directorates who will also assist facilities in data collection and the quarterly measurement of quality standards
Poor logistics management system (<i>with shortage of several commodities and consumables</i>)	MCHIP, with other partners, is supporting the MOH, providing: <ul style="list-style-type: none"> ▪ Technical assistance on forecasting and distribution of sexual and reproductive health commodities (such as syphilis tests, oxytocin, magnesium sulfate, family planning methods) ▪ A kit of material, equipment, and consumables for Model Maternities ▪ CECAP equipment and consumables
Inconsistent use of data to improve quality	MCHIP, with other partners, is assisting the MOH to: <ul style="list-style-type: none"> ▪ Institute a graded incentive scheme for attainment of standards ▪ Give technical and financial assistance to establish facility-community co-management committees to motivate improvement ▪ Establish district, provincial, and national quality and humanization committees to review data and monitor improvement plans ▪ Improve the central MOH M&E Unit and establish a national quality standards database
Inadequate and poor maintenance of infrastructure (<i>Significant infrastructure improvements are needed at health facilities to bring them to “Model Maternity” status</i>)	MCHIP is supporting the MOH by: <ul style="list-style-type: none"> ▪ Re-engineering space and doing small-scale infrastructure improvements in selected Model Maternities ▪ Undertaking advocacy efforts with USAID for additional funds
Minimal participation of communities in demand for services	MCHIP has added a community component to selected MMI sites, in order to improve community-facility linkages and demand for services.

Figures – Key Results

Trends of MMI Selected Indicators: January 2012–September 2013



PMTCT

PMTCT Selected Indicators, FY13

PMTCT (DATA FROM 95 MATERNITIES)					
Data/Indicator	October– December 2012	January– March 2013	April– June 2013	July– September 2013	October 2012– September 2013
No. of pregnant women with unknown HIV status at maternity entrance	13,539	14,283	17,600	16,175	61,597
No. of pregnant women with known HIV+ status at maternity entrance	6,231	7,139	8,541	7,718	29,629
Total no. of pregnant women tested for HIV at the maternity entrance	16,462	17,379	18,321	18,178	70,340
No. of HIV+ women identified in the maternity	568	556	567	472	2,163
Percentage of women tested HIV + in the maternity	3.0	3.0	3.1	2.6	3.1
No. of pregnant women HIV+ who started antiretroviral (ARV) prophylaxis in antenatal care	5,194	6,262	6,838	6,071	24,365
Percentage of HIV+ pregnant women who received ARV in ANC	83.0%	88.0%	80.1%	78.7%	82.2%
No. of pregnant women who received monophylaxis in the maternity	288	501	433	120	1,342
No. of pregnant women who received biprophylaxis in the maternity	497	229	336	192	1,254
No. of pregnant women who received triphylaxis in the maternity	4,153	5,097	4,889	3,251	17,390
No. of pregnant women in triple antiretroviral therapy	1,958	2,248	3,058	4,469	11,733
Total no. of pregnant women who received ARV at delivery	6,896	8,075	8,716	8,032	31,719
Percentage of pregnant women HIV + who received ARV at delivery	97.0	105	96.0	98.1	99.8

CECAP

CECAP Results Attained from 97 CECAP Health Facilities, FY13

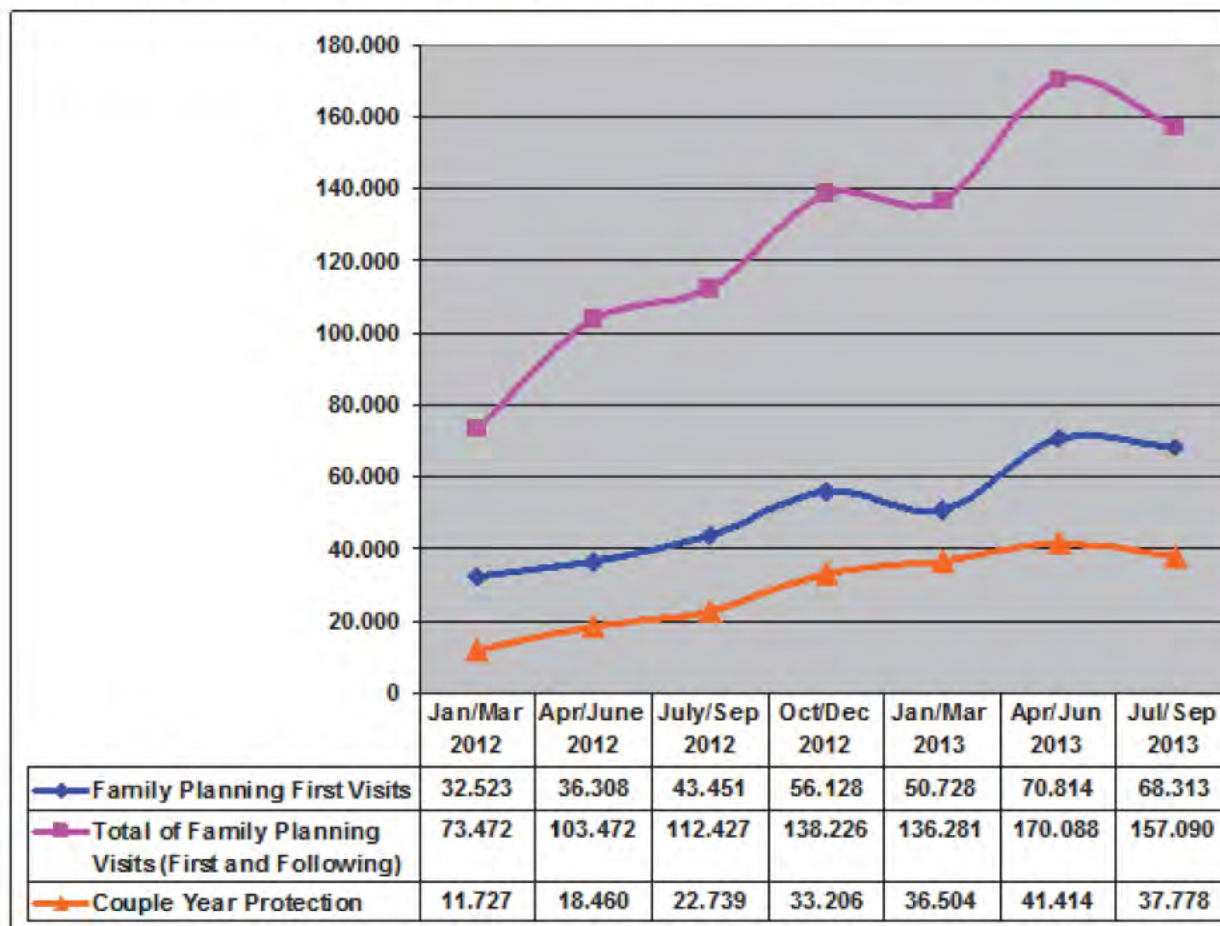
INDICATOR	OCTOBER– DECEMBER 2012	JANUARY– MARCH 2013	APRIL–JUNE 2013	*JULY– SEPTEMBER 2013	TOTALS FOR APRIL 2013 REPORTING PERIOD
General information on integrated CECAP/Family Planning services					
No. of women attending integrated cervical cancer/FP services (first and repeat visits)	125,097	108,282	133,207	106,725	473,311
No. of women attending integrated cervical cancer/FP services (first visits only aged >= 25 years)	23,333	21,319	25,723	22,118	92,493
Total no. of women with unknown HIV status	24,216	26,129	33,873	34,966	119,184
No. of women counseled and tested for HIV	17,368	17,842	22,683	20,881	78,774
No. of women who tested HIV+	869	1,043	1,512	1,257	4,681
Percentage of women who tested HIV+	5.0	5.8	6.7	6.0	5.9
Indicators for screening services using visual inspection with acetic acid (VIA)					
No. of women screened for cervical cancer with VIA	11,095	12,916	13,572	12,807	50,390
No. of women screened who were VIA+	655	654	1,017	1,004	3,330
Percentage of women screened who were VIA+	5.9	5.1	7.5	7.8	6.6
No. of VIA+ women who were HIV+	36	86	104	143	369
Percentage of VIA+ women who were HIV+	5.4	13.1	10.2	14.2	11.1
Indicators for treatment of precancerous lesions with cryotherapy					
Percentage of cryotherapy treatment performed in the same day of the screening	51.0	45.0	61.9	68.2	62.8
Percentage of VIA+ women treated with cryotherapy after the day of the screening	32.0	8.3	8.0	9.7	7.9

INDICATOR	OCTOBER– DECEMBER 2012	JANUARY– MARCH 2013	APRIL–JUNE 2013	*JULY– SEPTEMBER 2013	TOTALS FOR APRIL 2013 REPORTING PERIOD
Percentage of women referred for lesions > 75% or cervical cancer suspicion	17.0	29.0	19.0	20.7	16.5

*Data completeness for Q4 = 77.3% (75 health facilities)

FAMILY PLANNING

Evolution of Selected FP Indicators, January 2012–September 2013



Associate Award Brief—Pakistan



Selected Health and Demographic Data for Pakistan	
Total population (millions)	182
Maternal mortality ratio (deaths/100,000 live births)	260
Skilled birth attendant coverage	45
Infant mortality rate (deaths/1,000 live births)	70
Neonatal mortality rate (deaths/1,000 births)	58
Under-five mortality (deaths/1,000 live births)	87
Modern contraceptive prevalence rate	19
Total fertility rate	3.4

Sources: World Bank, Mali 2006 Demographic and Health Survey, WHO, UNICEF.
 *UNICEF <5 mortality ranking (1=highest mortality rate).



Major Activities

MNCH Services Project:

- Build capacity of health workers to deliver high-quality family planning and MNCH services
- Improve quality and coverage of those health services
- Strengthen public-private partnership

FATA KP:

- Strengthen the provision and utilization MNCH services
- Build a household-to-hospital continuum of care model to improve availability of and access to integrated, high-quality services for MNCH and healthy timing and spacing of pregnancy

Work closely with provincial and district/agency stakeholders to implement key evidence-based interventions

FATA KP Health Program Dates	September 30, 2012–September 29, 2017
Total Budget (ceiling)	Redacted
Geographic Focus	Seven districts of the Khyber Pakhtunkhwa province and four agencies of the Federally Administered Tribal Areas
MCHIP In-Country Contact	Dr. Simon Azariah, Chief of Party (Simon.Azariah@savethechildren.org)
HQ Managers and Technical Advisors	Presha Rajbhandari (presha.rajbhandari@jhpiego.org), Wendy Castro (Wendy.Castro@savethechildren.org) Technical Advisors Angela Brasington (abrasington@savechildren.org), Salim Sadruddin (Salim.Sadruddin@savethechildren.org)
Partners	Jhpiego (prime) with Save the Children (sub)

MNCH Services Program Dates	February 5, 2013–September 30, 2017
Total Budget (ceiling)	Redacted
Geographic Focus	1 province, 10 districts, up to 1,000 facilities by year 5
MCHIP In-Country Contact	MNCH Services Project: Farid Midhet (COP): farid.midhet@jhpiego.org
HQ Managers and Technical Advisors	Nabeel Akram: Nabeel.Akram@jhpiego.org; Presha Rajbhandari: Presha.rajbhandari@jhpiego.org; Laura Fitzgerald: Laura.Fitzgerald@jhpiego.org; Jeffery Smith: Jeffrey.Smith@jhpiego.org; Anita Gibson: agibson@mchip.net; Wendy Castro: wcastro@savechildren.org
Partners	Jhpiego (prime) with Save the Children (sub)

Acronyms and Abbreviations

BCC	Behavior Change Communication
BHU	Basic Health Unit
CMHD	Child and Maternal Health Day
DOH	Department of Health
EmONC	Emergency Obstetric and Newborn Care
FATA	Federally Administered Tribal Areas
FKHP	Federally Administered Tribal Areas and Khyber Pakhtunkhwa Health Program
HBB®	Helping Babies Breathe
HCP	Health Care Provider
HTSP	Healthy Timing and Spacing of Pregnancies
IMR	Infant Mortality Rate
KP	Khyber Pakhtunkhwa
LHW	Lady Health Worker
MCH	Maternal and Child Health
MCHIP	Maternal and Child Health Integrated Program
MDG	Millennium Development Goals
MHU	Mobile Health Unit
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn, and Child Health
MNCH/FP	Maternal, Newborn, and Child Health/Family Planning
MNH	Maternal and Newborn Health
PPHI	People's Primary Healthcare Initiative
QIT	Quality Improvement Team
RHC	Rural Health Center
SBA	Skilled Birth Attendant
SBM-R®	Standards-Based Management and Recognition
TOT	Training of Trainers
TTR	Technical Task Force
U5MR	Under-Five Mortality Rate
USAID	U.S. Agency for International Development

Background

Pakistan is the sixth most populous country in the world and has the highest population growth and birth rates in South Asia. Although both the infant mortality rate (IMR) and under-five mortality rate (U5MR) of Pakistan show a downward trend (IMR 2008, 75/1,000 live births; IMR 2012–13, 74/1,000 live births; U5MR 2012–13, 89/1,000 live births; U5MR 2012, 85.9/1,000 live births), the improvement still falls short of the 2015 Millennium Development Goals (MDGs). The maternal mortality ratio (MMR) of 276/100,000 live births (2010) is still unacceptably high, and health outcomes are marked both by urban and rural differences and by stark regional disparities (Pakistan One UN Programme Annual Report, 2011). Similarly, the total fertility rate of Pakistan is 3.8 according to the 2012–13 Pakistan Demographic and Health Survey, high compared with neighboring countries in South Asia, and gender disparities persist in education, health, and all economic sectors.

As a UNICEF report¹ shows:

- One out of 11 Pakistani children dies before the fifth birthday, with more than half of them dying before completing the first month of life.
- More than a third of deaths of children under age five are caused by treatable illness, and 60% are the result of water- and sanitation-related diseases.
- Malnutrition contributes to 35% of under-five deaths, and more than 40% of children are either moderately or severely stunted; malnutrition rates in two provinces are above emergency levels.
- Although Pakistan's MMR has declined significantly in recent years, it is still relatively high (276 per 100,000 live births), and immense resources and efforts will be required to achieve the MDGs target of 140 maternal deaths per 100,000 live births.
- Fewer than half of Pakistan's children are fully immunized; immunization rates have actually fallen in every province except Punjab, and at the end of 2011 Pakistan was one of four countries in the world where new polio cases were still emerging, despite a massive nationwide immunization program.

In this context, MCHIP supports two Associate Award activities in Pakistan:

1. FATA-KP (Federally Administered Tribal Areas and Khyber Pakhtunkhwa) Health Program: Averting Maternal, Newborn, and Child Deaths

The FATA-KP Health Program (FKHP) is a five-year (September 30, 2012, to September 29, 2017) Associate Award Cooperative Agreement under the Leader with Associate award, funded by USAID, granted to Jhpiego. FKHP aims to save the lives of mothers, newborns, and children in seven target districts of the Khyber Pakhtunkhwa (KP; Malakand, Swat, Shangla, Buner, Upper Dir, Lower Dir, and Chital) and four selected agencies of the Federally Administered Tribal Areas (FATA; Bajaur, Mohmand, South Waziristan, and Orakzai).

FKHP aims to strengthen the provision and utilization of services proven to reduce maternal, infant, and child mortality and morbidity by improving the state of intermediary maternal, newborn, and child health (MNCH) indicators. The program is designed to build a household-to-hospital continuum of care model to improve availability of and access to

¹ http://www.unicef.org/pakistan/National_Report.pdf. (2012–13 PDHS).

integrated, high-quality services for MNCH and healthy timing and spacing of pregnancy (HTSP). FKHP works closely with provincial and district/agency stakeholders to implement key evidence-based interventions to achieve the identified goals.

2. MNCH Services

The MNCH Services Project, which is Component 2a of USAID/Pakistan's maternal and child health (MCH) Program, is a five-year program (2/5/13-9/30/17) being implemented in 10 districts of Sindh Province. The objective is to increase access of MNCH services in Sindh and Punjab through the following: 1) building capacity of health workers to deliver high-quality family planning and MNCH services, 2) improving quality and coverage of those health services, including routine immunization and 3) strengthening public-private partnerships. MNCH Services aims to reduce maternal, neonatal, and child mortality and morbidity by ensuring access to comprehensive MNCH services 24 hours a day and seven days a week. MNCH Services also works collaboratively with the other four MCH Program components to address health supplies, family planning/ reproductive health, health systems strengthening, and behavior change communication (BCC) issues and works closely with the Government of Sindh Department of Health (DOH), local sub-awardees for service delivery, and private sector organizations.

Activities

FATA-KP

The first year of operations for the FATA-KP Health Program Associate Award focused on building relationships with the relevant government authorities in FATA and KP, obtaining buy-in and support for the program, and then rolling out the program in the targeted districts and agencies to improve access to integrated family planning and MNCH care services.

Key activities in Year 1 included the following:

- Conducting the baseline survey, a gender analysis survey, and formative research to inform the development of a social change and BCC strategy.
- Rolling out clinical TOT and step-down trainings on critical MNCH and HTSP topics for facility-based and community-based providers.
- Ensuring round-the-clock (24/7) MNCH and HTSP service availability to communities. To achieve this aim, FKHP is piloting the Hub approach—a public-private partnership model that addresses chronic systemic issues by revitalizing rural health centers (RHCs) to offer emergency obstetric and newborn care (EmONC) services 24/7—at the Yakaghund and Sakhakot RHCs. Under the FKHP, both the Yakaghund and Sakhakot RHCs have been renovated and provided with essential equipment and supplies, and staff were hired to support 24/7 service provision.
- Training community-based health workers in support group methodology and supervisors of Lady Health Workers (LHWs) in supportive supervision. These community workers serve as a key linkage between the communities and the facilities and will play a critical role in community mobilization.
- Conducting more than 1,000 child and maternal health days (CMHDs) throughout the year and making five mobile health units (MHUs) operational to bring services to FATA communities in hard-to-reach and underserved areas.

- Using the innovative Partnership Defined Quality approach to involve communities in defining, implementing, and monitoring quality improvement in health facilities for the purpose of improving the quality of MNCH/HTSP services in the public sector. Quality improvement teams (QITs)—made up of community representatives and staff from respective health facilities—are being established at basic health units (BHUs) and at RHCs. The teams will bring together HCPs and community members to define common issues that hinder the perception of quality of services. The two groups will develop an agreement to work together to resolve and monitor progress on these issues. In Year 1, QITs were formed at 235 BHUs.
- Rejuvenating District Health management Teams and Agency Health Management Teams with the aim of improving decision-making processes and quality measures. To establish linkages with private health care providers and the Department of Population Welfare, the FKHP started the process of building their capacity in quality MNCH and HTSP services. Support and training from FKHP were integral to improving the functioning of the District Health Information System units in the project districts and agencies as well as improving skills in Local Information Management Systems and supply chain management of health items and contraceptive commodities for relevant staff from health facilities.
- Supporting quarterly meetings of Agency and District Health Management Teams in FATA's four agencies and Malakand's seven districts to enable district- and agency-level administrations to plan, manage, and provide locally relevant and effective health services.

MNCH SERVICES

Key activities from the first year of the program include the following:

- Supporting midwives to establish their practices in the community through midwife-led birthing centers:
 - Identifying, motivating, training, and supporting inactive trained community midwives to start new MNCH Centers as private practice clinics
- Setting up transport and telecommunication systems:
 - Facilitating referral and transport options to clients—from community to facility and from lower to higher levels of care, as necessary
- Strengthening MNH services at public and private health facilities:
 - Increasing capacity of health workers to deliver high-quality MNCH/FP services
 - Improving the quality of care using Standards-Based Management and Recognition (SBM-R®) as a quality improvement approach to enable and empower facility staff to improve, monitor, and sustain quality
- Mobilizing women's and men's support groups in communities to increase demand for and timely use of midwifery services:
 - Supporting LHWs and community volunteers to increase demand for and use of MNCH/FP health care services through community mobilization
 - Involving communities in quality improvement and quality assurance of health facilities through the Partnership Defined Quality approach
 - Introducing a voucher scheme for the poorest of the poor women to increase utilization of lifesaving services

- Reducing postpartum hemorrhage by promoting community-based use of misoprostol
- Reducing birth asphyxia by providing Helping Babies Breathe (HBB®) training to skilled birth attendants (SBAs)
- Reducing newborn sepsis due to cord infection with use of chlorhexidine
- Ensuring services along the continuum of care from home to hospital during four critical periods: 1) pre-pregnancy and pregnancy; 2) labor, delivery, and postpartum; 3) newborn (first month); and 4) child health (first two years)

Results

FATA-KP

In FKHP's first year, the program provided training to HCPs on the following:

- 193 HCPs on integrated management of neonatal and childhood illnesses
- 569 HCPs on essential maternal and newborn care
- 620 HCPs on infant and young child feeding and essential nutrition actions
- 858 HCPs on community case management
- 225 HCPs on HTSP
- 32 obstetricians/women medical officers and child specialists/medical officers from the district/agency headquarter hospitals, who participated in clinical attachments at tertiary care hospitals in gynecology and pediatrics units
- 11 anesthesia technicians (one per agency/district), who completed clinical attachments at anesthesia units at tertiary care hospitals

During an interview, the District Health Officer of Lower Dir said, "Training for building capacity is good and has a good outcome. It is mandatory for improving efficiency of HCPs; improved efficiency becomes visible consequent to the training programs, and a positive impact on the health-seeking behaviors is also seen. I have seen that the OPD [outpatient department] of most of the BHUs has increased during these recent months and similarly the LHWs monthly report also shows increase in the deliveries through skilled birth attendants." Training of HCPs covered both theoretical and practical aspects. One of the Lady Health Visitors in the Malakand District recalled, "Besides the classroom teaching, the practical session arranged in hospitals was very effective."

The program is also providing health care services through CMHDs and MHUs. In Year 1, 95,916 people were reached with basic health services during CMHDs (43% boys, 41% girls, and 17% mothers). Similarly, MHUs provided services to 40,591 people (62% children and 38% adults).

Based on a needs assessment, 150 private health care providers were given essential equipment and supplies.

MNCH SERVICES

Highlights from achievements in five districts:

- Initiated interventions in 89 facilities selected in Year 1 to become MNCH Centers. These interventions include training, supportive supervision, provision of materials and supplies, and initiation of quality improvement process.
- Introduced sub-awardees Health and Nutritional Development Society (HANDS) and DevCon in the target districts. The role of the sub-awardees is to work synergistically with our staff in the districts to achieve program goals.
- Developed competency of more than 300 health care providers in various MNCH lifesaving skills such as HBB, family planning, and EmONC. The providers also received consistent on-the-job training, mentoring, and supportive supervision from MCHIP/Jhpiego in collaboration with the respective District Health Office counterparts.
- Conducted more than 1,200 support group meetings of women, reaching more than 12,000 women with messages on antenatal care, birth preparedness, importance of SBA, danger signs, cord care, use of misoprostol, immediate care of newborn, and vaccination in all five target districts.
- Conducted approximately 895 support group meetings, reaching 8,500 men with messages on three delays and the role of the husband and family in adopting best practices in MNCH.

At the central level, intensive efforts focused on the development of partnerships, resources such as training materials and tools, and processes for recording and reporting. Highlights from achievement at the central level include the following:

- Facilitated approval of the community-based distribution of misoprostol and endorsement of training material for misoprostol from the DOH. The training material is approved for utilization for training of health care providers, LHW program trainers and Lady Health Visitors. The DOH has also issued a decree to the District Health Offices to procure misoprostol for their facilities.
- Facilitated rapid approval from the DOH for the application of chlorhexidine to prevent newborn sepsis. In the last quarter, we conducted technical consultant meetings and reviews with various stakeholders including the development of advocacy brief that led to the approval of chlorhexidine use in our target districts.
- Finalized resources for HBB. MCHIP/Jhpiego developed and translated a training materials package, monitoring and supervision checklist, and reporting and recording tool. The DOH has integrated the HBB indicators in the District Health Information System and directed facility staff to collect HBB indicators regularly.
- Formalized partnership with the People's Primary Healthcare Initiative (PPHI). This is a win-win situation for both parties, where PPHI will benefit from the capacity building of their facilities and providers in MNCH lifesaving skills and family planning, and we will be able to capitalize on the PPHI network and resources to expand our coverage.

Looking Ahead

FATA KP

In Year 2, referral mechanisms will be established, and FKHP plans to repair/renovate 75 BHUs, 11 District/Agency Headquarter Hospitals, and 24 RHCs of the target districts/agencies. Needs-based assessments of these health facilities are in progress and renovations will also begin in Year 2. To improve the LHW reporting system, FKHP will print recording and reporting tools for all LHWs in the target areas in Year 2. Similarly, to cover the population living in areas not covered by LHWs, FKHP has hired four nongovernmental organizations that will work with communities to promote healthy behaviors related to MNCH and HTSP.

Key activities for next quarter (April–July 2014)

- Post-training follow-up of HCPs trained on integrated management of newborn and childhood illness Performance assessment of HCPs trained on essential maternal and newborn care
- LHW refresher program
- Repair and renovation of seven District Headquarter Hospitals, four Agency Headquarter Hospitals (AHQs), 24 RHCs, and 36 BHUs/ Civil Dispensaries
- Provision of services through CMHDs and MHUs
- Printing of tools for LHWs
- Baseline and social and behavior change communication strategy dissemination
- Mass media campaign
- Action planning and quarterly meetings of QITs
- Building capacity of DOH and Directorate of Health Services (three from the DOH and three from Directorate of Health Services, FATA), District/Agency health managers (three for each district for a total of 33) on evidence-based MDG-oriented district health planning and management
- Quarterly meetings of Program Steering Committee for FATA and KP
- Technical Assessment and Advisory Group meeting
- Public opinion survey
- Operation research

MNCH Services

Moving forward, the project will focus on the following:

- Work toward improving the accessibility to comprehensive EmONC facilities.
- Conduct geographic information systems (GIS) mapping of remaining three districts: Dadu, Tharparkar, and Thatta.
- Collaborate with Rural Support Programs Network to facilitate Partnership Defined Quality in their sites.
- Conduct seven district-level trainings and 80 LHW rollout trainings.
- Develop an application for data collection from private facilities and pilot in 25 MNCH centers.
- Conduct a household survey in KP, a request from USAID.

Associate Award Brief—South Sudan



Selected Health and Demographic Data for South Sudan	
GDP per capita (USD)	\$1,546
Total population (millions)	8.3 million
Maternal mortality ratio (deaths/100,000 live births)	2,054
Antenatal Care, 4 visits of more	17%
Institutional deliveries	11.5%
Infant mortality rate (deaths/1,000 live births)	102
Neonatal mortality rate (deaths/1,000 births)	52
Under-five mortality (deaths/1,000 live births)	135
Contraceptive prevalence rate (all methods)	3.5%
Total fertility rate	5.4
Sources: Sudan Center for Census, Statistics, and Evaluation 2010, World Bank, Southern Sudan Household Health Survey 2010, WHO, 2012 South Sudan HIV/AIDS Epidemiologic Profile.	

Major Activities

- Increase access to high-quality primary health care services for all people in CES and WES in the Republic of South Sudan.
- Objectives: Standardized, functional, equipped, staffed health facilities able to provide a minimum package of quality primary health care services; and community access to information and services increased.

Program Dates	June 13, 2012 – June 12, 2017					
Mission Funding to Date	Integrated Service Delivery Project (ISDP) Redacted					
Geographic Coverage	No. (%) of states	2	No. of counties	16	No. of facilities	360
MCHIP In-Country Contacts	George Sanad, Maternal and Child Health Integrated Program, Catharine McKaig, Chief of Party, Catharine.mckaig@jhpiego.org ; Edward Luka, Deputy Chief of Party, Edward.luka@jhpiego.org ; Morris Ama, Technical Director, mama@savechildren.org ; Felix Ndege, Finance and Administration Manager, Felix.ndege@jhpiego.org .					
MCHIP HQ Contacts	Koki Agarwal, MCHIP Director, koki.agarwal@mchip.net ; Nancy Ali, Country Support Manager, Nancy.ali@jhpiego.org ; Jaime Haver, Senior Program Officer, Jaime.mungia@jhpiego.org ; Sheena Currie, Senior Maternal Health Advisor, Sheena.currie@jhpiego.org ; Rachel Taylor, Senior Program Officer, rtaylor@savechildren.org ; Victoria Rossi, Senior Program Officer, Victoria_rossi@jsi.com					
Partners	Jhpiego, with partners Save the Children US, Population Services International (PSI), and John Snow, Inc. (JSI), in partnership with the South Sudan Ministry of Health.					

Acronyms and Abbreviations

CES	Central Equatoria State
CIP	County Implementing Partner
FP	Family Planning
ISDP	Integrated Service Delivery Project
MCHIP	Maternal and Child Health Integrated Program
MOH	Ministry of Health
NGO	Nongovernmental Organization
OFDA	Office of Foreign Disaster Assistance
PHC	Primary Health Care
PHCC	Primary Health Care Center
PITC	Provider-Initiated Testing and Counseling
PPH	Postpartum Hemorrhage
USAID	United States Agency for International Development
WES	Western Equatoria State

Background/Context

The health situation across South Sudan remains fragile and is characterized with challenging health indicators. The maternal mortality ratio is 2,054 per 100,000 live births, the neonatal mortality rate is 52 per 1,000 live births, and the infant mortality rate is 84 per 1,000 live births. Approximately 12% of deliveries occur in a health facility and 17% of women receive the fourth visit of antenatal care (South Sudan Household Survey 2010). Only 34% of the people in South Sudan have access to improved water supply; a smaller percentage, only 14%, have access to improved sanitation. The contraceptive prevalence rate is extremely low at 1.5%.

The Government of South Sudan and major donors put together a minimum package of primary health care (PHC) services based upon the Basic Package of Health and Nutrition Services. The minimum package includes a list of evidence-based services/interventions in child and reproductive health and in control of communicable diseases that if implemented together will result in improvement in the health of the people of South Sudan.

PHC service delivery in WES and CES has been supported by multiple donors, including the U.S. Agency for International Development (USAID), Multi-Donor Trust Fund, and European Commission Humanitarian Office. At the request of the Ministry of Health (MOH), the donors undertook a consolidation approach, whereby one donor will support PHC service delivery throughout one or more states. Under ISDP, USAID will fund service delivery in WES and CES.

Activities/Approach

Operational Approach: The Integrated Service Delivery Program (ISDP) will be implemented in three phases. Phase 1 focused on ensuring the continuation of donor-supported existing PHC services, with ISDP providing funds for eight counties previously supported either by the Sudan Health Transformation Project (SHTP) II or the Office of Foreign Disaster Assistance (OFDA). Phase 1 was completed in December 2012 with the end of transitional sub-agreements to NGOs previously supported through USAID and OFDA. In Phase 2, ISDP issued sub-awards to NGOs (i.e., county implementing partners [CIPs]) to deliver PHC services in all 16 counties beginning January 1, 2013. Implementation focuses on standardizing, strengthening, and expanding community and facility PHC services. Phase 3 will focus on progressive transition of PHC services to the MOH support over an 18-month period.

Technical Approach: ISDP works with CIPS to provide facility- and community-based services in accordance with the minimum package to ensure that the maximum number of people in WES and CES can access quality PHC services. The approach includes the following:

- Maximizing access to PHC services to ensure population coverage;
- Implementing the minimum package of services and adhering to standards and protocols;
- Ensuring adequate local facility staff;
- Prioritizing essential supplies and equipment for PHC facilities;
- Strengthening technical skills;
- Implementing a joint supervision system with the County Health Department and a quality improvement approach;
- Supporting home health promoters and community activities and ensuring demand for services;
- Expanding coverage within the counties and ensuring availability of services; and
- Monitoring performance.

Technical Priority Activities in ISDP Years 1 and 2 to Support the Minimum Package:

- *Maternal Health:* Improve basic emergency obstetric and neonatal care services in primary health care centers (PHCCs); improve comprehensive emergency obstetric and neonatal care in selected county hospitals; scale up clean and safe delivery in facilities; scale up distribution of misoprostol for prevention of postpartum hemorrhage (PPH).
- *Newborn Health:* Integrate newborn care with maternal and child health at facility level; implement integrated newborn care with the Helping Babies Breathe approach, Kangaroo Mother Care for preterm, low birth weight babies, and sepsis management with antibiotic treatment.
- *HIV Integration (selected facilities):* Support provider- initiated testing and counseling (PITC); deliver prevention of mother-to-child transmission of HIV, including a pilot of Option B+; introduce pre-antiretroviral care; initiate a follow-up strategy for HIV-positive clients; strengthen the health system to deliver HIV services.
- *Quality Improvement:* Implement and expand the Standards-Based Management and Recognition (SBM-R®) approach in PHCCs; standardize the reward and recognition approach; formalize SBM-R as a quality improvement approach in the MOH. Priority areas

include infection prevention, focused antenatal care, normal labor and delivery, basic emergency obstetric and newborn care, and postpartum care.

- *Family Planning:* Develop a standardized curriculum and roll out training to standardize family planning (FP) services in PHCCs; provide technical training in provision of implants; advocate for injectables at primary health care unit level; integrate FP within other PHCC services; develop provider and client information, education, and communication materials to support demand and quality service delivery.
- *Child Health:* IMCI, Ensure Expanded Program on Immunization delivery through Reach Every County (REC) strategy, Vitamin A supplementation and deworming, and community management of malaria, diarrhea, and pneumonia.
- *WASH:* Support point-of-use water treatment tablets (WaterGuard); WASH messages; basic medical waste management.
- *Community:* Mobilize the community; build capacity of Home Health Promoters; scale up misoprostol for prevention of PPH, health promotion, and integrated community case management.

Results

Key accomplishments are summarized below (as of December 31, 2013):

1. **Completed rapid start-up and the first phase of the program:** Along with the completion of the first phase, ISDP initiated the second phase and ensured minimal interruption in primary health care service delivery. This is a significant accomplishment in such a challenging operating environment. In the second phase, health service delivery covers **360 health facilities serving a population of approximately 2 million in WES and CES**. The period of January 1, 2013–December 31, 2013, was the first 12-month period of implementation for delivery of the minimum package of services through CIPs. In general, CIPs accomplished annual targets (see table below), with the notable exceptions of antenatal care and skilled birth attendance.

Progress against Key Indicators, January 1, 2013–December 31, 2013

INDICATOR	TARGET	ACTUAL
Percentage of curative consultations for children less than five years	40%	71%
Number of children under one who received DPT3 vaccinations	54,463	61,261
Percentage of children under one who received DPT3 vaccinations	60%	67%
Number of new users of modern family planning (FP) methods	8,020	14,245
Percentage of women with one ANC visit	65%	42%
Percentage of women with four ANC visits	40%	30%
Percentage of deliveries in facilities assisted by skilled birth attendant	20%	5.6%
Percentage of women receiving an uterotonic immediate after birth	40%	43%
Number of individuals who received testing and counseling services for HIV and received test results	34,300	35,601
Percentage of facility managers who received written feedback after a supportive supervision visit	75%	51%

2. **Established technical components and completed priority technical trainings at the county level:** ISDP completed trainings in provider initiated testing and counseling, clean and safe delivery, SBM-R, community mobilization, FP, and WASH. Moreover, ISDP supported the CIPs to begin replicating the trainings within their counties. Each component was coordinated with the national MOH to standardize service delivery. Between January and September 2013, **1,585 health personnel** were trained.
3. **Completed prevention of PPH learning phase:** ISDP, in coordination with MCHIP field support, completed implementation of a learning phase for prevention of PPH through two NGOs in Mvolo and Mundri East counties, which marked a major step in addressing maternal mortality in South Sudan. The learning phase demonstrated the feasibility and coverage of community-based distribution of misoprostol to prevent PPH. In Mundri East County, **94% uterotonic coverage was achieved**. Prior to the intervention, there was limited use of a uterotonic for PPH prevention in the hospital and no use in health centers. Following the MOH's approval to expand the intervention in the country, ISDP has started expansion to other counties in WES.
4. **Provider-Initiated Testing and Counseling (PITC) study findings:** Three ISDP sites contributed to the validation of PITC as an effective strategy for South Sudan. The finding that the transition from voluntary counseling and testing to PITC did not adversely affect the number of persons tested, but increased the percentage that was positive, indicates the feasibility of the rollout of PITC to the other 12 facilities supported by ISDP.
5. **Coordinated CIP quarterly reviews:** ISDP led program review meetings with the CIPs, MOH, and other partners in both CES and WES. These two-day meetings provided an opportunity to review accomplishments and challenges together and contributed to a shared vision of ISDP implementation.

Looking Ahead

Selected priorities for Year 3 are summarized below:

1. **Continue to ensure service delivery in WES and CES:** Amid the crisis that broke out in South Sudan in December 2013, ISDP maintained service delivery in WES and CES without disruption. ISDP will continue to ensure that all facilities are staff and functional. Furthermore, ISDP will collaborate with the USAID | DELIVER PROJECT, UNICEF, and the MOH to assure adequate drug supply to WES and CES.

ISDP applied a limited technical focus for a short term after hostilities erupted in South Sudan. ISDP aims to resume support to replication of technical trainings.
2. **Continuing monitoring and supportive supervision.** This includes monitoring for compliance as well as supportive supervision for program as well as the technical elements. These visits allow ISDP to review its effectiveness in supporting CIPs, as well as the performance of the CIPs.
3. **Transition planning.** This is a critical component in the design of ISDP. Our understanding is that the government of the Republic of South Sudan will lift austerity and begin to provide grants to counties for payroll, including that of health facility staff. ISDP is working with the Health Systems Strengthening Project to ensure that this payroll transition will happen in CES and WES.
4. **Midterm evaluation.** ISDP sees this midterm evaluation as an opportunity to examine design issues and make strategic choices in order to maximize program performance.

Associate Award Brief—Yemen



Selected Health and Demographic Data for Yemen

GDP per capita (USD)	1,361.2
Total Population	24,799,880
Maternal Mortality Ratio (deaths/100,000 live births)	200
Skilled birth attendant coverage	35.7
Antenatal care, 4+ visits	14
Neonatal mortality rate (deaths/1,000 live births)	32
Infant mortality rate (deaths/1,000 live births)	57
Under-five mortality (deaths/1,000 live births)	76.5
Treatment for acute respiratory infection	87.8
Oral rehydration therapy for treatment of diarrhea	38
Diphtheria-pertussis-tetanus vaccine coverage (3 doses)	81
Modern contraceptive prevalence rate	27.7
Total fertility rate	5.2
Total Health Expenditure per capita (USD)	88.4

Sources: World Development Indicators, 2011, World Bank; Global Health Observatory, 2010-2011, WHO, Countdown Profile 2012

Major Activities

1. Improve the enabling environment at the national level for high-impact RMNCH/Nut services
2. Improve human resources planning and preparedness of health workforce
3. Support Governorate and District Health Teams to manage and sustain high-impact RMNCH/Nut services
4. Increase access and quality of service delivery points that offer high-impact RMNCH/Nut services
5. Increase community demand for RMNCH/Nut services and improve quality of high-impact interventions delivered the community level

Program Dates	March 1, 2014 to February 28, 2019					
Mission Funding to Date	Redacted					
Geographic Coverage	No. (%) of governorates	4	No. of districts		No. of facilities	
MCHIP In-Country Contacts	George Sanad, Maternal and Child Health Integrated Program (MCHIP)/Yemen Country Director, gsanad@mchipyemen.org.					
MCHIP HQ Contacts	Koki Agarwal, MCHIP Director, kagarwal@mchip.net; Patricia Taylor, Country Support Team Leader, ptaylor@mchip.net; Nathalie Albrow, Country Support Manager, nalbrow@mchip.net; Victoria Rossi, Senior Program Officer, vrossi@mchip.net; Kate Brickson, Senior Program Officer, kbrickson@mchip.net.					
MCHIP Partners	JSI (lead organization in Yemen): child health, immunization, program management/administration Jhpiego (prime): maternal health, family planning, quality improvement Save the Children: newborn health, community health PATH: nutrition ICF Macro: support for Knowledge Practices and Coverage (KPC) surveys					
Key Partners	Yemen's Ministry of Public Health and Population (MoPHP), Reproductive Health (RH) and Population, Primary Health Care, and Policy and Planning Sectors, EPI and Nutrition Departments; UNICEF; UNFPA; GIZ; World Health Organization (WHO); World Bank, USAID DELIVER PROJECT, National Safe Motherhood Alliance (NSMA), Yamaan Foundation, Yemen Midwives Association (YMA), Yemen Family Care Association (YFCA).					

Acronyms and Abbreviations

CH	Child Health
CHW	Community Health Worker
FP	Family Planning
GHO	Governorate Health Office
GoY	Government of Yemen
HII	High-Impact Intervention
JSI	John Snow, Inc
MCHIP	Maternal and Child Health Integrated Program
MH	Maternal Health
MNCH	Maternal, Newborn and Child Health
MOPHP	Ministry of Public Health and Population
PATH	Program for Appropriate Technology in Health
QI	Quality Improvement
QS	Quick Start
RMNCH/Nut	Reproductive, Maternal, Newborn, and Child health and Nutrition
USAID	United States Agency for International Development

Background

Following the 2011 Yemeni Revolution, Yemen's health system has been severely under-resourced and fragmented, with political instability and chronic and seasonal food insecurity linked to poor maternal, infant and young child nutrition practices. Ongoing instability and uncertainties of the political situation make long-term planning difficult. Within this context, the Government of Yemen's (GoY) Ministry of Public Health and Population (MOPHP) has drafted the National Maternal and Child Health Acceleration Action Plan 2013–2015 to reduce maternal and under-five mortality.

MCHIP's Associate Award in Yemen—primed by Jhpiego and led operationally in Yemen by John Snow, Inc. (JSI), with support from Save the Children, the Program for Appropriate Technology in Health (PATH), and ICF Macro—began in March 2014 and will support an integrated approach that spans reproductive, maternal, newborn, and child health and nutrition (RMNCH/Nut) and will be built on five key objectives:

1. Improve the **enabling environment** for high-impact RMNCH/Nut services
2. Improve **human resources** planning and preparedness of health workforce
3. Support Governorate and District Health Teams to **manage and sustain** high-impact RMNCH/Nut interventions
4. Increase **access and quality of service delivery points** that offer high-impact RMNCH/Nut services
5. Increase **community demand** for RMNCH/Nut services and improve quality of high-impact interventions delivered at the community level

Planned Activities

To achieve these goals, MCHIP will work in partnership with the MOPHP to strengthen the health system through targeted technical assistance at the district and governorate levels, and through interventions across all MCHIP health areas at the national, governorate, district and sub-district levels. MCHIP will use existing resources, networks and systems to put a focus on the neglected technical areas of newborn care and child nutrition (particularly preventing chronic malnutrition or stunting), and family planning (FP) as part of an integrated community-based package focusing on maternal, newborn, infant and child health (CH) outcomes, applying a focused gender lens throughout these areas of intervention.

MCHIP will build on its successful experience during the initial Quick Start (QS) period and redouble efforts to strengthen the capacity of the MOPHP to deliver high-quality RMNCH/Nut services at scale. This will be done by supporting the finalization of key RMNCH/Nut policies and strategies needed to create an enabling environment for program implementation; advocating for the adoption, revitalization, and scaling up of selected high-impact interventions (HIIs) whose implementation has not started or is lagging behind; working through national coordination platforms and leveraging other partner resources to strengthen the capacity of the MOPHP to implement RMNCH/Nut interventions; generating demand within communities for RMNCH/Nut interventions by implementing appropriate behavior change communication; and strengthening information systems to improve accountability for high quality program delivery and use of data in making decisions. Cross-cutting approaches such as gender, equity, and integration will underpin activities across the project. The project's geographic focus will remain on the same four governorates from the QS period which includes Sana'a City, Sana'a, Aden and Dhamar Governorates.

OBJECTIVE	APPROACH
<p>Improve the enabling environment for high-impact RMNCH/Nut services (national level)</p>	<p>Building off MCHIP's work in-country during the QS period, MCHIP is ideally positioned to support the MOPHP to execute the HIs outlined in Yemen's National MCH Acceleration Action Plan and other national strategies and policies poised to improve the health of the Yemeni people. Using a collaborative approach, MCHIP will work at the national level to strengthen the MOPHP's capacity to formulate, coordinate, roll out and monitor key RMNCH/Nut interventions by:</p> <ol style="list-style-type: none"> 1. Supporting the development and rollout of RMNCH/Nut national policies, strategies, guidelines and tools; 2. Strengthening RMNCH/Nut program coordination, planning and monitoring, and leveraging of other available RMNCH/Nut funds; 3. Working with MOPHP and other partners to strengthen national systems for RMNCH/Nut strategic information; 4. Documenting lessons learned, sharing best practices, and advancing RMNCH/Nut agenda through advocacy, communication and evidence-based interventions; and 5. Advocating for and supporting the MOPHP to develop and roll out a national quality improvement (QI) strategy.
<p>Improve human resources planning and preparedness of health workforce</p>	<p>MCHIP/Yemen will continue working to improve human resources planning and preparedness of the health workforce by:</p> <ol style="list-style-type: none"> 1. Strengthening and standardizing midwifery education; 2. Providing technical support to the MOPHP and partners at national level to build a competent RMNCH/Nut workforce through improvements in in-service clinical and other training; 3. Supporting development of a basic, competency-based community health workers (CHWs) training package; and 4. Strengthening the professionalization of health work force cadres.

OBJECTIVE	APPROACH
Support Governorate and District Health Teams to manage and sustain high-impact RMNCH/Nut services	<p>MCHIP/Yemen will continue to support Governorate and District Health Teams to manage and sustain HILs by:</p> <ol style="list-style-type: none"> 1. Supporting project Governorate and District Health Offices to improve planning, review, coordination and supportive supervision; 2. Strengthening monitoring and evaluation and use of strategic information/data for decision making; and 3. Strengthening governorate-level training centers in focused governorates. District selection will be guided by selection criteria agreed-upon by MCHIP, USAID and MoPHP. Memorandums of Understanding will be signed with the Governorate Health Office (GHO) in each of the four governorates, clarifying the scope of MCHIP's support and the districts to be supported.
Increase access and quality of service delivery points that offer high-impact RMNCH/Nut services	<p>MCHIP/Yemen will continue to increase access and quality of service delivery points that offer high- impact RMNCH/Nut services by:</p> <ol style="list-style-type: none"> 1. Introducing a QI approach for RMNCH/Nut services; 2. Integrating services using the antenatal care, labor and delivery, and postpartum care platforms (postpartum family planning/postpartum intrauterine device, exclusive breastfeeding , maternal, infant and young child nutrition, and tetanus toxoid); 3. Strengthening FP services; 4. Strengthening maternal health (MH) services; 5. Strengthen newborn health services; 6. Strengthening CH services; 7. Strengthening immunization services; and 8. Strengthening nutrition services.
Increase community demand for RMNCH/Nut services and improve quality of high-impact interventions delivered at the community level	<p>MCHIP/Yemen will work to increase community demand for RMNCH/Nut services and improved quality of high-impact interventions delivered at the community level by:</p> <ol style="list-style-type: none"> 1. Introducing Community Action Cycle with MOPHP, GHO and other stakeholders; 2. Working with communities to positively influence behavior change, strengthen the continuum of MNCH care and promote adoption of key MNCH household practices; 3. Strengthening the package of community-based maternal and newborn health care services provided by CMWs; and 4. Strengthening linkages between CHWs and health system in governorates with existing CHWs.

Next Steps/Looking Ahead

MCHIP's Associate Award in Yemen began in March 2014 and will run for a period of five years, through February 2019. The first Work Plan covering a 19-month period from March 2014– September 2015 was approved by USAID in June 2014. Implementation of activities in the first work plan has begun and recruitment of staff continues.

Associate Award Brief—Zimbabwe



Select Health and Demographic Data for Zimbabwe	
GDP per capita (USD)*	778
Total population	13,061,239
Maternal mortality ratio (deaths/100,000 live births)	960
Skilled birth attendant coverage	66
Antenatal care, 4+ visits	65
Neonatal mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	57
Under-five mortality (deaths/1,000 live births)	84
Treatment for acute respiratory infection	48
Oral rehydration therapy for treatment of diarrhea	74
Diphtheria-pertussis-tetanus vaccine coverage (3 doses)	73
Modern contraceptive prevalence rate	57
Total fertility rate	4.1
Total health expenditure per capita (USD)	66.42

Sources: Zimbabwe Population Census 2012; World Bank*; Zimbabwe Demographic and Health Survey 2010–2011.



Major Activities

- **Maternal Health:** Scale-up of Standards-Based Management and Recognition (SBM-R) at health facility level and performance quality improvement (PQI) at community level; Emergency obstetric and newborn care (EmONC)
- **Newborn Health:** Kangaroo Mother Care (KMC); Helping Babies Breathe (HBB)
- **Child Health:** SBM-R at health facility level and PQI at community level; Diarrhea case management, ORT/zinc; malaria community case management (CCM)
- **Immunization:** New vaccine introduction (PCV-13 and Rotavirus vaccine introduction); routine immunization: Reaching Every District (RED)
- **Nutrition:** IYCF; Baby Friendly Hospital Initiative (BFHI); health systems strengthening: policy, planning, coordination, and research; HMIS/M&E strengthening: competency-based training approaches; health promotion, communication, and advocacy

Program Dates	January 2014–December 2016					
Award Amount	Redacted					
Geographic Coverage	No. (%) of provinces	1 (10%)	No. of districts	7	No. of facilities	277
MCHIP In-Country Contacts	Professor Rose Kambarami, Maternal and Child Health Integrated Program (MCHIP)/Zimbabwe Associate Award (AA) Country Director: rose@mchipzim.org					
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MCHIP Partners	JSI (lead organization): Child health, immunization, pediatric HIV/prevention of mother-to-child transmission of HIV (PMTCT), program management/administration; Jhpiego: maternal health, quality improvement, clinical training; Save the Children: newborn health, community health, and monitoring and evaluation (M&E); PATH: nutrition.					
Key Partners	Zimbabwe Ministry of Health and Child Care (MOHCC) reproductive health, Expanded Program on Immunization (EPI), child health, nutrition, HIV, and monitoring and evaluation (M&E) units; University of Zimbabwe; UNICEF; UNFPA; World Health Organization (WHO); World Bank; United Kingdom Department for International Development (DFID); Absolute Return for Kids (ARK); Plan International; Elizabeth Glaser Pediatric AIDS Foundation (EGPAF); Organization for Public Health Interventions and Development (OPHID); Population Services International (PSI); Population Services Zimbabwe (PSZ), International Rescue Committee (IRC), and Cordaid.					

Acronyms and Abbreviations

AA	Associate Award
ANC	Antenatal Care
BCC	Behavior Change Communication
CBT	Competency-based Training
cPQI	Community Performance and Quality Improvement
CSO	Civil Society Organizations
DHE	District Health Executive
EmONC	Emergency Obstetric and Newborn Care
ENC	Essential Newborn Care
EPI	Expanded Programme on Immunization
ETAT	Emergency Triage and Treatment
HBB	Helping Babies Breathe
HF	Health Facility
HMIS	Health Management Information System
IMNCI	Integrated Management of Newborn and Childhood Illness
KMC	Kangaroo Mother Care
MCCM	Malaria Community Case Management
MCHIP	Maternal and Child Health Integrated Program
MIP	Malaria in Pregnancy
MNCH	Maternal, Newborn and Child Health
MNH	Maternal and Newborn Health
MOHCC	(Zimbabwe's) Ministry of Health and Child Care (Formerly MOHCW)
MPMA	Maternal and Perinatal Mortality Audits
PHE	Provincial Health Executive
PMTCT	Prevention of Mother-to-Child Transmission
PNC	Postnatal Care
PPFP	Postpartum Family Planning
PPIUD	Postpartum Intrauterine Device
PSE	Pre-service Education
QA/QI	Quality Insurance/Quality Improvement
SBM-R	Standards-Based Management and Recognition
USG	U.S. Government
VHW	Village Health Worker

Background

MCHIP was launched in Zimbabwe in 2010, with Field Support funding from USAID/Zimbabwe that was used to design and implement a three-year technical assistance project. The project's objectives were to support the Ministry of Health and Child Care (MOHCC) to develop and roll out maternal and child health policies, strategies, guidelines, and training programs; to improve the quality of clinical care for women, infants, and young children in health facilities in Manicaland province and support national-level scale-up plans; to build the capacity of Village Health Workers (VHWs) in providing maternal, newborn, and child health (MNCH) information and services in two districts of the same province (Mutare and Chimanimani); and to support the national immunization program (ZEPI) in increasing routine immunization coverage and introducing new, lifesaving vaccines countrywide.

During its first three years, MCHIP contributed to the development and/or updating of many critical policies, strategies, guidelines, and training packages with partners, including the Reproductive Health Policy, Emergency Obstetric and Newborn Care (EmONC), and Helping Babies Breathe (HBB) training packages, National Nutrition Strategy, Quality Assurance/Quality Improvement (QA/QI) Policy and Strategy, Malaria Community Case Management (MCCM) training package, Integrated Management of Newborn and Childhood Illnesses (IMNCI) training package revision, and others. In Manicaland province, MCHIP worked intensively with the Provincial Health Executive (PHE) and the District Health Executives (DHEs) in Mutare and Chimanimani districts to introduce performance standards for maternal, newborn, and child health and to improve the quality of maternal, newborn and child health. The Standards-Based Management and Recognition (SBM-R) approach was implemented in 21 high-volume health facilities. Other MCHIP achievements include collaborating closely with the MOHCC in preparation for the introduction of pneumococcal and rotavirus vaccines; the development and rollout of the new MCCM training module and a community health information system (HIS) in communities with a high burden of malaria; the testing of a Community Performance and Quality Improvement (cPQI) strategy in Chimanimani district that includes peer-to-peer supervision; and MNCH refresher training and MCCM training.

MCHIP's Field Support-funded project in Zimbabwe ended in early May 2014, and under a newly awarded, three-year Associate Award (AA), MCHIP's important work is continuing in Zimbabwe. There was a four-month period of overlap between the MCHIP Field Support-funded project and the follow-on Associate Award (AA). This period was used to fully close out activities supported under the MCHIP Lead Award and strategically position and ramp up activities under the AA, which resulted in a smooth and continuous provision of critical services and project activities.

The objectives of the MCHIP/Zimbabwe AA are to:

1. Strengthen the capacity of the MOHCC at national level to formulate evidence-based national health policies, strategies and programs to enhance scale-up of high-impact maternal, newborn, and child health interventions;
2. Strengthen the capacity of the MOHCC at provincial and district levels to improve the quality of integrated maternal, newborn, and child health services at health facilities and in the community to support national-level scale-up plans; and
3. Strengthen the capacity of Civil Society Organizations (CSOs) to implement MNCH activities and manage U.S. Government (USG) funding.

Activities

During its first year, the MCHIP/Zimbabwe AA will build on its successful experience over the past three years and re-double efforts to strengthen the capacity of the MOHCC to deliver high-quality MNCH services at scale. The project will support the finalization of key MNCH policies and strategies needed to help continue to ensure an enabling environment for implementation; advocate for the adoption, revitalization, and scale-up of selected high-impact interventions whose implementation has not started or is lagging behind; work through national coordination platforms and leverage other partner resources to strengthen the capacity of the MOHCC to implement MNCH interventions; and strengthen information systems to improve accountability for high-quality service delivery and the use of data in making decisions.

The project will also expand the promising work on improving quality of care provided at health facilities and also through community health workers, while taking deliberate steps to mitigate the underlying causes of excess maternal, newborn, and child mortality. This will include an emphasis on reducing the detrimental effects of malaria in pregnancy (MIP), improving the prevention and treatment of malaria at the community level, and collaborating with other partners to address the effects of malnutrition.

Under the AA, the project will expand its geographic focus under MCHIP to continue to target interventions in health facilities and communities in Manicaland province where most preventable maternal, newborn, and child deaths occur. It will also extend to Matabeleland North and South provinces, through additional resources from the ELMA Vaccines and Immunization Foundation (a project co-share activity), with a standard package of immunization interventions and support for the introduction of rotavirus vaccine.

The boxes below provide specific details about planned program activities, by objective.

Objective 1. National Health Policies and Strategies

LIFE OF PROJECT RESULTS	PY1 RESULTS
<ul style="list-style-type: none"> National MNCH policies, strategies, guidelines, and tools developed/finalized with MCHIP support MNCH program coordination, planning and monitoring strengthened through MCHIP support for national steering committees/technical working groups (TWGs), and national review and planning meetings Availability of a competent MNCH workforce increased through strengthening of in-service and pre-service clinical training; rollout of a standardized, integrated supportive supervision (SS) protocol; and development and dissemination of MNCH job aids for health workers MNCH pre-service education (PSE) curricula for nurses, doctors, and other health professionals improved through inclusion/updating of content on basic EmONC, HBB, IMNCI, maternal nutrition, infant and young child feeding (IYCF), and immunization, as well as skills strengthening of instructors in competency-based training (CBT) approaches Greater focus on and resources and commodities available for MIP, maternal and child nutrition, pneumonia and diarrhea case management, prevention of mother-to-child transmission (PMTCT), and postpartum family planning (PPFP)/postpartum IUD (PPIUD) interventions through collaboration with partners/donors supporting antenatal care (ANC) and postnatal care (PNC) programming Strategic information systems strengthened through improvements to the national HMIS, inclusion of quality and community indicators within the HMIS, and 	<ul style="list-style-type: none"> National Reproductive Health Policy finalized and provinces oriented National MNH 2014 Implementation Plan finalized and resourced National Nutrition Strategy approved and launched Emergency Triage and Treatment (ETAT) guidelines adapted and master trainers trained 80 national trainers trained in MCCM, including environmental waste management standards VHW toolkit (including behavior change communication [BCC] messages and counseling materials) enhanced and available World Health Days commemorated with MCHIP support Rotavirus vaccine rolled out and achieving at least 60% coverage achieved in all provinces in PY1 ELMA Foundation activities launched at national level and in Matabeleland North and South (cost-share) National QI policy and strategy disseminated to all provinces National MNCH Competency-Based Training of Trainers Guide finalized and 100 national trainers trained National clinical training database generating regular reports

LIFE OF PROJECT RESULTS	PY1 RESULTS
<p>revitalization of the Maternal and Perinatal Mortality Audits (MPMA) system nationally</p> <ul style="list-style-type: none"> ▪ New MNCH approaches and tools explored, lessons learned documented, and best practices shared with MNCH stakeholders 	<ul style="list-style-type: none"> ▪ Scale-up plan for introduction of antenatal corticosteroids in place ▪ HMIS indicators and community health information system components included in revised HMIS strategy ▪ 20 provincial focal persons oriented on the revised maternal and perinatal notification system and MPMA ▪ Electronic Maternal Perinatal Death Notification system tested in one province ▪ National guidelines for verbal autopsy finalized and 30 provincial focal points oriented ▪ Promising MCHIP tools and approaches shared with and adopted at national level and by other partners ▪ At least two new Program Learning studies with IRB approval and under way

Objective 2. Facility and Community MNCH Care

LIFE OF PROJECT RESULTS	PY1 RESULTS
<ul style="list-style-type: none"> ▪ Increased number of health facilities (HFs) satisfying criteria for QI standards (SBM-R) in MNCH ▪ Increased number of HFs and VHWS implementing SBM-R in MNCH ▪ Reduced cause-specific mortality rates for MNCH cases in supported HFs and supported communities ▪ Increased number of health workers and VHWS trained in MNCH ▪ Rotavirus antigen introduced in Manicaland (seven districts) and in Matebeleland South (Mat South) ▪ Increased immunization coverage in Manicaland and Mat South for all antigens ▪ Increased essential newborn care (ENC) coverage of all newborns ▪ Increased number of eligible newborns receiving HBB, Kangaroo Mother Care (KMC) and IMNCI ▪ Improved survival rates for newborns managed with Kangaroo Mother Care (KMC), IMNCI, and HBB ▪ Increased number of districts with costed implementation plans ▪ Increased number of districts conducting MPMA ▪ Increased number of VHWS satisfying set criteria for managing MNCH cases ▪ Increased institutional deliveries ▪ Increased timeliness, completeness and quality of MNCH data in the province ▪ Increased number of pregnant women and newborns receiving at least one home visit according to national schedule ▪ Increased coverage of key prevention and treatment interventions for maternal health, including MIP, maternal nutrition, pre-eclampsia/eclampsia, postpartum hemorrhage, obstructed labor and sepsis ▪ Increased number of women and newborns who received core MNH package (preventive treatments in ANC, active management of the third stage of labor with use of partograph and delayed cord clamping, and EmONC) ▪ Improved coverage of PPFP ▪ Improved coverage of sick children who receive correct treatment, appropriate care, and follow-up 	<ul style="list-style-type: none"> ▪ 60% of facilities satisfying set criteria for quality improvement standards (SBM-R) in MNCH ▪ 7 districts implementing quality improvement activities (SBM-R) in MNCH ▪ 60% of all health workers and VHWS trained in MNCH in target districts/facilities ▪ Rotavirus antigen vaccine introduced in Manicaland with USAID support ▪ Immunization coverage in Manicaland increased to above 60% for Rotavirus vaccine and 80% for all other antigens ▪ KMC, HBB and BEmONC scaled up to all 7 districts in Manicaland ▪ 7 districts in Manicaland implementing costed MNCH plans and holding regular review meetings ▪ 7 districts in Manicaland conducting MPMA and using findings to improve MNCH plans ▪ Increased timeliness, completeness, and quality of MNCH data in the province ▪ Increased number of pregnant women, newborns, and children receiving quality MNCH care ▪ Maternal, newborn, and child cause specific mortality rates reduced in the 7 districts ▪ 7 districts managing sick children according to IMNCI/ETAT at 80% of target facilities ▪ Coverage for MIP and MCCM increased in the 5 malaria priority districts of Manicaland ▪ All VHWS in Chimanimani receiving MCHIP support showing improved performance ▪ C-PQI approach adapted and introduction begun in Mutasa district ▪ 250 VHWS trained in key household and family practices ▪ Communities, families and individuals in MCHIP-supported districts of Manicaland receiving messages about key household health practices ▪ Baselines for selected project interventions conducted ▪ Two integrated MNCH data quality assessments conducted and findings used to improve project performance ▪ PHE/DHE data quality improved through training and continuous support

LIFE OF PROJECT RESULTS	PY1 RESULTS
<ul style="list-style-type: none"> Increased number of households that report receiving MNCH BCC messages Increased number of individuals and families adopting and supporting key household practices and health-seeking behavior for MNCH Improved capacity of communities and sub-groups to plan for and support MNCH services Improved coverage for community MNCH intervention packages for MNCH, including home visits for MNC, MCCM, early referral for sick children and home care for sick children according to IMNCI 	<ul style="list-style-type: none"> MPMA information system developed and in use at provincial/district level

Objective 3. CSO Capacity Building

LIFE OF PROJECT RESULTS	PY1 RESULTS
<ul style="list-style-type: none"> Increased number of local CSOs in Manicaland with the capacity to design, implement, and monitor community MNCH programs Increased number of local CSOs in Manicaland with the capacity to handle USG funds responsibly (i.e., comply with standard USG operating procedures and financial regulations) Increased number of target communities reached with MNCH information Increased number of target communities that have implemented activities to improve use of key MNCH services Increased community level support and household behaviors Increased recognition of danger signs of illness and early care seeking Participation of pregnant women during the antenatal period (through women-to-women groups, grandmother/grandfather support) Increased number of birth plans and increased knowledge of maternal and newborn danger signs by families, including husbands, grandmothers/grandfathers and women Improved exclusive breastfeeding (mothers support groups model) 	<ul style="list-style-type: none"> Proposed CSO engagement plan developed with PHE, DHEs and other partners in Manicaland (including proposed CSO scope(s) of work, selection criteria, selection process, templates for subawards, budgets and financial reports, tools for organizational assessment and strengthening, among others) At least one CSO selected, awarded subagreement, and implementing agreed-upon scope or scopes of work Lessons learned by and with CSO(s), DHE, and communities captured and used to refine CSO engagement plan for PY 2–3 CSO engagement plan ready for implementation across districts in PY2–3

Results

While the new AA began on January 1, 2014, the preceding MCHIP award was extended through the end of May 2014 to ensure continuity in activity coverage and complete spending of Field Support pipeline funds. The focus for the first quarter of the AA was to provide a seamless transition between the two awards—consolidating program learnings, achievements, and final documentation efforts under the three-year MCHIP/Zimbabwe project on the one hand, while refining planned activities under PY1 of the follow-on AA and implementing baseline data collection and other start-up activities on the other hand. First quarter start-up activities included activity microplanning, updating key project indicators in consultation with USAID and other key stakeholders, and conducting environmental, data verification, and other assessments.

The MCHIP/Zimbabwe AA team also continued to make significant contributions to the national MNCH agenda by supporting upstream, national-level activities and local

implementation of high-impact interventions. First quarter results are summarized below, by project objective:

Objective 1: Strengthen the capacity of the MOHCC at national level to formulate evidence-based national health policies, strategies, and programs to enhance scale-up of high-impact MNCH health interventions.

During Q1, the team joined other partners in supporting the MOHCC with annual planning and review activities. The project team made significant contributions to the process and content of national MOHCC plans, including through participation in a national 2014 reproductive health annual planning meeting, national Expanded Programme on Immunization (EPI) quarterly review meeting, and a national Health Management Information Systems (HMIS) 2014 annual work planning meeting. Participation in these work planning sessions enabled the MCHIP/Zimbabwe AA to align its annual workplan with national priorities for the year and identify opportunities for collaboration, harmonization, and partnerships in support of government-led plans. Additionally, the MCHIP/Zimbabwe AA supported the development of a national, costed Nutrition strategy and QI strategy and provided national-level support for TrainSMART system training.

Objective 2: Strengthen the capacity of the MOHCC at provincial and district levels to improve the quality of integrated MNCH services at HF's and in the community to support national-level scale-up plans at provincial, district, and health facility levels.

In January 2014, the project team continued to provide substantial technical and financial support to province-wide EPI activities. Rotavirus vaccine introduction mop-up trainings were completed in Nyanga, Makoni, and Chimanimani districts, with 113 health workers trained. With the completion of these trainings, Manicaland became the only province to have completed its trainings well before the end of the planned vaccine introduction launch in late spring.

Objective 3: Strengthen the capacity of CSOs to implement MNCH activities and manage U.S. Government (USG) funding.

The project began intensive microplanning during the first quarter of the AA to refine proposed workplan activities under this objective; consolidate findings from the team's CSO literature review and CSO mapping efforts under MCHIP; develop a draft CSO engagement framework; brainstorm criteria for CSO selection; and identify potential candidate CSOs to be engaged under the AA.

Recommendations and Next Steps

Amidst some encouraging data showing gains in combatting mortality and morbidity, Zimbabwe still has a long way to go to reverse the unacceptably high mortality levels among women and children under five. Under the three-year, USAID-funded MCHIP/Zimbabwe AA awarded in January 2014, MCHIP will continue to support the Zimbabwe MOHCC in advancing MNCH. This project will incorporate final recommendations from MCHIP/Zimbabwe into the programmatic design for the follow-on AA, as outlined below.

At the national level, recommendations for MCHIP's way forward include:

- Continue to advocate for and support the provision of high-level coordination for MNCH activities within the MOHCC, in order to strengthen national-level strategic planning, coordination, and program implementation.
- Continue to support the MOHCC's efforts in developing key, evidence-based national policies, standards, guidelines, and training packages.
- Continue to advocate for a “beyond the numbers” approach to providing high-quality health care nationwide and assist the MOHCC to identify a single national approach to QI.
- Advocate for inclusion and standardization of high-impact MNCH packages and CBT approaches into pre-service education curricula.
- Improve MNCH service integration by working with partners and providing technical support to MOHCC counterparts to ensure that current national ANC and PNC platforms are used to strengthen malaria in pregnancy (MIP), maternal nutrition and anemia, IYCF, PMTCT, and PPFP/PPIUD interventions.
- Continue to support the MOHCC in health information systems and M&E.
- Continue technical assistance and support for national MNCH advocacy, communication, and social mobilization activities.

At the provincial/district level, recommendations for MCHIP's way forward include:

- Improve, expand, and maintain facility-based MNH SBM-R activities in Manicaland in ways, including:
 - Expand coverage of SBM-R activities to new districts to equip health workers to deliver evidence-based, integrated services that are humanistic, respectful, and client-centered.
 - Increase focus on provincial hospital and high-volume referral sites (i.e., non-learning site district hospitals in Manicaland). Prioritize all Manicaland district hospitals and Mutare Provincial hospital for additional targeted interventions.
 - Seek ways to simplify SBM-R tools, and/or reduce the number of SBM-R performance standards/verification criteria without compromising the resulting quality of care. Adapt SBM-R tools for greater focus on the main causes of MNH mortality and morbidity (e.g., greater focus on critical pathways).
 - Revise the SBM-R scoring system to make it less punitive and more encouraging.
 - Change the SBM-R approach such that participating health workers are recognized in an appropriate manner earlier in the process, in order to increase motivation and retention.
 - Continue to refine the SBM-R approach for child health as piloted in Zimbabwe by making tools more responsive to changes in the quality of care delivered to children, for example. Pilot new QI tools to address the quality of services provided to sick children at the provincial and district hospital levels. In addition, work with Mutare Provincial Hospital specifically to improve in-patient care for sick children.
 - Involve more partners and engage more policymakers in the QI process, in order to facilitate national-level adoption, scale-up, and rollout.
 - Test new ways to link quality of care improvements to MNC mortality and outcome data.

- Prioritize support for districts with high MNCH mortality and morbidity, and within this context, prioritize support for high-impact MNCH interventions and activities such as ENC, KMC, HBB, EmONC, malaria case management, and RED.
- Continue to utilize a CBT approach to capacity-building at sub-national level, with a sustained emphasis on post-training follow up, on-the-job training, and supportive supervision.
- Continue to support strategic planning, coordination, data review/M&E, and evidence-based decision-making at the provincial, district, and facility levels. Continue focus on providing technical assistance to the MOHCC and seeking opportunities to leverage partner resources in order to amplify the project's technical reach within the province/districts.

At the community level, recommendations for MCHIP's way forward under the Associate Award include:

- Scaling up community-based child survival interventions (e.g., early care seeking for pneumonia, reducing indoor air pollution, cIYCF, malaria community case management, use of long-lasting insecticide-treated bed nets, etc.), in conjunction with strengthening health facility service provision. A key recommendation is to continue, refine, and expand the cPQI approach to one or more additional Manicaland districts and further assess results in six to 12 months.
- Prioritizing civil society capacity-building by partnering with local CSOs and strengthening their capacity to mobilize communities for improved knowledge, access to, and utilization of MNCH services. Working with CSOs will foster further community engagement and facilitate sustainability and local ownership of community interventions.

Annex 6: Table of Research Studies

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Bangladesh	Healthy Fertility Study (Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet District, Bangladesh)	Abdullah Baqui	<ol style="list-style-type: none"> 1. Integrated Family Planning/Maternal Neonatal Health Intervention: To develop and test an integrated Family Planning and Maternal and Neonatal Health (FP/MNH) service delivery approach in the Bangladesh setting, building on the ongoing Projahnmo study. Intervention activities will include behavior change communications on healthy timing and spacing of pregnancy, couples counselling, social networking and expansion of contraceptive options for postpartum women, with an emphasis on first-time and adolescent mothers. 2. Integrated Service Delivery Approach: To assess the strengths and limitations of integrating family planning into an ongoing community-based maternal and newborn care program. 3. Intervention Impact: To assess the impact of the intervention package on exposure to key messages, knowledge of contraceptive methods and the benefits of healthy fertility practices, contraceptive prevalence and method mix at different points during the extended postpartum period, and on birth spacing. 	PY3	PY6	Jaime Mungia
Bangladesh	MaMoni program evaluation	Barbara Rawlins, Ishtiaq Mannan	<ol style="list-style-type: none"> 1. A survey at the household level to ascertain knowledge, practices and coverage associated with evidence-based maternal and neonatal healthcare behaviors and services. 2. A facility survey to ascertain the quality of delivery (especially EmONC), postpartum and family planning services at Year One and Two target facilities in the 4 LGAs in Zamfara and Kano. 	PY1	PY6	Ishtiaq Mannan, Barbara Rawlins
Bangladesh	Newborn Handwashing Formative Research	Shahana Parveen	Formative research to identify motivators and barriers to HW with soap among mothers of neonates and infants and among caregivers.	PY3	PY4	Rachel Taylor, Ian Moise
DRC	iCMM Case Study	N/A	Documentation case study.	PY2	PY4	Dyness, Serge, Elsa, Soo

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Egypt	SMART Program Evaluation of Knowledge, Practices and Quality of Care for Maternal, Neonatal, and Child Health and Nutrition in 12 Districts in Egypt	Barbara Rawlins, Vikas Dwivedi	<ol style="list-style-type: none"> 1. To understand women's knowledge and current practices related to maternal anemia prevention, care seeking during pregnancy and newborn care. 2. To understand women's knowledge and current practices related to care of low-birth weight babies and treatment of sick-children. 3. To understand current infant and young child feeding practices specifically on frequency of feeding and dietary diversity 4. To assess women's and men's knowledge and use of modern methods of birth spacing. 5. To understand household decision-making and gender roles affecting utilization of maternal, newborn and birth spacing and nutrition services. 6. To assess the readiness of Community Development Associations (CDAs) managed clinics and private hospitals (equipment and staff) to provide antenatal care, and delivery care services, and sick child services. 7. To assess the knowledge of health workers regarding antenatal care, newborn care, and management of sick children. 8. To assess the quality of ANC and sick child services provided. 9. To understand prescription and counseling practices of private pharmacist's for pregnant women, birth spacing, treatment of newborn and sick child. 	PY5	PY6	Barbara Rawlins, Vikas Dwivedi
Egypt	Examining factors associated with the rise in stunting in Lower Egypt in comparison to Upper Egypt	Justine Kavle	<ol style="list-style-type: none"> 1. To examine factors associated with growth in the first year of life. 2. To understand cultural beliefs, perceptions and behaviors that facilitate or impede optimal infant and young child feeding, and introduce new practices for mothers to try using Trials for Improved Practices (TIPs). 3. To ascertain the role of grandmothers, fathers, and health providers in providing advice on IYCF and perceptions regarding the role of avian flu on changes in growth in the last 5-6 years. 4. To examine women's perceptions and cultural beliefs regarding maternal dietary practices during pregnancy and postpartum, weight gain during pregnancy, and iron folic acid supplementation. 	PY5	PY6	Justine Kavle

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Ethiopia	Evaluation of the Effects of the Standards-Based Management and Recognition (SBM-R) Intervention on the Quality of Maternal and Newborn Health Care in Ethiopia	Young Mi Kim	<p>1. In order to assess the effects of SBM-R, the evaluation will compare facilities that have and have not implemented the SBM-R intervention on the following six dimensions:</p> <ul style="list-style-type: none"> a. Facility readiness: Is the availability and accessibility of supplies and equipment needed for maternal and newborn health services greater at intervention than comparison sites? b. Client perspectives: Are clients' experiences and satisfaction with antenatal care (ANC), labor and delivery, post-natal care (PNC), and respectful maternity care better at intervention than comparison sites? c. Provider job satisfaction: Is provider satisfaction with training, supportive supervision, self-empowerment, management, work environment, and individual recognition greater at intervention than comparison sites? d. Provider perceptions: Do providers have more favorable perceptions and practices of respectful maternity care at intervention than comparison sites? e. Provider performance: During routine delivery of ANC, labor and delivery, and PNC services, do providers demonstrate stronger skills at intervention than comparison sites? f. Service utilization: Has the utilization of ANC, PNC, and institutional delivery increased more at intervention than comparison sites? <p>Another component of the study will explore how SBM-R was implemented at intervention health facilities. Key questions are:</p> <ul style="list-style-type: none"> 1. To what extent did the implementation process meet or deviate from guidelines and specifications set by the SBM-R model? 2. What recommendations do managers and supervisors have for improving the implementation process and scaling up SBM-R to other regions or facilities? 	PY6	PY6	Young Mi Kim

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Ethiopia	Evaluation of the Practice of Kangaroo Mother Care in Ethiopia	Barbara Rawlins	Evaluation of a set of newborn care interventions, with a focus on Community-Based Kangaroo Mother Care in 4 regions of Ethiopia.	PY3	PY6	Barbara Rawlins, Jennifer Callaghan-Koru
Ethiopia	Cultural Barriers Affecting Women Accessing MNH Services in Ethiopia	MCHIP Ethiopia team/Private consultant and Hannah Gibson	Literature review of published and unpublished studies/ research examining cultural barriers affecting MNH service utilization.	PY4	PY5	Ephrem Daniel, Hannah Gibson, Tracey Shissler
Ghana	Evaluation of mobile phone mentoring to support post-training retention and performance in midwifery tutors	Catherine Carr	The aim of this study is to determine whether mobile phone mentoring (See 2.2 for explanation) is effective in retaining clinical competencies, increasing confidence and improving performance of midwifery tutors after training.	PY 5	PY 6	Catherine Carr
Global	Postpartum Family Planning Community of Practice Global On-Line Forums Information Use and Sharing Survey	Linda Fogarty	Conduct on-line survey and in-depth interviews with participants of PPPF on-line forums to determine use of information in global health practices and sharing in global health community.	PY4	PY4	Theresa Norton
Global	Maternal Health Regional Conference Information Use and Sharing Survey	Linda Fogarty	Conduct on-line survey and in-depth interviews with participants of MCHIP's 2012 and 2011 Asia and Africa regional maternal health conferences to determine use of information in global health practices and sharing in global health community.	PY4	PY4	Theresa Norton
Guinea	Increasing access to evidence based interventions for Prevention of Postpartum Hemorrhage (PPH) at Birth, in	Jeff Smith	Distribution of misoprostol at the community and facility level for prevention of PPH, study objectives are: 1. To assess if antenatal care visits (ANC) are a feasible and effective mechanism for providing birth preparedness and complication readiness counseling (BP/CR) and distributing misoprostol for PPH prevention to women who deliver at home.	PY5	PY6	Lyndsey Wilson-Williams

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
	N'Zérékoré prefecture of Guinea		<ol style="list-style-type: none"> To assess that trained Community Agents (CAs) and Traditional Birth Attendants (TBAs) can effectively provide community-based counseling on BP/CR and distribute misoprostol to women for home deliveries. To assess the coverage and use of misoprostol for home births. Determine if misoprostol is acceptable to women and their families for PPH prevention. Measure the proportion of deliveries conducted by health care providers at the facility level. 			
Guinea	Evaluation of the integration of long-acting, reversible contraception (LARC) within postabortion care (PAC)	Anne Pfitzer	To examine the integration of family planning (FP) services into postabortion care (PAC) in hospitals in Guinea, with particular attention to availability and uptake of long-acting reversible and permanent methods of contraception (LARC/PMs). The objective is to examine how and how well the services have been institutionalized in these facilities and nationally and what factors have contributed to the success of the program, what barriers have been overcome, and what challenges remain.	PY6	PY6	Anne Pfitzer, Yolande Hyjazi
Guinea	Piloting a mobile mentoring system following training in emergency obstetric and newborn care (EmONC) training in Guinea	Blami Dao	<ol style="list-style-type: none"> To assess whether mobile mentoring is a feasible mechanism for knowledge and skills retention after training in the context of Guinea. To assess effectiveness by comparing health worker performance when receiving post-training support via mMentoring versus standard post-training supervision. To assess the cost of mobile mentoring in a low-resource setting. 	PY5	PY6	Rachel Waxman
Guyana	Guyana Cervical Cancer Prevention and Control Program Process Evaluation	Ricky Lu	Assess progress toward targets and program objectives over three project years.	PY3	PY4	Megan Wysong
India	PPIUCD Services	Somesh Kumar	Conducting a multi-center client follow-up study for PPIUCD servicers in selected sites.	PY2	PY4	Elaine Charurat, Reena Sethi
India	Evaluation of a Postpartum Systematic Screening Tool in Jharkhand, India	Cat McKaig	Evaluation of the effectiveness of postpartum systematic screening approach.	PY2	PY4	Elaine Charurat, Reena Sethi

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Indonesia	Handwashing for Newborn Survival Formative Research	LSHTM	Formative research on handwashing behavior of new mothers, birth attendants and newborn carers during the neonatal period.	PY3	PY4	Ian Moise, Rachel Taylor
Indonesia	Evaluation of the Effects of Quality Improvement (QI) Interventions on Quality of Maternal, Newborn and Child Health (MNCH) Services, Referral linkages, Health Outcomes in Indonesia	Young-Mi Kim	Study effects of QI on the quality of MNCH services and on referrals, support systems, perceived work environment, health outputs, and health outcomes in both the public and private sectors.	PY2	PY4	Young-Mi Kim
Kenya	Use of Cellular Phone Contacts to Increase Return Rates for Immunization Services	Evans Mokaya	<ol style="list-style-type: none"> 1. Test the feasibility of using cellular telephone contacts to trace immunization defaulters in three districts in Western Kenya. 2. Document lessons learned and challenges in using cellular telephone contacts to trace immunization defaulters. 3. Document barriers to continued utilization of immunization services in the three districts in Western Kenya. 4. Estimate the cost of implementing this strategy at district level to inform future scale up efforts. 	PY5	PY6	Lora Shimp
Kenya	Study of Community Interventions Designed to Reduce Post Partum Hemorrhage in Three Nairobi Slums	Linda Archer	<p>Among resident young women participating in Young Mothers' Clubs (YMCs), the objectives are to measure change in their intentions to:</p> <ol style="list-style-type: none"> 1. Deliver their next child with a skilled provider 2. Use Family Planning (FP). <p>Among all three target groups (young women participating in Young Mothers' Clubs, Community Health Workers and health facility service providers) the objectives are to measure changes in their knowledge of:</p> <ol style="list-style-type: none"> 1. Life-threatening bleeding around the time of delivery (PPH) 2. Family planning methods and use. 	PY5	PY6	Dr. Pamela Lynam

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Kenya	Feasibility Study of the Implementation of Integrated Community Case Management (ICCM) in Bondo District, Kenya – Leveraging Existing Systems	Mark Kabue	To measure changes in the community's knowledge and practices including care-seeking behavior, and household and program costs related to treatment of pneumonia, diarrhea and malaria of children below 5 years in communities with and without the ICCM module. Aim: To assess whether the addition of the ICCM technical module onto the existing CHW platform in Bondo district improves coverage and quality of services of childhood illnesses.	PY6	PY6	Mark Kabue, Dyness Kasungami
Kenya	A Secondary Data Analysis to Assess the Results and Lessons Learned from Integrating Maternal, Infant, and Young Child Nutrition (MIYCN) and Family Planning (FP) in Bondo, Kenya	Anne Pfitzer	Secondary data analysis to assess the results of an innovative demonstration program to integrate MIYCN and FP counseling and services in selected sites in Bondo Sub-county, Siaya County in Western Kenya, using existing program information to inform future integrated service delivery efforts.	PY6	PY6	Anne Pfitzer, Chelsea Cooper
Kenya	Examining Behaviors, Perceptions, and Potential Motivators that Influence Iron-Folic Acid and Calcium Pill-Taking by Pregnant Women in Kenya	Erika Pied	Main Objective: To investigate possible ways to improve Kenya's existing iron-folic acid supplementation program during pregnancy and how to incorporate calcium supplementation. Sub-Objective a: Examine knowledge, beliefs, perceptions and practices about anemia and hypertension during pregnancy. Sub-Objective b: Identify barriers to and factors that facilitate pregnant women taking IFA with or without calcium supplements. Sub-Objective c: Identify behaviors, perceptions and preferences pregnant women have about receiving counseling, using reminder cards, family observations of pill-taking, and /or receiving mobile phone text messages as reminders to take their full course of IFA or IFA and calcium supplements. Sub-Objective d: Identify knowledge and perceptions about IFA or calcium supplementation during pregnancy of other people in the family or community that may influence pill-taking behaviors.	PY6	PY6	Erika Pied, Evelyn Matiri, Rae Galloway

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Kenya, India	A Descriptive Evaluation of Postpartum Family Planning Integration Models in Kenya and India	Anne Pfitzer	The aim of this study is to strengthen the body of programmatic learning around the integration of postpartum family planning (PPFP) services into maternal, newborn, child health and nutrition services. It is a descriptive evaluation that will provide and compare details on integrated PPFP implementation models used in Bondo and Embu districts in Kenya and Jharkhand and Bihar states in India.	PY6	PY6	Anne Pfitzer, Christina Maly, Mark Kabue, Devon Mackenzie
Lesotho	The Effect of Primary Health Care Clinical Placements during Nursing and Midwifery Education on Clinical Practice	Stacie Stender	The overall aim of this study is to understand the acceptability and usefulness of PHC clinical placements for nursing and midwifery students.	PY5	PY6	Stacie Stender
Lesotho	Characteristics and Motivations of Voluntary Medical Male Circumcision (VMMC) Early Adopters in Lesotho	Tigistu Adamu Ashengo	A cross-sectional descriptive study of clients' motivation to seek male circumcision. A convenience sample of approximately 240 clients aged 18 years and older will be approached to participate in a short interview or a focus group discussion before they undergo circumcision. Of these, 160 clients will participate in one short interview that will cover questions about VMMC clients' motivations for getting circumcised, decision to get circumcised, their partners' and family reactions, perceptions of peers and expectations of services. The study will also conduct 8 focus group discussions with up to 80 VMMC clients to discuss community norms regarding VMMC, the meaning of circumcision to the clients and clients' motivations to be circumcised.	PY5	PY6	Laura Skolnik, Tigi Adamu
Lesotho	Evaluation of the Safety and Acceptability of the PrePex™ Device for Male Circumcision for HIV Prevention in Lesotho	Ehrhardt, Stephan (sehrhardt@jhsph.edu)	It is anticipated that this field study will determine the benefits, costs and risks of PrePex™ in Lesotho. These data can then be used to assist the Ministry of Health with policy decisions and possible recommendations on the use of the device in adult male circumcision programs including provider training, implementation of device circumcision, and messages for male clients and their partners in pre-procedure counseling sessions.	PY5	PY6	Tigi Adamu

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Liberia	Increasing access to evidence based interventions for Prevention of Postpartum Hemorrhage (PPH) at Birth, in 2 districts of Liberia	Jeffrey Smith	<ol style="list-style-type: none"> 1. To assess if antenatal care visits (ANC) are a feasible and effective mechanism for providing birth preparedness and complication readiness counseling (BP/CR) and distributing misoprostol for PPH prevention to women who deliver at home. 2. To assess that trained District Reproductive Health Supervisors (DRHSs) can effectively provide community-based counseling on BP/CR and distribute misoprostol to women for home deliveries. 3. To assess the coverage and use of misoprostol for home births 4. To determine if misoprostol is acceptable to women and their families for PPH prevention. 5. To measure the proportion of deliveries conducted by skilled attendants at the facility level. 	PY4	PY6	Vikas Dwivedi
Liberia	A Secondary Data Analysis to Evaluate the Effectiveness of FP and Immunization Integration in Liberia	Elaine Charurat	Improve family planning (FP) and immunization (EPI) services through an integrated service delivery approach.	PY4	PY6	Elaine Charurat
Madagascar	Introductory Program to Increase Uterotonic Coverage for Prevention of Postpartum Hemorrhage (PPH) at Births in Health Facilities and at Home in Fenerive East District, Madagascar	Jean Pierre Rakotovao	<p>Distribution of misoprostol at the community level for prevention of PPH, study objectives are:</p> <ol style="list-style-type: none"> 1. Determine if misoprostol is acceptable to women and their families for PPH prevention. 2. Demonstrate that women can correctly self-administer misoprostol for prevention of PPH at home births after being educated on its use and receiving the drug at home visits. 3. Demonstrate that trained Community Agents (CAs) can distribute misoprostol to women for home deliveries. 4. To measure the proportion of deliveries conducted by skilled attendants at the facility level. 	PY4	PY6	Lyndsey Wilson-Williams

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Madagascar	Formative Investigation of Current Practices, Perceptions, and Preferences related to Umbilical Cord Care and the Use of 7.1% w/v Chlorhexidine Digluconate for Cord Cleansing among Women and Influential Others in Three Sites of Madagascar	Jean Pierre Rakotovao	Collect information about practices and perceptions of umbilical cord care among recently delivered women, mothers/mother-in-laws, and TBAs to determine the acceptability of the use of chlorhexidine on the umbilical cord of the newborn within 24 hours after birth.	PY5	PY5	Lyndsey Wilson-Williams
Malawi	Malaria in Pregnancy Case Study	Michelle Wallon	Documenting successes, challenges and lessons learned in MIP programming.	PY3	PY3	Aimee Dickerson
Malawi	Malawi HBB Evaluation	Shivam Gupta	To evaluate the quality, coverage, and impact of the Helping Babies Breathe (HBB) newborn resuscitation intervention at the facility level in Malawi over time.	PY3	PY6	Shivam Gupta, Barbara Rawlins, Reena Sethi
Mali	Skills assessment of midwifery assistant provision of contraceptive implants in Djema District, Mali	Anne Pfitzer	This assessment examines midwifery assistants (matrons) provision of contraceptive implants as part of the reproductive, maternal and newborn care services at health center (CSCOM) level facilities in Djema District, Mali. Specifically, the assessment examines if matrons are competent in implant provision corresponding to recognized international and national standards for service provision.	PY5	PY6	Devon Mackenzie
Mali	Qualitative study of the low utilization of Community Essential Care (CEC) in the health districts of Kita,	Serge Raharison	To determine the causes of the low utilization of Community Essential Care (CEC) in the health districts of Kita, Diéma, Bougouni and Yorosso and identify appropriate strategies to strengthen implementation. 1. Explore the factors that promote and limit use of CEC in general, and community care for sick children in particular.	PY6	PY6	Serge Raharison

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
	Diéma, Bougouni and Yorosso, Mali		<p>2. Solicit local suggestions and solutions on how best to use the resources available to increase impact, in response to the communities' needs, and improve access, quality, demand and social and policy support for CEC.</p> <p>3. Identify innovations, lessons learned and the positive results that could be adapted to scale and (4) Form recommendations to improve implementation and use of CEC.</p>			
Mali	Maternal and Child Health Endline Survey, Kita and Diema Districts, Mali	Rebecca Levine	<p>Pre-post comparisons with baseline assessment that was conducted in the spring of 2011.</p> <ol style="list-style-type: none"> 1. Measure change in the use of MNCH/FP services at the community and facility levels. 2. Measure the change in adoption of health MNCH/FP practices and behaviors. 3. Assess the nature and extent of these changes. 4. Explore how the MCHIP program has contributed to these changes in the two districts of Kita and Diema in Mali. 	PY6	PY6	Rebecca Levine, Lyndsey Wilson-Williams
Mali	iCCM Scale-up case study	Jessica Posner, Jim Ricca	<p>To explore the experience of national-level scale up of iCCM in Mali and MCHIP's contribution to this experience</p> <p>Understand the two key dimensions of Scale-Up:</p> <ol style="list-style-type: none"> 1. Geographic spread of the intervention ["horizontal scale up"]. 2. Institutionalization of those competencies needed to sustain the intervention ["vertical scale up"]. 	PY6	PY6	Rebecca Levine, Lyndsey Wilson-Williams
Mozambique	Health Facility Survey for Quality and Humanization of Care in Mozambique's Model Maternity Facilities and Maternal and Newborn Indicator Validation Study	Jim Ricca (Qoc), Cindy Stanton (Maternal Recall)	Testing mothers who were part of the QoC study to recall care they and their newborns received to validate factors in DHS.	PY4	PY5	Mary Drake

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Mozambique ** mostly funded by associate award	Implementation of Integrated Service Packages for Reproductive, Maternal, Newborn, Child and Adolescent and Young People's Health	Jim Ricca	The main objective of the study is to assess the implementation process of the integrated service packages at selected Health Facilities and to identify opportunities, challenges and lessons learned to prepare for scale up.	PY4	PY6	Maria de Luz Vaz, Leonardo Chavane, Mary Drake
Mozambique	Evaluation of a Postpartum Systematic Screening Tool in Maputo, Mozambique	Elaine Charurat	To pilot a postpartum systematic screening (PPSS) tool as part of ongoing effort to integrate services for maternal and child health. 1. Does use of the PPSS tool increase the provision of PPFP counseling to women in their first year postpartum who come for postnatal care, immunization and other child health related services? 2. Does use of the PPSS tool, and the referral/linked services process, increase the uptake of PPFP services to the women in their first year postpartum who come for relevant MCH services, either/both on the same day or at a later date? 3. Does the intervention increase the knowledge of PPFP among providers who are providing postnatal care, immunization and other child health related services?	PY5	PY6	Elaine Charurat
Multi-Country	PNC Home Visits	John Murray and Joseph de Graft-Johnson	To examine and assess the processes used to initiate the uptake of PNC home visits in five countries (Malawi, Nigeria, Rwanda, Bangladesh and Nepal), the implementation strategy and progress made to date. Cost-shared with Saving Newborn Lives; will include review of MCHIP activities in 4 of these countries.	PY4	PY5	Joseph de Graft Johnson, Rachel Taylor
Multi-Country	A Multi-country Assessment of Kangaroo Mother Care Service Implementation	Anne-Marie Bergh and Stella Abwao	To measure and document the implementation process and results of the introduction and expansion of KMC services in four countries African countries (Malawi, Mali, Rwanda, Uganda) and four Asian countries (Bangladesh, India, Pakistan, Philippines). Cost-shared with Saving Newborn Lives.	Africa: PY4 ; Asia: PY5	Africa: PY5; Asia: PY6	Barbara Rawlins, Stella Abwao, Rachel Taylor
Multi-Country	VMMC Secondary data analysis	N/A	Blanket non-research determination to permit use of VMMC service delivery statistics for conference abstracts and peer reviewed papers.	N/A	N/A	Kelly Curran, Mainza Lukobo Durell

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Multi-Country (Ethiopia, Kenya, Tanzania, Rwanda, Madagascar, Zimbabwe)	Quality of Care for prevention, identification, and management of common serious Maternal & early Neonatal Complications in Health Facilities	Linda Bartlett, Gaudiosa Tibaijuka	Facility survey examining quality of care of routine delivery services, prevention and mgmt of PE/E and PPH, and early neonatal complications.	PY2	PY5	Linda Bartlett, Barbara Rawlins, Jim Ricca
Multi-Country (Guyana, Rwanda, Kenya, Burkina Faso, Mozambique and Cote d'Ivoire)	Cervical Cancer Prevention Service Delivery Program	N/A	Secondary data analysis of multi-country CECAP programs using routine service delivery data.	PY3	PY3	Megan Wysong
Namibia	Multi-Region Formative Assessment of Attitudes, Beliefs & Practices Surrounding Male Circumcision in Namibia	Mainza Lukobo-Durrell	<ol style="list-style-type: none"> 1. Describe the cultural, attitude, and belief barriers and facilitators surrounding uptake of VMMC and EIMC among men, healthcare providers and community, traditional, district, regional and national leaders; 2. Describe the cultural, attitude and belief barriers and facilitators surrounding uptake of VMMC and EIMC among women in their role as mothers of adolescent males, mothers or potential mothers of infants, sexual partners of users or potential users of VMMC and as elders in the community. 3. Determine the preferred elements related to successful VMMC and EIMC service delivery (i.e. service site characteristics, hours of service, private vs. public sectors, and separation of client age groups); 4. Assess current knowledge about VMMC and EIMC and the availability and quality of these services; 5. Assess current demand for VMMC and EIMC services; 6. Document the experiences of VMMC and/or EIMC services of people/and their children who have been circumcised medically; 7. Describe the opinions and experiences of adolescent males and adult men keen to receive VMMC who have not yet been able to access services; 8. Determine the attitudes and beliefs of key gatekeepers that facilitate or inhibit access to VMMC and EIMC. 	PY6	PY6	Michelle Santoro, Mainza Lukobo-Durrell, Isatou Jeng

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Nepal	New Protein Self-Test for Detection of Pre-Eclampsia/Eclampsia - A Pilot Study	Kusum Thapa	1. Determine the sensitivity and specificity of the new protein test in laboratory and urban ANC clinics and 2. Acceptability or proteinuria test by women for self-test in rural ANC setting	FY2	PY4	Harshad Sanghvi, Cyndi Hiner
Nepal	Prevention of Pre-Eclampsia and Eclampsia through Calcium Supplementation for Pregnant Women	Kusum Thapa	The proposed pilot program that is being evaluated is to provide calcium supplements to all pregnant women in one district of Nepal to help prevent pre-eclampsia/eclampsia (PE/E). The pilot program seeks to demonstrate that: calcium is acceptable to pregnant women and their families and high coverage and compliance can be achieved through the existing public health care system. This pilot is not intended to measure the efficacy of calcium in reducing pre-eclampsia.	PY5	PY6	Kusum Thapa, Barbara Rawlins
Nicaragua	A Multi-Faceted Intervention to Increase the Use of Prophylactic Oxytocin during the Third Stage of Labor and to Reduce Routine Episiotomies in Nicaragua	Ezequiel García-Elorrio	To assess the effect of a multi-faceted intervention with skilled birth attendants on use of oxytocin during the third stage of labor, active management of the third stage of labor (AMTSL), and the rate of routine episiotomies during vaginal births in two health districts (SILAIS - Sistemas Locales de Atención Integral en Salud) in Nicaragua.	PY3	PY4 (data analysis/ collection)	Sushie Englebrecht
Nicaragua	Mode of Childbirth in Low-Risk Pregnancies: Nicaraguan Physicians' Viewpoints	Mercedes Colomar	To explore attitudes of physicians attending births in the public and private sectors and at the managerial level toward cesarean birth in Nicaragua.	PY3	PY4	Sushie Englebrecht
Nigeria	Understanding Attitudes to Immunization in Northern Nigeria	Barbara Rawlins	Nigeria Understanding Attitudes to Immunization in Northern Nigeria Barbara Rawlins This study aims to generate in-depth, localized analysis of factors leading to missed children (i.e., those not receiving the polio vaccine) and to produce that analysis in a way that is easily converted back into locally-relevant public health program knowledge and practice. The objective of this research is to quantify and analyze the combined effects of social and material factors are associated with demand for polio vaccination PY6 PY6 Ed Bunker, Chris Morry, Sebastian Taylor, Mizan Sidiqqi.	PY6	PY6	Ed Bunker, Chris Morry, Sebastian Taylor, Mizan Sidiqqi

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Nigeria	Safe motherhood program evaluation	Dr. Emmanuel Otolorin	The purpose of the study, which includes a community survey and a facility survey, is twofold: 1) to document the baseline situation in the four initial target LGAs in Kano and Zamfara states, and 2) to inform the design of program interventions in these states. The baseline data will later be used to assess the effectiveness of the ACCESS Nigeria program in improving the quality and use of maternal and neonatal services in these same target LGAs after an endline survey is conducted.	PY1	PY3	Dipo Otolorin, Barbara Rawlins, Benga Ashola
Nigeria	Baseline assessment of health facilities for their readiness to provide emergency obstetric and neonatal care (EmONC)	Dr. Emmanuel Otolorin	1.1 The primary purpose of the assessment is to determine the readiness status of selected health facilities to provide evidence-based interventions to mothers and newborns experiencing life-threatening complications in pregnancy, during childbirth, or in the postnatal and neonatal periods. The ultimate aim is to identify institutional barriers to the provision of these services which are critical for Nigeria's achievement of the Millennium Development Goals (MDGs) 4 and 5 by the year 2015, and to make recommendations for appropriate solutions that address the root causes of the gaps identified. 1.2 The key research question to be answered is 'To what extent are selected health facilities ready to provide basic and/or comprehensive emergency obstetric and neonatal care (EmONC) to women and newborns presenting with life-threatening complications of pregnancy and childbirth?' If not, why not?	PY6	PY6	Dr. Emmanuel Otolorin, Dr. Adetiloye Oniyire, Dr. Gbenga Ishola, Mr. Bright Orji, Dr. Mark M. Kabue
Paraguay	PPIUD Secondary Data Analysis	Vicente Bataglia	Clinical outcomes of use of postpartum IUD.	PY3	PY4	Jeffrey Smith
Philippines	Descriptive Analysis of post partum IUD (PPIUD) Insertions at Fabella Maternity Hospital in Manila, Philippines	Ricky Lu	1. To determine the rates of perforations, expulsions, removals, infections, pregnancies with IUD, and visible threads among post-partum IUD users. 2. To assess if complication rates vary by client characteristics: client's parity, age, prenatal care attendance and gestational age at delivery.	PY5	PY6	Molly Strachan
Philippines	Assess Postpartum Intrauterine Contraceptive Device (PPIUD)	Reena Sethi	1. To assess the clients' satisfaction with PPIUD as an FP method just after insertion and after 6 weeks of insertion. This is the primary objective of the study. 2. To understand the demographic profile of clients accepting PPIUD.	PY6	PY6	Reena Sethi, Molly Strachan

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
	Services in three health facilities in the Philippines		<p>3. To measure the incidence of problems/complications among clients who received a PPIUD (infection, heavy and/or irregular bleeding, missing strings, expulsion; reasons and rates of removal and other problems, if any) at 6 weeks (or later).</p> <p>4. To understand the role of counseling for PPFP/PPIUD services</p> <p>5. To learn about service providers' perspectives, practice and experience with PPIUD services.</p>			
Philippines, Cambodia and Indonesia	Three-country operations research study to increase use of antenatal corticosteroids (ACS) among pregnant women with high probability of preterm birth	Jeffrey Smith	This study aims to reduce the morbidity and mortality among preterm newborns by improving the quality of care provided to pregnant women with high probability of preterm birth.	PY5	PY6	Kate Brickson, Emma Williams, Shivam Gupta
Rwanda	Malaria in Pregnancy Surveillance Study	Bill Brieger	A Pilot Study to Determine the Current Prevalence of Malaria Detectable Among Pregnant Women Registering for ANC in Six Districts in Rwanda.	PY 4	PY5	Elaine Roman
Rwanda	Increasing Access to Prevention of Postpartum Hemorrhage for Births in Health Facilities and Births at Home, in Four Districts of Rwanda	Blami Dao	Distribution of misoprostol at the community level for prevention of PPH.	PY4	PY6	Blami Dao, Barbara Rawlins, Rachel Favero
Senegal	Malaria in Pregnancy Case Study	Reena Sethi and Karim Seck	Documenting successes, challenges and lessons learned in MIP programming.	PY2	PY3	Aimee Dickerson
Senegal	iCCM Case Study	N/A	Documentation case study.	PY2	PY4	Serge Raharison

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
South Sudan	Increasing access to evidence based interventions for Prevention of Postpartum Hemorrhage (PPH) at Birth, in 2 counties of South Sudan	Jeff Smith	<ol style="list-style-type: none"> 1. To assess if antenatal care visits (ANC) by trained professionals is an effective mechanism for distributing misoprostol for PPH prevention to women who deliver at home in South Sudan. 2. To assess if community-based counseling on Birth Preparedness and Complication Readiness (BPCR) and distribution of misoprostol by Home Health Providers (HHPs) is an effective mechanism for scaling-up use of PPH prevention method for women who deliver at home in South Sudan. 3. To assess the coverage and use of misoprostol for home births. 4. To determine if misoprostol is acceptable to South Sudanese women for PPH prevention. 5. To measure the proportion of deliveries conducted by trained attendants at health facility. 	PY4	PY6	Vikas Dwivedi
Tanzania	Qualitative Research on Attitudes on Male Circumcision in Iringa Region, Tanzania	Manyia Plotkin	<ol style="list-style-type: none"> 1. To understand the motivations and barriers which exist for adult males (age 20 and above) in accessing MC services and perceptions on abstinence. 2. To understand what women think about their partners being circumcised. 3. To understand peoples' perceptions of what times of the year are better or worse for men to be circumcised. 	PY2	PY2	Marya Plotkin
Tanzania	Male Circumcision Service Delivery Program	Kelly Curran	<ol style="list-style-type: none"> 1. To conduct analysis on a client-level dataset of male circumcision clients in Tanzania <ol style="list-style-type: none"> a. Determine how many MC's were performed and the proportion of MC clients that returned for follow-up visits. b. Determine the quality of the MC surgeries performed c. Determine what proportion of the uncircumcised adult and adolescent male population in Iringa district that was circumcised during the MC campaign. 	PY1	PY5	Kelly Curran, Marya Plotkin
Tanzania	Evaluating a Service Delivery Model to Reach Older Clients with Voluntary Medical Male Circumcision (VMMC) in Iringa, Tanzania	Manyia Plotkin	<ol style="list-style-type: none"> 1. Document adult men's experience with services in a modified service delivery setting which caters specifically for men 20 years of age and above. 2. To examine decision-making factors of the men attending the service in regards to why they decided to get circumcised. 3. To quantify their level of satisfaction and perceived importance of several aspects of the service 	PY6	Now under Accelerate	Marya Plotkin

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Tanzania	Piloting Early Infant Male Circumcision (EIMC) in Iringa, Tanzania: Views on Acceptability and Service Delivery Integration	Amuri Mbaraka	<ol style="list-style-type: none"> 1. To describe users of the EIMC service in the pilot area. 2. To describe views and satisfaction of parents through the EIMC. 3. To explore the views and perceptions of parents (mothers and fathers) who had received counseling or orientation regarding EIMC and did not choose to have their male infant circumcised. 4. To explore views of facility in-charges and health care providers on the rollout of integrated EIMC within Maternal, Newborn and Child Health (MNCH) services. 5. To review the demographic characteristics of all parents and infants in the EIMC area 	PY6	Now under Accelovate	Hally Mahler, Mbaraka Amuri, Marya Plotkin
Tanzania	Evaluation of the Safety and Acceptability of the PrePex™ Device for Male Circumcision for HIV Prevention in Lesotho	Ehrhardt, Stephan (sehrhardt@jhsph.edu)	The proposed study aims to better understand if the introduction of the PrePex™ device in Tanzania would represent a preferred modality for men as well as monitor the correlation between desire for and uptake of VMMC services among select surveyed men.	PY6	Now under Accelovate	Hally Mahler, Mbaraka Amuri, Marya Plotkin
Timor Leste	Understanding the socio-cultural dynamics of urban communities and health system factors influencing childhood immunization in Dili, Timor-Leste	Ruhul Amin	<p>What are the key factors that contribute to low vaccination coverage in urban Dili, and how can the Dili District Health Services (DHS) and partners more effectively plan and implement strategies that improve immunization services and community mobilization in Dili and thereby increase coverage and lower drop-out rates.</p> <ol style="list-style-type: none"> 1. Determine deficiencies within the health services that contribute to sub-optimal vaccination coverage in Dili. 2. Understand parents' knowledge and attitudes toward vaccinations and the health system and how these contribute to sub-optimal vaccination coverage in Dili. 3. Understand socio-economic conditions and how they affect use of immunization services. 4. Develop recommendations for how modifications in service availability, provider practices, community mobilization, and/or health promotion could improve vaccination coverage in Dili. 	PY3	PY4	Kelli Capellier

COUNTRY	TITLE OF STUDY	PRINCIPAL INVESTIGATOR	STUDY OBJECTIVES	START DATE	END DATE	POINT PERSON(S)
Yemen	Investigating Maternal, Infant, and Young Child Nutrition, Newborn Caring, and Family Planning Practices in the Republic of Yemen	Anne Pfitzer	The overall objective of this study is to collect information that will assist in designing an evidenced-based intervention that combines MIYCN-FP counseling for mothers during antenatal care and child health contacts in the Republic of Yemen. The study focuses on determining the practices are for MIYCN, FP, and some newborn care practices, the availability of food and shopping practices, and the traditional practice of khat chewing which might affect the time and family budget available for child care practices. For MIYCN-FP, the study will collect in-depth information about the reasons for current practices, willingness and ability to try and continue new practices, and barriers and motivators for using optimal MIYCN-FP practices.	PY5	PY6	Rae Galloway
Yemen	Assessment of Long-Acting and Reversible Contraception (LARC) Services in Dhamar Governorate, Yemen	Anne Pfitzer	To evaluate the quality of long-acting reversible contraceptives (LARC) service provision, including intrauterine devices (IUD) and implants, by physicians and midwives at the facility level in the Dhamar, Governorate of Yemen.	Protocol developed and approved in PY6; Data collection and analysis under Yemen Associate Award.	MCHIP AA Year 1	Molly Strachan
Zambia	Malaria in Pregnancy Case Study	Michelle Wallon	Documenting successes, challenges and lessons learned in MIP programming.	PY1	PY1	Elaine Roman
Not bound by a country	Assessing a novel combination of training approaches and advocacy tools to support maternal and neonatal health among MNH champions	Catherine Carr	Evaluate the acceptability and efficacy and barriers to use of an online learning approach that delivers content and tests learner acquisition via SmartPhones according to a "low dose, high frequency" approach; evaluate the acceptability, perceived usefulness and patterns of use of an online Community of Practice (CoP).	PY4	PY6	Catherine Carr, Danielle Burke

Annex 7: Program Learning Matrix

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
Bangladesh		
Was the strategy of building new facilities an effective and cost effective strategy for increasing skilled delivery in remote (Hard to Reach) areas? Is the construction of facilities in Hard to Reach Areas a feasible way to increase SBA? What is the optimum catchment area for a rural facility?	Program Brief	MCHIP. (2014). Demand and Community Views of Murakuri UH&FWC: Patterns of Utilization, Outlooks, and Views on Sustainability.(in press: DEC)
Can Community Volunteers working with Community Action Groups effectively contribute to improving Maternal and Neonatal Health? How has CM approach empowered the community (increase of knowledge, skills, change of practices)?, etc.	Program Brief	MCHIP. (2014). The Role of CVs in Improving Maternal and Neonatal Health. (In Press: DEC)
Can CHWs be change agents to improve the knowledge and practice, demand for, and utilization of MNH/FP services? What factors led to acceptability of CHWs by the community? How has being a CHW empowered and transformed young women within the context of family and community, etc.	Program Brief	MCHIP. (2014). Community Health Worker (CHW) in Project MaMoni: Advancing Health in a Shared Culture. (In Press: DEC)
Has MaMoni improved the quality and coverage of ANC care? How has MaMoni improved (or not) quality and coverage of ANC by a skilled provider? Have paramedics contributed to increasing ANC coverage? Are water ambulances an effective way to provide ANC for the hard to reach populations?	Program Brief	MCHIP. (2014). Strengthening ANC Service as the Gateway to Achieve impact at scale: MaMoni Experience. (In Press: DEC)
Has the microplanning process improved the accuracy of the HIS and contributed to increasing coverage of MNH/FP services? Has the microplanning process been a factor in	Program Brief	MCHIP. (2014). Process Documentation of Community Microplanning Meetings in MaMoni Area. (In Press: DEC)

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
engaging CVs in the community and for CVs in the health system?, etc.		
Are CSBAs an effective/alternate solution for increasing coverage for skilled birth attendance in areas without public/private clinics? Is the quality of care provided sufficient? Are the CSBAs able to generate sufficient income to sustain their practice and retain skills?	Program Brief	MCHIP. (2014). MaMoni Engagement with Community Skilled Birth Attendants (C-SBAs). (In Press: DEC).
How can Family Planning be effectively introduced in a culturally conservative area? Did integration of FP with MNH services facilitate FP introduction? What steps are necessary for negotiation with the government to address coverage gaps in FP through shared responsibility?, etc.	Program Brief	Cancelled
Are the improvements in standards really making difference in service as measured by health service indicators as variables?	Program Brief	Cancelled
Has MaMoni contributed to effective introduction and scale up of misoprostol for PPH prevention? Was advocacy with the GoB an effective strategy for the introduction and scale up of Misoprostol? What were the key steps to operationalization of misoprostol distribution and monitoring?	Program Brief	Cancelled
What have been the most effective strategies for scaling up Maternal and Newborn programming?	Program Brief	Cancelled
What system supports are necessary for effective integration of FP/MNH/N services? When and how are interventions best phased into a program? What national policies and guidelines are required to enable an	Program Brief	Cancelled

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
integrated service delivery strategy?, etc.		
Has the community to facility referral system been effective? What is the role of community in developing and implementing a functional referral system? What types of facilitation is required to reduce third delay at the facility?, etc.	Program Brief	Cancelled
Does the Household to Hospital Continuum of Care contribute to increased service utilization? What elements are required to make a HHCC system work? What are the lessons learned to establish a functioning HHCC?	Program Brief	Cancelled
What elements are needed for an effective referral system from the union level (transport, communication, training, supportive supervision)?	Program Brief	Cancelled
Egypt		
What factors are associated with the rise in levels of stunting in Lower Egypt in comparison to Upper Egypt?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Did a health providers training focused on increased knowledge of key MNCHN-FP behaviors and interpersonal counseling skills improve coverage of ENC practices? What else could be done to improve provider compliance with recommended ENC practices?	n/a	Cancelled
Understanding perceptions of "Family Solidarity" sessions used to stimulate dialogue between men and women around gender and family relations as they relate to health.	n/a	Cancelled
Lessons learned in strengthening organizational and technical capacity of	n/a	N/A (Expected Completion Date: Sept 30th).

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
112 local implementing partners – what was effective and what was not so effective?		
What effect does exposure to CHW home visits and group sessions have on women's knowledge and behaviors regarding pregnancy and newborn care?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
What are culturally appropriate feeding practices that can prevent stunting in Egypt?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Does the intervention have positive effects on women's knowledge and couples' decision making on postpartum family planning?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Ethiopia		
How can blended learning for BEmONC/Effective Teaching Skills be effectively implemented feasibly (in a country where network/internet coverage is perceived to be low)? Does blended BEmONC training improve MNH skill competencies of midwifery faculty tutors so they can deliver quality training to students?, etc.	Program Brief	MCHIP. (2014). Experience of Blended Training Approaches. (in press: DEC)
Does enhanced MNH/PMTCT service affect the service utilization at selected health facilities?	Program Brief	MCHIP. (2014). Enhanced and Integrated PMTCT/MNCH support for selected MCHIP sites. (in press: DEC)
How can promising MNH practices be identified and how can this information be used to guide strategic thinking MNCH program implementation in Ethiopia? How can MCHIP take the findings from the process to the next level where it can be used to inform practice (program implementation) and policy?, etc.	Program Brief	MCHIP. (2013). Promising Practices in Maternal and Newborn Health and Family Planning and Reproductive Health in Ethiopia in 2012. https://intranet.mchip.net/Close-Out/Shared Documents/DEC and Legacy Documents/DEC and Legacy Documents_ Guidelines and Repository/DEC and Legacy Documents/Ethiopia/MCHIP_Ethiopia_Promising Practices in MNCH and FP in Ethiopia 2012_December 2013.pdf

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
What are the socio-cultural barriers to accessing maternal health care in Ethiopia?	Program Brief	MCHIP. (2012). https://intranet.mchip.net/Close-Out/Shared Documents/DEC and Legacy Documents_Guidelines and Repository/DEC and Legacy Documents/Ethiopia/MCHIP_Ethiopia_Review of the literature_Cultural_Barriers_Formatted.pdf
What level of utilization of CKMC can be achieved through existing systems considering low coverage of skilled birth attendants or a low institutional delivery rate? Can CKMC knowledge and acceptability improve among post-partum moms and their families?, etc.	Program Brief	N/A (Expected Completion Date: Aug 30th).
Are the improvements in standards really making difference in service as measured by health service indicators as variables? How do we know we are implementing PQI in a way that will continue post program support? What are levels of government leadership and ownership that exist & are required?	Program Brief	N/A (Expected Completion Date: Aug 30th).
Guinea		
What is the rate of continuation for women who receive PPIUD, and what were the reasons for discontinuation?	Program Brief	MCHIP. (2014). Déterminer le taux de continuité à un an parmi les femmes qui ont reçu le DIU post-partum dans les structures de santé formées par MCHIP-Guinée. End of Project Report: Guinea. (in press)
	Program Brief	ENGLISH VERSION: MCHIP. (2014). Continued contraceptive use: An evaluation to determine the continuation rate at one year among post-partum IUD users in Guinea. (in press: DEC)
	Program Brief	FRENCH VERSION: MCHIP. (2014). Améliorer la continuation contraceptive : Une évaluation pour déterminer le taux de continuité à un an parmi les utilisatrices de DIU post-partum en Guinée. (in press: DEC)
How were mobile phones (voice channel) used among a group of health workers? Did their use facilitate referral, HIS, stock management, supervision and clinical support?	Program Brief	MCHIP. (2014). End of Project Report: Guinea. (in press)
Did use of non-health community agents increase access to health information in an urban environment?	PowerPoint Presentation	MCHIP. (2014). End of Project Report: Guinea. (in press)
How do selected PMI countries incorporate WHO Guidance on case management of malaria in children into country-level IMNCI Training and Supervision Guidelines?	Program Brief	MCHIP. (2014). Inventory of IMCI Training and Supervision Tools in PMI Countries. (in press: DEC)

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
Do SBM-R score improvements correlate with improvement of key MNH practices and health outcomes?	Program Brief	MCHIP. (2014). Improving the quality of integrated FP and MNH services using Standards-based Management and Recognition (SBM-R). (in press: DEC)
	PowerPoint Presentation	MCHIP. (2013). Improving the quality of integrated FP and MNH services using Standards-based Management and Recognition (SBM-R). FIGO Africa.
Does integration of support to EmONC and PPFP services increase the utilization of PPFP?	PowerPoint Presentation	MCHIP. (2013). Leveraging EmONC intervention for effective LAPM strengthening in Guinea. FIGO Africa, Ethiopia.
	PowerPoint Presentation	MCHIP. (2013). Expanding access to long acting and permanent family planning methods (LAPM) through CEEmONC. ICFP, Ethiopia.
PAC and LARC service expansion and uptake	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Does the use of mobile phone technology to provide mentoring following training in EMONC help with the retention of knowledge and skills?	Program Brief	N/A (Expected Completion Date: Sept 30th).
Does a scalable model of community based distribution of misoprostol increase access to a uterotonic? (ALSO UNDER MH MATRIX)	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
	Program Brief	N/A (Expected Completion Date: Sept 30th).
Decentralizing training by developing regional trainers for FP and EmONC: Can regional teams be effectively formed and supported to offer training at the regional level?	Program Brief	N/A (Expected Completion Date: Sept 30th).
- How can this contribute to scale-up?		
- Is this cost effective?		
India		
Use of checklist to improve service delivery outcomes	PowerPoint Presentation	MCHIP. (2014). Regular Appraisal of Program Implementation in District (RAPID): A Supportive supervision approach to improve essential newborn care in Haryana India. International Conference on Integrated Care, Brussels.
Is use of Regular Appraisal of Performance of Immunization at District level (RAPID) using RED associated with improved quality of immunization services?	Program Brief	MCHIP. (2014). Regular Appraisal of Program Implementation in District (RAPID): A Supportive Supervision Approach for Strengthening Routine Immunization. (in press: DEC)

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
Does post training ENC/R follow-up support (supervision and in-service skills stations) improve ENC and neonatal resuscitation practices within health facilities?	Program Brief	MCHIP. (2014). Postnatal care home visits for the newborn in Jharkhand State.(Expected Completion Date: Sept 30th).
Can a supervisory framework be implemented for ENC/R?	Program Brief	MCHIP. (2014). Can a supervisory framework be implemented for ENC/R? (Expected Completion Date: Sept 30th).
Do demonstration sites facilitate uptake of key interventions/approaches by the existing health system?	Program Brief	MCHIP. (2014). Development of demonstration centers to improve immunization. (Expected Completion Date: Sept 30th).
Does streamlining of birth doses of vaccines for infants delivered at institutions lead to improved coverage? What needs to be done to ensure that birth doses of 3 vaccines (polio0, HBV birth dose, and BCG) occur? ,etc.	Program Brief	MCHIP. (2014). A High Impact Intervention Institutionalizing Newborn Vaccination Experience from India. (Expected Completion Date: Sept 30th).
Description of process of revitalizing PPFP/PPIUCD services and their expansion beyond the MCHIP target facilities	Program Brief	MCHIP. (2014). Revitalizing Postpartum Family Planning services to address unmet needs for family planning. (Expected Completion Date: Sept 30th).
SBM-R approach for improving pre-service education standards aids in adopting recommended clinical practices at clinical sites and learning of required skills by students.	Program Brief	MCHIP. (2014). Strengthening the quality of pre-service education for nursing and midwifery cadres in India. (Expected Completion Date: Sept 30th).
Is the "My Village My Home" model an effective approach to monitoring vaccination coverage?	Program Brief	MCHIP. (2014). My Village, My Home: A tool to optimize immunization coverage. (Expected Completion Date: Sept 30th).
What happens to newborns in the first month of life? Follow-up Postnatal Visits	Program Brief	MCHIP. (2014). What happens to newborns in the first month of life? Follow-up Postnatal Visits. (Expected Completion Date: Sept 30th).
What are newborns dying from? Verbal Autopsy?	Peer Reviewed Journal Article	MCHIP. (2014). What are newborns dying from? Verbal Autopsy. (Expected Completion Date: Sept 30th).
Post-insertion outcomes and provider and client perspective on PPIUCD services	Program Brief	MCHIP. (2014). Women's experience with postpartum intrauterine contraceptive device use in India. (Expected Completion Date: Sept 30th).

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
Use of Post- partum systematic screening to increase the accessibility and utilization of PPFP counseling and services at outreach immunization clinics in selected MCHIP-supported sites in Jharkhand, India.	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Approach: Journey from 'Child Survival Call to Action' to 'RMNCH+A Strategy': A paradigm shift to address the issues of MDGs 4 and 5.	Program Brief	MCHIP. (2014). India's Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) Strategy: A Case of Extraordinary Government Leadership. (Expected Completion Date: July 30th).
Implementation: Understand the processes adopted by the Government of India to implement RMNCH+A Strategy at the State and district levels by developing various guidelines and designing interventions.	Program Brief	MCHIP. (2014). RMNCH+A Highlight Series. (Expected Completion Date: July 30th).
Monitoring: Strengthening the use of data for action by improving the quality of data reported and using data for reviewing performance.	Program Brief	MCHIP. (2014). RMNCH+A Highlight Series - Using Data for Action: Scorecards and Dashboards Help Jharkhand Improve Maternal and Child Health. (Expected Completion Date: July 30th).
Are on-site trainings effective capacity building tools to reduce neonatal mortality?	Program Brief	MCHIP. (2014). RMNCH+A Highlight Series - On-site Training - an Effective Capacity Building Tool to Reduce Neonatal Mortality. (Expected Completion Date: July 30th).
Kenya		
Document the approach used by MCHIP in establishing Kangaroo Mother Care (KMC) at a rural district setting in Kenya	Program Brief	MCHIP. (2014). End of Project Report: Kenya. (in press: DEC)
Does a facilitated referral process by group leaders increase the PwP community-facility referral completion rate?	PowerPoint Presentation	MCHIP. (2014). Improving Enrolment into HIV care and treatment through expanded Prevention with Positives (PwP) Services at the Community: The Kenyan Experience. ICASA Conference, Ethiopia.
Preliminary study to develop standard recording and reporting formats for cPwP interventions	Program Brief	MCHIP. (2014). National Community PwP M&E roll out report. End of Project Report: Kenya. (in press: DEC).
Can community support groups be an effective platform for integrating all high impact nutrition interventions (HINI) MIYCN practices?	Program Brief	MCHIP. (2014). Using community support groups as a platform to improve Maternal, infant and young child nutrition in Kenya. (in press: DEC) MCHIP. (2014). Improving optimal complementary feeding through recipe development. (in press: DEC)

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
What are effective methods for disseminating national policies that result in implementation at point of care?	Program Brief	MCHIP. (2014). Improving Iron-Folic Acid and Calcium Supplementation Compliance through Counseling, Reminder Cards, and Cell Phone Messages in Kenya. (in press: DEC) MCHIP. (2014). Maternal and Child Health Integrated Program (MCHIP), ² MCHIP/PATH – Washington DC, ³ Qualitative Methods. (in press: DEC)
Can Immunization's RED approach be used to increase access and utilization of PMTCT services	Program Brief	MCHIP. (2014). RED Approach for PMTCT Increased Uptake and Retention in PMTCT Care in Bondo District, Kenya. (In press: DEC)
Can the RED/PMTCT approach developed in Bondo be successfully transferred to Igembe?	Program Brief	MCHIP. (2014). End of Project Report: Kenya. (in press: DEC)
Can CHWs increase utilization of IPTp through encouraging early entry into ANC?	PowerPoint Presentation	MCHIP. (2014). On the Front Lines of the Battle Against Malaria. Poster Presentation at the Poster presentation at the 6th MIM conference, Durban, SA
	Program Brief	MCHIP. (2014). On the Front Lines of the Battle Against Malaria, MCHIP and Community Health Workers Transform Tragedy into Triumph. http://www.jhpiego.org/content/front-lines-battle-against-malaria-mchip-and-community-health-workers-transform-tragedy-triu
Improving data management at facility level	PowerPoint Presentation	MCHIP. (2014). Jhpiego's role in correction of IPTp data in a malaria endemic sub-county in Kenya. ASTMH, New Orleans.
Does training of health workers in Monitoring and Evaluation assist them to better manage maternal complications in selected high volume facilities?	Program Brief	MCHIP. (2014). Capacity Building Maternity Service Providers on Monitoring and Evaluation (M&E) Improves Service delivery and helps reduce maternal and neonatal deaths. (in press: DEC).
	PowerPoint Presentation	MCHIP. (2014). Capacity Building Maternity Service Providers on Monitoring and Evaluation (M&E) Improves Service delivery and helps reduce maternal and neonatal deaths. Jhpiego Global MER Conference, Baltimore, USA.
	PowerPoint Presentation	MCHIP. (2013). Capacity Building Maternity Service Providers on Monitoring and Evaluation (M&E) Improves Service delivery and helps reduce maternal and neonatal deaths. Kenya Best Practices Conference, Nairobi, Kenya.
Does participation in a young mothers' club result in an increase in the intention to deliver with a skilled attendant and use a modern family planning method?	PowerPoint Presentation	MCHIP. (2014). Using young mothers clubs to improve knowledge of PPH and FP in urban slums of Nairobi. (Expected Completion Date: Sept 30th).
Is it feasible and acceptable to use counseling, reminder cards and cell phone messages to improve compliance with Iron-Folic Acid and calcium supplementation for pregnant women?	Program Brief	MCHIP. (2014). Improving Iron-Folic Acid and Calcium Supplementation Compliance through Counseling, Reminder Cards, and Cell Phone Messages in Kenya. (Expected Completion Date: Sept 30th).
Does the use of an immunization diary and mobile (voice) follow-up of	Program Brief	MCHIP. (2014). Use of phone contacts to increase immunization return rates in districts in Western Kenya. (Expected Completion Date: Sept 30th).

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
defaulters reduce the immunization dropout rate?		
What are the results and most important bottlenecks in implementing the RED strategy to improve immunization coverage?	PowerPoint Presentation	MCHIP. (2014). Reaching the unreached: new challenges and promising approaches in equitably immunizing the world's children. Panel at the WPHA conference, Addis Abeba, Ethiopia. (Expected Completion Date: Sept 30th).
Describe the timeliness of immunizations among infants in 6 districts in Western Kenya	PowerPoint Presentation	MCHIP. (2014). Timeliness of immunizations among infants in Western Kenya. (Expected Completion Date: Sept 30th).
What is the level of community knowledge and what are the practices for management of childhood illness?	Peer Reviewed Journal Article	Kabue, M., Otieno, D., Shiroya, MW., Waka, C., Ngindu, A., Kariuki, MM., Kasungami, D., Tsuma, L., Subramanian, S., Malonza, I., Oliech, J. (2014). Change in community knowledge & iCCM indicators. (Expected Completion Date: Sept 30th).
What is the level of health managers' knowledge and what are their practices for supporting communities?	Peer Reviewed Journal Article	Otieno, D., Shiroya, MW., Kabue, M., Waka, C., Charles Waka., Raharison, S., Mbeya, C., Ondiek, F. (2014). Health care managers & community support Systems during iCCM implementation. (Expected Completion Date: Sept 30th).
Defining Hard-to-Reach areas for prioritizing locations to implement iCCM	Program Brief	MCHIP. (2014). Defining hard to reach areas for prioritizing location for implementation iCCM. (Expected Completion Date: Sept 30th).
Description of the road to deregistration of zinc	Program Brief	MCHIP. (2014). Deregulation of Zinc in management of diarrhea disease in children in Kenya: Process, lessons learnt and effects/impact on case management. (Expected Completion Date: Sept 30th).
What are the facilitators and barriers to the integration of FP and MIYCN counselling and services?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
Madagascar		
Is the use of CHX for umbilical cord application acceptable to clients and feasible with current CA practice?	Program Brief	MCHIP. (2014). End of Project Report: Madagascar. (in press: DEC)
New clinical registers/indicators	PowerPoint Presentation	N/A (completed but not presented)
What are the experiences and results of working through private/professional associations?	PowerPoint Presentation	N/A (completed but not presented)

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
Is it possible to prevent PPH by using misoprostol at community level? (also captured in Core MH questions)	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
	Program Brief	N/A (Expected Completion Date: Sept 30th).
Does training CAs on MNH danger signs increase their ability to identify complications and appropriately refer?	Peer Reviewed Journal Article	N/A (Expected Completion Date: Sept 30th).
	Program Brief	N/A (Expected Completion Date: Sept 30th).
Mozambique		
Nine to 10 months postpartum, what is the accuracy of mothers' report of receipt of key maternal and newborn interventions delivered around the time of birth?	Peer Reviewed Journal Article	Stanton CK, Rawlins B, Drake M, dos Anjos M, Cantor D, Vaz M, Chavane L, Chongo L, Ricca J. (2013). Measuring Coverage in MNCH: Testing the Validity of Women's Self-Report of Key Maternal and Newborn Health Interventions during the Peripartum Period in Mozambique. PLoS ONE, 8 (5): e60694. http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0060694&representation=PDF
Compare SBM-R scores with key MNH practices and health outcomes to determine whether quality improvement contributes to better health practices and outcomes. Key questions include: - Are quality scores improving? - Do quality and humanization improvements result in better health practices?, etc.	Peer Reviewed Journal Article	Shivam, S., Kazembe, A., Kachale, F., Rawlins, B., Oseni, L., Sethi, R., Mtimuni, A., Rashidi, T., Rozario, A., Abwao, S., Mupfundze, T. (2014). Title TBD. (Pending submission) (SAME QN AS BARBARA RAWLINS, ASK HER)
What is the added value of community mobilization through community health committees and Co-management Committees for improving household/community health practices (e.g. breastfeeding) and facility MNH service utilization?	Program Brief	N/A (Expected Completion Date: Sept 30th).
Are selected key MNH interventions (PE/E management, partograph use, AMTSL, etc.) being correctly implemented and improving in ANC and	Program Brief	N/A (Expected Completion Date: Sept 30th).

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
maternity wards in Model Maternities facilities?		
Can integrating RMNCH services increase utilization? Can quality be maintained when services are integrated? Are provider and client satisfaction improved when RMNCH services are integrated?	Program Brief	N/A (Expected Completion Date: Sept 30th).
Zimbabwe		
What is the relationship between facilities achieving 80% of performance standards for AMTSL and reductions in PPH?	Program Brief	MCHIP. (2014). Linking SBM-R-Based Performance Improvement to Health Outcomes for Mothers and Newborns: Chasm or Destiny? (in press: DEC).
What is the relationship between facilities achieving 80% of performance standards for ENC/HBB and reductions in newborn mortality?	Program Brief	
New Protocol: Does the trainer directed competency retention approach have any effect on HBB knowledge and skills retention? Does self-directed competency retention approach have any effect on HBB knowledge and skills retention?	Program Brief	MCHIP. (2014). A trial of the Effectiveness of Using a Trainee Directed Skills Practice Approach for Enhancing the Retention of Neonatal Resuscitation Competencies in Two Districts. (in press: DEC).
Oxytocin potency study: Does oxytocin lose potency in the national supply chain	Program Brief	MCHIP. (2014). Potency of oxytocin along the supply chain in Zimbabwe: A post-marketing surveillance. (in press: DEC).
Why is the IPTp program not meeting its targets in Mutare District? What factors are associated with low IPTp coverage?	Program Brief	MCHIP. (2014). An appraisal of the malaria in pregnancy program in Manicaland. (in press: DEC).
Reasons for low immunization rates	Program Brief	MCHIP. (2014). End of Project Report: Zimbabwe. (in press: DEC)
MCHIP lessons learned in improving management of diarrheal disease with ORS/Zn in Mutare/Chimanimani? (documentation)	Program Brief	MCHIP. (2014). Zinc prescription patterns and associated factors among health workers managing sick children with diarrhoea in a rural district in Manicaland. (in press: DEC).

PROGRAM LEARNING (PL) QUESTION	PRODUCT	REFERENCE
What is the effectiveness of VHWs in treating uncomplicated malaria cases with ACTs/RDTs in 2 districts?	Program Brief	MCHIP. (2014). The contribution of Village Health Workers to Malaria Case Management in rural Zimbabwe. (in press: DEC).
What is the quality of MH and community case management services provided by VHWs at the community level? What is the compliance with performance standards for ANC, PNC, and CCM?	Program Brief	MCHIP. (2014). A Performance and QI Approach for Village Health Workers in Community Based Maternal, Newborn and Case Management. (in press: DEC).
Does SBM-R for CH improve IMNCI performance? Does improved SBM-R performance impact selected child health outcomes? What inputs were required to implement SBM-R interventions?	Program Brief	Cancelled
What is IUCD uptake in Manicaland low? Is this due to "supply side" issues?	Program Brief	Cancelled
What is the uptake of KMC services in relation to the number of LBW? Are there challenges in using the registers? How is KMC data in the registers utilized/processed?	Program Brief	N/A (Expected Completion Date: Sept 30th).
Paraguay		
What are the lessons learned from the South-to-South learning process between Paraguay and Peru for strengthening midwifery education? (INCLUDED UNDER MATERNAL HEALTH TECHNICAL TEAM TOO)	Program Brief	MCHIP. (2014). Success Stories: South-to-South Assistance Strengthening Obstetric and Midwifery Education Peru to Paraguay. (In press: DEC)

Annex 8: Program Learning Theme Summaries



USAID
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Maternal and Child Health
Integrated Program

MCHIP Technical Summary

QUALITY OF CARE

June 2014

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Suggested citation: Arscott-Mills S, Hobson RD, Ricca J and Morgan L. 2014. *MCHIP Technical Summary: Quality of Care*. Maternal Child Health Integrated Program.

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

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Abbreviations

ADRA	Adventist Development and Relief Agency
AMREF	African Medical and Research Foundation
AMTSL	Active Management in the Third Stage of Labor
ANC	Antenatal Care
BEmONC	Basic Emergency and Neonatal Care
CHAM	Christian Health Association of Malawi
CHS	Center for Health Services
COPE	Client-Oriented Provider Efficient
CSHGP	Child Survival and Health Grants Program
D&A	Disrespectful Care and Abuse
FP	Family Planning
L&D	Labor and Delivery
LQAS	Lot Quality Assurance Sample
MCHIP	Maternal and Child Health Integrated Program
MNCH	Maternal, Newborn, and Child Health
MNH	Maternal and Newborn Health
MOH	Ministry of Health
NGO	Nongovernmental Organization
PAC	Postabortion Care
PDQ	Partnership Defined Quality
PDSA	Plan-Do-Study-Act
PE/E	Pre-Eclampsia and Eclampsia
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PPH	Postpartum Hemorrhage
PQI	Performance Quality Improvement
PVO	Private Voluntary Organization
QI	Quality Improvement
QOC	Quality of Care
RAPID	Regular Appraisal of Program Implementation in a District
RMC	Respectful Maternity Care
RMNCH	Reproductive, Maternal, Newborn, and Child Health
SBM-R	Standards-Based Management and Recognition
SPA	Service Provision Assessment
TRAction	Translating Research into Action
USAID	U.S. Agency for International Development
WHO	World Health Organization
WRA	White Ribbon Alliance

Background

Since 2008, the U.S. Agency for International Development's (USAID's) Bureau for Global Health's flagship Maternal and Child Health Integrated Program (MCHIP) has worked in more than 50 developing countries in Africa, Asia, Latin America and the Caribbean to improve the health of women and children. MCHIP works on programming in maternal, newborn, and child health (MNCH), immunization, family planning (FP), nutrition, malaria, and HIV/AIDS and has supported various approaches to measuring and improving quality of care (QoC) in these technical areas. All of the approaches supported by MCHIP: 1) **define quality**, including setting standards of care and 2) **measure QoC** through either primary data collection or routine information systems; and most approaches also aim to 3) **improve quality** through specific interventions. This paper highlights five key quality measurement and improvement approaches and tools developed and/or used in MCHIP's work:

- **Standards-Based Management and Recognition (SBM-R)** for quality improvement (QI) of reproductive, maternal, newborn, and child health (RMNCH) services
- **Quality of care health facility assessments** for measurement of the quality of facility-based maternal and newborn health (MNH) services
- **Regular Appraisal of Program Implementation in a District (RAPID)** for QI of immunization services
- **Respectful Maternity Care (RMC)** toolkit for defining, measuring, and improving maternity care from a client perspective
- **Community-inclusive approaches for QI** of reproductive RMNCH services, specifically: Partnership Defined Quality (PDQ) and Client-Oriented Provider Efficient (COPE) services

Recent Evidence on the Importance of Quality

Progress toward ending preventable child and maternal deaths will require reaching high levels of *effective coverage* with high-impact RMNCH interventions. The concept of effective coverage emphasizes the fact that only through delivering health care services of sufficient quality can health impact be achieved. For example, although several sub-Saharan African countries have increased their rates of antenatal care (ANC) and institutional deliveries, maternal mortality rates have remained high, suggesting that one of the chief constraints is poor quality. This is the case in Malawi, where skilled birth attendance has risen to 71%, yet maternal mortality is still at 460/100,000 live births.¹ A large cross-sectional World Health Organization (WHO) multi-country study of maternal health services published in the *Lancet* in 2013 showed no correlation between maternal mortality and implementation of known lifesaving interventions such as use of magnesium sulfate for women with eclampsia: varying levels of quality of service provision are most likely a key contributor to this finding. The study concluded that “universal coverage of lifesaving interventions must be matched with ... overall improvements in the quality of maternal health care.”²

Quality services improve health outcomes by providing clients with respectful and technically sound services, delivered according to standards that are known to maximize their health impact. Additionally, client and community perceptions of quality can affect utilization of those services.³ Although knowledge and experience in QI have accumulated globally over the last few decades, there are still important knowledge gaps in terms of the most effective and sustainable approaches.⁴ Recent trends in addressing QoC have taken a system view of the production of quality services, acknowledging that: 1) health care delivery occurs as part of an interaction between a health care provider and the client and community; 2) provider performance is affected and motivated by a wide range of factors in the provider’s immediate environment; and 3) the health system is responsible for providing inputs and processes that service providers need to deliver quality services, including infrastructure, supplies, supervision, and management.

WHAT IS QUALITY?

Dimensions of Quality from Common Frameworks

One of the first systematic frameworks for the quality of health services was developed by Donabedian,⁵ who divided the production of quality services into structure, process, and outcome. Structural measures gauge the degree to which a facility is prepared to deliver care in terms of necessary inputs and staffing. An Institute of Medicine report⁶ stated that structural measures include “the presumed capacity of the practitioner or provider to deliver quality health care. For health care professionals, this may include licensure, specialty board certification, and type of training. For facilities, they include government certification and private accreditation, physical attributes including safety, and policies and procedures.” Process measures focus on the clinical content of care being delivered according to standards. This includes timely and accurate diagnosis, appropriate treatment, respectful care, and provision of information to clients. “Outcomes” refer to the health status and satisfaction of the clients served.

The WHO identifies six dimensions for services delivered with quality, which are:⁷

- **Effectiveness**—delivering health care that results in improved health outcomes for individuals and communities
- **Efficiency**—maximizing resource use
- **Accessibility**—delivering health care that is within reasonable geographic reach and available when needed
- **Acceptability and patient-centeredness**—taking into consideration preferences and cultures

- **Equitability**—delivering health care that is of equal quality for all
- **Safety**—minimizing risk and harm

Role of Health Care Provider Motivation in Producing Quality Services

Whether health workers deliver quality services depends in part on whether they have the needed inputs such as commodities, training, and support from processes like supervision. Another key determinant of providers delivering quality care is their **motivation**. Health workers often perform at a lower capacity than they are able.⁸ Providers, regardless of their intrinsic motivation, often face an environment that has built-in and strong disincentives for them to deliver consistent QoC. These include low salaries, paid without regard to their performance; overwork; lack of accountability and supervisory support; fear of negative clinical outcomes; and perceptions of patients' demands and fears.^{9,10,11} QI strategies that recognize these challenges and attempt to address them are more likely to be successful.

Common Elements of QI Approaches

Many QI approaches have been developed over the last several decades that take into account some or all of these dimensions and elements of QoC. The *Finding Common Ground* report¹² reviews several of the most widely used approaches to QI, which it defines as “a cyclical process of measuring a performance gap; understanding the causes of the gap; testing, planning, and implementing interventions to close the gap; studying the effects of the interventions; and planning additional corrective actions in response.” This is a process often termed the Plan-Do-Study-Act (PDSA) cycle. At an operational level, most QI approaches include the following elements as well:

1. **Standards:** QI models tend to have reference points adopted from international or national guidelines for the particular set of health services addressed by the QI model.
2. **Organizational drivers:** This may be persons, teams, and/or organizations that facilitate and support the QI process.
3. **Situation analysis:** An initial assessment is usually performed to identify deficiencies, deviations, or gaps between the standards and actual practices.
4. **Specific aims:** Each model has specific aims or objectives that provide a rationale and targets for what the QI effort is trying to accomplish. In several approaches, specific indicators are identified to help track progress toward reaching the overall goal.
5. **Identification and selection of interventions:** QI models include various tools to facilitate the identification and selection of interventions and changes to narrow the performance gap.
6. **Implementation of interventions:** QI models apply selected interventions or changes, usually with a deliberate set of steps, to close the gap between standards and actual practices documented during the situation analysis.
7. **Monitoring and documentation of results:** QI models include a system to track the differences in performance that result from an intervention over time. Such a system measures selected process indicators and/or health outcomes. Tools for monitoring and documenting QI results include repeated self-assessments, external audits, and run charts.
8. **Community involvement:** Most QI models include a component to involve the community in activities such as advocacy, awareness-raising, and active participation in the QI process.
9. **Incentives and motivation:** Some QI models incorporate financial or non-financial rewards to inspire providers to change and sustain behaviors and practices according to standards.
10. **Scale-up plan:** After an intervention has been shown to improve performance according to standards and/or health outcomes, a scale-up plan may be devised to spread the interventions.
11. **Sustainability plan:** A sustainability plan may be undertaken to ensure that not only is the intervention scaled up, but also institutionalized so that health care providers continue to perform according to standards over the long term.¹³

Standards-Based Management and Recognition

BACKGROUND AND IMPLEMENTATION UNDER MCHIP

SBM-R promotes the systematic use of performance standards as the basis for the organization and functioning of health services.¹⁴ It is one of MCHIP's most widely applied approaches to QI of health facility-based RMNCH services. SBM-R begins by convening an in-country group of experts to define quality—developing/adapting evidence-based operational standards in a health service area (for example, FP, maternity and newborn care, and facility-based child health in Pakistan and Afghanistan), which are then incorporated into an assessment tool that can be self-administered or administered by peers, or by external assessors, such as supervisors, at health facilities at any level. When used by supervisors, the assessment tool can support a more structured supervision process, serve as a point-of-care learning tool, and set expectations of quality for new staff. Implementation of the assessment tool is intended

to result in facility teams identifying performance gaps, analyzing the causes of the gaps, and developing and implementing interventions to close these gaps (Figure 1). The gaps observed usually fall into the following categories: lack of knowledge and skills, lack of resources, and lack of motivation. Many of these gaps can be addressed through local action with minimal external support; however, external support is sometimes needed. Table 1 shows data from Pakistan demonstrating that 95% of the identified gaps cost little to nothing to address, and are within the means of facility personnel to address themselves.

Figure 1. The Four Steps of SBM-R



Table 1. Estimated Costs of Planned Improvement Activities to Attain Maternal Health Care Standards (Pakistan, Provinces of Mansehra and Bagh)

No Cost	Low Cost	High Cost
75%	20%	5%
e.g., reorganizing shelves, cleaning facility, counseling	e.g., chlorine solution (Rs 30 per BHU per month), gloves, screens for privacy	e.g., refrigerator, sterilizer, ambulance

Performance assessments result in a score and “when a facility team achieves a pre-agreed level of performance, the entire facility is acknowledged through a recognition mechanism, which is usually designed by the Ministry of Health or other key stakeholders or institutions, and normally involves institutional authorities and the community.”

SBM-R is meant to enhance several drivers of improved health worker performance. First, because the assessments (i.e., performance based on the standards) are externally verified, SBM-R reinforces top-down accountability. Second, SBM-R is designed to motivate health workers by rewarding improved performance with public and/or peer recognition and rewards (i.e., the “recognition” component). Finally, SBM-R is expected to motivate health workers by encouraging teamwork and self-assessment within facilities, which in turn spurs health workers to hold each other accountable and builds on their intrinsic motivation.

MCHIP has supported implementation of SBM-R in one-third to half of the countries it has worked in. The bulk of MCHIP's experience with SBM-R has been in FP, maternity care, ANC, and infection prevention. More recently, SBM-R has been used by MCHIP in HIV treatment and prevention of mother-to-child transmission of HIV (PMTCT), child health, and other areas.

In all the areas in which it has been used, the data generated through the QI process itself have consistently shown improvements.

Dimensions and Elements of Quality Addressed

SBM-R is a QI approach that focuses primarily on the WHO dimensions of safe and effective care, but also includes respectful care (respect of clients' rights and preferences, development of partnerships with clients for better health outcomes). The tools also include measurement of facility readiness (basic infrastructure, human and material resources, and basic management systems). SBM-R incorporates several of the elements of QI described in *Finding Common Ground* such as definition of standards, measurement against those standards, and motivation of health workers through the recognition process.

Lessons Learned

Evaluations of SBM-R have shown promising results. For example, in Malawi, a 2009 Jhpiego evaluation¹⁵ found a significantly greater proportion of ANC* and FP† standards met by facilities in the SBM-R intervention groups than for those in the comparison groups (i.e., those not using SBM-R); postnatal care standards also improved. “Although quality of care was high at comparison as well as intervention facilities, the evaluation found that the Performance Quality Improvement (PQI) intervention significantly improved the management of postnatal care and family planning clients.”¹⁶ SBM-R was scaled up to all central and district hospitals in Malawi, including many Christian Health Association of Malawi (CHAM) hospitals and some health centers.‡

SBM-R QI data have not always been linked to either key practices or outcome level results (morbidity/mortality), but MCHIP country programs in Ethiopia, Guinea, Malawi, Mozambique, Nigeria, and Zimbabwe worked with Ministries of Health (MOHs) to make those linkages. Figure 2A shows results from six maternities in Guinea, collectively performing 3,500–4,000 annual deliveries. Compliance with labor and delivery (L&D) standards rose from an average of less than 40% in 2011 to 80% in 2013. Over that time, the use of active management in the third stage of labor (AMTSL) rose from under 40% to over 80%, and the incidence of postpartum hemorrhage (PPH) dropped from 2.9% to 0.7% of cases. Figure 2B shows similar data from 34 Model Maternities in Mozambique from 2010 to 2013, with over 100,000 annual deliveries. Compliance with standards rose from an average of <30% to over 50%. Correct partograph use doubled from 30% to 60%; AMTSL use rose from <70% to near universal. The institutional maternal mortality trend can be assessed later this year, once another data point is added. A full report of these and other findings can be found in *Linking Quality Improvement Scores to Service Outputs and Outcomes* (manuscript in preparation). While these examples are positive, they do not conclusively demonstrate causality as data were collected only from intervention facilities. These country program examples are limited in number, and the experience needs to be expanded and made standard practice to continue to improve SBM-R implementation.

* Both study groups achieved 80% or more of the verification criteria for 11 out of the 18 ANC standards. Scores for 3 of 17 standards were significantly higher in the intervention than in the comparison group: rapid initial evaluation, which helps the provider triage ANC clients who need urgent attention (63% and 23%, $p = 0.05$), cordial reception and treatment (99% and 84%, $p = 0.05$), and conducting the physical and obstetric exam (89% and 73%, $p = 0.01$).

† Both study groups complied with at least 80% of the verification criteria for 9 of the 16 FP standards. The intervention group scored significantly higher than the comparison group on two standards: establishing a cordial relationship with the client and identifying her needs (99% and 84% respectively, $p = 0.05$), and identifying the need for protection against sexually transmitted infections, including HIV (73% and 26%, $p = 0.01$). Intervention facilities were more likely than comparison facilities to have working toilets and adequate counseling and examination areas in the FP service area.

‡ Established in 1966, CHAM has 171 member health facilities, including hospitals and health centers. These provide about 37–40% of the health care service delivery in Malawi, 80% of it in hard-to-staff areas.

Figure 2A. Trends in MNH Standards Achieved, Maternal Health Service Delivery Practices, and Health Outcomes in Six Facilities in Guinea: 2011–2013

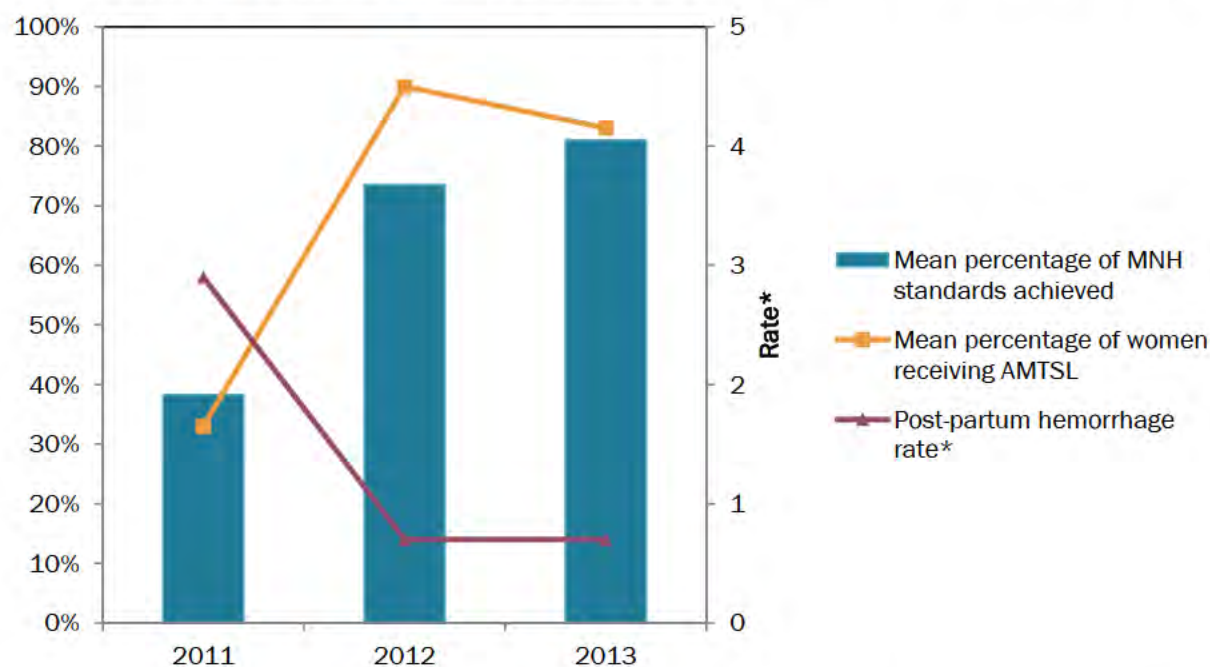
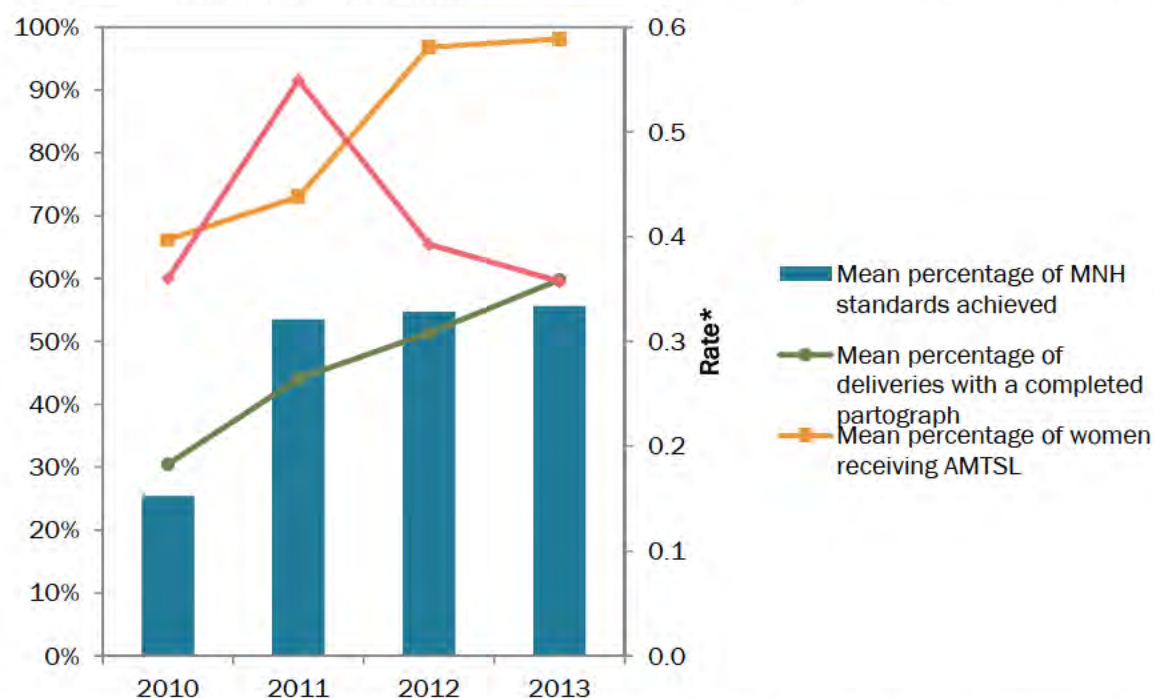


Figure 2B. MNH Standards Achieved, Maternal Health Practices, and Health Outcomes in 34 Facilities in Mozambique, 2010–2013



MCHIP's experience in implementing SBM-R suggests that the approach can empower facility staff through jointly defining standards, measuring them, and rewarding delivery of high-quality care. In many countries where MCHIP has supported SBM-R implementation, staff trained and mentored on SBM-R found it motivating—because they saw quantifiable results of their actions and they were recognized and rewarded for improvements achieved. In some countries, such as Bolivia and Liberia, SBM-R has been adapted to support national facility accreditation.

Institutionalization and sustainability of SBM-R remain challenging. Implementing the approach often relies on individual champions and external supervision (either by the project team or MOH) to drive the process. Moreover, MCHIP assessments of SBM-R sustainability in Indonesia and Malawi found some evidence that, once project resources ended, verification of SBM-R results occurred less frequently, rewards for performance often ceased, and implementation waned. Reduced project resources also affected the availability of needed inputs, such as reference documents and training. Where implementation of SBM-R has waned, facilities did not seem to face consequences for poor performance. The focus of SBM-R has typically been on reinforcing positive practices and not on consequences for poor performance. These factors point to difficulties with institutionalization and sustainability of the approach—a common problem with QI approaches, particularly in settings with weak governance, but one that should be addressed in the future through streamlining and linking to motivational systems.

Future Directions

It is important to continue to invest in implementation research for SBM-R to understand what is working well, what can be improved, the variations in how it is implemented, and how the approach can be adapted to support its effectiveness, sustainability, and scalability. Standard documentation should include information on who was involved from the MOH in rolling out the process; who was trained in SBM-R use; how often improvement and measurement cycles were repeated; the types of improvement activities included in facility plans; and the proportion of improvement activities completed. In addition, guidance recently developed under MCHIP now requires that reporting of SBM-R results always be linked to recording the use of key practices (e.g., uterotonic use in third stage). Having a more complete picture of inputs, processes, and outcomes will enable meaningful comparisons to improve the practice of SBM-R.

In terms of sustainability, there are activities on two fronts. The first focuses on institutionalization of SBM-R within a larger community and health systems framework. This includes linking SBM-R to national and community health systems management policies and practices such as national accreditation, professional association certification processes, and regular supportive supervision programs.¹⁷ The second set of activities focuses on streamlining the approach to make it less time consuming to implement. This includes applying only a subset of standards at any one time and using mHealth tools supplemented by job and communication aids that analyze the data and also suggest appropriate improvement activities.

Finally, mechanisms for recognition to better motivate health workers are being expanded. Performance-based incentives based on meeting SBM-R quality targets have been used in Mozambique by the Elizabeth Glaser Pediatric AIDS Foundation and in Malawi. Graded recognition and reward schemes are also being explored to counter the perception among some health care providers that attainment of an 80% overall score is too distant a goal to be immediately motivating.

Measurement of the Quality of Antenatal and Maternity Services through the QoC Health Facility Assessments

BACKGROUND AND IMPLEMENTATION UNDER MCHIP

Despite great efforts at global and country levels to increase birth attendance by a skilled provider, the quality of care provided by skilled birth attendants varies widely, and is often unknown.¹⁸ To better characterize the nature of the quality of service provision for antenatal and maternity care by skilled providers, MCHIP designed and conducted assessments in health facilities providing maternity services in seven countries in East and Southern Africa (Ethiopia, Kenya, Madagascar, Mozambique, Rwanda, Tanzania [including Zanzibar], and Zimbabwe) from 2010 to 2012.¹⁹ The sampling of health facilities varied between countries based on the purpose of the assessment. For example, the samples in Zimbabwe and Kenya were nationally representative whereas, in Mozambique and Tanzania, the samples were designed to be baselines for programs. The main objective of these assessments was to determine the frequency and quality with which evidence-based interventions were implemented by maternal and newborn care providers. This was achieved by assessing both facility readiness (i.e., presence of required drugs, supplies, and other health system inputs also often assessed using Service Provision Assessment [SPAs]) and the quality of services provided during ANC and L&D, assessed by direct observation of provider performance. Unlike SBM-R, the QoC assessments were intended to be quality *measurement* exercises primarily and not QI activities except insofar as they fit into larger country-led QI processes.

The use of observation with re-examination is considered to be the gold standard in measuring QoC.²⁰ Re-examination of an obstetric event is not practical so direct observation alone was conducted. This approach is clearly better than the alternatives—either extrapolation from facility readiness assessments or chart audits in environments where records may be highly incomplete and inaccurate. The definition of quality used in the assessments was that key practices were correctly carried out according to globally accepted, evidence-based guidelines established for MNH, as defined in WHO's Integrated Management of Pregnancy and Childbirth (IMPAC) manuals.²¹ In all seven of the countries, with the exception of Kenya, the data were collected using smartphones or tablet computers, allowing for automated data management and a standardized report format across countries.

The QoC assessment tools included over 100 indicators, covering aspects of both facility readiness and provider performance. The QoC assessments were unusual in that they employed observations of the entire L&D experience—from the admission process, through intermittent observation of the active phase of the first stage of labor, and then continuous observation of the second and third stages, terminating at one hour postpartum. The assessments examined routine ANC, infection prevention, RMC, routine L&D care, focusing on screening and prevention for common serious conditions, and immediate and essential newborn care. A test of provider knowledge and clinical management skills was included. The assessments also included observation of the management of the most common potentially life-threatening peripartum complications of the mother and newborn such as pre-eclampsia/ eclampsia (PE/E), PPH, obstructed labor, and newborn asphyxia.

Results of QoC assessments were disseminated to the MOH and other country stakeholders. National programs have used assessment findings to address specific gaps identified in the delivery of care, as shown in Table 2. In Mozambique and Tanzania/Zanzibar, baseline and follow-up assessments were conducted as part of evaluations of programs with substantial maternity care

QI components. In Zimbabwe and Kenya, they were part of larger MOH-led national assessments of quality. In Rwanda, the QoC results were used by the MOH to develop national basic emergency and neonatal care (BEmONC) training guidelines and policy for the Public Accounts Committee. The findings in Rwanda also helped MCHIP to develop an intervention supporting postabortion care (PAC), and to revise its BEmONC training. In Madagascar, there was more limited use of the findings, given restrictions on U.S. government projects working with the MOH. The findings were used to advocate for the use of the Helping Babies Breathe approach to address identified shortfalls in the quality of newborn resuscitation. The Ethiopia QoC was the first independent assessment and focused on a small group (N=19) of high-volume hospitals. The assessment was done at an opportune time in which practice had not yet been updated for management of severe PE/E. The findings were used to advocate for uniform guidance on the use of magnesium sulfate rather than diazepam as well as for refinement of the tools.

The QoC assessment tools have also been used by others. The World Bank, with support from Jhpiego, used the tools in a QoC study in Kyrgyzstan and extended the observations and audits to include non-communicable diseases such as strokes and myocardial infarctions. With help from ICF International, the Nepal MOH has used the QoC L&D observation tools to assess the country's low-volume public sector birthing centers. The QoC L&D observation tools have now been added to the SPA as an optional module that has been applied in recent SPAs in Malawi and Bangladesh.

Table 2. National Actions Resulting from Maternal and Newborn QoC Assessments

Country	Action
Ethiopia	Used findings to advocate for increased use of magnesium sulfate.
Kenya	Part of national SPA. Regional workplans developed based on findings.
Madagascar	Used to advocate for national adoption of Helping Babies Breathe, as well as improved use of key maternal interventions such as partograph use.
Mozambique	Highlighted the need to improve newborn resuscitation. MCHIP advocated for Helping Babies Breathe to be rolled out as national policy.
Rwanda	QoC influenced development of three major documents: national guidelines, BEmONC training, and PAC policy. Health care providers were encouraged to use magnesium sulfate (increased attention to supply and training of providers).
Tanzania/Zanzibar	Increased linkages to Venture Strategies International to improve misoprostol supply. Stock-out data helped stakeholders reach consensus on the need for tracking of maternal health drugs.
Zimbabwe	Part of national QoC assessment used for national planning.

Dimensions and Elements of Quality Addressed

The QoC assessments focused on measuring QoC according to globally accepted standards. They focused on technical dimensions of care (WHO dimensions of effectiveness and safety), but also had a significant content on WHO's dimension of acceptability and patient-centeredness (i.e., respectful maternity care). They were not originally conceived as QI tools in and of themselves, but rather were intended to be used as part of larger QI processes.

Lessons Learned

The QoC assessments highlighted some major country accomplishments such as the fact that use of uterotonic immediately following birth is now almost universal in an important set of countries. It also delineated ongoing challenges such as the fact that even in relatively well-resourced facilities there are still large gaps in quality for the delivery of high-impact interventions against the major causes of maternal and newborn mortality (e.g., screening for proteinuria as a means to detect pre-eclampsia, and some elements of essential newborn care

like skin-to-skin contact). Findings suggested difficulties in the management of newborn resuscitation and eclampsia as well. Improvements in just these few interventions could result in dramatic gains in MNH; however, these gains will not be realized by emphasizing only facility readiness (training of personnel, improvement of supply chains for key commodities), but will also have to consider provider behavioral elements.

Important learning about strengths as well as gaps in the quality of delivery and ANC is described at length in “Quality of antenatal and delivery care services in seven countries in Sub-Saharan Africa” (Summary in Textbox 1).²² Although some of the recommendations are general, the third point bears particular emphasis, “Organize services so that critical supplies and equipment are accessible and ready for use when needed.” There were numerous instances where all the necessary elements were present to respond to an urgent or emergency situation such as an asphyxiated newborn, but all the equipment was not easily at hand and ready for use. The precious time lost locating the equipment cost some clients dearly. Small procedural changes on maternity wards could address such problems at little or no additional cost.

Textbox 1: Highlights of Recommendations from QoC Assessments

- 1) Continued need for policy, advocacy, and provider education, training, and support to promote the wide-scale use of essential lifesaving interventions.
- 2) Emphasize health systems strengthening to ensure that drugs and commodities are available to implement best practices.
- 3) Organize services so that critical supplies and equipment are accessible and ready for use when needed.
- 4) Encourage supportive supervision to ensure adequate monitoring of service provision in clinical decision-making, management, and reporting.
- 5) Conduct research to understand factors that limit or encourage implementation of proven lifesaving interventions.

1).²² Although some of the recommendations are general, the third point bears particular emphasis, “Organize services so that critical supplies and equipment are accessible and ready for use when needed.” There were numerous instances where all the necessary elements were present to respond to an urgent or emergency situation such as an asphyxiated newborn, but all the equipment was not easily at hand and ready for use. The precious time lost locating the equipment cost some clients dearly. Small procedural changes on maternity wards could address such problems at little or no additional cost.

A full summary and discussion of the assessment findings is available on the MCHIP website.²³ Below is a brief summary of the lessons learned about the use of the tools:

- Direct observation provides different information on quality rather than assessments of readiness. Once a moderate to high level of readiness is assured, the extra effort that direct observation requires is justified to further characterize actionable gaps in quality of service provision.
- Assessments involving direct observation of maternal and newborn complications such as PPH, PE/E, or newborn asphyxia are challenging because such complications are rare. Despite these challenges, the QoC assessments demonstrated that it was still possible to learn about the quality of delivery of care from direct observation. Further simplification of the observation checklists for complications, possibly applied to simulations, would make these components more feasible and the data more usable.
- A simpler QoC tool is needed that could be incorporated into supportive supervision. The current tool could also be adapted to make it more easily understood by providers and managers.

Future Directions

The QoC assessment tools are being simplified and refined. A much shorter version has been field-tested in Tanzania, with 20 indicators from the routine L&D observation tool. It was implemented by observers with the profile of supervisors rather than highly trained data collectors. MCHIP is also drafting additional indicators for RMC, one indicator of which might be added to the list of routine L&D indicators in the shortened tool.²⁴ Given that the tool requires observation of multiple L&Ds it will never be a rapid technique. However, if a small number of routine observations are done at a limited number of facilities during supervision, and a “rolling sample” within a single district is generated, for example, by visiting a Lot Quality Assurance Sample (LQAS) of 19 facilities over a one-year period (i.e., less than two per month), a very useful picture of the quality of services in that district over the last year could be generated.

During the last three applications of the QoC assessment tool, the complication observation checklist forms were simplified. If these were used to observe “full simulations” (i.e., a scripted simulation with a mannequin placed in the actual practice setting), then the complication modules might also be made part of an ongoing LQAS assessment in a district, incorporated into supervisory visits. This approach would facilitate a focus of supervision on clinical practice, which is as it should be.

Client perspectives are clearly needed to round out the picture painted by the QoC assessments, but the question is where this information should be obtained. Evidence shows a clear courtesy bias in terms of the information that clients are willing to give about the facility in exit interviews when the client is interviewed on site.²⁵ The most unbiased information on client perspectives will need to come from other complementary sources. Such sources could come from spot checks of wait times from special data collection registers; observations of respectful care; and community-based focus groups and/or household surveys of users and non-users of facility-based services, which is how it is done in the PDQ method described on page 17.

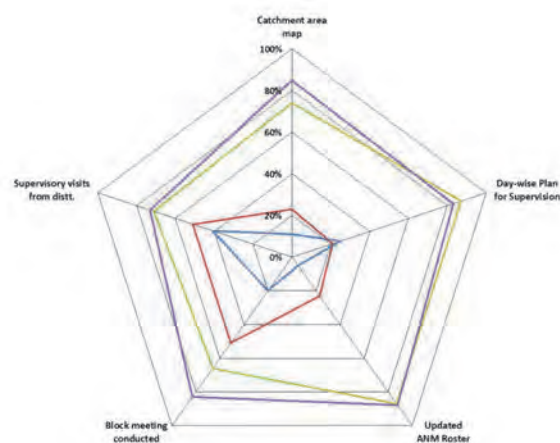
For various reasons, some outside of the control of the project, in some of the countries where the QoC assessment was not part of a larger QI process (i.e., Ethiopia and Madagascar), there was less than optimal action on the QoC findings. Future QoC assessments should incorporate a rapid guide on dissemination and incorporation of findings into annual facility and district workplans, linking the assessments to QI actions. This would make the QoC more of a stand-alone QI tool, rather than the simple quality measurement tool that it was originally designed to be and still is. Displaying the results disaggregated at the district level would also make the findings more readily actionable. However, this approach would need to be balanced against the possibility of identifying individual facilities. While consent forms could be modified to make this possible, the ability to keep the process positive with providers being assessed could be compromised.

QI for Immunization Services using the RAPID Approach

BACKGROUND AND IMPLEMENTATION UNDER MCHIP

Supervision has been one of the most commonly recommended strategies to improve health worker performance,²⁶ but it is widely known to be deficient in many low- and middle-income countries.^{27,28} This deficiency is often cited as a major constraint to improving the quality of essential health interventions in developing countries and a key factor contributing to poor performance of frontline health workers.²⁹

Figure 3. Results of RAPID Assessments in Three Districts of Uttar Pradesh, India (June 2010–November 2012), MCHIP



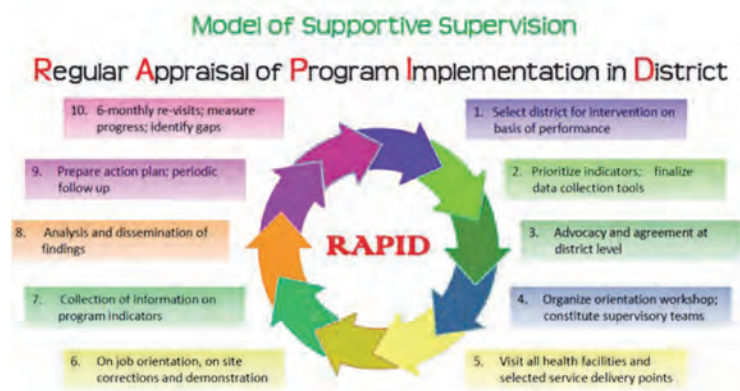
RAPID is a QI method integrated into supportive supervision to improve immunization services. It is a systematic approach applied in “campaign style” supervisory rounds of various districts, resulting in a systematic improvement plan that is then followed until the next supervisory visit and round of measurement. MCHIP has led the implementation of RAPID with other partners—UNICEF, WHO, CARE International, the Norway-India Partnership Initiative, and district health departments—following a successful pilot study in five districts in the states of Uttar Pradesh and Jharkhand, India. RAPID is currently being implemented in the Indian states of Jharkhand, Uttar Pradesh, Rajasthan, Orissa, Haryana, and Madhya Pradesh.³⁰

RAPID is implemented by viewing each district as a unit. Teams of trained supervisors visit district health facilities and outreach immunization sessions, using standardized checklists based on international standards to assess the quality of program management, cold chain and vaccine management, records and reports, immunization safety, and waste disposal practices.³¹ Each team discusses identified program issues with facility staff and corrects improper practices through on-site demonstrations and training on guidelines, correct procedures, and service delivery.³² Data are entered into an Excel tool, which generates program indicators, graphs, and scores for cold-chain points. The tool is then shared with facility managers and staff through a one-day dissemination workshop.³³

Figure 3 shows an example of how multiple RAPID assessments for a technical area are displayed so that successive improvements are easily seen. This information allows regions to rank health facilities on overall performance and the status of individual indicators. The supervisory process is repeated every three to six months to assess improvements and identify any remaining gaps in health worker performance (Figure 4). The teams of external supervisors are crucial for leveraging local resources from within the health system and developing action plans to ensure the sustainability of high-quality immunization services.

MCHIP developed tools and materials to improve the quality of care through RAPID. These include supervision checklists for health facilities and immunization sessions, electronic templates to enter data and generate reports, and a planning and implementation framework with training agendas, films, and presentations.

Figure 4: Model of Supportive Supervision using RAPID³⁴



Dimensions and Elements of Quality Addressed

RAPID is a QI intervention that focuses on the WHO dimensions of safe and effective care. It takes a broader system perspective as well by looking at adherence to standards; use of systematic supervision rounds as an organizational driver; systematic monitoring and corrective systems; practice of advocacy at the community level, for partners, and at all QI meetings; and a structured scale-up and sustainability plan through ongoing training and mentoring of local staff. A full summary and discussion of findings is available in the *MCHIP India: End of Project Report*.³⁵

Lessons Learned

Successive rounds of RAPID have demonstrated improvements in the quality of immunization service delivery provided as described in the *MCHIP India: End of Project Report*.³⁶ This is likely attributable to the following:

- RAPID is easily adaptable to the local context.
- RAPID indicators are identified or modified in discussion with staff and stakeholders, which is empowering.
- RAPID requires the consensus and participation of government as well as facility staff, which fosters collaboration and creates a network of staff committed to quality of care.
- RAPID uses simple low-technology tools (standardized checklists and reporting tools) appropriate to existing field realities.
- RAPID provides an immediate quantification of quality and existing gaps in service delivery providing data for action and follow-up. This approach allows districts to build local capacities and enhances ownership, strengthening the overall system.
- RAPID enables facility staff to demonstrate and validate their need for resources or additional support through use of documented strengths and weaknesses.

Future Directions

The success of the RAPID approach has led to expansion of the model using domestic resources in India as well as in Madagascar, Kenya, and Tanzania. In addition to replicating and scaling up this approach, it will be important to find ways to support the sustainability of RAPID within districts. Activities that further develop ownership and build supervisory capacity so that supervisors are facilitators or mentors will be essential. Focused training for managers to strengthen their goal-setting skills will also be needed. Robust process documentation is critical to learn how to improve the method. In particular, recording whether the full RAPID package, or only a subset of the tools, was used. Finally, future assessments should examine the institutionalization and sustainability of the approach once technical assistance has ended.

Respectful Maternity Care

BACKGROUND AND IMPLEMENTATION UNDER MCHIP

Though important progress has been made globally to improve MNH, utilization of quality MNH services is still not universal even where access is not an issue. Factors contributing to less than ideal utilization have to do with the perceptions of clients and communities regarding the QoC. These often are not centered on issues of technical content of care and are more likely to center on factors such as an unwelcoming reception by staff, lack of privacy, poor information sharing with the client, and even disrespectful and abusive care. The “respectful maternity care” movement, also known as “humanization of childbirth care,” is an approach centered on the individual and based on principles of ethics, respect for human rights, and promotion of evidence-based care that recognizes women’s preferences and the needs of women and newborns. RMC is also influenced by cultural norms and behaviors, which are often difficult to change.

MCHIP has worked on RMC definition and measurement in collaboration with the advocacy and research efforts of the White Ribbon Alliance (WRA) and the USAID Translating Research into Action (TRAction) Project,³⁷ respectively. Table 3 shows the seven categories of disrespect and abuse from the TRAction landscape analysis published in 2010 and the corresponding respectful care elements developed by WRA. MCHIP collected information on selected aspects of RMC in the QoC facility assessments in seven Eastern and Southern African countries. The QoC assessment tools were developed and largely applied before the Bowser and Hill landscape analysis was done. Therefore, the information gathered in the QoC assessments was not designed to cover nor to fit in these categories; however, the first four of the domains (in bold in Table 3) were covered in some or all of the assessments and valuable information about the prevalence of the practices was obtained. While physical abuse was not common, other more subtle aspects, such as undignified or un-consented care occur in many births. The assessments give initial glimpses into the extent of this important, but still poorly characterized, problem.

Table 3. Categories of Disrespect and Abuse (from Bowser and Hill, 2010)³⁸ and Corresponding Right to Respectful Care (from WRA)

Category of Disrespect and Abuse	Corresponding Right
Physical abuse	Freedom from harm and ill treatment
Non-consented care	Right to information, informed consent and refusal, and respect for choices and preferences, including companionship during maternity care
Non-confidential care	Confidentiality, privacy
Non-dignified care, including verbal abuse	Dignity, respect
Discrimination based on specific attributes	Equality, freedom from discrimination, equitable care
Abandonment or denial of care	Right to timely health care and to the highest attainable level of health
Detention in facilities	Liberty, autonomy, self-determination, and freedom from coercion

Steps taken by MCHIP to implement QI approaches that include the RMC perspective have focused on developing and disseminating tools, templates, and other materials. The RMC toolkit developed by MCHIP provides a range of resources, including: a survey on RMC from 19 countries; an assessment instrument; program briefs and reports providing examples of how RMC has been implemented; training and advocacy materials; operational standards for RMC; illustrative indicators for monitoring RMC; job aids; and a resource list. These are available

online at K4Health (<http://www.k4health.org/toolkits/rmc>). MCHIP has provided many of these tools, checklists, and training and technical assistance to country programs implementing RMC, including Ethiopia, Mozambique, Pakistan, South Sudan, Tanzania, and Yemen.

Mozambique is the MCHIP country program with the most experience in QI efforts that include RMC. As part of the MOH's Model Maternities Initiative, RMC elements were added as an integrated part of the SBM-R Labor and Delivery quality checklist with MCHIP technical assistance in 2010. The verification checklist includes questions on encouraging the presence of a birth companion and birth in a traditional position (i.e., not dorsal lithotomy), as well as encouraging ambulation and free access to food and fluids during labor. Seven key indicators of quality maternal and newborn service provision have been included in routine reporting and are now part of integrated maternity registers. These include such evidence-based practices as AMTSL and immediate breastfeeding. Two of these key indicators are measures of RMC—presence of a birth companion and birth in a vertical/semi-vertical position. Because of severe space limitations in some maternities, progress has not been as rapid on these RMC indicators as on some of the technical care indicators. However, from a baseline of near zero, the value of both these indicators has slowly risen over the last four years, to the point that both are near 30% currently.³⁹ It should be emphasized that these indicators are reported in routine registers for all births occurring in a group of facilities that is responsible for attending approximately half of all institutional births nationwide (and the institutional birth rate was 53% in the 2011 Demographic and Health Survey).

The Center for Health Services (CHS), a Child Survival and Health Grants Program (CSHGP) grantee supported by MCHIP, implemented a project prioritizing RMC provision in Ecuador, showing the potential for expanding client-centered programming. The project focused on aligning formal and informal health systems, and targeted training of health workers to increase their awareness of respectful care as well as compliance to technical QoC standards. Traditional birth attendants, who are often preferred by women because of the culturally sensitive care they provide, worked closely with health facilities to refer women in labor to skilled birth attendants. This increased service utilization has led to improved client outcomes and improved detection and management of obstetric and newborn complications.⁴⁰



Photo by Daniel González, CHS-Ecuador

Traditional birth attendants demonstrate to doctors and nurses the birthing position preferred by Andean communities as part of an exercise to make facility childbirth services more responsive to the preferences

Dimensions of Quality Addressed

RMC addresses the WHO's dimensions of quality of *acceptability, equity, and patient-centered care*. RMC promotes respectful and culturally sensitive care for all women, regardless of their wealth or status and thereby addresses the equity component of QoC. Delivery of patient-centered care is improved by ensuring that local cultural preferences are considered and respected.

Lessons Learned

Defining, measuring, and improving RMC is an approach still early in its development. Measuring RMC has been difficult, especially from a programmatic perspective. Warren et al. describe the limited evidence related to disrespectful care and abuse (D&A). Gaps include “the lack of: operational definitions; validated measurement methods; evidence of successful interventions; and prevalence estimates ... There is a lack of systematic evaluation and analysis

of the contributors of D&A and specific mechanisms by which different drivers may contribute to the problem including interactions between the different drivers. Another gap is the specific way in which D&A acts as a deterrent to skilled care utilization as well as the contribution of the different categories of D&A in reducing maternal health coverage. There are almost no studies that evaluate impact of interventions designed to reduce D&A or promote respectful care.”⁴¹ Another challenge is that disrespectful maternal care can be resistant to change because it is driven by social norms that are held in place by the expectations of people within a particular group.⁴² Not only is RMC dependent on underlying health systems issues and the many determinants of QoC, but issues of class, culture, and social norms add to its complexity.

Future Directions

MCHIP has already begun to incorporate RMC as an important component of its programming and will continue to expand these efforts. Future focus in the field should include:

- Continued collaboration with TRAction and others on standards and measurement approaches to track progress on RMC.
- Collaboration with WRA to ensure agreement on the meaning of a rights-based approach to care.
- Continued integration of RMC as an element in quality measurement and improvement tools like SBM-R and QoC assessments.
- Accurate tracking of utilization of health care services as a metric of RMC outcomes.
- Developing evidence on how to effect and sustain provider behavior change, including mechanisms to improve accountability.
- Expanding the RMC focus to include measures to counter the stigma and discrimination faced by HIV-positive women seeking maternal health care. A recent study in Kenya showed that HIV-related stigma often impacts utilization of maternal and child health services.⁴³

Community-Inclusive Approaches to QI

BACKGROUND AND IMPLEMENTATION UNDER MCHIP

Community and household perspectives on care can affect utilization of services.⁴⁴ Community-inclusive approaches to QI include community accountability and auditing processes. The gaps identified by clients and communities tend to be non-technical in nature and often relate to the convenience and accessibility of services as well as their cultural acceptability. The objective of community- and client-focused approaches is to increase access and utilization of services. Examples of such community-inclusive approaches to QI include MCHIP efforts in Mozambique and MCHIP-supported private voluntary organization/nongovernmental organization (PVO/NGO) projects in Kenya and Nepal.

The African Medical and Research Foundation (AMREF) worked with District Health Management Teams in Kenya to implement the PDQ method (originally developed by Save the Children in the 1990s)⁴⁵ to improve QoC, particularly as it applies to the client-provider interaction. The PDQ approach brings together community members (both users and non-users of services) with health workers to define and operationalize the meaning of quality care in a particular context. The open dialogue helps health workers recognize what community members perceive as obstacles to care and encourages community members to demand quality services and take ownership of their own health. Final independent evaluation findings for this project showed that mothers who attended ANC at least four times during pregnancy rose from 32% to 49%; mothers who attended postnatal care within two days of delivery increased from 23% to 58%; and children who were delivered by a skilled health professional rose from 26% to 57%.⁴⁶



Source: AMREF and USAID. 2010. *Busia Child Survival Project (BCSP) Final Evaluation Report*. Traditional birth attendants in the Kenyan communities where PDQ was utilized.

Recently, the MCHIP Associate Award in Mozambique introduced the PDQ method as a part of the Model Maternities Initiative in selected smaller health facilities. The project trained national and provincial MOH staff on how to use the PDQ tool to engage communities and better link them to health facilities⁴⁷ through formation of Community-Facility Co-Management Committees. Improvement plans have been drawn up and implemented in more than 20 facilities. The experience is still too early to be evaluated.

Another example of a QI approach focusing on the client perspective is the COPE⁴⁸ method, originally developed by EngenderHealth. COPE is a participatory activity to help facility staff realize the importance of using self-assessment and client exit interview tools. This approach contrasts with PDQ in that it does not include the community perspective directly in defining quality. Instead, client satisfaction is obtained through exit interviews and this feedback is used to improve services.

The Adventist Development and Relief Agency (ADRA), a CSHGP grantee, implemented COPE to improve FP services in Nepal. The COPE approach was used to enable staff to recognize the client's right to high-quality care as well as strengthen their understanding of the need to provide that level of care. Health facilities that participated in the COPE training found the method useful to identify problems and appropriate solutions. The problems identified were often simple and could be improved immediately. As an example, one facility team realized they could improve the quality of FP services and decrease client waiting times without any additional financial resources by simply introducing a “first-come, first-serve” approach using a token system. Client satisfaction increased overall.⁴⁹ Due to political instability, this project was not completed and long-term impact could not be determined. However, promising feedback from staff and clients suggest the potential of COPE as a QoC tool.

Dimensions and Elements of Quality Addressed

These community-inclusive approaches focus on the WHO quality dimensions of *accessibility*, *acceptability*, and *patient-centeredness* by developing mechanisms to include client perspectives and increase community-driven accountability. To the extent that such approaches incorporate the perspectives of marginalized and underserved groups they also promote *equity*. In particular, the PDQ approach involves the community in defining standards and monitoring whether improvements occurred. The COPE approach emphasizes the community perspective on services and client satisfaction to improve the provider-client interaction and modify services to improve utilization.

Lessons Learned

Tools, such as PDQ and COPE, demonstrate the feasibility and importance of including client and community perspectives on QoC. Understanding the community perspective on use or non-use of services is essential to increase coverage and utilization. Preliminary evidence points to the utility of various approaches in increasing utilization of key MNCH services. The success of these approaches depends on understanding social and cultural nuances of target populations, which in turn is facilitated by community members having a voice at the health facility level. For example, in the ADRA Nepal project, feedback from clients showed that lack of privacy in health facilities was a concern for clients seeking care. This challenge was overcome through the use of curtains as a partition, circumventing the issue of limited space.⁵⁰ The incorporation of community perspectives can also strengthen community and health facility linkages by helping to develop shared definitions of quality. As such, they fill an important niche in the portfolio of QoC approaches.

Future Directions

Given the emphasis on equity and inclusion of communities in the post-2015 agenda for Ending Preventable Maternal and Child Deaths, it is important to develop and expand approaches that include the community perspective on quality. Although SBM-R often includes a community component, tools such as PDQ and COPE have a particular emphasis on community definitions of quality and accountability, and provide communities the opportunity to engage with the health system and shape the definition of quality to include matters that are important to them. Evidence from the PVO/NGO experience at the district level shows that such approaches can increase utilization of services. However, future work should explore how to expand these approaches within country health systems and move them toward scale, especially targeting groups that are marginalized or hard to reach.

Conclusions and Priorities for Future Action

As the global community redoubles efforts to end preventable child and maternal deaths by helping countries implement high-impact interventions at scale and with quality, the expansion of effective and sustainable QI approaches becomes even more critical. Some key issues stand out as priorities for action for a future USAID global flagship project. Investments are needed not only to help countries scale up key QI approaches, but also for selected learning to help resolve several critical questions on effectiveness and sustainability:

- How can QI approaches be streamlined, made more feasible to use, and sustained over time?
- How can QI approaches best be integrated with the larger health system, including supervisory systems?
- What is the regulatory role of the MOH in ensuring QoC in both public and private sectors and sustainability of approaches?
- What is the best way to include community and client perspectives on quality (including respectful care) to promote greater service utilization and hold the health system accountable to deliver high-quality care?
- What are the most effective ways to motivate health workers to improve the quality of the services they provide?

INVEST IN DOCUMENTING AND MEASURING PROCESSES AND OUTCOMES OF QI APPROACHES TO LEARN HOW TO MAKE THEM MORE EFFECTIVE

There is a need for more investment in implementation science to refine and understand the effects of the various QI approaches already prioritized (i.e., SBM-R and other facility-based approaches, including supervisory checklists; PDQ and other community-inclusive approaches; and RAPID and other immunization QI approaches). In order to best facilitate learning, certain key implementation process elements need to be documented and analyzed regularly for any QI approach: description of the MOH and/or other personnel engaged to lead the QI process; the types and numbers of health workers trained in the QI approach and who received training; the types of QI activities in facility and district workplans; to what extent plans are followed; how often the PDSA QI cycle was repeated; what specific improvements occurred at the facility and district levels; what resources were provided or mobilized to make the improvements. These could include improvements in infrastructure, supervisory processes, institutionalization and standardization of registers, and use of job aids and reminders. Other promising QI approaches should be brought in. Particularly promising are experiences with brief point-of-service checklists simple enough to be applied in real time, such as WHO's Safe Birth Checklist.

EMPHASIZE COMMUNITY AND CLIENT PERSPECTIVES

Community and civil society engagement in defining and implementing QI approaches is important to ensure sustainable and culturally sensitive interventions. QI processes and tools should allow the full participation of civil society. The use of PDQ or other community-inclusive approaches will be a priority. The project should also look for opportunities to evaluate such approaches.

INTEGRATE RESPECTFUL CARE AND ITS ASSESSMENT INTO ALL QI APPROACHES

The importance of respectful care as an essential element of QoC cannot be over emphasized. Building true symmetric partnerships between clients and providers increases the likelihood of better health care seeking and better outcomes. MCHIP's learning about and experience with respectful care, in conjunction with several other partners, has added critical knowledge to the field and should be incorporated in all QI approaches used. Work needs to continue on feasible and valid measurements, and, even more importantly, on effective methods for improving this aspect of care.

CREATE STRONGER INCENTIVES FOR QUALITY

Health worker behavior and motivation are central issues for QI approaches. Frontline health workers and their managers at the district level need strong incentives for instituting and maintaining a QI system. Strategies that incorporate a behavior change approach for providers should be explored further. Three performance-based incentive approaches appear to hold promise for use in low- and middle-income countries.⁵¹ These include rewards for attaining accreditation standards and rewards for achieving performance on quality components incorporated in correct treatment protocols. Some countries are also exploring the use of quality checklists or scorecards producing a quality index or score, which is then used to either inflate or deflate the performance payment that a health facility should receive based on the quantity of services delivered.

STREAMLINE QI APPROACHES TO MAKE THEM MORE FEASIBLE AND SUSTAINABLE

QI tools should be streamlined to maximize the chance of institutionalization and sustainability within national systems. SBM-R is systematic and focused on the whole system, but the checklists can be quite lengthy when explanations and tables are included. RAPID is an example of a streamlined approach with promising results in one setting that other QI approaches might emulate. Simple and systematic data presentation and visualization are also important to ensure that data are used by those who need it most—health care providers and their managers. Application of only part of a QI tool at any one time; use of mHealth for data collection; and use of tablets to link specific improvement plans to identified weaknesses are all approaches currently being developed and piloted. The QoC assessment L&D observation checklist is currently being refined so that it has only 20 indicators (reduced from more than 100 in its current form), which would transform the QoC tool from its current quality measurement focus to a true QI focus.

TAKE A SYSTEM PERSPECTIVE, SEEKING WAYS TO INTEGRATE QI WITH THE LARGER HEALTH SYSTEM

Many of the challenges in delivering QoC relate to underlying health system issues. An exclusive focus on improvement of quality of service provision will not achieve optimal results if other system issues such as commodity management and shortages of health workers are not addressed. A broader health systems strengthening approach is required. In addition, QI interventions cannot be time-limited and donor driven, but must be institutionalized and sustained within national programs to strongly signal to providers that quality care is not optional.

This can be done in multiple ways, some of which have already been piloted, but rarely scaled to national level:

- More frequent and rigorous external verification of results (in SBM-R and other similar approaches)
- Linking facility scores on QI tools to provider pay and/or results-based financing programs
- Incorporating QI approaches into routine supportive supervision systems
- Blending QI tools with national accreditation systems or incorporating QI into the regulatory role of the MOH and rest of the government
- Encouraging the formation of QI committees in facilities

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Prospects for Effective and Scalable Community-Based Approaches to Improve Reproductive, Maternal, Newborn and Child Health (RMNCH)

A Summary of Experiences from the Maternal and Child Health Integrated Program (MCHIP) and the Child Survival and Health Grants Program (CSHGP) and a Review of the Evidence

June 2014

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Suggested citation: Perry HB, Ricca J, LeBan K. and Morrow M. 2014. Prospects for Effective and Scalable Community-Based Approaches to Improve Reproductive, Maternal, Newborn and Child Health (RMNCH): A Summary of Experiences from the Maternal and Child Health Integrated Program (MCHIP) and the Child Survival and Health Grants Program (CSHGP) and a Review of the Evidence. Maternal Child Health Integrated Program.

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

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Abbreviations

ANC	Antenatal care
BCC	Behavior change communication
BCG	Bacillus Calmette-Guérin (vaccine against tuberculosis)
BP/CR	Birth preparedness/complication readiness
BRAC	formerly Bangladesh Rural Advancement Committee
CA	Community agent
CAG	Community action group
CBIO	Census-based, impact-oriented
CCM	Community case management
CHA	Community Health Agent
CHC	Community Health Committee
CHERG	Child Health Epidemiology Reference Group
CHW	Community health worker
CSHGP	Child Survival and Health Grants Program (of USAID)
CV	Community volunteer
DHS	Demographic and Health Survey
DPT	Diphtheria, pertussis and tetanus (immunization)
EPI	Expanded Program on Immunization
FCHV	Female community health volunteer
HEP	Health Extension Program
HEW	Health Extension Worker
HFS	Healthy Fertility Study
HIV	Human immunodeficiency virus
iCCM	Integrated community case management (usually for childhood pneumonia, diarrhea, and malaria in malaria-endemic areas, but also sometimes including severe acute malnutrition)
INGO	International nongovernmental organization
IPC	Immunizations Protect Children (project)
IPTi	Intermittent preventive treatment (of malaria) during infancy
IPTp	Intermittent preventive treatment (of malaria) during pregnancy
ITN	Insecticide-treated bed net
JHU	Johns Hopkins University
LAM	Lactation amenorrhea method (for family planning)
M&E	Monitoring and evaluation
MCHIP	Maternal and Child Health Integrated Program

MCP	Malaria in Communities Program
MDG	Millennium Development Goal
MICS	Multiple indicator cluster survey
MNCH	Maternal, newborn and child health
MNH	Maternal and newborn health
MOH	Ministry of health
MSH	Management Sciences for Health
NGO	Nongovernmental organization
ORT	Oral rehydration therapy
PATH	Program for Appropriate Technology in Health
PLBC	Population Level Behavior Change
PMNCH	Partnership for Maternal Newborn and Child Health
PMTCT	Prevention of mother-to-child transmission (of HIV)
PNC	Postnatal care
PPFP	Postpartum family planning
PPH	Postpartum hemorrhage
PVO	Private voluntary organization
RMNCH	Reproductive, maternal, newborn and child health
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
VHT	Village Health Team
WHO	World Health Organization

Acknowledgements

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Jhpiego (prime)
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Save the Children
PATH
JHU/IIP
Broad Branch
PSI
ICF International

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

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Jean Sack gave assistance with the general review of the literature of reproductive, maternal, newborn, and child health. The review of the effectiveness of community-based primary health care in improving child health was assisted by Paul Freeman, Bahie Rassekh, Sundeep Gupta, Emma Sack, Meike Schleiff, and Richard Kumapley. The review of the effectiveness of community-based primary health care in improving maternal health was assisted by Subarna Pradhan and Mary Carol Jennings. For both reviews, numerous students, and volunteers completed the data extraction forms required for the studies. Vrinda Mehra provided assistance with the review of MCHIP community-based activities, and the MCHIP Community Team (Melanie Morrow, Jennifer Yourkavitch, Shannon Downey, Karen LeBan, Florence Nyangara, and Eric Sarriot) provided assistance in reviewing the CSHGP experience.

Introduction

Since 2008, the United States Agency for International Development (USAID) Bureau for Global Health's flagship Maternal and Child Health Integrated Program (MCHIP) has worked in more than 50 developing countries in Africa, Asia, Latin America, and the Caribbean to improve the health of women and children. MCHIP works on programming in maternal, newborn and child health, immunization, family planning, nutrition, malaria, and HIV/AIDS. MCHIP has supported the delivery of evidence-based interventions through strengthening government health systems, nongovernmental organizations, and other local partners and helped link communities, primary health facilities, and hospitals, coordinated within national and district plans.

A team convened by MCHIP reviewed the evidence related to how effective community-based delivery approaches (including community engagement and empowerment) have been in improving reproductive, maternal, newborn, and child health (RMNCH), MCHIP's experience in supporting such approaches, and how such approaches might be scaled up for long-term, sustainable impact.

Recent global attention to integrated community case management of childhood illness (iCCM) has brought more attention to the subject of community-based approaches, but community actions are still not adequately funded or systematically implemented as a part of national policies and plans.^a Among the 74 Countdown countries where 97% of the world's deaths of mothers and children under-five occur, only 23 are on track to achieve Millennium Development Goal (MDG) 4 (reducing under-five mortality by two-thirds by 2015 based on 1990 levels)¹ and only nine are on track to achieve MDG 5 (reducing maternal mortality by three-fourths).¹ This fact, combined with the strong evidence regarding the effectiveness of community-based approaches in improving RMNCH, highlights the need to strengthen the capacity of health systems to engage communities and to build strong systems of service delivery outside of health facilities that have the ability to reach those not currently reached by key health services. A 2012 analysis of recent DHS data for 12 key RMNCH interventions across 54 countries noted that "Skilled birth attendant coverage was the least equitable intervention.....followed by four or more antenatal care visits. The most equitable intervention was early initiation of breastfeeding. Community-based interventions were more equally distributed than those delivered in health facilities."^b This analysis emphasizes the pro-equity nature of community programming. As the world is formulating plans of action for ending preventable and maternal child death in the post-MDG world, there is a need to put into action the current evidence for effective community-based programming.

Two dominant features have characterized the provision of health services in low-income settings over the past three decades. The first is an emphasis on facility-based service delivery and the second is the prominence of non-integrated programming for specific diseases or areas - HIV/AIDS, malaria, family planning, and immunizations. The development of community-based programs at national scale has not received as much attention, except for immunizations. Important progress has been made during this same time in building the evidence base for effective provision of selected interventions delivered by community-level workers outside of health facilities; however, coverage of many highly effective interventions that are amenable to community action, remains quite low in the 74 Countdown countries.

^a Peters, DH, El-Saharty, S, Siadat, B, et al. Improving Health Service Delivery in Developing Countries: From Evidence to Action. Washington, DC: The World Bank, 2009.

^b Victora, CG, Barros, AJD, Axelson, H et al. (2012), Equity in maternal, newborn, and child health interventions in Countdown to 2015: a retrospective review of survey data from 54 countries, *Lancet* 2012; 380 (9848): 1149 – 1156.

This document is an attempt to synthesize and summarize what is known about effective community health programming at scale and place the learning generated by MCHIP in this context. It first presents a framework for analysis that was developed for a 2009 review of evidence for community-based primary health care for child health.⁸ Under MCHIP this review has been updated and broadened to include maternal and newborn health. This updated review took account of recent USAID Evidence Summits on the effectiveness of large scale community health worker (CHW) programs^c and Population Level Behavior Change.^d The results of this review are summarized in the annex (with a full report to follow later this year). This document then summarizes what has been demonstrated to work effectively at scale from several successful country cases and community health worker experiences that were developed for the CHW Evidence Summit. It then reviews the contributions to learning on community-based approaches from MCHIP, the Child Survival and Health Grants Program (CSHGP) and Malaria Communities Program (MCP) and places them within this larger framework. Finally, it makes recommendations for where a USAID-funded global health project might best place its emphasis to assist countries to fill knowledge gaps and mainstream and scale community-based programming to help reach the goal of eliminating preventable child and maternal deaths. This review is necessarily selective. Fuller descriptions of CSHGP^e and MCP^f can be found elsewhere.

^c<http://www.usaid.gov/what-we-do/global-health/chw-summit>

^d <http://plbcevidencesummit.hsaccess.org/>

^e <http://www.usaid.gov/what-we-do/global-health/child-survival-and-health-grants-program>

^f <http://www.mchip.net/node/48>

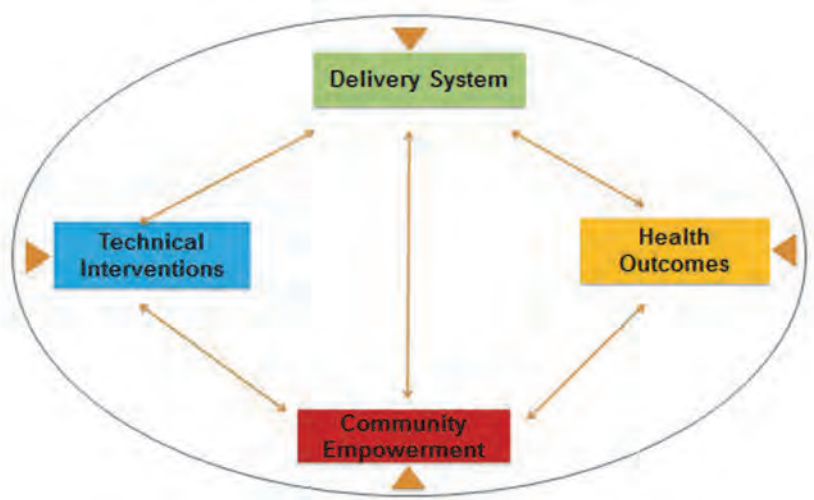
Framework for Analysis of Community Health Actions

The “framework for maximum community health impact” (Figure 1) was developed by Perry, et. al. in consultation with the Community-Based Primary Health Care Expert Review Group in 2009. It shows that:

- There is a set of high impact technical interventions that can be delivered at the community level (shown in Figure 2)
- There are several effective community-based delivery systems mechanisms to get those technical interventions to clients in the community. There are four delivery mechanisms with the most evidence
 - Systematic home visits
 - Community case management
 - Participatory women’s groups
 - Outreach through mobile teams
- There are different strategies to enhance community empowerment to support and extend delivery systems

The interaction of these factors and their interaction with contextual factors results in improved health outcomes. A summary of the evidence for the conclusions about the effective technical interventions, delivery mechanisms, and delivery strategies is presented in the Annex. These categories of community action are used for the analysis of programming, as well as to support the conclusion that the technical interventions shown in Figure 2 and the four delivery mechanisms shown above are effective. When reviewing the MCHIP, CSHGP, and MCP portfolios, we will refer to this framework and place various interventions and approaches within its categories.

Figure 1. Framework for maximum community health impact¹⁵



EVIDENCE FROM LARGE SCALE COUNTRY EXPERIENCES

If one considers the low- and middle-income countries (LMICs) that have achieved the greatest declines in under-five mortality since 1990, strong community-based programs that rely on community-level providers is a common feature. Unfortunately, no systematic analysis of this topic has been carried out. Here we cite four examples: Bangladesh, Nepal, Ethiopia and Brazil. All four countries have either already achieved the MDGs for maternal and child health or are on track to achieve them by 2015.¹

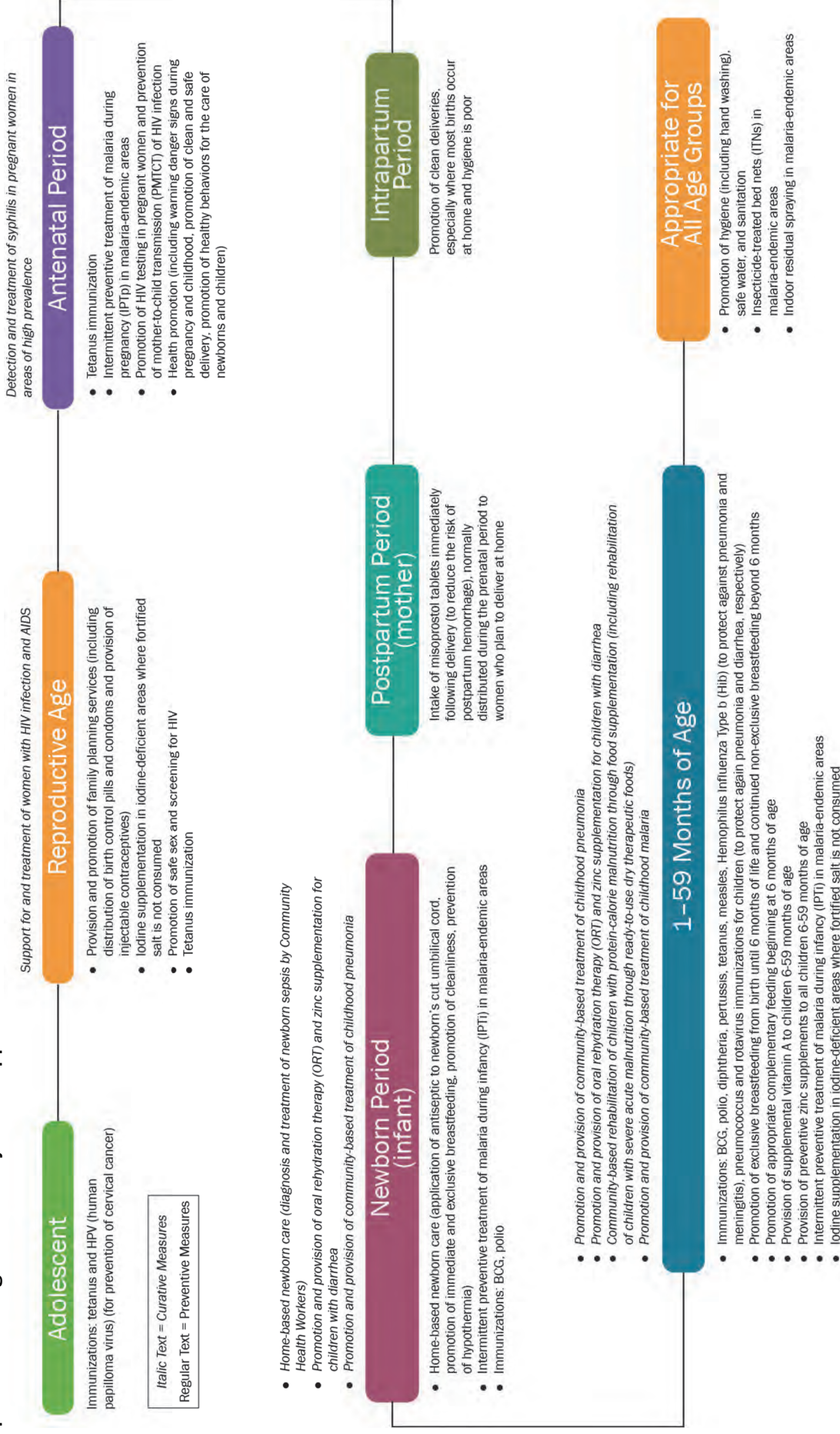
The important progress made in Bangladesh in RMNCH through community-based approaches and partnerships has been highlighted in a recent *Lancet* publication.¹⁹ Bangladesh has had a strong engagement with CHWs that dates to the 1970s, both through government as well as NGO health programs. Of particular note has been the family planning program, which relied on doorstep delivery of contraceptive services and produced rapid increases in contraceptive prevalence and reduction in the national fertility rate. Bangladesh has been a global leader in innovative approaches to community-based delivery of health services, arising from supportive government policies, a strong and vibrant NGO community, and a tradition of strong community engagement in health services.²⁰

Nepal's government established the Female Community Health Volunteer (FCHV) Program in the late 1980s in order to increase the outreach of basic health services in rural areas. Currently, there are 50,000 FCHVs throughout the country who provide basic health services at the community level. They have made major contributions to community-based health programs at the national level through their support for vitamin A supplementation, distribution of de-worming tablets, distribution of packets of oral rehydration salts (ORS), promotion of immunizations, treatment of pneumonia, provision of iron supplementation to pregnant women, promotion of family planning, and more recently home-based neonatal care.²¹

In 2004, the government of Ethiopia introduced the Health Extension Program (HEP) and has since provided training of more than one year in duration to 30,000 salaried Health Extension Workers (HEWs), the majority of whom are female. HEWs have been deployed to 15,000 (92%) of the villages in Ethiopia with a collective population of 75 million.^{22, 23} HEWs collaborate with community volunteers (members of the Health Development Army network) who receive two weeks of training and take responsibility for five surrounding families. Ethiopia's health indicators after implementing HEP have shown remarkable improvements. The contraceptive prevalence rate increased from 23% in 2005 to 62% in 2011. Between 2004 and 2011 the coverage of antenatal care increased from 21% to 82%, the percentage of births receiving skilled delivery care increased from 10% to 17%, and the percentage of mothers and newborns receiving postnatal care increased from 15% to 41%. Notable increases have also been achieved in immunization coverage as well as in hygiene and sanitation indicators.

Brazil has a history dating back to the 1960s of utilizing CHWs to provide health services in rural and underserved areas. Based on this experience, CHWs began to be more widely utilized in other parts of the country as well, such that when Brazil's national Family Health Strategy was adopted in 1994, Community Health Agents (CHAs) were a key member of the family health care teams that made regular contact with all households. At present, Brazil has 236,000 CHAs, each of whom regularly visits 75-200 households, depending on the dispersion of the households and their health needs.²¹

Figure 2. Evidence-based preventive and curative technical interventions for improving reproductive, maternal, newborn and child health that can be provided through community-based approaches



REVIEW OF THE EXPERIENCE OF NATIONAL COMMUNITY HEALTH WORKER PROGRAMS

CHWs are a diverse group of community-level workers. There are two levels of CHWs: 1) full-time, paid workers with formal pre-service training; and 2) volunteer, part-time workers. Many countries are now expanding their investments in CHW programs. In light of the existing and growing evidence of the positive contributions that CHWs can make to health outcomes together with the estimated worldwide shortage of 4.3 million health workers, a recent WHO report issued in collaboration with the Global Health Workforce Alliance (GHWa) has proposed that CHWs should be explicitly included within national plans for human resources for health.²⁴ The previously cited country examples of progress in reducing maternal and child mortality are all from countries with strong large-scale CHW programs. A recent review highlights the evidence regarding the effectiveness of CHW programs in achieving the Millennium Development Goals (MDGs) for reducing maternal and under-five mortality²⁵ and in improving the health of populations in low-, middle- and upper-income countries.²⁶ There is also a growing body of evidence regarding the effectiveness of using CHWs for programs that go beyond RMNCH and that focus on HIV, tuberculosis and malaria for the entire population.²⁶

Growing evidence of the contribution that CHWs are making in middle- and high-income countries including the United States highlights the idea that CHWs and community-based approaches should not be thought of as second-class, temporary solutions, but rather represent the state of the art in improving the health of populations where disparities in access and outcomes exist – which is to say, in virtually all countries. South Africa and India are now planning their CHW programs with the idea that these workers and strong community-based programming will be needed even after the epidemiological transition takes place and maternal and child health are not as high priorities as they are today.

MCHIP has supported the development of a resource guide for program managers and policymakers that provides an in-depth view of various issues that large-scale CHW programs face which are independent of the technical nature of the interventions they implement. This document, entitled *Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide and Case Studies for Program Managers and Policy Makers*, presents principles and programmatic suggestions for decision-makers and program implementers to consider when initiating, expanding or strengthening CHW programs in their country. The guide consists of 16 chapters that explore the history of CHWs, national-level planning, governance, coordination and partnerships, financing, roles and tasks, recruitment, training, supervision, motivation, CHW relationships with the health system, community participation, maintaining CHW programs at scale, and measurement and data use. An Appendix includes case studies of large-scale CHW programs from 12 countries (Afghanistan, Bangladesh, Brazil, Ethiopia, India, Indonesia, Iran, Nepal, Pakistan, Rwanda, Zambia, and Zimbabwe), the findings from a series of key informant interviews about large-scale CHW programs, and a listing of important CHW resources.

Helping large-scale CHW programs function as effectively as possible offers an important opportunity for improving the health of vulnerable populations in low- and middle-income countries; however, one of the main conclusions from the recent US Government Evidence Summit on Community Health Worker Performance is that not enough is known about how best to support CHWs to ensure sustained, optimal performance at scale.²⁷ Consequently, the recommendations from the Summit include an expanded strategic research agenda to examine the effectiveness of specific community and health system inputs for improving CHW performance at scale and better documentation of current large-scale CHW program effectiveness and how it might be improved.²⁷

Review of MCHIP and CSHGP Experiences with Community-Based Programming

MCHIP and CSHGP contributed to support for implementation and learning about key examples under each of the categories of action in the “Framework for maximal community impact”: supporting community-based approaches for key underutilized high impact interventions; supporting the introduction and scale up of key community-based delivery systems; and supporting the development and implementation of community empowerment and mobilization activities. All but the two activities in Bangladesh were carried out in more than one country:

- Support for implementation and study of selected community-based **technical interventions**
 - Misoprostol pilot projects for postpartum hemorrhage (PPH) prevention
 - Linking postpartum family planning with home-based newborn care in Bangladesh (Healthy Fertility Study)
- Support for development and scale up of community-based **delivery systems**
 - Development and expansion of the Care Group model of volunteer organization
 - Support for further development of the model, as well as introduction and scale up of Integrated community case management (iCCM)
 - Community-based actions for malaria prevention and control—Malaria Communities Program (MCP)
- Support for community **empowerment and mobilization** approaches
 - Support for strengthening community support for routine immunization
 - Support for integrated community mobilization for maternal and newborn health (MNH) in Bangladesh

These seven project activities are by no means exhaustive of all potential activities, but they do high important themes across the spectrum of the RMNCH domain. They have been implemented at moderate scale (i.e., in multiple districts) except for immunization activities which were carried out at national scale. There were also important but less widespread efforts in community-based nutrition education, community kangaroo mother care and support of use of chlorhexidine. These activities were not included because they either were in only one country or did not yet have results ready. Below is a description of the activities, results, and learning generated from these seven activities. A brief summary is also presented of the breadth of MCHIP-supported CSHGP programming.

SUPPORT FOR IMPLEMENTATION AND STUDY OF COMMUNITY-BASED, HIGH IMPACT INTERVENTIONS

Misoprostol for Postpartum Hemorrhage Prevention

Misoprostol, an oral medication taken immediately after birth, reduces the incidence of postpartum hemorrhage. It is an excellent option in settings in which women deliver at home because of poor access to health facilities, and helps ensure that all women are provided with an uterotonic.

MCHIP Support for Misoprostol Pilot Projects

MCHIP carried out operations research in five countries on PPH prevention using misoprostol for women who deliver at home - South Sudan, Madagascar, Liberia, Rwanda and Guinea. MCHIP supported the Ministry of Health in each country to carry out the intervention, document the results and disseminate the findings as part of an effort to scale up the program. The goal of all the programs was to increase the coverage of use of an uterotonic for PPH prevention for all births. All but the Madagascar[§] program supported a comprehensive approach to PPH prevention that included education on the importance of skilled attendance for birth and the dangers of PPH for all women, and improvements in facility based birth (including promoting active management of the third stage of labor) or home birth (distribution and administration of misoprostol). In all programs except Rwanda, misoprostol was distributed in advance, and women self-administered the medication at the time of birth. Each of these learning phase projects generated important local data on the most effective PPH prevention approaches and demonstrated that facility- and community-focused PPH prevention strategies are safe, feasible, and acceptable.

An important observation across all programs was that advanced distribution of misoprostol did not reduce the number of women delivering at a health facility. Misoprostol for prevention of PPH was highly acceptable to women in all of the learning phase programs. Higher uterotonic coverage was achieved when CHWs distributed the misoprostol through home visits. The overall coverage with use of a uterotonic for PPH prevention among those delivering at home rose substantially in all programs, but community-based distribution was much more effective. In South Sudan uterotonic coverage rose to 94% through use of the community health system even in the face of great health system weakness. On the other hand, in Liberia, where misoprostol was delivered by the formal health system, coverage rose to only 53%. The findings have been disseminated and discussed with Ministry of Health colleagues, and a comparative analysis will be published later this year. The major findings are summarized here:

- Programs which use home visits can achieve high rates of distribution and coverage.
- The location of and cadre used for misoprostol distribution affects coverage.
- CHWs achieved higher coverage than antenatal care (ANC) health workers. Programs that allowed distribution by CHWs during home visits achieved the greatest distribution and coverage (compared to ANC alone).
- Advanced distribution in late pregnancy (as opposed to distribution at the time of birth) results in higher coverage.
- Advanced distribution of misoprostol does not appear to negatively impact facility delivery rates.
- CHWs are as effective as facility-based providers in delivering counseling and education to women.
- Mistimed self-administration of misoprostol was extremely low (well below 1%).
- Despite frequently minor side effects, women reported satisfaction with misoprostol.
- The majority of women would use misoprostol during a subsequent pregnancy and would recommend it to a friend or relative.

Ministries of Health were provided with compelling evidence that PPH-prevention strategies (and particularly advance distribution of misoprostol for home births) are effective at achieving high uterotonic coverage for prevention of PPH. Due to highly promising results of some of these

[§] MCHIP was not permitted to work in public sector facilities due to the Brooke Amendment, which restricted the US Government from providing direct technical assistance to the government of Madagascar.

programs, MOHs in South Sudan, Liberia, and Madagascar have opted to expand the program. Furthermore, with the growing global consensus, MOHs in India, Pakistan, the Philippines and Malawi are all starting or expanding programs.

CSHGP Support for the CARE/Nepal Misoprostol Pilot Project

CARE/Nepal conducted a special study on community-level misoprostol distribution to prevent PPH. The study found that community-based delivery of misoprostol was effective in achieving a high level of coverage with community-based distribution of misoprostol by Female Community Health Volunteers. In addition, a significant proportion of illiterate and disadvantaged groups benefitted from the intervention. This approach was piloted by Nepal Family Health Program (NFHP), which led the successful advocacy effort with the MoH to move towards commitment to a national program. CARE was one of several partner organizations that played a helpful role at the stage when the ministry was allowing some limited scale-up but hadn't yet committed to national scale-up.

Linking Postpartum Family Planning with Home-Based Newborn Care in Bangladesh (Healthy Fertility Study)

The Healthy Fertility Study (HFS) was a quasi-experimental study giving solid evidence of the effectiveness of community-based, post-partum family planning, integrated with MNH care. It was conducted in eight unions of Sylhet district in Bangladesh. The intervention arm received community-based distribution of contraceptives, family planning counseling, and community mobilization in addition to MNH activities. The HFS strategy aimed to promote recommended MNH and family planning practices by building an enabling environment and social support for MNH and family planning, with an emphasis on the lactational amenorrhea method (LAM). HFS demonstrated the feasibility of integrating post-partum family planning (PPFP) within a community-based MNH program. Key findings from the project included the following that collectively showed the effectiveness of integrated PPFP services:

- A significantly higher contraceptive prevalence rate was observed in the intervention area than in the comparison area (42% vs. 27% at 12 months post-delivery and 47% vs. 34% at 18 months).
- HFS activities were associated with a 26% increase in contraceptive uptake in the intervention arm, from 18% at baseline to 44% at 30 months postpartum.
- Significantly more women in the intervention arm than in the control arm exclusively breastfed their infant (often in association with adoption of LAM): 23% at 3 months postpartum and 12% at 6 months postpartum.
- The probability of a subsequent birth after the delivery of the index child within 30 months was significantly lower in the intervention arm (25% compared to 30% in the control arm).

SUPPORT FOR DEVELOPMENT AND SCALE UP OF COMMUNITY-BASED DELIVERY SYSTEMS

Care Group Community Volunteer System

One of the important innovations to emerge from the CSHGP is the Care Group methodology, the effectiveness of which has led to widespread dissemination throughout the NGO child survival community. The Care Group model is an approach to systematically organize, train, and supervise small groups of volunteers who in turn regularly reach their closest 10-12 neighbors. Collectively, Care Group members “saturate” the area and reach every target household with interpersonal behavior change communication related to maternal and child health intervention on a frequent basis (usually monthly). There have been 27 international

nongovernmental organizations (INGOs) working in 23 countries that have implemented Care Groups, reaching millions of people.

Projects using Care Groups have shown large simultaneous increases in population coverage for multiple high-impact child health interventions. Several projects also instituted community vital events registration systems. According to the findings from the vital events registration system of a project in Gaza Province, Mozambique implemented about 10 years ago, there was a 66% reduction in infant mortality and a 62% reduction in under-five mortality in the four year implementation period. To check the validity of the findings, an independent mortality assessment was carried out using a pregnancy history questionnaire, demonstrating reductions of 49% and 42% in infant and under-five mortality, respectively.²

The nutrition impact of a Care Group project implemented in a population of 1.1 million people in rural Mozambique was reported in 2013.³ This report documented that more than 90% of beneficiary mothers reported that they had been contacted by Care Group volunteers during the previous two weeks, and that the annual rate of decline in childhood undernutrition was four times greater than in the country as a whole. It is rare to see nutritional impact with this many beneficiaries using behavior communication interventions alone.

There has been one successful pilot of the Care Group model integrated with a Ministry of Health (MOH) system – in Burundi. This was led by CSHGP-supported Concern Worldwide. A USAID-sponsored Technical Advisory Group has recently met to review the current experience with Care Groups and soon will be making recommendations for further development of the model and its dissemination.

Integrated Community Case Management for Childhood Pneumonia, Diarrhea and Malaria

The effectiveness of community-based management by CHWs of childhood pneumonia, diarrhea, and malaria is well-established, and iCCM is now being promoted by WHO and UNICEF to expand the coverage of treatment for these leading causes of mortality in infants and young children. In 2009, only 10 countries worldwide had adopted the assessment and treatment of diarrhea, malaria and pneumonia by trained community health workers (CHWs). According to UNICEF, by early 2014, 29 countries were implementing some or all elements of the iCCM approach. Nine of these countries (Democratic Republic of Congo (DRC), Ethiopia, Guinea, Kenya, Mali, Namibia, Rwanda, Zambia, and Zimbabwe) received direct support from MCHIP. Each was at a different stage of implementation and utilizing different models. Some were paying their CHWs while others continued with a volunteer model, not all stakeholders accepted that minimally trained CHWs could safely treat pneumonia, and very few had the systems in place to adequately support their programs.

MCHIP Learning and Support of iCCM

MCHIP is the secretariat of the Global CCM Task Force (CCM TF). Tools compiled and generated by the TF have been made available at www.ccmcentral.com. The need for common indicators to guide and assess implementation emerged in the early stages of iCCM discussions. Using the Benchmarks Framework, the CCM TF's monitoring and evaluation (M&E) subgroup defined, organized and vetted a comprehensive list of iCCM indicators and launched the *iCCM Indicator Guide* at the iCCM Evidence Review Symposium in Ghana in March 2014. MCHIP programs in Kenya, Mali, Guinea and Namibia have adapted elements of the framework for iCCM monitoring and many NGOs within the CSHGP program have adopted the indicators in monitoring their own programs. MCHIP led a review of the state of iCCM M&E in six countries (DRC, Madagascar, Niger, Senegal, South Sudan, and Zambia), while the USAID/TRAction Project reviewed M&E systems in four other countries (Ethiopia, Mali, Malawi, and Mozambique). MCHIP and TRAction developed a synthesis of the learning from these ten

countries which will: 1) guide further refinement of the iCCM indicators; 2) be used to recommend the possible standardization of DHIS II community indicators and data collection; 3) support the use of data for decision making; and 4) inform future research on the strengthening of routine monitoring of iCCM services and community health programs.

MCHIP supported the development of the iCCM research agenda through a Child Health and Nutrition Research Initiative (CHNRI) process on iCCM that will be published in 2014. These publications allowed for a broad dissemination of learning and defined a research agenda to inform iCCM programming. Both grey and peer-reviewed literature lacked documentation of consolidated iCCM findings and best practices. Through the OR subgroup of the CCM TF, MCHIP supported the development and publication of 15 papers on iCCM for the Journal Supplement of the *American Journal of Tropical Medicine and Hygiene* (AJTMH). Working with the iCCM TF, MCHIP and partners developed a set of benchmarks for monitoring the scale up of iCCM, then used this framework to guide the documentation of scale-up experiences in two countries—Senegal and DRC. The DRC case is summarized here as an illustrative example of the learning generated through this process.

iCCM Case Study: Democratic Republic of Congo

iCCM has been in operation in the Democratic Republic of Congo (DRC) since 2005. In 2010, the Ministry of Health (MOH) and its partners undertook a documentation exercise to identify lessons and best practices regarding the process of adopting, introducing, implementing and scaling up iCCM. The iCCM approach in the DRC involves the management of life-threatening childhood diseases at the village level through trained paid or volunteer community health workers (CHWs) known as *relays*. They treat malaria with ACT, pneumonia with cotrimoxazole, and diarrhea with zinc and ORS. Five years following the initiation of iCCM, there were 716 sites where iCCM was provided, covering 10 of the 11 provinces in DRC. DRC has two categories of *relays*. One is a *site relay*, who has received structured training and supervision and can provide curative care to sick children. The second category is the *promotional relay*, who is involved in social mobilization and communication activities.

The success of the iCCM strategy in DRC depended on a high level of political commitment. The leadership of the authorities led to an integrated package of services being delivered at the community level. Major efforts have been made to integrate data from the iCCM sites into the monthly reports of their affiliated health facilities. This is a feature that will enhance the sustainability of the approach. Another element that favors sustainability is the intense focus on capacity building at all levels of the health system and community through the training of trainers (TOT) approach. However, iCCM in DRC, as in many places around the world, is based on volunteerism. Thus, its continuation depends upon the inclusion of incentives for community-based volunteers. In DRC, the rapid scale up of the strategy to 10 of the 11 provinces can be attributed to availability of well-codified technical and operational documents, leadership and commitment at all levels, continuous supervision, ongoing performance quality assurance, and the decision to proceed immediately to expansion using lessons learnt from Senegal without going through the country's own pilot phase. But a major challenge to be addressed is the presence of a very complex and fragmented supply chain system which results in frequent stock outs of important drugs.

The iCCM intervention in DRC involved a great deal of capacity building at levels of the health system and included training of health workers and *site relays* in the management of illnesses. Between 2005 and 2010, large numbers of CHWs, health zone staff, and provincial and central-level staff were trained in iCCM. For example, as of 2010, the TOT approach in one province had made it possible to train 1,000 people in BCC who then passed messages on to over 14,000 people. Communication and social mobilization were an important part of the iCCM strategy in the DRC. It involved training volunteers from churches in BCC activities. Trained religious

leaders in turn trained their followers, resulting in a cascade model to promote community mobilization. Following their training, *site relays* were continuously monitored through group meetings and periodic on-site visits by nurses from their corresponding health center. The health systems level the outputs comprise the following:

- A review of CHW (*site relay*) performance revealed that the treatment prescribed was correct in 94% cases of malaria, 92% cases of pneumonia, 81% cases of malnutrition, and 62% cases of diarrhea.
- The *relays* were almost perfect in their knowledge of the appropriate dosage of medication, based on the age of the child, except in treatment for diarrhea, where 86% had the appropriate knowledge.
- 95% of *relays* knew at least two danger signs in a sick child, while the percentage knowing all the danger signs was 81%.
- 62% of *relays* were able to correctly count respirations.

CSHGP Support for iCCM

MCHIP and CORE Group supported the development of the CCM Essentials Guide as a way to systematize best practices for CCM. WHO and UNICEF were involved at every step in the process as well. Among the private voluntary organization (PVO) and NGO projects supported by CSHGP that implemented iCCM, the implementation context varied, and projects ranged widely in the number of children younger than five years of age served. Projects were typically implemented in one or more districts. The 10 completed projects documented increases in the percentage of the population obtaining treatment for malaria and diarrhea and increases in the percentage of clients with symptoms of pneumonia seeking treatment. Demand strategies for iCCM typically involved multiple channels, and several projects reported increases in community engagement through various strategies such as establishing village health committees, ensuring community-level monitoring, and increasing health knowledge. Completed projects documented substantive contributions to policy, with nearly half contributing to national-level policy formulation. CSHGP projects have been effective in implementing iCCM and in building national iCCM capacity by sharing experiences, documenting achievements, and championing iCCM at the national policy level.

Of the 10 completed PVO/NGO projects supported by CSHGP that implemented iCCM, three reported decreases in under-five mortality. In general, the projects (1) targeted underserved communities, (2) selected, trained, and then deployed CHWs to increase and sustain access to iCCM, and (3) strengthened referral pathways to facilities. Evaluations of all of these projects revealed that increasing access to curative services that CHWs provide near the home mitigated some of the inequity inherent in geographical areas where access to facilities has been difficult. The majority of completed projects documented a high quality of case management. Evaluations of these 10 projects also revealed several areas for further exploration:

- Financing and logistics are not receiving sufficient attention. Cost-recovery schemes for iCCM could inform the equity versus sustainability debate surrounding user fees.
- Alternative financing mechanisms such as insurance and health savings groups need to be explored in different settings.
- Annual benchmark mapping would allow tracing common paths for countries as they introduce and scale up iCCM and allow for the identification of areas for strengthening the health system to maximize performance.

Malaria Control and Prevention: The Malaria Communities Program

The Malaria Communities Program (MCP) was launched in 2006. Through MCP, the President's Malaria Initiative (PMI) gave out 20 awards to 18 INGO and local NGO partners in 12 countries. Over the last four years of the project, MCHIP gave technical assistance to MCP grantees. MCP supported efforts of communities and nongovernmental organizations to combat malaria at the local level. MCP worked to increase local capacity to undertake community-based malaria prevention and treatment activities; build local ownership of malaria control in partnership with communities and National Malaria Control Programs (NMCPs); and extend coverage of PMI and NMCP interventions to reach larger beneficiary populations.

The program aimed to improve intermittent preventive treatment of malaria in pregnant women (IPTp) and insecticide-treated bed net (ITN) coverage among pregnant women and children under five years, as well as case management of children. A key aspect of MCP was community mobilization through behavior change strategies. Various strategies were used, but systematic household visitation was one of them. Some of the MCP partners were successful in involving influential community members to become champions for MIP messages and in encouraging male participation to reduce barriers to the involvement of women. Messages focused on proper net hang-up, ANC, and IPTp.

MCP trained, empowered and equipped volunteers with skills and tools to promote key messages about malaria prevention and treatment. MCP attempted to achieve more effective programming by (1) promoting ownership through community participation in volunteer selection, and (2) training and empowering community volunteers in malaria prevention and control. MCP coordinated and linked ANC to the national commodity supply chain and established linkages between communities and health facilities to prioritize procurement of key products such as ITNs. In one of the project areas, ERD Angola persuaded the National Malaria Control Program to incorporate community-level data into its monitoring and evaluation system. In MTI Uganda, midwives and facility staff were impressed by the assistance that trained female Village Health Teams can lend to health facility staff. Consequently, the MOH has incorporated Village Health into its program.

Projects carried out baseline and final population level coverage surveys. Key results (ITN use and IPTp) are shown in Tables 1 and 2. ITN use increased in all project areas except one, and IPTp coverage increased by an average of 50 percentage points. In those two projects that had serial DHS data for comparison (Malawi, Tanzania), the increases in coverage in the project area were larger than the trend of coverage increase measured by the serial DHS data.

Table 1. The percentage of children younger than five years in the Malaria in Communities Program areas who slept under an insecticide-treated bed net the previous night compared to national levels

MCP Partner*	Baseline percentages in project areas (collected in 2007-2009)	National percentages from DHS surveys (2005-2009)	Final percentages in project areas (collected in 2010-2012)	National percentages from DHS surveys (2010-2012)
ADPP Angola	39.0	17.7	75.0	
ERD Angola	42.0	17.7	88.0	
ERD Ghana	69.0	38.7	93.0	
Merlin Kenya	38.6	46.7	95.0	
CU Malawi	24.7	14.8	81.3	39.4
CSSC Tanzania	5.0	16.0	67.0	63.6

MCP Partner*	Baseline percentages in project areas (collected in 2007-2009)	National percentages from DHS surveys (2005-2009)	Final percentages in project areas (collected in 2010-2012)	National percentages from DHS surveys (2010-2012)
HealthPartners Uganda	6.5	9.7	42.0	
MTI Uganda	57.3	9.7	75.0	
Wellshare Uganda	43.0	9.7	68.8	
CMMB Zambia	85.3	28.5	86.9	

*These are the PVOs/NGOs that implemented the activity in the country

Table 2. The percentage of pregnant women in the Malaria in Communities Program areas who took at least two doses of anti-malarial medication

MCP Partner*	Baseline (2007-2009)	Final (2010-2012)
ADPP Angola	23.0	80.0
ERD Angola	4.0	96.0
EQUIP Liberia	23.0	88.0
CU Malawi	51.7	62.8
CSSC Tanzania	34.0	64.0
MTI Uganda	24.7	79.0
Wellshare Uganda	32.7	72.5

*These are the PVOs/NGOs that implemented the activity in the country

SUPPORT FOR COMMUNITY EMPOWERMENT AND MOBILIZATION APPROACHES

MCHIP Support for Strengthening Community-Oriented Routine Immunization

MCHIP has been engaged in strengthening routine immunization services across nine countries.^h MCHIP linked this work to improved planning at the national level, in addition to its strategic participation in working groups and committees, amplifying the project's learning and expertise while infusing the policies, strategies and operational plans of key partners with pragmatic, operational considerations. Among countries where MCHIP worked, the immunization team partnered with district health services to strengthen capacity and build partnerships with communities for more effective planning, providing, monitoring, and improving the delivery and uptake of routine immunization services. This work was primarily achieved through implementation of the Reaching Every District (RED) approach, one of whose components is community engagement. In India, Kenya, and Timor-Leste, innovative techniques to improve newborn tracking were implemented. Notably the "My Village is My Home" tool showed an improvement in vaccination timeliness everywhere it was used and contributed to higher overall coverage in the pilot districts in Jharkhand state, India. In South Sudan, MCHIP collaborated with partners to develop and obtain the government's endorsement for a new national immunization policy in addition to drafting RED guidelines and Expanded Program on Immunization (EPI) training modules for the national immunization program.

^h India, Kenya, Madagascar, Nigeria, Senegal, South Sudan, Uganda, Tanzania, Timor-Leste, and Zimbabwe

The *Imunizasaun Proteje Labarik (IPL)* Project in Timor-Leste

MCHIP, in partnership with the Ministry of Health (MOH), implemented *Imunizasaun Proteje Labarik (IPL)* which stands for Immunization Protects Children (IPC)) in seven districts of Timor-Leste from April 2011 to October 2013 to increase child immunization coverage. Much of Timor-Leste's health infrastructure and system capacity had to be rebuilt after the country's long struggle for independence. National immunization rates among infants have improved since independence in 2002, but remain the lowest in the South East Asia region. In 2008, the Timor-Leste MOH introduced SISCa (which stands for Integrated Community Health Services), a community outreach service to offer integrated health services (including immunizations) one day per month in larger communities. However, many rural communities in the mountains still lack access to SISCa. The MOH is under-funded and under-staffed in rural areas. Weak system components include management of vaccine stocks, health information, and disease surveillance.

The intervention built both supply- and demand-side capacity to boost immunization rates in the country. IPL supported the MOH and national partners in annual micro-planning at the district and sub-district levels. It helped the government to review and formulate policy papers and strategic guidelines for both the Expanded Program on Immunization (EPI) and the wider health system. The project developed standard tools for supportive supervision, and it mentored local staff on reporting and registering.

At the community level, the project trained community leaders on immunization and other health topics so they could mobilize fellow community members and respond to their questions and concerns. It engaged communities in micro-planning and monitoring by introducing a new tool that enabled community volunteers to list all infants, record the dates of each of their vaccinations, and make home visits to motivate parents when a child fell behind in his/her immunization schedule. Support was provided to community-based services and outreach in the form of motorcycles, fuel, practical assistance, and mentoring of health staff and volunteers. The project also gave immunization orientations in middle schools.

Baseline and follow-up studies were conducted to assess project outputs and outcomes. Training of community leaders resulted in a positive change in their knowledge about immunization, as shown in Table 3. Project activities also resulted in improved capacity to provide immunization services at the community and health system levels. Assessment of the community-based monitoring tool shows positive impact on timeliness of vaccination since more children were being vaccinated at younger ages and within the recommended age ranges.

Table 3. The Timor-Leste Immunization Protects Children (IPC) Project: Community leaders' knowledge about immunization

Knowledge level	Percentage of leaders	
	Before training	After training
Lacking	9	0
Limited	87	45
Good	4	55
Total	100	100

The four IPL project activities that were considered most effective by the MOH and national partners were: (1) support for micro-planning of immunizations, (2) the community-based tool for tracking immunization coverage, (3) supportive supervision, and (4) support to SISCa and outreach. The project's focus districts showed increases in immunization coverage while in the non-focus districts there was no change (Table 4). The main limiting factor preventing larger increases in coverage was stock-outs of measles and BCG vaccines at several points during the project implementation. The extent to which these changes in immunization coverage are attributable to support from IPL cannot be determined conclusively, although it seems likely that the project made a significant contribution. The limited period of implementation means that the sustainability of the results cannot be assessed. The short period of two years resulted in insufficient time for some of the tools and approaches to be scaled up nationally and institutionalized. There are follow-up plans and commitments of continued support for some but not all of the package of IPL project interventions.

Table 4. The Timor-Leste Immunization Protects Children (IPC) Project: Immunization coverage in project focus and non-focus districts

Year	Percentage of children who were fully vaccinated	
	In project focus districts	In project non-focus districts
2011	65	68
2012	79	76
2014	76	68

CSHGP activities for immunization

There were 11 CSHGP-funded projects implemented by PVOs/NGOs that devoted a significant effort to immunization, and all demonstrated improvements in terms of percentage of children fully immunized, percentage of children who received measles vaccine, and the percentage of women who received at least two tetanus toxoid immunizations prior to the birth of the youngest child.

The common strategies used to achieve these results were:

Ensuring health system supports and an enabling environment

- Ensuring that the necessary supplies and equipment to support the immunization program were available (including providing refrigerators when needed)
- Strengthening collaboration with the national immunization program
- Strengthening community information systems by involving community members and establishing community registers of children and tracking immunized children and defaulters
- Training CHWs to provide education, counseling and support related to immunizations

- Utilizing outreach strategies such as mobile clinics, rally posts, and home visits to increase coverage

Community mobilization

- Training community-level volunteers and using appropriate information, education and communication (IEC) materials and BCC messaging to mobilize the community for behavior change and to counter negative opinions about immunization
- Providing community education about immunizations and immunization campaigns
- Using the VISA (**V**isit, **I**dentify, **S**ensitize and **A**ccompany) volunteer mobilization approach, community radio, and quality improvement methods

Integrated Community Mobilization for MNH: The Bangladesh MaMoni Project

The MaMoni Project covered a total of 15 sub-districts of Sylhet and Habiganj districts within the Sylhet Division, with a total population of 3.5 million people. The Sylhet Division has the worst maternal and child health indicators in Bangladesh. The division lacks access to many MNCH services, and the Habiganj District is a particular challenge since for seven to eight months of the year the population can access referral health services only by boat. MaMoni provided an integrated package of maternal and child health services, including pregnancy identification, antenatal care (ANC), promotion of clean delivery by skilled attendants, postnatal care (PNC), exclusive breastfeeding, family planning, and infant and young child feeding.

MaMoni created an interface between the community and the health system by introducing Community Micro-Planning (CMP). The project used high-impact technical interventions, trained, motivated and supported CHWs, and ensured that essential commodities were available. Routine systematic home visits to identify pregnant women and targeted visits to pregnant women and to newborns were an essential project strategy. The project recruited female CHWs to provide household-based counseling on maternal and newborn health messages and also trained service providers on elements of the integrated package. Community engagement was achieved through Community Action Groups (CAGs) and community volunteers (CVs). CVs raised awareness, promoted care seeking, and also identified health problems and addressed them with local resources. About 120,000 men and women were organized into 3,800 Community Action Groups. The project had 286 CHWs, and 12,000 CVs were selected and trained. The project also developed a community-led, customized referral system to the appropriate referral center in hard-to-reach areas to ensure prompt transfer of mothers and newborns who had complications.

Service utilization and coverage improved significantly:

- Monthly community to facility referrals rose from 20 per month at over 180
- Reproductive, maternal and newborn outcomes improved: CPR rose from 39% to 46%; ANC1 from 32% to 76%; and institutional delivery from 13% to 22%.
- There is evidence that maternal mortality fell significantly

Health systems components improved, such as data quality in the health information system, and significant resources were mobilized to build clinics and access roads and facilitate referral care. Engaging with communities unleashes their potential to mobilize local resources to solve their own problems, and improve health system bottlenecks.

OVERVIEW OF ACCOMPLISHMENTS OF CSHGP PROGRAMMING

During the period of MCHIP support (2008-2014), 94 projects received funding from USAID through the Child Survival and Health Grants Program (CSHGP) to work with local partners (local and national Ministry of Health, local civil society, and research institutions) to improve and sustain equitable health outcomes by building local capacity and generating credible, practical evidence from robust implementation science platforms (routine M&E; evaluations including population-based baseline and endline surveys; operations research with qualitative and quantitative methods) to advance integrated, community oriented programming. INGOs facilitated improvements at the district, facility, and community levels and strengthened linkages between health system actors and communities at multiple levels of the system. CSHGP's awards to INGOs were complemented with technical assistance from MCHIP (www.mchipngo.net.org) and collaboration for action and learning through the CORE Group coalition of more than 70 INGOs and affiliates in 120 countries or more than 100 members (organizations and individuals) worldwide (www.coregroup.org). MCHIP's technical assistance to NGOs during this time focused on improving the quality of program design and measurement and disseminating learning.

CSHGP grantees consistently demonstrated improved coverage of integrated, high impact interventions in vulnerable populations. A published MCHIP review of 12 representative CSHGP-supported projects that ended in 2006-7 showed population level increases in coverage for a wide array of key household behaviors. When these coverage changes were modeled in LiST, the estimated average rates of annual decline in under-five mortality were more than twice that for secular changes in the same region of the country (5.8% versus 2.5%).⁴ An analysis of the interventions responsible for this decline revealed that just two – exclusive breastfeeding and hand washing – were responsible for almost half of the decline – two interventions that do not generally receive intensive attention from MOHs.

CSHGP has recently focused on innovations to address delivery challenges through community and health systems solutions. This has catalyzed new operations research partnerships among NGOs, academia, and MOHs through 30 operations research projects in 23 countries, implemented by 19 NGOs.ⁱ These partnerships are generating evidence about how to solve critical community health challenges in the implementation and scale-up of high impact maternal, newborn, and child health interventions. By working in partnership with MOHs, studies are designed to meet the ministries' expressed needs for evidence about community health approaches that have the capacity to strengthen local and national systems. Examples of innovative community-based interventions that these projects implemented during the past five years include the following:

- iCCM programs that reached 1.8 million children (22 projects)
- Essential nutrition actions (an integrated approach to strengthen the coverage and quality of nutrition interventions for mothers and children through community participatory approaches) (19 projects)
- Routine immunizations were strengthened through mobilizing the community, expanding the role of community volunteers and CHWs, and improving logistical support (11 projects)
- Home visits were provided during the postnatal period to check on the health of the mother and newborn and to provide education and support (6 projects)
- Provision of family planning services was strengthened during the postnatal period through community mobilization, interpersonal counseling, and logistical support (2 projects)

ⁱ <http://www.mchipngo.net/lib/components/documents/PVOCenter/OR-Innovation-Brief.pdf>

- Tuberculosis detection, linkage of potential cases to diagnosis and treatment, and support during treatment (6 projects)
- Misoprostol distribution to pregnant women to take following delivery to prevent postpartum hemorrhage among women without access to facilities (1 project)

Delivery mechanisms at the community level included outreach by facility-based mobile teams, community case management by CHWs, routine systematic home visits, and participatory women's groups. Existing community groups and leadership structures were commonly engaged in project activities. Interpersonal communication and community mobilization strategies were developed to improve health-related practices. Mothers were contacted frequently by credible sources of health information (health personnel, community health volunteers, trained faith-based leaders, trained community leaders, and community support groups), normally at least once a month.

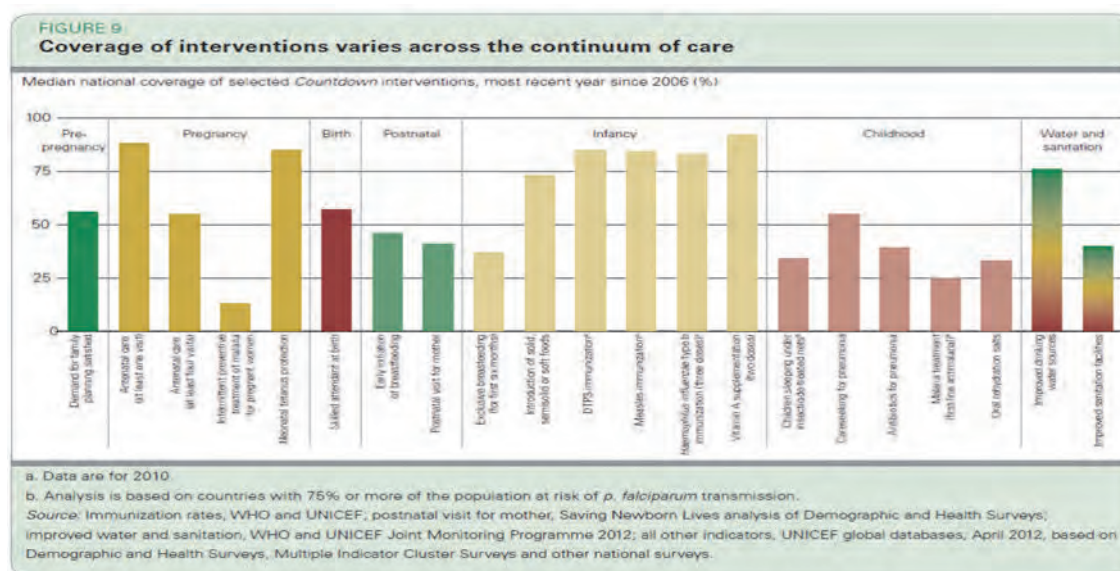
Lessons Learned

MCHIP has engaged in a wide variety of implementation support and learning at the global and national levels, facilitating the use of single technical interventions such as community-based misoprostol distribution for PPH prevention, promoting integrated interventions delivered through effective community-based mechanisms such as iCCM, and strengthening integrated service delivery platforms such as Care Groups. There are many lessons that have been generated, and many of them context-specific; however, we lay out the most important and generalizable of the lessons here.

LESSONS FOR TECHNICAL INTERVENTIONS

Many of the technical interventions reviewed by Countdown to 2015 and others are either currently or could potentially be delivered effectively in the community. Figure 3 from the latest Countdown report shows the gaps in key high impact RMNCH interventions. The average gap in coverage across the 74 Countdown countries is smallest for vaccinations, which are often delivered in the community through outreach mechanisms. On the other hand, the gap for skilled birth attendance, a facility based intervention, is much greater. The gaps for treatment interventions for the most common childhood killers (malaria, pneumonia, and diarrhea) range from 25% to 70%. These have all traditionally been delivered in facilities but are moving toward community-based delivery in this era of interest in expanding programs for integrated community case management. One intervention to call attention to is exclusive breastfeeding. This is a highly effective intervention fully within the reach of even the poorest households, requiring no commodity, and yet is only reaching coverage levels of 40% across Countdown countries. That gap is an indicator of a clear need for community-based action.

Figure 3. Gaps in coverage of key high impact RMNCH interventions



Recent movement toward community-based treatment through iCCM programs is encouraging, but one should not forget that there are still wide gaps to be closed for simple and highly effective preventive interventions as well. CSHGP programming shows that at the level of one or several districts, community-based behavior change approaches can increase coverage for several key household behaviors such as breastfeeding. The challenge is how to achieve

^j http://www.countdown2015mnch.org/documents/2013Report/Countdown_2013-Update_withprofiles.pdf

population level behavior change (PLBC) in entire countries. The USAID Summit on PLBC highlighted the fact that the evidence base is still fairly thin in terms of how to do that.

LESSONS FOR SERVICE DELIVERY

The same four effective service delivery mechanisms outlined in the 2009 literature review were again validated in the updated and expanded review – that is, community case management, participatory women’s groups, outreach, and routine systematic home visits. There has been much activity and excitement generated globally by case management for childhood illness recently, and MCHIP has been a global leader in this and needs to make sure that momentum is maintained. As implementation of iCCM reaches a more mature stage in some countries, an important issue is whether or not iCCM programs are merely shifting treatment to the community among those already covered by facility-based interventions or if it is truly recruiting new and previously unreached clients. Helping countries measure and monitor this parameter and use this data for feedback to improve targeting for equity is a key area for action, as well as continuing to study and help countries solve implementation bottlenecks.

Participatory women’s groups have also received a lot of attention recently particularly after the 2013 *Lancet* meta-analysis by Prost and colleagues showing their effectiveness in multiple settings in South Asia.^k As has been pointed out, it is still not clear what the mechanism is for the effectiveness of participatory learning and action (PLA) Groups^l. A related method of organizing participatory women’s groups has been implemented extensively and studied to some extent as well. That is, the Care Group model. This model also shows promise as a delivery mechanism for a wide variety of technical interventions. The experience of the Burundi MOH seems to show promise that the approach can be integrated within national systems. It should be a priority to learn more about the principles that make these models of organizing participatory women’s group work and trying to help countries systematically scale them up.

LESSONS FOR COMMUNITY EMPOWERMENT

The area of community empowerment approaches is one that has been used and integrated into the programming of NGOs for years, and yet it is the least systematically studied of the three categories of community action for health. A review of the landscape and evidence for community participation at scale in 2008 noted the need for further study^m and that is still true today. There is now encouraging movement in the right direction. Some of mobilization and empowerment techniques have become more structured and generalized. BRAC has taken its highly successful approaches and applied them in other countries. The Community Action Cycle that the MaMoni project employed as described in this brief also is an approach that has been used with success in a number of settings. So although mobilization and empowerment strategies need to be contextualized, there are clearly certain generalizable principles that can be transferred across settings. These need to be studied more systematically, but in any case will remain part of activities that help deliver the results of community-based programming, along with the employment of evidence-based technical interventions and effective delivery mechanisms.

^k Prost A et al. 2013. Women's groups practicing participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis, *Lancet*, 381(9879):1736–46

^l Victora CG & Barros FC (2013). Participatory women's groups: ready for prime time? *Lancet*, 381 (9879):1693 – 1694.

^m Rosato M, Laverack G, Howard Grabman L, et. al. (2008). Community participation: lessons for maternal, newborn, and child health. *Lancet*, 372 (9642): 962 – 971

Recommendations for Supporting the Scale Up of Effective RMNCH Community-based Approaches

With an eye to ending preventable maternal and child deaths by the year 2035, the following are recommended actions for the implementation and study of the most promising community approaches to be taken to scale. Four types of actions are proposed:

- Policy advocacy for needed supports for community-based programming
- Support for further learning about community health – especially implementation research on solving system bottlenecks for effective community-based service delivery
- Support for CHW programs at scale, especially to implement iCCM
- Support for scaling up community platforms such as Care Groups and participatory women's groups that can effectively deliver behavior change through frequent interpersonal contact

ADVOCACY FOR COSTED NATIONAL PLANS AND NEEDED SYSTEMS SUPPORTS FOR COMMUNITY-BASED PROGRAMMING

Countries need to develop stronger policies and financing for community-based primary health care programming, for strong CHW programs, and for permissive policies that authorize the community-based delivery of specific high-impact interventions (e.g., family planning, misoprostol, chlorhexidine for prevention of newborn sepsis, etc.). National plans ought to be costed with consideration to possible NGO and private for-profit sector partnerships. Furthermore, there is a need to support the process of authorization for task shifting/task sharing to community-level workers. There can be resistance among other cadres to this sort of task shifting. To support community programming at scale, a full analysis of the system is necessary with consideration of the needs for investment across all the WHO “building blocks” of a strong health system: leadership and governance, financing, supply chain, health management information system, and workforce orientation and training (in addition to task shifting).

Civil society and NGOs can play a role in supporting and strengthening community-level structures and programming. This requires a policy-friendly environment for NGOs. There is a clear policy window now in many countries with the development, refinement, or tracking of national plans based on A Call to Action, Eliminating Preventable Child and Maternal Deaths, and other frameworks for ambitious action. India's plan, as an example (India Ministry of Health and Social Welfare (2013), A Strategic Approach to RMNCH+A in India, http://www.unicef.org/india/1._RMNCHAStrategy.pdf (accessed June 2014), has chapters on the importance of behavior change and community participation. One of the prioritized interventions is home-based postnatal care visits by Accredited Social Health Activists (ASHAs). This sort of community action could be deepened and broadened.

SUPPORT FOR FURTHER LEARNING AND DISSEMINATION CONCERNING COMMUNITY ACTION FOR HEALTH

There is an ongoing need to expand the evidence base to test the effectiveness of newer technical interventions delivered in the community under realistic settings. But the bulk of efforts for learning should be directed towards implementation research to elucidate how high impact technical interventions can be delivered in context-specific situations, in sustainable ways, and packaged in combination with each other. Suggested areas for emphasis for implementation research are:

- Investigation of community approaches at scale over longer periods of time. Most of the evidence reviewed was for programming taking place for two to three years within a fairly tightly controlled project environment. Sustainable programming that can last beyond such a relatively short period might require additional supports and needs to be better documented.
- Investigating how best to address the bottlenecks to effective CHW and iCCM programs. iCCM programs delivered by CHWs are often targeted for difficult-to-reach areas where the health system is weak. Logistical and supervisory support continues to be difficult in many programs. Novel ways to ensure proper support for these programs is, therefore, particularly needed. mHealth supports might play a role in non-traditional approaches to supervision. The private sector may be able to play a role for logistics support for needed commodities.
- In many countries rolling out iCCM, CHWs are combining this new or strengthened treatment role with previous responsibilities for health promotion (e.g., the *Soins Essentiel Communautaire* (Essential Community Care) system in Mali, the *Agent Polivalente Elementaire* (Elementary Polivalent Community Health Agent) system in Mozambique, and the FCHV system in Nepal are all examples of this). What are the best models for such service integration, by either one or several cadres of community health volunteers?

Some of the needed evidence does not need to come from new research projects, but could be obtained by analysis of the current and emerging peer-reviewed literature and program reports and evaluations from the grey literature. The Child Survival and Health Grants Program (CSHGP) has the world's most extensive archive of community-based program evaluations and could be exploited further.

SUPPORT FOR EFFECTIVE COMMUNITY-BASED SERVICE DELIVERY PLATFORMS, INCLUDING LARGE-SCALE CHW PROGRAMS

Support for large-scale CHW program strengthening should involve combining implementation support with investigations into the critical bottlenecks and how to address them in practical ways. Other community-based delivery strategies should be supported as well. A critical area is building a health system's capacity to empower and mobilize communities, to communicate health messages more effectively to the community; to design programs, identify target groups, or carry out surveillance more effectively; or to strengthen the health system in ways that would be of benefit for community-based programs (e.g., supervision of CHWs and provision of drugs and supplies to them). Supporting a health system to register vital events, for instance, or working effectively with village health committees could have benefits for improving RMNCH. The review of the evidence identified four basic intervention delivery strategies: home visitation, community case management, participatory women's groups, and delivery of services at outreach sites by mobile teams. Strengthening all of these approaches should be a priority, and not just iCCM.

SUPPORT FOR SCALING UP COMMUNITY PLATFORMS LIKE CARE GROUPS AND OTHER PARTICIPATORY WOMEN'S GROUP MODELS THAT CAN EFFECTIVELY DELIVER BEHAVIOR CHANGE THROUGH FREQUENT INTERPERSONAL CONTACT

Some of the high impact interventions with the largest potential effect are not only those that can be delivered effectively in the community, but are specifically behavior change interventions (Bhutta Z and Black R (2013), Global Maternal, Neonatal, and Child Health: So Near Yet So Far, *N Engl. J Med.* 369(23): 2226-2235). Bhutta and Black describe different high impact packages of interventions for MNCH care. One of these is a package of nutrition interventions that includes breastfeeding. One of the most effective mechanisms for breastfeeding promotion is interpersonal behavior change. Care Groups have the power to do this effectively by combining the power of participatory women's groups with systematic home visitation. They have shown the potential to dramatically raise coverage of such behavioral interventions as breastfeeding, as well as others such as hand washing, and still others that have a strong behavioral component, such as use of insecticide treated nets and care-seeking for serious illness. There have been some early experiences with scaling up Care Groups and integrating them into national systems, most notably in Burundi. Systematically implementing and studying such approaches could go a long way toward helping countries reach their goal of eliminating preventable child and maternal deaths.

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Annex: Review of Evidence from Published and Grey Literature on Effectiveness of Community-Based Approaches for Improving RMNCH

The findings of the literature review are presented following the framework presented in Figure 1 in the body of the text for how community health strategies achieve lasting reproductive, maternal, newborn and child health impact. That is, the evidence is summarized for the current evidence regarding

- High impact technical interventions that can be delivered at the community level;
- Delivery mechanisms for those technical interventions; and
- Strategies to enhance community empowerment.

The literature is the strongest on the evidence for community-based technical interventions. This aspect of community programming is the most amenable to randomized and quasi-experimental trials that produce the most rigorous evidence. This evidence will be presented first. Then the much thinner evidence will be presented on planning for context and for entry points.

EVIDENCE FOR HIGH-IMPACT COMMUNITY-BASED TECHNICAL INTERVENTIONS

The literature review updated and expanded a 2009 literature review done on effective community-based child health technical interventions.⁸ The number of interventions that have proven efficacy in improving the health of women of reproductive age, pregnant women, newborns, and children younger than five years has continued to grow. Table 5 defines those that are currently well-established, although there are newer ones for which evidence gathering is still underway. Most of the interventions shown here are well-known and have been well-recognized to be effective when delivered at the community level. This list is similar to lists of effective RMNCH technical interventions produced by the Child Health Epidemiology Reference Group (CHERG) and the Partnership for Maternal Newborn and Child Health (PMNCH). However, the effective interventions established by the CHERG and PMNCH contain interventions that can be provided only within facilities along with community-based interventions. The list presented in Figure 2 contains only interventions with proven effectiveness that can be implemented at the community level by community-level workers working outside of health facilities. The fact that this list is so similar to general lists of effective RMNCH technical interventions underscores the fact that so many well-known high-impact interventions have been proven effective when delivered at the community level.

The list of interventions of proven effectiveness is weighted toward health promotion activities. Experience with community-based treatment interventions traditionally been less common, although this is changing in the current landscape in which iCCM of childhood illness is being scaled up in a number of countries. It should also be pointed out that some of the interventions in Table 5, such as immunizations, are already routinely delivered at the community level at large scale. Others, such as family planning, are sometimes currently delivered at scale in the community. Many other interventions of proven effectiveness in community settings, such as intermittent preventive treatment for malaria in pregnancy (IPTp), are not currently implemented at scale in many settings, and others, which are, still have very low levels of coverage. Since the 2009 review, studies have been published that support the effectiveness of

community-based interventions for improving RMNCH. Some of the notable ones are shown in Table 5.

Table 5. Community-based interventions for improving RMNCH

Intervention	Target group					
	Women of reproductive age	Pregnant mothers	Mothers during labor and delivery	Post-partum mothers	Newborns	Children under five
Community-based provision of injectable contraception in many African countries (this approach has been well-documented in a number of Asian settings but only recently are studies of this emerging from Africa)	X			X		
Home-based distribution of misoprostol tablets to be taken following delivery (and usually distributed during a prenatal home visit) for prevention of postpartum hemorrhage		X		X		
Community-based approaches to HIV/AIDs prevention, detection, treatment (particularly for the prevention of mother-to-child transmission)	X	X		X	X	X
Home-based administration of chlorhexidine umbilical cord care for reducing newborn sepsis and reducing newborn mortality		X		X		
Home-based newborn care and linkage with postpartum family planning to prolong birth intervals and promote exclusive breastfeeding		X	X	X	X	

Intervention	Target group					
	Women of reproductive age	Pregnant mothers	Mothers during labor and delivery	Post-partum mothers	Newborns	Children under five
Community-based provision of oral zinc tablets to be taken along with oral rehydration solution/recommended home fluids to reduce the duration and severity of diarrheal episodes as well as the likelihood of subsequent infections in the subsequent 2-3 months					X	X
Integrated community case management of childhood illness by which CHWs are trained and equipped to diagnose and treat childhood pneumonia, diarrhea, malaria (where malaria is endemic) and, in some cases, severe acute undernutrition					X	X

A recently completed WHO consultation assessed the evidence and experience in the utilization of community-level workers in the provision of MNH services.⁹ They concluded that the use of community-level workers to promote the behaviors and services listed below is likely to be effective, acceptable and feasible and may reduce inequalities by extending care to underserved populations:

- Appropriate care-seeking behavior and antenatal care during pregnancy
- Companionship during labor
- Sleeping under insecticide-treated bed nets during pregnancy
- Birth preparedness
- Skilled care for childbirth
- Adequate nutrition and iron and folate supplements during pregnancy
- Reproductive health and family planning
- HIV testing during pregnancy
- Exclusive breastfeeding
- Postpartum care
- Immunization according to national guidelines

- Kangaroo mother care for low-birth-weight infants
- Basic newborn care and care of low-birth-weight infants

When comparing this list to the maternal and newborn interventions shown in Table 5, there are some notable differences. The WHO consultation did not specifically mention several important treatments for mothers and newborns that we have listed in Table 5. These are the following:

- Detection and treatment of maternal syphilis in areas of high prevalence
- Intermittent preventive treatment of malaria during pregnancy (IPTp) in malaria-endemic areas
- Provision of misoprostol for post-partum women to take immediately following a home birth
- Diagnosis and treatment of newborn sepsis
- Diagnosis and treatment of pneumonia and diarrhea in newborns

The WHO consultation group was cautious in its recommendations and will require more evidence prior to expanding their list, which most certainly will be updated from time to time.

EVIDENCE FOR COMMUNITY-BASED SERVICE PROVISION

From the analysis of the peer-reviewed and grey literature for assessments of programs, projects and studies that measured improvements in MNCH through community-based approaches, four main types of intervention implementation strategies were identified:

- Systematic home visits
- Community case management
- Participatory women's groups
- Provision of services in the community by outreach through mobile health teams

A detailed listing of what types of interventions can be implemented by which type of intervention implementation strategy has been described elsewhere.¹⁵ Various types of home visits have been described, from regular visitation of all households to home visits to pregnant women or newborns or home visits to care for sick children or home visits for follow up after treatment or referral. Two principal kinds of participatory women's groups were used to deliver specific interventions: Participatory Learning and Action Groups and Care Groups. There have now been seven randomized controlled trials of Participatory Learning and Action Groups, as well as a recent meta-analysis that demonstrates an overall reduction of 37% on maternal mortality and 23% on neonatal mortality, with even greater reductions when the analysis is limited to those trials in which at least 30% of eligible pregnant women were reached.¹⁶

Community case management is so far limited to childhood illnesses: pneumonia, diarrhea, malaria and acute malnutrition. Although provision of services at outreach sites by mobile teams was not a commonly mentioned strategy in the studies reviewed, it is a common delivery strategy in practice and is the means by which high levels of immunization coverage have been achieved in Countdown Countries. Other less frequently mentioned implementation strategies include the development of birthing homes, birth huts, and maternity waiting homes as well as use of drug vendors for provision of medications at the community level. Table 6 describes the frequency with which these delivery strategies were identified in a literature review of 119 maternal health programs and 476 newborn and child health programs that implemented

community-based interventions and documented improvements in maternal, neonatal or child health.

Table 6. Strategies employed in community-based programs, projects and studies for improving maternal, newborn and child health

Type of delivery strategy	Percentage of assessments of maternal health programs (n=119)	Percentage of assessment of newborn and child health programs (n=476)
Home visits	19.3	17.4
Community case management of acute illness by community-level workers	0.8	33.0
Participatory women's groups	16.0	10.5
Provision of services by mobile health teams based at peripheral health facilities	3.4	7.6

There were four general approaches to conveying educational messages in the community identified in the review of effective maternal and child health programs that used community-based approaches. The first approach involves educating groups of community-level people who would then educate others in the community. Examples of this approach include cascade training/training of trainers, whereby a small group of centrally located people would receive training and then pass the training on to other more peripheral groups of trainers until the message reaches every household. Another example of this approach involves education of small groups, such as mothers, grandmothers, men, or village leaders.

A second approach, sometimes connected to cascade training (as in the Care Group model), involves peer-to-peer education. This most commonly involved training mothers to teach other mothers who are neighbors.

A third approach to community-level education involved the use of special aids for communicating educational messages, such as audiovisual aids (most commonly in the form of flip charts, especially those that can be carried from house to house or used with small groups), and the creation and use of skits, stories and games that focus on specific educational messages, often created by local groups in individual communities. There are also examples of including social marketing, radio broadcasts, posters, and other more impersonal forms of communication.

A fourth approach, often referred to as mobile health or mHealth, involves sending out educational text messages to clients and special target groups in the community. mHealth also is a means for other functions as well, including supervision of health workers, obtaining help from a referral facility, and arranging transport for sick patients.

EVIDENCE FOR COMMUNITY EMPOWERMENT APPROACHES

A review of the RMNCH literature suggests that community empowerment (or participation) is an essential prerequisite for better health outcomes and that the failure to incorporate community participation into large-scale primary health care programs is a major reason for why many countries are failing to achieve the health-related MDGs.¹⁷ Community participation has several dimensions and levels of intensity. The review demonstrated several commonly used strategies for mobilizing/empowering the community. These included such activities as meetings with the leaders of the community or with the entire community, formation of village health committees, holding village health days, sharing locally obtained data with the community, giving health talks at mosque gatherings, and formation of micro-credit groups. The

process of establishing partnerships and collaborations with communities is a process well-known to NGOs working in health but often poorly developed in governmental health programs. By involving communities at the outset in the design of program operations, the stage is set for developing a partnership that can build capacity of communities and improve demand for key services. BRAC's Manoshi Project in Bangladesh engaged communities in a variety of different ways at the outset, not only by involving them in social mapping and census-taking, but also establishing community-level committees, responding to feedback provided by the community, and communicating with the community about the project's activities.¹⁴ This program has gone to scale over a 6-year period (2007-2012), reaching 6.9 million slum dwellers. There has been a remarkable impact on increasing the percentage of births taking place in facilities (from 16% to 87%), on maternal mortality (from 294 to 130 deaths per 100,000 live births), and on neonatal mortality (from 43 to 17 deaths per 1,000 live births).¹⁴

Building ownership at the community level for health programming and health outcomes is a poorly understood process. Establishing local structures for program support and local decision-making are, as mentioned above, commonly encountered among programs that documented improvements in maternal and child health through community-based approaches. Local governance structures are being developed and called on to participate in the selection of candidates for CHW training, reimbursement of CHWs, and monitoring and supervision of their activities.¹⁸

A WORD ABOUT THE IMPORTANCE ELEMENTS OF PROJECT DESIGN

Project design is clearly a critical component of “real world” programming. Design of effective programming requires an understanding of the local epidemiological context. This includes understanding the most prevalent and serious preventable or treatable conditions in the population and their distribution in the population. Consideration must also be taken of the social and political context in which community activities are carried out. In the literature reviewed, various types of strategies were used for program design, identification of target groups, and surveillance. There are key tools refined with MCHIP support: the knowledge, practice and coverage (KPC) household survey; appreciative inquiry, formative research, and participatory learning and action (PLA); community mapping and census-taking, vital events registration and completion of verbal autopsies, pregnancy surveillance and birth registration; and distribution of client-held cards with client-specific health information.

The achievement of high coverage of interventions will not necessarily produce a decline in mortality unless the interventions are addressing the major causes of mortality in the program area. As programs are scaled up, the tendency is to take a “one size fits all approach.” The failure to tailor to local epidemiology explains the failure to achieve a mortality impact of two strong programs that have been reported in the literature. Even well-resourced and executed projects can lose sight of this. One study from Bangladesh¹⁰ achieved high coverage of antenatal and postnatal visits as well as improved care practices and knowledge of maternal and newborn danger signs by CHWs carrying out home visits. However, there was no reduction of newborn mortality in the intervention area compared to the control area. The lack of effect was attributed to the fact that the leading causes of newborn mortality in the study area were birth asphyxia and prematurity, conditions that were not targeted by the interventions.

In another study,¹¹ a retrospective assessment of the UNICEF Accelerated Child Survival and Development program in priority districts of 11 West African countries, demonstrated improvements in the population coverage of a number of key child survival interventions. However, the under-five mortality decline in the program area was no greater than the decline in comparison areas. One of the explanations given for this lack of mortality impact was the fact that the program did not give priority to interventions aimed at the leading causes of under-five mortality, namely pneumonia, diarrhea and malaria, newborn causes, and undernutrition.

Instead, the program was successful in delivering interventions that could be readily carried out through an outreach campaign approach, such as immunizations, vitamin A distribution, and bed net distribution; provision of antenatal care with distribution of micronutrients, intermittent preventive treatment of malaria for pregnant women; and tetanus toxoid immunization.

A consideration of how best to interact with the community is also important. Community entry points can take three general forms: government managed health programming, civil society organizations (including NGOs), and private markets (including health care providers in the private sector, drug shops, and so forth). The need for a careful consideration of entry points was underscored by a recent secondary analysis of demographic and health survey (DHS) and multiple indicator cluster survey (MICS) data by Hodgins et al. that assessed care-seeking patterns for caretakers of children with pneumonia or diarrhea.¹² They showed that “Patterns varied considerably, with care seeking in most of sub-Saharan Africa predominantly from public-sector providers, in South Asia predominantly from the private sector, and in Southeast Asia from a mix of public and private sources.” They concluded that at least in some settings “Community health workers were not an important source of care. The analysis also suggests that it may be inappropriate to focus program efforts on community health workers to the exclusion of more widely used sources of care.” Clearly, even a highly effective and well-managed community health worker will have little impact if utilization of those CHWs is low.

It is rare that the entire range of issues is carefully considered in a systematic way when planning a program. One of the few methodologies taking a comprehensive approach to program design is the census-based, impact-oriented (CBIO) approach,¹³ which calls for working in partnership with local communities to define programmatic priorities that are derived from an understanding of what the communities’ priorities are and what the local epidemiological priorities are, as assessed from contact with all households or a sample of households in the proposed program area. This is carried out through a series of steps, first as exploratory program design and implementation followed by pilot program design and implementation prior to proceeding to a definitive program design and implementation.

A recent example of a successful RMNCH program that carried out a comprehensive assessment of the design context is the Manoshi Project in urban Bangladesh for community-based maternal, newborn and child health services, developed by BRAC.¹⁴ This project now reaches 6.9 million slum dwellers in 10 cities in Bangladesh. It began as an exploratory project, then a pilot project, and subsequently a definitive project for going to scale. Three basic principles were employed from designing the project appropriate for the context: social mapping, census-taking, and community engagement.



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Maternal and Child Health
Integrated Program

MCHIP Technical Summary: Integration of Service Delivery

November 2014

Acknowledgments

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, newborn and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

This report was written by Judith Robb-McCord with contributions from Lucy Mize.

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Abbreviations

AAMA	Action Against Malnutrition through Agriculture
ANC	Antenatal care
ASM	Animatrices de Santé Maternelle (Rwanda)
BCC	Behavior change communication
CHW	Community health worker
CSHGP	Child Survival and Health Grants Program
CSP	Child Survival Project (Nehnwaa, Liberia)
DHS	Demographic and Health Survey
EPI	Expanded Program on Immunization
FP	Family planning
gCHVs	General community health volunteers (Nehnwaa CSP)
GHI	Global Health Initiative
GUMH	Ganta United Methodist Hospital (Liberia)
HFS	Healthy Fertility Study
HHPs	Home health promoters (South Sudan)
HKI	Helen Keller International
IEC	Information, education and communication
M&E	Monitoring and evaluation
MCHIP	Maternal and Child Health Integrated Program
MIYCN	Maternal, infant, and young child nutrition
MNC	Maternal and newborn care
MNCH	Maternal, newborn and child health
MNCH-N	Maternal, newborn and child health and nutrition
MOH	Ministry of health
PHC	Primary health care
PPFP	Postpartum family planning
PPH	Postpartum hemorrhage
PPIUD	Postpartum intrauterine device
PPSS	Postpartum systematic screening
RH	Reproductive health
STI	Sexually transmitted infection
TBA	Traditional birth attendant
UCOS	Community-based structures (Honduras)
USAID	United States Agency for International Development

Introduction: Theory and Practice of Integration

Health service provision in low- and middle-income countries is often disease- and funding source-specific, resulting in fragmented care at the point of service delivery. This has resulted in inefficiencies for clients, who often must visit multiple service providers to receive the full gamut of primary health services. It also results in health service inefficiencies, with some intervention-specific providers and resources underemployed and others stretched to capacity. On the other hand, “vertical” services are more easily managed and their separate results are more easily described. The possible advantages and disadvantages of integrating service provision have been debated for decades. Recently, integration has received increased attention as one of the core principles of the 2009 Global Health Initiative (GHI). The GHI defines integration as “the organization, coordination, and management of multiple activities and resources to ensure the delivery of more efficient and coherent services in relation to cost, output, impact and use (acceptability). Opportunities for integration must make sense technically, economically, and contextually.”¹ Integration is a complex and multifaceted process that relies on a range of inputs from health policies to support systems, services, and behavior change communication (BCC).

The USAID Bureau of Global Health (BGH) convened a working group on integration as part of the GHI process. MCHIP was part of steering committee for the Bureau’s monitoring and evaluation group. From USAID’s perspective, two working hypotheses have driven primary health care service integration in recent years: (1) In most circumstances, integrated services provide care more effectively and equitably than vertical services. (2) Clients desire integrated services to address their health care needs. USAID commissioned a Cochrane review on service integration in low- and middle-income countries. The following excerpt captures the main findings of the review:

There were few methodologically rigorous studies.

Four studies compared integrated services to single, special services. Based on the included studies, fully integrating sexually transmitted infection (STI) and family planning, and maternal and child health services into routine care as opposed to delivering them as special ‘vertical’ services may decrease utilization, client knowledge of and satisfaction with the services and may not result in any difference in health outcomes, such as child survival. Integrating HIV prevention and control at facility and community level improved the effectiveness of certain services (STI treatment in males) but resulted in no difference in health seeking behavior, STI incidence, or HIV incidence in the population.

Authors’ conclusions

There is some evidence that ‘adding on’ services (or linkages) may improve the utilization and outputs of healthcare delivery. However, there is no evidence to date that a fuller form of integration improves healthcare delivery or health status. Available evidence suggests that full integration probably decreases the knowledge and utilization of specific services and may not result in any improvements in health status. More rigorous studies of different strategies to promote integration over a wider range of services and settings are needed.²

¹ United States Government. *GHI Principle Paper on Integration in the Health Sector*, 5/23/12, p. 3.

² Conference Report, FP-MNCH-Nutrition Integration Technical Consultation, March 2011, USAID, Washington DC.

The Cochrane review emphasized the fact that there were few well-done studies and there was a need for further research. The identified research gaps included a specific comparison of integrated maternal, newborn, and child health and nutrition (MNCH-N) and family planning (FP) services with the same services offered separately and an examination of FP services integrated into maternal and infant nutrition services. The review led to the development of the GHI results framework for integration (see Annex 1), which is complex and multifaceted.³ The framework shows “sustained improvements in health status” as the ultimate goal of integration and includes outcomes for coverage and access, acceptability, responsiveness/quality, and efficiency and use or uptake of interventions. Integration inputs include policy and governance, health system functions, planning and management, and demand creation and healthy behaviors.

The MCHIP and Child Survival and Health Grants Program (CSHGP) work on integration was practical and focused at the point of service delivery, so this review uses a correspondingly simple and practical analysis framework that is consistent with the GHI Results Framework (Atun et al. 2010). An intervention is considered to be fully integrated if the intervention is available from the same multipurpose provider. Partial integration is characterized by shared responsibilities across providers or through service linkages, and services provided by single-purpose health workers with no linkages to other services are considered not integrated.⁴ The Atun framework also examines integration of other health system components (e.g., governance, planning, etc.), but integration at the level of service provision is the focus of this review of MCHIP and CSHGP experiences, because that was the focus of programming experience and of the information collected.

Integration Models

Full integration at point of service delivery

An intervention is considered to be fully integrated if the intervention is available from the same multipurpose provider.

Partial integration at point of service delivery

Partial integration is characterized by shared responsibilities across providers or through service linkages.

Background: MCHIP and CSHGP

Since 2008, the U.S. Agency for International Development’s (USAID’s) Bureau for Global Health’s flagship Maternal and Child Health Integrated Program (MCHIP) has worked in more than 50 developing countries in Africa, Asia, Latin America, and the Caribbean to improve the health of women and children. MCHIP works on programming in MNCH, immunization, FP, nutrition, malaria, and HIV/AIDS. MCHIP’s main objective was to help countries scale up evidence-based interventions through strengthening government health systems, nongovernmental organizations, and other local partners. Within this overall goal, MCHIP supported *appropriate integration*, where it was relevant and feasible. The program has sought to learn about programmatically important parameters of effective integration of services.

MCHIP seeks *appropriate integration* where the result is expected to be higher service coverage, improved quality, and better health outcomes, and when integration does not produce better performance in one intervention or service at the expense of another.

The experiences summarized here are from MCHIP’s country experiences and the USAID CSHGP. In MCHIP countries, MCHIP personnel directly supported implementation through

³ United States Government. *GHI Principle Paper on Integration in the Health Sector*, May 23, 2013. <http://www.ghi.gov/principles/docs/principlePaperIntegration.pdf>

⁴ Atun R et al. Integration of targeted health interventions into health systems: a conceptual framework for analysis. *Health Policy and Planning*, 2009, 25(2): 104–111. doi:10.1093/heapol/czp055

the usual MOH service delivery mechanism. MCHIP's role within the CSHGP was to give technical assistance to grantees. Much of this assistance was given at the planning stage to ensure that grantees used state of the art technical information. MCHIP also advised grantees on monitoring and evaluation and annually summarized and helped disseminate the results of the projects.

MCHIP and CSHGP grantees have implemented and tested integration models for replication and scale-up in a range of countries. They have promoted service delivery integration at the community level using community health workers and volunteers; integration of family planning with other MNCH services, including immunization; integration of maternal, infant, and young child nutrition (MIYCN) with other MNCH services; integration of HIV/AIDS services into the antenatal care (ANC) platform. This review highlights MCHIP experiences and lessons learned from programming in Bangladesh, Egypt, India, Liberia, Rwanda, and South Sudan; and CSHGP grantee experiences in Cambodia, Honduras, and Nepal. Experiences of both MCHIP and CSHGP in Liberia are reviewed.

MCHIP and CSHGP integration efforts are analyzed in a common way. First, the experiences are grouped according to the type of technical intervention that was being integrated. Table 1 shows that MCHIP and CSHGP had the most information about three different types of integration experience. The experiences are grouped by the type of integration experience. For each experience presented, the discussion explores how fully the services were integrated, categorizing them as either fully or partially integrated at the point of service delivery, according to the framework established by Atun. The discussion also addresses the attainment of two objectives that MCHIP set down in its guidance on the monitoring and evaluation of service delivery integration, to the extent that the information is available: (1) increased coverage (utilization) of the interventions that were integrated, and (2) maintenance of the quality of the interventions. Where information is available, aspects of institutionalization, sustainability, and scalability of the integration model are also explored.

Table 1: Grouping of MCHIP and CSHGP Integration Experiences Used in This Document

WHAT WAS INTEGRATED?	MCHIP/CSHGP EXPERIENCE REVIEWED
<i>MNCH and FP services at the community level (either integration of two technical interventions or strengthening a platform for delivery of multiple technical interventions)</i>	<ul style="list-style-type: none"> • Bangladesh (MCHIP) Healthy Fertility Study: Family planning and maternal and newborn services • Honduras (CSHGP): Various MNCH services delivered through integrated community clinics • Rwanda (MCHIP): Misoprostol distribution through ANC • South Sudan (MCHIP): Misoprostol distribution through multiple channels
<i>Family planning with MNCH platforms</i>	<ul style="list-style-type: none"> • Liberia (MCHIP and CSHGP): FP and immunization • India (MCHIP): PPFP and MNH services
<i>Maternal, infant, and young child nutrition (MIYCN) with MNCH platforms</i>	<ul style="list-style-type: none"> • Egypt (MCHIP): Nutrition and MNH services • Cambodia (CSHGP): Nutrition and MNCH services • Nepal (CSHGP): Nutrition and agriculture (food security)

In this discussion, the classification of integration is based on the service delivery dimension of integration in Atun's framework. Financing, governance, and planning dimensions would all be considered as partially integrated as defined by the Atun framework. For example, MCHIP routinely supported the involvement of a range of stakeholders at the local level (such as civil society representatives and local government), but final decision-making usually rested with the ministry of health (MOH) at the national level. Atun considers this partially integrated planning. In the case of financing, since MCHIP and USAID were providing funds for the activities, even if the government provided a significant share, the financing component would be classified as partially integrated.

Integrated Health Services at the Community Level

Statements have been made about the efficiencies produced by linking health services: “When linked together and included as integrated programs, these interventions can lower costs, promote greater efficiencies, and reduce duplication of resources.”⁵ Community health workers (CHWs) increasingly have been used to extend care more equitably to underserved populations. Although CHWs can deliver single services, they often deliver multiple integrated services, often adding a new service delivery responsibility to an established one.

MCHIP and CSHGP grantees have substantial experience working with communities and facilities to extend basic MNCH services to underserved populations. With MCHIP support, nongovernmental organizations (NGOs) leveraged community elements in health systems to strengthen and expand services. For example, several NGOs trained CHWs to provide a variety of services and promote several key health behaviors. In Atun’s framework, this would be an example of fully integrated demand generation in which “IEC activities were delivered by primary health care workers.” Some also implemented or strengthened a supportive supervision program for CHWs and improved collection systems for community health data. NGOs worked with religious leaders and community development committees to train and encourage them to adopt and promote optimal health behaviors, from family planning to exclusive breastfeeding to handwashing, and other interventions. NGOs also trained health facility workers to provide several services at one visit (e.g., family planning and child immunization). NGOs strengthened integrated curative care, such as integrated (facility-based) management of child illness (IMCI) and integrated community case management (iCCM). In some cases, these experiences also included advocating for policy updates, adapting protocols, strengthening supply chains, and/or improving information systems.

CSHGP grantees engaged communities through formal and informal leaders and other groups in order to plan projects that addressed identified health challenges and incorporated their feedback and participation throughout project implementation and evaluation. Some NGOs created new volunteer cadres, like Care Groups or VISA mothers (explained more fully elsewhere⁶), which extended the reach of the health system by promoting key MNCH behaviors through interpersonal communication strategies. These groups were trained by NGOs and articulated with health systems through meetings with CHWs or other health workers, where they received updates and refresher training, reported data, and discussed health issues among the families they served. The target demographic groups were pregnant women and children under five years old. There are more complete summaries of integration in CSHGP projects elsewhere.⁷

There are four projects from MCHIP and CSHGP that produced a significant amount of learning on integrating services at the community level. The projects share a common approach. They all used existing cadres of CHWs and added services and messages to their scopes of work based on the project focus. However, they unfolded in different ways. Table 2 at the end of this section summarizes the programs/studies and their design hypotheses and key outcomes.

⁵ World Health Organization. *Using Lay Health Workers to Improve Access to Key Maternal and Newborn Health Interventions in Sexual and RH*, Geneva, 2013, p. 6.

⁶ <http://www.coregroup.org/resources/462-care-groups-a-training-manual-for-program-design-and-implementation>

⁷ <http://www.mchipngo.net/controllers/link.cfc?method=LearningBriefs>

HEALTHY FERTILITY STUDY (BANGLADESH): FAMILY PLANNING AND MNH SERVICES IN THE COMMUNITY⁸

In the Healthy Fertility Study (HFS) in Sylhet, Bangladesh, CHWs integrated the provision of pills and condoms and FP information into their routine pregnancy surveillance visits. These activities supported the implementation of nationally established health policies. To accomplish their work, CHWs included field-

ChildFund determined that the UCOS is a cost-efficient strategy concluding that when a family found a solution to a child health problem at the community level, they can save from USD \$6.03 if they do not attend a rural health post to USD \$70.24 if they do not attend a hospital.

tested BCC materials and messages and community mobilization activities such as engagement with influential community members and champions for change. Two key results were (1) a 20% increased cumulative probability of modern method adoption during the 36-month postpartum period and (2) a decrease in the incidence of pregnancy within the first 36 months after delivery. The HFS found that the integration of FP services within a larger MNCH platform was feasible and did not have a negative impact on service coverage or health outcomes in the communities studied. A significant difference in neonatal mortality was not observed, affirming the study hypothesis that HFS activities would *not* overload CHWs and cause inadvertent adverse newborn health outcomes. At the same time, the preliminary cost findings are promising. HFS activities were delivered through existing community-based platforms at minimal incremental cost. In addition, improved birth spacing and associated positive health outcomes represent unquantified cost savings to the household.

COMMUNITY-BASED MNCH INTEGRATION AT HEALTH POSTS (HONDURAS)⁹

The ChildFund Honduras community-based MNCH innovation in 12 southern municipalities of the Department of Francisco Morazán typifies the work done under the CSHGP program. MCHIP provided technical assistance to ChildFund Honduras to test the hypothesis that it is feasible to provide effective, cost-efficient primary health care services to rural low-income people, in the context of the Honduran National Health System Decentralization, with the genuine participation of civil society through the integration of multiple MOH technical strategies within one community structure. Because it involves a range of stakeholders and still retains resource allocation functions within the government, the Honduran work is an example of partial integration of the planning function of Atun's framework.

The community-based structures (UCOS) integrated the work of various CHWs, including trained TBAs and community health volunteers while also integrating multiple vertical MOH programs such as the Integrated Community Child Health Program, Integrated Management of Childhood Illnesses, and the Accelerated Reduction of Maternal and Infant Mortality Strategy. A continuous quality improvement approach was central to the Honduras project, with CHWs monitoring the implementation of 11 maternal and child health quality standards in their UCOS on a monthly basis. Like the program in Bangladesh, the Honduras project included field-tested BCC materials and messages, and community mobilization activities such as engagement with influential community members and champions for change. Results were significant: a 254% increase in utilization of local health services among children under the age of five. The number of women who knew newborn danger signs increased from 7% at baseline to 44% in the final evaluation; the percentage of women who breastfed their babies immediately

⁸ MCHIP. *Healthy Fertility Study: Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet District, Bangladesh*, 2014.

⁹ ChildFund International. *Evaluation: Community-Based Maternal, Neonatal and Child Health Innovation in the Context of National Health System Decentralization in Francisco Morazán Sur, Honduras*, January 27, 2013.

after birth went from 44% at baseline to 70% in the final evaluation; and births in the maternity clinic increased from 80 in 2006 to 361 in 2012.

PREVENTION OF POSTPARTUM HEMORRHAGE (RWANDA)¹⁰

This was one of two pilot programs to increase access to prevention of postpartum hemorrhage (PPH) services in facilities and at home births. In Rwanda, reproductive CHWs were mobilized to counsel pregnant women and administer misoprostol at the time of home deliveries. Findings from Rwanda demonstrate that Animatrices de Santé Maternelle (ASMs) could feasibly integrate counseling on PPH and the provision of misoprostol into their routine responsibilities,

Findings from a review of 18 independent programs conducted in 14 low-resource countries qualitatively demonstrate that it is possible to achieve high distribution and coverage of misoprostol, especially when community health systems are engaged in the distribution effort. Programs that distributed misoprostol at home visits late in pregnancy or at the time of birth, as well as those that used community-based personnel, appear to achieve higher coverage than those that used formal health workers and ANC distribution, either alone or in combination with home distribution.

Smith et al. Misoprostol for postpartum hemorrhage prevention at home birth: an integrative review of global implementation experience to date. *BMC Pregnancy and Childbirth* 2013, 13:44, p. 9.

with positive outcomes for women who received the intervention. Women who took misoprostol were very satisfied with the drug, stating that they would recommend misoprostol to a friend or relative, would take misoprostol for their next delivery, and would purchase misoprostol. This result was also found in the work in South Sudan. Although misoprostol distribution was lower than expected in Rwanda, ASMs felt confident in providing counseling to pregnant women and their families, and more than half felt it was easy to add the counseling and distribution of misoprostol to their

routine visits. They felt that the additional work did not affect them, and 13% felt the increased time spent to educate mothers allowed them to get closer to the women in the village and increased the mothers' confidence of in the ASMs.

However, findings in Rwanda also point to the need to more fully understand the barriers to broader coverage of misoprostol at home births and potentially to reconsider when ASMs should provide the drug. Possible alternative strategies to increase uterotonic coverage at home births include allowing ASMs to provide counseling and advance distribution of misoprostol directly to pregnant women during the eighth month of pregnancy; and providing counseling and advance distribution of misoprostol to pregnant women during ANC.

PREVENTION OF POSTPARTUM HEMORRHAGE (SOUTH SUDAN)¹¹

An introductory program of misoprostol use in South Sudan used home health promoters (HHPs) to counsel pregnant women and to distribute misoprostol in advanced pregnancy for self-administration in home births and is the second MCHIP example of how misoprostol can be distributed in the community. Community-based health services were linked to facility-based care through supervision and referrals. The South Sudan program found that HHPs can appropriately educate clients to safely and correctly self-administer the medication. Four out of five women who received counseling and were provided misoprostol received it from an HHP through a home visit. For this intervention more than 80% of the advanced distribution was achieved through the community health system and the work of the HHPs. Advanced distribution through ANC was a less effective mechanism than distribution at home visits by HHPs. The South Sudan program combining counseling pregnant women during ANC and at the community level appears to have contributed to a higher number of deliveries at health facilities. During the learning phase, 43% of deliveries were conducted at a health facility,

¹⁰ MCHIP. *Prevention of Postpartum Hemorrhage in Rwanda: Increasing Access to Prevention of PPH Interventions for Births in Health Facilities and at Home in Four Districts*, 2014

¹¹ MCHIP. *Prevention of PPH in South Sudan: Increasing Access to Evidence-Based Interventions*, 2013.

almost four times higher than the rate reported in the 2010 South Sudan Household Survey (11.5%).

Advocacy and engagement with champions was critical to implementation of both the facility and community program components. As in Rwanda, the evidence generated in South Sudan was used to inform future policy and program planning for the prevention of PPH using facility and community-based approaches.

SUMMARY OF COMMUNITY-BASED INTEGRATION EXPERIENCES

Although these four countries differed in their needs and approaches, the interventions in all four countries were aligned with a health systems approach and included strong partnerships with local governments and communities, capacity-building of CHWs and facility-based providers through training and supportive supervision, and the provision of commodities and supplies. Two common findings are that CHWs can provide an effective channel for reaching families with integrated packages of information and care, thus contributing to increased service coverage and positive health outcomes, and CHWs can mobilize demand for care at other levels of the health system, creating mutually beneficial health care linkages along the continuum of care

Table 2. Integrated Health Services at Community Level: Cases Reviewed

PROGRAM/STUDY HOW INTEGRATED?	COUNTRY AND SCOPE	DESIGN AND/OR HYPOTHESES	WHAT WAS INTEGRATED AND TO WHAT EXTENT	KEY OUTCOMES
Healthy Fertility Study Model of integration: Single CHW offered range of MNH and FP services and Information	Bangladesh 8 unions in Sylhet District with a sample size of 4,430 postpartum women	A quasi-experimental study designed to test an integrated package of FP/MNH at the community level and demonstrate that activities will not overload CHWs and cause adverse negative consequences for newborn health outcomes	<i>Full integration</i> Postpartum family planning integrated into a range of maternal and newborn health practices.	<ul style="list-style-type: none"> HFS model led to more than 20% increased cumulative probability of modern method adoption through 36 months postpartum period. HFS activities led to a decrease in the incidence of pregnancy within the first 36 months after delivery, which is the period of highest risk for mother and baby. HFS activities were associated with a 21% reduction of probability of shorter birth intervals and 20% lower risk of preterm birth.
Community-based MNCH integration at health posts Model of integration: Coordination among health post providers and CHWs	Honduras 12 southern municipalities of the Department of Francisco Morazán, which includes 293 communities	A project designed to demonstrate the feasibility of providing effective, efficient, quality primary health care services to rural low-income people within the context of decentralization and with genuine civil society participation	<i>Partial integration</i> Shared responsibility between general health workers and health intervention staff (the Health Post [UCOS] grouping of community and health providers) Integrated maternal and postpartum care, breastfeeding promotion, growth monitoring, and case management of pneumonia, diarrhea, and malnutrition	<ul style="list-style-type: none"> Utilization of local health services increased (e.g., the overall number of children < 5 cared for by the UCOS increased by 254% from 2012 to 2013). The UCOS approach contributed to a decrease in the rates of child, neonatal, and infant mortality from 2008 to 2013 in target geographic areas. Families were able to save USD \$6.03 if they could find a solution to a child health problem at the community level via the UCOS.
PPH Prevention in Rwanda Model of integration: Coordination among providers (ASM manage and refer to facilities)	Rwanda Four districts: Rubavu, Musanze, Gakenke, and Nyanza	Introductory study program designed to increase the use of uterotonics at all births. MCHIP trained and mobilized reproductive community health workers (ASMs) to counsel pregnant women and administer misoprostol at the time of delivery; also tracked uteronic use at facility-based deliveries	<i>Partial integration</i> Shared responsibility between the ASM and health facility staff Provision of uterotonics integrated into antenatal care messages and delivery practices	<ul style="list-style-type: none"> AMTSL and uteronic use for vaginal births at facilities was very successful: Estimates of the uteronic coverage rate at the health facility level were 86.3% (Estimate 1) and 85.2% (Estimate 2). The misoprostol coverage rate for home births was lower than expected and varied considerably between the two estimates: 16.2% uteronic coverage of the estimated 3,696 home births (Estimate 1) and 44.3% of the 1,349 home births recorded in the community health info system (Estimate 2). The availability of misoprostol for home births did not appear to deter women from delivering at a health facility.
Prevention of PPH in South Sudan Model of integration: Coordination among providers (home health workers and skilled birth attendants)	South Sudan Two districts: Mundri East and Mvolo	Learning phase designed to implement a combined health facility and community-focused activity for the prevention of PPH	<i>Partial integration</i> Shared responsibility between the ASM and health facility staff Provision of uterotonics integrated into antenatal care messages and delivery practices	<ul style="list-style-type: none"> The combined intervention appears to have contributed to a higher number of facility-based births. 87% of women delivering in a facility received a uteronic. 99% of women delivering at home used misoprostol and followed HHP instructions. <p>(Data is for Mundri East only)</p>

Integrating Family Planning into MNCH Platforms

Findings from an assessment conducted in Kano, Nigeria, in 2009 by ACCESS—one of the predecessor projects to MCHIP—indicate “that an approach that systematically increases MNCH/FP integration is feasible and can have a positive effect on service use, particularly FP, even in a very conservative environment.”¹² MCHIP included FP/MNCH integration as a key strategy for reducing maternal, infant, and child morbidity and mortality by preventing unintended pregnancies and promoting healthy birth spacing through postpartum FP (PPFP). MCHIP’s strategy for FP emphasizes systematically integrating FP into MNCH services; ensuring that FP counseling and provision of commodities are strengthened as integral components of postabortion care; and systematically integrating FP services into contacts for both well and sick infants and children, including immunization, nutrition, and other services to support initiation and continuation of FP, and identifying successful and effective models of integration and bringing them to scale.

As a member of the FP and Immunization Integration Working Group, MCHIP was involved in the design of the FP and Immunization Integration Toolkit. The toolkit can be found online at <http://www.k4health.org/toolkits/family-planning-immunization-integration>.

A key entry point for integration is routine immunization visits, which provide multiple contacts with the health system during the first year postpartum. These can provide a timely opportunity to link new mothers with FP information and services. A growing body

of evidence suggests that integrated service delivery can lead to increases in FP uptake with no negative effect on immunization.¹³ A 2011 modeling exercise using data from five countries in sub-Saharan Africa demonstrated that reaching postpartum women through childhood immunization contacts could decrease overall unmet need for family planning by 3.8 to 8.9 percentage points.¹⁴ Recently, integration of FP and immunization was identified by USAID as a promising high-impact practice for FP. MCHIP’s experience in Liberia added to the evidence base on how immunization and FP integration work.

Two projects, both implemented in Liberia—one directly by MCHIP and the other by Curamericas Global under the CSHGP with MCHIP technical support—confirm the feasibility of integrating Expanded Program on Immunization (EPI) services with FP services. See Table 3 for program/study, designs/hypotheses, and key outcomes.

From March–November 2011 until the same period in 2012, the number of new contraceptive users increased by 90% in Lofa County and 73% in Bong County, for a total increase of 1,323 new contraceptive users at MCHIP participating facilities.

Cooper C et al. *Final Assessment Report: Integration of Expanded Program on Immunization and Family Planning in Liberia*, August 2013, p. 8.

INTEGRATION OF FP WITH IMMUNIZATION (LIBERIA: BONG AND LOFA COUNTIES)

Under the MCHIP demonstration project in Liberia, Bong and Lofa counties were targeted for integrated EPI and FP services given their relatively stable immunization programs. The approach involved training staff in FP service delivery so that vaccinators could provide a few short, targeted FP and immunization messages and same-day FP referrals to mothers bringing

¹² McKaig C et al., *An Assessment of Integration of Family Planning and Maternal, Newborn and Child Health in Kano, Nigeria*. Jhpiego, 2009.

¹³ MCHIP. *Advancing a Promising Practice: Family Planning and Immunization Integration Resources*, November 21, 2013.

¹⁴ Gavin L, Galavotti C, Otten M, Pujari S. *Potential Benefit of Integrating Antenatal Care, Infant Immunization and Family Planning Services in Sub-Saharan African Countries*. CDC and WHO, 2011.

their infants to the health facility for routine immunization, establishing integrated services in fixed facilities.

This project reported positive shifts in knowledge about FP among new contraceptive users and FP providers. In Lofa, MCHIP-supported pilot health facilities showed a 35% increase in Penta 1 doses and a 21% increase in Penta 3 doses from March–November 2011 to March–November 2012. By contrast, there were decreases of 11% for Penta 1 and 6% for Penta 3, respectively, at all other facilities. In Bong County there was a modest increase in the number of Penta 1 and Penta 3 doses given at pilot facilities from 2011 to 2012; however, this increase was smaller than the increase experienced in all other facilities. Findings suggest that the changes in immunization were more likely due to broad external factors than the integrated EPI/FP service delivery itself. Participating certified midwives mentioned that the EPI/FP integration process had helped to strengthen their FP counseling skills. Vaccinators reported that the initiative contributed to their sense of confidence and perceived value within the community, and may have helped to improve their communication with clients and attention to immunization record keeping. In fact, integrated service delivery continued at many sites even after the pilot phase was completed.

The integration of FP into routine EPI services was not perceived as a concern among clients. Many reported that they valued EPI for their children and would return for those services regardless of whether they decided to accept FP referrals or not. Others felt that the integrated services made them feel more encouraged to return for EPI. However, future integration efforts should continue to seek ways to minimize dropout rates—a problem that has been noted as a challenge to immunization services in Liberia.

INTEGRATION OF FP WITH IMMUNIZATION (LIBERIA NEHNWAA CHILD SURVIVAL PROJECT)

This project used both fixed facilities and mobile PHC units that provided outreach to underserved communities within the Ganta Hospital catchment area and non-Ganta United Methodist Hospital (GUMH) communities. The Nehnwaa Child Survival Project (CSP) implemented these integrated services within a much broader program designed to reduce infant, child, and maternal mortality and morbidity by increasing coverage in a range of evidence-based MNCH services. After two years of project implementation the Nehnwaa CSP team recognized that FP use was not meeting expected targets and decided to integrate FP within the EPI program to extend the reach of FP services.

The Nehnwaa CSP trained general community health volunteers (gCHVs) and trained traditional midwives as well as more than 900 Care Group volunteers on FP, including birth spacing and the lactational amenorrhea method, commodity distribution, use, and tracking. The Nehnwaa CSP also implemented a multifaceted BCC approach that reached all 105 project communities and involved several different actors, community entry points, and tools, and included one-on-one and couples counseling. To overcome myths and strong influential cultural factors, community-based messaging was reinforced through radio messages and posters to a wider audience provided. Men were targeted for extensive BCC interventions.

Through the EPI/FP integration activity the Nehnwaa CSP experienced dramatic demand for FP services, with FP coverage far exceeding the county as a whole—60% contraceptive prevalence in project areas, compared to the 10% reported in the 2013 Liberia Demographic and Health Survey (DHS). At the same time, measles vaccination coverage increased from 45% to 97% from baseline to endline, demonstrating the effectiveness of the approach. The only negative issue cited was that the GUMH lacked funding to support FP activities beyond the end of the project.

In addition to these two immunization and family planning projects, MCHIP supported an extensive program in India that integrated the provision of family planning services in the immediate postpartum period. The details of this program are discussed below.

INTEGRATION OF POSTPARTUM INTRAUTERINE CONTRACEPTIVE DEVICE SERVICES WITH IMMEDIATE POSTPARTUM SERVICES (INDIA)

In India facility-based FP services were integrated into other maternal and reproductive health (RH) services on a large scale. This project, implemented by MCHIP, demonstrates the successful integration of postpartum intrauterine contraceptive device (PPIUD) services in the immediate postpartum period in facility-based settings. In India, MCHIP supported existing government policies and initiatives for improved and expanded reproductive health. MCHIP worked closely with government counterparts and other partners to ensure the institutionalization of quality RH services through provider training, the provision of essential equipment and supplies, supervision, the design and use of quality standards, and the use of counseling materials and information, education, and communication (IEC) materials among providers. MCHIP also worked to establish and/or strengthen information systems to more adequately capture service delivery data.

In Africa MCHIP supported PPFP/PPIUD in Ethiopia, Kenya, Liberia, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe. These programs demonstrated the value of:

- Government engagement at the outset of implementation and throughout programming,
- Providing information and counseling during ANC and on maternity and labor wards,
- Supporting provider training in service provision and counseling and continuous mentorship, and
- Having trained staff, supplies, and equipment available 24/7 in participating facilities.

In 2005 the Government of India launched the Janani Sukraksha Yojana, a conditional cash transfer scheme, to encourage the use of facilities for births. Given the dramatic increases in facility births in India (from 700,000 in 2005 to more than 11 million in 2012¹⁵), the Government of India recognized the opportunity to integrate IUCD services in the immediate postpartum period, thus integrating maternity and PPFP services. The India PPFP/PPIUD program started in 2009 in four training sites (two hospitals and two medical colleges) with USAID's support through the ACCESS-FP Program. After the success of the initial phase, PPIUD services were introduced in two state-level facilities each in 19 Indian states from 2010 to 2012, with support from national and state governments and multiple donors, including USAID.¹⁶ By late 2013 PPIUD services were being offered in 371 district and sub-district facilities in nineteen states, and in 212 of 256 district level facilities in the six

Indian states with the highest total fertility rates— Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, and Uttar Pradesh.

Health provider training was fundamental to the success of the program. MCHIP supported in-house training capacity in 19 states by establishing 31 state-level training sites, and trained more than 2,700 providers, including 1,200 staff nurses. MCHIP also worked with partners to implement a strategy to incorporate PPFP/PPIUD trainings into the Saathiya Network of private-sector providers. MCHIP provided support to carry out supportive supervision visits to address challenges in service delivery.

Since the routine data collection system was introduced in India in February 2010, program sites reported more than 249,168 PPIUD insertions.¹⁷ To gain insight into client satisfaction

¹⁵ Kumar S et al. *Women's Experience with Postpartum Intrauterine Contraceptive Device Use in India*. Draft, October 6, 2013, p. 5.

¹⁶ Bill & Melinda Gates Foundation, Norway-India Partnership Initiative, Packard Foundation.

¹⁷ MCHIP. *Scaling Up Family Planning in India Power Point Presentation*, Dr. Bulbul Sood, 2014.

with PPIUD use, MCHIP supported a study of 2,733 married women ages 15–49 in 16 health facilities in eight states across India. The study found that women who received PPIUDs showed “a high level of satisfaction with this choice of contraception, and the rates of expulsion were low enough such that the benefits of contraceptive protection outweigh the potential inconvenience of needing to return for care for that subset of women.”¹⁸

SUMMARY OF FAMILY PLANNING WITH MNCH SERVICES

While different implementation models were used, both the MCHIP project and the Nehnwaa CSP demonstrated that EPI/FP integration can expand access to and uptake of FP services with a concomitant increase in childhood immunization services. Both projects benefited from partnerships with the ministries of health and worked within existing health service delivery systems.

The success of both programs was contingent on assured supplies of immunization and FP commodities. The MCHIP project also highlighted the importance of having vaccinators and FP providers available on the same day and the need for services to be in close proximity to each other to facilitate successful referrals. The project also recognized the value of frequent communication between providers of both services, supportive supervision, on-the-job training for new staff, and privacy at immunization stations. The importance of building PPFP counseling skills was also noted.

The Nehnwaa CSP recognized the value of the integrated EPI/FP services as well as an integrated community and facility service delivery model (both mobile and fixed). Demand creation, improved household and community health behaviors, and overcoming barriers to access that linked these health providers with their target population were also seen as major contributions of the project.

The MCHIP and CSHGP experiences in Liberia and India highlight the importance of these factors in successfully implementing integrated MNCH/FP approaches:

- Implementing programs that are supportive of government policies and programs,
- Working in close partnership with ministries of health and other partners at the national and local levels,
- Ensuring that the necessary commodities and equipment are in place to offer targeted services,

PROMISING PRACTICE

Postpartum Systematic Screening (PPSS) at the Community Level

Developed by the Population Council with support from USAID, systematic screening integrates RH services at the provider level. It consists of a simple screening procedure that allows health care providers to identify and address multiple health needs during a single client visit, with a focus on addressing needs for FP services. MCHIP tested the effectiveness of the PPSS tool for increasing access to FP among postpartum women attending Village Health and Nutrition Days in Jharkhand, India. The study was designed to determine whether the screening increased the provision of PPFP without any adverse effects on uptake of childhood immunization. The India study demonstrated that use of the PPSS tool is associated with higher FP uptake and that the integration of systematic screening with child immunization services did not negatively impact child immunization. This is the first study to implement PPSS at the community level using the structured tool.

While the results of this study suggest that it may be feasible to implement similar programs in other parts of Jharkhand and India, additional research is needed. Other areas to be explored include the cost-effectiveness of PPSS in similar settings, the burden that using the tool may place on service providers and/or community health workers, and ways to streamline the process.

Balasubramaniam S. *Evaluation of systematic screening for FP services among postpartum women attending community-based child immunization and nutrition days in Jharkhand, India.* Draft 4, February 28, 2014.

¹⁸ Op cit. p. 2.

- Building the capacity of health care providers to manage new responsibilities effectively,
- Strengthening approaches to monitoring the quality of care, including supervision, and
- Engaging communities through culturally appropriate IEC and BCC materials and campaigns.

These experiences also gave rise to postpartum systematic screening, a promising practice that is detailed in the textbox above.

Table 3: Integrating Family Planning into MNCH Platforms: Cases Reviewed

PROGRAM/STUDY	COUNTRY AND SCOPE	DESIGN AND/OR HYPOTHESES	WHAT WAS INTEGRATED AND TO WHAT EXTENT	KEY OUTCOMES
Integrating FP into the Expanded Program on Immunization (FP/EPI) Model of integration: Coordination among immunizers and providers of FP services	Liberia 10 health facilities, 5 each in Bong and Lofa counties	Pilot initiative designed to demonstrate the feasibility of integrating FP into routine immunization services at fixed facilities through same-day referrals	<i>Partial integration</i> The integration of family planning with fixed immunization service facilities Services provided by both general health workers and immunization staff	<ul style="list-style-type: none"> All participating facilities showed an increase in the total number of new contraceptive users. 80% of women who received an FP referral went to the FP provider the same day. The number of doses of Penta 1 and Penta 3 administered increased across pilot sites.
Nehnwaa Child Survival Project Model of integration: Coordination among immunizers and providers of FP services	Liberia Nimba County: 10 health facilities and Ganta Hospital catchment area population	Designed to reduce infant, child, and maternal mortality and morbidity by increasing coverage of evidence-based MNCH interventions	<i>Partial integration</i> Immunization, sanitation, and nutrition, breastfeeding promotion, promotion of safe birthing practices and family planning	<ul style="list-style-type: none"> Use of modern FP methods increased from 2% at baseline to 60% at endline. Measles vaccination coverage increased from 45% to 97% from baseline to endline. Community-based MNCH services can rapidly increase changes in key behaviors and uptake of health services.
PPFP/PPIUD Model of integration: Coordination between specialized counselors and clinicians at facilities	India Six states with high total fertility rates: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, and Uttar Pradesh, with implementation at the state, district, and sub-district levels	Program implementation to support the Government of India's decision to introduce PPIUD into facilities as part of the Janani Sukrasha Yojana, a conditional cash transfer scheme, to encourage the use of facilities for births	<i>Partial integration</i> Postpartum family planning integrated in delivery care at facilities Services provided by at least two sets of providers	<ul style="list-style-type: none"> The program is under national scale up. PPFP/PPIUD services are being offered in 371 district and sub-district facilities in 19 states and in 212 of 256 district-level facilities in the six states with high total fertility rates. More than 249,000 insertions have been performed since February 2010. The program is being scaled up in the private sector.

Integrating Maternal, Infant, and Young Child Nutrition (MIYCN) into MNCH Platforms

MCHIP had an emphasis on nutrition integration and prevention in three areas: integrated anemia prevention and control; integrated prevention of pre-eclampsia; and infant and young child nutrition to prevent stunting. Projects in Egypt, Cambodia, and Nepal highlight the effort to integrate nutrition with maternal and newborn health platforms. See Table 4 for program/study, design and hypotheses, and key outcomes.

INTEGRATION OF NUTRITION WITH MNCH: SMART PROJECT (EGYPT)

Understanding Why Stunting Rates Increased in Lower versus Upper Egypt: MCHIP's Stunting Study

To understand why stunting rates increased in Lower versus Upper Egypt over a five-year period, MCHIP brought nutritionists and social scientists together to collect diet and behavioral information from 150 mothers with children under 24 months of age in these areas of Egypt. Using TIPS (Trials for Improved Practices) research teams visited target homes three times to observe, counsel, and ask mothers to try infant and young child feeding practices they were not currently using and then followed up to determine (1) whether the mothers were able to use the practice, (2) what the mothers thought of the practice, and (3) whether they would continue to use it. Results of the stunting study will help the SMART project tailor nutrition messages to the local context and will provide insights into stunting rates.

MCHIP's SMART project in Egypt targeted improved access to and use of key MNCH and FP services for improved pregnancy and newborn outcomes. The program included an integrated community-based approach to sustain improvements in nutritional status among children under the age of five. At the national level, the MCHIP SMART project partnered with the National Nutrition Institute, the Egyptian Association for Neonatology, and Nurses Syndicate. At the local level, the project worked through umbrella community development

associations in six governorates in Upper Egypt and Lower Egypt. The project targeted two districts in each governorate and worked with smaller NGOs or local development associations in each district. More than 1,000 CHWs were trained to deliver integrated health messages to women, conduct home visits to check on the health and nutrition of women and children, and make referrals to clinical care when necessary. The SMART project also trained CHWs to counsel new mothers on infant health, hygiene, and nutrition, and to recognize the signs of common childhood illnesses (including pneumonia) and malnutrition. The project distributed free iron-folic acid tablets to pregnant women in target areas, and integrated messages and the identification of pneumonia into CHW training to support Egypt's efforts to reduce preventable child deaths from pneumonia.

The results were encouraging, with the percentage of women providing their children with food from at least four food groups more than doubling, to 41%. In addition to the health benefits attributed to this project, external benefits accrued to the community development associations that were part of the project. A few of the local CDAs proved they had the ability to effectively utilize the training and resources they received to achieve SMART objectives. One group was able to secure external funding to establish a health clinic that will sustain the work started under the SMART project. The stunting research carried out under this project also contributed evidence to the field and resulted in five publications, some of which described how cultural practices influence early childhood nutrition and can be overcome through counseling and demonstration. As a result, mothers changed their practices, reduced the amount of junk food they were giving their infants, and noted fewer illnesses and better sleeping.

Table 4. Integrating Nutrition into MNCH Services: Cases Reviewed

PROGRAM/STUDY	COUNTRY AND SCOPE	DESIGN AND/OR HYPOTHESES	WHAT WAS INTEGRATED AND TO WHAT EXTENT	KEY OUTCOMES
ENRICH Model of integration: Coordination between village health committees and formal sector health services	Cambodia 138 villages in Boribo Operational District, Kampong Chhnang Province	Project to introduce and test innovative and cost-effective evidence-based measures to reduce infant, child, and maternal mortality and morbidity in a total population of 106,168	<i>Partial integration</i> Combines infant and young child feeding, water and sanitation, and healthy timing and spacing of pregnancy interventions	<ul style="list-style-type: none"> Among 183 malnourished children (moderate and severe), the nutritional status of 122 improved to mild and normal (at midterm evaluation). 4,342 households in the project target area have an improved source of drinking water (1,852 additional households) (at midterm evaluation).
SMART Project Model of integration: Coordination between physicians, community health workers, and community development associations	Egypt Six governorates in Lower Egypt and Upper Egypt	Quasi-experimental study design An integrated program approach for MNCH-Nutrition-FP will improve access to and use of quality services	<i>Partial integration</i> Nutrition, newborn care, the use of modern family planning methods, and in the later stages, management of pneumonia	<ul style="list-style-type: none"> The percentage of women breastfeeding their baby within one hour of birth increased from 38% to 71% in Upper Egypt. In both Upper and Lower Egypt the percentage of women providing their children with food from at least four food groups more than doubled, with at least 41% of women doing so. Provision of ANC core services increased by at least 10 percentage points for each service, in both Upper and Lower Egypt. In some cases, increases were dramatic: for example, the percentage of women who reported that their height was measured increased from 31% to 77% in Upper Egypt.
Action Against Malnutrition through Agriculture Model of integration: Cross-sectoral integration (agriculture and health); coordination among various service providers	Nepal Kailali and Baitadi Districts, Far Western Region, and Bajura Expansion District	Quasi-experimental design Project designed to reduce child malnutrition and related mortality in the target districts	<i>Partial integration</i> Food security and nutrition promotion for pregnant and lactating women Interventions from both female community health volunteers and owners of village model farms	<ul style="list-style-type: none"> Nutritional status, specifically chronic malnutrition and anemia among children, improved significantly in Kailali District and among the Dalit (disadvantaged) population in Baitadi. 89.5% of families with children under age 2 in Kailali now have gardens and 77.4% have poultry, with an average of seven varieties of vegetables and 10 chickens in their gardens. 72.7% of families with children under age 2 in Bajura District have gardens and 66.2% have poultry, with an average of six varieties of vegetables and three chickens in their gardens.

INTEGRATION OF IYCN COUNSELING WITH MNCH AND FP SERVICES (ENRICH PROJECT: CAMBODIA)

Ten households from each of 16 target villages were selected for home gardening as part of International Relief and Development's ENRICH project in Cambodia. Beneficiaries were given start-up materials such as seeds and basic tools, and they were given basic training on home gardening. Follow-up of the project found that most of the produce in the gardens was consumed within the household, and excess, when available, was sold.

The CSHGP's ENRICH project in Cambodia used integrated community-based approaches with the objective of achieving sustainable improvements in nutritional status among children under three years of age. It also targeted improved access to and use of key MNCH and FP services, including improved pregnancy and newborn outcomes. Because diarrheal disease is a significant cause of morbidity and chronic malnutrition among very young children in the target areas, the ENRICH project also promoted the use of

oral rehydration therapy with oral rehydration solution and home fluids. ENRICH addressed micronutrient deficiencies by assisting the MOH with the provision of Vitamin A to children and postpartum women, and ensuring that children, postpartum women, and pregnant women were dewormed.

The project was designed to test and introduce innovative and cost-effective evidence-based practices to reduce infant, child, and maternal morbidity and mortality. ENRICH worked closely with the MOH at both the provincial and operations district level and enjoyed successful working relationships with district health officials and other local stakeholders. Using a family-centered approach with an emphasis on fathers, ENRICH mobilized community members as change agents who linked the health system to the community and households with young mothers and children through village health volunteers. The project trained MOH staff, TBAs, religious leaders, and village health volunteers on maternal and child nutrition. Training on pregnancy spacing and FP counseling and provision was provided to health center/operational district midwives and seven International Relief and Development staff.

Using the Positive Deviance or PD/Hearth model to teach nutrition, the project identified uncommon and beneficial practices by mothers or caretakers of well-nourished children from impoverished families and then spread these practices and behaviors to others in the community with malnourished children. The "hearth" is the place where the nutrition education and rehabilitation part of the program is carried out. Caretakers and volunteers in 40 villages learned to prepare "positive deviant" foods like those made by mothers of well-nourished children. The midterm evaluation for ENRICH (conducted in early 2013) found that the project is on track to meet stated targets. Among the 183 malnourished (moderate and severe) children who participated in the Hearth project, the nutritional status of 122 had improved to mild or normal. Of the 122 children with mild or normal status, 71 graduated from Hearth with 20% weight gain or more. In addition to improved nutrition results, the targeted project area has 4,342 households with improved sources of drinking water.

INTEGRATION THROUGH COORDINATION OF NUTRITION AND AGRICULTURAL SERVICE (NEPAL): Action Against Malnutrition through Agriculture, Implemented by Helen Keller International, CSHGP Grantee

The hypothesis of Helen Keller International's (HKI's) intervention in Nepal, Action Against Malnutrition through Agriculture (AAMA), was that by addressing the barrier of lack of access to nutrient-rich foods, the Expanded Household Food Production model would enable families to

put into practice the recommendation that women and young children eat a varied diet to achieve optimal nutritional status. The project used integrated community-based approaches to sustain improvements in nutritional status among children under two years of age. The intervention was the same in all districts, but Baitadi served as the district for operations research. The strategy combines HKI's Household Food Production model with promotion of the Essential Nutrition Actions. Based on a model of cross-sector integration, volunteers in each target community were selected to serve as "village model farmers" who received training, inputs, and supportive supervision to start models of vegetable gardening and poultry raising. They formed two groups of approximately 15 women who were either pregnant or had children under two years of age. The group members, called Household Food Production Beneficiaries, received seeds, seedlings, and chickens of improved breeds.

HKI collaborated with national partner Nepali Technical Assistance Group and local partners Nepal National Social Welfare Association (Kailali) and *Snehi Mahila Jagaron Kendra* (Baitadi) as well as the government to implement the program. HKI added a governance component that brought together various government entities at the national, regional, district, and local levels to collaborate on food security and nutrition. This component also empowered local stakeholders to advocate through local governance channels for funding to support AAMA activities or replication of the activities in adjacent wards. Using Atun's constructs, this would be viewed as full integration because "governance arrangements for the intervention were the same as those for the general health services or the local national administrative structures."

Nutritional status—specifically, chronic malnutrition and anemia among children—improved significantly in Kailali District and among the Dalit (disadvantaged) population in Baitadi. However, there was no change in these indicators for Bajura or for Baitadi OR district, where exposure to project activities was limited to two years and there were other factors such as extremely poor sanitation that may have affected nutritional status.¹⁹ While the Nepal AAMA OR intervention did not achieve the expected results in nutritional status, the adoption of Household Food Production practices and improved nutrition and health practices produced significantly better results in the intervention *llakas* or villages by the end of the project. More than two-thirds of families now have gardens and have adopted practices such as planting in rows, using homemade bio-pesticides, and raising a greater variety of vegetables. About 20% of families now report year-around garden production, which is an improvement, and overall vegetable production increased. There were significant improvements in dietary diversity and in infant and young child feeding practices such as exclusive breastfeeding, complementary feeding, and feeding children Vitamin A-rich plant foods.

SUMMARY OF NUTRITION AND MNCH INTEGRATION EXPERIENCES

In all three projects, establishing strong linkages with beneficiary communities was essential to achieving positive results. All three projects also relied on extensive BCC at the community and household levels to provide nutrition counseling and education sessions for pregnant women, women with children, husbands, and other family members, including mothers-in-law. Messages about nutrition and other MNCH issues were standardized in all targeted project areas, including early and exclusive breastfeeding, continued breastfeeding after six months, frequency of feeding, and quantity and quality of foods for children after six months of age. Projects in Egypt and Cambodia are similar to the AAMA project in that they used community

¹⁹ Multivariate analysis completed by HKI's Asia-Pacific regional team after the final evaluation report was completed revealed that while the intervention achieved no significant impact on child growth, there was a marginally significant reduction in anemia in intervention compared to control children and a significant reduction in both anemia and underweight in women of reproductive age.

platforms for action and engaged in strong partnerships to build local capacity for sustained commitment to improved MNH-Nutrition and FP practices. All three projects demonstrated that integration needing inter-sectoral support from other ministries or sectors can also be successful when working under a common framework. The results of the projects are preliminary and further study is needed to see which elements contribute most to successful integration of nutritional activities with other health activities. The Nepali government has expressed interest in scaling up the integrated agriculture and nutrition/maternal and child health programming.

A Word about Support for Highly Integrated Community-Based Service Delivery Platforms (CSHGP Grantees)

Many of the experiences described previously integrated two technical interventions with each other. CSHGP grantees also often supported providers (usually community health workers) in delivering multiple technical interventions. These interventions might be curative, like iCCM, or preventive, like handwashing or breastfeeding. CSHGP grantees also often worked on integration of health system and community supports such as community-level data collection and reporting, engaging community leaders and groups from multiple sectors in planning, implementing, monitoring, and evaluating.

There are two common features in these highly integrated activities:

- They combined three or more interventions in a single “delivery platform” such as antenatal care, safe delivery, postpartum visits, health promotional home visits or community forums.
- They relied on frequent personal contact (i.e., at least once a month) between community health agents and community members. The nature of the contact varied from household visits to community support meetings to individual counseling. It also included community mobilization and capacity building.

Engaging platforms that extended the reach of the health system to every household yielded high coverage across multiple health indicators, as is demonstrated in project results that MCHIP disseminated through various means (i.e., the mchipngo website, social media, 16 presentations at international conferences, and three peer-reviewed journal articles).

While many of these programs have only been implemented at the level of a single district and have not been scaled nationally, they achieved and documented significant results at the level at which they were implemented. MCHIP reported on a representative set of 12 of these projects in a paper published in 2013 in *Health Policy and Planning*. All used locally adapted strategies to deliver an integrated package of services. The authors summarized the results as follows: “Average coverage changes for all interventions exceeded average concurrent trends. When population coverage changes were modelled in LiST, they were estimated to give a child mortality improvement in the project that exceeded concurrent secular trend in the subnational DHS region in 11 out of 12 cases.” The authors concluded that “NGO projects implementing community-based intervention packages appear to be effective in reducing child mortality in diverse settings. There is plausible evidence that they raised coverage for a variety of high impact interventions and improved under-5 mortality rates by more than twice the concurrent

secular trend. The average improvement in modelled u5MR (5.8%) was more than twice the directly measured average decline (2.5%).”

CSHGP grantees also worked on strengthening basic health system components to support integrated programming by:

1. Increasing the capacity of health service providers through integrated training and other system inputs;
2. Improving the capacity of communities to address health issues through orientations for religious leaders and TBAs; and
3. Developing stronger links between communities and facilities through CHW and volunteer training for locating services within communities, increasing community input to and feedback about service delivery, and reporting community health information to facilities.

When MCHIP reviewed the experiences of CSHGP grantees, the conclusion was that there remained gaps in the evidence and an insufficient rigor in the efforts to evaluate and compare the various integration models used. Although there are some preliminary experiences with scaling up some of these approaches, this is an area for in need of further study.

Monitoring and Evaluation Needs for Integrated Service Programs

More rigorous monitoring and evaluation of integration is an ongoing need. In March 2011 USAID convened experts to present evidence and discuss strategies for FP-MNCH-Nutrition integration. The technical consultation concluded that although integrated services had a positive effect on service utilization, a larger body of evidence was needed to determine their impact, cost, quality, and effectiveness. It was also agreed that a “comprehensive research agenda with studies designed with greater rigor, quantitative analysis, and proven longitudinal success are needed to achieve buy-in from governments, ministries and organizations.”²⁰ The consultation further stated that “more evidence on cost savings, efficacy, and best practices is needed, especially as many programs begin scaling up.”

The Cochrane review commissioned by USAID added to these findings. The GHI paper on integration principles summarized the findings of the Cochrane review as follows: “Reviews have demonstrated that integration of primary services in middle- and low-income countries is feasible and can produce positive effects,” but “more evidence of these effects is needed and more rigorous studies of integrated service delivery are required to guide programs.”^{21,22}

MCHIP and CSHGP contributed to learning on monitoring and evaluation of integration in several ways. CSHGP projects consistently demonstrated statistically and programmatically significant increases in the coverage high-impact interventions along a continuum of care that included ANC visits, skilled birth attendance, breastfeeding within one hour of delivery,

²⁰ USAID, *FP-MNCH-Nutrition Integration Technical Consultation*. Conference Report. March 30, 2011, p. 19.

²¹ *Ibid.*, p. 10.

²² United States Government. *GHI Principle Paper on Integration in the Health Sector*, 5/23/12, p.10.

postnatal visits, and exclusive breastfeeding.²³ Many of these special studies or pilot programs demonstrated positive results that are summarized elsewhere.²⁴

MCHIP also worked on defining indicators for integration. The MIYCN-FP M&E subgroup, chaired by MCHIP, created a document, “Key Considerations for Monitoring and Evaluating Family Planning and Maternal, Infant and Young Child Nutrition Integrated Services,” that guides program implementers through monitoring and evaluation considerations and presents a list of suggested indicators.²⁵ MCHIP used indicators that would gather service data information needed for evaluation of the effectiveness of integration. Examples of evaluation questions: Did each technical area benefit from the integrated services? What, if any, were the negative effects on the original service? When services are integrated, does utilization increase for one or both services?

Merging health information and M&E systems from disparate technical areas can create challenges. Among the issues that needed to be considered when merging the monitoring systems for two different services are the following:

- What are the indicators used by each technical area?
- How are the indicators constructed?
- How often is information collected?
- What are the sources of information (e.g., service statistics, specialized reporting forms, etc.)?

The Liberia program, which included both immunization and family planning services, provides a good example of the monitoring challenges within an integrated program. Immunization results are heavily dependent on clear denominators and targets. Standard monitoring charts are often hand drawn and provide data to clinicians that indicate if they are on track with doses of immunization. Specific annual targets are set in accordance with national guidelines. On the other hand, family planning programs funded by the U.S. government are not allowed to set targets, because setting targets violates the goal of promoting informed choice and allowing women to select the most appropriate method for their personal needs. Thus, data recording, such as that done by CHWs when practicing community-based distribution of methods, differs substantially from data records needed for immunization. Typically, registers record the number of users who received a method each month, divided into new and continuing users, without denominators or targets. Thus, it is important for professionals who normally work in immunization to understand that setting targets for family planning methods is not appropriate. On the other hand, professionals who work in family planning must understand the importance of targets for immunization programs and how coverage information is constructed from routine data.

MCHIP concluded that it is important to consider the following when designing programs and when interpreting results:

²³ USAID/MCHIP. *Collaborating with Communities and Aligning with National Systems to Achieve High Impact and Coverage for Mothers and Newborns: USAID's partnerships with International Non-Governmental Organizations through the Child Survival and Health Grants Program*, p. 1.

²⁴ <http://www.mchipngo.net/controllers/link.cfc?method=LearningBriefs>

²⁵ “Key Considerations for Monitoring and Evaluating Family Planning and Maternal, Infant and Young Child Nutrition Integrated Services” is available as part of the MIYCN-FP toolkit: <https://www.k4health.org/toolkits/miycn-fp/monitoring>

1. M&E of integration should provide information that lets managers know if each technical area has benefited from integration (in the case of merging two services) and that no harm has been done.
2. M&E of integration should be adapted to context.
3. Registers or other instruments should be flexible enough to capture the data needed by the program in one place so that the overall integrative aspect of services is not lost.

The general literature consulted for this review raised several other points concerning monitoring:

- Both service outcomes and system effects should be monitored
- More study is needed on the effects of integration on the client. Do integrated services increase convenience or do they pose unexpected barriers such as long wait times?
- The efficiency and cost-effectiveness of integration need further evaluation.

Overall Summary and Recommendations

The experiences highlighted here are not exhaustive in terms of representing the full portfolio of MCHIP and CSHGP integrated programming, but rather highlight the experiences that yielded the most learning on integrated service delivery. Each of the experiences highlighted demonstrates that integrated services can improve intervention-specific health outcomes. Project work in Bangladesh, Honduras, Rwanda, and South Sudan established that CHWs can effectively integrate new services into their routine duties at the community and household levels with positive health outcomes for target populations. However, the Rwanda example in which misoprostol coverage rates did not rise significantly shows that results for the same intervention depend on the design of the integrated delivery.

The MCHIP and CSHGP experiences in Liberia successfully integrated FP services for postpartum women into routine immunization services for children. In both, there was a rapid increase in FP acceptance with no reduction in vaccination coverage rates among target populations. This work contributes to the growing body of evidence suggesting that integrated service delivery can lead to increases in FP uptake with no negative effects on immunization. For this reason, in 2013 FP-Immunization integration was endorsed by the multi-agency Technical Work Group on High Impact Practices (HIPs) for Family Planning as a promising practice.²⁶

The nutrition projects in Egypt and Cambodia represent the integration of MNCH and nutrition. The Nepal experience demonstrated cross-sectoral integration involving the health/nutrition and agriculture sectors. Endline data for Nepal and Egypt and midline data for Cambodia demonstrate the effectiveness of combined nutrition approaches for improved household consumption of nutritious foods as well as improved nutritional status among children.

²⁶ Family Planning High Impact Practices, <https://www.fphighimpactpractices.org/>, accessed June 2014

The MCHIP and CSHGP experiences with integration confirm that this is a complex and multifaceted process that relies on a range of inputs. Several experiences demonstrated the success of *partial integration*, with shared service delivery responsibilities across providers and through service linkages. There was one well-studied experience with *full integration* – the Bangladesh Healthy Fertility Study. There were also highly integrated experiences through the CSHGP programs. These experiences added some key evidence to the global knowledge base, but of course still leave many key questions to be answered. The following are some recommendations for future directions on the topic of integration.

Once an integration model has been successfully piloted, it is important to support and study its scale-up.

When going to scale, system bottlenecks will more forcefully come into play and need to be addressed. One common bottleneck is commodity availability. While a project might directly support a supply chain in a pilot phase, it cannot continue to do so as the intervention is scaled up. This is just one example of the sort of system bottleneck that can threaten the replication of results when going to scale. An area of future study is how best to identify and address these bottlenecks, while minimizing data collection burden and also encourage rapid “real-time” response to the problems identified. While solutions will be context-specific, systematically documenting and sharing these lessons will likely facilitate the identification of common themes and promising practices across various contexts.

What are the best ways to promote successful service integration even with vertical funding streams?

Some donors, like Global Fund and PEPFAR, give disease-specific funding. Clearly, this can be an impediment to integrated programming in the MNCH arena. Separate reporting and accounting mechanisms were initially used by these programs to quickly develop key new areas of programming, like ART clinical services, but as these services have become established and MOHs are working to sustain the gains made, there is interest in integrating these new services – e.g., counseling and testing within the ANC platform, PMTCT within ANC and maternity services, etc. Over the last 6-8 years, donors like the Global Fund, GAVI, and others have expressed interest in the idea of “diagonal programming” – that is, programming for a specific disease area but with some selected general support for health system strengthening. What might be best practices that emerged from this experience and do they have any relevance to the field of service integration? In other words, has support for key health system components like HIS (reporting), logistics/commodity supply, training, and governance functions like planning helped to promote successful integration at the point of service delivery? Also, what are the best ways to minimize redundancy (e.g., in reporting, training, logistics systems) caused by vertical funding streams?

Costing integrated models is an important area for future exploration.

The MCHIP Healthy Fertility Study in Bangladesh found that activities were delivered through existing community-based platforms at minimal incremental cost, and that positive health outcomes represented unquantified cost savings to the household. ChildFund in Honduras demonstrated cost savings to families if they were able to access health services locally as opposed to going to a rural health post or a hospital. Other experiences presented here did not specifically consider costs associated with the implementation of integrated models. This is a particularly important consideration as successful models generate increased client demand (as in the case of the Nehnwaa CS project in Liberia) and/or are considered for expansion.

There is need to document and disseminate integrated community platform models supported by NGOs.

Several papers have been published about Care Groups (community-based mothers' groups), but there are other promising integrated community-based models that deserve wider attention as well. There is a wealth of context-specific information in project reports that should be compiled and disseminated widely to expand learning and push the boundaries of traditional thinking about scaling up integrated services beyond a facility-centric model to include community-based approaches. Practitioners and those providing technical assistance should be supported in the documentation of results and learning from individual projects as well as from groups of projects.

There is a need for research on health system effects of integration

The Integra Initiative, supported by the Bill and Melinda Gates Foundation, developed a multidimensional index of integration based on five years of research on the integration of HIV services into reproductive health and family planning services. It is a tool used to quantify the degree of integration in a facility over time to describe objectively how the integration process affects clients and health system efficiency.²⁷ The Integra Index showed that structural integration (i.e., the preparedness of a facility to provide integrated services such as having sufficient infrastructure, equipment, supplies, and human resource in place) does not necessarily lead to integrated delivery of care (whether the provider actually offers more than one service during the consultation).

More rigorous monitoring and evaluation of integrated programs is needed.

It is important to decide on clear intended outcomes for a service integration experience. Is the experience meant to increase efficiency (i.e., reduce cost)? Is it meant to “reduce missed opportunities” (i.e., increase utilization) while maintaining or improving service quality? Answering these questions helps to point the way to clear indicators and targets.

There are also practical considerations for feasible and effective monitoring and evaluation of integration. For more rigorous monitoring and evaluation, close attention must be paid to the systems used to collect data on integrated programming. Each technical sector's approach to monitoring and evaluation must be understood, because each technical area has its own indicators, which differ not only in terms of what is measured, but in how the indicators are constructed and collected:

- What is the denominator?
- Is there a denominator?
- How often is information collected?
- What is the source of information (i.e., surveys, service statistics)?
- What is the quality of the information? If the quality of information varies among technical areas, it may be hard to judge whether each area has benefited.

²⁷Vassal, Anna et al; Cost analysis of integrated HIV and Sexual Reproductive Health Services in Kenya and Swaziland, London Dissemination Meeting, July 2013. Available at: http://www.integrainitiative.org/blog/wp-content/uploads/2013/09/Cost_presentation

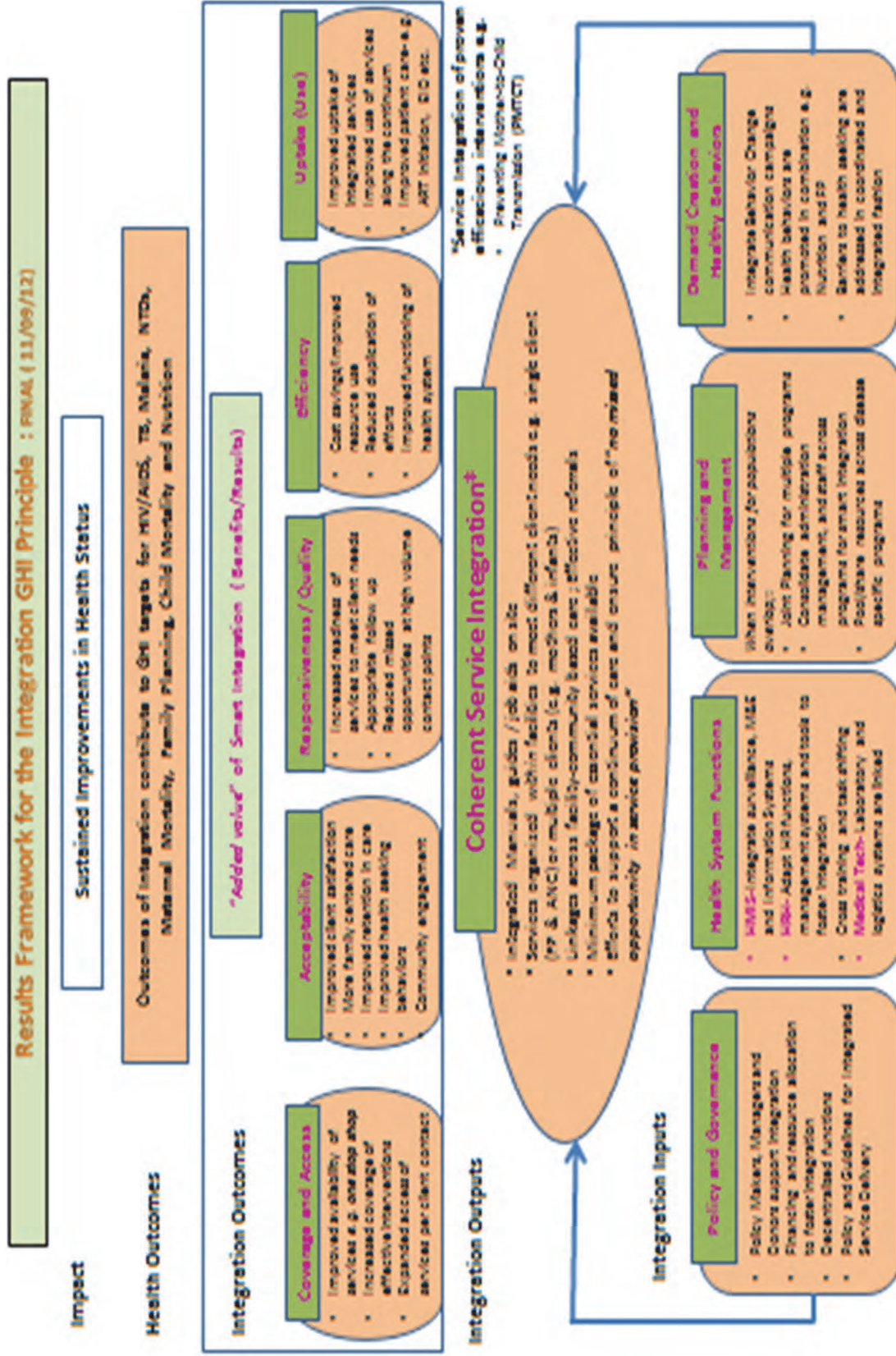
Attention should be given to the burden placed on health workers as well as to the quality of client experiences.

When integrating a new service into the set of routine services or integrating two existing services, the workload of some of the involved health workers is likely to increase, even if overall system efficiency increases. This additional work comes in an environment in which the involved health workers are likely already to have a large number of tasks and receive inadequate support from the rest of the health system, in terms of supervision, supplies, etc. At what point do health workers become overburdened? Obviously, this is a context-specific question, but one that needs to be on the agenda for each proposed integration experience. Monitoring for service quality is one way to track potential problems caused by overburdening. But also, more in-depth investigations may be needed concerning provider perceptions and feasibility.

At what point can programs no longer integrate interventions without sacrificing the ability to meet client needs? Atun states that it is incumbent upon donors and implementers alike to develop the context-specific evidence base to guide policies and practice in relation to program design, rather than rely on dogma. The USAID team conducting the consultation on the integration of FP, MNCH, and nutrition stated, “Community perspective and satisfaction with FP-nutrition integrated services is an area that has not received any attention and should also be explored. Advocacy tools, training curricula, job aids, and behavior change materials are absent, but could be developed based on existing and new research. By taking action on developing a research agenda and conducting advocacy with donors, partners and researchers at all levels, FP-nutrition integration proponents could build a strong case and build momentum for the field.” It is important to have on the integration research agenda the issues of client satisfaction and acceptability.

In summary, while the evidence base is thin, the experience to date seems to be that when integration of RMNCH-H services is done well and under the proper conditions (i.e., “smart integration”), it has the potential to improve utilization (i.e., reduce missed opportunities) while maintaining quality of service provision. Evidence is thinner for cost-efficiency and cost-effectiveness of such integrated services. Much work remains to be done.

Annex 1: GHI Results Framework for Integration



Annex 2: Data Sources for the Examples Reviewed in Document

COUNTRY PROGRAM	DATA SOURCES	COMMENTS
Integrating Health Services at Community Level		
Bangladesh Healthy Fertility Study	<ul style="list-style-type: none"> Project baseline survey of women who consented to participate in study 2011 Bangladesh DHS Project pregnancy surveillance every 2 months 36-month postpartum survey 	<ul style="list-style-type: none"> No quality issues were reported.
Honduras ChildFund Honduras Child Survival Project (CSP)	<ul style="list-style-type: none"> Operations research study, including costing study Equity study Knowledge, practices, coverage baseline study Project HIS HIS of the public health centers Community registers 	<ul style="list-style-type: none"> The design of the CSP was not experimental. Thus the changes in rates cannot be attributed entirely to the CSP interventions. The mortality analysis methodology applied was descriptive and therefore could not define causality.
Rwanda Increasing Access to the Prevention of PPH in Facility and Home Births	<ul style="list-style-type: none"> MOH district-level HMIS and Community Health Information System (SIScom) Health facility data for secondary labor and delivery services Project PPH data collection tools Prospective quantitative and qualitative primary data collected from postpartum women and ASMs Modified ASM registers CHW in-charge data collected on adverse events during postpartum interviews and household supervision 	<ul style="list-style-type: none"> Different denominators were used across various data sets (the project adjusted for this in their conclusions). 10.7% of total estimated deliveries were not captured in the MOH HMIS or SIScom. HMIS did not capture private clinic delivery data (that is 4.4% according to the 2010 DHS).
South Sudan Prevention of PPH in South Sudan: Increasing Access to Evidence-Based Interventions	<ul style="list-style-type: none"> Project-specific data 2010 South Sudan Household Survey MOH HMIS 	<ul style="list-style-type: none"> No quality issues were reported.
Integrating Family Planning into MNCH Platforms		
Liberia FP/EPI Demonstration Project	<ul style="list-style-type: none"> FP and EPI service statistics Observation during supportive supervision visits and training MOHSW EPI data for pilot facilities and all other facilities in Bong and Lofa counties for 2011 and 2012 Interviews and focus group discussions with clients, service providers, program managers, and partner agency representatives 	<ul style="list-style-type: none"> The number of facilities and service providers involved was small; thus no statistical analyses were conducted. County-level FP data were not available, which prevented comparisons of FP indicators between pilot sites and all other sites in Bong and Lofa counties.

COUNTRY PROGRAM	DATA SOURCES	COMMENTS
Liberia Nehnwaa Child Survival Project	<ul style="list-style-type: none"> • Midterm evaluation surveys • Final evaluation using mixed quantitative and qualitative methods, including a 30-cluster randomized cluster survey of beneficiaries, key informant interviews, community FGDs, and document review • Project HMIS and reports • Verbal autopsies • Service statistics from GUMH static site • 2010 and 2011 Malaria Indicator Surveys • FY2012 and FY2013 PMI Malaria Operational Reports 	<ul style="list-style-type: none"> • The Liberia MOHSW HIS data are not up to date, are facility-based, and are not easily accessible for decision-making. • GUMH data are used when appropriate for facility-based information, but only referral information and FP service data from the clinics are available. • Project staff produced a lower number of verbal autopsy reports than expected and were unable to provide adequate interpretation to ensure confidence that they were done correctly.
India PPFP/PPIUD	<ul style="list-style-type: none"> • Project data collection tools • Baseline, midline quality assessments 	<ul style="list-style-type: none"> • No quality issues were reported.
Mozambique Integrated Family Planning and Cervical Cancer Prevention	<ul style="list-style-type: none"> • MNCH registers that feed into the national HMIS 	<ul style="list-style-type: none"> • Average data completion is 50% with discrepancies between the health facility, district, and provincial level data up to the central level • Current Health Information Register Book and Monthly Summary Reports do not include implants, and monthly reports do not include the total number of Depo-Provera doses administered. • Information on CYP does not include Depo-Provera or Implants.
Integrating Maternal, Infant, and Young Child Nutrition (MIYCN) into MNCH Platforms		
Egypt SMART Project	<ul style="list-style-type: none"> • Community-based surveys • Household surveys • Facility surveys/assessments • Community-based Routine Information System • Facility-based Routine Information System • Training Information Monitoring System • Monitoring/supervision checklist 	<ul style="list-style-type: none"> •
Nepal Action Against Malaria through Agriculture	<ul style="list-style-type: none"> • Adequacy assessment based on data from baseline and endline measures • KPC surveys • Qualitative evaluation • Project monitoring data 	<ul style="list-style-type: none"> • A change in research firm from baseline to endline may have led to issues in comparability of the baseline and final results. • Baseline results for anemia among women are questionable (much lower than in the final survey and the Micronutrient Surveys and lower than the 2010–2011 DHS data for that region in Nepal). • Kailali endline data appears skewed as a disproportionate number of intervention wards were included in the sample for the endline.
Cambodia ENRICH	<ul style="list-style-type: none"> • KPC baseline • Project data, including management data and regular reports from village health volunteers • OR data system • MOH facility data 	<ul style="list-style-type: none"> • Midterm coverage estimates were not possible due to the lack of population-based coverage data on key project behaviors after the baseline survey.

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Equity Matters: Lessons from MCHIP and CSHGP in Measuring and Improving Equity

June 2014

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Suggested citation: Winestock Luna J, Monga T, and Morgan L. 2014. *Equity Matters – Lessons from MCHIP and CSHGP in Measuring and Improving Equity*. Maternal Child Health Integrated Program.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

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Abbreviations and Acronyms

CFI	ChildFund International CHW Community Health Worker CRS Catholic Relief Services
CSHGP	Child Survival and Health Grants Program
DHS	Demographic and Health Survey
ICCM	Integrated Community Case Management
KPC	Knowledge, Practice, and Coverage
MCHIP	Maternal and Child Health Integrated Program
MNCH	Maternal, Newborn, and Child Health
MOH	Ministry of Health
NGO	Nongovernmental Organization
PDQ	Partnership-Defined Quality
RMC	Respectful Maternity Care
TIPS	Trials of Improved Practice
USAID	United States Agency for International Development
VMMC	Volunteer Medical Male Circumcision
WHO	World Health Organization

Introduction

Since 2008, the United States Agency for International Development (USAID) Bureau for Global Health's flagship Maternal and Child Health Integrated Program (MCHIP) has supported programming in maternal, newborn, and child health, immunization, family planning, nutrition, malaria, and HIV/AIDS, and has encouraged opportunities for integration of programs and services when feasible. MCHIP has supported the delivery of evidence-based, high impact interventions to help countries achieve impact at scale through strengthening government health systems and building the capacity of local nongovernmental organizations (NGOs) and other local partners to build linkages to communities, primary health facilities, and hospitals. MCHIP worked with the Child Survival and Health Grants Program (CSHGP) to provide technical assistance and to share grantees' experiences and expertise within MCHIP programming. Key to achieving impact at scale is making sure that interventions reach those who need them most and there is equitable distribution of coverage across socioeconomic, ethnic, gender, and other population groups within countries. This is the question of equity.

Thanks to greatly increasing political and financial commitments, and major technological advances, much progress has been made in global health over the last several decades. For example, according to the World Health Organization (WHO), globally, maternal deaths declined from over 500,000 in 1990 to around 289,000 in 2013.¹ Similarly, the number of under-five deaths worldwide has declined from nearly 12 million in 1990 to 6.9 million in 2011, but this remains insufficient to meet Millennium Development Goal (MDG) 4 (reduce childhood mortality), particularly in sub-Saharan Africa and Southern Asia.²

Despite overall progress, significant inequities persist. Health economists have pointed out that it is possible to achieve the MDGs while widening the gap between the rich and the poor.³ For that reason, equity must be intentionally pursued as a strategy; it will not necessarily happen as a byproduct of other development efforts.

Maternal mortality is concentrated in sub-Saharan Africa and South Asian countries: an African woman's lifetime risk of dying from pregnancy-related causes is 100 times higher than that of a woman in a developed country.

In sub-Saharan Africa, maternal mortality ratios for the poor are double those for the non-poor and are consistently higher among rural populations and less-educated women.⁴ In most countries in the region, rates of skilled attendance at birth are five times higher among the non-poor than among the poor and inequities are not confined to Africa: in India, nearly nine out of ten women in the richest quintile have skilled assistance during delivery while only two out of 10 in the poorest quintile do.⁵

Child Survival and Health Grants Program (CSHGP)

Through the Child Survival and Health Grants Program (CSHGP), USAID contributes to accelerating reductions in maternal, newborn, and child mortality at the national and global levels in priority countries. CSHGP has been in existence since 1985 and, as of April 2013, the current portfolio consisted of approximately 32 projects in 24 countries.

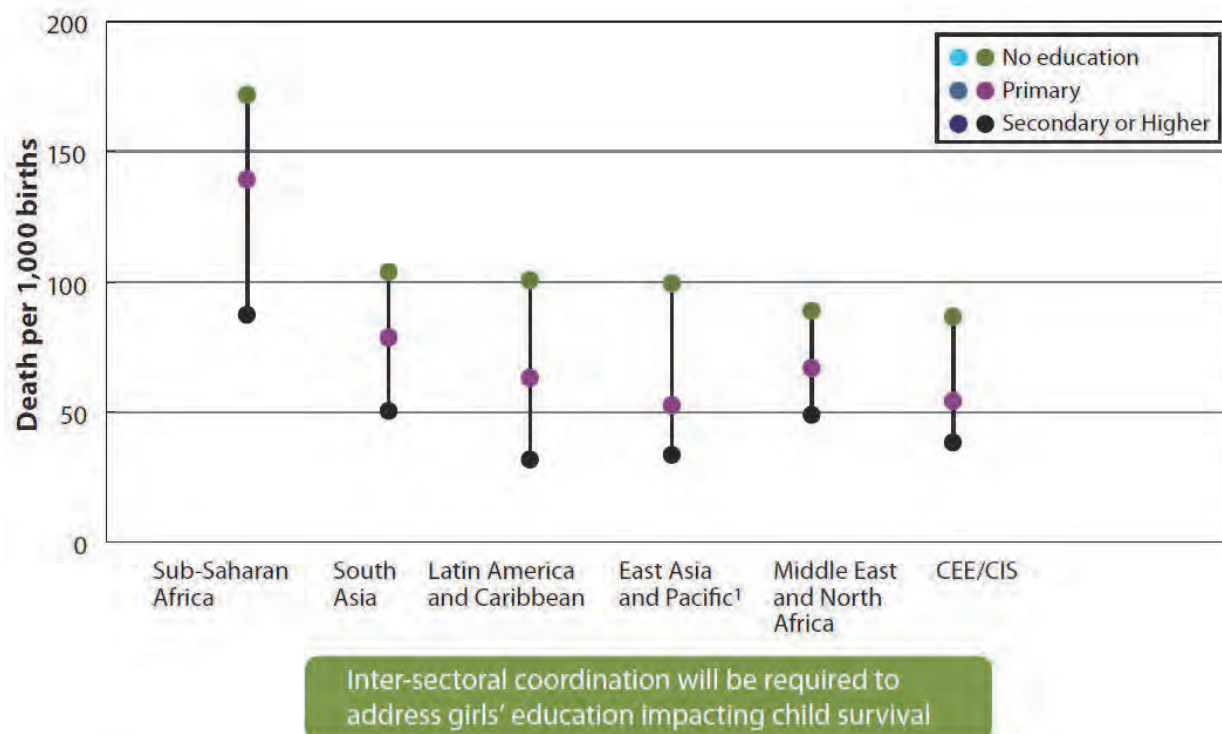
These programs generate new knowledge to address major barriers to improving and scaling up the delivery and use of integrated packages of low-cost, high-impact interventions to improve the health of women, children, and communities.

These grantees work in difficult, underserved, often isolated communities, and in recent years, many have also made a particular effort to focus on achieving health equity *within* those communities. CSHGP projects are often designed to work in some of the poorest areas of a country and applicants are required to put that type of justification in their proposals in order to receive funding. As more organizations begin to develop programs with an equity focus, examples from existing work can help inform those designs.

It is important to remember that inequities are not just due to socio-economic status. David Gwatkin refers to the acronym (taken from presentations by Timothy Evans and Hilary Brown) “PROGRESS” to summarize the different groups that we could focus on. PROGRESS stands for “place of residence, race, occupation, gender, religion, education, socio-economic status.”⁶

Figure 1, from *A Call to Action*ⁱ, illustrates inequity based on mother’s educational status.

Figure 1. Under-five mortality rate by mother’s education level, by region.



¹ Excludes China

Source: UNICEF, Progress for Children: Achieving the MDGs with Equity, 2010

A recent analysis of Demographic and Health Survey (DHS) data across all continents showed problems with equity for a number of high impact maternal, newborn, and child health (MNCH) interventions—and a number of USAID priority countries—for eliminating preventable maternal and child deaths: “Skilled birth attendant coverage was the least equitable intervention... followed by four or more antenatal care visits. The most equitable intervention was early initiation of breastfeeding. Chad, Nigeria, Somalia, Ethiopia, Laos, and Niger were the most inequitable countries for the interventions examined, followed by Madagascar, Pakistan, and India. The most equitable countries were Uzbekistan and Kyrgyzstan. Community-based interventions were more equally distributed than those delivered in health facilities.”⁷

Latin America has some of the best overall health statistics, but these numbers mask large inequities. For example, life expectancy in Chile is 79.2 years while neighboring in Bolivia it is 69.1 years.⁸ Life expectancy in the Dominican Republic is 76.3 years but on the same island, it is only 63.5 years in Haiti. In 2009, the region attained 94% average measles immunization coverage; however, the percentage of children vaccinated against the disease in Haiti, Paraguay,

ⁱ Child Survival: Call to Action: Ending Preventable Child Deaths. 2014. Available from: <http://5thday.usaid.gov/pages/ResponseSub/roadmap.pdf>

and Bolivia was only 60%, 71%, and 86%, respectively.² Reliable herd immunity from measles requires that immunization coverage rates for the disease reach at least 90%, meaning that the populations in those three countries remain vulnerable.² There is also evidence that equity gaps are widening (WHO, 2005) and in order to accelerate progress towards eliminating preventable child and maternal deaths, this trend will need to be reversed.

Within countries there are also inequities. For example, in Bolivia, overall infant mortality declined from 67 to 54 per 1,000 live births between 1998 and 2003. However, in 2003, the infant mortality rate for mothers without formal education was 87 and among the poorest wealth quintile, 72.⁹ Another example is the 2011 infant mortality rate in the Brazilian state of Amapá, which was 25.4 per 1,000 live births, more than twice the rate of Rio Grande do Sul of 11.3 per 1,000 live births in the same year.¹⁰

There are promising strategies available to improve this situation. A review of equity-focused strategies published in 2012 by MCHIP concluded: “Although knowledge gaps exist, several strategies show promise for improving coverage of effective interventions—and, in some cases, health outcomes in children—including expanded roles for lay health workers, task shifting, reduction of financial barriers, increases in human-resource availability and geographical access, and use of the private sector. Policy makers and planners should be informed of this evidence as they choose strategies in which to invest their scarce resources.”¹¹

Based on the literature and program experiences, this brief summarizes practical information to help program managers leverage learnings from promising approaches that can be expanded to improve the equity of health programming. It outlines the experience with equity-based program strategies in maternal, newborn, and child health from MCHIP and the Child Survival and Health Grants Program (CSHGP).ⁱⁱ

WHAT IS HEALTH EQUITY AND WHY DOES IT MATTER?

MCHIP used a consensus building process among program staff to develop a working definition of our approach to improving health equity. Two key points from this definition are that for MCHIP: (1) It is important to improve health outcomes in vulnerable groups without allowing coverage rates to drop for groups that are better off, and (2) it is important to measure improvements in health, not just improvements in underlying conditions.

“Health equity is both the improvement of a health outcome of a disadvantaged group as well as a narrowing of the difference of this health outcome between advantaged and disadvantaged groups—without losing the gains already achieved for the group with the highest coverage.”¹²

This definition is related to WHO’s definition,¹³ which states that health equity is the absence of avoidable or remediable health differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically.ⁱⁱⁱ In order to reach WHO’s equity goal, rates of coverage across advantaged and disadvantaged groups need to be similar for high impact interventions.

Health equity is achieved, according to the Centers for Disease Control and Prevention, when every person has the opportunity to “attain his or her full health potential” and no one is “disadvantaged from achieving this potential because of social position or other socially

ⁱⁱ CSHGP has been in existence since 1985; MCHIP ran from 2008–2014, and the follow on project to MCHIP will run from 2014–2019. Technical assistance for CSHGP was included under MCHIP. Grants to CSHGP’s nongovernmental organizations were funded separately from MCHIP by USAID’s Global Health Bureau.

ⁱⁱⁱ Fabienne Peter and Timothy Evans remind us that there will always be acceptable variations in health that are randomly distributed across social groupings such as gender, occupation, race/ethnicity and are not associated with education, income or access to health care.

determined circumstances.”¹⁴ Health inequities arise from a lack of opportunity to achieve good health because of inadequate social arrangements, as opposed to, say, a personal decision not to worry about health, which damages health and capabilities.¹⁵

Health is a human right, in the sense of the right to “freedom from preventable suffering and freedom to exercise health choices,”¹⁶ health equity implies the (growing) realization of these goals. Reducing health inequities is essential in order to achieve Millennium Development Goals 4 (to reduce child mortality) and 5 (to improve maternal health) and is a central strategy of *A Call to Action*:

“Large inequities in child survival persist and in some countries are growing.

Countries need to refocus their health systems on scaling up access to high quality services for populations suffering from a disproportionate burden of disease, especially rural, poor, and marginalized populations. And, they need better mechanisms to actually measure the impacts of the health care they receive.”^{iv}

How is health equity improved?

Typically, groups that experience health inequities lack political, social, and economic power. Programs, therefore, often focus efforts on marginalized and disadvantaged groups, often going beyond the particular health inequity itself to empower the affected group through systemic changes.

A recent review article summarized four promising strategies to increase equity:

1. Use of community health workers (increasing numbers and task shifting)
2. Other strategies for increasing access
3. Use of the private sector
4. Financial mechanisms (e.g., conditional and non-conditional cash transfers, health insurance)¹¹

This document began with a definition of what health equity is and is followed by narrative about how health equity can be improved, including descriptions of guidance developed under MCHIP, examples of implementation of relevant strategies by MCHIP country programs and CSHGP projects, and use of monitoring and evaluation to demonstrate improved health equity. Strategic implementation approaches are grouped by: increasing access by targeting the most vulnerable and by tackling social norms; strengthening community-based service provision through use of community-based workers, such as community health workers and traditional birth attendants and by engaging civil society; and strengthening the community voice.

Programs implemented by MCHIP and CSHGP primarily focus on the first three strategies and the narrative that follows describes these experiences. Another important strategy for increasing health equity used by both MCHIP country programs and CSHGP grantees is strengthening the voice of the community to demand more equitable service provision. We describe experiences and lessons learned with each area in the following narrative.

^{iv} Child Survival: Call to Action.

Contributions by MCHIP and CSHGP

PROGRAM STRATEGY AND DESIGN

Whether programs address or exacerbate inequities depends on how the programs are designed and implemented. Equity must be intentionally pursued as a strategy; it will not necessarily happen as a byproduct of other development efforts. Although most health professionals who design and implement health programs have an intuitive sense of the meaning of equity, it is often not clearly defined within programs, nor are program managers always able to clearly articulate how health equity has been improved as a result of an intervention. In response to the need to be more systematic, MCHIP developed a practical guide to help program managers: design and implement health programs in a systematic way in order to formulate strategies to improve equity; monitor and evaluate the impact of their program on equity; and communicate and share findings with global and country-level stakeholders.¹⁷

The initial impulse for developing the MCHIP health equity guidance and checklist was from USAID CSHGP and built on the experience of private voluntary organizations (PVOs)/NGOs grantees and of CORE Group members, all of whom had experience working with vulnerable communities with the aim of increasing equity, but who were also interested in a systematized approach to health equity program design, monitoring, and evaluation. The guide was developed specifically to give those who design and implement community-oriented health programs a systematic way of ensuring that equity is incorporated into program designs and that its improvement can be better demonstrated and explained. However, this guidance is relevant for health programs that do not necessarily have a strong community component. MCHIP's role was to lead the process of developing systematic guidance for use by community oriented programs, such as CSHGP, and MCHIP country work, including facility-based interventions. In addition, MCHIP developed a Rapid Socio-Economic Profile assessment tool, which is a simple and low-cost method for using assets (such as are collected by the DHS) to construct socio-economic profiles of beneficiary populations and to determine if the intervention is pro-poor.

The guide takes stakeholders through a process that involves understanding the barriers to access and use; developing context-relevant strategies and incorporating equity goals into policies, plans and projects; and developing monitoring and evaluation systems from the beginning of programming that can measure progress toward equity goals. While not prescriptive, the guide presents a series of concepts and approaches to take equity into consideration and facilitate decisions that lead to the development of a coherent equity strategy as part of a program design.

The guidance document and accompanying worksheets were used to generate dialog within MCHIP country programs and among technical staff. Specifically, this approach was used to start health equity dialogs in MCHIP country programs in Mozambique, Zimbabwe, Yemen, and with the Indonesia bi-lateral project, although none of these programs ended up following all the six steps in the guidance. However, MCHIP programs and CSHGP projects were able to focus on specific elements of health equity programming. The next section provides examples of how health equity was addressed by both MCHIP and CSHGP programs.

Increasing access by targeting the most vulnerable

Key to enhancing equity is to identify disadvantaged and vulnerable populations and to target activities specifically for them.¹⁸ One of the most common approaches for doing so is geographic targeting. Populations, for example, may be vulnerable because of geographic remoteness or certain regions may have particularly high disease burdens. Within countries, many if not most MCHIP interventions are targeted at geographically disadvantaged populations to improve

access to service delivery. As in many countries where MCHIP focused on strengthening services that reach the most vulnerable populations, in Zimbabwe MCHIP worked in the province with the worst MNCH health indicators. In Malawi, MCHIP supported programming focused on disadvantaged and remote communities as well as those with the highest population density—where needs are the greatest. In Kenya, MCHIP worked in Bondo District, which has the highest HIV prevalence rate in the country, in the prevention of mother-to-child transmission of HIV.

More broadly, Reaching Every District, an approach first developed and used by the global immunization community to reach districts with the highest absolute number of unimmunized children, has been adapted by MCHIP for various technical interventions. For example, in Bangladesh, community health workers (CHWs) use community mapping exercises to reach every newborn at the sub-district level.

Targeting can also be by demographic or occupational group. In a voluntary medical male circumcision (VMMC) intervention in Tanzania, MCHIP identified a particularly vulnerable group of hard to reach men—migrant field workers who were poorly served by the traditional health care services given their marginalized status in and social isolation from the overall population. MCHIP brought services to them where they live (away from home) and work (rural areas) through focused campaigns and communicated to the employers the importance of healthy lives for their employees. MCHIP's VMMC program in Iringa, Tanzania, (in collaboration with the regional medical office of Iringa) increased the prevalence of VMMC in the region from 29% in 2009 to 50% in 2012. As a result, Tanzania's Iringa region has become one of the few VMMC programs coming close to achieving the 80% coverage target. The region is headed toward a significant reduction in new HIV infections in the next 10 years, coupled with tremendous savings of costs that otherwise would have occurred to cover antiretroviral treatment and care.

Programs and governments can use a variety of data sources to identify populations that are vulnerable. These include national-level data such as poverty maps and nationally representative population surveys (DHS and multiple indicator cluster surveys); local sources of information such as knowledge, practice, and coverage surveys (KPC); and routine data captured through the national health management information systems. These data can reveal utilization rates and disease prevalence that can be used to target programs. India, for example, used a national-level health services indicator survey (called the District Level Household and Facility Survey—DLHS3—which is similar to the DHS) to identify the 184 lowest performing districts in terms of basic MNCH indicators. A further gap analysis at the district level helped to identify priority areas. These districts will receive 30% in additional funding to implement high-impact, evidence-based MNCH interventions.

Reaching Marginalized Ethnic Communities

Center for Human Services/Ecuador brought the community and the formal health care system together by developing innovative parish-level “micro-network” teams. Parish micro-network teams are comprised of community and social organization representatives, traditional birth attendants, and midwives and doctors who meet regularly (usually monthly) to plan and coordinate care for mothers and newborns in their parish with support from Center for Human Services project staff.

It is useful to keep in mind that NGOs have developed a range of approaches to target interventions to women and children most in need, such as: census-based impact oriented approach; CARE groups; participatory rural appraisal and LQAS, which can be used to pinpoint geographical areas that need more attention. For more information on these techniques see the CORE Group website.^v

Participatory and practical means for identification of underserved communities or population segments can also be used. In Bangladesh, World Renew (formally Christian Reformed World

^v <http://www.coregroup.org/>

Relief Committee) used participatory rural appraisal to work with community members to identify the poorest villages, thus taking advantage of local knowledge and engagement for targeting activities to improve health equity.¹⁹

Targeting can be context-specific and driven by specific assessments. For example, in Ecuador, the Center for Human Services learned through its baseline household survey that indigenous populations had much lower rates of maternal health care utilization than mestizo (of mixed European descent) populations. As a result, the Center for Human Services focused their project efforts where they were most needed, i.e., on indigenous groups.

In Matagalpa, Nicaragua, through local qualitative assessments,^{vi} Catholic Relief Services (CRS) identified the lack of decision-making authority and domestic violence among poorer women as significant barriers to utilization of maternal and newborn care services. In the design of their project, a gender-accommodating strategy of male involvement was included to lower the barrier for women to access needed services.

Increasing access by tackling social norms

One of the major barriers for women in seeking, accessing, and receiving quality health care is through the effect of social norms – both harmful and harmless – that either discourage women from seeking certain care for certain services or that result in providers delivering poor quality, disrespectful, and sometimes even abusive care. To tackle harmful social norms and enhance gender equity, one major area of focus under MCHIP has been respectful maternity care (RMC). By training providers and facilitating community-provider dialogue, RMC promotes respectful and culturally sensitive care for all women, irrespective of their wealth or status, and aims to ensure that health care delivery is patient-centered care and respectful of local cultural preferences. It is also equally important to integrate harmless cultural norms and client preferences, where appropriate and applicable, into service delivery.

MCHIP developed the RMC Toolkit,²⁰ which provides a range of resources that include a survey on RMC from 19 countries, an assessment instrument, program briefs and reports providing examples of how RMC has been implemented, training and advocacy materials, operational standards for RMC, illustrative indicators for monitoring RMC, job aids, and a resource list. This package of materials is designed to provide clinicians, trainers, managers, and other stakeholders involved in the provision of maternity care with the tools necessary to begin implementing RMC in their area of work or influence. The goal of this toolkit is to empower frontline health workers to provide RMC, enabling women and their families to experience quality maternity care and to choose to deliver with a skilled provider at home or, preferably, in a health facility. MCHIP has worked with many countries to improve RMC, including South Sudan, Pakistan, Yemen, Tanzania, Mozambique, and Ethiopia. In Mozambique, MCHIP helped the Ministry of Health (MOH) to develop the Model Maternity Initiative and to implement the National Humanization of Health Care Plan. Through this initiative, professionals from over 100 health facilities (including all the largest hospitals) and the medical and nursing schools have been trained in RMC. MCHIP also established the Model Maternities Initiative in 34 emergency obstetric and newborn care (EmONC) facilities, covering 21% of all institutional births nationwide.

The Center for Health Services implemented a CSHGP project prioritizing provision of respectful maternal care in Ecuador, showing the potential for expanding patient-centered programming. As part of an equity-based strategy, the project targeted 21 priority rural parishes out of a total of 38 parishes that meet at least two criteria known to be associated with a higher risk of maternal and newborn mortality in Ecuador: 1) more than 50% of the parish lives in extreme poverty, and 2) over

^{vi} Catholic Relief Services conducted 34 focus groups from November 24–December 3, 2008, with traditional birth attendants, CHWs, fathers, and mothers in Matiuas, Rio Blanco, Waslala, and Bocana de Paiwas, Nicaragua.

40% of the population is of indigenous decent. Maternal and newborn mortality figures in these 21 parishes are much higher than in the rest of the province. The deliberate targeting of these parishes represents the project's commitment to equity for the most vulnerable. Traditional birth attendants worked closely with health facilities to increase referrals of mothers and newborns with complications during the critical early post-partum period, from 15 to 107, and 17 to 94, respectively, based on KPC survey results at baseline and endline.

Another interesting example of MCHIP-supported efforts to tackle harmful social norms comes from Nicaragua. Nicaragua has some of the highest maternal and child mortality ratios in Latin America, according to WHO. Major contributing factors include poverty and sociocultural issues such as gender norms that limit women's access to health care, especially in rural areas.²¹ The cultural norm in Nicaragua is that men control household resources and are not expected to be involved in seeking care for their wives and children, especially during pregnancy, childbirth, and the postpartum period. Women are often unable to make decisions on their own, limiting their ability to access household financial resources and to seek health care in a timely manner.

Yet, most existing family- and community-level strategies to improve MNCH continue to target women. In response, between 2008 and 2012, Catholic Relief Services (CRS) and its partners implemented a Child Survival Project^{vii} in Nicaragua that worked with men to help them understand their role in improving their family's health. CRS worked with small groups of men using trials of improved practices (TIPS) to see what behaviors could be feasibly changed. CRS involved male leader volunteers who practiced these "improved" behaviors to work with other men, so that they too could practice the behaviors. Culturally appropriate messages addressing gender and masculinity regarding maternal and child health were developed based on TIPS' and CRS' prior experience working in the area. Endline surveys suggest that men in the intervention communities were more likely than men in the comparison communities to accompany their wives when seeking antenatal and newborn care and to participate in the delivery of their child. Both women and health providers remarked that at the end of this program domestic violence had decreased. Women also stated that they felt more supported by their husbands during their pregnancies.²²

Trials of Improved Practices (TIPs) is a formative research technique developed by the Manoff Group. Using TIPs, program planners pretest the actual practices that a program will promote. In essence, the technique consists of a series of visits in which the interviewer and the participant analyze current practices, discuss what could be improved, reach an agreement on one or a few solutions to try over a trial period, and assess the trial together at the end of the trial period. Positive results are then moved directly into program design.

Strengthening community-based service provision through use of community-based workers

Community health workers are a diverse category of health workers who have specific names, roles, and responsibilities, depending on the country context in which they work. These workers commonly work in communities, almost always outside of fixed health facilities, with some type of formal, but limited training.²³ Since CHWs are from the community, they can better address local social and cultural issues.²⁴

Community-based intervention packages, delivered through CHWs, can substantially increase coverage of multiple high-impact interventions and contribute to reductions in child and newborn mortality.²⁵ In this vein, MCHIP spearheaded global efforts to expand community-based services delivered through various cadres of paid or volunteer CHWs. This enabled those without access to facility-based services to still receive lifesaving health care services. CHWs can also engage

^{vii} Catholic Relief Services (CRS) received funding from USAID for the implementation of a four year Child Survival Project in Nicaragua (October 2008–September 2012). Goal: Contribute to the reduction of maternal and neonatal morbidity and mortality in the municipalities of Matiguas, Río Blanco, Paiwas, and Waslala of the Matagalpa Sistema Local de Atención Integral en Salud (local system of comprehensive health care) by 2012. There are 125 target communities and 13 Ministry of Health (MINSA) facilities.

communities in the process of taking responsibility for their health and in addressing the environmental, social, and cultural factors that produce ill health, including inequity, gender, and deep poverty.²⁶ In addition, CHWs have frequent interpersonal contact with community members, thus, accelerating the spread of promotion of health messages.²⁵

The WHO guidelines for postpartum hemorrhage recommend that all women receive a uterotonic immediately after birth.²⁷ However, in countries where the majority of births take place at home without a skilled birth attendant, it is impossible to achieve full coverage without community-based distribution. With this in mind, MCHIP supported pilot programs for community-based distribution of misoprostol, a uterotonic, in five countries: South Sudan, Guinea, Liberia, Rwanda, and Madagascar; and expansion of the program in an additional five countries: Bangladesh, Pakistan, Ethiopia, Mozambique, and Nigeria. In these countries, CHWs were expected to identify every pregnant woman in their catchment area through community mapping. Once women were identified, CHWs conducted home visits during pregnancy to educate women about how to use misoprostol, and distributed misoprostol to women during home visits. This strategy ensured that women who are unable to deliver in facilities had access to postpartum hemorrhage prevention with a uterotonic. In South Sudan, a country with only 11% of births occurring in a health facility, home health promoters achieved 94% coverage with a misoprostol among women giving birth at home. An important observation across all programs was that advance distribution of misoprostol did not reduce the number of women delivering at a health facility. For example, in Liberia, the average monthly number of facility deliveries increased from 82 during the comparison period (December 2011–June 2012) to 108 during the community-based distribution of misoprostol intervention period (December 2012–June 2013). (While the increase in facility deliveries and the program may be associated, it is not possible from this analysis to suggest causality.)

MCHIP has also provided global leadership for integrated community case management (iCCM), a child health strategy to address inequity by bringing services to those without access to health facilities.²⁸ Three-quarters of deaths in children under-five are still due to a handful of preventable and treatable causes—pneumonia, diarrhea, malaria, and newborn conditions.²⁹ In most high-mortality countries, facility-based services do not provide adequate access and coverage of treatments within the crucial 24-hour window, especially for the most disadvantaged populations. Through iCCM, CHWs are recruited and trained in diagnosis and treatment of the most common childhood illnesses and to identify children in need of immediate referral to facilities. In Kenya, MCHIP has worked with the MOH to advocate for task shifting and the introduction of iCCM to reach communities without access to health facilities. In Malawi, over 3,000 health surveillance assistants (CHWs who receive a government salary) covered 3,500 out of 4,000 defined hard-to-reach areas that are more than eight kilometers from the nearest health center. In Malawi, MCHIP used health surveillance assistants to increase the availability of iCCM in four districts. In Mali, MCHIP trained 100 community health workers in the essential community care package in Kita and Diema districts; part of the package includes iCCM.

In Egypt, MCHIP supported the training of 1,200 female CHWs, through local NGOs, who conducted home visits to identify all pregnant women, particularly women with first pregnancies, women who had a negative outcome of previous pregnancy, women who were not gaining one kg/month, and women whose children were underweight or stunted. Local NGOs worked with CHWs to conduct extensive social mapping to ensure that all households in their catchment area were included. MCHIP developed the Family Solidarity Module that facilitated participatory dialogues at the community level, which included husbands and mother-in-laws.

The Family Solidarity Module also served as a tool to train CHWs on how to introduce the concepts of gender roles, social and gender-based inequalities, domestic violence, and women's rights during each routine home visit. Additionally, the module sought to stimulate discussions

and behavior change with community members around the division of work and decision making in the household. The modules covered topics such as violence against women, control/access of resources in the household, and importance of nutrition for mothers and children. Twelve local NGOs were also trained on how to conduct gender analysis and the information that they gathered in each district was used to inform the Family Solidarity Modules. Some CHWs (three per village, out of a total of 12 per village) also received gender sensitization training. **Figure 2** below shows that the number of men that attended at least one antenatal care appointment with their wives was higher in MCHIP intervention areas (blue). Similarly, **Figure 3** shows that more men received advice on family planning spacing in project intervention areas than in comparison areas.

Figure 2. Percentage of husbands accompanying wives for antenatal care visits in intervention and comparison areas (MCHIP/Egypt)

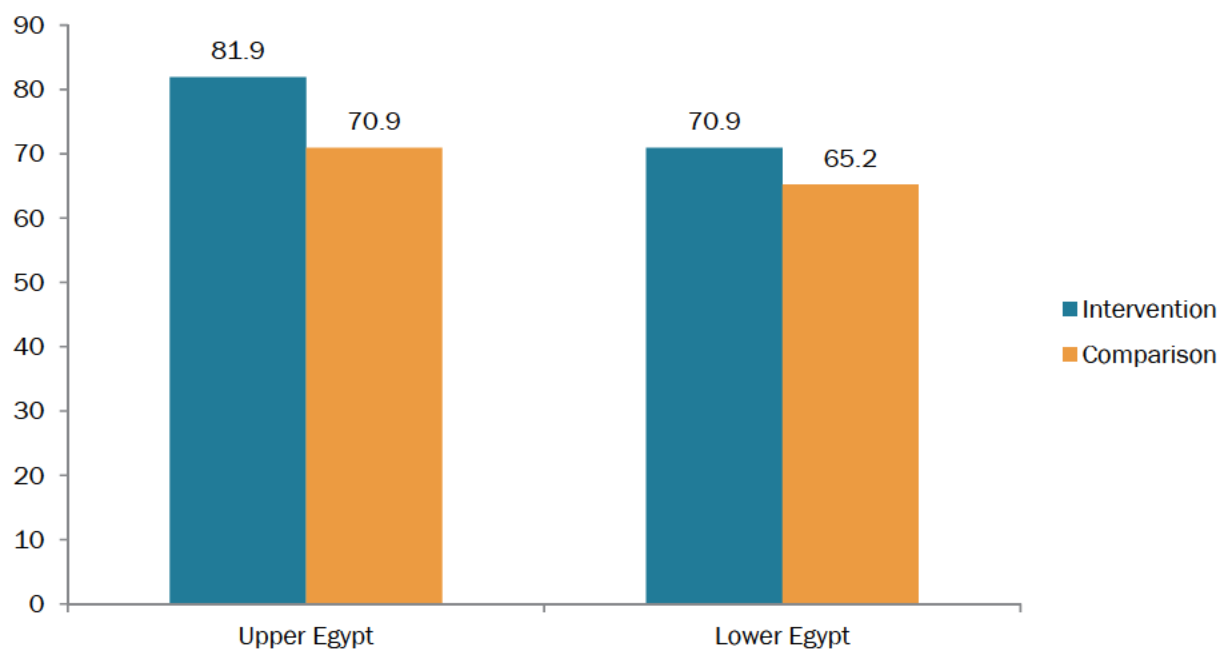
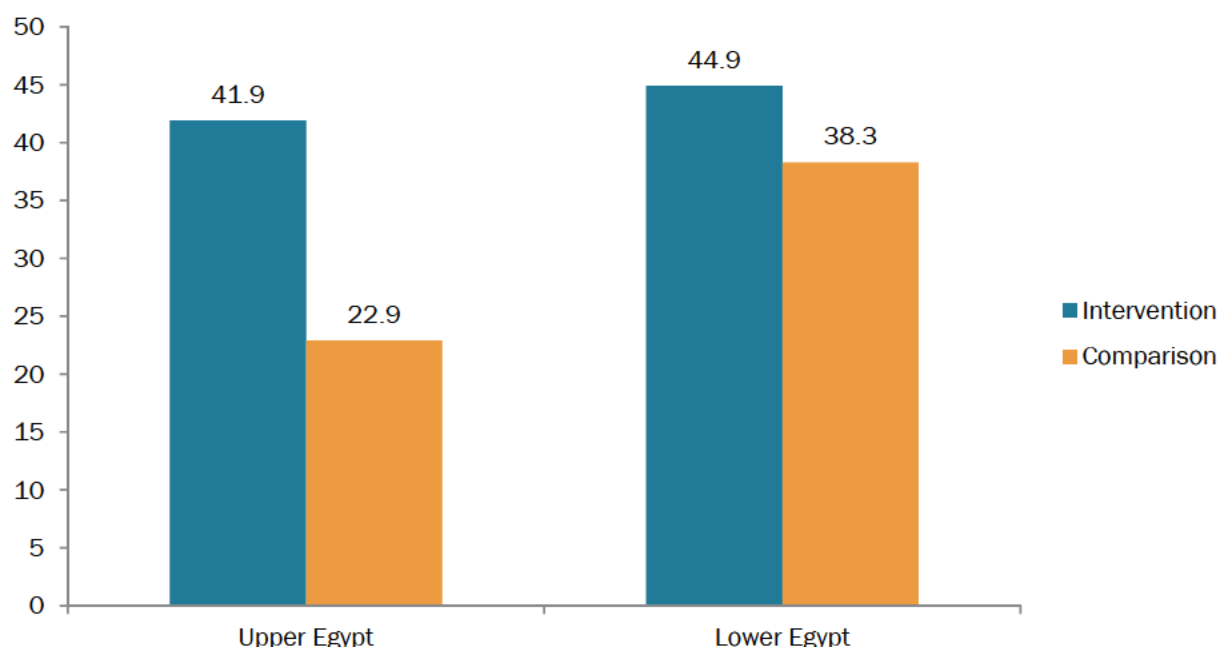


Figure 3. Percentage of men receiving advice on family planning spacing in intervention and comparison areas (MCHIP/Egypt)



Providing training to CHWs, who deliver essential services to communities, empowers the CHWs, who are often female community members. They benefit from skills development and, often, from community/peer recognition as well as increased status within their own households. In Egypt, for instance, female CHWs reported an increase in status within their households since they were empowered to work outside of the home, facilitate family solidarity meetings with men, and earned US\$50 per month. Female CHWs are able to increase access to services by women in the community who may not otherwise be able to get to formal services.

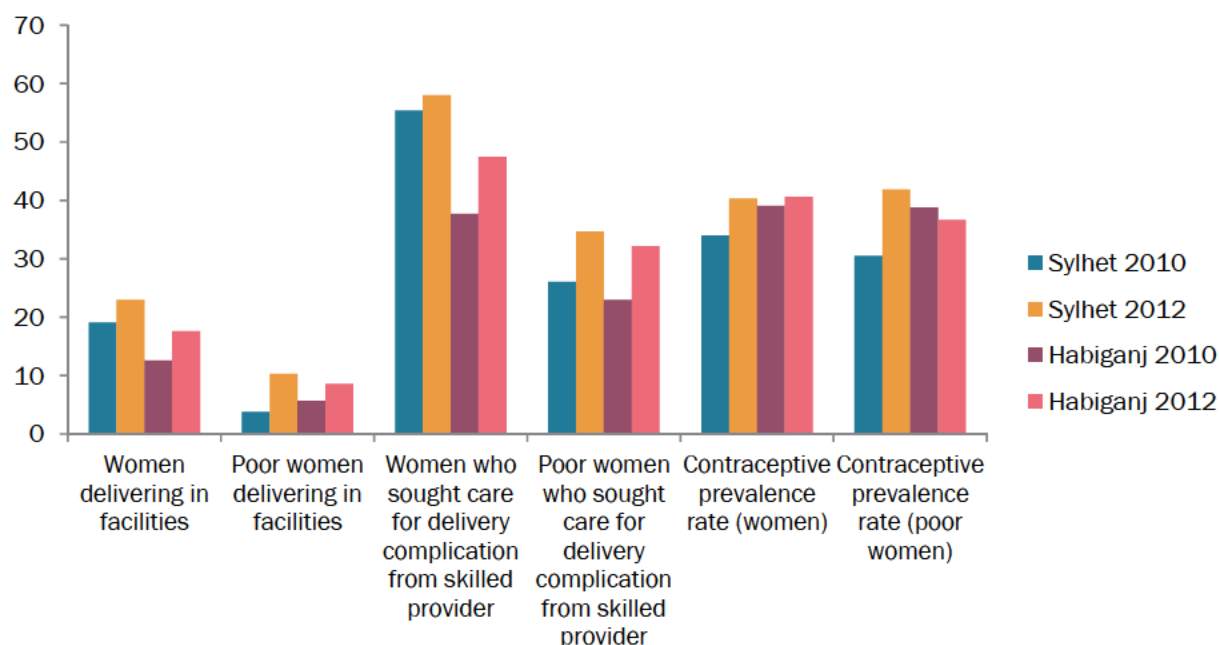
STRENGTHENING COMMUNITY-BASED SERVICE PROVISION BY ENGAGING CIVIL SOCIETY

MCHIP has also employed non-traditional methods of ensuring access to health services, even during times of conflict and unrest. In Egypt, MCHIP worked with local NGOs to implement mobile health units because the government was unable to offer services during the crisis. Originally, these mobile health units were operated by the Egyptian government to provide services for hard to reach populations, but demand for mobile services increased when facility-based public services deteriorated during the revolution and subsequent political turmoil. Approximately 38,000 women and children have received free health care from partner-operated mobile health units that MCHIP supported. The initial examinations were free, with medicine or laboratory work offered at a low-cost to patients.

The MCHIP Bangladesh program has also been on the forefront of developing innovative community strategies to increase equitable access to health services. The project financed the renovation of peripheral facilities, shifted skilled providers to those facilities, and developed a transport system to ensure timely referrals. In the urban slum communities in Habiganj municipality, Bangladesh, MCHIP partnered with private, local service providers to offer discounted rates for maternal health services to poor women. MCHIP facilitated negotiations between a cadre of private community skilled birth attendants and union parishads (i.e., local elected representatives) to achieve consensus around the prices charged by skilled birth attendants for maternity services and to ensure that services are free to poor women in the

community. Data in **Figure 4** illustrate the changes in key coverage indicators based on population-level surveys done by International Centre for Diarrhoeal Disease Research, Bangladesh.

Figure 4: Changes in population coverage for key reproductive, maternal, newborn, and child health indicators, for all women and for poor women in two communities in Bangladesh (MCHIP)



STRENGTHENING THE COMMUNITY VOICE

Strengthening the ability of ordinary community members to express their preferences and needs in terms of health care, and strengthening their ability to hold providers accountable for delivering quality, equitable care, is an essential part of enhancing health equity. MCHIP has supported several interventions that incorporate community accountability and auditing processes. This can result in increases in access through various mechanisms.

The African Medical and Research Foundation (AMREF) worked with district health management teams in Kenya to implement Partnership Defined Quality (PDQ), a community participation approach developed by Save the Children in the 1990s^{viii} to improve quality of care. In Mozambique, co-management committees, which are supported by MCHIP and comprised of health facility staff and community members, use a PDQ approach to engage communities and improve their connection with health facilities. At the same time, associated community health committees use a “community action cycle” to identify needs in order to educate communities and develop activities to improve access to health care, such as creating transportation plans for patients. These committees have detailed terms of reference that have been approved by the MOH and stipulate group composition—for example, women should make up 60% of the committee—and that community leaders should assist in identifying community members who can participate on the committee. This approach invites community

Partnership Defined Quality

Partnership Defined Quality is an approach for improving the quality and accessibility of health services with community involvement in defining, implementing, and monitoring the quality improvement process. PDQ links quality assessment and improvement with community mobilization and has been implemented by CHWs, mother-to-mother groups, and other community groups together with health facility staff.

^{viii} Core Group. Partnership Defined Quality [Webpage]. www.coregroup.org/our-technical-work/initiatives/diffusion-of-innovations/83

members and service providers to enter into an ongoing, respectful, constructive dialogue where expectations and concerns are discussed, and joint actions are agreed.

MCHIP also uses the Community Action Cycle, which is a community-led process that engages those most affected by, or interested in, MNCH issues. Through the Community Action Cycle, the groups set priorities, plan, act, and evaluate their actions together. The participation of those individuals who have been most affected by high maternal and newborn deaths contributes greatly to finding solutions.

The PDQ process increases a community's capacity to assess, plan, and act collectively for improved MNCH outcomes by organizing and building the capacity of Community Health Committees. To date, MCHIP has helped the MOH establish 73 Co-Management Committees. MCHIP has also assisted the MOH to establish 216 Community Health Committees in 20 districts and lead them through the application of the Community Action Cycle process. MCHIP is currently in the process of analyzing the service utilization data from Mozambique, but expects that the Community Action Cycle and PDQ approach have led to an increase in access, quality, and utilization.

MEASUREMENT AND LEARNING: MONITORING AND EVALUATING FOR EQUITY

There is no one way to measure equity in MNCH programs.^{ix} In this section, we will present two examples of measurement of health equity used by two CSHGP grantees (ChildFund International in Honduras and CRS in Nicaragua), which demonstrate practical approaches to measurement that are easily incorporated in to project implementation.

When collecting and analyzing standard health outcome indicators, such as skilled attendance at birth, information systems need to disaggregate information by the groups identified as disadvantaged, which may be the poor (i.e., lower socioeconomic quintiles), geographically isolated populations, ethnically diverse populations, etc. Qualitative information is also essential to more deeply explore changes in attitudes and perceptions and complement standard indicators. This information should be collected at baseline as well as endline.

ChildFund International/Honduras results:

Evaluations of CFI's project in Honduras showed that health coverage for clients served by Community Health Units increased, for example, percentage of fully immunized children increased from 73.7% (2009 baseline) to 100% (2013 endline) and health facility births increased from 71.4% (baseline) to 93.7% (endline).

A costing study found that expenditures by families decreased: families saved US\$6.03 by using Community Health Unit services for child health problems compared to MOH health posts and US\$70.24 for similar services from an MOH hospital.

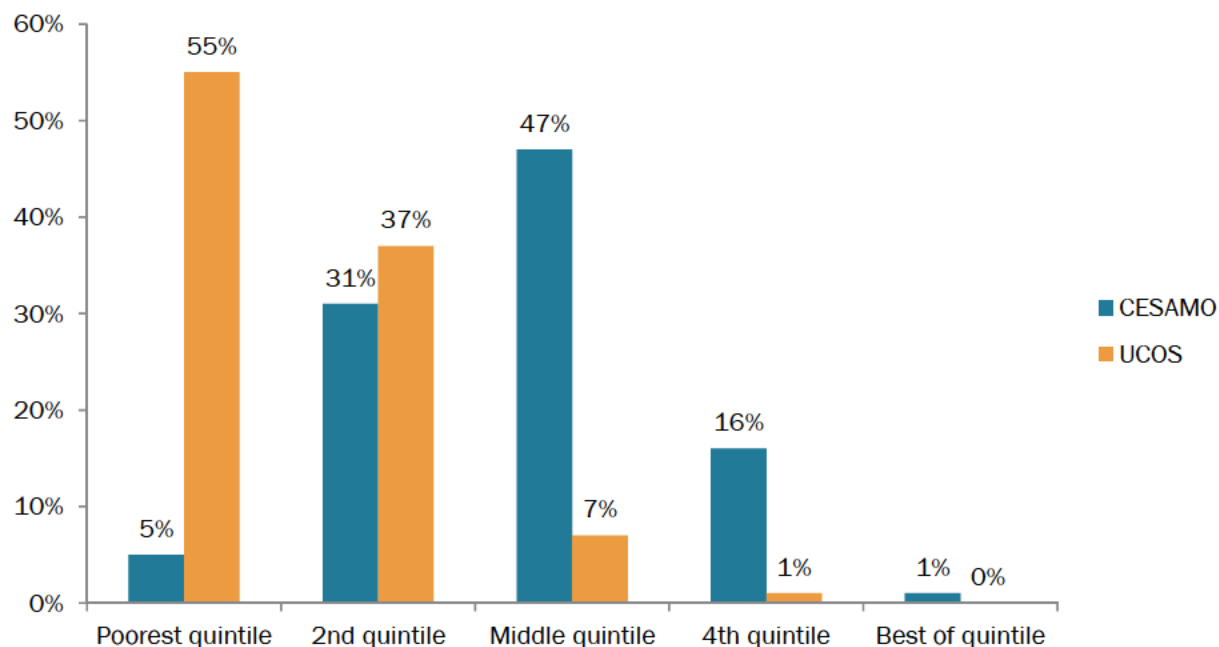
MCHIP provided technical assistance to ChildFund International (CFI) to construct socio-economic profiles of beneficiaries (from brief client exit interview data at peripheral facilities) in their CSHGP project in Honduras.^x These profiles were used to compare clients of Community

^{ix} Methods for measuring progress in equity include: monitoring users of services, disaggregated by the group of interest; KPC surveys; asset-based wealth quintile analysis; qualitative research to understand complex social changes; relative index of inequality and Slope index of inequality; and client service statistics tool. *Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects*, 2011. Available here: http://www.mchip.net/sites/default/files/Equity%20guidance_090111_formatted_final_0.pdf

^x ChildFund International was awarded a Child Survival and Health Grant through USAID for a four-year period (October 1, 2009–September 30, 2013) to work in Honduras in 12 Municipalities of the South of Francisco Morazán: Ojojona, Santa Ana, Nueva Armenia, San Buena Ventura, Sabana Grande, San Miguelito, La Libertad, Alubaren, Reitoca, Curaren, La Venta del Sur, and Lepaterique. MCHIP provided a small amount of funding and provided technical assistance to CFI so they could apply the socio-economic tool to the beneficiary population of their CSHGP project in Honduras and confirm that their interventions were in fact pro-poor.

Health Units^{xi} and of MOH facilities in the same geographical area. They found that Community Health Units served a poorer population than the MOH health facilities in the same regions (Figure 5). Fifty-five percent of Community Health Unit clients were from the poorest economic quintile; while only 5% of MOH facility clients were.^{xii}

Figure 5. Socio-economic profile of service users of community health units (UCOS) and MOH facilities (CESAMO). (CFI/Honduras)



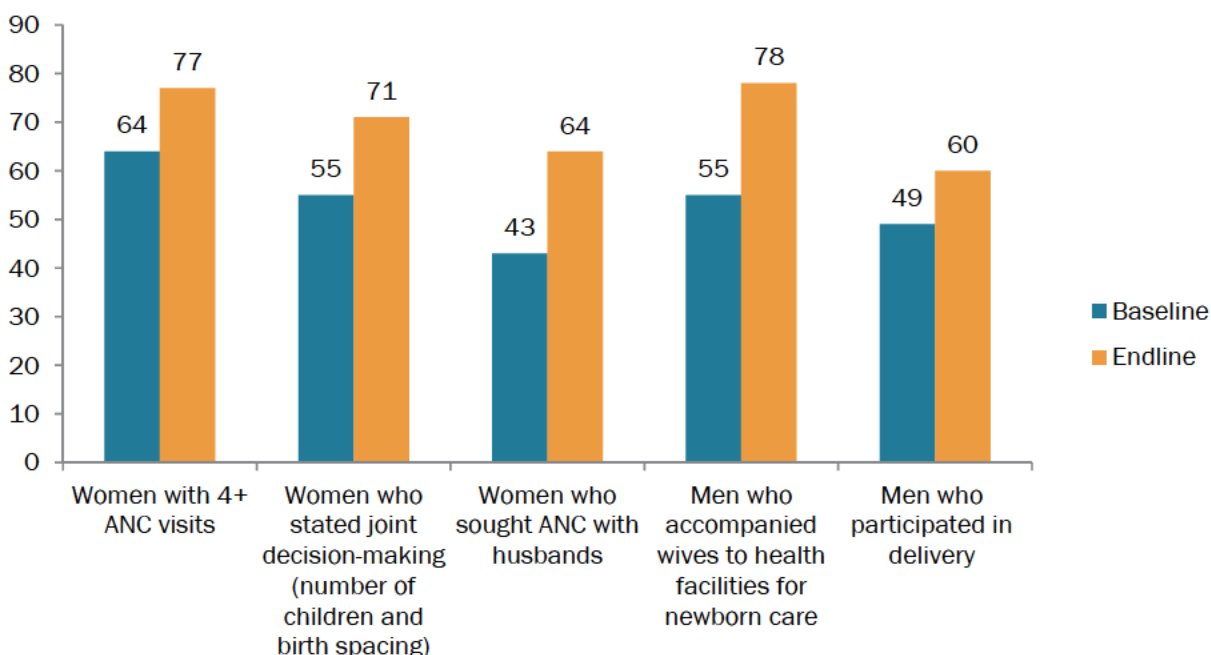
In some cases, special indicators can be identified for tracking and evaluating changes in the underlying conditions that lead to inequity. For example, the CRS project in Nicaragua tracked changes in the behavior of men in terms of the degree to which they actively participate and make decisions jointly with their wives about pregnancy and newborn care. CRS used a quantitative household survey (i.e., a modified KPC survey) conducted at baseline and at the end of the project to measure service utilization and key health coverage: antenatal care (four visits); postpartum care within two days; and skilled birth attendance. The survey also measured male involvement: joint decision-making for care-seeking and husbands' participation in care (accompanying wives to health facilities) (Figure 6). A qualitative study was also conducted to complement the KPC household survey and document the behavior change process and results. Final results of both the qualitative and quantitative surveys showed statistically significant increases in antenatal care; skilled birth attendance; postpartum care; joint decision-making; and men's participation in antenatal care, delivery, and newborn care. Qualitative surveys also discovered one unexpected result of the intervention—women reported that in addition to their husbands' increased participation in their health care and that of their newborns, they also saw marked decreases in domestic violence.¹¹

^{xi} Community Health Units (UCOS in Spanish) are structures where various cadres of volunteers provide basic maternal and child health services, including community-based integrated management of childhood illnesses, community case management of pneumonia and diarrhea, vaccinations (in coordination with health posts), family planning, growth monitoring and counseling, and basic maternal and newborn health care and counseling. Community Health Units were designed to be financially self-sustaining, managed by the communities, and supervised by the MOH.

^{xii} CFI/Honduras Final Evaluation Report

http://mchipngo.net/controllers/link.cfc?method=project_doc_searchresult&PVO=8&Country=69&ProjYear=all&report=Final&CFID=921603&CFTOKEN=32805504

Figure 6. Service utilization and male involvement, baseline and endline (CRS/Nicaragua)



To summarize, there are practical tools for tracking equity. These included qualitative and quantitative techniques; facility and population based information; and routinely collected data as well as special studies. The data gathering and analysis does not need to be onerous, but there needs to be a commitment to collecting, analyzing, and using the data to help target interventions to those most in need of them. It is best to begin collecting this information at baseline and to combine this with process documentation to be able to fully understand the effect of activities to improve health equity.

Summary of Lessons Learned Applying Equity Strategies

The following are several of the key lessons learned through MCHIP's and CSHGP's work over the course of programming for equity.

CLEARLY DEFINE EQUITY GOALS FROM THE OUTSET

To reach the most disadvantaged populations, programs must incorporate a health equity focus from the beginning by involving national and local governments and institutions as well as communities. Equity will not be achieved as a byproduct of other developmental efforts—i.e., health interventions will not automatically reach or benefit the poorest and other disadvantaged groups. In fact, unless strategies are adopted specifically, interventions can have the unintended effect of exacerbating inequities. Programs need to clearly define equity goals and communicate them to program stakeholders, along with what specific actions are aimed at improving equity; how these improvements will be demonstrated and measured; and how these actions, if successful, might be sustained, institutionalized and scaled up.

A desk review of existing information about the intervention area, complemented by additional formative research if needed, can help to provide a basic understanding of which health interventions are most inequitably distributed, which groups are disadvantaged, and what the underlying factors are that drive these inequities.

MCHIP's checklist and equity guide can be used when designing a program, or to refine current programming, to ensure equity is addressed. The checklist is based on a six-step process, which is aimed at reaching a consensus among stakeholders of the equity issues; aiding in the development of strategies to enhance equity; developing monitoring and evaluation systems to track equity; and developing communications plans concerning the lessons learned about equity.

Six-Step Checklist for Health Equity Programming

1. Understand the equity issues in the intervention area:
 - Identify inequities in health outcomes and the magnitudes of the differences
 - Understand underlying issues and barriers
2. Identify the disadvantaged group on which to focus
3. Decide what is in the program's manageable interest to change
4. Define equity goals, objectives, and a specific definition of equity
5. Determine equity strategies and activities
6. Develop and implement an equity- focused monitoring and evaluation plan

Adjust programming to the pattern of inequities for specific health outcomes

Discussions about specific patterns of inequities began under MCHIP, but should continue in subsequent programming. For example, during the design phase of the MCHIP Yemen associate award there was recognition that overall skilled birth attendance is very low, so initial plans were to work with everyone. However, asset questions are being added to the baseline to gain further understanding of the pattern of inequity and to adjust activities appropriately. These discussions should be part of the design of all programs. Cesar Victora provides an analysis of patterns of inequities that are useful to consider when designing programs.^{xiii} He describes three patterns of inequity each requiring a different approach.

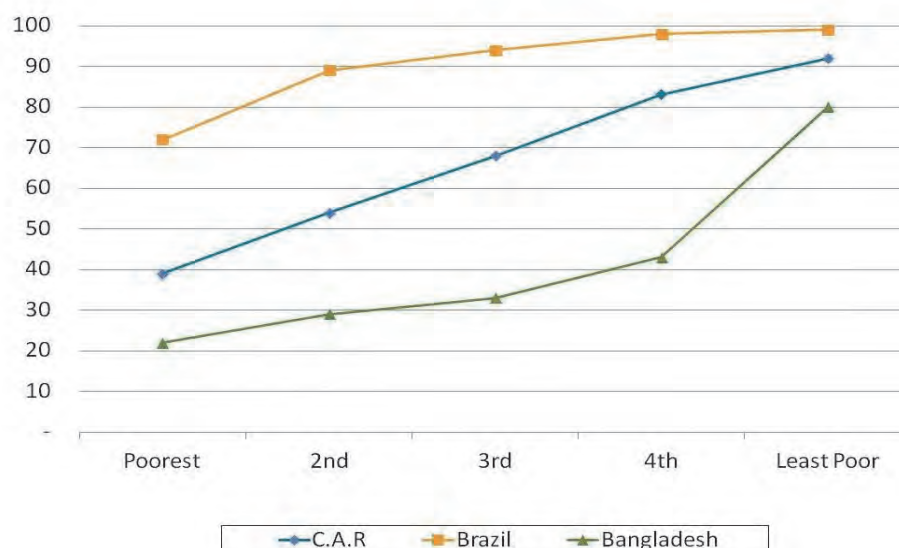
1. "Bottom inequity," where coverage is high except for the lowest quintile. Under these conditions, programs that are targeted at the poorest families or geographical areas are essential to reach universal coverage, because the better-off groups are already well served.

^{xiii} Victora CG, Vaughan JP, Barros FC, Silva AC, Tomasi E. 2000. Explaining trends in inequities: evidence from Brazilian child health studies. *The Lancet*; 356.

2. “Top inequity,” where coverage is low for everyone except for the wealthiest. Under such conditions, individual or geographic targeting does not make much sense, and widespread interventions are needed to reach the 80% of the population who are underserved.
3. “Linear inequity,” which starts with low coverage for the lowest quintile, but steadily improves with subsequent quintiles. This requires working with populations from all wealth quintiles except for the wealthiest, but paying special attention to the poorest quintile.

Figure 7 illustrates these patterns in three different regions:

Figure 7. Percentage of mothers attending antenatal care by wealth quintile, in Central African Republic (CAR), Brazil, and Bangladesh (DHS)



UNDERSTAND THE POTENTIAL EFFECTS ON INEQUITIES WHEN PROGRAMS ARE SCALED-UP AND DEVELOP STRATEGIES TO AVOID INCREASING INEQUITIES

Because marginalized populations are often the hardest and most expensive to reach, it may seem more efficient to concentrate on scaling up interventions for those who can be reached with fewer resources. However, recent modeling analyses show that although strategies that target marginalized populations may cost more per beneficiary, they may in fact be more cost effective³⁰ and that universal coverage can never be achieved without specifically targeting these populations. This is illustrated by modeling work done by Davidson Gwatkin, as part of an analysis done for the World Bank.³

INCLUDE COMMUNITY-BASED SERVICE PROVISION

In many developing countries, significant portions of the population lack access to quality health services for a variety of reasons. Providing health services through community-based approaches is a promising strategy to help increase health equity by overcoming the access barrier. MCHIP experience suggests that the best way to achieve high-quality community-based services is through linkages with the formal health system. In Bangladesh, MCHIP linked CHWs to the nearest health facility, for supportive supervision to ensure the quality of the services, as well as to the local governance system, to provide social acceptance. MCHIP also trained private cadre of community skilled birth attendants so that communities without reasonable access to health services have a private provider available in their communities. These private providers were

linked to local elected representatives to jointly determine how much they could charge and ensure free services to poor women, as identified by local government representatives.

Recommendations for Future Programming

The renewed international emphasis on universal health coverage and attention to equitable health coverage provides an opportunity for programs to systematically design, implement, monitor, and evaluate health equity. A diverse set of stakeholders, including community members, civil society organizations, local and national authorities, MOH, and research institutions, should be included in initial consultations to identify equity issues. Decisions about programming to increase health equity must be tailored to the national and local context. Although socio-economic status is the most easily identifiable determinant of inequity, factors such as place of residence, ethnic group, gender, and age (especially for adolescents) may also be important. This requires more planning than untargeted scaling up that increases overall coverage without targeting or applying resources to improve coverage of vulnerable populations. Several recent analyses show that although this may cost more per client, equity-focused approaches may be equally or more cost-effective than non-targeted approaches (i.e., cost per outcome).^{16,31}

STRENGTHEN THE FOCUS ON PLANNING FOR EQUITY

Understanding the health equity situation does not need to be time-consuming. National survey data, such as from the DHS, can be used to identify wealth groups or geographic areas with poor health coverage for high impact reproductive, maternal, newborn, and child health interventions. Rapid qualitative information gathering from local authorities and community members can also provide valuable information on vulnerable and inequitably served groups. Additional assessments can be performed as time and budget permit once an initial understanding of the situation is obtained, but systematic decisions about improving health equity can be discussed and made early on.

It is important to understand the underlying social determinants that produce inequities. Key information can be gained through consultation with various stakeholders, including community members and service providers. Decisions should be made and recorded about how to address these conditions. For improving gender equity, it is crucial to involve men, especially in helping them see how their participation improves the health of their family. Situations, such as early marriage, gender-based violence, and women's limited resources and agency in decision-making are areas that often lead to poor health outcomes. It is important to remember that improving gender equity is more than just ensuring that girl and boy children receive equal health coverage, but that families, communities, and the health system provide an environment that allows women and men both to make decisions that improve health.

CONTINUE FOCUS ON STRATEGIES INVOLVING CHWS AND COMMUNITY-BASED SERVICE DELIVERY; MONITOR AND REPORT ON PROGRESS

Health equity is unlikely to improve unless activities are extended beyond health facilities and into communities. CHWs play a foundational role in reaching every household with essential services and providing a referral link to enable people to more readily and effectively access higher-level services within the health system. Alternative delivery channels that include private NGOs and for-profit providers should also be considered.

In order to ensure equity strategies are having the intended effect, equity monitoring systems must be implemented. Again, these can involve simple and feasible measurement, which can include stratification of client data on routine health facility forms and CHW registers. Primarily collected data can include exit interviews of clients or rapid population surveys of groups, again disaggregating information by relevant advantaged and disadvantaged groups. Asset questions can be included so that socio-economic profiles can be constructed to determine if those receiving

services are actually from lower socio-economic groups. This is especially needed for interventions at the health facility, which tend to be the least equitably distributed.

This information should be monitored regularly and included as part of evaluations, so that progress can be demonstrated or corrective action taken.

BRING IN A FOCUS ON FINANCIAL MECHANISMS TO INCREASE EQUITY

Although not discussed in this brief, financial mechanisms for improving equity can and should be one of the types of strategies employed. These strategies include policy mechanisms to reach universal health coverage. At the point of service at the local level, mechanisms like conditional and unconditional cash transfers, transportation vouchers, and demand-side incentives have all received attention and shown promise recently. Some of these experiences like India's Janani Suraksha Yojana have shown mixed but promising results at scale.³²

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Annex: Designing a Project through an Equity Lens: Case Studies

International nongovernmental organizations participating in USAID's Child Survival and Health Grants Program (CSHGP) have long been concerned with reaching the most vulnerable populations with lifesaving health programs. These organizations work in difficult, underserved, often isolated communities; in recent years, many have also made a particular effort to focus on achieving health equity **within** those communities. In other words, these groups are working to improve the health situation of the most disadvantaged groups within areas that are already worse off than other parts of the country. As more organizations begin to design programs with an equity focus, examples from existing work can help inform those designs. This paper provides case studies of current CSHGP projects that have taken special steps to address health equity in their programming.

THE CASE OF WORLD RENEW IN BANGLADESH

World Renew (formerly Christian Reformed World Relief Committee) began a child survival project in 2009 in two subdistricts of Netrokona, Bangladesh. Having worked in Bangladesh for many years and having implemented a previous child survival project, World Renew wanted to focus its efforts on reaching the most vulnerable populations—and documenting the success of its strategies. The project's first decision to address equity was in the choice of Netrokona, a drastically underperforming district prioritized by the Government of Bangladesh. Recognizing that reaching an underserved area was not sufficient to achieve equity, the project also decided to prioritize the poor and marginalized **within** the project area. World Renew also decided to focus on two underlying causes of inequity and test the theory that the project model better reaches the marginalized and improves equity, compared with existing models in the country.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from World Renew's CSHGP project.

Use secondary data to get an initial understanding: World Renew first identified the wealth inequity by reviewing secondary data. In the results from the national-level Demographic and Health Survey (DHS), the team found gaps in knowledge and coverage between the highest and lowest wealth quintiles, demonstrating that poverty leads to health inequities in the project area.

Build equity questions into your Knowledge, Practice, and Coverage (KPC) Survey: The World Renew team then confirmed these findings with their own local KPC data by adding in questions about household assets to compare socioeconomic quintiles. For example, in the lowest quintile, only 27.3% of women reported consuming iron/folate in their last pregnancy, versus 57.7% of women in the highest quintile.

Enrich your understanding of equity issues with qualitative techniques: To better understand the inequities between wealth quintiles, World Renew Bangladesh conducted participatory rural appraisal (PRA) activities to identify causes of inequity. Community members reported discrimination by health workers, inadequate staffing, poor transportation, and lack of awareness as reasons the poor have lower coverage. PRA also allowed the project to work with community members to identify the poorest villages in each “union” (smallest administrative and local government unit) of the project area. The community members explored the causes of poverty, as well, which include bad road transportation, lack of formal education, landlessness, and few earning opportunities. As part of the project's operations research plan, World Renew

has hypothesized that low social capital^{xiv} and poor community mobilization^{xv} are by-products of these underlying causes and that by increasing both social capital and community mobilization among the poor, the project can achieve significant improvements in maternal and newborn health (i.e., engage poor and disadvantaged populations by empowering them to get quality health care services).

Frame your project's goals in equity terms: After identifying the inequity, deciding to prioritize the poor, exploring underlying causes of the inequity, and deciding what the project could realistically change, World Renew formulated the project's overall goal with an explicit equity focus: "To reduce mortality and improve health status among the most marginalized mothers and newborns in two subdistricts of Netrokona: Kendua and Durgapur." It then designed the project's activities to directly increase equity. The project will define success in reducing inequity as an increase in KPC health indicators for the lowest wealth quintile of the intervention area, as compared to the control.

Use the data you've gathered to drive your strategy: World Renew Bangladesh's primary equity activity is a community mobilization strategy called "People's Institutions" (PIs) that addresses social exclusion (low social capital). The members of the primary groups that form the PIs are exclusively from the lower socioeconomic classes. Groups formed through this strategy also may decide to work on literacy and income generation, two other underlying factors of inequity. The strategy includes training community health volunteers and traditional birth attendants (TBAs) and facilitates linkages and relationships between marginalized communities and health systems/facilities (a part of social capital). Other related activities that directly target poor health outcomes include Community-Based Integrated Management of Childhood Illness to reach families that do not have access to (or do not choose to access) health facility services and behavior change communication to reach illiterate families (addressing the poorest population's lack of health knowledge identified in PRA).

Build equity into your monitoring and evaluation system: To measure the success of its equity efforts, the project is conducting operations research using both qualitative and quantitative methods. Qualitatively, the project will explore the process of the community mobilization strategy through focus groups, interviews, and participatory exercises—examining how groups form and, specifically, the role of the poor in these groups.

Quantitatively, the project is using the KPC data disaggregated by wealth quintiles to measure health indicators (the outcome of inequity) and the World Bank's Social Capital Assessment Tool to measure social capital (underlying factor of inequity). The KPC Survey is being conducted in both the project area and a similar control area, which will allow World Renew to measure equity progress. The mid-term KPC Survey (which was conducted only in the intervention area) compared wealth quintiles for two sentinel indicators—antenatal care and skilled birth attendance. Both indicators showed reductions in the gap between the highest and lowest quintiles. While not definitive without control group measurements, the results suggest that the project is making progress toward reducing inequities. (The final KPC Survey will take place in July 2014.)

The project's operations research will test the theory that improving social capital and community mobilization will improve equity of health indicators between the poorest quintile and the others. During the final evaluation, the project will employ a comparative multiple-case-study analysis of

^{xiv} Social capital is the benefit one derives from being part of cooperative social networks and includes two components: structural social capital (number of contacts and place in social network) and cognitive social capital (perceived support and trust of others in social network).

^{xv} Community mobilization is defined as a capacity-building process through which community individuals, groups, or organizations plan, carry out, and evaluate activities on a participatory and sustained basis to improve their health and other needs, either on their initiative or stimulated by others. Source: Howard-Grabman L, Snetro G. *How to Mobilize Communities for Health and Social Change*. Baltimore, MD: Health Communication Partnership; 2003.

the various PIs formed. World Renew will explore differences in social capital and community mobilization between the PIs that have greater equity in health outcomes with those that have less to explain the means by which the PI strategy reduces inequities.

For more information on World Renew's CSHGP project in Bangladesh, please contact Alan Talens at atalens@worldrenew.net.

THE CASE OF CENTER FOR HUMAN SERVICES IN ECUADOR

When the Center for Human Services (CHS) began the design phase of its child survival project in Cotopaxi, Ecuador, it was challenged to make a hard choice between reducing the scope of activities that it had originally envisioned or narrowing the project's geographic focus. Initially, CHS had planned to cover all 40 parishes in Cotopaxi Province (total population of 384,499), but concerns about drastic inequities uncovered during formative research led CHS to scale back from 40 to 21 parishes (total population 196,082). Planners prioritized parishes with a high percentage of marginalized populations (indigenous and poor), recognizing that the project could make the greatest impact on health outcomes by working in these areas. In order to further ensure the project was addressing inequities, CHS explored the causes of poor service utilization by these marginalized populations. By specifically addressing these causes, the project is targeting the indigenous and poor through its choice of activities.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from CHS's CSHGP project.

Use secondary and primary data to identify inequities: CHS identified inequities between ethnicities and socioeconomic levels by reviewing data from the National Survey on Maternal and Infant Health. The data showed much higher rates of maternal/newborn morbidity and mortality among the indigenous and extreme poor. It also revealed lower rates of health care utilization among the indigenous population in the project province as compared to the *mestizo* populations (those of mixed European descent). For example, the rate of home births among the total population was 46.5%, while for indigenous women it was 71.4%. CHS then conducted its own KPC Survey in the project area to confirm the same findings locally. The two indicators with largest inequities between the two groups were antenatal care (four or more visits) (49% indigenous vs. 77% mestizo) and delivery in a health facility (36% indigenous vs. 89% mestizo).

Explore underlying causes of inequities: To better understand why indigenous women were not accessing services, CHS conducted focus groups with trained traditional midwives. The focus groups found the cultural differences between the indigenous population and the primarily mestizo health workers was a major barrier, along with a lack of confidence in the health services and mistreatment by health workers. Midwives also reported difficulties in referring patients: many health workers did not value or recognize midwives' work in the communities and midwives lose credibility in the community if they recommend that families access institutional health services. Additionally, many indigenous communities are located far from the health centers, making geographical access another important factor in the inequity. CHS also reviewed national data which found that indigenous families preferred home births due to several factors: active presence of a family member during delivery; use of traditional teas or foods; personal choice of delivery position, room temperature, clothing, and lighting; emotional support; presence of nonthreatening TBA or family member assistant as opposed to the authoritarian behavior of doctors and nurses in facility deliveries; and an overall sense of the delivery being not mainly a "medical event" but rather a socially significant family and community event.

Prioritize the disadvantaged group(s): After identifying the inequities and exploring the underlying factors, CHS chose to focus project efforts on select parishes that had high proportions of extremely poor (>50%) and/or indigenous (>40%) citizens with the "expectation that targeting

these parishes would allow the project to have the greatest impact on service coverage, household knowledge, care utilization, and maternal and newborn morbidity and mortality.”

Use data to develop realistic strategies: Recognizing that both cultural factors and geographic access were primary underlying causes of the low rate of service utilization among the indigenous population, CHS had to decide what could be feasibly changed within the project’s time and resource constraints. Instead of making efforts to change traditional cultural practices in the community, the project decided to improve the cultural responsiveness of institutional health services and to bring certain services to the community itself to address distance barriers.

Primary strategies and activities to address these equity barriers included fostering inclusion of the indigenous members in local community groups for advocacy with the health system, increasing awareness of rights of health service users, and using a method developed by USAID’s Quality Assurance Project to improve cultural responsiveness of health facilities. The method, which has been incorporated into national Ministry of Health (MOH) guidelines, brings together community members (women, TBAs, etc.), local government representatives, and health workers to incorporate cultural elements in obstetric and newborn care that meet women’s demands.

Activities to improve geographic access involve training existing TBAs and strengthening parish health outreach teams to bring services (specifically early postnatal visits) to women’s homes. The project is employing a strategy to integrate traditional community health systems and the formal health system through micro-networks that bring community leaders, TBAs, and skilled birth attendants together in monthly meetings to plan and coordinate activities for improving maternal and newborn care in their parishes. These linkages serve to improve TBAs’ skills, increase trust between communities and health providers, facilitate referrals, and increase demand for care from the formal health system—all of which are designed to overcome the cultural and geographical barriers that create inequities between the indigenous and mestizo populations.

Develop equity goals and objectives that allow for comparing outcomes between disadvantaged and advantaged groups: To assess progress toward reducing inequities identified at baseline, the project used the KPC Survey to disaggregate data by ethnicity (indigenous and mestizo) for two sentinel indicators (antenatal care and facility delivery). The final survey showed reductions in the gap between the groups for both indicators, but the largest gain was in facility births.

For more information on CHS’s CSHGP project in Ecuador, please contact Kathleen Hill at khill@urc-chs.com.

THE CASE OF CHILDFUND IN HONDURAS

ChildFund (formerly Christian Children's Fund) had been working in Honduras for many years when it began designing its child survival project for the Department of Francisco Morazán, an area with challenging mountainous terrain and high poverty rates. ChildFund's own experience, coupled with a careful review of secondary data, showed that the poor not only had less physical access to health services, but that the quality of health care was much lower than what was available in wealthier urban centers. Recognizing the geographic and financial barriers to equitable health service access, ChildFund set out not only to bring services to the communities but also to ensure quality and reduce costs at the same time.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from ChildFund's CSHGP project.

Use secondary and primary data to identify inequities and their underlying causes:

ChildFund reviewed data on costs of health services from its own studies (done in previous projects) and from the MOH. The results showed that private expenditure on health was extremely high and identified cost as a major barrier to accessing health care. In the project area, ChildFund found that facility birth was nine times more expensive than home birth and that bringing services directly to the community reduced family expenditure on health care by as much as 32 times. ChildFund used government data to map health services and providers, clearly showing that coverage was much lower in the project area. Health facilities were insufficient and generally located in the most densely populated areas, and the ratio of physicians to population was eight times higher in urban areas than in rural ones. Furthermore, MOH studies showed that health services in high-poverty regions were of poor quality—demonstrating various weaknesses, including staff absences, short hours, and disrespectful treatment of patients.

ChildFund then conducted both a KPC Survey and a GPS mapping exercise to establish baseline figures for access to and coverage of services. These confirmed the other studies, showing that two-thirds of pregnant women walked two hours or more to access health services, less than 40% of women had a postpartum check within a week of delivery, and that over a quarter of births took place at home.

Prioritize the disadvantaged group(s): Because the data showed that geographical access (and interrelated financial access) were the primary causes of low service coverage, ChildFund used the results from its GPS mapping exercise to identify the 20 least-served locations to target with its most intense community-based service delivery. This exercise factored in several variables, including locations of existing health services, transport, population, and community resources. ChildFund and its partners tailored the project strategy to the existing health care available to the communities. In the most remote areas, Community Health Units (abbreviated as “UCOs” in Spanish) were established to oversee provision of basic maternal and child health services, but in communities closer to health posts, volunteers and community groups were linked to the post for supervision and support.

Define equity and develop equity goals and objectives: ChildFund defined equity for the project as “improved physical access to services, better population coverage, and reduced health costs among the poor.” It also incorporated equity into one of the project's three primary objectives: “Systematize a community-based model of maternal, neonatal, and child health and nutrition services within the project area, improving equity and quality.”

Develop strategies to feasibly address inequities: ChildFund's previously tested strategy of using UCOs indicated that UCOs could **increase coverage for key child health services, lower client costs, and improve quality of health care.** The UCOs are structures where

various cadres of volunteers provide basic maternal and child health services, including Community-Based Integrated Management of Childhood Illness, community case management for pneumonia and diarrhea, vaccination (in coordination with health posts), family planning, growth monitoring and counseling, and basic maternal and newborn health care and counseling. UCOs were designed to be financially self-sustaining, managed by the communities, and supervised by the MOH. ChildFund explained the rationale for the strategy in its detailed implementation plan: "The UCOs approach addresses . . . service delivery challenges by extending basic services to unserved areas. . . . UCOs increase the number of delivery points, and integrate and streamline multiple vertical MOH programs, making them more accessible to remote communities and complementing MOH peripheral facilities."

Measure and evaluate success of equity strategies: To evaluate the success of its strategy, ChildFund measured three types of results at the end of the project: health service coverage (and practices), access, and out-of-pocket expenditure. The first two were measured through a KPC Survey, and the last was assessed from a survey of clients at each level of the health system. ChildFund found that coverage and positive health practices (such as prenatal care and breastfeeding) increased significantly, as did geographic access (percentage of women walking less than an hour to receive services). The cost study demonstrated the effectiveness of the UCO strategy at reducing client out-of-pocket expenditures, thus increasing financial access. The survey questions considered costs for time requirements of the patient and caregiver, transportation expenses, any fees for direct services, expenses for medicine and supplies, and food and beverage costs. Results showed that UCO services reduced family out-of-pocket expenditures by 400%, 600%, and 2,300%, respectively, as compared to a health post, health center, and hospital.

Finally, the project also conducted an equity study to assess the success of UCOs at reaching the poorest families in the project area by applying a socioeconomic profile of UCOs users. The study involved five steps:

1. Use questions and predefined responses from the DHS to create an asset index of wealth quintiles (see box 1).
2. Conduct exit interviews with clients of UCOs and MOH health facilities (abbreviated as "CESAMOs" in Spanish) that serve the same geographical areas.
3. Calculate the asset index for responses by applying weights from the DHS (from Step 1).
4. Assign socioeconomic quintiles to respondents.
5. Group respondents into national asset categories with separate analyses of UCO clients and CESAMO clients.

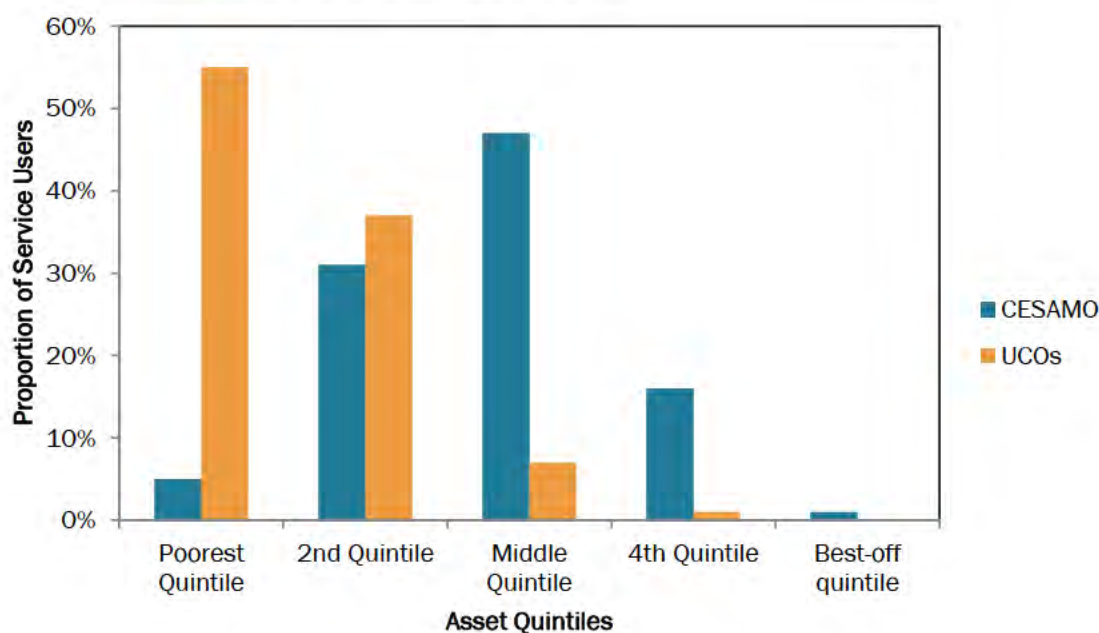
Box 1. Constructing an Asset Index

An asset (wealth) index was constructed from the data on ownership of household durable goods, as well as dwelling characteristics, source of drinking water, and sanitation facilities. Each asset was assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardized to a normal distribution with a mean of zero and a standard deviation of one.^{xvi} Each household was then assigned a score for each asset, and the scores were summed for the household. Households were ranked according to the total score, and then divided into quintiles from the lowest (poorest) to the highest (richest). Specific assets measured in the survey were as follows:

- Main source of household drinking water
- Type of toilet facility
- Household assets (telephone, radio, television, etc.)
- Access to electricity
- Roof, floor, and wall materials
- Livestock
- Landownership

The results confirm that UCO services reach a higher percentage of the poorest populations than is reached by the CESAMOs (see Figure 1).

Figure 1. Socioeconomic Profile of Service Users



For more information on ChildFund's CSHGP project in Honduras, please contact David Shanklin Hill at dshanklin@childfund.org.

^{xvi} Gwatkin DR. *Who Would Gain Most from Efforts to Reach the Millennium Development Goals for Health? An Inquiry into the Possibility of Progress that Fails to Reach the Poor*. Washington, DC: World Bank; 2002.

THE CASE OF CATHOLIC RELIEF SERVICES IN NICARAGUA

When Catholic Relief Services (CRS) started its child survival project in four municipalities of Nicaragua, it knew that maternal and newborn health was a major problem: coverage of key interventions was low and maternal mortality too high. CRS also knew that what had been tried before—behavior change strategies targeting women only—hadn’t worked. Culturally based gender dynamics coupled with long distances to health facilities limited women’s ability to access health services for themselves and their children. Recognizing these significant barriers, CRS and its partners undertook an innovative approach to engage men in women’s and children’s health, addressing two underlying causes of inequity: male dominance in decision-making and lack of access to quality care. While the project was designed to improve maternal and newborn care, CRS found that it also brought about some surprising (and very positive) changes in family relations.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from CRS’s CSHGP project.

Use formative research to determine if inequity is a cause of poor health outcomes:

When CRS decided to address maternal and newborn health, it used both quantitative and qualitative research methods to explore barriers to quality care. Focus group discussions with TBAs, community health workers, men, and women revealed that the cultural norm of *machismo* prevented women from seeking care without their husbands’ permission, contributing to the “first delay” in accessing obstetric and neonatal care. Respondents also mentioned high levels of domestic violence and that many women feared challenging their husbands’ authority because of the threat of abuse.

CRS also used the KPC Survey to investigate how gender roles affected care seeking, adding a section in the survey to ask questions directly of men. The questions covered decision-making for seeking care (in pregnancy, for delivery, and for the newborn) and knowledge of danger signs that would cause them to seek care for their pregnant wives or newborns. The survey results confirmed the focus group discussion findings: less than half of men said they made care-seeking decisions jointly with their wives, while 40% of men said that they alone were the ones who made the decisions about care seeking. Coupled with the low knowledge that men had about pregnancy and newborn danger signs, male dominance appeared to be a key underlying barrier to maternal and newborn health care.

Make realistic decisions about what the project can change: Having worked in Nicaragua for many years, CRS knew the culture well and knew what didn’t work. Many previous health projects had targeted behavior change strategies exclusively to women, encouraging them to subvert or directly challenge their husbands’ authority. Because *machismo* is deeply ingrained in the culture, these attempts were largely unsuccessful. CRS decided to focus specifically on the decision-making process for maternal and newborn care seeking and to involve men in identifying specific motivators for joint decision-making with their wives.

Define equity success for your project: With a focus on decision-making, CRS defined its ultimate objective: “to improve negotiations and consensus building at the household level between men and women regarding seeking care during pregnancy, birth, the postpartum period, and newborn care.” CRS then developed specific objectives both for the decision-making process (see box 2) and for the results of the decisions (coverage of key interventions; see box 3), considering both the process and the outcome in the organization’s definition of equity success.

Box 2. Objectives for Decision-Making

- Increase from 42% to 80% the percentage of men who state that the decision to seek care during pregnancy was made with their wives.
- Increase from 46% to 80% the percentage of men who state that the decision about where to deliver was made with their wives.
- Increase from 49% to 80% the percentage of men who state that the decision to seek newborn care was made with their wives.
- Decrease from 17% to 5% the percentage of men who state that there could be consequences if the wife seeks care in case of an emergency without the man's permission.
- Increase from 10% to 90% the percentage of men who agree that under no circumstance should a man reprimand his wife.
- Increase by 50% over the baseline figure the percentage of men who know the danger signs during pregnancy, birth, the postpartum period, and in the newborn.

Box 3. Objectives for Coverage

- Increase from 48.7% to 60% the percentage of pregnant women who seek antenatal care in the first trimester.
- Increase from 41% to 70% the percentage of pregnant women who had four antenatal care visits during their last pregnancy
- Increase from 66.6% to 77% the percentage of institutional births in the municipality of Matiguás.
- Increase from 56% to 72% the percentage of women who had a postpartum examination within the 48 hours following delivery.
- Increase from 50.3% to 66% the percentage of newborns who received their first examination within the 48 hours following birth.

Use results from formative research (and do more research!) to develop strategies:

Since the baseline studies clearly showed how critical men's participation was in care seeking, CRS wanted to ensure that the project design reflected a male perspective. As part of the project's operations research component, CRS conducted in-depth interviews with men to understand their feelings and beliefs that lead to current behaviors and to identify ways to encourage new behaviors. This research resulted in an initial list of 24 behaviors, which men then tested, practiced, and refined through the Trials of Improved Practices process. Based on the results from the process, project partners narrowed the list to seven behaviors, which included caring for children, helping with household chores, accompanying their wives for prenatal care, and being present during childbirth and postpartum care.

Once the behaviors were defined, the project consulted with community members to develop strategies for encouraging men to adopt these new behaviors. The project trained volunteers, called "behavior change agents," to use one-on-one counseling methods in addition to community sporting events to promote behavior change. To support men in adopting and sustaining new behaviors, the project also worked with community leaders, mothers-in-law, and other influencers to encourage them. At the health facility level, behavior change strategies with health workers created men-friendly health units that allowed men's participation and presence in prenatal care, delivery, and postpartum care for their wives and newborns.

To complement behavior change among men, CRS also implemented a variety of other strategies to improve maternal and newborn care. These efforts included addressing other barriers to care, such as organizing emergency transport and funds; health systems strengthening to improve quality of care at facility level, including cultural sensitivity in birthing practices; and training community health workers in neonatal Integrated Management of Childhood Illness, counseling, and lifesaving skills.

Monitor and evaluate progress toward equity: In order to test its hypothesis that men's involvement in maternal and child health was a key behavioral determinant to maternal and newborn care seeking, CRS's research partner measured both the ultimate objective (coverage) and the intermediate objectives (male involvement). The partner used a quantitative survey (modified KPC) conducted at baseline and end to measure the key health interventions: antenatal care (four visits); postpartum care within two days; and skilled birth attendance. The survey also measured male involvement: joint decision-making for care seeking and husbands' participation in care (accompanying wives to health facilities and asking questions during visits). The survey was conducted in both the intervention and the control communities. The partner also carried out a qualitative study to document the behavior change process and results. Furthermore, CRS conducted a more comprehensive KPC Survey in all the project communities to measure a variety of relevant indicators (such as the ones listed in boxes 2 and 3).

Final results of both surveys showed statistically significant increases in antenatal care; skilled birth attendance; postpartum care; joint decision-making; and men's participation in antenatal care, delivery, and newborn care. The project met targets for almost all of the objectives. Qualitative results confirmed these findings and also discovered one unexpected result of the intervention—women reported that in addition to their husbands' increased participation in their health care and that of their newborns, they also saw marked decreases in domestic violence.

For more information on CRS' CSHGP project in Nicaragua, please contact Elena McEwan at elena.mcewan@crs.org.



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Lessons Learned from a Preliminary Analysis of the Scale-Up Experience of Six High-Impact Reproductive, Maternal, Newborn, and Child Health (RMNCH) Interventions

June 2014

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Suggested citation: Larson A, Raney L and Ricca J. 2014. *Lessons Learned from a Preliminary Analysis of the Scale-Up Experience of Six High-Impact Reproductive, Maternal, Newborn, and Child Health (RMNCH) Interventions*. MCHIP.

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

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Abbreviations

ANC	Antenatal Care
DRC	Democratic Republic of the Congo
HBB	Helping Babies Breathe
HMIS	Health Management Information System
iCCM	Integrated Community Case Management
IPTp	Intermittent Preventive Treatment in Pregnancy
ITN	Insecticide-Treated Nets
IUCD	Intrauterine Contraceptive Device
MCHIP	Maternal and Child Health Integrated Program
MiP	Malaria in Pregnancy
MNCH	Maternal, Newborn, and Child Health
MOH	Ministry of Health
NGO	Nongovernmental Organization
NUVI	New and Underutilized Vaccines
PCV	Pneumococcal Conjugate Vaccine
PMI	President's Malaria Initiative
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PPFP	Postpartum Family Planning
PPIUCD	Postpartum Intrauterine Contraceptive Device
PPH	Postpartum Hemorrhage
QI	Quality Improvement
RMNCH	Reproductive, Maternal, Newborn, and Child Health
SBA	Skilled Birth Attendant
TBA	Traditional Birth Attendant
USAID	U.S. Agency for International Development
UUIFB	Uterotonic Use Immediately Following Birth
WHO	World Health Organization

Acknowledgments

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Jhpiego (prime)

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Save the Children

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Broad Branch

PSI

ICF International

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This report was authored by Ann Larson, Jim Ricca, Jessica Posner and Laura Raney. Amanda C Little contributed several of the analyses. Anne LaFond and Natasha Kanagat provided direction. Khatidja Naithani technical and administrative assistance.

The initial adaptation of the ExpandNet framework for analysis of MCHIP's scale up experience was developed with members of the MCHIP Monitoring and Evaluation team (Vikas Diwevedi, Molly Strachan, and Barbara Rawlins) and intensively tested by the Newborn Team with examples of scale up of Helping Babies Breathe (working in close collaboration with Joseph de Graf Johnson, Rachel Taylor, Goldy Mazia, Stella Abwao, and Magdalena Serpa). Rebecka Lundgren of Georgetown's Institute for Reproductive Health provided key advice on the measurement issues for retrospective evaluation of scale-up.

The following people shared information and insights about scaling up specific innovations: Elaine Roman (MiP); Ann Pfizer, Molly Strachan, Giulia Besana, Elaine Charurat, Chrisostom Lipingu (PPFP); Serge Raharison, Dyness Kasungani, Rebecca Levine (iCCM); Sheena Currie, Jeff Smith (UUIFB); Magdalena Serpa, Rachel Taylor, Robert McPherson (HBB); Rebecca Fields, Robert Steinglass and Asnakew Tsega (NUVI).

The in-depth case studies of scale ups were immeasurably assisted by Rajesh Khanna, Prakash Philip, Bulbul Sood, Somesh Kumar and Vivek Yadav in India and Mamadou Kani Konaté, Aissatou Aida Lo, Drissa Bourama Ouattara, N'Toumbi Tiguida Sissoko and Modibo Kante in Mali.

Background

Since 2008, the USAID Bureau for Global Health's flagship Maternal and Child Health Integrated Program (MCHIP) has worked in more than 50 developing countries in Africa, Asia, Latin America, and the Caribbean to improve the health of women and children. MCHIP has worked with USAID Missions, governments, nongovernmental organizations, local communities, and partner agencies in over 50 developing countries to assist in the scale up of high impact interventions in reproductive, maternal, newborn, and child health (RMNCH), one of MCHIP's objectives. This brief summarizes the results of this scale up experience and the lessons learned, mainly based on 18 case studies of six high-impact RMNCH interventions in 14 countries supported by MCHIP over the life of the project (Larson et al. 2014). It also includes preliminary learning from two in-depth country studies and several studies of the scaling-up experience done by MCHIP technical teams for individual interventions they supported. The review analyzes the elements and strategies of the country scale up experiences and shows outcomes in institutionalizing and expanding the coverage of the interventions. It draws conclusions on lessons learned that could be applicable to other programs.

CASE STUDIES OF SCALE UP

The review is mainly based on the study of six high-impact RMNCH interventions in 18 settings, supported by MCHIP between 2008 and 2013. For each intervention, there are three case study countries (and global efforts to scale up misoprostol for PPH prevention) where MCHIP participated in scale-up efforts. These country case examples are shown in Table 1. In all cases, the scale up goal is national in scope, including India. Two cases were picked for even more in-depth review (3-4 weeks of additional in-country data gathering).

Table 1. Scale-up country case examples studied

Intervention	Countries		
Postpartum family planning (PPFP)	India*	Philippines	Tanzania
Newborn resuscitation (Helping Babies Breathe or HBB)	Bangladesh*	Colombia	Malawi*
Uterotonic use immediately following birth (UUIFB) to prevent postpartum hemorrhage (PPH)	Global	India	Mozambique
Integrated community case management (iCCM) of childhood illnesses	Democratic Republic of the Congo (DRC)	Mali*	Rwanda
Prevention of malaria in pregnancy (MiP) focusing on intermittent preventive treatment in pregnancy (IPTp)	Burkina Faso	Ghana	Kenya
Introduction of new and underutilized vaccines (NUVI), specifically pneumococcal conjugate vaccine (PCV)	Kenya	Malawi	Tanzania

* Additional in-depth investigation done in these four cases (India and Mali with 3–4 weeks in-country primary data collection; Malawi, Bangladesh synthesizing findings from process and impact evaluations). Some preliminary findings from that work here but main body will be in separate report.

MODIFIED ExpandNET FRAMEWORK USED FOR ANALYSIS OF SCALE-UP

A note on terminology: *ExpandNet uses the term “innovation” to indicate a new intervention. We will use the term “intervention” throughout the document to mean the same thing, since some of the interventions MCHIP supported (like prevention of malaria in pregnancy) were not particularly new, even though they were in need of scaling up. The term “innovation” will only be retained in quotes where it was used, particularly by ExpandNet. The ExpandNet term “user organization” is simply replaced with its more commonly used synonym “implementer.”*

MCHIP adopted one of the most commonly used definitions of scale-up in global public health—that of ExpandNet (2009):

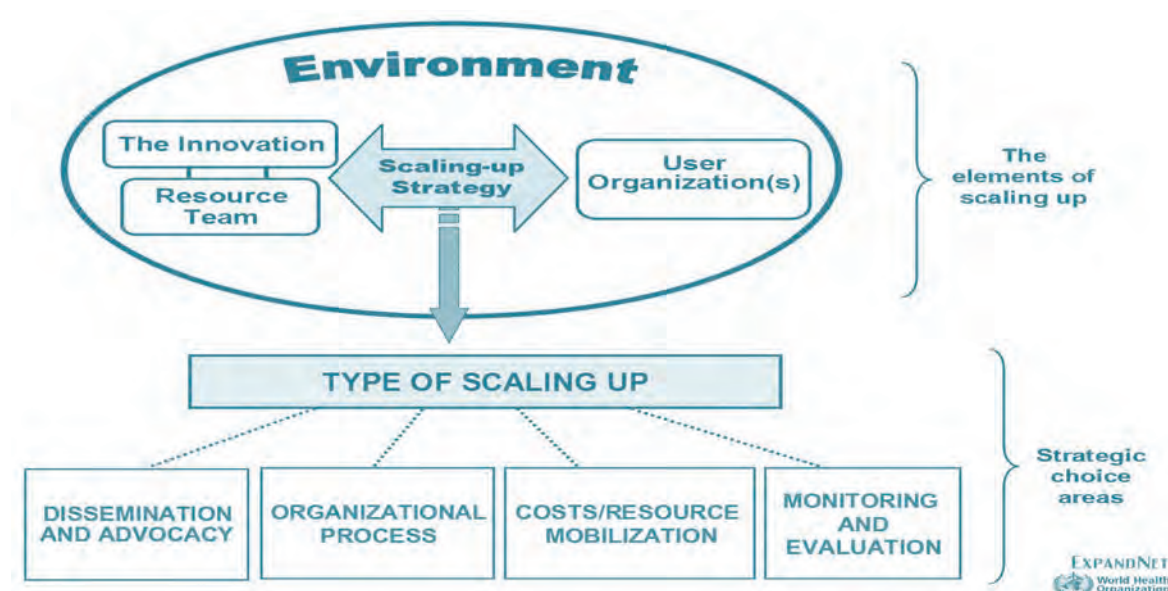
“Deliberate efforts to increase the impact of successfully tested health innovations so as to benefit more people and to foster policy and programme development on a lasting basis.”

Important features of this definition are the following:

- Scale-up is a deliberate process involving explicit goals and thorough planning.
- Scale-up efforts occur after there is evidence that the intervention will be effective in that setting.
- The intent of scale-up is to benefit more people by expanding access and use of the intervention.
- The establishment of supportive policies and routine service delivery processes is essential in order to institutionalize the intervention and achieve lasting benefits.

ExpandNet conceptualizes five elements and four strategies of the scale-up process, shown in Figure 1 (ExpandNet 2010). These strategies match well with those employed for scale-up in the cases studied. The ExpandNet framework classically assumes that the benefit of the intervention to be scaled up has been proven through local testing and piloting. It also posits that scale-up is most likely to be successful where there is local ownership of the decision to scale up; strong collaboration by government officials, technical advisors, and donors around a common vision; and a systematic and integrated approach to make the intervention a sustainable part of the routine health system through institutionalization and expansion. This framework adequately captures most of the components of the scale up process as it occurred in the examples studied here, with the exception of the role of clients and communities, which was added.

Figure 1. ExpandNet scale-up framework



Scale-Up Elements

ExpandNet describes the following elements of the scale-up process (Figure 1):

- A proven procedure, technology, health care practice, or health care cadre that is to be scaled up (**innovation**). *Note: This will be called the “intervention” in this document.*
- Appropriate for the country context (**environment**).
- Involving the organization(s) responsible for implementing the intervention (**user organization[s]**). *NOTE: This will be called the “implementer” in this document.*
- A group of people responsible for driving the institutionalization and expansion of that intervention (**resource team**).

SCALE-UP STRATEGIES

ExpandNet defines four types of strategies commonly used to promote scale-up of an intervention:

- **Dissemination and advocacy** involves communicating information about the intervention. Strategies of this type include conducting and sharing the results of research and evaluation. Guidelines, policies, and national strategies are important platforms for informing people about the intervention, galvanizing support, planning, and coherent implementation.
- Scaling up an intervention usually involves making changes to **organizational processes** of the implementing organization at the national, regional, district, facility, and community levels. The organizational processes most frequently employed in scaling up are training of providers and often their managers and support staff, follow-up and ongoing supervision, quality improvement procedures, and strengthening of logistics and supply chains.
- **Resources need to be mobilized** for the additional costs of scale-up from the national government and/or development partners.

- **Monitoring and evaluation** activities have been found to be crucial throughout successful the scale-up process, allowing timely course corrections when needed (Cooley and Kohl 2006; Yamey 2011; Levine 2007).

SCALE UP OUTCOMES

The ExpandNet framework defines two desired outcomes of scale-up: service expansion to reach more people (i.e., increased coverage) and institutionalization of the intervention within national systems. Together, these outcomes should produce sustainable impact at scale. This is shown in Figure 2.

Figure 2. Scale up outcomes—service expansion and institutionalization in national systems



Methods

This retrospective review was undertaken in several stages over an eight-month period:

- Completion of key information by country teams for the years 2008 and 2013: information on expansion of the intervention and completed institutionalization matrices. These matrices describe the situation with institutionalization in a standard way (see Annex for the tool used).
- Desk review and analysis for each of the 18 scale-up cases incorporating the matrices, indicators of expansion, and other relevant project documents;
- Key informant interviews with MCHIP technical leaders;
- Group discussions with MCHIP team leaders to validate the conclusions; and
- Two in-depth country case studies (PPFP in India; iCCM in Mali) and review of other MCHIP studies of the scale-up process to gather more in-depth information and validate general conclusions.

OUTCOME INFORMATION: INSTITUTIONALIZATION MATRICES AND SERVICE EXPANSION INFORMATION

MCHIP developed matrices to measure the extent of institutionalization of the intervention based on the six building blocks of health systems as defined by the World Health Organization (WHO) (2007). Some of the WHO building blocks, such as governance, were divided in order to operationalize measurement, resulting in a 12-component matrix (see Table 2). The one addition to the WHO building block model, which focuses on supply of health services, is a component on demand creation and community engagement that is emphasized in several other frameworks (e.g., Yamey, 2011). The ExpandNet scale-up strategies can be mapped as ways to achieve improvements in institutionalization within the health system according to the WHO building blocks. Table 2 shows the match between the ExpandNet strategies and the WHO building blocks: dissemination and advocacy (governance); organizational processes (human resources for health, service provision, and commodities and supplies); resource mobilization (finance); and monitoring and evaluation (health information). The scoring of the institutionalization matrix consisted of a five-point scale, from zero to four. A score of zero meant there was no activity occurring in the country related to that component with respect to the intervention. A score of four indicated that the national government through the Ministry of Health (MOH) had fully institutionalized the changes needed to support the intervention within that component and, therefore, made it a sustainable part of the routine practice of the health service.

The MCHIP country team convened a meeting with a group of in-country knowledgeable stakeholders that included a representative from the relevant section of the MOH and representatives from other technical agencies aiding the scale up process. They discussed and answered the questions about the state of institutionalization of each of the 12 health system components, filling out the information for the current year (2013) and retrospectively for 2008 (see example for iCCM in Mali at Annex).

Information on service expansion was gathered by the study team for each of the interventions from project documents and reports and confirmed in interviews with the country teams—numbers of facilities covered; number of districts covered; and population coverage where available.

Table 2. Institutionalization matrix

EXPANDNET SCALE-UP STRATEGY	WHO BUILDING BLOCK	HEALTH SYSTEM COMPONENT	QUESTIONS FOR SCORING OF INSTITUTIONALIZATION (SCALE OF 0 TO 4)
Dissemination and Advocacy (Piloting and Evidence-Based Advocacy)	Governance	Policy	Has the MOH implemented the necessary policy elements and practice guidelines to support the intervention?
		Planning	Has the MOH included the intervention in national and subnational plans?
		Coordination	Is the intervention included as a regular topic of discussion with appropriate national and subnational coordination bodies?
		Leadership	Are there ongoing leadership efforts for the intervention (at first by champions, and later by an institutionalized group in the MOH)?
Resource Mobilization	Finance	Finance	Is the government including the intervention in its budgeting process?
Monitoring and Evaluation (Data for Action)	Health Information	Health Information	Does the MOH collect, report, and use appropriate indicators/information for the intervention?
Organizational Processes (Capacity Building)	Commodities and Supplies	Commodities and Supplies	Is the MOH procuring and distributing sufficient quantities of the needed commodities within its normal logistics system?
	Human Resources	Personnel	Are appropriate health worker cadres authorized and are there sufficient numbers of them to implement the intervention?
		Training	Do appropriate MOH in-service and pre-service curricula include the intervention?
	Service Delivery	Quality Improvement	Does the MOH QI system include the intervention and is it being implemented?
		Supervision	Is the intervention included in regular MOH supervision activities?
Community Demand*	Community Demand	Demand creation and community involvement	Is the MOH engaged in generating demand for the intervention among potential clients?

*Addition to WHO six health system building blocks under service provision to capture community involvement.

DATA ANALYSIS AND LIMITATIONS

Mean institutionalization scores were calculated for each intervention in each setting for 2008 and 2013 to assess level of institutionalization at the beginning and end of MCHIP assistance to countries. The scores were compared across WHO building blocks and the more granular 12 components, as well as across interventions.

Detailed information was not available for every country. Scoring the institutionalization of the intervention across the 12 components was a qualitative exercise by the country teams. Despite their internal validity, it was not possible to calibrate the scores for complete comparability. Thus, comparisons of scores across interventions and health system components are intended to be suggestive of patterns rather than definitive and should be interpreted with caution. More in-depth information is available from the in-depth studies, some of which is presented here, but the final report will not be available until July 2014. Data on service expansion varied across settings and comparisons across countries and interventions should be interpreted with caution.

Results

THE INTERVENTIONS

Table 3 gives a brief description of the health interventions and focus of the scale-up experience in each setting.

Table 3. Overview of the scale-up of the six interventions and the focus in the 18 settings

INTERVENTION	PROGRAM DESCRIPTIONS	SCALE-UP FOCUS IN EACH COUNTRY
Postpartum family planning (PPFP)	<ul style="list-style-type: none"> Increasing the capacity of health workers with regular contact with women in the antenatal care (ANC), labor ward, or postpartum period to raise awareness and counsel on PPFP; Positioning the intrauterine contraceptive device (IUCD) within 48 hours postpartum as a suitable PPFP method; and Building capacity of skilled birth attendants (SBAs) to undertake safe PPIUCD insertions soon after delivery. 	<p>India's scale-up focused on building capacity for PPIUCD services.</p> <p>In the Philippines and Tanzania, opportunities were taken to build capacity of a range of health workers to incorporate PPFP counseling and services into their routine tasks.</p>
Helping Babies Breathe (HBB)	HBB teaches an evidence-based resuscitation protocol aimed at improving the skills of practitioners attending births to recognize and respond to babies having difficulty breathing in the first minute. HBB training materials consist of training modules (guidelines, standard teaching materials, and simulation-based teaching methods) and a package of equipment (a practice neonate mannequin, a simple suction bulb for clearing newborns' airways, and a low-cost bag and mask ventilator).	<p>In Bangladesh, Malawi, and Colombia, a two-day in-service competency-based training was rolled out nationwide, with follow-up skills practice. In Bangladesh, the training has been included in pre-service nursing and medical curricula.</p> <p>In all three countries, resuscitation equipment was provided. There were also efforts to include key elements in the health management information system (HMIS) and supervisory system.</p>
Uterotonic Use Immediately Following Birth (UUIFB) to prevent postpartum hemorrhage (PPH)	<p>Two uterotonic drugs are used, depending on the setting:</p> <ul style="list-style-type: none"> Oxytocin is administered by injection if the birth is at a facility with appropriate storage and SBAs. Misoprostol tablets taken immediately after birth for women delivering at home. Tablets may be provided at time of birth by an SBA or traditional birth attendant (TBA) or distributed in advance for self-administration. 	<p>One setting is the global scale-up effort to advocate for advanced distribution of misoprostol where appropriate.</p> <p>Mozambique and India already had established oxytocin as a preventive for births in government facilities.</p> <p>Policies for advanced distribution of misoprostol had been developed in both countries by end of the review period.</p>

INTERVENTION	PROGRAM DESCRIPTIONS	SCALE-UP FOCUS IN EACH COUNTRY
Integrated Community Case Management (iCCM)	iCCM of childhood illness is an approach to reduce morbidity and mortality of children under five years old in hard-to-reach or underserved communities. Care is delivered by community health workers (CHWs) (paid or volunteer). CHWs provide first-line treatment for malaria, pneumonia, and diarrhea and referral for serious cases.	<p>In DRC, the iCCM program was already in place by 2008. It aimed to cover selected priority areas.</p> <p>In Rwanda and Mali, the programs were being introduced building on previous experiences of community-based programs delivered by NGOs or government CHWs. Rwanda's program included urban and rural communities, and Mali's targeted communities five kilometers or more from health centers in five of the country's eight regions.</p>
Prevention of malaria in pregnancy (MiP) focusing on intermittent preventive treatment in pregnancy (IPTp)	IPTp with an antimalarial to pregnant women early in the second trimester and once a month up to the time of delivery is one component of a three-pronged approach to reducing the number of women contracting malaria while pregnant. The other two components of the MiP approach are (1) case management of pregnant women with malaria through detection and treatment and (2) use of insecticide-impregnated bed nets (or insecticide-treated nets—ITNs) by women during their pregnancy. Scale-up of MiP requires collaboration between malaria control and maternal health units.	<p>Kenya, Ghana, and Burkina Faso already had MiP policies and strategies in place, which were strengthened during the review period.</p> <p>MCHIP and others placed effort in encouraging integration of policies and closer cooperation between the malaria and maternal and child health authorities within the MoH.</p> <p>All countries reviewed and harmonized policies, had training, and engaged in community education and promotion.</p>
Introduction of new and underutilized vaccines (NUVI), specifically pneumococcal conjugate vaccine (PCV) to prevent pneumonia	Introduction of PCV into the existing national immunization program's health service.	In Malawi, Kenya, and Tanzania, scale-up involved preparing for the national introduction of the new vaccine through development of guidelines on eligibility, training, supply chain and vaccine management, and monitoring and evaluation.

The summary of the overall results in Table 4 below shows the achievements, success factors, and challenges for each intervention. These summary results are followed by a brief introduction of the interventions in the 18 settings, a summary of the scale-up outcomes (institutionalization and expansion), and an analysis of the elements and strategies used to achieve these outcomes.

Table 4. Summary of overall results by intervention

INTERVENTION	ACHIEVEMENTS	SUCCESS FACTORS	CHALLENGES
PPFP	High delivery load hospitals in all countries have taken up PPFP counseling and provision of PPIUCD in all three countries.	Advocacy, training in counseling and clinical skills; monitoring implementation for quality in India and Philippines. Strong government ownership, involvement of many NGOs and development partners, active resource team.	Introduction of a new task; overcoming initial resistance from providers about PPIUCD.
HBB	Large numbers of health workers trained, HBB approach incorporated into national essential newborn care guidelines in all three countries.	Involvement of pediatric associations, strong government ownership.	Scale up failed to anticipate the difficulties in changing clinical practice and therefore did not add strategies to support change post training. Timing and availability of external funds.
UUIFB	The two country cases have adopted a policy supporting advanced distribution of misoprostol for home births.	Advocacy, sharing of international evidence, developing methods for estimating coverage as an advocacy tool.	Concerns related to the safety of community use of misoprostol and congruence with policies to encourage institutional births.
iCCM	Extensive expansion of community-based identification and treatment of childhood malaria, pneumonia, and diarrhea.	Government ownership, tailoring delivery platforms to existing services, supplies of medicines, community support.	Ongoing costs for rewarding community health workers, integration with other parts of the health service, concerns about the quality of service provision. Timing and availability of external funding a constraint in two countries.
MiP/IPTp	Some improvements in IPT2 coverage during most recent pregnancy (pre-2008 to 2012 or later): <ul style="list-style-type: none"> • Ghana 46% to 65% • Burkina Faso 1% to 39% • Kenya 15% to 29% 	Coordination, harmonizing of policies, training.	Difficulties in achieving shared ownership between malaria control and maternal health units led to limited support for antenatal care providers to adopt the practice. This process worked best in Burkina Faso, which also had the largest gains in coverage.
NUVI/PCV	Near universal coverage of PCV in the first full year following introduction.	Built on the strong national immunization program, promotion materials, training, strong MOH and development partner coordination.	Short time frames, limited government resources to expand service capacity (e.g., cold storage, waste management).

SCALE-UP OUTCOMES: INSTITUTIONALIZATION AND EXPANSION OF INTERVENTIONS

Figure 3 displays the mean institutionalization scores derived from the institutionalization matrices over time. HBB and PPFP started at low levels of institutionalization in 2008. iCCM and MiP were at an intermediate level of institutionalization in 2008—building from platforms that existed. In the case of iCCM, the intervention built on the previous experience with case management. In Mali there were already community health activities, even though they did not include case management. Uterotonic use (oxytocin for facility deliveries) and the immunization program were already well established in all settings. The six high-impact interventions had varying success in institutionalization, but all demonstrated improvements. There is relatively low variability between mean scores for the six interventions in 2013, ranging from 2.8 to 3.8 on a scale from 0 to 4; however, there is larger variability across the 18 settings, ranging from 2.2 to 4.0. The duration of the scale-up effort explains part of this pattern. PPFP, HBB, and misoprostol (UIIFB for home deliveries) are interventions which are relatively new on the global health agenda, whereas oxytocin was well established. While iCCM was new in two of the three countries, the scale-up efforts built on existing community-based primary health care programs. IPTp was already part of the antenatal care and malaria control programs of the three countries. Although PCV was a new vaccine, it was being introduced into well-functioning national immunization programs in all three countries. In general, the analysis shows that significant progress on institutionalization appears to be possible over the relatively short time span of five years. However, this initial analysis is across all health system building blocks. To give a sense of the difference in the profiles of progress for a newer intervention (HBB) compared to a more mature intervention, Figure 4 compares the average progress made in this five-year period for NUVI, which builds on the immunization delivery platform, and for HBB, which rolled out in a more “vertical” fashion—in other words, it initially had separate trainings and was not immediately incorporated within supervisory and logistic systems. There was progress toward similar institutionalization scores for governance (policy, coordination, leadership). But the lag in institutionalization was more in terms of service delivery support (supervision, QI) and commodities. Between countries there was variation for the same interventions that is beyond the scope of this brief summary to explore. The text boxes in the results section try to give a flavor of the variations in roll out and their power to explain some good practices. The landscape and full case studies for PPFP India and iCCM Mali to be disseminated in July 2014 will have more detail.

Figure 3. Mean institutionalization score, by intervention, 2008 and 2013

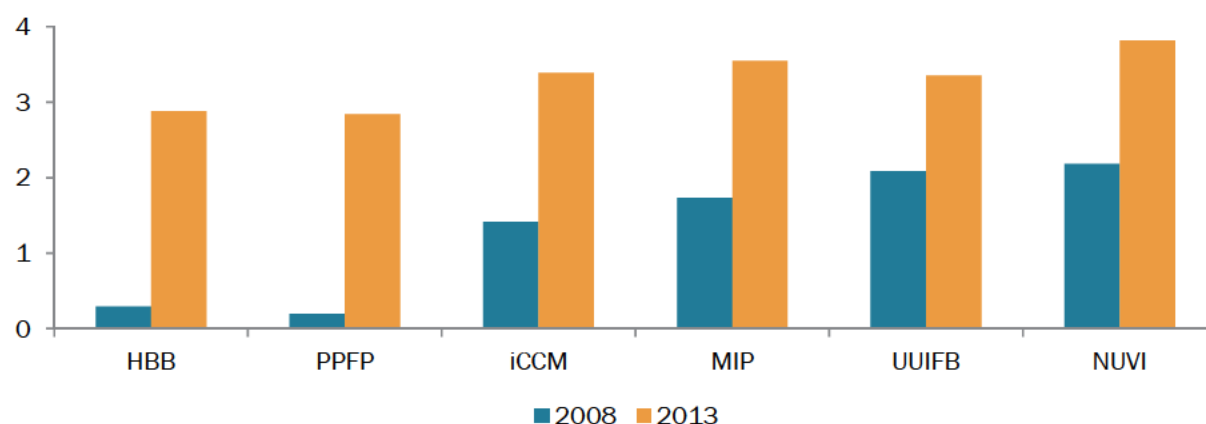
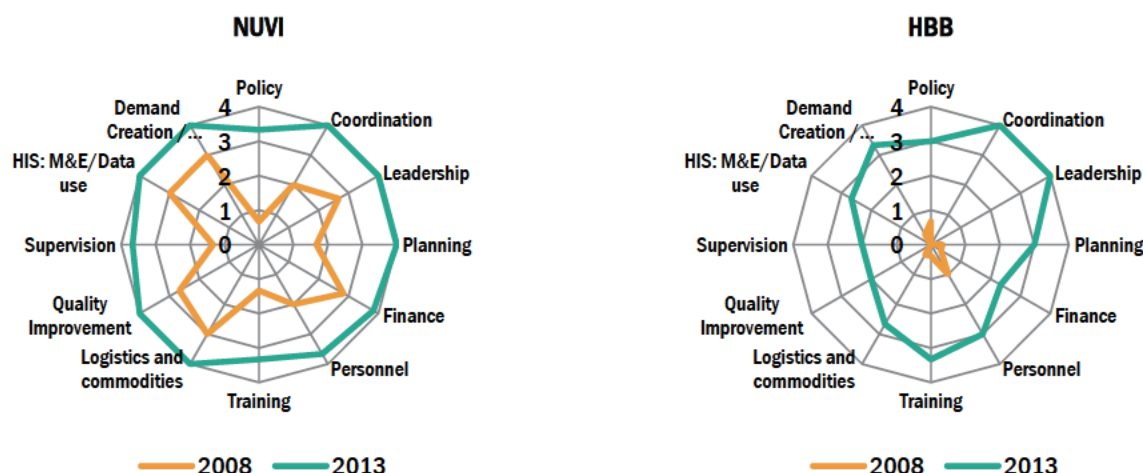


Figure 4. Profiles of progress in institutionalization for HBB and NUVI from 2008 to 2013



Aggregated institutionalization scores show that the governance components of policy development, coordination, leadership, and planning increased significantly between the beginning and end of the review period and rose to the highest levels. Although the differences are not great, there was less reported progress on financing, supervision, and M&E. A lower mean score for financing indicates that the intervention is still not receiving a line item in a number of settings, and there is continued reliance on development partners for financing the scale-up effort and ongoing program delivery. An outlier in this regard is India for PFP, which not only has a line item for the program (giving it a maximum score of 4), but also has begun to take on financing from domestic sources for PFP. The institutionalization scores for resourcing health personnel and supply chains were relatively high. Training also scored fairly high. Institutionalizing processes that reinforce quality service delivery (such as quality improvement, supportive supervision, and data use) have the lowest scores. Institutionalization of demand creation or community engagement was scored slightly higher.

SERVICE EXPANSION

Table 5 summarizes the extent to which the intervention expanded through the national health system and reached intended beneficiaries. Overall, interventions with higher institutionalization scores had also reached a higher proportion of the population.

Table 5. Expansion by 2013 of the six interventions in 18 settings

INTERVENTION	EXPANSION OF THE INTERVENTION TO FACILITIES, AREAS, AND HEALTH WORKERS	COVERAGE OF INTERVENTION AMONG INTENDED BENEFICIARIES
PPFP	<ul style="list-style-type: none"> In India, PPIUCD introduced in at least two sites in 19 states and in all district-level facilities in six states. In the Philippines, 40 percent of districts have a PPFP program, and the 10 facilities with PPIUCD services reach 31 of the country's 81 provinces. In Tanzania, 500 health workers have been trained and 14 percent of districts are implementing PPFP. 	<ul style="list-style-type: none"> By 2013, PPIUCD acceptance rates in sites where the service was introduced in India averaged between five and 10 percent.* In Philippines, the percentage of women counseled ranged from six to 80 percent in the 10 facilities where PPIUCD service was introduced.
HBB	<ul style="list-style-type: none"> Almost all skilled birth attendants in Bangladesh, one-third in Malawi, and those in priority sites in Colombia attended the two-day competency-based training. 	<ul style="list-style-type: none"> The intervention had expanded almost universally in all three countries. Impact evaluations in Bangladesh and Malawi found that the introduction of the intervention had no effect on clinical practices.
UUIFB	<ul style="list-style-type: none"> A uterotonic is routinely provided for PPH prevention in almost all government facilities in India and Mozambique. Policy agreement in both India and Mozambique to scale up misoprostol. 	<ul style="list-style-type: none"> About half of all births in Mozambique and India are in government public health facilities; utilization of uterotonic drugs in these settings was already high at the beginning of the period and did not change. Quality of service provision was a focus of effort in Mozambique, but no definitive data on improvement yet exist. Service delivery not started for misoprostol in India and Mozambique.
iCCM	<ul style="list-style-type: none"> CHWs were recruited, trained, and established in eligible communities in Rwanda and Mali. The program has been expanded from 10 to 20 percent of districts in DRC and is now a part of services in 11 percent of all facilities. 	<ul style="list-style-type: none"> iCCM programs are available to 100 percent of people in Rwanda, 19 percent in Mali, and three percent in DRC. CHWs are estimated to be treating 20–40 percent of cases of targeted illnesses in the communities where iCCM has been introduced in Mali.
MiP/IPTp	<ul style="list-style-type: none"> Training in MiP reached 13,000 health workers in Ghana. Training reached most health workers in malaria-affected areas in Kenya. Training reached only one or two participants per facility in Burkina Faso. 	<ul style="list-style-type: none"> Recent household survey data not available, but there is evidence of increased coverage of at least two doses of IPTp during pregnancy in all three countries from comparably collected Demographic and Health Surveys (DHSs), Multiple Indicator Cluster Surveys (MICS), or Malaria Indicator Surveys done in last four years, compared with data from before 2008.

INTERVENTION	EXPANSION OF THE INTERVENTION TO FACILITIES, AREAS, AND HEALTH WORKERS	COVERAGE OF INTERVENTION AMONG INTENDED BENEFICIARIES
NUVI/PCV	<ul style="list-style-type: none"> PCV introduced through the national programs to all parts of each country. 	<ul style="list-style-type: none"> In the first full calendar year following introduction, HMIS data reported to UNICEF showed all three countries achieved over 95 percent of eligible children fully vaccinated with PCV through the routine immunization system.

* Definition: PPIUCD acceptance among women counseled of all women giving births at facilities with trained service providers.

The introduction of PCV in three countries and iCCM in two of three countries met the high targets set for reaching universal coverage and expanding sites, respectively. The coverage for iCCM is encouraging, but needs to be interpreted with caution, as there are no data on utilization of community health workers within target districts. Hodgins, Pullum, and Dougherty (2013) have done a re-analysis of data from 42 DHS and MICS surveys showing that even in settings with well-established iCCM programs (e.g., Nepal, Ethiopia, and Senegal), utilization can still be quite low. This analysis shows that the presence of trained and equipped health workers, while necessary, is not sufficient for significant population coverage. While IPTp rates have improved, they have not yet achieved the President's Malaria Initiative (PMI) target coverage rates (80%). PFPF and HBB had the lowest mean institutionalization scores (Figure 3). It appears that in terms of expansion and coverage, these interventions also had not had national impact by the end of 2013. In the case of PFPF, the timing of the intervention had a role: the programs had not yet been expanded to all facilities. For HBB, impact evaluations found that the introduction of the intervention has not yet had the intended effect on clinical practices among skilled birth attendants. The importance of the concept of “impact at scale” through effective coverage comes to the fore. That is, in both Bangladesh and Malawi, large numbers of health workers have been deployed and facilities involved in HBB, but until a mechanism is found to significantly improve health worker performance, impact cannot be achieved for HBB. There was no change in service provision for UUIFB because advanced distribution of misoprostol is still at the planning stage in the two selected countries and both had already expanded uterotonic use for PPH prevention through government facilities.

SCALE-UP ELEMENTS: INTERVENTIONS, ENVIRONMENT, IMPLEMENTERS, AND RESOURCE TEAMS

This section of the document examines the scale up process and elements, as outlined in the ExpandNet framework, and describes scale up best practices and lessons learned for improving expansion and institutionalization of the interventions.

Characteristics of Interventions

ExpandNet (Simmons and Shiffman 2007; see Text Box 1) describe the characteristics of interventions that are more easily scaled up. All these interventions were based on sound evidence and most were observable and testable (e.g., treatment interventions or preventive measures against prevalent conditions). There were other aspects that made them variably difficult to scale up.

Text Box 1: Characteristics of Interventions More Easily Scaled up

- Based on sound evidence or espoused by respected persons or institutions in order to be credible
- Observable to ensure that potential users can see the results
- Relevant for addressing persistent or sharply felt problems
- Have a relative advantage over existing practices
- Easy to install and understand
- Compatible with the potential users' established values, norms, and facilities
- Testable without committing the potential user to complete adoption

Interventions that are “simple” and “easy to install and understand” (Yamey 2011) like oral rehydration solution (Chowdhury and Cash 1996), should be more easily scaled than ones that are more complex and have multiple facets, like iCCM.

Table 6 summarizes some of the characteristics of the six interventions. None was particularly easy to install (i.e., they were complex). The interventions required frontline workers to adopt new tasks—in the case of iCCM, several new tasks. All interventions but iCCM used existing service delivery platforms. iCCM is delivered through CHWs; however, new cadres of CHWs had to be formed because the existing ones had different profiles, being involved in health promotion (i.e., an intervention that was preventive, occurring on a routine schedule, and requiring less judgment). In most cases, the health workers who needed to adopt the new tasks were working in the frontline and had modest levels of pre-service training and low or no salary.

An argument could be made that HBB is the “simplest” of these interventions because it involves modifying a task already done by existing, qualified health providers working in their familiar setting. Guidelines and teaching modules had been refined to a few steps to follow: identifying babies who are not breathing and undertaking stimulation and resuscitation if required (Helping Babies Breathe 2011). The impact evaluations in Bangladesh and Malawi have indicated that, to date, practice has not improved. Although the evaluations focused on systems elements that need strengthening, there are aspects of the intervention that may be making it more difficult to scale up. It is not used on a routine basis, making skills maintenance an issue. Although speculative, a less tangible issue that may be in play is the idea of its “compatibility with values” and whether it is “relevant for addressing . . . sharply felt problems.”

Jeremy Shiffman (2011) has written about the rapid rise in prominence of the issue of newborn survival that has not spread everywhere and may not have convinced the health workers: “While the rise of global attention has been rapid, it is still circumscribed. No more than a handful of major organizations involved in global health make the issue a central priority, if indicated by the provision of financial and technical resources. Moreover, there is little evidence that pressure from grassroots organizations or the governments of countries with high neonatal mortality had a major role in the emergence of global attention. Perhaps as a result, the extent to which these governments have responded with funding, policies, and programs remains unclear, as does how much difference these global promotional efforts have made in shifting widespread grassroots fatalism surrounding newborn deaths.”

Another seemingly simple intervention like PCV required detailed planning at every level of the health system to ensure that all eligible children received the vaccine throughout the country soon after the launch date. Scaling up interventions raises issues of workload, knowledge and skills acquisition, necessary supplies and equipment, encouragement or motivation, and accountability. How scale-up strategies addressed these issues was a major determinant of scale-up success—and may be more important than the inherent nature of the intervention itself.

Table 6: Characteristics of six maternal, newborn, and child health interventions

INTERVENTION	HEALTH CARE SETTING AND PROVIDERS	NATURE OF THE NEW SERVICE OR TASK	USES NEW OR EXISTING SERVICE PLATFORM?	FREQUENCY OF USE? (ROUTINE OR OCCASIONAL)
PPFP	Community health workers, antenatal care providers, vaccinators and skilled birth attendants	Adding component to an existing system, new task	Uses existing service delivery platforms	Routine
HBB	Skilled birth attendants	Modifying one task, existing system	Uses existing service delivery platforms	Occasional
UUIFB (Oxytocin and misoprostol)	Community health workers and antenatal care providers	Adding a component to an existing system, new task (misoprostol)	Misoprostol will use existing service delivery platforms	Routine
iCCM	Community health workers and health care providers	Sometimes completely new service requiring new workers; in other cases new tasks for existing workers	Creates a new service delivery platform	Occasional (but depends on caseload)
MiP/IPTp	Antenatal care providers	Adding component to an existing system, new task	Uses existing service delivery platforms	Routine
NUVI/PCV	Vaccinators and supporting personnel	Adding component to an existing system, similar to what is already being done	Uses existing service delivery platforms	Routine

iCCM is a complex intervention, requiring new cadres of workers with relatively short durations of training to take up new tasks using an entirely new platform of community-based delivery. Yet iCCM was institutionalized and expanded in the three settings. The fact that iCCM had some of the characteristics listed by Simmons and Shiffman (2007) may well explain this positive experience (i.e., iCCM is espoused by respected persons or institutions (e.g., WHO and UNICEF), is relevant for addressing persistent or sharply felt problems, and is compatible with the users' established values in that it demonstrates government commitment to supply services to underserved populations).

Resource Teams and Implementers

Many actors were involved in scaling up the six interventions, especially at the global and national levels. Globally, respected international organizations such as WHO and UNICEF were important players. Advocates often formed consortiums comprising technical experts, private and bilateral donors, and, in some cases, private industry. Within countries, technical working groups were formed for some interventions. This was a successful strategy when the groups met regularly, which was not the case for MiP in Burkina Faso and Kenya. Many but not all of these teams had the characteristics of successful resource teams outlined by ExpandNet (Simmons and Shiffman 2007) (see Text Box 2).

The main drivers of the scale-up efforts were usually national MOH officers from the relevant units. But the ambitious targets to expand programs rapidly made it necessary to engage additional human resources to manage the scale-up. Technical advisors, particularly through MCHIP, played a major role in encouraging the scale-up of PPFP, HBB, and some of the MiP/IPTp and iCCM programs. Subnational levels of the MOH always had some role to play in scale-up, but in many instances were passive recipients of inputs such as training programs and new health workers rather than the drivers of the initiatives. The extent to which government prioritizes the intervention determines the degree of government involvement in taking an active role in coordinating and implementing scale-up. But in terms of resource teams, there have been different avenues and approaches, and none clearly stands out as the most successful configuration for a resource team.

Text Box 2: Characteristics of Successful Resource Teams

- Effective and motivated leaders who command authority and have credibility with the user organization
- A unifying vision
- An appreciation of the user organization's capacities and limitations
- An understanding of the political, social, and cultural environments
- The ability to generate financial and technical resources
- Relevant technical skills, management skills, and training capacity

Scale-Up Strategies

DISSEMINATION AND ADVOCACY: POLICY ENVIRONMENT AND GOVERNMENT OWNERSHIP

Government ownership is important to scale up. On the other hand, the mere existence of policies and guidelines does not necessarily mean the government is prioritizing the scale up of innovations; all but two cases had some relevant policies or guidelines established prior to 2008, the start of the review period. It can take time for a policy, whether it has been formally adopted or remains in the draft phase, to be prioritized. Invariably the trigger for increased prioritization is a mixture of sound national and international public health evidence, and the opening of policy windows which make prioritization advantageous. Publication of international guidelines (WHO) were an important factor in gaining support within a country. The necessity of a pilot within a country is less important than previously documented with ExpandNet (see Text Box 3). Most interventions examined were either based on international experience, with or without some local testing.

Mobilizing Resources

In all the scale up studies there was external funding from development partners, a result of the selection of case studies in which MCHIP was involved. The additional funds were usually directed towards the development of guidelines and training curriculum, the training of master trainers, launch and dissemination of results. In some cases, externally funded technical advisors performed important coordination and facilitation roles to support the MOH in introducing the innovation in districts and facilities. External funds were also often used to pay for impact and process evaluations. About half of the innovations anticipated little or no extra resources to maintain the innovation once it had been scaled up. However, in most of the cases where additional costs were anticipated, there were no clear plans for meeting those costs.

Text Box 3: Are pilots necessary?

The necessity of a pilot within a country is less important than previously documented with ExpandNet. HBB had national leaders as champions in all three countries based on evidence they had heard globally. On the other hand, some interventions for which there was less technical consensus (e.g., misoprostol) benefitted from piloting in some settings.

Text Box 4: Monitoring for Quality: PPIUCD in India

Quality is important for all health care, but the sensitivities surrounding family planning in India made it even more essential that postpartum intrauterine contraceptive devices (PPIUCDs) were scaled up in a manner that ensured voluntary, informed choice. Since PPIUCD insertion was a relatively new procedure, providers, policy makers, and the general public also needed to be assured that it was safe and effective. Monitoring was the main strategy used to address quality concerns during scale-up. Every month, facilities reported on the number of deliveries, the number and type of PPIUCD insertions, and where women were counseled. The reports also included the number of women with a PPIUCD who had to be followed up afterward and any relevant outcomes such as expulsion, infection, or removal. These reports went up through the districts to the state health departments. Copies also went to the technical advisors, who used them as talking points with state and national officials. Supportive visits were scheduled to facilities with unusually high or low acceptance rates to determine the cause. The data on follow-up helped to assure stakeholders that the method was safe. However, in absence of clear policies on how follow-up visits were to be achieved, the monitoring data on follow-up were not used proactively as an indicator of quality.

MONITORING AND EVALUATION

Monitoring and data review

There was relatively little use of monitoring and evaluation in these scale-up studies. Characteristics of the scale ups which may have contributed to the lack of routinely collected information about implementation process and population coverage being shared and used by the resource team include the rapid pace of the scale up; the emphasis on policy and training over service delivery in some cases; and the lack of explicit performance targets to use as benchmarks for scale up implementation. Every scale up case was able to measure the basic outputs of the scale up. In almost all of the interventions, health workers recorded their activities. They are motivated to do so if the recording helps her to do her job or if the information will be reviewed by her manager and she will be held accountable. For most interventions conducted outside of facilities, recording of activities was common. Where activities reports were available, they were not necessarily used by the resource team to track implementation. The inclusion of an intervention-specific indicator in the national HMIS was achieved only in some of the scale up cases. This achievement was neither necessary nor practical at the early and middle stages of scale up, as inclusion in the HMIS almost always occurs after an intervention becomes a standard practice across a country. During scale up, there is a need to look at many aspects of implementation, especially those sensitive to service quality. However, measures that explicitly capture quality were rare. PFP was an exception (see Text Box 4).

Measuring coverage and impact

Measuring the outcomes of scale up is a crucial part of global learning about how to reduce mortality and improve health in low and middle income countries. A focus on outcomes also provides clarity and direction during the course of scale up. This analysis reviewed the data requirements and availability of coverage measures, where coverage is defined as the persons who receive the new service as a proportion of all people who need the service. However, only half of the program areas have recent coverage data in the case study settings. Impact evaluations of scale ups were only done for one innovation (HBB). These were structured observational studies to measure changes in clinical practice as a result of the HBB program in Bangladesh and Malawi.

ORGANIZATIONAL PROCESSES

Logistics and supply chain

The reliable provision of equipment and supplies to the frontline health worker is essential for scale up. Long term or frequent intermittent stock-outs of essential medicines and equipment, training materials, and job aids, registration books, and forms can compromise the delivery of services. Where challenges occurred, it was at all parts of the supply chain. The most common were failure to procure centrally in a timely matter due to financial constraints or administrative error, and lack of capacity to get supplies from the district or facility to the service sites. The quality of the scale up was compromised when these problems were not addressed either by slowing the pace of expansion or proactively finding other solutions to obtain the necessary inputs.

TRAINING

Training was a nearly universal strategy among scale up cases and scored high on institutionalization at the end of the review period. However, the reality is that good training is insufficient to change practice of established workers, and even new workers benefit from reinforcement of new skills at their workplace. Many scale up cases faced pressure for rapid national scale up, translating into many health workers being trained in a very short time without opportunities to test effectiveness. The need to train large numbers of people meant

that training sessions were rarely held at the work place, and in some cases involved little or no practical application in a work setting like the participants' own. Training enough workers or the right workers also was a challenge. In some of the scale up cases, a small number of clinicians were brought out of their districts for training, then they were expected to find the time and support to pass on their knowledge to others. Training only one or two providers from a facility did not result in the provider becoming confident and skilled in service provision. Provision of job aids or guides to the clinicians would have been helpful to make sure they had the information they needed to perform the new service.

Quality improvement, supportive supervision, and post-training support

Reasons for poor service delivery include lack of confidence or skill of the provider, resistance from co-workers, and lack of support by management. Strategies to ensure that the intervention was delivered safely and appropriately included work site orientations, supportive supervision visits in addition to the standard supervision cycle, post-training or refresher training, and close review of performance data. These strategies are time intensive and potentially costly. However, such approaches are integral to the scale up process and are not intended to be on-going.

Integration within the existing health system and organizational change

A complementary strategy to ensuring that an intervention is fully implemented is ensuring that managers and health care workers view the intervention as an essential component of their regular work and not as an add-on (see Text Box 5).

Some scale up cases did not have explicit strategies to embed the innovation within the workplace and health system, which seriously compromised the potential for widespread adoption of the innovation. Organizational change is a challenge when new tasks are being added. The alignment of the current program with the new program appears to be critical. Where innovations require a change in organizational culture and not just new tasks, good practice was to involve all staff at a worksite in an orientation about the new practice either before or after training. This orientation helped to build a common understanding about the innovation, created a climate that was more encouraging for providers to adopt the method, and helped dispel rumors and misunderstanding.

Text Box 5: Naming a Strategy—When does it become a barrier to integration?

Naming a new strategy calls attention to decision-makers, makes it more tangible, and easier to communicate. On the other hand, at some point a new practice needs to become integrated with the rest of routine care and having a specific name can cause the strategy to seem foreign and “project based.” At what point should a name be shed?

DEMAND CREATION AND COMMUNITY INVOLVEMENT

Most of the scale up cases incorporated some elements of creating demand for the innovation through information and educational materials such as posters, public launches, media coverage, television, and radio advertisements. However, the scale up cases rarely involved the community, as they tended to be focused on improving the supply of health services. Opportunities appeared to have been missed to have potential clients give input in the design of the scale up into how they would like to receive services; however, where scale up cases did harness community involvement, it had a major impact on service delivery. For instance, Kenya employed a standard communication campaign about the new vaccine, and the public responded so positively that the health system was nearly overwhelmed. In the India PPF case demand creation focused on counseling at the facility. As the program was implemented it was recognized that more needed to be done in the community and at ANC visits in other sites; however, this increased involvement at the community level is proceeding in an ad hoc way. The number of acceptors at this point is largely dependent on the work in the facilities of counselors and labor ward nurses and doctors.

Lessons Learned

THE INTERVENTION

- Public health interventions are not simple, and this fact should be recognized in planning to scale-up. A concise, measurable definition of what is being implemented or scaled up is crucial, as is the ability to measure it.
- Clarity about what constitutes the intervention is best articulated in policies and guidelines that describe what is expected of frontline workers, their managers, and other parts of the system. Failure to gain buy-in at this stage will result in slow or uncoordinated adoption that will give the impression to frontline workers that the process is part of a project rather than something to be institutionalized into the national health system.

SCALE UP STRATEGIES

Advocacy

- Without government ownership and leadership, the scale up of an innovation cannot achieve lasting health benefits. Although pilots and advocacy can help to create an environment for government ownership, without high level commitment, effectively communicated to every level of the health system, other scale up strategies should not be attempted.
- The congruence of current global opportunities and long standing national priorities and approaches is a window to advocate for and launch a scale up of key interventions? Invariably, the triggers for increased prioritization are a mixture of sound national and international public health evidence and the opening of policy windows which make prioritization advantageous. In country presence of technical advisors in Resource Teams is important to take full advantage of the opportunities for rapid progress when these windows open, which are often due to factors outside the control of those managing the scale up process (e.g., appointment of a new Minister who is a champion, ascendance to power of a political party trying to show responsiveness to the population, etc.)
- Concerns about the appropriateness of the intervention for the country can constrain rapid translation from evidence to policy to implementation. This seems to have been a problem in some of the countries with iCCM at an earlier stage (Medical Research Council of South Africa 2014)

Capacity building

- Training was a nearly universal strategy among scale-up cases and scored high on institutionalization at the end of the review period. However, the reality is that training is insufficient to change practice of established workers, and even new workers benefit from reinforcement of new skills at their workplace.

- Training enough workers or the right workers was also a challenge. In some scale-up examples, a small number of clinicians were brought out of their districts for training and then were expected to find the time and support to pass on their knowledge to others. Training only one or two providers from a facility did not result in the providers becoming confident and skilled in service provision. Provision of job aids or guides to the clinicians would have been helpful to make sure they had the information they needed to perform the new service.
- Where challenges occurred at all parts of the supply chain, the most common were (1) failure to procure centrally in a timely matter due to financial constraints or administrative error and (2) lack of capacity to get supplies from the district or facility to the service sites. The quality of the scale-up was compromised when these problems were not addressed by either slowing the pace of expansion or proactively finding other solutions to obtain the necessary inputs.

Quality improvement, supportive supervision, and post-training support

- Reasons for poor service delivery include lack of confidence or skill of the provider, resistance from co-workers, and lack of support by management.
- Strategies to ensure that the intervention was delivered safely and appropriately included orientations at the work sites, supportive supervision visits in addition to the standard supervision cycle, post-training support or refresher training, and close review of performance data. These strategies are time intensive and potentially costly. However, such approaches are integral to the scale-up process and are not intended to be ongoing.

Integration within the existing health system and organizational change

- A complementary strategy to ensuring that the intervention is fully implemented is ensuring that managers and health care workers view the intervention as an essential component of their regular work and not as an add-on. Some scale-up cases did not have explicit strategies to embed the intervention within the workplace and health system, which seriously compromised the potential for widespread adoption of the intervention.
- Organizational change is a challenge when new tasks are being added. Aligning the new program to the existing program appears to be critical to success.
- Where interventions require a change in organizational culture and not just new tasks, good practice was to involve all staff at a work site in an orientation about the new practice, either before or after training. This orientation helped to build a common understanding about the intervention, created a more encouraging climate for providers to adopt the method, and helped dispel rumors and misunderstanding.

Text Box 6: Feasible Tracking of Service Expansion

National immunization programs keep a close eye on coverage by tracking the number of infants receiving a third dose of a three-dose vaccine, divided by the annual number of births. UNICEF has recently made a similar estimate of iCCM coverage with a ratio of numbers of cases of treated pneumonia, diarrhea or malaria to under-five year olds by CHWs to the expected number of cases in the populations covered based on annual incidence rates for each disease derived from other sources (Diaz, 2014). The estimates of oxytocin coverage trialed by MCHIP using key informants is another example of an outcome indicator that can be tracked and used to modify scale up strategies as the innovation is being expanded.

MONITORING AND EVALUATION

- Resource teams need to identify the quality and coverage indicators and targets they expect to achieve, collect data to monitor performance, and have mechanisms to respond to findings.
- Frequently review feasibly collected outcome data. In order to track progress and make course adjustments, one needed component is reliable information on service expansion that is “good enough” for making management decisions in real time. Resource teams need to be inventive in devising feasible ways of tracking outcomes. (See Text Box 6.)

DEMAND CREATION AND COMMUNITY INVOLVEMENT

- Most of the cases incorporated some elements of creating demand for the intervention through information and educational materials such as posters, public launches, media coverage, television, and radio advertisements.
- However, the scale-up cases rarely involved the community, as they tended to be focused on improving the supply of health services. Opportunities appear to have been missed in the design phase of the scale-up to have potential clients give input into how they would like to receive services. Where those involved in the scale-up cases did harness community involvement, it had a significant positive impact on service delivery.

Conclusions

The study of these cases is a unique opportunity to examine a broad swath of RMNCH interventions and draw some generalizable lessons, in a way that is not possible when looking at a single intervention, even in multiple settings. The analysis is still preliminary, as it does not include all the lessons from the even more in-depth studies of iCCM in Mali and PFP in India that are in a separate report to be disseminated in July 2014; however, some broader lessons are already apparent. The examination of these 18 cases highlighted the interactions between different aspects and elements of the scale up process and the relative importance of those elements in different contexts. Summing up many of the individual lessons from the previous section, we draw four overarching conclusions.

System thinking is critical. Public health interventions have multiple components and need supports across the health system.

Almost all of the scale up cases took a comprehensive systems approach, seeking to address how the new practices would be supported through new governance, resourcing, and service delivery processes. Some of the most highly successful cases were those that were most driven by system thinking, like the NUVI scale up examples. All the interventions drew on robust international evidence of effectiveness but were implemented in ways which were congruent with national health systems and structures.

We actually are NOT scaling up technical interventions like HBB or iCCM. What we are actually doing is solving the **system support bottlenecks** for those interventions in varying contexts (this is how the Immunization Team conceives the scale up of NUVI).

The ability to reach “impact at scale” is only as good as the weakest part of the process—so, for instance, even if training and supervision are good, but commodities are absent, impact will not be achieved. Similarly, if the commodity is present but training follow-up and supervision systems are weak, the commodity may not be used well, again lessening impact at scale.

Think with a “quality end in mind”

Getting high coverage with poor quality and then trying to “fix” quality issues later is risky. Donor and MOH priorities may well shift later, robbing the ability to fix the problems. And high INEFFECTIVE coverage will not achieve impact at scale and may well make people disappointed or cynical.

The pace of the scale up is likely to be a long-term process (i.e., 10, even 20 years) and does not happen at a constant rate.

- One of the limitations of this review is that it focused on activities in a relatively narrow window of five years. A wide-ranging retrospective review of large-scale public health successes over the last 40 years came to the conclusion that for an intervention to reach and sustain national-level impact, steady funding (including from external sources) was required for a 10- to 20-year period (Levine 2007). Shorter-term projects run the risk of making the scale up process seem like a “project” (e.g., separate vertical trainings, parallel registers and reporting) when in fact it must be a long-term country-owned process. Shorter-term projects need to make choices about how to support scale up without distorting the MOH’s overall process of reaching impact at scale.

- There is pressure on all sides to make things happen fast (governments want to be responsive to their people; technical agencies and donors also want results as quickly as possible to demonstrate their competence and investments well spent).
- Another best practice in terms of pace is phased scale-up, as was done in India. This is the classic method of scaling up, but is not always used now with the pressure to go to national scale immediately (see Text Box 7).
- There will be key moments outside the control of a project to help the MOH make great progress (e.g., iCCM Mali and PPFP India—which NOW fit into national plans and priorities and can progress quickly), but there will be other times where progress will be slow and difficult (e.g., iCCM in Kenya in the past before the MOH made a commitment in its national plans).

Text Box 7: Phased Scale Up of PPFP in India

The scale up was phased from a handful of sites to demonstrate that PPIUCD was acceptable and feasible to larger and larger targets. There were a number of process innovations (counselors, training nurses, supportive visits, on-site training) developed at an early stage and then built into the expansion phase. If India had tried to scale up through the whole country all at once or in every facility in the high-focus states, the learning about these innovative implementation strategies may not have been so easily incorporated.

There are times when important development principles will be in conflict with each other.

To review one example: In the scale up of HBB there was a conflict between “data use for action” and “country ownership.” Bangladesh made the decision that in order for HBB to be country owned, the Resource Team recommended waiting to put HBB indicators into the registers until the MOH printed new registers. They did not want to give the impression that HBB was project-driven, but it also meant that the team managing the scale-up process was “driving blind.” They did not have information on where things were working well or not.

Recommendations for Future Action

This retrospective study generated useful findings that can inform future scale up efforts. In addition, it is essential to prospectively study scale up of RMNCH interventions, to assess this dynamic and changing process, not unlike developmental evaluation (Gamble 2006). The sorts of conclusions such a study would draw would not be to discover some sort of “silver bullet” for scaling up, but rather would help managers and decision-makers in country in real time—to guide the many smaller decisions that project managers make whose cumulative impact helps reveal good practice for scale up (Hodgins 2013). Trying to apply some of the lessons from immunization to other interventions (see Text Box 8) should also be a focus of future prospective implementation research on the scale-up process.

Text Box 8: Some Best Practices from Immunization

New vaccines had the greatest change in coverage (0% to >90% in all three examples). They started from relatively high levels of institutionalization in 2008 but then moved even higher. Immunization has some inherent advantages, four of which we delineate. Which of these was definitive and which might be replicable for other interventions is a topic for further research.

- Established implementer with structure from national to local level (i.e., national Expanded Programme on Immunization [EPI] program)
- Established Resource Team with recognized authority
- Clear intervention, which goes beyond just a description of the technical intervention only
- Feasible “good enough” data used for action within routine information systems

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Annex: Institutionalization Matrix Tool

Health system component	Question	No Competency (0)	Preparation Phase (1)	Introduction (Pilot) Phase (2)	Early Expansion Phase (3)	Mature Expansion Phase (4)
		No health system competency for the intervention	Key national strategic choices and actions are being made by MOH to establish the needed competencies for the intervention	Piloting/testing for the competency related to the intervention. External agencies assume the majority of the responsibility for competency.	MOH is beginning to manage the competency for the intervention before full integration into national and subnational systems.	The MOH has fully integrated the competency for the intervention into national and subnational systems.
		0	1	2	3	4
Policy	Has the MOH implemented the necessary policy elements and practice guidelines to support the intervention?	No steps have been taken to make necessary changes in policy for the intervention.	Policies and guidelines that include the intervention are under discussion.	Policies and guidelines have been developed, and are being tested or being implemented mainly with support of outside agencies.	Policy changes have been adopted; guidelines are being finalized; training is rolling out on new guidelines.	A majority or all of the relevant managers and providers are trained on national policy and guidelines that include the intervention.
Planning	Has the MOH included the intervention in national and subnational plans?	No steps have been taken to make necessary changes to the planning process for the intervention.	Discussions have occurred about piloting the intervention.	Pilot activity is included in subnational health plan.	Intervention is included in subnational health plan where being implemented OR it is in national health plan, but only for part of the country.	Intervention is included in national health planning processes.
Coordination	Is the intervention included as a regular topic of discussion with appropriate national and subnational coordination bodies?	No steps have been taken to make necessary changes to the coordination process for the intervention.	Intervention has been discussed at least once in coordination meeting(s) between MOH and donors/technical agencies	Pilot activity is occurring in collaboration with national stakeholders and discussed in coordination meetings.	Intervention is included on agenda of key coordination bodies.	Intervention is fully integrated in national and subnational coordination bodies.

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		0	1	2	3	4
Leadership	Are there ongoing leadership efforts for the intervention (at first by champions, and later by an institutionalized group in the MOH)?	Only partner(s) are advocating for the intervention.	There is at least one champion/focal person for the intervention in the MOH. Discussions are preliminary	Advocacy for skills building, quality improvement, and continued program expansion; advocating for integration into existing health programs; Interventions in partners' agenda.	Advocacy for additional funds to support national intervention.	The MOH has assigned personnel to support the management/governance within the appropriate section of the MOH which takes the responsibility for its implementation.
Finance	Is the government including the intervention in its budgeting process?	Only discussions are occurring for funding the intervention externally.	External partner(s) fund costs associated with pilot activities covering a small geographical area	Donors fund expansion of intervention; government is considering costs and preparing cost analysis/projections to include intervention in existing budget.	MOH funds much of the costs of the intervention, but has ongoing outside support.	Government includes intervention as a line item in budget
Training	Do appropriate MOH in-service and pre-service curricula include the intervention?	Only discussions have occurred, but no training for the intervention	Only in-service training being done; by outside agencies; and in pilot areas and/or on an ad hoc basis	In-service training conducted only with external TA	In-service training conducted by MOH (may be with external TA). Intervention still not included in pre-service curricula.	MOH leads in-service trainings and has integrated intervention pre-service training

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		0	1	2	3	4
Personnel	Are appropriate health worker cadres authorized and are there sufficient numbers of them to implement the intervention?	No appropriate and recognized cadres of HCW are authorized to implement the intervention.	Discussions are underway about what cadres of health care workers can implement the intervention	Authorized cadres of HCW are implementing the pilot with supervision of MCHIP or other agencies.	Job descriptions have been expanded to include duties (if necessary). MOH staff able to cover some but not all the human resource needs to implement the intervention.	HCW cadres are authorized to implement intervention and are actively implementing the intervention as part of routine scope of practice. There are sufficient HCW to cover the need.
Quality Improvement	Does the MOH QI system include the intervention and is it being implemented?	Intervention not included in QI system and/or activities.	QI system is being modified to include the intervention into in existing relevant materials	External TA providers train health managers in pilot areas in quality improvement (QI)/quality management (QM) approaches, including use of documentation, measurement, monitoring, reporting and assessment.	Standardization of QI approaches into facility and subnational bodies (e.g., DHMT). External TA providers collaborate with government to mentor facility teams to carry out routine participatory assessment of quality of care; ensure staff buy-in and team building; QI standard operating procedures (SOPs) developed.	QI/QM system institutionalized at local, subnational and national levels and lead by subnational teams.

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Supervision	Is the intervention included in regular MOH supervision activities?	Supervisors do not include intervention in their activities	Revisions to supervisory system (e.g., checklists) elements for the interventions are underway to incorporate intervention into existing relevant materials	External TA providers train managers in learning sites on supervision techniques; develop or revise supervision guidelines	External TA providers conduct joint supervision visits with government counterparts; follow up findings of joint supervision visits; training managers on decision-making strategies and evaluating effectiveness of programs.	Supervision guidelines and processes institutionalized within government systems; supervision visits funded and implemented independently by government in all intervention sites
	Is the MOH engaged in generating demand for the intervention among potential clients?	No demand creation for intervention	Strategy and materials for demand creation for beneficiaries and providers under development	External stakeholders doing all support for uptake of the intervention among potential beneficiaries	Some demand creation being taken up by MOH	Demand creation done by government, integrated with other programs. Community advocacy to increase demand for service.
Commodities and Logistics	Is the MOH procuring and distributing sufficient quantities of the needed commodities within its normal logistics system?	Commodities needed for intervention not included in logistics system nor available through external assistance.	Discussions with MOH and partners about needed supplies/Commodities for intervention	External TA providers train health teams in commodity management. External funded commodities for pilot sites only.	Appropriate commodities available in multiple geographic areas, but procurement and/or logistics managed by external partners	Procurement and logistics for appropriate commodities included in the MoH systems (forecasting, supply, distribution and oversight)

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Health Information	Does the MOH collect, report, and use appropriate indicators/information for the intervention?	0	1	2	3	4
		Appropriate indicators to track intervention not included in HIS	Discussions about need for new indicators and/or data collection and reporting forms.	A pilot experience and/or readiness assessment conducted to test appropriate indicators and/or reporting forms.	New indicators used in some but not all geographic areas and/or indicators collected but not sent through regular reporting chain.	Appropriate indicators for intervention are in National Health Information System (HIS) and are reported on a regular basis.

Key Program Learning Results for Quality, Integration, and Equity Themes			Learning Outcomes / Strength of Evidence	
Approach	Activity Description	Location	Implementation Outcomes	
QUALITY THEME				
Standards-Based Management and Recognition (SBM-R) for QI of RMNCH services	Evaluation of MCHIP country programs, linking SBM-R QI data with key practices and outcome level results. This was done in Ethiopia, Guinea, Malawi, Mozambique, Zimbabwe. Illustrative results shown for Guinea and Mozambique.	Guinea	In six maternity facilities in Guinea with 3,500–4,000 annual deliveries compliance with labor and delivery (L&D) standards rose from an average of less than 40 percent in 2011 to 80 percent in 2013; use of AMTSL rose from under 40 percent to over 80 percent; and incidence of PPH dropped from 2.9 percent to 0.7 percent of cases. The use of active management in the third stage of labor (AMTSL) rose from under 40% to over 80%. The incidence of postpartum hemorrhage (PPH) dropped from 2.9% to 0.7% of cases.	These country program examples were positive, but limited in number. The experience of linking QI process results to coverage of key practices and health outcomes needs to be expanded and made standard practice. This has now been incorporated in SBM-R implementation guidance and will be expanded under the Maternal and Child Survival Program.
		Mozambique	In 34 Model Maternities in Mozambique from 2010 to 2013, with over 100,000 annual deliveries, compliance with standards rose from an average of <30 percent to over 50 percent. Correct partograph use doubled from 30 percent to 60 percent; AMTSL use rose from <70 percent to near universal. The Institutional Maternal Mortality Rate in these facilities dropped 10%, as reported in the national health information system. Used findings to advocate for increased use of magnesium sulfate.	
		Ethiopia	Part of national SPA. Regional workplans developed based on findings.	
		Kenya	Used to advocate for national adoption of Helping Babies Breathe, as well as improved use of key maternal interventions such as partograph use.	
		Madagascar	Highlighted the need to improve newborn resuscitation. MCHIP advocated for Helping Babies Breathe to be rolled out as national policy.	
Quality of care (QoC) assessments for measurement of the quality of facility-based MNH services	To better determine the frequency and quality with which evidence-based interventions were implemented by maternal and newborn care providers, MCHIP designed and conducted assessments in health facilities providing maternity services in seven countries in East and Southern Africa	Mozambique	Influenced development of three major documents: national guidelines, BEMONC training, and PAC policy. Health care providers were encouraged to use magnesium sulfate (increased attention to supply and training of providers). Increased linkages to Venture Strategies International to improve misoprostol supply. Stock-out data helped stakeholders reach consensus on the need for tracking of maternal health drugs.	Findings across all countries <ul style="list-style-type: none">Continued need for policy, advocacy, and provider education, training, and support to promote the wide-scale use of essential lifesaving interventions.Emphasize HSS to ensure that drugs and commodities are available to implement best practices.Organize services so that critical supplies and equipment are accessible and ready for use when needed.Encourage supportive supervision to ensure adequate monitoring of service provision in clinical decision-making, management, and reporting.Conduct research to understand factors that limit or encourage implementation of proven lifesaving interventions. Learning about the QoC tool <ul style="list-style-type: none">Direct observation provides different information on quality rather than assessments of readiness. Once a moderate-to-high level of readiness is assured, the extra effort that direct observation requires is justified to further characterize actionable gaps in quality of service provision.Assessments involving direct observation of maternal and newborn complications, such as PPH, PE/E, or newborn asphyxia, are challenging because such complications are rare. Despite these challenges, the QoC assessments demonstrated that it was still possible to learn about the quality of delivery of care from direct observation.Further simplification of the observation checklists for complications, possibly applied to simulations, would make these components more feasible and the data more usable.Simpler QoC tool needed that could be incorporated into supportive supervision. Dissemination of QoC tools <ul style="list-style-type: none">The World Bank, with support from Jhpiego, used the tools in a QoC study in Kyrgyzstan and extended the observations and audits to include non-communicable diseases such as strokes and myocardial infarctions.With help from ICF International, the Nepal MOH has used the QoC L&D observation tools to assess the country's low-volume public sector birthing centers.The QoC L&D observation tools have now been added to the SPA as an optional module that has been applied in recent SPAs in Malawi and Bangladesh.
		Rwanda	Part of national QoC assessment used for national planning.	
		Tanzania / Zanzibar		
		Zimbabwe		
		India		
Regular Appraisal of Program Implementation in a District (RAPID) for QI of immunization services	From October 2009 to May 2014, sixty rounds of RAPID were facilitated in 35 districts in two states (Uttar Pradesh and Jharkhand).	India	In Uttar Pradesh, 39 health facilities moved from 84% poor designation after round 1 to 53% good after round 4. Similarly in Jharkhand, 11 facilities moved from 36% poor designation in round 1 to 73% good after round 6. RAPID was scaled up with local funding to the Indian states of Jharkhand, Uttar Pradesh, Rajasthan, Orissa, Haryana, and Madhya Pradesh.	The preliminary experience with RAPID is promising and needs to be tested more rigorously. Early lessons are the following: <ul style="list-style-type: none">• RAPID is easily adaptable to the local context.• RAPID requires the consensus and participation of government as well as facility staff, which fosters collaboration and creates a network of staff committed to quality of care.• RAPID uses simple low-technology tools (standardized checklists and reporting tools) appropriate to existing field realities.• RAPID provides an immediate quantification of quality and existing gaps in service delivery providing data for action and follow-up. This approach allows districts to build local capacities and enhances ownership, strengthening the overall system.• RAPID enables facility staff to demonstrate and validate their need for resources or additional support through use of documented strengths and weaknesses.

Approach	Activity Description	Location	Implementation Outcomes	Learning Outcomes / Strength of Evidence
Respectful Maternity Care (RMC) approach for defining, measuring, and improving maternity care from a client perspective <i>Developed and disseminated tools, templates, and other materials.</i>	As part of Mozambique's Model Maternities Initiative, RMC elements were added as an integrated part of the Labor and Delivery quality checklist with MCHIP technical assistance in 2010. The verification checklist includes questions on encouraging the presence of a birth companion and birth in a traditional position (i.e., not dorsal lithotomy), as well as encouraging ambulation and free access to food and fluids during labor.	Mozambique	Seven key indicators of quality maternal and newborn service provision have been included in routine reporting and are now part of integrated maternity registers. Two of these key indicators are measures of RMC—presence of a birth companion and birth in a vertical/semi-vertical position. From a baseline of near zero, the value of both these indicators has slowly risen over the last four years, to the point that both are near 30 percent currently. It should be emphasized that these indicators are reported in routine registers for all births occurring in a group of facilities that is responsible for attending approximately half of all institutional births nationwide	Defining, measuring, and improving RMC is an approach still early in its development. Measuring RMC has been difficult, especially from a programmatic perspective. Warren et al. describe the limited evidence related to disrespectful care and abuse (D&A). Gaps include “the lack of: operational definitions; validated measurement methods; evidence of successful interventions; and prevalence estimates ... There is a lack of systematic evaluation and analysis of the contributors of D&A and specific mechanisms by which different drivers may contribute to the problem including interactions between the different drivers. Another gap is the specific way in which D&A acts as a deterrent to skilled care utilization as well as the contribution of the different categories of D&A in reducing maternal health coverage. There are almost no studies that evaluate impact of interventions designed to reduce D&A or promote respectful care.” Another challenge is that disrespectful maternal care can be resistant to change because it is driven by social norms that are held in place by the expectations of people within a particular group. Not only is RMC dependent on underlying health systems issues and the many determinants of QoC, but issues of class, culture, and social norms add to its complexity. Further work on RMC will need to be done to define, measure, and intervene.
Community-inclusive approaches for QI of reproductive RMNCH services, specifically: Partnership Defined Quality (PDQ) and Client-Oriented Provider Efficient (COPE) services	The Center for Human Services (CHS), a CSHGP grantee supported by MCHIP, implemented a project prioritizing RMC provision in Ecuador, targeted training of health workers to increase their awareness of respectful care as well as compliance to technical QoC standards. Traditional birth attendants worked closely with health facilities to refer women in labor to skilled birth attendants.	Ecuador	The EONC network established in Cotopaxi contributed to improvements in: <ul style="list-style-type: none"> •Household maternal best practices (exclusive breastfeeding - from 38% baseline to 51% endline, naming neonatal danger signs - from 75% to 97%, birth preparedness - 57% to 73%, TBA referral of home complications to facility - 50% to 83%, and client satisfaction - 65% to 98%, among others), •Postpartum visits within 2 days of birth (from 4% to 70%), and •Significant trends in reducing neonatal mortality 	
	The African Medical and Research Foundation (AMREF), a CSHGP grantee given technical assistance by MCHIP, worked with District Health Management Teams in Kenya to implement PDQ.	Kenya	Final independent evaluation findings showed that mothers who attended ANC at least four times during pregnancy rose from 32 percent to 49 percent; mothers who attended postnatal care within two days of delivery increased from 23 percent to 58 percent; and children who were delivered by a skilled health professional rose from 26 percent to 57 percent.	Experience with PDQ in Mozambique Model Maternities is feasible at moderate scale. Results on outcomes are not yet available.

Approach	Activity Description	Location	Implementation Outcomes	Learning Outcomes / Strength of Evidence
INTEGRATION THEME Delivering Integrated Health Care at the Community Level	Integration of Family Planning with MNH Services at Community Level: A quasi-experimental study was carried out in Sylhet District to test an integrated package of FP/MNH at the community level and demonstrate that activities would not overload CHWs and cause adverse negative consequences for newborn health outcomes.	Bangladesh	<ul style="list-style-type: none"> The HFS model led to more than 20% increased cumulative probability of modern method adoption through 36 months postpartum period. HFS activities led to a decrease in the incidence of pregnancy within the first 36 months of delivery, which is the period of highest risk for mother and baby. HFS activities were associated with a 21% reduction of probability of shorter birth intervals and 20% lower risk of preterm birth. 	This quasi-experimental study gave strong evidence that Family Planning can be feasibly and effectively integrated with Maternal, Newborn, and Child Health services delivered by CHWs. This intervention increased the adoption of modern contraceptive methods, and decreased the probability of short birth intervals.
	Partial Integration of multiple services at community level: Child Fund (CSHGP grantee) worked with the MOH to provide PHC services through community agents working at community-run rural health posts to rural low-income people within the context of decentralization and with genuine civil society participation.	Honduras	<ul style="list-style-type: none"> The UCOS approach contributed to a decrease in the rates of child, neonatal and infant mortality from 2008-2013 in target geographic areas. Utilization of local health services increased, e.g. the overall number of children <5 cared for by the UCOS increased by 254% from 2012 to 2013. Families were able to save USD \$6.03 if they were able to find a solution to a child health problem at the community level via the UCOS 	This community-controlled clinic model appears to be effective and cost-effective at delivering integrated MNCH services to a vulnerable population.
	Preliminary evidence indicates that this integrated community-run clinic model is effective and cost-effective at delivering primary health care services to vulnerable populations.	Rwanda	<ul style="list-style-type: none"> AMTSL and uterotonic use for vaginal births at facilities was very successful: uterotonic coverage rate at the health facility level was 86.3% (Estimate 1) and 85.2% (Estimate 2). Misoprostol coverage rate for home births was lower than expected and varied considerably between the two estimates: 16.2% uterotonic coverage of the estimated 3,696 home births (Estimate 1) and 44.3% of the 1349 home births recorded in the community health info system (Estimate 2). The availability of misoprostol for home births did not appear to deter women from delivering at a health facility. 87% of women delivering in a facility received a uterotonic. 	Facility-based delivery rates were not effective. However, coverage of home-births with misoprostol was low. This was felt to be caused by the fact that the misoprostol ingestion had to be directly observed by the CHW, rather than allowing for self-administration.
	Partial integration of misoprostol distribution with other MNH services: This study combined health facility and community-focused activity for the prevention of PPH. The intervention integrated uterotonics into antenatal care messages and delivery practices. There was shared responsibility between the ASM and health facility staff.	South Sudan		The combined intervention appears to be effective. It did not decrease the coverage of facility-based births and reached high coverage with uterotonic (misoprostol was self-administered by women).
	Partial integration of FP and immunization services: A pilot study was designed to demonstrate the feasibility of integrating FP into routine immunization services at fixed facilities through same-day referrals and FP service delivery. Full integration of FP and MNH services: A pilot initiative was designed to reduce infant, child and maternal mortality and morbidity by increased coverage and integration of evidence-based MNCH interventions (including immunization, sanitation and nutrition, including breast feeding, along with safe birthing practices and family planning).	Liberia	<ul style="list-style-type: none"> All participating facilities showed an increase in the total number of new contraceptive users. 80% of women who received a FP referral went to the FP provider the same day There was an increase in the number of doses of Penta 1 and Penta 3 administered across pilot sites. Use of modern FP methods increased from 2% at baseline to 60% at endline Measles vaccination coverage increased from 45% to 97% from baseline to endline Community-based MNCH services can rapidly increase changes in key behaviors and uptake of health services. 	Programmatic evidence in Liberia and India points to the importance of: <ul style="list-style-type: none"> Implementing programs that are supportive of government policies and programs. Working in close partnership with ministries of health and other partners at the national and local levels. Ensuring that the necessary commodities and equipment are in place to offer targeted services. Building the capacity of health care providers to manage new responsibilities effectively. Strengthening approaches to monitor the quality of care including supervision, and Engaging communities through culturally appropriate IEC and BCC materials and campaigns.
Integrating Family Planning into MNCH Platforms	Partial integration of postpartum FP with Maternity care: MCHIP supported the Government of India to introduce PPIUCD into facilities as part of the Janani Suraksha Yojana (JSY), a conditional cash transfer scheme, to encourage the use of facilities for births.	India	<ul style="list-style-type: none"> Program under national scale up, PPF/PPIUCD services being offered in 371 district and sub-district level facilities in nineteen states, and in 212 of 256 district level facilities in the six high TFR states. More than 249,000 insertions since February 2010 	
			<ul style="list-style-type: none"> Program being scaled up in the private sector 	

Approach	Activity Description	Location	Implementation Outcomes	Learning Outcomes / Strength of Evidence
Integrating Maternal, Infant, and Young Child Nutrition (MIYCN) through Integrated Programming into MNCH platforms	Partial integration of IYCN and MNH services: The SMART project implemented a model to improve coordination between physicians, community health workers, and community development associations. Specifically, the project integrated nutrition, newborn care, the use of modern family planning methods and in the later stages, added management of pneumonia to the integration mix.	Egypt	<ul style="list-style-type: none"> Percent of women breastfeeding their baby within one hour of birth increased from 38 to 71% in Upper Egypt In both Upper and Lower Egypt the percent of women providing their children with at least four food groups more than doubled, with at least 41% of women doing so Provision of ANC core services increased by at least 10 percentage points for each service, in both Upper and Lower Egypt; in some cases, increases were dramatic, women reporting that their height was measured went from 31 to 77% in Upper Egypt. 	In this context in Egypt, it appears to be feasible and effective to have community health workers combine MNCH, FP, and nutrition counseling.
	Partial integration of IYCN and MNCH services: The ENRICH Project (Implemented by CSHGP grantee IRD) tested innovative and cost-effective evidence-based measures to reduce infant, child, and maternal mortality in a total population of 106,168. This model combined infant and young child feeding, water and sanitation, and healthy timing and spacing of pregnancy interventions.	Cambodia	<ul style="list-style-type: none"> Of the 183 malnourished (moderate and severe) children who participated in hearth, 122 improved nutritional status to mild and normal (at midterm evaluation) 4,342 household in project target area have improved drinking source water (1852 additional households) (at midterm evaluation) 	Combining IYCN, water and sanitation, and healthy timing and spacing of pregnancy interventions, was both feasible and effective at moderate scale.
	Partial integration (coordination) of nutritional and agricultural food security interventions: CSHGP grantee Helen Keller International (HKI), implemented the Action Against Malnutrition through Agriculture project to reduce child malnutrition related mortality in the target districts. The project integrated agricultural food security interventions with interventions designed to improve nutrition knowledge and practices in pregnant and lactating women with children under the age of two.	Nepal	<ul style="list-style-type: none"> Nutritional status, specifically chronic malnutrition and anemia among children, improved significantly in Kailali District and among the Dalit (disadvantaged) population in Baitadi. 89.5% of families with children under age two in Kailali now have gardens and 77.4% have poultry with an average of seven varieties of vegetables and ten chickens in their gardens. 72.7% of families with children under two in Bajura District have gardens and 66.2% have poultry with an average of six varieties of vegetables and three chickens in their gardens. 	This quasi-experimental study showed that nutritional interventions can be feasibly combined with agricultural interventions, managed at a district level and done at moderate scale. The government of Nepal is now planning to scale this up nationally.
EQUITY THEME Increasing access by targeting the most vulnerable and tackling social norms	<p>MCHIP identified a particularly vulnerable group of hard to reach men—migrant field workers who were poorly serviced by the traditional health care services. MCHIP brought (in collaboration with the regional medical office of Iringa) VMMC services to the men where they live (away from home) and work (rural areas) though focused campaigns.</p> <p>Catholic Relief Services, a CSHGP grantee, identified the lack of decision-making authority and domestic violence among poorer women as significant barriers to utilization of maternal and newborn care services. To address this, CRS, included a gender-accommodating strategy of male involvement to lower the barriers for woman to access needed services.</p>	<p>Tanzania</p> <p>Nicaragua</p>	<p>MCHIP's VMMC program in Iringa, Tanzania increased the prevalence of VMMC in the region from 29% in 2009 to 50% in 2012. As a result, Tanzanian's Iringa region has become one of the few VMMC programs coming close to achieving the 80% coverage target. The region is headed toward a significant reduction in new HIV infections in the next 10 years, coupled with tremendous savings of costs that otherwise would have occurred to cover antiretroviral treatment and care.</p> <p>By the end of the program both women and health providers remarked that domestic violence had decreased and women stated that they felt more supported by their husbands during pregnancy</p> <p>Health outcomes also improved: antenatal care, fourth visit (49% to 60%); institutional birth coverage (67% to 77%); postpartum check for mothers within 48 hours of delivery (56% to 72%); and postpartum check for the newborn (50% to 66%).</p>	<p>Based on preliminary evidence, it appears that it is possible to increase VMMC utilization among vulnerable populations through focused campaigns.</p> <p>Based on preliminary implementation data, male involvement appeared to lower the barriers for women to access needed services, can be effective to reduce gender violence, and improve maternal health indicators.</p>

Approach	Activity Description	Location	Implementation Outcomes	Learning Outcomes / Strength of Evidence
Strengthening community-based service provision through use of community-based workers, such as CHWs and TBAs, and engaging them in civil society	MCHIP spearheaded global efforts to expand community-based services delivered through cadres of paid or volunteer CHWs. This enables those without access to facility-based services to still receive life-saving health care services. In Bangladesh, Ethiopia, Guinea, Liberia, Madagascar, Mozambique, Nigeria, Pakistan, Rwanda and South Sudan, MCHIP supported CHWs to conduct home visits during pregnancy to educate women about how to use misoprostol and distributed it. This strategy ensured that women who were unable to deliver in facilities had access to PPH prevention with a uterotonic. MCHIP strengthened community-based service provision through engagement with civil society. Through ICCM, MCHIP supported CHWs were recruited and trained to diagnose and treat the most common childhood illnesses and to identify children in need of immediate referral to facilities. MCHIP worked with local NGOs to implement mobile health units in hard to reach vulnerable areas since the government was unable to offer services during the crisis.	Bangladesh Egypt	Approximately 38,000 women and children were provided with free health delivered by partner-operated mobile units supported by MCHIP. Action plans were fed into public decision making channels. Service utilization, inequity, and mortality improved significantly. CPR increased 7%. There is evidence maternal mortality fell significantly. Health systems components like data quality in the health information system improved.	Engaging communities unleashed their potential to mobilize local resources to solve their own problems and improve health system bottlenecks.
	MCHIP supported CHWs were recruited and trained to diagnose and treat the most common childhood illnesses and to identify children in need of immediate referral to facilities. MCHIP used health surveillance assistants to increase the availability of ICCM in four districts	Malawi	3,500 out of 4,000 hard to reach areas (defined as areas that are more than eight km from the nearest health center) were covered by over 3,000 health surveillance assistants (CHWs who receive a government salary).	Based on preliminary findings, it appears as if community-based service provision can be strengthened using community-based health workers.
Strengthening the community voice	CSHGP grantee (AMREF) worked with district health management teams to implement Partnership Defined Quality (PDQ), a community participation approach developed by Save the Children in the 1990s to improve the quality of care. Facility-Community co-management committees supported by MCHIP and comprised of health facility staff and community members, used a PDQ approach to engage communities and improve their connection with health facilities. These committees have detailed terms of reference that have been approved by the MOH and stipulate group composition—for example, women should make up 60% of the committee—and that committee leaders should assist in identifying community members who can participate.	Kenya	Final evaluation data not available.	The PDQ approach appears feasible in this context. No outcome-level results available.
		Mozambique	Intervention not yet complete. No results-level data available.	No outcome-level results yet available.
Monitoring and evaluating for equity	With MCHIP technical assistance, CSHGP grantee (ChildFund International) constructed socio-economic profiles of beneficiaries (from brief client exit interview data at peripheral facilities) in their CSHGP project. These profiles were used to compare clients of Community Health Unitsxi and of MOH facilities in the same geographical area. CSHGP grantee (CRS) tracked changes in the behavior of men in terms of the degree to which they actively participate and make decisions jointly with their wives about pregnancy and newborn care.	Honduras Nicaragua	Health coverage for clients served by Community Health Units increased. For example, the percentage of fully immunized children increased from 73.7% (2009 baseline) to 100% (2013 endline) and health facility births increased from 71.4% (baseline) to 93.7% (endline). Final results of both the qualitative and quantitative surveys showed statistically significant increases in antenatal care; skilled birth attendance; postpartum care; joint decision-making; and men's participation in antenatal care, delivery, and newborn care. Qualitative surveys also discovered one unexpected result of the intervention—women reported that in addition to their husbands' increased participation in their health care and that of their newborns, they also saw marked decreases in domestic violence.	MCHIP worked with other partners to develop practical tools for tracking equity. These included qualitative and quantitative techniques; facility and population based information; and routinely collected data as well as special studies. The data gathering and analysis does not need to be onerous, but there needs to be a commitment to collecting, analyzing, and using the data to help target interventions to those most in need of them. It is best to begin collecting this information at baseline and to combine this with process documentation to be able to fully understand the effect of activities to improve health equity. MCHIP produced the manual Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects .

Annex 9: Success Stories, Blogs, and Announcements

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
1	Baby Maidv's Survival Depended on Her Mother and Kangaroo Care	Success Story	6/6/2010	Malawi	Newborn Health
2	The Story of Home Maya and the Importance of Preventing Pre-Eclampsia/Eclampsia	Success Story	6/6/2010	Nepal	Maternal Health
3	Malawi Hospital Wins Accolades for Improvements in RH Services for Women	Success Story	8/15/2010	Malawi	Maternal Health
4	Improving Maternal and Newborn Health through Income Generating Activities of Mothers Saving and Loan Clubs in Northern Nigeria	Success Story	9/2/2010	Nigeria	N/A
5	Community Health Workers Protect Children in Rwanda	Success Story	10/19/2010	Rwanda	Child Health
6	Saving Lives by Helping Babies Breathe	Success Story	11/19/2010	Bangladesh	Newborn Health
7	Dowa District Hospital in Malawi—A Journey to Achieving Excellence	Success Story	11/19/2010	Global	Child Health/Maternal Health/Newborn Health
8	When Community Action Groups Take Action	Success Story	11/19/2010	Malawi	Child Health/Maternal Health/Newborn Health
9	In the Heart of Darkness, a Cry of Hope	Success Story	11/29/2010	Democratic Republic of the Congo	Child Health/Maternal Health/Newborn Health
10	Cervical Cancer Community Cadre Training: An Unintended Success	Success Story	11/29/2010	South Africa	Maternal Health
11	Preventing a Leading Killer: A Look at PE/E	Success Story	11/29/2010	Nepal	Maternal Health
12	Preventing the Spread of HIV	Success Story	11/29/2010	Kenya	HIV
13	Impact of Mothers' Savings and Loans Clubs	Success Story	11/29/2010	Nigeria	Maternal Health
14	Removing the "Veil of Silence"	Success Story	12/9/2010	Global	Child Health/Maternal Health/Newborn Health
15	A Healthy Start	Success Story	2/7/2011	Global	Newborn Health
16	Liberia Innovates to Save Lives of New Moms	Success Story	2/8/2011	Liberia	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
17	Safe Motherhood in Nigeria	Success Story	2/8/2011	Nigeria	Maternal Health
18	Expanding Immunization Coverage to Protect Children in India	Success Story	2/11/2011	India	Immunization
19	Educating Communities to Stamp Out Malaria	Success Story	4/12/2011	Global	Malaria
20	No Missed Opportunities	Success Story	4/18/2011	Global	Family Planning
21	The Importance of Infant Immunization	Success Story	4/28/2011	Global	Immunization
22	MCHIP in Senegal: A Positive Case in Combatting Malaria	Success Story	4/29/2011	Senegal	Malaria
23	Saving Newborns in Nigeria	Success Story	5/18/2011	Nigeria	Newborn Health
24	Preventing Malaria in Pregnancy in Rural Burkina Faso	Success Story	5/27/2011	Burkina Faso	Malaria
25	Decreasing Child Mortality with Community Case Management	Success Story	5/31/2011	Global	Child Health
26	MCHIP Honors Its Midwives: Ethiopia	Success Story	6/21/2011	Ethiopia	Family Planning/Maternal Health/Newborn Health
27	MCHIP Honors Its Midwives: Rwanda	Success Story	6/22/2011	Rwanda	Family Planning/Maternal Health/Newborn Health
28	MCHIP Honors Its Midwives: Indonesia	Success Story	6/23/2011	Indonesia	Family Planning/Maternal Health/Newborn Health
29	MCHIP Honors Its Midwives: Afghanistan	Success Story	6/24/2011	Afghanistan	Family Planning/Maternal Health/Newborn Health
30	In Northern Nigeria, HIV Counseling and Testing Reaches Women Where They Live	Success Story	6/27/2011	Nigeria	HIV
31	Midwives Key to Health and Survival of Women and Children	Success Story	7/7/2011	Global	Family Planning/Maternal Health/Newborn Health
32	MCHIP Paraguay Team Tailors Health Provider Training to Women's Needs	Success Story	7/14/2011	Paraguay	Maternal Health
33	Excitement and Challenges in South Sudan	Success Story	7/18/2011	South Sudan	Maternal Health
34	Learning from Polio Eradication: Community Involvement in Reaching Under-Immunized in Northern Nigeria	Success Story	7/20/2011	Nigeria	Immunization

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
35	Healthy Fertility Study: Integrating FP within a Community-Based Maternal and Neonatal Health Program in Rural Bangladesh	Success Story	7/20/2011	Bangladesh	Family Planning/Maternal Health/Newborn Health
36	Postpartum Family Planning Study Tour, Jaipur, India	Success Story	7/25/2011	India	Family Planning
37	Preventing a Leading Killer: A Look at PE/E in Nepal	Success Story	8/4/2011	Nepal	Maternal Health
38	Male Circumcision Campaign Achieves 150% of Target	Success Story	8/25/2011	Tanzania	HIV
39	With MCHIP's Help, Health Facilities in Guinea Prevent Postpartum Hemorrhage	Success Story	9/9/2011	Guinea	Maternal Health
40	MCHIP Expands Access to Kangaroo Mother Care in the DRC	Success Story	9/20/2011	Democratic Republic of the Congo	Newborn Health
41	Auxiliary Nurse-Midwife in India Sets an Example for Family Planning	Success Story	11/8/2011	India	Family Planning
42	Nigerian Women's Use of Family Planning Increases through Integrated Health Services	Success Story	11/8/2011	Nigeria	Family Planning
43	Community Health Workers: Champions in the Fight against Child Pneumonia	Success Story	11/12/2011	Global	Immunization
44	Mama Therese: An Advocate for Women and Children in the Rwandan Senate	Success Story	11/27/2011	Rwanda	Child Health/Maternal Health/Newborn Health
45	A Little World All Its Own	Success Story	11/29/2011	Bangladesh	Maternal Health
46	Community Health Workers Protecting Children	Success Story	11/29/2011	Rwanda	Child Health
47	Community Volunteer in Bangladesh Initiates Timely Support to Save Mother	Success Story	12/15/2011	Bangladesh	Maternal Health
48	Facility Strengthening and Training Lead to Improved Birth Outcomes in Uttar Pradesh	Success Story	1/12/2012	India	Maternal Health/Newborn Health
49	Mothers and Babies Thriving Thanks to MCHIP KMC Programs	Success Story	1/12/2012	Colombia	Newborn Health
50	US Officials Visit MCHIP Project Sites in Bangladesh to Meet Beneficiaries	Success Story	1/26/2012	Bangladesh	Family Planning
51	Newborn Saved in Bangladesh through Helping Babies Breathe Initiative	Success Story	2/9/2012	Bangladesh	Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
52	Using Supportive Supervision at Scale in India to Improve Immunization Program Coverage	Success Story	2/21/2012	Global	Immunization
53	Community Health Workers Provide Lifesaving Maternal and Newborn Care in Madagascar	Success Story	2/21/2012	Madagascar	Maternal Health/Newborn Health
54	Family Planning Use Significantly Increases through Innovative, Improved Services in Northern Nigeria	Success Story	2/23/2012	Nigeria	Family Planning
55	In Madagascar, Quality Care with a Smile	Success Story	2/23/2012	Madagascar	Maternal Health/Newborn Health
56	It All Starts with a Problem and a Tree: Saving Women and Babies in Malawi	Success Story	2/29/2012	Malawi	Maternal Health/Newborn Health
57	In Rwanda, 12,000 MCHIP-Trained Community Health Workers Are Saving Lives	Success Story	3/7/2012	Rwanda	N/A
58	Newly Trained Health Workers in Mali Spread Messages to Larger Communities	Success Story	3/14/2012	Mali	Maternal Health
59	Men Queue for Voluntary Medical Male Circumcision at Facilities in Lesotho	Success Story	3/29/2012	Lesotho	HIV
60	Premature and Low Birth Weight Baby in Paraguay Saved by Kangaroo Mother Care	Success Story	4/4/2012	Paraguay	Newborn Health
61	Repurposed Marketplace Becomes Surgical Site in Kifanya, Tanzania	Success Story	4/4/2012	Tanzania	HIV
62	Communities in Malawi Key to Raising Malaria Awareness and Prevention	Success Story	4/5/2012	Malawi	Malaria
63	A Remote Village in Bolivia Leads by Example to Help Women Survive Childbirth	Success Story	4/18/2012	Bolivia	Child Health/Maternal Health/Newborn Health
64	"Women's Lives Are Worth Saving": South Sudan Works to Reduce Maternal Mortality	Success Story	4/25/2012	South Sudan	Maternal Health
65	Immunization Success in Jharkhand a Testament to the Power of Partnership	Success Story	4/26/2012	India	Immunization
66	"Aponion" Service Helps Families in Bangladesh Receive Accurate Health Messages	Success Story	4/26/2012	Bangladesh	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
67	Midwives are Valued Caregivers—and We Must Support Them	Success Story	5/4/2012	Bangladesh	Family Planning/Maternal Health/Newborn Health
68	Allowing Women to Nurture Themselves and Their Children before Giving Birth Again	Success Story	5/9/2012	Global	Family Planning/Maternal Health/Newborn Health
69	Taking Action to Strengthen Family Planning Service Delivery in Liberia	Success Story	5/16/2012	Liberia	Family Planning
70	District Commissioner Joins Male Circumcision Campaign Trail in Tanzania	Success Story	5/23/2012	Tanzania	HIV
71	Standards-Based Management and Recognition Improves Regional Hospital in Guinea	Success Story	6/6/2012	Guinea	Child Health/Maternal Health/Newborn Health
72	Vaccine Launch in Rwanda Demonstrates Strong Partnership in Fight Against Child Mortality	Success Story	6/7/2012	Rwanda	Immunization
73	Community Health Worker in Bangladesh Counsels on Much Needed Family Planning Methods	Success Story	6/13/2012	Bangladesh	Family Planning
74	Integrating Services in Ethiopia: More Access for Mothers, Less HIV Infections in Newborns	Success Story	6/18/2012	Ethiopia	HIV
75	100,000 Men and Counting: Scaling Up Voluntary Medical Male Circumcision to Prevent the Spread of HIV in Tanzania	Success Story	6/19/2012	Tanzania	HIV
76	Indian Officials Visit MCHIP Immunization and Newborn Care Demonstration Sites	Success Story	6/19/2012	India	Child Health/Immunization
77	In Rural Zambia, Health Care Provider Attributes Success in Saving Newborns to MCHIP Help	Success Story	6/21/2012	Zambia	Newborn Health
78	MCHIP Uses Mobile Phones to Enhance Education for Nursing and Midwifery Tutors	Success Story	6/25/2012	Ghana	mHealth
79	Male Circumcision Program for HIV Prevention Hits the 100,000 Milestone for Clients Served	Success Story	6/25/2012	Tanzania	HIV
80	MCHIP Work in Routine Immunization Appreciated at National Level in India	Success Story	6/26/2012	India	Immunization

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
81	In Bolivia, Simulation Exercise Gauges Quality of Care in Additional Health Networks	Success Story	7/3/2012	Bolivia	Child Health/Maternal Health/Newborn Health
82	“Now I Know”: Women in Indonesia Crowd Classes on Healthy Pregnancy and Child Care	Success Story	7/9/2012	Indonesia	Child Health/Maternal Health/Newborn Health
83	Kenya: Using an Adaptation of RED Approach to Increase Uptake of PMTCT Services	Success Story	7/18/2012	Kenya	HIV/Maternal Health
84	Malawi Launches Male Circumcision Campaign to Reduce New HIV Infections	Success Story	7/18/2012	Malawi	HIV
85	Two Birds with One Stone: Integrating Maternal Health Services to Tackle Both TB and HIV	Success Story	7/18/2012	Global	HIV/Maternal Health
86	Community Gardens Campaign in Rwanda Aims to End Child Hunger and Malnutrition	Success Story	7/24/2012	Rwanda	Child Health/Nutrition
87	In Rural India, Unsung Heroes Are Saving Millions of Women and Babies	Success Story	7/30/2012	India	Maternal Health/Newborn Health
88	Family Planning Encourages Healthy Timing and Spacing of Pregnancies in Ethiopia	Success Story	8/6/2012	Ethiopia	Family Planning
89	100th Safe Delivery at Improved Union Health and Family Welfare Center in Bangladesh	Success Story	8/8/2012	Bangladesh	Maternal Health/Newborn Health
90	Kenya Celebrates World Breastfeeding Week, Launches Policy Statement on Nutrition	Success Story	8/9/2012	Kenya	Newborn Health/Nutrition
91	Community Health Workers in Madagascar Teach Women to Prepare for Birth	Success Story	8/21/2012	Madagascar	Maternal Health
92	Maternity in Mozambique Hospital Exemplifies MCHIP's Approach to Humanized Care	Success Story	8/23/2012	Global	Maternal Health
93	MCHIP Trainings Demonstrate the Value of Humanizing Care in Paraguay	Success Story	8/30/2012	Paraguay	Maternal Health
94	MCHIP Facilitates Earlier Roll-Out of Lifesaving Vaccines to Zimbabwe's Children	Success Story	9/3/2012	Zimbabwe	Immunization
95	Helping Babies Breathe in Zambia “Changing the Way We Resuscitate Newborns”	Success Story	9/6/2012	Zambia	Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
96	Working with Local Health Councils to Combat Diarrheal Diseases in Paraguay	Success Story	9/6/2012	Paraguay	Child Health/Immunization
97	MCHIP Helps Doctors Treat Pregnant Women at Risk for High Blood Pressure Disorder	Success Story	9/19/2012	Madagascar	Maternal Health
98	South Sudanese Women Benefit from USAID Efforts to Reduce Maternal Mortality	Success Story	9/24/2012	South Sudan	Maternal Health
99	Journalists Visit MaMoni Sites. Report on Improvements in Maternal and Newborn Health	Success Story	9/25/2012	Bangladesh	Maternal Health/Newborn Health
100	Record Keeping Methods Initiated by MCHIP Have Far Reaching Benefits in Jharkhand	Success Story	10/16/2012	India	N/A
101	Offering Services the Integrated Way: A Nurse in Kenya Overcomes Challenges	Success Story	10/24/2012	Kenya	Maternal Health
102	Strengthening National Malaria Control Efforts through Community-Based Strategies	Success Story	10/26/2012	Global	Malaria
103	MCHIP Helps Prevent Postpartum Hemorrhage in South Sudan through Innovative Community Project	Success Story	10/30/2012	South Sudan	Maternal Health
104	Spotlight on Kenya: MCHIP's Integrated Approach to Maternal and Child Health and Nutrition	Success Story	11/1/2012	Kenya	Child Health/Maternal Health/Nutrition
105	MCHIP Contributes in Effort to Tighten the "Meningitis Belt": MenAfriVac Campaign in Senegal	Success Story	11/6/2012	Senegal and Ethiopia	Immunization
106	Reaching Remote Populations: What Do MCHIP, the US Marines, and Crocodiles Have in Common?	Success Story	11/6/2012	Timor-Leste	N/A
107	How MCHIP is Using Regulation to Strengthen the Nursing Workforce in Lesotho	Success Story	11/14/2012	Lesotho	N/A
108	At the Crossroads of Malaria and Antenatal Care, IPTp-SP is Saving Newborn Lives	Success Story	11/20/2012	Global	Malaria/Maternal Health
109	Male Circumcision Takes Off in Lesotho with 6,960 Surgeries Performed	Success Story	11/20/2012	Lesotho	HIV
110	In Celebration of Men: Stepping Up for Male Circumcision	Success Story	11/27/2012	Global	HIV

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
111	Community Health Workers in Kenya are Creating an AIDS-Free Generation One Pregnancy at a Time	Success Story	12/1/2012	Kenya	HIV
112	Two Birds with One Stone: Integrating Maternal Health Services to Tackle Both TB and HIV	Success Story	12/1/2012	Malawi	HIV/Maternal Health
113	Making a Tanzanian Marketplace into a Surgical Site to Prevent HIV	Success Story	12/1/2012	Tanzania	HIV
114	A "Precious Life" is One of Many Saved by MCHIP Training in Jharkhand	Success Story	12/11/2012	India	Child Health/Maternal Health/Newborn Health
115	Bangladeshi Celebrity Draws Media Attention to Program Efforts during Site Visits	Success Story	12/19/2012	Bangladesh	Child Health/Maternal Health/Newborn Health
116	Improved Performance of Village Health Workers in Zimbabwe Yields Lifesaving Impact	Success Story	1/2/2013	Zimbabwe	N/A
117	In Rwanda, Emergency Obstetric and Newborn Care Trainings Help to Save Lives	Success Story	1/2/2013	Rwanda	Maternal Health/Newborn Health
118	Bangladesh First MAMA Country to Take Mobile Health Messaging Service National	Success Story	1/9/2013	Bangladesh	mHealth
119	Director of Community Development Association Puts Her SMART Training to Good Use	Success Story	1/16/2013	Egypt	Child Health/Maternal Health/Newborn Health
120	MCHIP Supports Successful Mass Meningitis Vaccination Campaign in Senegal	Success Story	1/16/2013	Senegal	Immunization
121	Reaching Those Most at Risk: Cervical Cancer Prevention in Low Resource Settings	Success Story	1/18/2013	Global	Maternal Health
122	Bangladeshi Man Vows: "Never Again Will a Mother or Newborn Die in This Village"	Success Story	1/30/2013	Bangladesh	Newborn Health
123	Strengthening Skills and Saving Lives through Clinical Mentorship in Zambia	Success Story	2/1/2013	Zambia	Newborn Health
124	SMART Training Enables Egyptian Woman to Educate Community on Nutrition, Healthy Behaviors	Success Story	2/6/2013	Egypt	Nutrition
125	Family Planning Counselor in India Helps Women Avoid Her Own Hardships	Success Story	2/7/2013	India	Family Planning

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
126	MCHIP Prepares State Trainers to Help Strengthen Family Planning Services in India's Most Populous State	Success Story	2/21/2013	India	Family Planning
127	Saving Mothers' Lives with Calcium: An Innovative Program in Nepal to Prevent Pre-Eclampsia	Success Story	2/28/2013	Nepal	Maternal Health
128	Lesotho Averts 2,000 New HIV Infections. Program Reaches 10,000th Circumcision	Success Story	3/7/2013	Lesotho	HIV
129	A "No Missed Opportunities" Approach to Postpartum Family Planning in Liberia	Success Story	3/12/2013	Liberia	Family Planning
130	Malian Midwife Champions Respectful Care for Pregnant Women and Their Families	Success Story	3/14/2013	Mali	Maternal Health
131	Empowering Malawi Health Care Providers in Active TB Screening for Pregnant Women	Success Story	3/25/2013	Malawi	Maternal Health
132	Guinean Woman's Life Saved by Quick Actions of Health Care Providers	Success Story	3/26/2013	Guinea	Maternal Health/Newborn Health
133	An Ounce of Prevention Yields Three Kilos of Joy for Mother in Madagascar	Success Story	3/27/2013	Madagascar	Maternal Health
134	National Cricket Icon Bats for Maternal and Newborn Health in Bangladesh	Success Story	4/9/2013	Bangladesh	Child Health/Maternal Health/Newborn Health
135	Working Tirelessly to Prevent Malaria in Pregnancy in Kenya	Success Story	4/11/2013	Kenya	Malaria/Maternal Health
136	Getting Closer to Elimination of Mother-to-Child Transmission of HIV	Success Story	4/11/2013	Global	HIV
137	Indian States Keen to Replicate MCHIP Model for Essential Newborn Care and Resuscitation	Success Story	4/18/2013	India	Newborn Health
138	Filipino Women Celebrate "Buntis Day." Attend Postpartum Family Planning Launch Ceremony	Success Story	4/18/2013	Global	Family Planning
139	World Malaria Day 2013: Malaria Communities Program Increases Local Capacity, Ownership	Success Story	4/19/2013	Global	Malaria
140	World Malaria Day 2013: Making Lifesaving Treatments Available to Children in Rural Mali	Success Story	4/19/2013	Mali	Malaria

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
141	World Malaria Day 2013: Working Tirelessly to Prevent Malaria in Pregnancy in Kenya	Success Story	4/19/2013	Kenya	Malaria/Maternal Health
142	Fast Action by Skilled Birth Attendant in Bangladesh Saves Baby's Life	Success Story	4/24/2013	Global	Newborn Health
143	In Mountains of Northern India, Community Health Workers Oriented to Postpartum Family Planning	Success Story	5/6/2013	India	Family Planning
144	Tea Garden Laborers in Bangladesh Receive Better Health Care thanks to MaMoni Project	Success Story	5/8/2013	Bangladesh	Child Health/Newborn Health/Nutrition
145	Malagasy Community Health Worker Instructs on Misoprostol Use to Prevent Postpartum Hemorrhage	Success Story	5/22/2013	Madagascar	Maternal Health
146	An Unexpected Counselor: Cab Driver in India Advocates for Family Planning	Success Story	5/22/2013	India	Family Planning
147	In Timor-Leste, Drivers Become Valued, Contributing Members of Technical Teams	Success Story	5/28/2013	Timor-Leste	N/A
148	Applauding Local Ownership of Voluntary Medical Male Circumcision in Malawi	Success Story	5/30/2013	Malawi	HIV
149	Improving Access to Malaria Treatment in Remote Areas of Zimbabwe	Success Story	6/10/2013	Zimbabwe	Malaria
150	Basic Emergency Obstetric and Newborn Care Training in Ghana Builds Confidence to Save Lives	Success Story	6/27/2013	Ghana	Maternal Health/Newborn Health
151	In Bangladesh, a Tribute to Mothers Lost to Preventable, Pregnancy-Related Causes	Success Story	6/27/2013	Bangladesh	Maternal Health
152	Market Contraceptive Program: Expanding Family Planning Services Outside the Health Facility in Liberia	Success Story	7/12/2013	Liberia	Family Planning
153	Malawi's Innovative Approach to Delivering Voluntary Medical Male Circumcision Offers the Ease, Comfort of Home	Success Story	7/17/2013	Malawi	HIV
154	How a Coffee Hut in Rural Ethiopia is Helping to Make Mothers' Needs a Priority	Success Story	7/25/2013	Ethiopia	Maternal Health
155	Grandmother of Three in Mozambique Saved through Cervical Cancer Prevention	Success Story	7/30/2013	Mozambique	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
156	In Rwanda, Greater Availability of Misoprostol Prevents Postpartum Hemorrhage and Saves Lives	Success Story	7/30/2013	Rwanda	Maternal Health
157	Kenya's Baby-Friendly Community Initiative Improves Maternal and Infant Feeding Practices	Success Story	8/3/2013	Kenya	Maternal Health/Newborn Health
158	New Skills in Postabortion Care Save Lives in Guinea	Success Story	8/13/2013	Guinea	Maternal Health
159	Monica Ravi Becomes One of 100,000 Women in India to Accept a Postpartum IUCD	Success Story	8/15/2013	India	Family Planning
160	Trained Depot Holders Deliver Family Planning Products to Remote Villages in Bangladesh	Success Story	8/22/2013	Bangladesh	Family Planning
161	"Mum's is Best!" Breastfeeding Champions in Kenya Share Their Experiences	Success Story	8/28/2013	Kenya	Newborn Health
162	Providers in the Philippines Persuade Hospital Leadership of Importance of Postpartum IUD	Success Story	8/31/2013	Philippines	Family Planning
163	Pakistani Midwife Adopts Infection Prevention Best Practices after Training	Success Story	9/11/2013	Pakistan	Child Health/Maternal Health/Newborn Health
164	MaMoni Project to Thank for 500th Safe Delivery at Remote Bangladesh Facility	Success Story	9/17/2013	Bangladesh	Child Health/Maternal Health/Newborn Health
165	New Clinical Skills Lab Gives Pakistani Midwifery Students a Dedicated Space to Learn	Success Story	9/27/2013	Pakistan	Maternal Health
166	Mozambique's Model Maternity Initiative Supports Mothers to Deliver HIV-Free Babies	Success Story	10/3/2013	Mozambique	HIV/Maternal Health
167	Quality Improvement Approach Helps Ethiopian Hospital and Community Improve Services	Success Story	10/28/2013	Ethiopia	Child Health/Maternal Health/Newborn Health
168	Students in Lesotho Prepared for "Real Life" Conditions through Clinical Placements	Success Story	11/6/2013	Lesotho	Child Health/Maternal Health/Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
169	MCHIP Plays Key Role Introducing Lifesaving Vaccine in Nine African Countries	Success Story	11/12/2013	Benin, Democratic Republic of the Congo, Kenya, Malawi, Rwanda, Uganda, Senegal, Tanzania, and Zimbabwe	Immunization
170	In Zimbabwe, Improved Health Worker Skills Increase Community Confidence in Hospital Care	Success Story	11/13/2013	Zimbabwe	Child Health/Maternal Health/Newborn Health
171	US Ambassador to India Visits MCHIP Site, Praises Commitment to Preservice Education	Success Story	11/22/2013	India	Child Health/Maternal Health/Newborn Health
172	Helping the Next Generation of Nurses Contribute to an HIV-Free Generation	Success Story	11/26/2013	Sub-Saharan Africa	HIV
173	MCHIP Spurs Action to Protect Women from Excessive Bleeding after Childbirth	Success Story	11/29/2013	Global	Maternal Health
174	How an Organic Coffee Cooperative in Timor-Leste is Increasing Immunization Coverage	Success Story	12/6/2013	Timor-Leste	Immunization
175	Saving Mothers' Lives: Preventing Postpartum Hemorrhage with Misoprostol	Success Story	12/11/2013	Liberia	Maternal Health
176	In Rural Ethiopia, High-Quality Antenatal Care Leads to Increased Facility Confidence	Success Story	12/11/2013	Ethiopia	Child Health/Maternal Health/Newborn Health
177	A Proactive Dad: Selemani Nika Brings 11 Sons to a Tanzanian Health Center for HIV Prevention Services	Success Story	12/16/2013	Tanzania	HIV
178	Community Outreach Program Leads to Improved Services for Mothers in Ethiopia	Success Story	12/25/2013	Ethiopia	Maternal Health
179	Involvement of Local Leadership in Uganda Helps Improve Immunization Services	Success Story	1/8/2014	Uganda	Immunization

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
180	In Pakistan, Learning to Use a Partograph for Normal Deliveries with Healthy Outcomes	Success Story	1/10/2014	Global	Maternal Health
181	Teaching School Children in Timor-Leste about Immunization and its Benefits	Success Story	1/20/2014	Timor-Leste	Immunization
182	A Champion for Women's Health: Peer Educator Promotes Cervical Cancer Screening	Success Story	1/27/2014	Mozambique	Maternal Health
183	Barber Shop and Beauty Salon Program Extends Family Planning Services to Liberians	Success Story	2/19/2014	Liberia	Family Planning
184	Community Midwife in Pakistan Implements Best Practices after Clinical Update Training	Success Story	3/7/2014	Pakistan	Maternal Health
185	Educating Mothers to Prevent Postpartum Hemorrhage in Madagascar	Success Story	3/12/2014	Madagascar	Maternal Health
186	Community Monitoring Tool Helps Unreached Children Get Vaccinated in Timor-Leste	Success Story	3/17/2014	Timor-Leste	Immunization
187	Christian and Muslim Groups in Liberia Unite to Promote Family Planning	Success Story	4/1/2014	Liberia	Family Planning
188	Community Health Worker in Bangladesh Goes Beyond Her Duties to Save Newborns	Success Story	4/7/2014	Bangladesh	Newborn Health
189	On the Front Lines of the Battle against Malaria, Community Health Workers Transform Tragedy into Triumph	Success Story	4/23/2014	Kenya	Malaria/Maternal Health
190	Midwife in South Sudan Champions Innovative Program to Reduce Bleeding after Birth	Success Story	4/29/2014	South Sudan	Maternal Health
191	Hospital Staff in Ethiopia Dramatically Improve Maternal and Newborn Health Services	Success Story	5/8/2014	Ethiopia	Child Health/Maternal Health/Newborn Health
192	"Thank God for the MCHIP Champions"—Training Midwives in Liberia to Save Lives	Success Story	5/12/2014	Liberia	Family Planning/Maternal Health/Newborn Health
193	How an Egyptian Farmer Became an Advocate for Safe Motherhood	Success Story	6/9/2014	Egypt	Maternal Health/Nutrition
194	One of Africa's Finest Voices Uses Talent to Stop Maternal and Newborn Deaths	Success Story	7/1/2014	Liberia	N/A
195	Why They Do It: Health Surveillance Workers in Malawi Speak	Success Story	7/14/2014	Malawi	N/A

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
196	Liberia: A Kangaroo Mother Care Success Story	Success Story	7/14/2014	Liberia	Newborn Health
197	In Lesotho, Parav School of Nursing Library Assistant Puts Donations to Good Use	Success Story	7/14/2014	Lesotho	N/A
198	Clinical Mentorship Saves Women's Lives in Rural Zambia	Success Story	7/14/2014	Zambia	HIV/Child Health/Maternal Health
199	Increasing Women's Knowledge of Pregnancy & Delivery in Paraguay Saves Lives	Success Story	7/14/2014	Paraguay	Maternal Health
200	The Experience of Chamanculo General Hospital in Mozambique as a Model Maternity Facility	Success Story	7/14/2014	Mozambique	Maternal Health
201	One Nurse's Quest to Not Lose Clients in Mozambique	Success Story	7/14/2014	Mozambique	Maternal Health
202	MCHIP Provides Health Workers in DRC with Lifesaving Skills for Mothers and Babies	Success Story	7/14/2014	Democratic Republic of the Congo	Maternal Health/Newborn Health
203	The Story of Nitano Village in Malawi: When Communities are Empowered	Success Story	7/14/2014	Malawi	N/A
204	Uganda: One District's Experience Understanding and Using Local Data to Strengthen the Routine Immunization System	Success Story	Unknown	Uganda	Immunization
205	Improving Health Worker Capacity to Manage Emergency Cases in Manicaland Province of Zimbabwe	Success Story	Unknown	Zimbabwe	N/A
206	Piloting a Lifesaving Tool Implemented in USAID/MCHIP Zimbabwe Learning Sites	Success Story	Unknown	Zimbabwe	Newborn Health
207	Village Health Worker and Community Health Champion in Mutare District, Zimbabwe	Success Story	Unknown	Zimbabwe	N/A
208	In Zimbabwe, Reusing, Renewing and Distributing Maternity Kits to Improve Quality of Services and Save Lives	Success Story	Unknown	Zimbabwe	Maternal Health
209	In Zimbabwe, Three Step Plan for Diarrhea Management Reduces Diarrhea Deaths in Children Under Five	Success Story	Unknown	Zimbabwe	Child Health
210	MCHIP on Gates Website: West African Women Demand Family Planning	Success Story/Media	5/10/2010	Global	Family Planning

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
211	Infection Prevention Week	Blog	1/19/2010	Global	Newborn Health
212	A Note from the Director of MCHIP "A Moment to Celebrate—and Accelerate"	Blog	4/22/2010	Global	N/A
213	Zambia's Successes and Remaining Challenges for Malaria in Pregnancy	Blog	4/30/2010	Zambia	Malaria/Maternal Health
214	Community Case Management	Blog	5/6/2010	Global	Child Health
215	Happy Mother's Day—Celebrating Mothers as Caregivers and Caretakers	Blog	5/7/2010	Global	Maternal Health
216	Men Key to Reducing Maternal Deaths in Developing Countries	Blog	6/19/2010	Global	Family Planning/Maternal Health/Newborn Health
217	Delivering on the Promise of Immunization	Blog	6/23/2010	Rwanda	Immunization
218	Volunteer Physicians Address HIV in World's Hardest Hit Region	Blog	7/29/2010	Global	HIV
219	Family Planning as a Life Saving Measure	Blog	8/5/2010	Global	Family Planning
220	Celebrating Immunization Month!	Blog	8/25/2010	Global	Immunization
221	Lives Saved Tool: Using LIST for Maternal, Newborn and Child Health Advocacy	Blog	9/2/2010	Global	Child Health/Maternal Health/Newborn Health
222	Strengthening Rural Health Centers to Deliver Quality Reproductive Health Services	Blog	9/2/2010	Malawi	N/A
223	Integration of Postnatal Care with PMTCT: Experiences from Swaziland	Blog	9/2/2010	Swaziland	HIV
224	Global Benchmark Indicators for Maternal Health	Blog	9/12/2010	India	Maternal Health
225	Measuring Progress on MDG5—Do We Have the Right Yardstick? Maternal Health Experts Weigh In	Blog	9/20/2010	Global	Maternal Health
226	USAID @ UNGA: Thank You for Saving the Lives of Millions of Children	Blog	9/21/2010	Global	Child Health
227	The Newborn and I	Blog	9/22/2010	Global	Maternal Health/Newborn Health
228	How We Can Save Over 4 Million Children	Blog	10/19/2010	Global	Child Health/Immunization

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
229	November 19th is World Toilet Day	Blog	11/18/2010	Global	N/A
230	November is Prematurity Awareness Month	Blog	11/18/2010	Global	Newborn Health
231	Global Handwashing Day	Blog	11/19/2010	Global	Child Health/Maternal Health/Newborn Health
232	MCHIP Celebrates World Food Day	Blog	11/19/2010	Global	Nutrition
233	Delivering On the Promise of Immunization	Blog	11/29/2010	Rwanda	Immunization
234	Celebrating Global Handwashing Day	Blog	11/29/2010	Global	Immunization
235	Celebrating Handwashing Awareness Week	Blog	12/5/2010	Global	Immunization
236	Happy New Year—A Letter from the Director	Blog	1/4/2011	Global	N/A
237	A Call to Action	Blog	1/28/2011	India	Child Health/Maternal Health/Newborn Health
238	Our Maternal and Newborn Health Meeting Began with a Call to Action	Blog	2/22/2011	Ethiopia	Child Health/Maternal Health/Newborn Health
239	Recognizing International Women's Day	Blog	3/8/2011	Mozambique	Maternal Health
240	World Malaria Day—Achieving Progress and Impact	Blog	4/6/2011	Global	Malaria
241	World Health Day 2011	Blog	4/7/2011	Global	Child Health/Maternal Health/Newborn Health
242	Recognizing World Malaria Day the Month of April	Blog	4/12/2011	Global	Malaria
243	Using Performance-Based Incentives to Enhance Quality	Blog	4/13/2011	Global	Immunization
244	Celebrating World Nutrition Month at MCHIP	Blog	4/13/2011	Global	Nutrition
245	Why the United States Should Care about Family Planning	Blog	4/28/2011	Global	Family Planning
246	Since When Were Babies Invisible?	Blog	4/28/2011	Global	Newborn Health
247	Honoring Those on the Front Lines this May 5th	Blog	5/5/2011	Afghanistan	Family Planning/Maternal Health/Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
248	What's the Deal with mHealth? Live from Nairobi	Blog	5/6/2011	Kenya	mHealth
249	Thinking of Poverty Like a Bathtub	Blog	5/11/2011	Global	N/A
250	Three Themes: Collaboration, Men and the Power of Girls	Blog	5/12/2011	India	Child Health/Maternal Health/Newborn Health
251	Developing Helping Babies Breathe Master Trainers	Blog	5/29/2011	Global	Newborn Health
252	Water: A Limited Resource Essential to Life and Health	Blog	6/2/2011	Global	Child Health/Maternal Health/Newborn Health
253	Replicating Success from India to Afghanistan	Blog	6/8/2011	Afghanistan	Family Planning
254	Mobile Health (mHealth): Not Just for Techies	Blog	6/8/2011	Global	mHealth
255	Ten Years of Increasing Policy Attention for Newborns	Blog	6/8/2011	Global	Newborn Health
256	Reducing Newborn Deaths with Handwashing	Blog	6/14/2011	Global	Newborn Health
257	Testing a FP/MNCH Integration Model: Postpartum Systematic Screening in Northern Nigeria	Blog	6/20/2011	Nigeria	Family Planning/Maternal Health
258	Take the Test, Take Control: HIV Testing Day	Blog	6/27/2011	Global	HIV
259	Return to Sexual Activity and Modern FP Use in the Extended Postpartum Period	Blog	6/28/2011	Global	Family Planning/Maternal Health
260	Do Well and Do Good: US Global Leadership Coalition Highlights	Blog	7/13/2011	Global	N/A
261	Postpartum IUCD: Opportunities for a Lasting Innovation	Blog	7/20/2011	Kenya	Family Planning
262	African Women's Day 2011: "When Women Succeed, We All Win."	Blog	7/29/2011	Global	N/A
263	Celebrating Youth around the World	Blog	8/8/2011	Global	Child Health
264	World Humanitarian Day 2011	Blog	8/19/2011	Global	N/A
265	Community Health Works	Blog	9/22/2011	Global	Child Health/Maternal Health/Newborn Health

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266	World Contraception Day: Making Every Pregnancy a Cause for Celebration	Blog	9/25/2011	Global	Family Planning
267	The Power of 1%? It's about Economic Opportunity, National Security and Saving Lives!	Blog	10/4/2011	Global	Child Health/Maternal Health/Newborn Health
268	Time to Talk about Stock-Ins: Supply Chains Critical to Fulfilling Landmark Commitment to MNCH in Africa	Blog	11/3/2011	Africa	Child Health/Maternal Health/Newborn Health
269	MCHIP Recognizes World Pneumonia Day with Launch of PCV13 Vaccine in Malawi	Blog	11/10/2011	Malawi	Immunization
270	World AIDS Day 2011: Pies, Integers and Africa	Blog	12/1/2011	Global	HIV
271	MCHIP Recognizes National Handwashing Awareness Week	Blog	12/15/2011	Global	Child Health/Maternal Health/Newborn Health
272	mHealth Summit 2011: Lessons Shared at the "Reality Booth"	Blog	12/15/2011	Global	mHealth
273	Addressing Vaccine Hesitancy	Blog	1/3/2012	Global	Immunization
274	Cervical Health Awareness Month: Increasing Access to Prevention Services	Blog	1/6/2012	Global	Maternal Health
275	The Best Way to Save Lives? Invest in Frontline Health Workers!	Blog	1/18/2012	Global	N/A
276	If Women Are Not Valued, They Do Not Receive Equitable Care	Blog	1/31/2012	Global	Maternal Health
277	Robert Steinglass Recalls the Early Days of World's Largest Immunization Program	Blog	2/7/2012	Ethiopia	Immunization
278	MCHIP Celebrates National Condom Day on February 14th	Blog	2/14/2012	Global	Family Planning/HIV
279	Home Visits for Mothers and Newborns: Are We Improving Survival?	Blog	2/28/2012	Sub-Saharan Africa and Southeast Asia	Maternal Health/Newborn Health
280	Urban Health Professionals from India and Ethiopia Inspired by Study Tour	Blog	2/29/2012	Global	N/A
281	This International Women's Day, Give Women the Power to Help Themselves with Three Little Pills	Blog	3/6/2012	Global	Maternal Health

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282	A New Tool for Newborn Health: Chlorhexidine	Blog	3/7/2012	India	Newborn Health
283	In Honor of Nutrition Month, MCHIP Discusses Calcium as New Hope for Saving Lives	Blog	3/18/2012	Global	Nutrition
284	Gates: A Call to Action on Family Planning	Blog	3/26/2012	Bangladesh	Family Planning
285	World Immunization Week—and the Other 51 Weeks of the Year	Blog	4/8/2012	Global	Immunization
286	World Malaria Day 2012: Note from the Director	Blog	4/25/2012	Global	Malaria
287	MCHIP Pre-Service Education and Training Showcased during India's National Safe Motherhood Day Celebrations	Blog	4/26/2012	India	Child Health/Maternal Health/Newborn Health
288	Scaling-Up Maternal Anemia Control and Introduction of Calcium Supplementation to Prevent Pre-Eclampsia	Blog	5/7/2012	Bangladesh	Maternal Health
289	This Month, Support the 1 in 12 Women with Hypertensive Disorders of Pregnancy	Blog	5/9/2012	Global	Maternal Health
290	Countdown to 2015—Where Do We Stand on Reaching the Millennium Development Goals?	Blog	5/15/2012	Global	N/A
291	Immunization Challenges Presented at World Federation of Public Health Associations Conference	Blog	5/17/2012	Global	Immunization
292	MCHIP Participates in World Immunization Week as Tanzania Launches New Vaccine Schedule	Blog	5/22/2012	Tanzania	Immunization
293	MAMA's First Anniversary: Partnership Works in 22 Countries to Deliver Vital Health Messages	Blog	5/23/2012	Bangladesh	Child Health/Maternal Health/Newborn Health
294	Giving Thanks for All Fathers Who Actively Care for their Children	Blog	6/12/2012	Global	N/A
295	We Must Correct Imbalanced Global Investments within the World of Immunization	Blog	6/13/2012	Global	Immunization
296	The Huffington Post Highlights MCHIP's Work toward Ending Preventable Child Deaths	Blog	6/20/2012	Global	Child Health
297	HIV Testing Day: Know Your Status and Your Partner's	Blog	6/21/2012	Global	HIV

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
298	USAID and UNICEF: A Winning Partnership for Child Survival and Development	Blog	6/25/2012	Global	Child Health
299	Healthy Mothers = Child Survival	Blog	6/28/2012	Global	Child Health/Maternal Health/Newborn Health
300	Cross Learning Improves Knowledge and Skills in Newborn Care and Resuscitation in India	Blog	7/9/2012	India	Newborn Health
301	World Breastfeeding Week 2012: Understanding the Past, Planning the Future	Blog	7/30/2012	Kenya	Maternal Health/Newborn Health
302	World Breastfeeding Week 2012—Giving Babies the Best Start in Life	Blog	8/1/2012	Kenya	Newborn Health
303	NGOs Promote Breastfeeding through USAID's Child Survival and Health Grants Program	Blog	8/6/2012	Global	Maternal Health
304	World Contraception Day 2012: Community Health Workers Key to Increasing Demand	Blog	9/12/2012	Global	Family Planning
305	SMART Project: Improving Maternal, Infant and Young Child Nutrition to Reduce Stunting	Blog	10/3/2012	Egypt	Nutrition
306	Following the Trail from Knowledge Sharing to Improved Service Delivery	Blog	10/9/2012	Global	N/A
307	Join the Global Movement to Tackle Preterm Birth	Blog	10/25/2012	Global	Maternal Health
308	Myths and Misconceptions about Preterm Birth	Blog	11/5/2012	Global	Maternal Health/Newborn Health
309	On World Pneumonia Day, MCHIP Celebrates Strides against Preventable Child Deaths	Blog	11/11/2012	Global	Child Health/Immunization
310	Zinc Policy Change in Kenya Expands Access, Paves Way for Improved Child Health	Blog	11/28/2012	Kenya	Child Health
311	Kangaroo Mother Care: Natural, Healing and Cost-Effective. So What's Next?	Blog	11/28/2012	Global	Newborn Health
312	SMART Project in Egypt Joins the Fight against Pneumonia, a Leading Child Killer	Blog	12/1/2012	Egypt	Child Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
313	Innovation Can Increase the Impact of Immunisation Programmes	Blog	12/10/2012	Global	Immunization
314	RAPID as a Quality Improvement Model for Routine Immunization Services	Blog	12/12/2012	Global	Immunization
315	MCHIP Start in Azerbaijan Brings Country Closer to Millennium Development Goals	Blog	12/19/2012	Azerbaijan	Child Health/Maternal Health/Newborn Health
316	Happy Holidays 2013 from MCHIP	Blog	12/19/2012	Global	N/A
317	Center of Excellence in India Improves Care, Attracts More Facility Births	Blog	1/22/2013	India	Maternal Health/Newborn Health
318	Achieving Behavior Change through Quality Improvement in Mozambique	Blog	1/25/2013	Mozambique	Maternal Health
319	This Valentine's Day, Improve Your Condom Knowledge with Eight Fast Facts	Blog	2/12/2013	Global	Family Planning
320	Chlorhexidine: Critical in the Battle to Reduce Newborn Mortality	Blog	2/18/2013	Global	Newborn Health
321	Improving Clinical Education Practices in Lesotho: The Role of the Preceptor	Blog	2/19/2013	Lesotho	Maternal Health
322	Preventing Postpartum Hemorrhage with Oxytocin in the Uniject Injection System	Blog	3/5/2013	Global	Maternal Health
323	World Water Day: Promoting Water and Food Sanitation, Health and Hygiene in Egypt	Blog	3/20/2013	Egypt	Nutrition
324	Tracking Newborns: A Role for mHealth	Blog	4/11/2013	Global	mHealth
325	The Importance of Nutrition to Newborn Survival	Blog	4/11/2013	South Africa	Newborn Health/Nutrition
326	Never Leaving Health to "Luck": Establishing Synergized Health Systems	Blog	4/12/2013	Global	Child Health/Maternal Health/Newborn Health
327	Healthy Mothers Make Healthy Babies	Blog	4/12/2013	Global	Maternal Health/Newborn Health
328	Global Action Plan: Ending Preventable Child Deaths from Pneumonia and Diarrhea by 2025	Blog	4/12/2013	Global	Child Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
329	Lives in the Balance: Delivering Medical Innovations to Neglected Patients and Populations	Blog	4/16/2013	Global	N/A
330	Third African Vaccination Week, 22-28 April	Blog	4/18/2013	Africa	Immunization
331	Knowledge Sharing: The Power of the Trusted Source in Changing Healthcare Practice	Blog	6/14/2013	Global	Child Health/Newborn Health/Nutrition
332	Preconception planning, counseling and care is important for all couples, including those affected by HIV	Blog	6/21/2013	Global	HIV
333	Engaging Men in HIV Prevention, Care and Treatment in Lesotho: A Counselor's Perspective	Blog	7/2/2013	Lesotho	HIV
334	World Population Day 2013: Meeting the Unique Reproductive Health Needs of Youths	Blog	7/11/2013	Global	Family Planning
335	MCHIP Encourages Optimal Breastfeeding to Improve Infant and Young Child Nutrition	Blog	8/1/2013	Global	Child Health/Newborn Health/Nutrition
336	Continued Gains in Exclusive Breastfeeding Seen among USAID CSHGP Grantees	Blog	8/13/2013	Global	PVO/NGO
337	MCHIP as a Key Partner in Reprioritizing Malaria in Pregnancy	Blog	8/26/2013	Africa	Malaria/Maternal Health
338	In Ecuador, Essential Obstetric and Neonatal Care Network Model Adopted for Scale Up	Blog	9/4/2013	Ecuador	Maternal Health
339	Anemia Prevention and Control Consultation Focuses on Children and Pregnant Women	Blog	9/16/2013	Rwanda	Child Health/Maternal Health/Newborn Health
340	Culturally Sensitive Approach to Male Circumcision Reaps High Demand in Lesotho	Blog	10/9/2013	Lesotho	HIV
341	Global Handwashing Day 2013: Saving Mothers and Children through Handwashing	Blog	10/15/2013	Global	Child Health/Maternal Health/Newborn Health
342	US Ambassador to India Visits Center of Excellence for Nursing Education	Blog	10/28/2013	India	Child Health/Maternal Health/Newborn Health
343	Two Big Challenges to Prevent Under-Five Deaths from Pneumonia: Care Seeking and Treatment Compliance	Blog	11/12/2013	Global	Child Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
344	World Diabetes Day: Urgent Need for Diabetes Prevention and Awareness	Blog	11/13/2013	Global	N/A
345	First Helping Babies Breathe Training in Pakistan Focuses on "Golden Minute"	Blog	11/28/2013	Pakistan	Newborn Health
346	Have MamaNatalie Will Travel	Blog	1/14/2014	Zambia	Maternal Health/Newborn Health
347	Poverty Reduction Blog Highlights Vaccination Work in Timor-Leste by MCHIP-Supported Program	Blog	1/28/2014	Timor-Leste	Immunization
348	Let's Bring More Female Condoms to the Frontlines of Global Family Planning Programs	Blog	2/14/2014	Global	Family Planning
349	Neonatal Alliance—Celebrating 2013, Looking Towards 2014	Blog	2/19/2014	Latin America and the Caribbean	Newborn Health
350	Saving Mothers, Giving Life Program Prepares Skilled Health Care Providers in Zambia	Blog	3/4/2014	Zambia	Child Health/Maternal Health/Newborn Health
351	World Water Day 2014: Washing Hands to Save Newborn Lives in Asia and Africa	Blog	3/19/2014	Asia and Africa	Newborn Health
352	In Remote Madagascar, Implementing an Emergency Plan Saves Two Lives	Blog	3/24/2014	Madagascar	N/A
353	Celebrating Success, Evaluating Progress: Three Years of MCHIP in Liberia	Blog	5/5/2014	Liberia	N/A
354	New Approaches to Reach All Men in Lesotho	Blog	7/14/2014	Lesotho	HIV
355	National School of Public Health Instructors in Burkina Faso Updated on Malaria Prevention and Control	Blog	7/14/2014	Burkina Faso	Malaria/Maternal Health
356	The Challenges of Change in Burkina Faso	Blog	7/14/2014	Burkina Faso	Malaria
357	Increasing Access to High-Quality Services in Malawian Facilities and Communities	Blog	Unknown	Malawi	Child Health/Maternal Health/Newborn Health
358	Health Facilities in Zimbabwe Focus Efforts to Reach the Hard-to-Reach with Lifesaving Vaccines	Blog	Unknown	Zimbabwe	Immunization

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
359	Commemorating the Fight against Pneumonia and Prematurity in Zimbabwe	Blog	Unknown	Zimbabwe	Newborn Health
360	The Golden Minute: Helping Babies Breathe Saves Lives of Newborns in Zimbabwe	Blog	Unknown	Zimbabwe	Newborn Health
361	Helping Women and Communities through Acceptance and Use of Misoprostol	Blog	5/3/2012	Bangladesh	Maternal Health
362	March 8th: Honoring Those Who Help Women Thrive	Blog	3/8/2013	Global	Family Planning
363	Blog Series Highlights Clean Water as Urgent Health Issue	Blog	3/20/2013	Global	Maternal Health
364	Lesotho's Innovative Apex Clinic Encourages Older Men to Participate in HIV Prevention Services	Blog	2/14/2014	Lesotho	HIV
365	New E-Learning Package Maximizes Flexibility in Training Today's Trainers	Blog/Announcement	12/9/2010	Global	N/A
366	MCHIP's Special Session at the mHealth Summit 2010	Blog/Announcement	12/14/2010	Global	mHealth
367	New Hope for Newborns	Blog/Announcement	1/31/2011	Global	Newborn Health
368	New E-Learning Course on Male Circumcision Announced	Blog/Announcement	3/8/2011	Global	HIV
369	The Impact of Health Systems Strengthening on Maternal Health	Blog/Announcement	4/28/2011	Sub-Saharan Africa	Maternal Health
370	Experiences from Malawi at the M&E Workshop	Blog/Announcement	5/5/2011	Malawi	N/A
371	CORE Group's Spring Meeting: Equity in Health	Blog/Announcement	5/11/2011	Global	PVO/NGO
372	New Reports Address Maternal and Child Health	Blog/Announcement	5/13/2011	Global	Child Health/Maternal Health/Newborn Health
373	New, National Data from Kenya on Service Readiness and Quality	Blog/Announcement	5/30/2011	Kenya	N/A
374	State of the World's Midwifery 2011: Delivering Health, Saving Lives	Blog/Announcement	6/20/2011	South Africa	Maternal Health
375	Strengthening Health Facilities to Provide Quality Emergency Obstetric Care and Family Planning Services in Northern Nigeria	Blog/Announcement	6/20/2011	Nigeria	Family Planning

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
376	Rapid Diagnostic Tests for Malaria in Burkina Faso	Blog/Announcement	6/20/2011	Burkina Faso	Malaria
377	Helping Babies Breathe: Performance Evaluations and the "Golden Minute"	Blog/Announcement	6/21/2011	Global	Newborn Health
378	The Child Survival and Health Grants Program: Launch of the Learning Exchange	Blog/Announcement	6/23/2011	Global	PVO/NGO
379	World Breastfeeding Week 2011	Blog/Announcement	8/2/2011	Global	Nutrition
380	Community Health Worker Central: Connect, Learn and Contribute	Blog/Announcement	8/17/2011	Global	N/A
381	Kenya, Rwanda, Tanzania, Timor-Leste and Zimbabwe Recommended for Introduction of Pneumococcal and/or Rotavirus Vaccines in 2012	Blog/Announcement	9/1/2011	Kenya, Rwanda, Tanzania, Timor-Leste, and Zimbabwe	Immunization
382	Reproductive Health Services in Malawi: An Evaluation of a Quality Improvement Intervention	Blog/Announcement	11/20/2011	Malawi	Maternal Health
383	MCHIP Introduces Cutting Edge Tool in Madagascar to Reduce Postpartum Hemorrhage	Blog/Announcement	1/31/2012	Madagascar	Maternal Health
384	MCHIP Releases New Pregnancy Wheel for African Context	Blog/Announcement	2/1/2012	Global	Maternal Health
385	Madagascar Facility Survey Assesses Quality and Access to Maternal and Newborn Care	Blog/Announcement	2/14/2012	Madagascar	Maternal Health/Newborn Health
386	Quality of Care Survey from Ethiopia Assesses Maternal and Newborn Care in 19 Hospitals	Blog/Announcement	3/22/2012	Ethiopia	Maternal Health/Newborn Health
387	MCHIP Participates in WHO Update Meeting for Recommendations on Prevention and Treatment of PPH	Blog/Announcement	3/22/2012	Switzerland	Maternal Health
388	Steve Hodgins Co-Authors Article on Family Planning and Spousal Separation in Nepal	Blog/Announcement	4/10/2012	Nepal	Family Planning
389	Every Birthday Starts with the Golden Minute: Helping Babies Breathe Global Development Alliance	Blog/Announcement	5/1/2012	Global	Newborn Health

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390	Dhaka Meeting Opens on High Note, Showcasing Successes in Maternal Health in Past Decade	Blog/Announcement	5/4/2012	Bangladesh	Maternal Health
391	Report Helps Prioritize Limited Resources for New Vaccine Development	Blog/Announcement	5/23/2012	Global	Immunization
392	Save the Children Releases New Supplement: A Decade of Change for Newborn Survival	Blog/Announcement	6/13/2012	Global	Newborn Health
393	Rwanda Launches Social and Behavior Change Communication Sub-Strategy for MNCH	Blog/Announcement	7/17/2012	Rwanda	Child Health/Maternal Health/Newborn Health
394	Ambassador Goosby Visits MCHIP-Supported Male Circumcision Site in Lesotho	Blog/Announcement	8/2/2012	Lesotho	HIV
395	Zimbabwe Celebrates 10th Anniversary Implementing Global Strategy for Infant and Young Child Feeding	Blog/Announcement	8/10/2012	Zimbabwe	Maternal Health/Newborn Health
396	Tubal Ligation under Local Anesthesia Now Accessible to Women in Rwanda	Blog/Announcement	8/30/2012	Rwanda	Family Planning
397	First Lady of Tanzania Officially MCHIP-Supported Meeting on Vaccine Advocacy	Blog/Announcement	9/6/2012	Tanzania	Immunization
398	"Success in Saving Mothers" Event Focuses on Ways to Sustain Progress	Blog/Announcement	9/26/2012	Global	Maternal Health
399	Asia Regional Meeting Report Highlights Progress, Stresses Need to Sustain Gains	Blog/Announcement	10/2/2012	Bangladesh	Maternal Health
400	As First Year Ends, Operations Research Underway for Child Survival and Health Grants Awards	Blog/Announcement	10/4/2012	Global	PVO/NGO
401	Kenya Launches the Scaling Up Nutrition Movement, Ministry Signs Commitment	Blog/Announcement	11/19/2012	Kenya	Nutrition
402	In Tanzania, MCHIP Supports Simultaneous Launch of Vaccines against Pneumonia and Diarrhea	Blog/Announcement	12/4/2012	Tanzania	Immunization
403	Trials for Improved Practices Used to Examine Care and Feeding in Egypt Stunting Study	Blog/Announcement	12/18/2012	Egypt	Nutrition
404	MCHIP and the LAC Neonatal Alliance Promote Priority Newborn Health Interventions	Blog/Announcement	1/2/2013	Mexico	Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
405	MCHIP and Unilever Promoting Handwashing for Newborn Survival in Indonesia	Blog/Announcement	1/9/2013	Indonesia	Newborn Health
406	Improving Maternal and Newborn Health in Africa One "Champion" at a Time	Blog/Announcement	1/17/2013	Global	Maternal Health/Newborn Health
407	Liberia Adds Chlorhexidine to Essential Medicines List. Endorses Kangaroo Mother Care	Blog/Announcement	4/9/2013	Liberia	Newborn Health
408	Integrating WASH into Maternal and Newborn Health Programs to Save Lives	Blog/Announcement	4/11/2013	South Africa	Maternal Health/Newborn Health
409	Antenatal Corticosteroids as a Key Intervention to Improve Outcomes for Newborns	Blog/Announcement	4/12/2013	Global	Newborn Health
410	Watch Now: Saving Lives in Paraguay—MCHIP's Achievements in Maternal and Neonatal Care	Blog/Announcement	4/17/2013	Paraguay	Maternal Health/Newborn Health
411	Global Newborn Health Conference Blogging: Keep Up with Our Experts!	Blog/Announcement	4/19/2013	South Africa	Newborn Health
412	Survive & Thrive Global Development Alliance: Saving Mothers, Newborns and Children	Blog/Announcement	5/1/2013	Global	Child Health/Newborn Health/Nutrition
413	MCHIP's Respectful Maternity Care Toolkit Promotes Positive Attitudes in the Care of Women and Newborns	Blog/Announcement	6/4/2013	Global	Maternal Health/Newborn Health
414	Jharkhand Hosts State Consultation on Improving Maternal and Child Health	Blog/Announcement	9/11/2013	India	Child Health/Maternal Health/Newborn Health
415	MCHIP @ UNGA Week	Blog/Announcement	10/9/2013	United States	Child Health/Maternal Health/Newborn Health
416	Improving Data Quality in Timor-Leste: Reporting Vaccinations outside the Catchment Area	Blog/Announcement	12/16/2013	Timor-Leste	Immunization
417	MCHIP Plays Pivotal Role in Kenya National Immunization Policy Change	Blog/Announcement	5/23/2014	Kenya	Immunization
418	Maternal Health Task Force Highlights Respectful Maternity Care at Ethiopian Health Facilities	Blog/Announcement	6/13/2014	Ethiopia	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
419	New VMMC Campaign Unveiled at Lesotho's National World AIDS Day Commemoration	Blog/Announcement	7/14/2014	Lesotho	HIV
420	Zimbabwe Launches Vaccine to Protect Against Pneumonia. Reduce Mortality in Children Under Five	Blog/Announcement	7/27/2012	Zimbabwe	Child Health/Immunization
421	The Huffington Post Highlights MCHIP's Work in Child Health and International Children's Day	Blog/Media	6/15/2012	Global	Child Health
422	Maternal Health Task Force Highlights MCHIP's Work to Scale Up Prevention and Treatment of Malaria	Blog/Media	6/28/2012	Global	Malaria
423	MCHIP on Gates Site: Family Planning to Prevent Pregnancy after Childbirth	Blog/Media	1/8/2013	Global	Family Planning
424	MCHIP on Gates Site—Helping Mothers to Improve the Health of Newborns	Blog/Media	6/19/2013	Afghanistan	Maternal Health/Newborn Health
425	The Huffington Post Highlights MCHIP's Collaborative Work to Save Children's Lives	Blog/Media	9/25/2013	Global	Child Health
426	MCHIP on Gates site: New Numbers Show the Risks of Postpartum Pregnancy	Blog/Media	9/26/2013	Global	Maternal Health
427	Gates Features "Our Mothers are Surviving": A Nurse-Midwife's Work in South Sudan	Blog/Media	10/15/2013	South Sudan	Child Health/Maternal Health/Newborn Health
428	MCHIP in Vienna	Announcement	7/29/2010	Global	HIV
429	New "Helping Babies Breathe" Partnership Established	Announcement	8/2/2010	Global	Newborn Health
430	Saving Lives through Linking Immunization and Pregnancy Spacing	Announcement	8/15/2010	Global	Immunization/Maternal Health
431	Immunization Month, the Celebration Continues!	Announcement	8/26/2010	Global	Immunization
432	Postpartum Family Planning "Within Our Grasp"	Announcement	9/2/2010	Global	Family Planning
433	Engaging Communities to Help Mothers and Newborns: MaMoni Experience from Bangladesh	Announcement	9/2/2010	Bangladesh	Maternal Health/Newborn Health
434	Measuring Maternal and Perinatal Quality of Care during Labor and Delivery	Announcement	9/12/2010	Global	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
435	Increasing Utilization of Maternal Health Services through Targeted Community Interventions	Announcement	9/12/2010	Malawi	Maternal Health
436	Congratulations Goldyl	Announcement	10/7/2010	Global	N/A
437	Nutrition and Family Planning: Can We Work Together?	Announcement	10/19/2010	Global	Family Planning/Nutrition
438	MCHIP Staff in Kenya Say: "Stop Pneumonia—There is a Solution!"	Announcement	11/12/2010	Kenya	Immunization
439	Development and use of the Lives Saved Tool (LST)	Announcement	11/19/2010	Global	N/A
440	Community Health Workers Performance at Scale Technical Advisory Group Meeting	Announcement	12/23/2010	Global	N/A
441	Report Examines Impact of Performance-Based Incentives on Improving Maternal Health	Announcement	1/11/2011	Global	Maternal Health
442	Presenting the Upcoming State of the World's Midwifery Report	Announcement	2/1/2011	Global	Family Planning/Maternal Health/Newborn Health
443	Save the Children Every Midwife Awards	Announcement	3/13/2011	Global	Family Planning/Maternal Health/Newborn Health
444	Addis 2011 Speaker Presentations Now Available!	Announcement	3/15/2011	Ethiopia	Maternal Health
445	WHO Officially Endorses the Use of Misoprostol	Announcement	5/12/2011	Global	Maternal Health
446	Successful Integration of PMTCT Services with Maternal and Child Health Services	Announcement	6/20/2011	Nigeria	HIV/Maternal Health/Newborn Health
447	MCHIP Releases New Tech Brief on Prevention of PPH at Home Births!	Announcement	6/28/2011	Global	Maternal Health
448	Health Systems Strengthening Framework and Guide Now Available!	Announcement	6/30/2011	Global	N/A
449	Africa Regional Meeting Report Now Available	Announcement	7/4/2011	Ethiopia	N/A
450	World Population Day 2011	Announcement	7/10/2011	Global	Family Planning
451	Global Leadership	Announcement	7/12/2011	Global	N/A
452	Monitoring, Evaluation and Research	Announcement	7/12/2011	Global	N/A

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
453	Health Systems Strengthening	Announcement	7/12/2011	Global	N/A
454	Watch GAVI Panel Discussion Now!	Announcement	7/12/2011	Global	Immunization
455	Status Report: Prevention and Management of PPH and PE/E	Announcement	7/15/2011	Global	Maternal Health
456	Kids Talk about Why Foreign Assistance Matters	Announcement	7/18/2011	Global	N/A
457	Saving Lives at Birth—Voting is Open!	Announcement	7/20/2011	Global	Maternal Health/Newborn Health
458	Increasing the Medical Capacity of Traditional Birth Attendants in Haiti	Announcement	8/27/2011	Haiti	Maternal Health
459	USAID Moves Forward in the Horn of Africa with FWD	Announcement	9/19/2011	Haiti	Child Health/Maternal Health/Newborn Health
460	MCHIP Releases Equity Guide and Checklist	Announcement	9/20/2011	Global	Child Health/Maternal Health/Newborn Health
461	Malaria Takes the Stage	Announcement	9/21/2011	Global	Malaria
462	"Unpeeled Mango" Identifies Barriers to Voluntary Medical Male Circumcision Services	Announcement	9/28/2011	Tanzania	HIV
463	MCHIP at USAID 2011 Mini-University	Announcement	10/3/2011	Global	N/A
464	Helping Babies Breathe Partnership Offers Invigorating Possibilities for Newborn Health Worldwide	Announcement	10/24/2011	Global	Newborn Health
465	Taking Care of a Baby at Home after Birth: What Families Need to Do	Announcement	11/10/2011	Global	Newborn Health
466	Quality of Care Facility Surveys from Kenya and Tanzania Provide Key Information on Maternal and Newborn Care	Announcement	11/20/2011	Kenya, Tanzania	Maternal Health/Newborn Health
467	Special Event Spotlights Why Continuing U.S. Investments in Global Health Matter More Than Ever	Announcement	12/2/2011	Global	N/A
468	Report on Prenatal Corticosteroid Use in Low- and Middle-Income Countries Now Available	Announcement	12/2/2011	Global	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
469	MCHIP's "Let's Talk Breastfeeding, Kenya" Site Launched	Announcement	12/8/2011	Kenya	Maternal Health/Newborn Health
470	Workshop in India Strengthens Preservice and Midwifery Education	Announcement	12/15/2011	India	Maternal Health/Newborn Health
471	Postpartum Family Planning Meeting Report Now Available	Announcement	12/15/2011	Global	Family Planning
472	MCHIP Staff Present at the Second International Family Planning Conference	Announcement	12/22/2011	Global	Family Planning
473	MCHIP and USAID Host First LAC Annual Conference on Kangaroo Mother Care	Announcement	1/4/2012	Latin America and the Caribbean	Newborn Health
474	Three Country Reviews Illuminate Lessons Learned from MCHIP Malaria Programs	Announcement	1/18/2012	Democratic Republic of the Congo, Malawi, Senegal, and Zambia	Malaria
475	New iCCM Materials Documenting Best Practices Now Available	Announcement	2/7/2012	Malawi	Child Health
476	MCHIP Hosts Annual Meeting of the Latin America and the Caribbean Neonatal Alliance	Announcement	3/6/2012	Latin America and the Caribbean	Child Health/Maternal Health/Newborn Health
477	MCHIP Hosts USAID and HRSA to Explore Linkages Domestically and Internationally	Announcement	4/11/2012	Global	Child Health/Maternal Health/Newborn Health
478	MCHIP Staff Contribute to Journal Article on the Quality of Caesarean Delivery Services in Afghanistan	Announcement	4/18/2012	Afghanistan	Maternal Health/Newborn Health
479	Kangaroo Mother Care Implementation Guide Published!	Announcement	4/18/2012	Global	Newborn Health
480	SMART Project Helps Communities to Reduce Stunting through Improved Diets	Announcement	4/18/2012	Egypt	Nutrition
481	MCHIP Partners with University in Bangladesh to Reduce Newborn Mortality	Announcement	4/25/2012	Bangladesh	Maternal Health/Newborn Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
482	Conference to Foster Information Sharing, Networking and Capacity Building	Announcement	5/1/2012	Bangladesh	N/A
483	New Global Report: 15 Million Babies Born Too Soon, Over 1 Million Die Each Year	Announcement	5/2/2012	Global	Newborn Health
484	Keep Up with Our Expert Bloggers from the Asia Regional Conference!	Announcement	5/3/2012	Bangladesh	Maternal Health
485	Resources Available on Quality Improvement and Performance-Based Incentives	Announcement	5/15/2012	Global	Child Health/Maternal Health/Newborn Health
486	MCHIP/India Immunization Team Facilitates Orientation and Demonstrations	Announcement	5/16/2012	India	Immunization
487	Save the Children Launches State of the World's Mothers Report 2012	Announcement	5/17/2012	Global	Maternal Health
488	MCHIP and USAID Host Special Event: Learning from the Child Survival Revolution of the 1980s	Announcement	6/13/2012	Global	Child Health
489	New Report: ACCESS and MCHIP Increase Use and Quality of Health Services in Nigeria	Announcement	6/19/2012	Nigeria	Child Health/Maternal Health/Newborn Health
490	Dhaka 2012: Asia Regional Meeting Documents Now Available!	Announcement	6/21/2012	Bangladesh	Newborn Health
491	Concern Worldwide Publishes Paper Detailing 14 Years of Experience in Child Survival Programming	Announcement	6/25/2012	Africa, Asia, and the Americas	Child Health
492	MCHIP HIV Expert Contributes to Supplement in Journal of AIDS on Voluntary Medical Male Circumcision	Announcement	7/23/2012	Global	HIV
493	Presentation: USAID's CSHGP Integrates HIV/AIDS and MCH Interventions to Strengthen Communities	Announcement	7/26/2012	Global	HIV/Maternal Health
494	WHO Publishes Newborn Health Guidelines and Resources	Announcement	7/27/2012	Global	Newborn Health
495	MCHIP Hosts IAS Satellite Event: Call to Action for VMMC for HIV Prevention	Announcement	8/1/2012	Global	HIV
496	Journal Highlights Importance of Jhpiego/MCHIP Work with Postpartum IUCD	Announcement	8/8/2012	Global	Family Planning

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
497	Now Available: WHO Guidelines on Pre-Eclampsia/Eclampsia and Related MCHIP Brief	Announcement	9/12/2012	Global	Maternal Health
498	MCHIP to Present on Quality of Care, Cervical Cancer, Malaria and Postpartum IUD at FIGO Conference	Announcement	10/2/2012	Global	Family Planning/Malaria/Maternal Health
499	Nutrition Brown Bag: Integrating Child Development and Nutrition Interventions in Rural India	Announcement	10/4/2012	Global	Nutrition
500	Download Now: MAMA Global Monitoring and Evaluation Framework	Announcement	10/5/2012	Global	mHealth
501	MCHIP Presents at FIGO: Quality of Care, Cervical Cancer, Malaria, Humanizing Childbirth, and PPIUD	Announcement	10/14/2012	Global	Child Health/Maternal Health/Newborn Health
502	New Report Highlights Changes in Knowledge, Practice and Coverage among Mothers	Announcement	10/17/2012	Global	Maternal Health
503	Videos from Historic Session on Voluntary Medical Male Circumcision during AIDS 2012 Conference Now Available	Announcement	11/6/2012	Sub- Saharan Africa	HIV
504	Special Supplement on Integrated Community Case Management Successfully Launched	Announcement	11/19/2012	Global	Child Health
505	Now Available: Recorded Orientation to English PPH and PE/E Toolkits	Announcement	11/27/2012	Global	Maternal Health
506	MCHIP Translates "Helping Babies Breathe" Implementation Guide	Announcement	12/5/2012	Global	Newborn Health
507	MCHIP Contributes to Article on Factors Hindering Higher Immunization Coverage	Announcement	12/7/2012	Global	Immunization
508	MCHIP's Work Highlighted at Annual Kenya National Nurses' Conference	Announcement	12/10/2012	Kenya	Child Health/Maternal Health/Newborn Health
509	MCHIP Presents at Maternal Health Conference Focused on Improving Quality of Care	Announcement	1/24/2013	Global	Maternal Health
510	India's Call to Action—Launching a Roadmap to Accelerate Child Survival and Development	Announcement	2/11/2013	India	Child Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
511	Journal Article: Magnesium Sulfate is Drug of Choice for Pre-Eclampsia/Eclampsia	Announcement	3/7/2013	Global	Maternal Health
512	MCHIP Presents at 20th Conference on Retroviruses and Opportunistic Infections	Announcement	3/8/2013	Global	HIV
513	Spanish Newborn Care Videos Now Available	Announcement	3/9/2013	Latin America and the Caribbean	Newborn Health
514	Published: Results of Analysis of 12 Community-Based Projects Implemented by NGOs Worldwide	Announcement	3/12/2013	Global	PVO/NGO
515	MCHIP Co-Authors Article on Community-Based Programs for PPH Prevention at Home Birth	Announcement	3/21/2013	Global	Maternal Health
516	Study Gathers Data at Tanzania Health Facilities to Inform Development of VMMC Devices	Announcement	3/22/2013	Tanzania	HIV
517	TB Guide Helps to Strengthen Community Participation in Fight against the Disease	Announcement	3/25/2013	Global	PVO/NGO
518	MCHIP Co-Authors Article on Voluntary Medical Male Circumcision and Adolescents	Announcement	3/26/2013	Global	HIV
519	Launch of Global Health: Science and Practice Journal Features Two MCHIP Publications	Announcement	3/28/2013	Global	HIV/Newborn Health
520	PPIUCD Services: Start-Up to Scale-Up Regional Meeting in Zambia, April 9-12	Announcement	4/5/2013	Zambia	Family Planning
521	Global Action Plan for Pneumonia and Diarrhea Urges Governments and Partners to Take Immediate Steps to Achieve Impact	Announcement	4/12/2013	Global	Child Health
522	Protect Newborns. Protect the Future: The Role of Immunization in Newborn and Lifelong Care	Announcement	4/15/2013	Global	Immunization/Newborn Health
523	MCHIP Contributes to "Decade of Vaccines" Supplement in Peer-Reviewed Medical Journal	Announcement	4/24/2013	Global	Immunization
524	MCHIP Work in Family Planning Highlighted by International Confederation of Midwives	Announcement	4/29/2013	Global	Family Planning

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
525	MCHIP Releases Three Maternal and Newborn Health Briefs Promoting WHO Best Practices	Announcement	5/1/2013	Global	Maternal Health/Newborn Health
526	MCHIP Presents at "Can We Do Better? Measuring Coverage in Maternal, Newborn and Child Health"	Announcement	5/7/2013	Global	Child Health/Newborn Health/Nutrition
527	MCHIP Presents at the International Council of Nurses 25th Quadrennial Congress	Announcement	5/24/2013	Global	N/A
528	MCHIP Staff Author Article on Improving Immunization Services in India	Announcement	5/29/2013	India	Immunization
529	Winning Video Shows How Postpartum Family Planning is Impacting Lives in India	Announcement	5/29/2013	India	Family Planning
530	Infographic Illustrates Significant Economic and Health Benefits of Family Planning	Announcement	5/31/2013	Global	Family Planning
531	Mozambique Quality of Care Survey Assesses Maternal and Newborn Services in 46 Facilities	Announcement	6/13/2013	Mozambique	Maternal Health/Newborn Health
532	Special Event: Child Survival Call to Action One Year Later	Announcement	6/18/2013	Ethiopia	Child Health/Newborn Health/Nutrition
533	Watch Live! Committing to Newborn Health in the Latin American and Caribbean Region	Announcement	6/21/2013	Latin America and the Caribbean	Newborn Health
534	Presentations from MCHIP Nutrition Series Now Available	Announcement	7/9/2013	Global	Nutrition
535	Journal Features Results of MCHIP's Bangladesh Healthy Fertility Study	Announcement	8/20/2013	Bangladesh	Family Planning
536	Saving Lives at Birth Development Exchange: Reflecting on Five New Ways to Save Newborn Lives	Announcement	8/20/2013	Global	Newborn Health
537	Article Published on Quality of Maternal and Newborn Care in Madagascar's Hospitals	Announcement	9/16/2013	Madagascar	Child Health/Maternal Health/Newborn Health
538	MCHIP Staff Publish Articles in Kenya's Most Widely Read Newspaper	Announcement	10/6/2013	Kenya	N/A
539	MCHIP Participates in 20th International Congress of Nutrition in Granada, Spain	Announcement	10/17/2013	Spain	Nutrition

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
540	Join the MCHIP Team at AIDS Walk Washington!	Announcement	10/25/2013	Global	HIV
541	MCHIP and Partners Host "Born Too Soon: World Prematurity Day Technical Symposium"	Announcement	11/21/2013	United States	Newborn Health
542	Advancing a Promising Practice: Family Planning & Immunization Integration Resources	Announcement	11/21/2013	Liberia	Family Planning/Immunization
543	Updated Guide from MCHIP Helps NGOs Implement Programs to Prevent Postpartum Hemorrhage	Announcement	12/4/2013	Global	Maternal Health
544	Now Available! "Scaling Up Lifesaving Commodities for Women, Children, and Newborns" Toolkit	Announcement	12/18/2013	Global	Child Health/Maternal Health/Newborn Health
545	MCHIP Launches Collaborative Document for Community Health Worker Programs at Scale	Announcement	12/20/2013	Global	Child Health/Maternal Health/Newborn Health
546	MCHIP Provides Resources to Help Organizations Reduce Postpartum Hemorrhage	Announcement	1/20/2014	Nigeria	Maternal Health
547	Journal Article Published on Newborn Care Practices in Four Regions of Ethiopia	Announcement	1/24/2014	Ethiopia	Newborn Health
548	Report on Community-Based Newborn Programs Examines Postnatal Home Visits	Announcement	1/28/2014	Global	Newborn Health
549	Draft Every Newborn Action Plan Now Open for Comments	Announcement	1/28/2014	Global	Newborn Health
550	Journal Article Focuses on Health System Strengths and Challenges Related to Malaria in Pregnancy	Announcement	2/14/2014	Global	Malaria/Maternal Health
551	Article Co-Authored by MCHIP Stresses Need for Postpartum Family Planning Programming	Announcement	2/28/2014	Global	Family Planning
552	New Toolkit Highlights Successes of Newborn Alliances in Latin American and the Caribbean	Announcement	3/4/2014	Latin America and the Caribbean	Child Health/Maternal Health/Newborn Health
553	MCHIP a Key Organizer of Successful iCCM Symposium in Ghana	Announcement	3/21/2014	Ghana	Child Health
554	Save the Children Releases 14th Annual "State of the World's Mothers" Report	Announcement	5/7/2014	Global	Maternal Health

#	SUCCESS STORY/LINK	SUCCESS STORY / BLOG / ANNOUNCEMENT	DATE	COUNTRY/ REGION	INTERVENTION AREA(S)
555	The Global Monitoring, Evaluation and Research Workshop in Kenya Begins!	Announcement	Unknown	Kenya	Child Health/Maternal Health/Newborn Health
556	Maximizing Lives Saved: An Interview with Raj Shah	Announcement/Media	9/20/2011	Global	Child Health/Maternal Health/Newborn Health
557	MCHIP Staff Contribute to Four New Articles on Voluntary Medical Male Circumcision	Announcement/Media	12/1/2011	Global	HIV
558	Key Findings Presented from Rwanda's Highly Successful EIP Program	Announcement/Media	2/15/2012	Rwanda	Child Health
559	Voice of America	Media	6/6/2010	Global	Maternal Health
560	Nigeria's Leading Newspaper Featured MCHIP Work	Media	2/13/2011	Nigeria	Child Health/Maternal Health/Newborn Health
561	National Public Radio: It's Time to Rediscover the IUD. Women's Health Advocates Say	Media	10/6/2013	Global	Family Planning
562	MCHIP Director Discusses the Future of Newborn Health in Africa on Voice of America	Media	1/8/2014	Global	Newborn Health

Annex 10: PVO/NGO Support

INTRODUCTION

The PVO/NGO Support team provided technical assistance to 94 PVO/NGO projects in five grant categories funded by the CSHGP, and 20 PVO/NGO projects funded by PMI's MCP; supported USAID's management of these Programs; and managed a sub-grant to CORE Group for their collaborative work with MCHIP and the CSHGP. This work enabled MCHIP to build the capacity and strengthen partnerships with NGO practitioners and to leverage combined expertise of PVO/NGO Support Team members and those of other MCHIP technical areas to support community-oriented activities in 42 countries in the areas of project planning, implementation, monitoring, evaluation, and results dissemination. At the end of MCHIP, PVO/NGO Support consisted of a Team Lead, a Manager, a Program Associate, a Senior M&E Specialist, and a Senior OR Advisor; staff included a Senior Child Health Advisor, a Capacity Building Advisor, a New Partner Advisor, and a MCP Support Manager during MCHIP. PVO/NGO Support's work augmented the global evidence base for community-oriented programming as a vital component of health systems through focused activities in several of MCHIP's priority cross-cutting and technical areas, including equity, nutrition, malaria, immunization, family planning, maternal and newborn health, and child health.

OR was the CSHGP's new major investment during MCHIP, as the Program continued to expand partnerships and contribute to a global evidence base. MCHIP advanced USAID's global leadership in community-oriented programming by supporting an OR portfolio of 30 projects to test innovative solutions in addressing programming challenges in 23 countries. MCHIP's TA expanded, too, to support this new and challenging effort by PVO/NGOs and to continue to ensure adequate support to New Partner grantees, who were less experienced and required more assistance.

KEY ACHIEVEMENTS

The PVO/NGO Support Team, in collaboration with MCHIP's technical teams, was tasked with four objectives through SO 3. Each section below describes how the PVO/NGO Support Team achieved those objectives.

- 1. To provide technical and capacity building assistance to PVO/NGOs in the areas of project design and implementation, monitoring and evaluation, and sustainability planning with the goal of ensuring quality programs and expanding proven MCH interventions in priority areas.**

In addition to the AOR and Technical Advisors at USAID every grantee had a backstop on the PVO/NGO Support Team, who provided customized TA spanning the entirety of a project lifecycle, from program design to final evaluation and reporting, following closely the calendar of CSHGP deliverables and requirements. This TA drew upon MCHIP's wealth of technical experts in addition to PVO/NGO Support Team expertise in nutrition, malaria, immunization, family planning, maternal and newborn health, child health, and community-oriented programming to provide state of the art information and advice. To support USAID's management of the Program, PVO/NGO Support assisted the CSHGP Team with developing, updating, and disseminating reporting guidelines for Detailed Implementation Plans (DIP) and Strategic Workplans (SW), Operations Research (OR) protocols and Concept Papers, Annual Reports, and Mid-term and Final Evaluations. PVO/NGO Support organized technical reviews of key project documents, conducted quality checks of reports, and extracted lessons for dissemination through MCHIP and CORE Group. For PMI's MCP, PVO/NGO Support created workplan, annual and final reporting guidance.

During the first six months of project implementation, the PVO/NGO Support Team reviewed reporting guidance and USAID's expectations for implementation with each grantee. PVO/NGO Support helped identify and address implementation challenges in each project through annual New Grantee Orientation workshops and through monthly check-in calls. These calls documented and tracked grantee progress in meeting CSHGP requirements and also provided opportunities to help grantees work through implementation challenges, technical focus, and staffing. During this period, PVO/NGO Support backstops advised grantees on data collection, data analysis, and OR designs, and assisted with data collection instrument construction. PVO/NGO Support and MCHIP technical teams reviewed draft DIPs and SWs and provided feedback to improve those plans, facilitating their timely approval by USAID.

With the CSHGP shift to OR in 2008, PVO/NGO Support recruited a Senior OR expert to support projects' research efforts. Since most projects funded after 2008 had an OR component which required additional review and support, the Senior OR Advisor coordinated reviews of 30 OR concept papers by external global program, technical, and research experts with support from Johns Hopkins IIP. These reviews ensured the quality of each research protocol and this support was cited as a critical feature of CSHGP's OR component in an external review of OR projects. This advisor held multiple discussions with each grantee and their research partners to finalize their research plans.

Similarly, to support 20 MCP grantees, the PVO/NGO Support Team provided customized assistance through assigned backstops who explained reporting requirements, provided input on data collection and analysis efforts where applicable, and reviewed draft workplans to facilitate PMI's approval process. Workplans included community-based malaria control activities centered on mobilization and behavior change efforts and utilized PVO/NGO Support's expertise.

During implementation PVO/NGO Support backstops provided technical advice and reference materials as needed and served as a one-stop "go-to" for any CSHGP or MCP grantees' questions or concerns on a variety of implementation topics—from stakeholder engagement to training CHWs to planning for sustainability, and more. As projects neared completion, PVO/NGO Support ensured that CSHGP grantees had the capacity to conduct a thorough and sound program evaluation by reviewing guidance with them, providing state of the art data collection instruments, and facilitating the identification of appropriate evaluation consultants, where applicable. PVO/NGO Support assisted CSHGP grantees with writing learning briefs to document and share lessons from their work. Finally, the PVO/NGO Support Team supported projects' final evaluations by making appropriate links to USAID, MCHIP and other stakeholders in country; reviewing final evaluations and providing feedback to USAID's CSHGP Team; and extracting results and lessons to disseminate in the form of portfolio review reports through MCHIP and CORE Group in addition to 10 articles and 16 presentations in global fora that highlighted PVO/NGO results. PVO/NGO Support provided similar support to MCP grantees for final evaluations and reports, along with the creation of four cross-portfolio case studies, and a Program event opened by Adm. Ziemer and featuring NGO presentations of their accomplishments.

Other technical assistance provided by PVO/NGO Support included trainings, for example, MCP grantees received training in Program Design, Monitoring, and Evaluation, Behavior Change, CCM, and MIP. Thirty-six people, representing eight CSHGP projects, attended an OR workshop in PY 5 to strengthen their OR plans. Other OR workshops were conducted during CORE Group meetings for current grantees as well as other NGOs interested in OR. PVO/NGO Support created and delivered a webinar on sustainability assessment for MCP grantees which helped them to think about and address sustainability issues in their projects.

PVO/NGO Support collaborated with other MCHIP technical teams to create or update state of the art tools, including [Technical Reference Materials](#) with companion [e-toolkits](#), [KPC Survey modules](#), and [guidance for addressing equity issues](#), which facilitated broader discussion and use among CORE Group members and MCHIP country teams. MCHIP's consultations with community health practitioners before, during, and after developing those tools indicated practitioners' high regard for them and ensured a practical grounding.

2. To provide strategic information and monitoring assistance to centrally funded PVO/NGO programs [CSHGP, PMI MCP].

PVO/NGO Support's TA included a thorough review of grantees' M&E plans, survey sampling plans, data collection instruments, data analysis, and intervention specific materials data, guided by PVO/NGO Support's Senior M&E specialist. This TA resulted in high-quality project reporting and enabled grantee collection of standard indicators across CSHGP projects, which facilitated portfolio-level analyses and reporting results to a wider audience. In addition, platforms created and maintained by PVO/NGO Support, including the grantee data form that facilitated electronic reporting for grantees and the extranet that generated reports for USAID. Data generated by PVO/NGO Support contributed to USAID's annual OP Indicator reporting and MCHIP's Lives Saved calculations. PVO/NGO Support maintained mchipngo.net, which expedited public sharing of grantee information. The processes employed and tools created by PVO/NGO Support enabled the team to contribute numerous data analyses to the external CSHGP evaluation.

PVO/NGO Support's efforts to strengthen programming and collect data also facilitated MCP results reporting, which contributed to PMI's annual reports and culminated in the aforementioned case studies about community efforts in malaria control. Grantees' systematic, high-quality reporting and data collection, assisted by the PVO/NGO Support Team, enabled their sharing of information and lessons learned at the high-level end-of- Program event in PY5.

PVO/NGO Support conducted site visits to nearly all MCP grantees and to many CSHGP grantees to ensure high quality implementation and to facilitate partnerships with local groups, MOH, and USAID, where assistance was needed. PVO/NGO Support also reviewed annual reports for both MCP and CSHGP Programs, providing feedback on progress and highlighting "red flags" where intervention by USAID or MCHIP was needed to ensure the project stayed on track. PVO/NGO Support ensured that the learning from CSHGP project baseline assessments was incorporated into implementation plans and that OR plans were sound during its review of first Annual Reports. PVO/NGO Support also reviewed subsequent annual reports to monitor project implementation.

Each year PVO/NGO Support constructed their CSHGP and MCP workplans with input from those teams at USAID to ensure that activities were responsive to USAID priorities. PVO/NGO Support maintained flexibility throughout each year to respond to emerging priorities in order to ensure resonance in the portfolios.

3. To advance global leadership through the analysis, synthesis, and dissemination of PVO/NGO best practices and innovations by coordinating with and operating through PVO/NGO networks and key global alliances and partnerships.

Key results of housing PVO/NGO Support within MCHIP include opportunities to coordinate country-level technical work with community- and district-level PVO/NGO work. PVO/NGO Support staff contributed technical and operational information to MCHIP technical teams and also relayed state of the art technical information to grantees and coordinated PVO/NGO work

with MCHIP efforts in particular countries. PVO/NGO Support staff worked closely with MCHIP's Child Health, Malaria, Maternal Health, Immunization, FP, and M&E teams to bridge technical information with PVO/NGO work; for example, MCHIP's Malaria Team helped to design and facilitate training for MCP grantees. CSHGP grantees in Liberia, Indonesia, Rwanda, Bangladesh, and Kenya, in particular, benefited from coordination and collaboration with MCHIP in country.

PVO/NGO Support's technical assistance to CSHGP grantees, which strengthened their M&E practices, enabled broader thematic reviews of MNC, CCM, and OR efforts authored by consultants. This TA also facilitated the writing and submission of 11 articles for peer-reviewed publications and 16 presentations at international conferences, which covered topics like health systems strengthening, breastfeeding, control of diarrheal disease, maternal health, and newborn care. In addition, with valid data resulting from strong M&E practices, PVO/NGOs contributed project learning to global discourse on newborn health and CCM. MCHIP leveraged its co-organizer role in the Global Newborn Health Meeting and the Integrated Community Case Management Evidence Review Symposium to ensure representation of community-oriented efforts, including CSHGP projects. Within MCHIP, PVO/NGO Support delivered presentations and facilitated discussions about CSHGP, MCP, and strengthening community elements in health systems to strengthen community aspects of technical teams' programs and to invite expert comment on different contextual challenges in CSHGP and MCP projects, also featured at a CORE Group annual meeting.

OR was the CSHGP's new major investment during MCHIP and the issues addressed by PVO/NGO OR were relevant to MCHIP's technical agenda, including health equity, family planning integration, iCCM, community inputs to maternal and newborn care, and use of m-health strategies. The PVO/NGO team provided technical assistance to PVO/NGOs to support developing concept papers, obtaining IRB approval, implementing the research plan, and conducting final evaluations which generated high-quality evidence on how to overcome barriers to delivery and use of high-quality interventions and how to scale up service access for underserved populations. MCHIP's partnership with the CORE Group facilitated dissemination of this learning to a variety of key stakeholders, given the wide reach of CORE Group's social media platform. For more information about specific learning from OR projects, please see the summary of results under SO 3.

4. To provide technical input to a network of PVOs and obtain coordinated input for furthering key technical activities.

More information about CORE Group's collaboration with MCHIP is provided in the CORE Group Annex. This section presents a brief summary, highlighting the PVO/NGO Support Team's role in that collaboration, which is not the only facet of the partnership. In managing a subgrant to CORE Group, PVO/NGO Support bridged MCHIP's work with a global network of community-oriented health practitioners. MCHIP provided technical updates at biannual CORE Group meetings to improve the quality and impact of programming, and CORE Group contributed to several technical teams' activities. In particular, PVO/NGO Support facilitated technical and working group sessions at every CORE Group meeting, on topics including equity measurement, designing OR studies, family planning integration, and a review of project results, which added to the knowledge base and enhanced the technical capacity of community health practitioners. MCHIP's FP, Maternal Health, Malaria and Child Health teams also provided updates at some CORE Group meetings.

In addition to meeting updates, MCHIP contributed to several of CORE's Working Groups' activities. CORE Group participated in the planning for the Global Newborn Health Meeting and the Integrated Community Case Management Evidence Review Symposium, linking its

network to these global events. CORE Group's Technical Working Groups contributed to updates to the TRMs and KPC modules and assisted with MCHIP's production of other key technical resources like equity guidance. For more information about CORE Group's role in MCHIP, please see CORE Group's Annex.

CONCLUSION

MCHIP experienced a high degree of success in achieving the main objectives for SO 3, in addition to adapting to support new directions in the CSHGP and improving integration of the PVO/NGO Support Team into MCHIP over time, and also experienced indirect or unintended benefits from having this technical support function housed within a flagship program. The PVO/NGO Support Team worked hard to leverage all of MCHIP's assets to benefit grantees while bringing learning from those projects back to inform and disseminate through MCHIP. Some of the unintended benefits are described below:

- MCHIP, in its role as a global flagship, provided a unique opportunity for the technical support function for the CSHGP and MCP to provide both a core team of technical experts familiar with these programs, their grantees and processes, and also access to a wide range of global technical experts from across the MCHIP consortium who could be engaged to provide short-term TA through reviewing key project documents; interacting with CSHGP grantees at MCHIP's Program Learning meeting for field staff; consulting with PVO/NGO Support staff during MCHIP technical meetings and BBLs on malaria and other technical components of grantee projects; delivering presentations on MCHIP initiatives at CORE Group annual meetings; among others. The quality of the portfolio was enhanced by ready access to technical expertise that complemented the PVO/NGO Support Team.
- While USAID's flexible, direct awards to CSHGP and MCP grantees were distinct from the process to develop MCHIP country programs, there was some evidence that where there were overlapping geographic or technical agendas, MCHIP country programs and CSHGP grantees were able to connect in-country to share knowledge and lessons to mutual benefit. For example, MCHIP worked closely with IRC in Liberia to facilitate IRC's testing of immunization and FP integration, building on MCHIP's lessons learned; in Rwanda, MCHIP shared its mobiles with World Relief and World Relief presented its experience with community mobilization and behavior change at the MCHIP country program learning meeting; in Kenya, CSHGP grantees and MCHIP country program staff all attend the Mission-supported partners meetings to share experiences and lessons; in Bangladesh, MCHIP worked to get CSHGP grantees at the table for Mission partners meetings. These types of connections could be significantly strengthened through more coordinated and harmonized processes to align future CSHGP-like geographic foci with USAID Flagship foci.

As documented in MCHIP's mid-term evaluation, housing USAID's TA function for community-oriented programs in USAID's maternal and child health flagship project yielded benefits for both MCHIP and grantees. It also underscored the ongoing need for external TA to PVO/NGO grantees. Without this arrangement, grantees would not have seamless access to a broad range of technical expertise and their results would not be disseminated through as far-reaching a global technical platform, somewhat limiting their contributions to global dialogues on a variety of topics. While PVO/NGO reporting continues to improve, MCHIP's experience suggests that, in addition to technical interventions and dissemination, PVO/NGOs still require TA in guiding OR implementation, monitoring and evaluation and benefit from state of the art technical input to ensure their results are valid, useful and disseminated widely. MCHIP gained access to community-based implementation and research partners, enriching learning and informing programming to strengthen this critical component of health systems in its country programs.

There are still opportunities for improving the overall TA model building on lessons learned such as efficiencies gained through improved coordination between flagship offices and

grantees, and strengthened internal flagship dialogues and country activities through the representation of community-oriented perspectives. The RMNCH project will emphasize strengthening community systems as part of a cohesive health system strengthening effort such as developing a common system approach framework that can be adapted to many MCHIP countries to improve outcomes and equity in a sustainable manner. In addition, RMNCH offers an opportunity to identify national health systems issues in partnership with communities so that they can help shape policy and program practices. CORE Group will be a full partner in RMNCH and therefore well positioned both to contribute technical expertise to flagship programming and to secure the flagship's technical expertise to strengthen its network.

Annex 11: CORE Group—Community Health Network

CORE Group: *Advancing Evidence, Action, and Collaboration for Community Health*

INTRODUCTION

During year three, with the vision of increasing MCHIP's ability to achieve its mandate to further global knowledge, programmatic learning, and sharing in the areas of MNCH, the partnership with CORE Group and its *Community Health Network* began. CORE Group is recognized for its demonstrated method of fostering collaboration among its PVO/NGO members and other global health practitioners, while serving as an effective mechanism for disseminating tools and knowledge and influencing international practice related to community-based health programming. Partnering with CORE Group's *Community Health Network* not only supported MCHIP's strategic objective of increased use and coverage of high impact MNCH interventions, but also assisted the quality of PVO/NGO programs supported by the CSHGP and PMI MCP. CORE Group's vision of a world of healthy communities, where no woman or child dies of preventable causes, aligned with MCHIP's goal. CORE Group's mission to generate collaborative action and learning to improve and expand community-focused public health practices for underserved populations around the world, supported MCHIP's goal of accelerating progress toward reaching MDGs 4 and 5, and brought additional human resources to improve integrated programs that addressed equity to reach the most vulnerable.

STRATEGIC PROGRAM LEARNING PARTNERSHIP

The reach of MCHIP through CORE Group and its network of 53 PVOs/NGOs, 23 Associate Organizations and 28 Individual Associates was significantly increased and the opportunities for greater collaboration and synergies with PVO/NGOs supported. By partnering with CORE Group, MCHIP also linked directly to a well-established program learning platform that fosters partnership, knowledge-sharing, and advancement of best practices for ending preventable maternal, newborn, and child deaths around the world. CORE Group's participation in and contribution to MCHIP activities increased MCHIP's community health program learning and expanded that learning both within MCHIP programs and across the CORE Group *Community Health Network*. Through leveraging CORE Group mechanisms—including its semi-annual meetings, *Community Health Network* listserves, and webinars—MCHIP significantly increased the diffusion of best practices emerging from its supported country programs, Child Survival and Health Grants Program (CSHGP) and global efforts. CORE Group provided a vehicle for rapid action-oriented diffusion of MCHIP lessons learned, tools, and new opportunities to increase positive health impact and contribute to global learning for community health. CORE Group also served as a catalyst for establishing strategic partnerships and inspiring effective practice across a wide variety of organizations. Over the course of the project, CORE Group and MCHIP produced several joint products, contributed to each other's meetings, conducted multiple presentations, cross promoted resources and extended representation in global forums. The synergies between MCHIP, the USAID Child Survival Health Grants Program (CSHGP) and CORE Group optimized the reach and impact of key community-focused lifesaving MNCH and Nutrition interventions and approaches through common learning agendas, global collaboration and resource development, especially in key areas such as Community Case Management (CCM), newborn health and Community Health Workers (CHWs).

From spring 2011 to spring 2014, CORE Group convened 7 semi-annual conferences, each averaging 237 participants from 89 different organizations and 12 different country representations. The **CORE Group Spring 2014 Global Health Practitioner Conference**

“Health for All Starts in the Community” was held towards the end of MCHIP and drew 309 participants from 105 different organizations and 19 countries¹. CORE Group saw a 14% increase in the total number of participants from the previous year and a total of 120 first-time attendees. Over the course of MCHIP, the meeting themes and learning agendas increasingly fostered advancement of state-of-the-art community health practices, diffusion of innovations, collective responses to common implementation barriers and greater connections and harmonization between implementers, donors, advocates, academics and other partners. Designed and driven by the *Community Health Network*, these meetings also influenced thought leadership and emerging global trends. This included strategically designed forums for USAID to share and have partner dialogue around their latest health strategies and shifting directions to end preventable child and maternal deaths. They are also venues for the dissemination of tools, the sharing of information, networking, and peer-learning that leads to development and spread of better programs and approaches. A notable outcome of the Fall 2012 Meeting, Call to Action to End Preventable Child Deaths: The International NGO Response, was the closing remarks and presentation made by Professor David Pelletier with Cornell University where he provided a meta-level view of what he had witnessed during the course of the event, describing it as part of a larger evolution within international development. He made several recommendations to USAID and to INGOs to support country-owned aspirations; build cross-sectoral partnerships; build strategic capacity for implementation at-scale; strengthen local actors; emphasize a “how” learning agenda; and shape a global and national discourse.

CORE Group Biannual Conference Themes:

Spring 2014: *Health for All Starts in the Community*

Fall 2013: *Social Accountability, Health Equity and Empowerment*

Spring 2013: *Capacity Strengthening for Global Health: Partnerships, Accountability, Integration, Learning (PAIL)*

Fall 2012: *Call to Action to End Preventable Child Deaths: The INGO Response*

Spring 2012: *Demystifying & Using Data for Community Health Impact*

Fall 2011: *Windows of Opportunity for Health and Well-Being*

Spring 2011: *Equity in Health: Ensuring Access, Increasing Use*

With its advanced knowledge management and community of practice platforms, CORE Group diffused learning from these conferences, MCHIP publications, the CSHGP evaluations, and broader PVO network activities through presentations, reports and videos on-line. CORE Group also supported 8 technical Working Groups, 5 Interest Groups, and the Practitioner Academy to drive technical updates, resource development, diffusion of innovations, and cross-linking with MCHIP work and priority areas. Together CORE Group and MCHIP diffused dozens of collaborative community health program tools and resources, hosted over 30 webinars and at least a dozen trainings, which exponentially advanced ease, pace, and quality of achieving field-level impact. The CORE Group website had an average of over 16,500 visitors each year; the number of unique visitors was more than doubled and an average of people from 163 different countries visited the site for resources and information. CORE Group related social media efforts began mid-way in 2011 and grew significantly, increasing MCHIP and CORE Group engagement and attendance by a much wider range of partners.

MCHIP and PVO/NGO Technical Advancement and Diffusion – MNCH and Nutrition

CORE Group supported strategic collaboration with MCHIP technical priority areas through facilitating linkages between MCHIP, CORE Group, CSHGP and the wider *Community Health Network* to increase coordination, quality and scale-up of high-impact MNCH and nutrition

¹ Benin, Burundi, Cambodia, Canada, DRC, France, Guatemala, Haiti, India, Ireland, Kenya, Netherlands, Pakistan, Peru, Sierra Leone, Switzerland, Tanzania, UK, US

interventions and approaches that could be effectively delivered at the community level. CORE Group also took a leadership role to increase immunization coverage through greater CSO involvement, expand integrated approaches to maternal and child anemia, mobilize community-based TB programs including pediatric TB, and provided extended program learning on several other topics through its webinar series and meetings. Overall, the collective community health learning, tools and resources were consolidated, promoted, and elevated by CORE Group across its *Community Health Network* and through global partnerships. CORE Group supported participatory diffusion and expanded reach of MCHIP and CSHGP lessons learned for community focused program learning. Across each MCHIP technical area, CORE Group facilitated participation in and presentations at the CORE Group meetings and co-sponsored webinars. In addition to supporting dissemination and promotion of lessons learned, CORE Group also facilitated linkages between CORE Group Technical Working Groups and relevant MCHIP Technical Teams and resources, encouraging leadership and collaboration as a result. Furthermore, CORE Group fostered increased PVO/NGO interest and engagement with MNCH and nutrition issues to facilitate use and scale-up of priority MCHIP community-focused, high-impact interventions.

For **Maternal Health**, CORE Group collaborated with MCHIP to advance learning around improved skilled birth attendance and respectful maternity care, and helped diffuse the Post-Partum Hemorrhage and PE/E Toolkits while increasing capacity building, learning, scale-up and NGO engagement in key practices, trainings and promotional efforts. CORE Group also actively helped promote the MCHIP *Asia Meeting in Interventions for Impact in Essential Obstetrics and Newborn Care* in Dhaka, and engaged and facilitated CSHGP grantees and other NGO partner participation. MCHIP sponsored maternal health related webinars and trainings were also promoted over the course of the project. CORE Group took leadership in promoting more integrated maternal and newborn approaches and preventive antenatal care interventions such as those that address the multiple cause of anemia (malnutrition, malaria, and worms).

For **Nutrition**, CORE Group supported increased engagement of PVOs/NGOs in the use of and scale-up of community-focused, high-impact interventions included in the integrated package of the Essential Nutrition Actions (women's nutrition during pregnancy and lactation, breastfeeding, complementary feeding, nutritional care of sick and malnourished children, prevention and control of maternal and child anemia, prevention and control of vitamin A deficiency and iodine deficiency). To improve implementation addressing these issues, CORE Group supported the development, training, and use of two related "how to" manuals Essential Nutrition Actions Trilogy and the Nutrition Program Design Assistant (NPDA). At the global level, CORE Group served as a member of the Civil Society Taskforce of the Scaling Up Nutrition (SUN) initiative and contributed to the advocacy activities of Thousand Days initiative. Joining forces with MCHIP, CORE Group's efforts to increase PVO/NGO knowledge of and engagement in anemia and to facilitate collaboration led to USAID supporting an Anemia Task Force. Together with MCHIP, USAID, FANTA and SPRING, CORE Group helped expand the community of practice and contributed to the design of a Multisectoral Anemia Partners Meeting. CORE Group's early anemia advocacy efforts laid the foundation for and evolution of partner's activities including MCHIP's completion of the integrated anemia toolkit, jointly updated frameworks, and greater collaboration amongst partners and across USAID.

As part of the USAID/Food For Peace (FFP)-funded Technical and Operational Performance Support (TOPS) Program consortium, CORE Group also linked related health and nutrition activities with those of the supported Food Security and Nutrition (FSN) Network. Each Network has their own key areas of focus, but where there was technical and implementation overlap and opportunity, CORE Group contributed to collaborative efforts to advance learning and influence priorities for implementers on such topics as the intersection of WASH, environmental enteropathy, and nutrition; linking agriculture and nutrition for improved

program outcomes; the role of gender, and social and behaviour change. Building on CORE Group's *Community Health Network* partner experience and resources, the FSN Network was able to adapt and expand relative models such as Care Groups with new training manuals, trainings, reviews of more recent innovations and scale-up efforts, and bring implementers together to make recommendations for a research agenda and opportunities for informing donor and implementer audiences about experiences with Care Groups in various contexts and sectors. Both Networks worked to improve ways to create opportunities to share information, shape agendas, understand and influence donor priorities, build consensus on promising practices, and widely diffuse and manage technical knowledge. In addition to sharing tools and learning, in partnership with the FSN Network, CORE Group helped support a two-day *Getting the Knack of NACS, State of the Art Meeting on Nutrition Assessment, Counselling and Support (NACS)*, which aimed to further advance NACS in the context of HIV, and health care more broadly. NACS initially emerged from nutrition programming within an HIV context, but has now evolved into a framework to deliver adequate prevention and treatment of malnutrition for all. Through expanded promotion and diffusion, CORE Group facilitated the participation and learning across different partners and sectors, and greater synergy.

For **Newborn Health**, CORE Group invested extensive effort in increasing a focus on newborn program learning and scale up of messages and actions for families to prevent newborn death and illness and to promote healthy newborn development through its network. Special emphasis was given to advancing learning and engagement around HBB, essential newborn care, prevention of prematurity and stillbirth, KMC, use of chlorhexidine, prevention of newborn sepsis, and emerging global initiatives and partnerships.

CORE Group in partnership with MCHIP, ACNM, and SNL, contributed to the development, promotion and dissemination of *Helping Babies Breathe (HBB) Implementation Guide* and *Taking Care of a Baby at Home After Birth: What Families Need to Do* in English, Kiswahili and Kalenjin. Through a small grant to URC, the flipbook was translated into French and adapted to the Benin context. The flipbook is now part of the Government of Benin's newborn health package. CORE Group and URC also produced a case study on the adaptation process. In partnership with MCHIP, CORE Group hosted a Kangaroo Mother Care (KMC) orientation and newborn related sessions at the biannual meetings.

At the global level, CORE Group participated in the Helping Babies Breathe (HBB) Global Development Alliance (GDA), the Newborn Indicators Working Group, the LAC Newborn Alliance, the Global Newborn Action Plan Advisory Group and engaging the NGO community in providing input for and response to the *Every Newborn Action Plan*. CORE Group arranged for HBB training for PVOs/NGOs, supported Suzanne Stalls with ACNM to participate in the Asia Regional Meeting in Dhaka and her presentation during the *Orientation on programming the HBB initiative for newborn resuscitation* session. For the *Global Newborn Health Conference* in South Africa, CORE Group also collaborated with MCHIP PVO/NGO Support to highlight CSHGP grantees newborn lessons learned and an overview of CORE Group's NGO Member newborn activities based on a survey synthesis. CORE Group joined MCHIP and other partners in hosting and presenting a World Prematurity event, and co-hosted and facilitated a meeting on the Every Newborn Action Plan.

The survey CORE Group conducted of its Member and Associate Organizations focused on their newborn health activities, assets and needs to better facilitate program learning, collaboration and scale up. A summary report and presentation include a quick overview of the responses from a total of 24 different organizations. In April 2013, preliminary findings were presented at the *Global Newborn Health Conference* in South Africa and at CORE Group's Spring Meeting by CORE Group's Safe Motherhood & Reproductive Health Working Group Co-Chair Carolyn Kruger with PCI and in June, at the Latin American and Caribbean Neonatal Alliance meeting

in El Salvador by CORE Group's Community Child Health Working Group Co-Chair Alfonso Rosales with World Vision. Through the survey we were able to identify gaps, challenges and opportunities, including geographic areas where a large number of partner organizations could be leveraged and coordinated to advance newborn health.

For **Child Health**, CORE Group's collaboration with MCHIP began with their shared CCM initiatives and continued to be the main focus over the course of the project. Even before the formal partnership began in Year Three, CORE Group was able to complete and print the *Community Case Management Essentials—Treating Common Childhood Illnesses in the Community—A Guide for Program Managers* with a sub-grant from MCHIP through the USAID Africa Bureau. After five years of catalyzing and supporting the conceptualization, drafting, field-testing, and editing, CORE Group successfully harnessed the guidance, resources and evidence across the implementing partners at that time and took the lead on designing and printing the guide, which is practical and reconciled diverse input and expert community child health experience from around the world including MCHIP. From there, under MCHIP, in 2012, PSI volunteered to also assist with the translation of the guide into French, so with their help CORE Group was able to publish a French version as well. Through the translation process, CORE Group also published a 2nd revised edition of the *CCM Essentials Guide* to reflect updates and changes since the 1st edition was published and to include the addition of www.CCMCentral.com as a resource, the updated WHO *Sick Child Intake Form* and reference to the adaptation of CCM for emergencies under future directions. Over four years, CORE Group and MCHIP have disseminated nearly 2500 copies and hundreds of downloads of the 1st, 2nd and French Editions of *CCM Essentials Guides*.

In addition to wide diffusion through CORE Group biannual meetings, CSHGP, MCHIP, and CCMCentral.org and CHWCentral.org, at regional and global levels, over 300 guides have gone to UNICEF, to CORE Group Members World Vision and IRC regional Africa meetings in Rwanda for country program officers and country counterparts, through regular Roll Back Malaria (RBM) Case Management Working Group (CMWG) and at the iCCM Evidence Review Symposium in Ghana. For every direct dissemination effort, CORE Group has hosted regular learning sessions, technical advisory groups, coaching and connecting of practitioners to resources and engaging its wider *Community Health Network* to related forums and helping to drive the global agenda for CCM. Dissemination of the *CCM Essentials Guide* is only one component of CORE Group's broader CCM initiative, which seeks to methodically advance this approach, including the guide and its affiliated standards and tools, in order to expedite global implementation of quality CCM programming and advance it as an equity-focused strategy to improve access to essential treatment services for children. Ultimately, *CCM Essentials Guide* was referenced in the WHO/UNICEF Joint Statement for iCCM and this became one of many resources available on www.CCMCentral.com as CORE Group worked hand-in-hand with the MCHIP Child Health Team to populate and promote the website and the work of the Task Force.

At the global level, for the 2012 launch of "A Promise Renewed," CORE Group proactively co-sponsored an NGO information reception and took the lead in promoting and engaging the wider community around related events and initiatives. CORE Group also participated in the global CCM Task Force serving as the main liaison with the network and served as the Co-focal Person for the RBM CMWG *Expanding Access to Treatment Workstream* in order to promote and leverage global malaria funds and focus for CCM. With MCHIP, CORE Group co-hosted several CCM sessions at CORE Group biannual meetings including sessions entitled, "Community Case Management: A Review of 22 CSHGP Projects Since 2000" and "What's Next for Community Case Management?" and a series of webinars addressing challenges and resources for advancing CCM. CORE Group also contributed to the CCM Supplement Launch at ASTMH in Atlanta, Georgia.

For **Malaria**, in addition to the CCM related achievements described under **Child Health**, CORE Group also collaborated with MCHIP to advance learning and focus on malaria in pregnancy (MIP). MCHIP served as a technical resource and lead for MIP related CORE Group Malaria Working Group activities and links to global forums. CORE Group looked for key ways of helping MCHIP move malaria in pregnancy programs from neglect to priority and did so mainly through its focus on integrated approaches to addressing anemia under **Nutrition** and through the promotion the Essential Nutrition Actions.

OTHER RELATED TECHNICAL AREAS: IMMUNIZATION, FAMILY PLANNING, MHEALTH AND TB

For **Immunization**, CORE Group participated in related meetings and discussions and created an immunization listserv and interest group to help identify ways to improve immunization coverage and GAVI engagement with CSOs. With polio-specific funding, CORE Group developed a complementary guide, *Social Mobilization: Lessons from the CORE Group Polio Project in Angola, Ethiopia, and India*, based in part on input from technical MCHIP immunization staff. The guide includes recommendations for reaching inaccessible populations with routine immunization and other health services and complemented the MCHIP strategic directions.

For **Family Planning**, CORE Group contributed to the collaborative MIYCN-FP toolkit completion and launch and disseminated the complementary GSM-funded *Better Together – Linking Family Planning and Community Health for Health Equity and Impact* paper and *Social and Behavior Change for Family Planning: How to Develop Behavior Change Strategies for Integrating Family Planning into Maternal and Child Health Programs*. CORE Group also participated in and helped to promote FP integration activities including collaborating with the MIYCN-FP Working Group and IBP Consortium.

For **TB**, CORE Group and MCHIP published *Community-Based Tuberculosis Prevention and Care: Why and How to Get Involved –An International Handbook for Nongovernmental Organizations and Civil Society Organizations*. This document was designed to serve as a handbook, or primer, for NGOs and CSOs that are considering joining the fight against TB. CORE Group's TB Working Group and Community Child Health Working Group, together with The International Union Against Tuberculosis and Lung Disease (The Union), also created a new childhood TB resource, *A Framework for Integrating Childhood Tuberculosis into Community-based Child Health Care*, which outlines community-based strategies for integrating childhood TB activities with other maternal and child health care services.

For **mHealth**, CORE Group supported the mHealth Interest Group and the sharing of best practices and learning. CORE Group also contributed to the advancement and increased engagement of NGOs as a member of the Technical Advisory Group of the mPowering Frontline Health Workers GDA, and as a member of the UNF mHealth Steering Committee. CORE Group also produced a complementary *mHealth Field Guide for Newborn Health* with support from a private sector firm, DiMagi.

CSHGP LINKAGES TO PROMOTE LEADERSHIP AND COLLABORATION FOR LEARNING AND ACTION

Through CORE Group, MCHIP was able to support communities of practice in addition to the technical assistance it provided to CSHGP grantees, which ultimately also expanded its ability to share the knowledge being generated to address major barriers for improving and scaling up delivery and use of integrated packages of low-cost, high-impact interventions to improve the health of women, children and communities. CORE Group has been the primary platform through which MCHIP's analysis and reporting of the notable achievements of the CHSGP have been shared with other community practitioners and their learning and perspectives linked to

global level program and policy forums. Consolidating this complementary role not only simplified the support to the CSHGP, but allowed the MCHIP PVO/NGO technical support and the knowledge being generated to have a much greater impact. MCHIP and CORE Group worked together to promote leadership and collaboration for learning and action across the CSHGP wider PVO/NGO community, and to elevate the program globally.

For PVO/NGO support, CORE Group facilitated linkages and helped to improve the quality programming and learning across the CSHGP through attending and contributing to related meetings; developing and providing resources; participating in discussions; and giving input into related documents and processes such as the analysis of a survey on Technical Reference Materials, the CSHGP communications strategy, articles on the CSHGP Expanded Impact Project from Rwanda, review of the URC Traction Project equity proposals, APHA panel on social and behavior change submission, and support to the CSHGP Performance Evaluation Team. CORE Group also contributed to and facilitated engagement of Members and ensured wide dissemination, feedback and dialogue about the key learning for the *USAID Performance Evaluation: Child Survival and Health Grants Program (2003 – 2013)*.

CORE Group also played a key role in improving and sharing program-based learning and SOTA in community health approaches and evidence building. Liaising with MCHIP, CORE Group helped to refine and prioritize program learning areas and expand communities of practice across key areas including equity, CCM and maternal newborn health and diffusion of CSHGP grantee innovation and operations research activities. The CORE Group meetings played a key role in ensuring a solid understanding among a wider community of NGOs about CSHGP directions in innovation, operations research, research methods, and lessons learned around new partnerships between NGOs, academia, and MOH for OR. The CSHGP grantees were frequently featured in CORE Group program learning activities and highlights, and lessons learned were widely diffused. Ways the CSHGP was highlighted at the CORE Group biannual meetings, included a featured panel on the CSHGP Program Learning Reviews of iCCM portfolio, MNH and Operations Research projects and multiple program updates and overviews. Building on the learning and evidence-base generated by the program, CORE Group also contributed to the development of an MCHIP Community-based Reproductive, Maternal, Newborn and Child Health framework. For publication, CORE Group co-authored a peer review article analyzing the program results of a set of CSHGP grantees entitled *Community-based intervention packages facilitated by NGOs demonstrate plausible evidence for child mortality impact. Health Policy and Planning 2013: 1-13*. CORE Group also served as a reviewer for several other articles submitted to various journals and continues to develop articles and papers that draw upon the lessons learned across the CSHGP portfolio. (See SO3 for more information).

GLOBAL LEADERSHIP

CORE Group provided global leadership around the development of community health tools and guidance to influence program design and program learning around equity, community health workers and systems, and social accountability. CORE Group featured **equity** in its semi-annual *Community Health Network* meetings eventually leading to the MCHIP *Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal and Child Health Projects (September 2011)* and *MCHIP Checklist for Health Equity Programming*. CORE Group posted guidance on its website for incorporating health equity into maternal, newborn, and child health project designs; highlighting tools and resources for equity design, implementation, monitoring and evaluation; and describing country case studies with lessons learned.

CORE Group also contributed to thought leadership on **community health workers and systems**. CORE Group planned and facilitated the back-to-back Care Group TAG, which resulted in updating the Care Group Info website, training resources, and wider diffusion of the

evidence-based methodology. A care group consists of 10 to 15 volunteer community-based health educators who regularly meet together with a staff person for training, supervision and support. Care groups achieve complete and consistent coverage of a specified area. The “saturation coverage” design ensures that every household with a child under age 5 or a woman of child-bearing age receives a volunteer visit at least twice a month and helps develop deeper personal relationships for promoting behavior change and improved health impact. Care Groups are now being used by over 20 organizations across more than 20 countries and training has reached over 100,000 peer educators, which reach at least 1.275 million households. As an outcome to the MCHIP CHW TAG meeting, CORE Group led a multi-organization working group on community health systems, and took the lead in writing a discussion paper, *How Social Capital in Community Systems Strengthens Health Systems: People, Structures and Processes* and diffused it widely. CORE Group also authored a chapter on CHW Relationships with the Community, co-authored a chapter on CHW Relationships with the Health System and reviewed remaining chapters in the CHW handbook entitled *Developing and Strengthening CHW Programs at Scale – A Reference Guide for Program Managers and Policy Maker*. CORE Group participated on the advisory panel of a WHO TDR realist review of *Incentives and the Recruitment, Retention and Performance of Community Health Workers* led by Chris Colvin, joined the Global Health Workforce Alliance Global Resource Group on Community Health Providers (Community Health Workers and other Frontline Health Workers) providing comments on the CHW Framework for Harmonization and Synergies and Monitoring and Accountability; served as an advisor for the 1 Million CHW Campaign led by Earth Institute; participated on the CHW Central Technical Advisory Group; and contributed to the USG Community Health Worker Evidence Summit.

WAY FORWARD

Overall, CORE Group’s participation in MCHIP elevated the importance of integrated community-focused interventions and the role of civil society in helping to end preventable child and maternal deaths and in addressing health disparities through a greater focus on equity and partnerships. As a result of the experience of collaborating with MCHIP, CORE Group is now well positioned to be more strategically integrated and leveraged with future USAID flagships and other global initiatives. Globally, there continues to be gaps in civil society coordination and representation and linkages with national policies and global initiatives. CORE Group is now better poised to play a more robust role not only globally, but at the country level as well. As more support and urgency grows in countries to have stronger community and equity focused programs, there is an incredible potential for the type of fostered learning, coordination, and collaboration that CORE Group has so amply demonstrated to be adapted and replicated more worldwide. Whether it is donor investments or country health plans, with the growing number of partners working in global health and development, there is an ever increasing need for networks and harmonization mechanisms to ensure efficiencies, decreased duplication, accelerated learning and program improvement, and guarantee that the most vulnerable and those who need access to health information and services are actually reached. Networks play a unique role in thought leadership, strategic analysis, and dissemination. With over 15 years of building trust in a community and evolving to reflect the priorities of an expanding constituency, CORE Group is able to improve partner engagement and dialogue and to ensure the representation of community-oriented perspectives and civil society in national and global efforts. Notably fostering advocates for effective community-focused health approaches within global and regional policy arenas in order to mainstream community health in international policy and practice. CORE Group’s convening and neutral role of community health practitioners provides the opportunity for multiple agency buy-in, and collaboration among usually competitive agencies. Further leveraging CORE Group’s collective *Community Health Network* commitment to ending preventable child and maternal deaths, their resources and their assets can significantly help advance global efforts.

Annex 12: Strategic Communications Brief

MCHIP embedded a robust communications department within the program—an unprecedented accomplishment for a project of this size and scope. The strategic communications department leveraged existing platforms within the global health community to communicate the work of the program, highlight its impact, disseminate resources, collaborate with like-minded organizations and share knowledge and lessons-learned. The project has *harnessed a multitude of communications tools* to strategically interact with key audiences, such as the MCHIP website, e-communications, program blog, digital media and social media, traditional news media, conferences, special events and products. MCHIP also chaired a monthly communications-working group, which included representation from each of the implementing partner organizations in the MCHIP consortium. The group collaborated to strategically communicate the project work and leverage the partnership to advocate and promote RMNCH messages.

MCHIP Communications used dissemination platforms such as:

- Resources, briefs & toolkits
- E-Communications
- Website
- Blog
- Social media
- New media and video
- Traditional news media
- Events & conferences

Throughout the life of the project, MCHIP communications created and refined a process *to ensure that all resources and program learning from the project was delivered into the hands of those who need it most* and have the capacity to create the greatest impact. Through the development of a comprehensive communications calendar and strategic dissemination plan, MCHIP communications ensured that all materials, knowledge, and messaging were disseminated in the most cost-effective format through the most influential communications channels. MCHIP's success creating, synthesizing, distilling, and disseminating knowledge is evident from the nearly **300** resources, briefs or toolkits the team contributed to over the lifetime of the project. These resources are available on the MCHIP website (www.mchip.net), USAID's Development Clearing House, and as a list in Annex 16.

MCHIP's work garnered attention at the local and global levels. The strategic communications department developed strong relationships with news outlets (in the field and at a global level), partner blogs, and international media organizations. MCHIP work and advocacy pieces were published in such outlets as Bill & Melinda Gates Foundation, GlobalHealthMagazine.com, The Guardian, the New York Times online, Center for Global Health Policy, and Huffington Post, among many others. In an effort to promote work at the local level, MCHIP *built the communications and storytelling capacity of local and headquarters field staff*, by providing training and tools necessary to interact with local media, produce press releases, and write and disseminate success stories. Through a strong partnership with Voice of America, MCHIP helped build the capacity of local journalists to report on RMNCH topics. MCHIP received local and regional coverage from outlets such as Bangladesh Daily Star, The African Star, South Africa's The Mail & Guardian, Uganda's New Vision, East African Business Week, Forbes Africa, Thomas Reuter's AlertNet, BBC Swahili, Channel Africa Radio, and the Nigerian Tribune.

The MCHIP website served as a central hub for these resources as well as for blogs and collateral created by MCHIP experts or partners. From March 2010–June 2014, there were more than **345,000** sessions (formerly known as visits) to mchip.net. The sessions from the last six months (Jan. 2014–June 2014) included a **17%** increase in page views over the prior 6 months, demonstrating the website's increasing relevance in the RMNCH community. This increase in page views can be attributed in part to the high volume of content posted to the website. See Table 1 for types of content MCHIP created. In addition, MCHIP's website frequently highlighted stories that demonstrate program successes, often from the perspective

of local partners, practitioners, and beneficiaries. A comprehensive list of more than **560** success stories is available in Annex 9.

Table 1. Content created by MCHIP or cross-posted from partners and shared out on mchip.net.

ON MCHIP.NET—"CONTENT WAS KING"	
Featured articles:	292
Blog articles:	290
Events announced:	127
"In the news" pieces:	99
Multimedia featured:	31
News released:	29

MCHIP's technical teams also created and collaborated on more than **60** peer-reviewed publications, in such journals as the *International Journal of Gynecology and Obstetrics*, *Midwifery*; *Journal of Infectious Diseases* *International Health*; *BMC Pregnancy and Childbirth*; *Journal of Acquired Immune Deficiency Syndromes (JAIDS)*; *The Lancet*; *Malaria Journal*; *Maternal and Child Health Journal*; *BMC Pediatrics Journal*; *Emerging Microbes & Infections*; *Global Health: Science and Practice*; and *PLoS Medicine*. See the complete list in Annex 13.

The **MCHIP website** has been accessed in over **208** countries worldwide with highest visitation coming from the United States, India, Kenya, United Kingdom, Philippines, Pakistan, Ethiopia, Canada, Indonesia, and Bangladesh. Most accessed pages on the site are the resource section and interactive world map with country landing pages.

MCHIP promoted and furthered USAID's goals and work to end child and maternal deaths and demonstrated thought leadership at local, regional, and global events. The MCHIP communications team *hosted or organized over 110 events* on a variety of RMNCH-related topics, including such high-level events such as two high profile Congressional Receptions held on Capitol Hill to educate Congress about the importance of investment in MNCH. Events such as those held at the Woodrow Wilson Center, SAIS, and the National

Press Club, as well as the Child Survival Call to Action Global Meeting reached broader audiences from international governments, academia, and global health policy makers. Technical meetings and conferences, such as the WHO-PEPFAR Meeting for the Scale-Up of VMMC in Johannesburg, South Africa, the Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care in Dhaka, Bangladesh, and the Global Newborn Conference in Johannesburg, South Africa, were highly successful opportunities to share innovations, lessons learned, scalable technical solutions, and advocacy messages with practitioners, representatives from MOH and missions, and RMNCH thought leaders. *Topics of these events covered a wide range of RMNCH activities* such as cross-cutting themes like M&E, mHealth, equity, performance-based finance, community, health systems strengthening, quality and integration. MCHIP also regularly held booth, satellite event, or special events at special conferences such as APHA, Interaction, International Family Planning, ICASA, IAS, mHealth, GHC and USGLC Smart Power Expo. Additionally, there were over **165** presentations given by MCHIP's team at international conferences, outlined in Annex 15. Most MCHIP events were planned in collaboration with relevant RMNCH partners, such as Every Woman Every Child, A Promise Renewed, Gates Foundation, etc.

Messages and learning from events were frequently disseminated through MCHIP's strategic use of technologies that enable and encourage online engagement. For example, MCHIP worked to *prioritize digital participation in events and conferences in order to reach a more diverse audience* – including those that would not normally be able to attend due to time/fiscal/travel restraints. Specifically, the Program maximized engagement and interaction through the use of live and recorded webcasts, conference-specific digital resource collections, live-microblogging on social media and e-communications/daily digests.

The Newborn Conference was webcast live audiences and viewed over **16,000** times by participants from over **90** countries who were able to ask questions and discuss the panels through online engagement.

An example of a widely participated event for a diverse global audience is the 2013 Newborn Conference. Satellite viewing parties of the Conference were organized in a number of countries such as Bangladesh, Nepal, India, Malawi, Madagascar, and Pakistan and presentations were immediately shared online for sharing and discussion, with over 13,000 views to date. E-newsletters branded as “Daily Digests” were used during the Newborn Conference to capture key messages from each day of the conference and disseminate knowledge and learning to an extended audience.

Since March 2011, MCHIP has sent out over **80** e-communications via mailing provider Constant Contact to a mailing list of nearly **8,000** subscribers. E-communications have included the “MCHIP Update,” an electronic newsletter, event invitations, reminders and updates, and announcements surrounding global health advocacy days.

*MCHIP social media sites increased in influence over the life of the project. From July 2011 – June 2014 the MCHIP’s Twitter and Facebook messages garnered over **17 million impressions** (a combined number of potential users that saw any content associated with MCHIP’s Twitter and Facebook profiles). With over **2,000** likes on Facebook and more than **5,500** followers on Twitter, the cities most reached by the project’s social media include Washington, D.C.; Bangkok, Thailand; New Delhi, India; and Nairobi, Kenya. In addition to MCHIP’s official social media channels, MCHIP has empowered staff “ambassadors” to participate on Twitter in order to share technical content, insights and live coverage of happenings at events. MCHIP regularly participated in partner and donor campaigns, such as #5thBDay and #MomandBaby, which amplified awareness for USAID’s Acting to End Preventable Child and Maternal Deaths strategy and the Child Survival Call to Action.*

Annex 13: List of MCHIP Peer-Reviewed Journal Articles

Maternal Health
Colomar, M., Cafferata, M. L., Aleman, A., Castellano, G., Elorrio, E. G., & Althabe, F. (2014). Mode of Childbirth in Low-Risk Pregnancies: Nicaraguan Physicians' Viewpoints. <i>Maternal and Child Health Journal</i> , 18 (4).
Eichler, R., Agarwal, K., Askew, I., Iriarte, E., Morgan, L., & Watson, J. (2013). Performance-based Incentives to Improve Health Status of Mothers and Newborns: What Does the Evidence Show? <i>Journal of Health, Population and Nutrition</i> , 31 (4). http://www.jhpn.net/index.php/jhpn/article/view/2358
Smith, J. M., Baawo, S. D., Subah, M., Sirtor-Gbassie, V., Howe, C. J., Ishola, G., Tehoungue, B & Dwivedi, V. (2014). Advance distribution of misoprostol for prevention of postpartum hemorrhage (PPH) at home births in two districts of Liberia. <i>BMC Pregnancy and Childbirth</i> , 14 (189). http://www.biomedcentral.com/content/pdf/1471-2393-14-189.pdf
Bartlett L, Weissman E, Gubin R, Patton-Molitors R, Friberg IK. (2014). The Impact and Cost of Scaling up Midwifery and Obstetrics in 58 Low- and Middle-Income Countries. <i>PLoS ONE</i> , 9(6). http://www.plosone.org/article/abstract?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0098550&representation=PDF
Smith, JM., Gubin, R., Holston, MM., Fullerton, J., Prata, Ndola. (2013). Misoprostol for postpartum hemorrhage prevention at home birth: an integrative review of global implementation experience to date. <i>BMC Pregnancy and Childbirth</i> , 13 (44). http://www.biomedcentral.com/content/pdf/1471-2393-13-44.pdf
Smith, J.M., Lowe, R., Fullerton, J., Currie, S., Harris, L., Felker-Kantor, E. (2013). An integrative review of the side effects related to the use of magnesium sulfate for pre-eclampsia and eclampsia management. <i>BMC Pregnancy and Childbirth</i> , 13 (34).
Smith JM, Currie S, Cannon T, Armbruster D, Perri J. (2014). Policies and Programs for Prevention and Management of Postpartum Hemorrhage and Pre-Eclampsia/Eclampsia: Survey of 37 Countries. <i>Global Health Science and Practice</i> . (in press)
Newborn Health
Lawn, J. E., Davidge, R., Paul, V. K., Xylander, S. v., Graft Johnson, J. d., Costello, A., et al. (2013). Born Too Soon: Care for the preterm baby. <i>Reproductive Health</i> , 10 (1). http://www.reproductive-health-journal.com/content/pdf/1742-4755-10-S1-S5.pdf
Callaghan-Koru, J. A., Seifu, A., Tholandi, M., Graft-Johnson, J. d., Daniel, E., Rawlins, B., et al. (2013). Newborn care practices at home and in health facilities in 4 regions of Ethiopia. <i>BMC Pediatrics</i> , 13 (198). http://www.biomedcentral.com/content/pdf/1471-2431-13-198.pdf
Bergh, AM., Kerber, K., Abwao, S., de-Graft Johnson, J. (2014). Implementing facility-based kangaroo mother care services: lessons from a multi-country study in Africa. <i>BMC Health Services Research</i> . (in press)
Dickson, K. E., Simen-Kapeu, A., Kinney, V., Huicho, L., Vesel, L., Lacktriz, E., et al.(2014) Health-systems bottlenecks and strategies to accelerate scale-up in countries. <i>The Lancet: Every Newborn</i> 4 (1) . doi:10.1016/S0140-6736(14)60582-1. http://download.thelancet.com/pdfs/journals/lancet/PIIS0140673614605821.pdf?id=bawW34H0kL8WQf kEHR_Au
Petrie-Miller, M., Mazia, G., Serpa, M., Pooley, B., Marshall, P., Melendez, C., Vicuña Olivera, M. (2014). Building alliances for improving newborn health in Latin America and the Caribbean (LAC). <i>Pan American Journal of Public Health</i> . (in press)
Mclure, EM., de Graft-Johnson, J., Jobe, AH., Wall, S., Koblinsky, M., Moran, A., Wright, LL., Mwebesa, W., et al. (2011). A conference report on prenatal corticosteroid use in low and middle income countries. <i>International Journal of Gynaecology & Obstetrics</i> , 115 (3), 215-9. doi: 10.1016/j.ijgo.2011.07.017

Immunization
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Tsega, A., Hausi, H., Steinglass, R., Chirwa, G. (2014) "Immunization Training Needs in Malawi." <i>East African Medical Journal</i> : Vol. 91 No. 10. October 2014.
Jain, M., O'Hara, K., Taneja, G., Favin, M., Amin, R. (2014). A Community-Based Tool to Increase Immunization Coverage. <i>WHO South-East Asia Journal of Public Health</i> . (in press)
Amin, R., Corte Real de Oliveira, T.J., Da Cunha, M., Wells Brown, T., Favin, M., Cappelier, K. (2013). Factors limiting immunization coverage in urban Dili, Timor-Leste. <i>Global Health: Science and Practice</i> , 1 (3), 417-427. doi: 10.9745/GHSP-D-13-00115. http://www.ghspjournal.org/content/1/3/417.full.pdf+html
Fields, R., Dabbagh, A., Jain, M., Sagar, K.S. (2013). Moving forward with strengthening routine immunization delivery as part of measles and rubella elimination activities. <i>VACCINE</i> , 31 (2), B115-B121. doi: 10.1016/j.vaccine.2012.11.094.
Brearely, L., Vandelaer, J., Eggers, J., Steinglass, R. (2013). Applying an equity lens in the Decade of Vaccines. <i>VACCINE</i> , 31 (2), B103-7. doi: 10.1016/j.vaccine.2012.11.088.
Taneja, G., Sagar, K.S., Mishra, S. (2013). Routine Immunization in India: A perspective. <i>Indian Journal of Community Health</i> , 25 (2). http://www.iapsmupuk.org/journal/index.php/IJCH/article/view/247/pdf
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Annex 14: List of National Policy and Guideline Changes Contributed to by MCHIP

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
Bangladesh	2	<p>Year 3:</p> <ol style="list-style-type: none"> 1. Health Population Nutrition Sector Development Program (HPNSDP) 2011 - 2016 2. Program Implementation Plan (PIP) of HPNSDP
Bolivia	2	<p>Year 5: SBM-R was made part of the national CQI strategy. By Ministerial Resolution No. 1472 (2013), the MSD (MOH) mandated that all Level 2 and 3 health care services must apply the CCQI methodology. This institutionalized the QI process throughout the entire country.</p>
Burkina Faso	2	<p>Year 2: Integrated malaria prevention and treatment training package validated; The package consists of a facilitator manual, participant manual and supervision guidelines</p> <p>Year 4: Integrated communication plan for Malaria</p>
Democratic Republic of the Congo	11	<p>Year 1: The national policy drafted in DRC with USG support is the National Newborn Policy.</p> <p>Year 2: FP norms and standards revised to introduce FP in iCCM site</p> <p>Year 3: 3 KMC training tools; 3 M&E tools; 2 Supervision check lists</p> <p>Year 5: Measles elimination policy</p>
Ethiopia	2	<p>Year 3: Financial Management Manual, Human Resource Manual, Ethiopian Midwifery Association</p>
Guinea	8	<p>Year 3:</p> <ol style="list-style-type: none"> 1. Tubal ligation curriculum 2. IUCD curriculum <p>Year 4:</p> <ol style="list-style-type: none"> 1. National document on community health; Implementation guide for Integrated Community Case Management of Childhood Illness; National document on management of malaria 2. National policy on reproductive health/family planning <p>Year 5: Guidelines on PMTCT</p> <p>Year 6: Pre-service Education curriculum</p>
India	21	<p>Year 2:</p> <ol style="list-style-type: none"> 1. National Programme implementation plan (PIP) guidelines for immunization under NRHM

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
		<p>2. Comprehensive multi-year plan (cMYP)</p> <p>3. AEFI guidelines</p> <p>4. Cold chain handler training module</p> <p>5. National Measles SIA operational guidelines</p> <p>6. National Measles SIA training packages</p> <p>Year 3:</p> <p>1. Community-based distribution of Misoprostol for prevention of PPH in home deliveries (policy decision made, operational guidelines released)</p> <p>2. Calcium supplementation for prevention of Pre-eclampsia/Eclampsia (level of effort shared with other programs, policy decision made, operational guidelines under way)</p> <p>3. Establishing pool of empanelled certifiers to be part of DQAC in each state for quality assurance in the Postpartum Family Planning program. (level of effort shared with other programs, instructions sent by government of India to states)</p> <p>Year 4: Multi dose Open vial Policy; National Plan and Road Map for Scale Up of PPIUCD Services</p> <p>Year 5:</p> <p>1. Facility Based Newborn Care Operational Guide MOHFW 2011</p> <p>2. A Strategic Approach To Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) In India, MOHFW 2013; Maternal and Newborn Health Toolkit, MOHFW 2013</p> <p>3. Guidelines on use of Injection Gentamicin by ANMs - For management of Sepsis in Young Infants under specific situations, MOHFW 2013</p> <p>4. Multi dose open vial policy</p> <p>5. Road Map for strengthening ANM/ GNM training school to improve the quality of nursing and midwifery education</p> <p>6. Career Path for in-service cadre of ANM GNM personnel working in the public health department and Strengthening of State Directorate/Nursing Cell/Supervisory Structure</p> <p>Year 6:</p> <p>1. Community-based distribution of Misoprostol for prevention of PPH in home deliveries (policy decision made, operational guidelines released)</p> <p>2. Calcium supplementation for prevention of Pre-eclampsia/Eclampsia (level of effort shared with other programs, policy decision made, operational guidelines under way)</p> <p>3. Establishing pool of empanelled certifiers to be part of DQAC in each state for quality assurance in the Postpartum Family Planning program. (level of effort shared with other programs, instructions sent by government of India to states)</p>

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
Kenya	47	<p>Year 3:</p> <ol style="list-style-type: none"> 1. 11 School Health policy and guidelines 2. CS and Development Guidelines 3. DD policy 4. EPI MLM teaching modules 5. IYCF integrated guidelines orientation package 6. Diarrhea Communication Strategy 7. Guidelines for ORT corner 8. ENBC package; Food and Nutrition Security policy 9. National Nutrition Action Plan 10. IYCN Policy and Strategy Plan; Nutrition Surveillance Protocol 11. Rota Virus Vaccine Application 12. GAVI Annual Progress Report 13. Concept paper for CLTS and CIMCI integrated materials 14. PPH community orientation package 15. PMTCT/MNCH integrated services Job Aid 16. MIYCN/FP integration materials 17. PCV10 Launch Materials <p>Year 4:</p> <ol style="list-style-type: none"> 1. Maternal module on community MNH guidelines 2. MNH service delivery standards 3. ICCM implementation guidelines 4. ORT corner operational guidelines and standards 5. IFA plan of action 2012-2015 6. Micronutrient strategy 7. Nutrition surveillance protocol 8. CODE of breast milk substitute regulations implementation plan 9. Nutrition Action Plan 10. MIYCN Guidelines & Orientation Package 11. DON- M&E Framework 12. DVI - M&E Framework; DCAH - M&E Framework <p>Year 6:</p> <ol style="list-style-type: none"> 1. National guidelines for the diagnosis, treatment and prevention of malaria in Kenya 2. Use of low dose folic acid by pregnant women taking IPTp-SP 3. National Malaria Strategy 2001-2017 4. Policy on Integrated Community Case Management 5. Policy on use of Zinc use for treatment of Sick children with diarrhea by CHWs in the community 6. Policy on management of diarrheal disease in Children under five years of age 7. New Community Health Strategy

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
		8. Kenya Child Health Policy (Draft) 9. Breast Milk Substitute (BMS) Regulation and Control Act 2012 10. MIYCN National Policy guidelines 11. MIYCN Policy Summary Statement 12. National Nutrition Action Plan 2012-2017 13. National Maternal Infant and Young Child Nutrition Strategy 2012-2017 14. Accelerating Reduction of Iron Deficiency Anemia Among Pregnant Women in Kenya: Plan of Action 2012-2017 15. National Maternal, Infant and Young Child Nutrition Guidelines for Health workers, 2013 16. National policy guidelines on immunization
Lesotho	3	Year 4: Lesotho Nursing Council (LNC) 5-year strategic plan; LNC 2-year Operational Plan; National five-year VMMC Operational Plan Year 2: 1 FP strategy, 1 set of FP standards, 1 field course tested Year 3: Standards for Adolescent Sexual & Reproductive Health Year 4: 1. Rapid Model 2. WHO Home-Based Maternal and Newborn Home Care Curriculum Year 5: Policies related to introduction of chlorhexidine and use of misoprostol for PPH Year 4: National Strategy for Essential Community Care (Soins Essentiel Communautaire) Guidelines Year 5: Facility-based integrated package training curriculum for matrons at secondary health centers—Relais training package Year 6: National SEC Strategic Plan Year 2: National Reproductive Health Strategy Year 3: Revised CBMNH M&E system Year 6: MCHIP supported the development of an EPI policy
Liberia	9	
Mali	6	
Malawi	3	

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
Mozambique	32	<p>Year 1: The 3 national policies in Mozambique drafted with USG support are the National Plan for the Humanization of Healthcare, including the Model Maternity Initiative; Guidelines for Maternal and Neonatal Audit Committees; and National Family Planning Strategy.</p> <p>Year 2:</p> <ol style="list-style-type: none"> 1. National Strategy and guidelines for Family Planning 2. Guidelines for Integrated Supervision for MCH and RH/FP 3. National Plan for strengthening and scale-up of cervical and breast cancer services 4. Plan for strengthening the M&E system of the National Directorate of Public Health 5. Child health card guidelines 6. Guidelines for maintenance of equipment for colposcopy, visualization with acetic acid, cryotherapy, and LEEP services 7. Guidelines for Audit Committees for Maternal and Neonatal Deaths 8. National Guidelines for Breast Cancer Screening 9. Quality standards for colposcopy, visualization with acetic acid, cryotherapy, and LEEP services 10. Guidelines for National Training Curricula for Nurses 11. Integrated MCH Training Package; Integrated Training Guidelines for: 12. ANC and PNC and Newborn care 13. Normal delivery and Emergency Obstetric Care 14. Family planning / Reproductive health 15. Cervical and breast cancer referral services <p>Year 3: National norms for care for normal delivery, newborn, and obstetric complications, national norms for family planning and management of infertility, national quality and performance standards for cervical and breast cancer</p> <p>Year 4:</p> <ol style="list-style-type: none"> 1. National standards for Model Maternities, including IPTp for malaria, PMTCT, and nutrition 2. Clinical protocols for the management of various illnesses in childhood, adulthood, and pregnancy 3. Guidelines for Distribution of Long-Lasting Insecticide Treated Mosquito Nets to pregnant women through the National Health System 4. National Strategic Plan for Malaria Control 2012–2016 5. National Policy of the Malaria Control Program 6. National strategic plan for elimination of mother-to-children transmission of HIV 7. National performance standards for CECAP/FP 8. Monitoring and Evaluation Plan 2012–2016-National Malaria Control Program <p>Year 5: National strategy for the prevention and management of PPH</p> <p>Year 6:</p> <ol style="list-style-type: none"> 1. National Strategy for the Prevention and Management of PPH (developed in FY13, MOH approved in FY14) 2. Acceleration Plan to Increase the Utilization of FP Services and Modern Methods of Contraception (FY14)

GEOGRAPHIC AREA	NUMBER OF POLICIES/GUIDELINES	DESCRIPTION OF POLICIES/GUIDELINES
Namibia	1	Year 6: Strategy for Institutionalization of Health Extension Workers in Namibia
Paraguay	3	Year 3: Manual de atención neonatal, Manual de emergencias Obstétricas de atención calificada del parte, cuadro de procedimientos del aiepi
Philippines	1	Year 6: Clinical Practice Guidelines on Family Planning
Rwanda	4	Year 3: Draft of MNH-BCC Sub-strategy and FP policy and its strategy; Family Planning Policy (2012–2016) Year 4: The National Social and Behavior Change Communication Sub-Strategy for Maternal and Child Health
Senegal	4	Year 5: Use of measles activities to strengthen RI Year 6: 1. NUVI introduction strategy for IPV. 2. NUVI introduction strategy for one for rotavirus vaccine. 3. National EPI Communications Plan
South Sudan	1	Year 4: RH/FP Policy Strategy Plan for South Sudan
Swaziland	1	Year 2: Standards-Based Quality Assurance for Male Circumcision
Tanzania	1	Year 4: Routine Immunization Policy
Vietnam	2	Year 4: National Guidelines for the Care of Newborns and Children Exposed to and Infected by HIV Year 6: National Guidelines for the Care of Newborns and Children Exposed to and Infected by HIV (Approved 2013)
Zambia	1	Year 5: Zambia Newborn Health Framework 2013 Year 3: These are not policies but guidelines (EmONC, FANC, ENC/PNC and IMNCI guidelines)
Zimbabwe	14	Year 4: Immunization Policy Year 5: 1. These are Quality Assurance/Quality Improvement Policy, Maternal and Perinatal Mortality Audit Guidelines, KMC training package, EmONC training package, Integrated Supportive Supervision Guidelines 2. Malaria Community Case Management (MCCM) training package 3. IIP training package, IYCF policy Year 6: Quality Assurance/Quality Improvement (QA/QI) Policy and Strategy (in draft as of Oct. 2013)
Core funded work not country specific	1	Year 2: (PER FP Core): Malawi— PPFP incorporated into updated FP training units co-funded with IntraHealth
Total for All 6 Years	182	

Annex 15: List of Presentations at International Conferences and Publications

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
October, 2009	Global Health - Mini University	Joseph de Graft-Johnson	Routine postnatal/partum care: It is all about timing and contents	Newborn Health	N/A
October, 2010	Global Health - Mini University	Joseph de Graft-Johnson, Stella Abwao and Lily Kak	Helping Babies Breathe: Science, Simulation and Scale	Newborn Health	N/A
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Koki Agarwal	[Moderator] New Evidence for Prevention and Treatment of Postpartum Hemorrhage	Maternal Health	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jeffrey Smith	Essential Obstetric Care Scale-up Schematic	Maternal Health	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Steve Hodgins	Modeling for Impact of Calcium Supplementation	Maternal Health/M&E	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jim Ricca	Detection of PE/E During ANC - Data from QoC Studies	Maternal Health/M&E	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Barbara Rawlins	Routine Measurement of Quality of Care	Maternal Health/M&E	http://www.mchip.net/addis2011

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Steve Hodgins	Global Benchmark Indicators for Maternal and Perinatal Health	Maternal Health/M&E	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jeffrey Smith	Interventions Frameworks for PPH and PE/E - Taking the Message Back Home	Maternal Health	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jeffrey Smith	Quality of Care Survey Results for Newborn Care	Maternal Health/M&E	http://www.mchip.net/addis2011
February, 2011	Africa Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Joseph de Graft-Johnson	Facility Assessment of Quality of Care for Essential Newborn Care and Neonatal Resuscitation in selected African Countries	Newborn Health	http://www.mchip.net/addis2012
March, 2011	National Pay for Performance Summit	Rena Eichler	P4P to Improve Health in Developing Countries	Other	http://www.ehcca.com/presentations/pfppsummit6/eichler_2.pdf
April, 2011	The Unite for Site Global Health & Innovation 2011 Conference				http://www.mchip.net/node/252
June, 2011	Global Health Council 2011 Conference				http://www.mchip.net/node/254
June, 2011	The 29th Triennial Congress of the International Confederation of Midwives				http://www.mchip.net/node/315
June, 2011	Cornerstone Meeting: Investing in Micronutrients - From Past Experiences to Current Challenges	Rae Galloway	[Panelist, session on maternal anemia control]	Nutrition	N/A

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
September, 2011	XX Congreso Latinoamericano de Ginecología y Obstetricia (FLASOG)	Jeffrey Smith	Mejor atención durante el trabajo de parto para reducir las muertes neonatales	Maternal Health	N/A
October, 2011	American Public Health Association Annual Meeting & Exposition				http://www.mchip.net/node/256
October, 2011	Stop TB Symposium - Meeting the unmet needs of women and children for TB prevention, diagnosis and care: Expanding our horizons	Stacie Stender	Integrating TB Case Finding into Maternal Health Services	Maternal Health	N/A
October, 2013	International Society for Quality in Health Care Conference 2013	Sheena Currie	Multi country analysis of prevention and management of PPH and PEE	Maternal Health	N/A
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Salahuddin Ahmed	Impact of Integrating Family Planning within a Community-Based Maternal and Neonatal Health Program in Rural Bangladesh	Family Planning	http://www.mchip.net/node/367
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Salahuddin Ahmed	Impact of Promotion of Lactational Amenorrhea Method within a Community Based Maternal, Neonatal and Child Health Program in Rural Bangladesh	Family Planning	http://www.mchip.net/node/367
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Cat McKaig	Timing is Everything: Integrating Family Planning in Services During the First Year Postpartum	Family Planning	http://www.mchip.net/node/367
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Bokar Dem	Integrated Health Services: Improving the Quality of performance in Guinea for EmONC and FP	Family Planning	http://www.mchip.net/node/367
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Yolande Hyjazi	Integrating Family Planning into Postabortion Care in Guinea	Family Planning	http://www.mchip.net/node/367
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Koki Agarwal	The Rational for the United States to Invest in FP	Family Planning	http://www.mchip.net/node/367

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
November, 2011	2011 International Conference on Family Planning: Research & Best Practices	Bulbul Sood	Scaling Up Post-Partum IUCD's in India	Family Planning	http://www.mchip.net/node/367
December, 2011	ICASA Conference in Addis Adaba	Thomas Machera	Improving Enrollment into HIV care and treatment through expanded Prevention with Positives Services	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Hally Mahler	Is Male Circumcision Available in Iringa, Tanzania?: A SMS System Providing Free Information on Service Locations Increases MC Uptake, Impacts Post-Operative Compliance	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Maureen Chilla	Increasing MC Services delivery through demand creation and mentorship	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Tigistu Adamu	Notification and Management of Post Circumcision Adverse Events and General Service Inquires Using Government Hotline: The Swaziland Experience	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Fulgence Ngeze	Regional Manager: HIV in Marginalized Communities - The Pastoralists	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Kelly Curran	Referral Helps, Escorting Patients Helps More, but Integration is Best: Providing HIV Testing and Counseling in TB Clinic Increases Testing Update from 15 to 97 Percent in Huambo Province Angola	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Lusekelo Njonge	Improving HIV Testing and Counselling Programs through Participatory Assessments	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Dennis Buwembo	Training of Health Workers on Adult Male Circumcision and Adolescent Male Circumcision Under Local Anesthesia for HIV prevention (MC) in Swaziland, Using a Blended Approach	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Yacouba Ouedraogo	Improving PMTCT Service Quality through Standards-based Management and Recognition (SBM-R) Process in Burkina Faso	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Abebe Shume	Identifying the Unmet Need for Medical Male Circumcision among New Military Recruits in Ethiopia	HIV	http://www.mchip.net/node/654
December, 2011	ICASA Conference in Addis Adaba	Fatma Kabole	The START UP SUPPORT for new HIV and AIDS Service Initiation and Institutionalization	HIV	http://www.mchip.net/node/654
May, 2012	CORE Spring Meeting	Theo Biney-Amissah	N/A	N/A	http://www.mchip.net/node/870

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jeffrey Smith	Tracking the Progress of PPH and PEE Programs: A Multi-Country Survey	Maternal Health	http://www.scribd.com/doc/92570796/Smith-Tracking-the-Progress-of-PPH-and-PEE-Programs-a-Multi-Country
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Barbara Rawlins	Quality of Care for Screening and Management of Pre-eclampsia/Eclampsia: Review of Data from 6 Countries	Maternal Health/M&E	http://www.scribd.com/doc/92473422/Rawlins-Quality-of-Care-in-PEE-Review-of-Data-From-Six-Countries
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Salahuddin Ahmed	Integrating Family Planning within a Community-Based Maternal and Neonatal Health Program in Sylhet, Bangladesh	Family Planning	http://www.scribd.com/doc/92570518/Ahmed-Integration-of-Family-Planning-and-MNH-Programs
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Linda Bartlett	Maternal Sepsis	Maternal Health/M&E	http://www.scribd.com/doc/92570530/Bartlett-Maternal-Sepsis
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Steve Hodgins	Maternal Health Indicators and Use of a Uterotonic in 3rd Stage	Maternal Health/M&E	N/A
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Steve Hodgins	Monitoring Program Performance in MNH	Maternal Health/Newborn Health	http://www.scribd.com/doc/92353223/Hodgins-Monitoring-Program-Performance-in-MNH
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	James BonTempo	[Satellite session] mHealth & the MAMA Initiative	Maternal Health	http://www.scribd.com/doc/96720640/BonTempo-Raihan-mHealth-and-the-MAMA-Initiative
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Stephanie Suhowsky Sheena Currie	[Satellite session] PPH, PE/E, PPFP and PSE toolkits	Maternal Health/Family Planning	

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May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Ishtiaq Maman Rubayet Sayed	[Satellite session] Improving Newborn Resuscitation Using HBB Materials	Newborn Health	
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Neeta Bhatnagar Ravi Anand Kamlesh Lalchandani	[Satellite session] Postpartum Systematic Screening (PPSS) Study in Jharkhand, India	Maternal Health	http://www.scribd.com/doc/97082141/Lalchandani-Post-Partum-Systematic-Screening-PPSS-Study-in-Jharkhand-India
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Jeffrey Smith	[Skills session] Enhancing Use of MgSO4: A New Teaching Tool	Maternal Health	N/A
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Goldy Mazia	[Skills session] Providing Essential Newborn Care	Newborn Health	N/A
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Joseph de Graft-Johnson Stella Abwao	[Skills session] How to Use Kangaroo Mother Care	Newborn Health	N/A
May, 2012	Asia Regional Meeting on Interventions for Impact in Essential Obstetric and Newborn Care	Sheena Currie	[Skills session] MamaNatalie: Using a New Anatomic Model for Teaching Skills in Obstetric Emergencies	Maternal Health	N/A
July, 2012	XIX International AIDS Conference (AIDS 2012)	Kirsten Unfried	N/A	N/A	N/A
September, 2012	Global Health Mini-U	Chelsea Cooper, Elaine Charurat, Anne Pfitzer, and Rebecca Fields, with Kate Rademacher of FHI 360	It's Got Promise!: Integration of Family Planning and Immunization Services	Family Planning/Immunization	http://www.mchip.net/node/1264
September, 2012	Global Health Mini-U	Asnakew Tsega	The Expanding Role of Immunization in Saving Lives	Immunization	http://www.mchip.net/node/1265

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September, 2012	Global Health Mini-U	Serge Raharison	Child Health Presentations on Community Case Management – Is It Reaching Those Most in Need?	Child Health	http://www.mchip.net/node/1266
September, 2012	Global Health Mini-U	Joseph de Graft-Johnson	Care for Preterm and Low Birth Weight Babies	Newborn Health	N/A
October, 2012	FIGO Congress 2012, Rome	Veronica Reis	Humanizing Childbirth in Mozambique.	Maternal Health	N/A
October, 2012	FIGO Congress 2012, Rome	Koki Agarwal	Presentation: Survey of Pre-Eclampsia Management in Six African Countries: A Quality of Care Assessment	Maternal Health	N/A
October, 2012	FIGO Congress 2012, Rome	Jeffrey Smith	National Programs to Address Pre-Eclampsia/Eclampsia: A Review of 35 Countries	Maternal Health	N/A
November, 2012	American Society of Tropical Medicine and Hygiene Conference	Serge Raharison (and CCM Task Force)	Launch of iCCM Supplement for the American Journal of Tropical Medicine and Hygiene	Child Health	http://www.mchip.net/node/1387
December, 2012	World Breastfeeding Conference	Evelyn Matiri	Bondo Baby Friendly Community Initiative	Nutrition	N/A
January, 2013	Global Maternal Health Conference in Arusha	Heather Rosen	Assessing the Quality of Services to Prevent and Manage Postpartum Hemorrhage in Five African countries: A Report from the MCHIP Quality of Care Surveys	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Heather%20Rosen_Arusha%202013.pdf
January, 2013	Global Maternal Health Conference in Arusha	Koki Agarwal and Elaine Roman	Improving MIP programs: Lessons learned from country case studies	Malaria/Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Koki%20Agarwal%20and%20Elaine%20Roman_Arusha%202013.pdf
January, 2013	Global Maternal Health Conference in Arusha	David Cantor	Ensuring Data Quality in Quality Care Assessments	M&E	http://www.mchip.net/sites/default/files/mchipfiles/David%20Cantor_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Sheena Currie	National Programs to Prevent and Manage Postpartum Hemorrhage and Pre-eclampsia/Eclampsia	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Sheena%20Currie_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Ernestina David	Institutionalization of Quality Improvement and Humanization of Maternal and Neonatal Care in Mozambique's National Model Maternities Initiative	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Ernestina%20David%20Mozambique_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Steve Hodgins, Cherrie Evans and Jim Ricca	Indicators for maternal health: Can we move from contact only to content and quality?	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Hodgins%20Evans%20Ricca_arusha.pdf

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January, 2013	Global Maternal Health Conference in Arusha	Nancy A. Kidula	Systems strengthening for quality MNH service data management: Experience from four pilot hospitals	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Nancy%20Kidula_Arusha%202013.pdf
January, 2013	Global Maternal Health Conference in Arusha	Somesh Kumar	Use of Clinical Standards for improved Quality of Maternal and Newborn Care	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Somesh%20Kumar_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Lindsay Morgan	Effectiveness of Performance-based Incentives on Supply Side Provision and Use of Maternal Health Services	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Lindsay%20Morgan_Arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Martha Ndhlovu	The Role of Intensive Mentorship in EmONC – Improved Quality of Care: The MCHIP Approach in Mansa Zambia	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Martha%20Ndhlovu_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Jean Pierre Rakotovao, Marc Eric Razariasy, Claudine Ramiandrazafy and Fanja Ralaiafenina	Improvements in Quality of Services Through Timely Post-training Support	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Jean%20Pierre%20Rakotovao_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	Barbara Rawlins	Quality of care for malaria in pregnancy services during antenatal care: Survey results from six African countries	Maternal Health/M&E	http://www.mchip.net/sites/default/files/mchipfiles/Barbara%20Rawlins_Arusha%202013.pdf
January, 2013	Global Maternal Health Conference in Arusha	Heather Rosen	Assessing the Quality of Services to Prevent and Manage Postpartum Hemorrhage in Five African countries: A Report from the MCHIP Quality of Care Surveys	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Heather%20Rosen_Arusha%202013.pdf
January, 2013	Global Maternal Health Conference in Arusha	Vandana Tripathi	Process quality of facility-based labor and delivery care in sub-Saharan Africa: A proposed conceptual framework and measurement tool	Maternal Health	N/A
January, 2013	Global Maternal Health Conference in Arusha	Maternal Health Team Representatives	Created four 2-4 page briefers that were disseminated at the Arusha conference	Maternal Health	N/A
January, 2013	Global Maternal Health Conference in Arusha	Jeffrey Smith	Interventions for the Prevention and Management of Prematurity	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Jeff%20Smith_arusha.pdf
January, 2013	Global Maternal Health Conference in Arusha	N/A	Review of global experience in use of misoprostol for prevention of postpartum hemorrhage at home birth	Maternal Health	http://www.mchip.net/node/1566
January, 2013	Global Maternal Health Conference in Arusha	N/A	Is magnesium sulfate a dangerous drug? A global review of morbidity	Maternal Health	http://www.mchip.net/node/1566

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March, 2013	Conference on Retroviruses and Opportunistic Infections	Augustino Hellar	Voluntary Medical Male Circumcision (VMMC) Scale-Up Expands Access to STI Screening and Management and HIV Testing in Tanzania	HIV	http://www.mchip.net/sites/default/files/mchipfiles/01_VMMC_STI_HELLA_R_FINAL.pdf http://www.mchip.net/node/1633
March, 2013	Conference on Retroviruses and Opportunistic Infections	Lynn Kanyuuru, Evans Mokaya, Mark Kabue, Isaac Malonza, Linda Archer, Kelly Curran, Tigistu Adamu Ashengo	Adaptation of Immunization's Reaching Every District (RED) Approach Improves Uptake of and Retention in PMTCT Services in Bondo District, Kenya	HIV	http://www.mchip.net/sites/default/files/mchipfiles/03_RED_Kenya.pdf http://www.mchip.net/node/1633
March, 2013	PAHO's regional meeting for the evaluation of the Neonatal Health Regional Strategy and Plan of Action	Molly Miller-Petrie and Goldy Mazia or Goldy Mazia	N/A	Newborn Health	N/A
April, 2013	Core Group Spring Meeting	John Varallo, Laura Fitzgerald, and Khatidja Naithani	Using the MamaNatalie Birthing Simulator in Teaching Active Management of the Third Stage of Labor	Maternal Health	N/A
April, 2013	Core Group Spring Meeting	John Varallo, Rehana Gubin, and Khatidja Naithani	Presentation of recent MCHIP publications on postpartum hemorrhage and pre-eclampsia/eclampsia	Maternal Health	N/A
April, 2013	Global Newborn Health Meeting	Jeff Smith	Better Labor Practices to Prevent Birth Asphyxia and Fresh Stillbirths	Maternal Health	http://www.mchip.net/GlobalNewbornConference
April, 2013	Global Newborn Health Meeting	Laura Fitzgerald	Better Intrapartum Practices to Reduce Newborn Infection	Maternal Health	http://www.mchip.net/GlobalNewbornConference
April, 2013	Global Newborn Health Meeting	Laban Tsuma	Chlorhexidine administration at community level in Nepal	Newborn Health	http://www.mchip.net/GlobalNewbornConference
April, 2013	Global Newborn Health Meeting	Holly Blanchard	LAM Provider Card	Family Planning	http://www.mchip.net/GlobalNewbornConference
April, 2013	Global Newborn Health Meeting	Steve Hodgins and Stephen Wall	Source of Care: Care-seeking Behaviors for Newborns and Older Children	Child Health	http://www.mchip.net/GlobalNewbornConference
April, 2013	Logisticians Orientation Workshop for Anglophone Countries	Kabwela Kagaruki; Isaac Mugoya	(Comment that may not present)	Unspecified	None available
May, 2013	Women Deliver 2013	Maternal Health Team	Survive and Thrive - A New Global Alliance for Maternal Newborn Health	Maternal Health	http://www.mchip.net/node/1101

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May, 2013	Women Deliver 2013	Jeff Smith	Review of policies and standards related to key maternal health commodities in 37 countries; discussion of the preparedness of countries in Asia, Africa and Latin America to develop and expand programs for PPH and PE/E	Maternal Health	http://www.mchip.net/node/1101
May, 2013	Women Deliver 2013	Jeff Smith	Pre-eclampsia 2013: A Global Symposium	Maternal Health	http://www.mchip.net/node/1101
May, 2013	Women Deliver 2013	Family Planning Team	Postpartum Family Planning Technical Meeting (Pre-Conference Event)	Family Planning	http://www.mchip.net/sites/default/files/mchipfiles/WD%20Agenda_final.pdf
May, 2013	Women Deliver 2013	Yolande Hyjazi	N/A	Family Planning	N/A
May, 2013	Women Deliver 2013	Joseph de Graft-Johnson	Ensuring Mothers and newborn Infants Receive Postnatal Care: Review of postnatal home visits in five countries	Newborn Health	N/A
June, 2013	Annual Regional LAC Neonatal Alliance Conference	Molly Miller- Petrie	Toolkit on how to form national neonatal alliances	Newborn Health	https://www.k4health.org/toolkits/all-anzas-neonatales ; https://www.k4health.org/toolkits/neonatal-alliances
June, 2013	IAS Conference on HIV Pathogenesis, Treatment and Prevention	Augustino Hellar	Task shifting works: Doctors, clinical officers and nurses perform equally well in voluntary medical male circumcision (VMMC) service delivery in Iringa and Njombe regions, Tanzania	HIV	http://www.mchip.net/sites/default/files/mchipfiles/05_Tanzania_Hellar_draftposter.pdf
June, 2013	IAS Conference on HIV Pathogenesis, Treatment and Prevention	Virgile Kikaya	Initiation of VMMC at one hospital in Lesotho increases new HIV diagnoses and uptake of ART among men	HIV	http://www.mchip.net/sites/default/files/mchipfiles/02_Lesotho_Kikaya.pdf
June, 2013	Nutrition and Nurture in Infancy and Childhood	Justine Kavle	Examining factors associated with a rise in stunting in Lower Egypt in comparison to Upper Egypt	Nutrition	N/A
September, 2013	5th International Conference on Public Health among Greater Mekong Sub-regional Countries	Neena Khadka	Home Based Postnatal Care - A "Not To Be" Missed Opportunity to Save Lives of Women and Newborns	Newborn Health	N/A
September, 2013	5th International Conference on Public Health among Greater Mekong Sub-regional Countries	Dr. Socorro De Leon-Mendoza (MCHIP consultant)	Kangaroo Mother Care: The Intervention to Improve Survival of Preterm/Low Birth Weight Newborns	Newborn Health	N/A

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September, 2013	International Congress of Nutrition	Judith Kimiywe	Integrating Maternal, Infant and Young Child Nutrition (MIYCN) and Family Planning (FP) Services to Improve Health and Nutrition in Kenya	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Integrating%20Maternal%20and%20Infant%20and%20Young%20Child%20Nutrition%20%28MIYCN%29%20and%20Family%20Planning%20to%28FP%29%20Services%20to%20Improve%20Health%20and%20Nutrition%20in%20Kenya_Kimiywe.pdf
September, 2013	International Congress of Nutrition	Justine Kavle	It Takes a Village: Developing Key Community-Level Messages to Address the Rise in Stunting in Rural Egypt	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/It%20Takes%20a%20Village-%20Triangulating%20Data%20to%20Develop%20Key%20Community%20Level%20Messages%20to%20Address%20the%20Rise%20in%20Stunting%20in%20Egypt_Kavle.pdf
September, 2013	International Congress of Nutrition	Justine Kavle	Operations Research: Triangulation of Data Collection Methods and Analyses to Examine the Rise in Stunting in Lower Versus Upper Egypt	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Operations%20Research-%20Triangulation%20of%20Data%20Collection%20Methods%20and%20Analyses%20to%20Examine%20the%20Rise%20in%20Stunting%20in%20Lower%20versus%20Upper%20Egypt_Kavle.pdf
September, 2013	International Congress of Nutrition	Evođe Micomyiza	Anemia Control Programs and Decreasing Anemia Prevalence in Rwanda	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Anemia%20Control%20Programs%20and%20Decreasing%20Anemia%20Prevalence%20in%20Rwanda_Micomyiza.pdf
September, 2013	International Congress of Nutrition	Ali Abdelmegeid	Promoting Increased Knowledge of Maternal Health and Nutrition through the Egypt MCHIP/Smart Project – Baseline and Training Results	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Promoting%20Increased%20Knowledge%20of%20Maternal%20Health%20and%20Nutrition%20through%20the%20Egypt%20MCHIP%20and%20SMART%20Project_Abdelmegeid.pdf
September, 2013	International Congress of Nutrition	Rae Galloway, Justine Kavle	Maternal Nutrition and its Contribution to Poor Obstetric Outcomes	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Maternal%20Nutrition%20and%20its%20Contribution%20to%20Poor%20Obstetric%20Outcomes_Galloway.pdf

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September, 2013	International Congress of Nutrition	Gulsen Saleh	Using Positive Deviance to Identify Nutritious Recipes for Complementary Feeding and to Reduce Stunting in Rural Egypt	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Using%20Positive%20Deviance%20to%20Identify%20Nutritious%20Recipes%20for%20Complementary%20Feeding%20and%20to%20Reduce%20Stunting%20in%20Rural%20Egypt_Saleh.pdf
September, 2013	International Congress of Nutrition	Rae Galloway, Justine Kavle	Global Progress on Reducing Anemia in Pregnant Women and Young Children	Nutrition	http://www.mchip.net/sites/default/files/mchipfiles/Global%20Progress%20on%20Reducing%20Anemia%20in%20Pregnant%20Women%20and%20Children_Galloway.pdf
September, 2013	A Promised Renewed Meeting	Brianna Casciello	Reducing inequities in reproductive, maternal and child health	LAC/Newborn	None available
October, 2013	ISQUA	Sheena Currie	Quality and Safety in Population Health and Healthcare	Maternal Health	None available
October, 2013	Core Group Fall Meeting 2013	Mandy Hovland and Jessica Kerbo	Prevention and Management toolkit on K4H	Maternal Health	http://www.k4health.org/toolkits/pospartumhemorrhage/organizational-plans
October, 2013	Core Group Fall Meeting 2013 / Anemia Task Force	Justine Kavle	K4H Integrated Anemia Prevention and Control Toolkit	Nutrition	http://www.mchip.net/node/1946 ; https://www.k4health.org/toolkits/anemia-prevention
October, 2013	FIGO Congress 2013, Addis Ababa	Veronica Reis	RMC: An Overview	Maternal Health	N/A
October, 2013	FIGO Congress 2013, Addis Ababa	Jeffrey Smith	Prematurity Overview: Epidemiology & ACS	Maternal Health	N/A
October, 2013	FIGO Congress 2013, Addis Ababa	Eva Bazant	Respectful Maternity Care: What to Measure and How to Measure it	Maternal Health	https://www.k4health.org/sites/default/files/figo_africa_rmc_measurements.pdf
October, 2013	KMC Conference in Istanbul	Joseph de Graft-Johnson	Improving Survival of Preterm Babies: Care After Birth	Newborn Health	N/A
November, 2013	World Prematurity Day	Jeffrey Smith	World Prematurity Day: Maternal Interventions to Improve Preterm Birth Outcomes	Maternal Health	http://www.healthynewbornnetwork.org/event/born-too-soon-world-prematurity-day-technical-symposium
November, 2013	APHA Meeting and Exposition	Debra Prosnitz	Strengthening National Malaria Control Efforts through Community-Based Strategies: Lessons Learned from The President's Malaria Initiative's Malaria Communities Program	Malaria	N/A

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November, 2013	International Family Planning Conference, Addis Ababa, Ethiopia				
December, 2013	ICASA 2013 in Cape Town	Tigist Worku Belete to be presented by Kelly Curran	Integrated PMTCT and Maternal Health Services Improves Both HIV and Maternal Health Indicators in Rural Ethiopia	HIV	http://www.mchip.net/sites/default/files/mchipfiles/Belete_Integrated%20PMTCT_MCHIP.pdf
December, 2013	ICASA 2013 in Cape Town	Hawa Mziray	The Sustainability Plan: Early Lessons from the Integration of Early Infant Male Circumcision Services into Reproductive and Child Health Services in Iringa Region, Tanzania	HIV	http://www.mchip.net/sites/default/files/mchipfiles/Mziray_EarlyInfantMC_MCHIP.pdf
December, 2013	ICASA 2013 in Cape Town	Augustino Hellar to be presented by Hawa Mziray	Sexual Prevention And Adolescents Attending Voluntary Medical Male Circumcision (VMMC) Services In Tanzania: A Golden Opportunity To Offer Adolescent-Targeted Services	HIV	http://www.mchip.net/sites/default/files/mchipfiles/Hellar_VMMC_MCHIP.pdf
December, 2013	ICASA 2013 in Cape Town	Elizabeth Edouard to be presented by Hawa Mziray	Spatial Mapping Results In A Successful Large-Scale Voluntary Medical Male Circumcision (VMMC) Campaign: Using GIS Data For Decision-Making Positively Impacts The VMMC Scale Up In Iringa Region Of Tanzania	HIV	http://www.mchip.net/sites/default/files/mchipfiles/Edouard_VMMC_MCHIP.pdf
December, 2013	mHealth Summit, National Harbor, MD	Olivia Velez	Operations Research Using mHealth for Vulnerable Populations	mHealth	https://intranet.mchip.net/Program%20Learning/mHealthICT/_layouts/PowerPoint.aspx?PowerPointView=ReadyView&PresentationId=/Program%20Learning/mHealthICT/Documents/Operations%20Research%20Using%20mHealth%20for%20Vulnerable%20Populations.pptx&Source=https%3A%2F%2Fintranet%2Emchip%2FmHealthICT%2FFPages%2FHome%2Easpx&DefaultItemOpen=1
February, 2014	Global Health Mini-U	Endale Beyene, Rebecca Fields, Angela Shen	A vaccine's journey: The many steps to saving lives	Immunization	http://www.mchip.net/sites/default/files/mchipfiles/MiniU_immunization_2014_small.pdf
February, 2014	Global Health Mini-U	Chelsea Cooper, Holly Blanchard	Postpartum Family Planning: Bridging barriers and motivating change	Family Planning	http://www.mchip.net/sites/default/files/mchipfiles/2014%20Mini%20University%20Presentation%20Cooper%20and%20HBlanchard%20%20FINA_L.pdf
February, 2014	Global Health Mini-U	John Varallo, Kate Brickson, Khatidja Naithani	Antenatal Corticosteroid Jeopardy: Exploring maternal interventions for preterm birth	Maternal Health	http://www.mchip.net/sites/default/files/ACS%20Jeopardy_Mini-U%20Updated%20v.2.pdf

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February, 2014	Global Health Mini-U	Joseph de Graft-Johnson, Neena Khadka	Helping Every Baby Breathe: Bangladesh and Malawi Experience	Newborn Health	http://www.mchip.net/sites/default/files/mchipfiles/HBB_min_univ_3_2014.pdf
February, 2014	Global Health Mini-U	Aimee Dickerson, Mary Drake	How are Malaria in Pregnancy Programs Measuring Up?	Malaria, Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/How%20are%20MIP%20programs%20measuring%20up.pdf
March, 2014	iCCM Evidence Review Symposium	Serge Raharison	Introduction to Monitoring and Evaluation	Child Health	http://ccmcentral.com/iccm-symposium/ and http://www.mchip.net/content/mchip-key-organizer-successful-iccm-symposium-ghana
March, 2014	iCCM Evidence Review Symposium	Dyness Kasungami	Launch of the iCCM Monitoring and Evaluation Indicator Guide	Child Health	http://ccmcentral.com/iccm-symposium/ and http://www.mchip.net/content/mchip-key-organizer-successful-iccm-symposium-ghana
May, 2014	CORE Group Global Health Practitioner Conference	Sheena Currie, Ali Abdelmegeid, Khatidja Naithani, Kate Brickson, Andrea Wilson Cuthrell, Deputy Director of Health Programs, Mercy Corps Pakistan Jennifer Norman, Director of Public Health, Mercy Corps	Community Midwifery and Prevention of Postpartum Hemorrhage: Implementation lessons from MCHIP and Mercy Corps Pakistan	Maternal Health	http://www.slideshare.net/COREGroup1/mc-maternal-health-session-core-groupspring2014 ; http://www.slideshare.net/COREGroup1/community-midwifery-and-prevention-of-postpartum-hemorrhagekate-brickson5814
May, 2014	CORE Group Global Health Practitioner Conference	Panel including Dyness Kasungami, Serge Raharison, and Vikas Dwivedi, among others	Pre-Conference Session: Latest Learning and Resources for iCCM	Child Health	http://www.mchip.net/content/registration-ends-april-28th-core-groups-global-health-practitioner-conference
May, 2014	CORE Group Global Health Practitioner Conference	Panel including Dyness Kasungami, Serge Raharison, among others	Post iCCM Evidence Review Symposium Event	Child Health	http://www.mchip.net/content/registration-ends-april-28th-core-groups-global-health-practitioner-conference

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May, 2014	CORE Group Global Health Practitioner Conference	Panel including Rachel Taylor, Neena Khadka, Jennifer Shindeldecker, Goldy Mazia, Briana Casciello, among others	Thinking Globally and Acting Locally to End Preventable Newborn Deaths	Newborn Health	N/A
June, 2014	ICM Triennial Congress in Prague	Chelsea Cooper	Addressing unmet need for postpartum family planning through social and behavior change communication	Family Planning	http://www.mchip.net/sites/default/files/mchipfiles/CCooper_ICM%202014.pdf
June, 2014	ICM Triennial Congress in Prague	Suad Qasim	The Role of the National Yemeni Midwives Association in Improving Women's Access to Reproductive Health and Family Planning (RH/FP) Services	Family Planning	N/A
June, 2014	ICM Triennial Congress in Prague	Mary Drake, Jim Ricca	Mozambique Quality and Humanization of Care Study	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/MZ_maternal_recall_study_findings_for%20ICM2014.pdf
June, 2014	ICM Triennial Congress in Prague	Isabella Ochieng	Expanding access to prevent postpartum hemorrhage_x000B_in South Sudan	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Ochieng_ICM.pdf
June, 2014	ICM Triennial Congress in Prague	Sheena Currie	National Programs to Prevent and Manage Postpartum Hemorrhage and Pre-eclampsia/Eclampsia	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Sheena%20Currie_PE_E_ICM.pdf
June, 2014	ICM Triennial Congress in Prague	Nancy Taylor Moses, Catherine Carr	Strengthening midwifery education and practice in post-conflict Liberia	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Nancy%20Moses%20presentation_CAC%20MCHIP%20for mat%20edits.pdf
June, 2014	ICM Triennial Congress in Prague	Susheela Engelbrecht, Sheena Currie	Increasing uptake and correct use of Magnesium Sulfate Administration for Management of Severe Preeclampsia and Eclampsia	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/ICM_MgSO4_June%202014.pdf
June, 2014	ICM Triennial Congress in Prague	Richard Boadu, Martha Appiagyei, Chantelle Allen	Evaluation of mobile phone-based mentoring to support post-training retention and performance in midwifery tutors/preceptors in Ghana	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/mMentoring_Ghana_ICM_17-05-30_CA.pdf
June, 2014	ICM Triennial Congress in Prague	MCHIP, Engender Health, University of Manchester, WHO	To determine education, research and practice priorities for realizing the potential of the partograph	Maternal Health	N/A
June, 2014	ICM Triennial Congress in Prague	Catherine Carr, Rhoda Amafumba, Kevin Kabarwani	Africa maternal and newborn health champions: midwives implementing change	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/Putting%20it%20to%20the%20test-MNH%20Champions.pdf

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
June, 2014	ICM Triennial Congress in Prague	Deborah Armbruster, Susheela Engelbrecht, Sheena Currie, Laura Fitzgerald	Technical update on WHO guidelines induction / augmentation of labour: what you need	Maternal Health	N/A
June, 2014	ICM Triennial Congress in Prague	Catherine Carr, Nancy Taylor Moses	to know to keep women safe	Maternal Health	N/A
June, 2014	ICM Triennial Congress in Prague	Alemnesh Tekleberhan, Tsehaynesh Abraha, Lauren Borsia	Improving skilled birth attendance service utilization through a performance and quality improvement intervention	Maternal Health	http://www.mchip.net/sites/default/files/mchipfiles/QA%20and%20SBA%20Rates%20Ethiopia_ICM%20Presentation_H.Gibson_27May2014.pdf
June, 2014	Vaccine Management and Handling Workshop	Asnakew Tsega	N/A	Immunization	N/A
June, 2014	Micronutrient Forum	Justine Kavle	Coming Full Circle: Addressing Perceptions and Cultural Beliefs of Maternal Dietary Practices, Weight Gain and Breastfeeding for Birth spacing from Pregnancy to Postpartum in Egypt	Nutrition	N/A
June, 2014	Micronutrient Forum	Ali Mohamed Assabri, Hashem Darwish, Rae Galloway	Designing Evidence-Based Counseling for Family Planning and Nutrition Programs in Dhamar, Yemen	Nutrition	N/A
June, 2014	Nursing Informatics 2014	Olivia Velez	eHealth in Maternal Child Health for Developing Countries	mHealth	https://intranet.mchip.net/Program%20Learning/mHealthICT/_layouts/PowerPoint.aspx?PowerPointView=ReadingView&PresentationId=/Program%20Learning/mHealthICT/Documents/NI%202014%20GHI%20Panel%20v2.pp&Source=https%3A%2F%2Fintranet%2Emchip%2Enet%2FProgram%2520Learning%2FmHealthICT%2FFPages%2FHome%2Easpx&DefaultItemOpen=1
June, 2014	Health Technology Assessment International (HTAI) and International Society for Pharmacoeconomics and Outcomes Research (ISPOR)	Andres Pichon-Riviere	Economic Evaluation of Oxytocin in Uniject System versus Standard Use of Oxytocin for the Prevention of Postpartum Hemorrhage in Latin America and the Caribbean	LAC/Maternal Health	http://www.htai2014.org/temp/20147465574/OR196_Andres.pdf

MONTH, YEAR	NAME OF CONFERENCE	PRESENTER	PRESENTATION/POSTER	TECHNICAL AREA	LINK (IF AVAILABLE)
July, 2014	IAS International AIDS Conference 2014	Virgile Kikaya	Characteristics and Motivations of Voluntary Medical Male Circumcision (VMMC) Early Adopters in Lesotho	HIV	N/A
July, 2014	IAS International AIDS Conference 2014	Tigistu Adamu Ashengo	Post-operative adverse events among HIV positive clients undergoing voluntary medical male circumcision in Tanzania	HIV	N/A
July, 2014	IAS International AIDS Conference 2014	Dorica Boyee	HIV prevalence among younger adolescents is double that of older adolescents attending VMMC services in Tanzania	HIV	http://www.mchip.net/node/2818
July, 2014	IAS International AIDS Conference 2014	Hally Mahler	Follow-up rates and adverse events after VMMC: Data from Tanzania after four years of program implementation	HIV	http://www.mchip.net/node/2818
July, 2014	IAS International AIDS Conference 2014		A study of the VMMC cascade and associated factors among HIV negative men attending PSI Zimbabwe HIV testing and counselling centers in Zimbabwe	HIV	http://www.mchip.net/node/2818
July, 2014	IAS International AIDS Conference 2014	Virgile Kikaya	From Research to Practice to Impact: Lessons from the VMMC Scale-Up (panelist)	HIV	http://www.mchip.net/node/2818
July, 2014	IAS International AIDS Conference 2014	Kelly Curran	Changing the Course of the Epidemic: Using Data, Modeling, Economic Analyses, and Innovation to Improve Program Impact (panelist)	HIV	http://www.mchip.net/node/2818
July, 2014	IAS International AIDS Conference 2014: International AIDS Economics Network Pre-Conference Meeting	Tigistu Adamu Ashengo	Assessing Male Circumcision with No or Less Cost in Namibia and Lesotho	HIV	N/A

Annex 16: List of Materials and Tools Developed or Adapted by the Program

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
1	A Wealth of Opportunity: Partnering with CORE and CORE Group Members	Global	Child
2	Positive Deviance/Hearth Materials: A Resource Guide for Sustainably Rehabilitating Malnourished Children	Global	Child
3	The Household and Community Integrated Management of Childhood Illness (HH/C-IMCI) Framework: A Facilitator's Guide for Conducting Country Meetings on HH/C-IMCI	Global	Child
4	Barrier Analysis Facilitator's Guide	Global	Child
5	Reaching Communities for Child Health: Advancing Health Outcomes through Multi-Sectoral Approaches	Global	Child
6	The Lancet Child Survival Series	Global	Child
7	C-IMCI Program Guidance: Community-based Integrated Management of Childhood Illnesses	Global	Child
8	Diarrhoea : Why children are still dying and what can be done	Global	Child
9	Community Case Management Essentials: A Guide for Program Managers	Global	Child
10	Building on the Current Evidence to Strengthen Community-Based Service Delivery Strategies for Promoting Child Survival	Global	Child
11	Comparing Estimates of Child Mortality Reduction Modeled in LiST with Pregnancy History Survey Data for a Community-based NGO Project in Mozambique	Mozambique	Child
12	Integrated Community Case Management of Childhood Illness: Documentation of Best Practices and Bottlenecks to Program Implementation in Senegal	Senegal	Child
13	Integrated Community Case Management of Childhood Illness: Documentation of Best Practices and Bottlenecks to Program Implementation in Senegal (Summary Report)	Senegal	Child
14	Integrated Community Case Management of Childhood Illness: Documentation of Best Practices and Bottlenecks to Program Implementation in the Democratic Republic of Congo	DRC	Child
15	Reaching the Most Vulnerable: New Frontiers in Child Survival	Global	Child
16	Community-Based Intervention Packages Facilitated by NGOs Demonstrate Plausible Evidence of Child Mortality Impact	Global	Child
17	Indicator Guide: Monitoring and Evaluating Integrated Community Case Management	Global	Child

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
18	Integrated Community Case Management: Findings from Senegal, the Democratic Republic of the Congo, and Malawi	Senegal, DRC, and Malawi	Child
19	The Integrated Community Case Management (iCCM) of Childhood Illness Task Force: Fact Sheet	Global	Child
20	A Counseling Guide for Infant and Young Child Feeding in Two Regions of Egypt	Egypt	Child
21	Examining Factors Associated with Stunting in Lower Egypt in Comparison to Upper Egypt	Egypt	Child
22	Junk Food Is a Feeding Problem Contributing to Poor Growth and Stunting in Egyptian Children	Egypt	Child
23	Recommended Practices and Counseling Messages to Address Infant and Young Child Feeding Problems in the First Two Years of Life in Egypt: An Update for Health Care Providers	Egypt	Child
24	Community Case Management Essentials: Training Common Childhood Illness in the Community: A guide for program managers	Global	Child
25	MCHIP brochure	Global	Communications
26	Exclusive Breastfeeding: The Only Water Source Young Infants Need	Global	Family Planning
27	Basics of Community-Based Family Planning Training Curriculum	Global	Family Planning
28	Community-Based Family Planning eLearning Module	Global	Family Planning
29	A Guide for Developing Family Planning Messages for Women in the First Year Postpartum	Global	Family Planning
30	Postpartum Family Planning for Community Health Workers (Learning Resource Package)	Global	Family Planning
31	Global Postpartum Intrauterine Contraceptive Device (PPIUD) Learner's Handbook, Trainer's Guide, and Reference Manual	Global	Family Planning
32	Return to Sexual Activity and Modern Family Planning Use in the Extended Postpartum Period: An Analysis of Findings from Seventeen Countries	Global	Family Planning
33	Postpartum Family Planning Meeting Report: 14 Sept 2011	Global	Family Planning
34	Spousal Separation and Interpretation of Contraceptive Use and Unmet Need in Rural Nepal	Nepal	Family Planning
35	Postpartum IUD in Paraguay: A case series of 3000 cases	Paraguay	Family Planning
36	Statement for Collective Action for Postpartum Family Planning	Global	Family Planning
37	Behavior Change Communication & Community Mobilization Within the Healthy Fertility Study	Bangladesh	Family Planning
38	Family Planning Needs during the First Two Years Postpartum in Bangladesh	Bangladesh	Family Planning
39	Family Planning Needs during the First Two Years Postpartum in Bihar, India	India	Family Planning

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
40	Family Planning Needs during the First Two Years Postpartum in Kenya	Kenya	Family Planning
41	Family Planning Needs during the First Two Years Postpartum in Liberia	Liberia	Family Planning
42	Family Planning Needs during the First Two Years Postpartum in Uttarakhand, India	India	Family Planning
43	Program Learning for Postpartum Intrauterine Contraceptive Device (PPIUCD) Integration with Maternal Health Services: Programmatic Experience from Multiple Countries	El Salvador, Guinea, India, Kenya, Paraguay, Rwanda, Zambia	Family Planning
44	Postpartum Family Planning Technical Meeting Meeting Report	Malaysia	Family Planning
45	Postpartum Family Planning Toolkit	Global	Family Planning
46	Family Planning Needs during the First Two Years Postpartum in Pakistan	Pakistan	Family Planning
47	Family Planning Needs during the First Two Years Postpartum in Rwanda	Rwanda	Family Planning
48	PPIUCD Services: Start-Up to Scale-Up Regional Meeting Zambia (meeting report)	Zambia	Family Planning
49	Across the Behavior Change Continuum: Assessment of Return to Fertility Messages and “Asma’s Story” within the Healthy Fertility Study	Bangladesh	Family Planning
50	Family Planning Needs during the First Two Years Postpartum in the Ethiopia	Ethiopia	Family Planning
51	Family Planning Needs during the First Two Years Postpartum in the Philippines	Philippines	Family Planning
52	Healthy Fertility Study: Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet District, Bangladesh Final Report	Bangladesh	Family Planning
53	It’s about Time: WHO and partners release programming strategies for postpartum family planning	Global	Family Planning
54	PPIUD Services: Start-Up to Scale-Up Regional Meeting Burkina Faso	Burkina Faso	Family Planning
55	Programming Strategies for Postpartum Family Planning	Global	Family Planning
56	Flexible Fund Family Planning Survey	Global	Family Planning
57	Maternal, Infant and Young Child Nutrition - Family Planning (MIYCN-FP) Integration Toolkit	Global	Family Planning/Nutrition
58	Maximizing Synergies Between Maternal, Infant, and Young Child Nutrition and Family Planning	Global	Family Planning/Nutrition
59	Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants	Global	HIV
60	Antiretroviral Therapy for HIV Infection in Adults And Adolescents Recommendations for a Public Health Approach	Global	HIV

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
61	Antiretroviral therapy for HIV infection in infants and children: Towards universal access	Global	HIV
62	Asking the Right Questions: Advancing an HIV Research Agenda for Women and Children	Global	HIV
63	Tackling TB and HIV in Women: An Urgent Agenda	Global	HIV
64	Antiretroviral Drugs for Preventing Mother-to-Child Transmission of HIV: A Review of Potential Effects on HIV-Exposed but Uninfected Children	Global	HIV
65	Voluntary Medical Male Circumcision: A Qualitative Study Exploring the Challenges of Costing Demand Creation in Eastern and Southern Africa	African Region	HIV
66	Voluntary Medical Male Circumcision: Logistics, Commodities, and Waste Management Requirements for Scale-Up of Services	Global	HIV
67	Voluntary Medical Male Circumcision: Matching Demand and Supply with Quality and Efficiency in a High-Volume Campaign in Iringa Region, Tanzania	Tanzania	HIV
68	Voluntary Medical Male Circumcision: Strategies for Meeting the Human Resource Needs of Scale-Up in Southern and Eastern Africa	African Region	HIV
69	Matching Supply with Demand: Scaling Up Voluntary Medical Male Circumcision in Tanzania and Zimbabwe	Tanzania and Zimbabwe	HIV
70	Penile Measurements in Tanzanian Males: Guiding Circumcision Device Design and Supply Forecasting	Tanzania	HIV
71	Voluntary Medical Male Circumcision and Adolescents: An opportunity for nurses to contribute to an HIV-free generation	Global	HIV
72	Namibia Centership Project Case Study Report	Namibia	HIV
73	Voluntary Medical Male Circumcision: Training Video	Global	HIV
74	Voluntary Medical Male Circumcision: Training Video	Global	HIV
75	Voluntary Medical Male Circumcision for HIV Prevention: Improving Quality, Efficiency, Cost Effectiveness, and Demand for Services during an Accelerated Scale-Up	Global	HIV
76	Lessons Learned From Scale-Up of Voluntary Medical Male Circumcision Focusing on Adolescents	Global	HIV
77	Male Circumcision under Local Anaesthesia: Course Guide for Trainers	Global	HIV
78	Male Circumcision under Local Anaesthesia: Course Workbook for Participants: Self-Paced/Individual Learning	Global	HIV
79	Male Circumcision under Local Anaesthesia: Supplement: Diathermy and Service Efficiency	Global	HIV
80	MC Offline Course Orientation and PowerPoints	Global	HIV
81	The Unpeeled Mango	Tanzania	HIV
82	Guidelines on HIV and Infant Feeding 2010	Global	HIV/Nutrition

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
83	Community-Based Tuberculosis Prevention and Care: Why and How to Get Involved	Global	Immunization
84	Global Tuberculosis Report 2012	Global	Immunization
85	Immunization Essentials: A Practical Field Guide	Global	Immunization
86	Training for mid-level managers (MLM) 2: Partnering with communities	Global	Immunization
87	Issue 2: Coverage Confusion! Trying to Make Sense of It	Global	Immunization
88	Issue 5: More Juice from the Squeeze: Linking immunization services with other health interventions	Global	Immunization
89	The Expansion of Community-Based Tuberculosis Programming: Critical Program Design Issues for New Partners	Global	Immunization
90	Issue 8: Cold Chain and Logistics Management: An Essential Part of Safe and Effective Vaccination Programs	Global	Immunization
91	Implementing the Reaching Every District Approach: A Guide for District Health Management Teams	Global	Immunization
92	Periodic Intensification of Routine Immunization	Global	Immunization
93	Periodic Intensification of Routine Immunization: Lessons Learned and Implications for Action	Global	Immunization
94	Issue 9: Working with Communities to Strengthen Immunization	Global	Immunization
95	Epidemiology of the Unimmunized Child: Findings from the Grey Literature	Global	Immunization
96	Has Routine Immunisation in Africa Become Endangered?	African Region	Immunization
97	Reaching Every District (RED) Approach to Strengthen Routine Immunization Services	African Region	Immunization
98	Communication for Polio Eradication: Improving the Quality of Communication Programming Through Real-Time Monitoring and Evaluation	Afghanistan, India, Pakistan, and Nigeria	Immunization
99	Landscape Analysis Synopsis: An Initial Investigation of the Drivers of Routine Immunization System Performance in Africa	Sub-Saharan Africa	Immunization
100	Communication Framework for New Vaccines and Child Survival	Global	Immunization
101	Jharkhand Immunization Success – Power of Partnership: a case study	India	Immunization
102	The Reaching Every District Strategy	Global	Immunization
103	Establishing Demonstration Center for Cold Chain Management: Experience from Uttar Pradesh, India	India	Immunization
104	Establishing Model Routine Immunization Demonstration Center: Experience from Jharkhand, India	India	Immunization

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
105	Community and Health Worker Perceptions and Preferences Regarding Integration of Other Health Services With Routine Vaccinations: Four Case Studies	Kenya, Mali, Ethiopia, Cameroon	Immunization
106	Immunization Ready Reference for Health Workers	India	Immunization
107	Imunizasaun Proteje Labarik: Baseline Assessment Report	Timor-Leste	Immunization
108	The Impact of New Vaccine Introduction on Immunization and Health Systems: A review of the published literature	Global	Immunization
109	Delivering the Immunisation Promise in India - A Snapshot	India	Immunization
110	Applying an Equity Lens in the Decade of Vaccines	Global	Immunization
111	Moving Forward with Strengthening Routine Immunization Delivery as part of Measles and Rubella Elimination Activities	Global	Immunization
112	Addressing Equity and Reaching the Underserved and Unreached in India	India	Immunization
113	Family Planning and Immunization Integration: Reaching postpartum women with family planning services	Global	Immunization
114	Family Planning & Immunization Integration Toolkit	Global	Immunization
115	Factors Limiting Immunization Coverage in Urban Dili, Timor-Leste	Timor-Leste	Immunization
116	Saving Children's Lives: USAID's Support for Immunization	Global	Immunization
117	Care Prevention and Management of Tuberculosis: ICN e-Learning Course	Global	Immunization
118	Global Health Council blog on MDG 4: Delivering on the Promise of Immunization	Rwanda	Immunization
119	Immunization Mid-term Summary Sheet	Global	Immunization
120	Letter to editor in JAMA on Global Eradication of Polio	Global	Immunization
121	LiST tool critique in the International Journal of Epidemiology	Global	Immunization
122	Researching Routine Immunization: Do We Know What We Don't Know?	Global	Immunization
123	Tools and Job aids for Routine Immunization	India	Immunization
124	WHO Publications on TB	Global	Immunization
125	Final Assessment Report: Integration of Expanded Program on Immunization and Family Planning in Liberia	Liberia	Immunization/Family Planning
126	Family Planning with Immunization Services: A Promising Approach to Improving Maternal and Child Health	Global	Immunization/Family Planning
127	Reaching Every District Approach: A Guide for District Health Management Teams	Global	Immunization

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
128	Maternal and Newborn Standards and Indicators Compendium	Global	M&E
129	Partnership-Defined Quality Monitoring and Evaluation Toolkit	Global	M&E
130	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: A Study of Ethiopia's Hospitals	Ethiopia	M&E
131	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: A Study of Ethiopia's Hospitals	Ethiopia	M&E
132	Quality of Care of the Prevention and Management of Common Maternal and Newborn Complications in Health Facilities in Madagascar	Madagascar	M&E
133	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: Findings from a National Health Facility Survey in Rwanda	Rwanda	M&E
134	Quality of Maternal and Newborn Health Services in Zanzibar, 2010: Findings from Selected Health Facilities in Unguja and Pemba	Zanzibar	M&E
135	Quality of Maternal and Newborn Health Services in Zanzibar, 2010: Findings from Selected Health Facilities in Unguja and Pemba	Zanzibar	M&E
136	Introduction to the Maternal and Newborn Quality of Care Surveys	Global	M&E
137	Quality of Care: Clinical Practice Observation of Antenatal Care and Labor & Delivery	Global	M&E
138	Quality of Care: Essential Inventory	Global	M&E
139	Quality of Care: Health Worker Line Listing	Global	M&E
140	Quality of Care: Interview and Knowledge Test	Global	M&E
141	Quality and Humanization of Care Assessment: A Study of the Quality of Maternal and Newborn Care Delivered in Mozambique's Model Maternities	Mozambique	M&E
142	Measuring Coverage in MNCH: Testing the Validity of Women's Self-Report of Key Maternal and Newborn Health Interventions during the Peripartum Period in Mozambique	Mozambique	M&E
143	Strengthening Health Management Information Systems for Maternal and Child Health: Documenting MCHIP's Contributions	Global	M&E
144	Assessing the Quality of Care for Prevention, Identification, and Management of Maternal and Newborn Complications at the Time of Birth	Global	M&E
145	Partnership-Defined Quality Facilitation Guide	Global	M&E
146	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: A Study of 12 Regions in Tanzania	Tanzania	M&E

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
147	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: A Study of 12 Regions in Tanzania	Tanzania	M&E
148	Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: Findings from a National Health Facility Survey in Kenya	Kenya	M&E
149	Quality of Maternal and Newborn Health Services in Tanzania: A survey of the quality of maternal and newborn health in 12 regions of Tanzania	Tanzania	M&E
150	Scaling up Malaria in Pregnancy Programs: What it takes!	Global	Malaria
151	Malaria In Pregnancy Implementation Guide	African Region	Malaria
152	Prevention and Control of Malaria in Pregnancy in the African Region: A Program Implementation Guide	African Region	Malaria
153	A Malaria in Pregnancy Case Study: Zambia's Successes and Remaining Challenges for Malaria in Pregnancy Programming	Zambia	Malaria
154	MCHIP Malaria Brief	Global	Malaria
155	A Malaria in Pregnancy Case Study: Senegal's Successes and Remaining Challenges for Malaria in Pregnancy Programming	Senegal	Malaria
156	A Malaria in Pregnancy Country Case Study: Malawi's Successes and Remaining Challenges for Malaria in Pregnancy Programming	Malawi	Malaria
157	Successes and Challenges for Malaria in Pregnancy Programming: A Three-Country Analysis	Zambia, Malawi, and Senegal	Malaria
158	Malaria Protection in Pregnancy: A lifesaving intervention for preventing neonatal mortality and low birth weight	Global	Malaria
159	Review of National-Level Malaria in Pregnancy Documents in Five PMI Focus Countries	Kenya, Mali, Mozambique, Tanzania, and Uganda	Malaria
160	WHO Policy Brief for the Implementation of Intermittent Preventive Treatment of Malaria in Pregnancy using Sulfadoxine-Pyrimethamine (IPTp-SP)	Global	Malaria
161	A Documentation of Malaria Program Implementation in Burkina Faso	Burkina Faso	Malaria
162	Package of Malaria in Pregnancy Resources	Global	Malaria
163	Moving Malaria in Pregnancy Programs from Neglect to Priority: Experience from Malawi, Senegal and Zambia	Malawi, Senegal, and Zambia	Malaria
164	Malaria Technical Reference Materials: 2014	Global	Malaria
165	Assessment of the Consistency of National-Level Policies and Guidelines for Malaria in Pregnancy in Five African Countries	African Region	Malaria

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
166	Malaria Resource Package	Global	Malaria
167	Malaria Communities Program: Achieving, Tracking, and Maintaining High ITN Coverage - Community Strategies	Liberia, Uganda, Mozambique, Senegal, Ghana, and Angola	Malaria/PVO/NGO Support
168	Malaria Communities Program: Building Community Capacity in Malaria Control	Global	Malaria/PVO/NGO Support
169	Malaria Communities Program: Malaria in Pregnancy - Improving Intermittent Preventive Treatment in Pregnancy (Second Dose) and Antenatal Care Coverage	Uganda, Angola, Senegal, and Zambia	Malaria/PVO/NGO Support
170	Malaria Communities Program: Strengthening Platforms for Case Management in Communities	Liberia, Kenya, Mozambique, and Uganda	Malaria/PVO/NGO Support
171	Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors	Global	Maternal
172	Pre-Service Education Toolkit	Global	Maternal
173	Prevention and Treatment of Postpartum Hemorrhage at the Community Level: A Guide	Global	Maternal
174	Prevention of Postpartum Hemorrhage at Home Births	Global	Maternal
175	Scale and Scaling Up: A CORE Group Background Paper on Scaling Up Maternal, Newborn and Child Health Services	Global	Maternal
176	Muslim Khutbah Guide to Save the Lives of Mothers and Newborns: A Toolkit for Religious Leaders	Global	Maternal
177	Interventions for Impact in Essential Obstetric and Newborn Care: Africa Regional Meeting	African Region	Maternal
178	Finding Common Ground: Harmonizing the Application of Different Quality Improvement Models in Maternal, Newborn, and Child Health Programs	Global	Maternal
179	Pre-Eclampsia/Eclampsia: Prevention, Detection and Management toolkit	Global	Maternal
180	Addis 2011 Speaker Presentations	Global	Maternal
181	Reproductive health services in Malawi: An evaluation of a quality improvement intervention	Malawi	Maternal
182	Assessing the Quality and Humanization of Maternity and ANC Care in Mozambique (presentation)	Mozambique	Maternal
183	Factors Affecting Delivery Location in Indonesia	Indonesia	Maternal
184	MCHIP Pregnancy Wheel	African Region	Maternal
185	National Programs for the Prevention and Management of Postpartum Hemorrhage and Pre-Eclampsia/Eclampsia: A Global Survey*, 2012	African, Asian, & Latin American Regions	Maternal
186	Formative Research to Assess the View of Health Care Providers in Nicaragua on the Mode of Childbirth in "Low-Risk" Pregnancies (Final Report)	Nicaragua	Maternal

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
187	Registration and Distribution of Oxytocin in Uniject® in Mali	Mali	Maternal
188	Global Status Report Downloads	Global	Maternal
189	Pilot Introduction of Oxytocin in the Uniject™ Injection System During Active Management of the Third Stage of Labor (AMTSL) at the Institutional Level in Honduras	Global	Maternal
190	WHO Recommendations for Prevention and Treatment of Pre-Eclampsia and Eclampsia: Implications and Actions	Global	Maternal
191	Interventions for Impact in Essential Obstetric and Newborn Care: Asia Regional Meeting Report 2012	Asian Region	Maternal
192	Active Management of the Third Stage of Labor: New WHO Recommendations Help to Focus Implementation	Global	Maternal
193	Maternal Health: LAC	Latin America & Caribbean	Maternal
194	WHO Recommendations on Prevention and Treatment of Postpartum Haemorrhage: Highlights and Key Messages from New 2012 Global Recommendations	Global	Maternal
195	An Integrative Review of the Side Effects Related to the Use of Magnesium Sulfate for Pre-Eclampsia and Eclampsia Management	Global	Maternal
196	Misoprostol for Postpartum Hemorrhage Prevention at Home Birth: An integrative review of global implementation experience to date	Global	Maternal
197	Essential Obstetric and Newborn Care	Global	Maternal
198	Review Suggests Community-based Programs for PPH Prevention at Home Birth Can Achieve High Distribution and Use of Misoprostol	United States	Maternal
199	Estimation of National Coverage of Uterotonic in the Third Stage of Labor: Report of the Meeting of the Expert Panel (Mozambique)	Mozambique, Tanzania, India	Maternal
200	Survive & Thrive Global Development Alliance (brochure)	Global	Maternal
201	Respectful Maternity Care Toolkit	Global	Maternal
202	Administration of Antenatal Corticosteroids (advocacy briefer)	Global	Maternal
203	Administration of Antenatal Corticosteroids (technical briefer)	Global	Maternal
204	Antenatal Corticosteroids for Threatened Preterm Birth (job aid)	Global	Maternal
205	Operations Research to Add Postpartum Family Planning to Maternal and Neonatal Health to Improve Birth Spacing in Sylhet District, Bangladesh	Bangladesh	Maternal
206	Postpartum Hemorrhage: Prevention and Management toolkit	Global	Maternal

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
207	Uterotonic Use Immediately Following Birth	Mozambique, Tanzania, India	Maternal
208	Advance Distribution of Misoprostol for Self-Administration: Expanding Coverage for the Prevention of Postpartum Hemorrhage	Global	Maternal
209	Performance-based Incentives to Improve Health Status of Mothers and Newborns: What Does the Evidence Show?	Global	Maternal
210	Scaling Up Lifesaving Commodities for Women, Children, and Newborns	Global	Maternal
211	Cultural Beliefs and Perceptions of Maternal Diet and Weight Gain during Pregnancy and Postpartum Family Planning in Egypt	Egypt	Maternal
212	Intersecting Epidemics: An Overview of the Causes of Maternal Death and Infectious Diseases	Global	Maternal
213	Maternal Mortality and HIV: An Overview	Global	Maternal
214	Advance Distribution of Misoprostol for Prevention of Postpartum Hemorrhage at Home Births in Two Districts of Liberia	Liberia	Maternal
215	The Impact and Cost of Scaling up Midwifery and Obstetrics in 58 Low- and Middle-Income Countries	Global	Maternal
216	The Lancet Series on Midwifery, 2014	Global	Maternal
217	The Projected Impact of Scaling-up Midwifery: Estimating Maternal Deaths Prevented by Midwives	Global	Maternal
218	Tracking implementation progress for Kangaroo Mother Care	Global	Maternal
219	Use of MgSO4 in the Management of Severe Pre-Eclampsia/Eclampsia (Computer Animation Tool)	Global	Maternal
220	ACCESS End of Project Report	Global	Maternal
221	Better Intrapartum Practices to Reduce Newborn Infection	Global	Maternal
222	Community-Based Distribution for Routine Iron/Folic Acid Supplementation in Pregnancy	Global	Maternal
223	Global Status Report	Global	Maternal
224	Guide: Selecting a Rational Mix of Uterotonic Drugs for Prevention and Treatment of Postpartum Hemorrhage	Global	Maternal
225	Improved Labor Care to Reduce Intrapartum-Related Newborn Deaths	Global	Maternal
226	Prevention of Postpartum Hemorrhage at Home Birth	Global	Maternal
227	Taking Care of a Baby at Home After Birth: What Families Need to Do	Global	Maternal
228	The Minimum Activities for Mothers and Newborns (MAMAN) framework	Global	Maternal
229	The Rapid Health Facility Assessment (R-HFA)	Global	Maternal
230	Workbook: Selecting a Rational Mix of Uterotonic Drugs for Prevention and Treatment of PPH	Global	Maternal

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
231	Review Demonstrates Very Low Incidence of Side Effects from Magnesium Sulfate	United States	Maternal
232	Maternal Anemia Control: What Health Policymakers Can Do	Global	Maternal/Nutrition
233	Essential Newborn Care: At a Glance	Global	Newborn
234	Conference Report on Prenatal Corticosteroid Use in Low- and Middle-Income Countries	Global	Newborn
235	Guide for Implementation of Helping Babies Breathe	Global	Newborn
236	Kangaroo Mother Care Implementation Guide	Global	Newborn
237	Multi-country Assessment of KMC in Sub-Saharan Africa	African Region	Newborn
238	Kangaroo Mother Care in the Dominican Republic (poster)	Dominican Republic	Newborn
239	Guidelines on Basic Newborn Resuscitation	Global	Newborn
240	Informal Meeting on Provision of Home-Based Care to Mother and Child in the First Week after Birth	Global	Newborn
241	Newborn Health Guidelines Approved by the WHO Guidelines Review Committee	Global	Newborn
242	Newborn Health: Tools and Materials	Global	Newborn
243	Administration of Antenatal Corticosteroids (technical briefer 2)	Global	Newborn
244	Delayed Clamping of the Umbilical Cord to Reduce Infant Anaemia	Global	Newborn
245	Newborn Health: LAC	Latin America & Caribbean	Newborn
246	Chlorhexidine for Umbilical Cord Care: Game-Changer for Newborn Survival?	Global	Newborn
247	Newborn Care Practices at Home and in Health Facilities in Four Regions of Ethiopia	Ethiopia	Newborn
248	Postnatal Care Home Visit: A Review of the Current Status of Implementation in Five Countries	Bangladesh, Malawi, Nepal, Nigeria and Rwanda	Newborn
249	Newborn Alliance Toolkit / La Alianza Neonatal para América Latina y el Caribe: Herramienta Guía	Latin America & Caribbean	Newborn
250	Incidence and Risk Factors of Preterm Birth in a Rural Bangladeshi Cohort	Bangladesh	Newborn
251	Kangaroo Mother Care Saves Newborns	Global	Newborn
252	Mode of Childbirth in Low-Risk Pregnancies: Nicaraguan Physicians' Viewpoints	Nicaragua	Newborn
253	Neonatal Handwashing Study, Serang, Indonesia	Indonesia	Newborn
254	Home Visits for the Newborn Child: A Strategy to Improve Survival	Global	Newborn

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
255	Facts for Feeding: Birth, Initiation of Breastfeeding, and the First Seven Days after Birth	Global	Nutrition
256	Nutrition Program Design Assistant: A Tool For Program Planners	Global	Nutrition
257	Guidelines on Optimal Feeding of Low Birth-Weight Infants in Low-and Middle-Income Countries	Global	Nutrition
258	Integrated Anemia Prevention and Control Toolkit	Global	Nutrition
259	Summary of Rapid CATCH Indicators from Child Survival and Health Grants Program (CSHGP) Projects Ending in October 2011	Global	PVO/NGO Grantees
260	A Partnership Model for Public Health: Five Variables for Productive Collaboration	Global	PVO/NGO Support
261	Training in Qualitative Research Methods: Training Curriculum for Building the Capacity of PVO, NGO and MOH Partners	Global	PVO/NGO Support
262	Tuberculosis Control Programming for PVOs: Facilitator's Manual	Global	PVO/NGO Support
263	Designing for Behavior Change	Global	PVO/NGO Support
264	Taking the Long View: A Practical Guide to Sustainability Planning and Measurement in Community-Oriented Health Programming	Global	PVO/NGO Support
265	Lot Quality Assurance Sampling Guidance: FAQs	Global	PVO/NGO Support
266	Lot Quality Assurance: Protocol for Parallel Sampling	Global	PVO/NGO Support
267	The Malaria Communities Program Training Material	Global	PVO/NGO Support
268	Child Survival and Health Grants Program Health Systems Strengthening Technical Reference Materials	Global	PVO/NGO Support
269	Child Survival and Health Grants Program Technical Reference Materials	Global	PVO/NGO Support
270	The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators	Global	PVO/NGO Support
271	Operations Research Workshop for CSHGP Innovation Grants, April 6-8, 2010	Global	PVO/NGO Support
272	Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects	Global	PVO/NGO Support
273	Community Health Worker Scale Up Workshop Report	Global	PVO/NGO Support
274	Operations Research Workshop for Child Survival Health Programs: Innovation Grantees, 2011	United States	PVO/NGO Support
275	Taking Stock of MCHIP Efforts Around Quality Improvement and Quality Assessment	Global	PVO/NGO Support
276	Technical Inputs, Enhancements and Applications of the Lives Saved Tool (LiST)	Global	PVO/NGO Support
277	Achieving Impact, Building Local Capacity, Enhancing Global Networks: The Experience of the Child Survival and Health Grants Program's New Partner Initiative	Global	PVO/NGO Support

#	PUBLICATION/LINK	COUNTRY/REGION	INTERVENTION AREA
278	Collaborating with Communities and Aligning with National Systems to Achieve High Impact and Coverage for Mothers and Newborns	Global	PVO/NGO Support
279	Testing Innovative Maternal, Newborn, and Child Health Approaches to Serve Vulnerable Communities: USAID's partnerships with 14 International Non-Governmental Organizations	Global	PVO/NGO Support
280	Tools and Resources Available Through the MCHIP PVO/NGO Support Team	Global	PVO/NGO Support
281	Child Survival and Health Grants Program—Contributing to Emerging Priorities in Maternal and Newborn Health	Global	PVO/NGO Support
282	Technical Quality Assessment of Operations Research Protocols: Child Survival and Health Grants Program	Global	PVO/NGO Support
283	What Did USAID's Child Survival and Health Grants Program Learn about Community Case Management and How Can It Learn More?	Global	PVO/NGO Support
284	Operations Research for Accelerating Results toward Ending Preventable Child and Maternal Deaths	Global	PVO/NGO Support
285	Community Health Workers in Low-, Middle-, and High-Income Countries: An Overview of their History, Recent Evolution, and Current Effectiveness	Global	PVO/NGO Support
286	Understanding how Financial Incentives Can Affect the Success of a Program	Global	PVO/NGO Support
287	Developing and Strengthening Community Health Worker Programs at Scale: A Reference Guide for Program Managers and Policy Makers	Global	PVO/NGO Support
288	Health-Systems Bottlenecks and Strategies to Accelerate Scale-Up in Countries	Global	PVO/NGO Support
289	Equity Matters: Lessons from MCHIP and CSHGP in Measuring and Improving Equity	Global	PVO/NGO Support
290	Checklist for Health Equity Programming	Global	PVO/NGO Support
291	Humanitarian Pandemic Preparedness/Community Planning and Response Curriculum	Global	PVO/NGO Support
292	Mobile Health (mHealth) for KPC and Facility Data Collection	Global	PVO/NGO Support
293	Positive Deviance/Hearth Essentials	Global	PVO/NGO Support
294	The Knowledge Practices and Coverage Survey (KPC) Tool	Global	PVO/NGO Support
295	The Rapid Household Survey Handbook: How to Obtain Reliable Data on Health at the Local Level	Global	PVO/NGO Support

Annex 17: List of Rapid CATCH Indicators

Name	Description
Antenatal Care	Percentage of mothers of children age 0–23 months who had four or more antenatal visits when they were pregnant with the youngest child
Maternal TT Vaccination	Percentage of mothers with children age 0–23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child
Skilled Birth Attendant	Percentage of children age 0–23 months whose births were attended by skilled personnel
Current Contraceptives Use Among Mothers of Young Children	Percentage of mothers of children age 0–23 months who are using a modern contraceptive method
Postnatal Visit to Check on Newborn Within the First 2 Days After Birth	Percentage of children age 0–23 months who received a post-natal visit from an appropriately trained health worker within two days after birth
Exclusive Breastfeeding	Percentage of children age 0–5 months who were exclusively breastfed during the last 24 hours
Infant and Young Child Feeding	Percentage of infants and young children age 6–23 months fed according to a minimum of appropriate feeding practices
Vitamin A Supplementation in the Last 6 Months	Percentage of children age 6–23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall
Measles Vaccination	Percentage of children age 12–23 months who received a measles vaccination
Access to Immunization Services	Percentage of children age 12–23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey
Health System Performance Regarding Immunization Services	Percentage of children age 12–23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey
Treatment of Fever in Malarious Zones	Percentage of children age 0–23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began
ORT Use	Percentage of children age 0–23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids
Appropriate Care Seeking for Pneumonia	Percentage of children age 0–23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider
Point of Use	Percentage of households of children age 0–23 months that treat water effectively
Appropriate Hand Washing Practices	Percentage of mothers of children age 0–23 months who live in households with soap at the place for hand washing
Child Sleeps Under an Insecticide-Treated Bednet	Percentage of children age 0–23 months who slept under an insecticide-treated bednet (in malaria risk areas, where bednet use is effective) the previous night
Underweight	Percentage of children 0–23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)

Annex 18: Pre-eclampsia/Eclampsia (PE/E) Key Accomplishments 2008-2014 Report

Pre-eclampsia/Eclampsia (PE/E)

MCHIP Key Accomplishments 2008-2014

Improving Maternal Health Care & Outcomes through Prevention, Diagnosis and Management

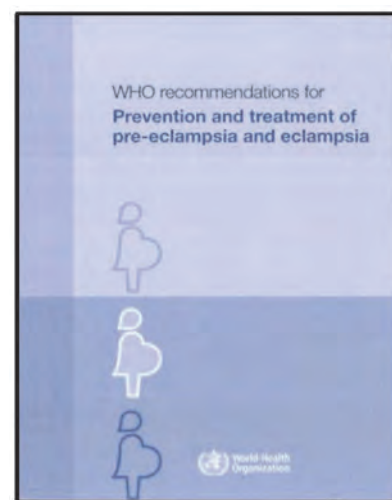
BACKGROUND

Although there have been improvements in maternal health care and outcomes over the last two decades, the global MMR still remain unacceptably high in developing countries worldwide. In low- and middle-income countries, Pre-eclampsia/eclampsia (PE/E) - a life-threatening multisystem disorder of pregnancy- is among the most common causes of maternal and perinatal morbidity and mortality. Globally, as many as 1 in 12 pregnant women develop PE annually, and in Asia and Africa, PE/E account for 9% of maternal deaths, and about one-quarter of such deaths in Latin America and the Caribbean. Severe PE can lead to seizures, kidney and liver damage and, in severe cases, death.

In addition to providing direct technical assistance to country programs worldwide, MCHIP has forged strategic partnerships with key development partners (WHO, FIGO, ICM, UNCoLSC, Accelovate) to generate global evidence and promote best practice for managing complications from PE/E. Using innovative approaches at global, regional, and country levels to combat PE/E, MCHIP and collaborating partners have worked to improve both the quality of care and outcomes for pregnant women in numerous country programs.

This brief highlights MCHIP's activities designed to tackle the impact of PE/E on maternal and newborn health.

Figure 1: WHO PE/E Recommendations



1. Supported Strategic Partnerships to Coordinate for Improved Capacity in the Management of PE/E

MCHIP has created strategic partnerships with global organizations like the WHO to coordinate for greater technical and programmatic action around PE/E. In addition to partnering with Accelovate, which has promoted the quality and availability of MgSO₄ under the UNCoLSC, MCHIP has provided technical assistance to country programs, bilaterals, and other partners to strengthen and expand MgSO₄ quality and coverage for the management of PE/E. Program managers, clinicians and other key stakeholders have utilized the technical resources available in MCHIP's PE/E Toolkit, and have accessed the widely disseminated MCHIP briefs on WHO PE/E guidelines.

1.1 Global Technical Advisory Group (TAG)

Early in the program, MCHIP convened a TAG meeting on pre-eclampsia/eclampsia (PE/E) with 70 of the world's leading researchers, program implementers and donors. This meeting helped bring together important international bodies such as FIGO, ICM, WHO and UNFPA to share experience and perspectives on PE/E implementation to inform MCHIP's upcoming work. MCHIP also facilitated discussions on technical issues around PE/E work through the preparation and dissemination of materials at the May 2012 MCHIP Asia Regional Meeting on PE/E.

1.2 Actively Participated as Member of WHO Guidelines Committee

Making the most of its key role as a member of the WHO Guidelines Committee, MCHIP has effectively developed and disseminated valuable PE/E resources and guidance at global forums as well as through country level TA. MCHIP serves on numerous WHO technical committees and is recognized by the WHO and partners as a key implementer in many countries where maternal health activities are underway. MCHIP participated in a

consultative meeting organized by the WHO to develop and update guidelines and recommendations on proven, evidence-based practices to prevent and manage PE/E. MCHIP developed a technical briefer in collaboration with the WHO to highlight new information in these recommendations (refer to section 4.3).

1.3 Collaborated with UN Commission on Life-Saving Commodities for Women and Children (UNCoLSC)

MCHIP also worked with partner PATH to support the development of the Advocacy Working Group's (AWG) Advocacy toolkit Scaling up Lifesaving Commodities for Women, Children and Newborns. This toolkit provides information about the UN Commission on Life-Saving Commodities for Women and Children (UNCoLSC), its 13 priority commodities, including MgSO₄, and examples of how its ten recommendations to improve access and availability are being applied globally and within countries. Reflecting its commitment to providing advocacy resources for addressing commodity-related gaps in global and national plans, policies, and initiatives, MCHIP will support the launch of the toolkit in a workshop in **Zambia** in June, 2014.

1.4 Collaborated with Accelovate

Accelovate is a five-year, USAID-funded global program that reflects USAID's increased focus on innovation and creative solutions for addressing global health priorities and accelerating reductions in mortality and morbidity, especially in maternal and child health. MCHIP has worked closely with Accelovate to advance and scale-up promising health solutions, with input from key stakeholders, especially in the area of PE/E. For example, MCHIP has endorsed Accelovate's perspective that MgSO₄ should be more widely and consistently available through adequate supply and appropriate formulation. MCHIP reviewed a briefer developed by Accelovate that called for renewed and clear guidance on the formulation and packaging of a standardized 50% MgSO₄ and the creation of a severe PE/E package kit. MCHIP will continue to seek opportunities to support Accelovate's advocacy for a standardized MgSO₄ solution and the dissemination of simplified, clear clinical guidelines in accordance with the WHO recommendations.

At the country level, MCHIP collaborated with Accelovate's work on market assessments for pre-eclampsia commodities in **Nepal** and **Kenya**, conducted by VSI for Accelovate. The goal of this assessment was to identify barriers and facilitators to availability and use of commodities used for diagnosis and management of PE/E and to develop recommendations for improving availability and use. Information gained by these national assessments, released in early 2014, can be used for further PE/E programming in the future.

Some key findings are as follows:

- Registration is not a barrier to availability and use of MgSO₄
- Policies do enable diagnosis and management of PE/E
- Procurement is not a barrier to availability and use
- Distribution systems are established but their effectiveness is not well-understood
- Most providers are trained and can manage PE/E, though
 - ANC provision could be improved
 - Urinalysis not conducted routinely; only done in the lab
 - Job aids in facilities insufficient
- Low awareness of signs and symptoms of severe PE/E is likely a contributing factor for eclampsia
- CHWs have limited ability to understand/explain PE/E

1.5 Supported FIGO in Six Countries to Expand Work on PE/E

USAID funds through MCHIP supported work of the International Federation of Gynecology and Obstetrics (FIGO) to expand the use of PPH and PE/E interventions with national professional associations in six countries (**Nigeria, Uganda, Mozambique, Ethiopia, India and Nepal**). With an eye toward capacity-building efforts of the professional associations, the program has realized modest gains in strengthening the target national professional associations. Four of these national PAs presented their work at the FIGO Conference in Addis Ababa in October 2013, where MCHIP's Jeffrey Smith and Dr. Hani Fauzi of FIGO co-chaired a session on improvement in clinical practices in PE/E in the 4 African countries supported by the MCHIP FIGO initiative.

In addition to renewing the commitment of professional associations to address PE/E, this project has reinforced adherence to protocols for PE/E, according to the various national coordinators. In most countries, the protocols introduced were not new but this initiative has motivated health providers to develop new processes to improve adherence. Most countries have been able to track at least one outcome measure each for PPH and PE/E by the end of 2013, except Uganda. Though data quality has not always been reliable, FIGO reported a positive trend of increasing the provision of MgSO₄ for women diagnosed with PE/E in most hospitals.

2. Generated Data and Global Evidence through Multi-Country Survey of 37 Countries to Assess National PE/E (And PPH) Programs

To inform progress on scaling up PPH and PE/E programs, MCHIP undertook a Multi Country Analysis (MCA) Survey of 37 countries in PY3 and PY4.1 In this survey, MCHIP assessed national programs for the prevention and management of PPH and PE/E. One key purpose of this survey was to assess country readiness to provide quality services for pregnant women with PE/E, and to document the enabling environment for implementing WHO recommendations. This MCA was presented at USAID, the CORE Group meeting and at numerous other forums, and was posted on the MCHIP Web site. It was also disseminated to countries, and the country programs were oriented on the best use of the results and information. This survey- and a corresponding manuscript - have contributed to the global evidence base, enabling donors and partners to use the resultant data and recommendations to identify barriers and more effectively prioritize efforts and funding to reduce morbidity and mortality from PPH and PE/E.

2.1 MCA Survey and Findings Empowered Governments and Implementing Agencies to Identify and Address Gaps

Importantly, governments and implementing agencies have used the results of this MCA survey to identify and address gaps as they work towards scaling up interventions related to reducing PE/E at the country level. Most specifically, UNCoLSC has cited the MCA survey repeatedly as a novel source of information about country policies and programs. Through this widely used survey and advocacy tool, which has been presented and disseminated at 10 national and international conferences, MCHIP has been able to identify and act upon availability issues related to key maternal health commodities, which will aid in addressing some of UNCoLSC recommendations. The MCA survey was used extensively in the “Key Data and Findings: Medicines for Maternal Health” report,² filling critical information gaps on the availability and use of maternal health medicines and supplies at the country level. Given its scope and breadth, this survey has provided a large amount of useful data, helping the UNCoLSC identify potential issues for attention and action so that essential lifesaving products, including MgSO₄, reach those who need them most. Based on the results and recommendations of this situation analysis, technical assistance was provided for PE/E programming in several countries, including **Bangladesh, Ethiopia, India, Liberia, Malawi, Guinea and Kenya**.

2.2 MCA Helped Drive Noteworthy Progress in The Area of PE/E in the Following Countries

In **Liberia**, the MCA found that MgSO₄ was available at facilities that offer maternity services less than half the time and that MgSO₄ stock outs at central/regional level occur every 3-6 months. In response, MCHIP/Liberia provided technical support on the national treatment guidelines on the use of MgSO₄ and continually shared information related to PE/E with the MOH and other key stakeholders involved in managing PE/E. As a result, timely reporting on consumption of all drugs including MgSO₄ became a national priority. The MOHSW- through the County Health Teams - have now included a check list for drugs and medical supplies on the monthly integrated supportive supervision check list. The supply chain system was being strengthened both at county and central levels, through the provision of a vehicle by the central MOHSW to be used by each county. Additionally, the pharmacist receives supplies from NDS on a quarterly basis and supplies each health facility on a monthly basis. Moreover, counties/facilities are now allowed to make emergency orders when need arises.

¹ Smith J., Currie S., Perri J., Bluestone J., Cannon T., National Programs for the Prevention and Management of Postpartum Hemorrhage and Pre-Eclampsia/Eclampsia, A Global Survey, 2012, MCHIP. Available at: <http://www.mchip.net/globalstatusreportdownloads>

² Wilson R., Kade K., Weaver A., De Lorenzi A. (PATH), Yeager B., Patel S. (SIAPS/MSH), Ahmed K (UNFPA), Armbruster D., Bergeson-Lockwood J. (USAID), Key Data and Findings: Medicines for Maternal Health, 2012, Prepared for UNCoLSC.

In **Malawi** the MCA pointed to lack of competence of health care providers in using MgSO₄ and recommended a combination of clinical mentoring, coaching, and intensified supervision to address this gap. MCHIP supported Ministry of Health to revise obstetric protocols including management of severe pre eclampsia and eclampsia. The protocols provide clear, step by step guidance to providers at health center and hospitals on the administration of MgSO₄. These protocols were distributed to all maternity units country wide and are posted in all maternity wards for easy reference.

Thanks to MCHIP technical assistance, other non-MCHIP projects in Malawi intensified quarterly supportive supervision, during which they monitor documentation of MgSO₄ in stock cards, identify stock outs and report to the district health office. MCHIP played an active role in supportive supervision in 4 districts and the Jhpiego Bilateral program, Support for Service Delivery Integration Services (SSDI) - carried out supportive supervision in 15 districts. MCHIP also assisted with capacity building in BEmONC- which includes management of PE/E and the use of MgSO₄- for all 13 pre-service training institutions and in-service for 4 districts, and SSDI-Services scaled up this capacity building in BEmONC in the 15 districts.

In **Guinea**, the MCA process identified frequent stock-outs of magnesium sulfate (MgSO₄), occurring every 3-6 months, as a key issue. As a result, the MOH now purchases and provides MgSO₄ to all sites for PE/E management. MCHIP supported this improvement by providing technical assistance on updates to the EML to incorporate medications essential for EmONC, including MgSO₄.

In **Ethiopia**, the MCA identified bottlenecks to scale up of the use of PE/E, including resistance by providers to use MgSO₄ and not enough SBA trained in MgSO₄ (only 20% at the time of the MCA survey in 2011). In response, MCHIP supported the orientation of providers on MgSO₄ during the annual conference of professional associations, including the Ethiopian Midwives Association (EMA), and Ethiopian Society of Obstetricians and Gynecologists (ESOG) and helped carry out BEmONC trainings starting in 2011. In Ethiopia, thanks to MCHIP and other MNH partners support, training on the administration of MgSO₄ is now included in BeMONC training and currently more than 75% of SBAs at hospitals nationwide have received this training.

3. Quality Of Care (Qoc) Assessments in Seven African Countries Generated Global Evidence and Advanced Country Level Progress in The Prevention, Detection and Management of PE/E

The Quality of Care assessments- conducted in seven African countries including **Ethiopia, Kenya, Tanzania, Madagascar, Rwanda, Mozambique** and **Zimbabwe**- have also contributed to global evidence and advanced country-level efforts to reduce maternal mortality from PPH and PE/E, with the added value on measurement of quality of care using direct observation. MCHIP has shared the results of the QoC studies at international and national conferences and on-line, drawing greater attention to important, specific quality challenges, and contributing to a growing emphasis, at the global level, on quality—particularly for labor, delivery and immediate postnatal care.

3.1 QoC Assessments Contributed to the Global Evidence Base on PE/E

The results from these assessments have been published from Madagascar, Tanzania and Mozambique and additional multi-country journal articles will be completed in 2015, on several topics, including PE/E Prevention and Management. This manuscript will present data gathered in health care facility surveys in six of the seven QoC countries (excluding Zimbabwe), filling important information gaps about the quality of PE/E-related care provided by skilled health care workers. In general, findings from the surveys in these 6 countries suggest that while screening for PE/E is relatively high during antenatal care, it is not adequate at the time of admission to the labor and delivery ward. MgSO₄ is not always available or used when it is available in the countries surveyed. The possible barriers are multifaceted with significant country differences in the type as well as magnitude of specific barriers and some possible barriers not necessarily identified through this study.. Future research should include qualitative investigation to better understand constraints as well as facilitators to providing appropriate PE/E screening and treatment, including exploration of unfounded concerns providers may have about use of MgSO₄ and continued use of a less safe or less effective drug alone or in conjunction with MgSO₄.

3.2 QoC Assessments Led to Notable Progress in The Area of PE/E in the Following Countries:

As a testament to how MCHIP's QoC survey findings influenced policy and practice, MCHIP/Ethiopia implemented several QoC recommendations, which resulted in increased MgSO₄ use. For example, MCHIP supported the development and dissemination of clinical guidelines and management protocols on selected obstetric topics (including FANC) to health sciences colleges that provide midwifery education. In addition, MCHIP provided technical assistance for the development and dissemination of the national BEmONC training package and the provision of job aids on MgSO₄ administration to all BEmONC trainees and selected health facilities. As observed during supportive supervision visits, there is evidence that MgSO₄ is being widely used in hospitals. In keeping with the GoE top national priority to expand MgSO₄ use, MCHIP has worked closely with the MOH and other partner organizations to promote administration of the loading dose of MgSO₄ at the health center level prior to referral hospitals, thus increasing coverage of this life-saving intervention.

As a result of key QoC recommendations in **Kenya** to develop and distribute standard guidelines, procedures and job aids to improve the quality of maternal and newborn health, MCHIP supported the ministry with the development of national MNH standards, which address the use of MgSO₄. MCHIP assisted the MOH with the development of guidelines such as the National Guidelines for Quality Obstetrics and Perinatal care, job aids and posters on the use of MgSO₄. The QoC study also found that while midwives in Kenya are authorized to diagnose severe PE/E and administer the loading dose of MgSO₄, actual utilization is low due to low competencies and low confidence of health workers. Subsequently, MCHIP/Kenya collaborated with the MOH to conduct a study in 4 hospitals on improvement of MNH data management and utilization. In this study, improved quality of MNH care and improved use of data for decision making has been documented, for example, nurses in these facilities have been trained and are using MgSO₄ competently. The best practices will be documented and scaled up.

In **Rwanda**, the QoC study influenced the development of 3 major documents, including the National Guidelines on Newborn Care, BEmONC training, and finally the creation of a new policy on PAC, since the QoC study data helped to inform this document. Additionally, the government included key drugs and equipment on national lists, including calcium gluconate and MgSO₄. Thanks to MCHIP, the government now understands the importance of access to MgSO₄ and has not only made it available at hospitals, but has also committed to providing training to ensure that providers are able to use this drug.

Figure 2: Jhpiego's Standards Based Management and Recognition (SBM-R)



In **Zimbabwe**, MCHIP participated in the review of the RH and MH policy to support task shifting in the management of severe PE/E, for example, who can administer MgSO₄. MCHIP also helped outfit sites with emergency kits for severe PE/E in the two learning districts and advocated for use of these kits at the national level. Through competency-based BEmONC training starting in 2011, MCHIP helped build the capacity of nurses to identify and correctly manage cases of severe PE/E earlier, and to better stabilize these women prior to transfer to a higher level facility. The combination of task shifting, competency-based training and a Continuous Quality Improvement (CQI) process, using Jhpiego's Standards Based Management and Recognition (SBM-R) approach, has helped improved PE/E outcomes. Notably, there were significant **declines in cause-specific maternal mortality rates from severe PE/E**, which have decreased by more than 50% over the past two years at MCHIP supported sites. Also highly significant, even with more PE/E cases

reported in program Year 3 (see table 1 below), up from 184 in Year 2 to 294 in Year 3, there was a notable drop in the number of deaths from 16 to 7 in the same period, thus indicating better diagnosis of severe PE, and leading to better management and outcomes. MCHIP has thus played a vital role improving the quality of diagnosis and management of PE/E, including the appropriate administration of MgSO₄ in Zimbabwe, resulting in lower maternal death rates at MCHIP supported sites.

Table 1: MCHIP/Zimbabwe Supported Sites: PE/E Cases and Impact on Mortality

INDICATOR	BASELINE (JAN - DEC 2009 DATA; SOURCE: MOHCC, 2009)	Y2 (OCT 2011- SEP 2012) ACTUAL	Y3 (OCT 2012- SEP 2013) ACTUAL	Y3 (OCT 2012-FEB 2014) TARGET
Number of live births	MMR= 296/100,000 live births	14,646	15,369	MMR= 215/100,000 live births
Total of maternal deaths (ALL CAUSES)		34	42	
Number of cases of PEE	no data	184	294	n/a
Number of deaths due to PEE	no data	16	7	n/a

4. Developed Training Courses and Wide Range of Resource Materials and MNH “Champions” (Advocates) to Improve Skills and Performance of Service Providers, Program Managers, and Other Stakeholders

4.1 Created PE/E Toolkit

MCHIP developed a PE/E Toolkit which outlines key steps, identifies available resources and highlights lessons learned to date in the development and implementation of PE/E programs. This toolkit is geared toward PE/E program design, implementation, monitoring and scale-up at the country level. This program guidance outlines key steps, identifies available resources and highlights lessons learned to help donors, partners and governments to develop comprehensive and innovative programs to address PE/E. Launched at the Africa Regional Meeting in Ethiopia in February 2011, the PE/E toolkit is on the K4Health website and is updated semi-annually. With 3,948 site visits and 10,612 pages visited from users in 143 developing countries as of April 2014, this toolkit has served as a useful resource for program implementers.

4.2 Enhanced the Skills and Knowledge of 30 Regional MNH “Champions” or Advocates Through the Africa Champion’s Program

With USAID support, MCHIP implemented the Africa Champion’s program in 10 African countries— **Benin, Guinea, Kenya, Liberia, Madagascar, Mali, Senegal, South Sudan, Uganda and Zambia**—over two years (2011-2013). In its role, MCHIP worked with partners to develop an Essential Obstetrical and Newborn Care (EONC) Resource Kit, a web-based package of materials that addresses maternal health advocacy, policy, training, quality assurance, and monitoring and evaluation. These partners then worked to develop regional MNH Champions or advocates.

The 30 participating obstetricians, midwives and pediatricians have up-to-date knowledge, practices and attitudes in MNH, and promote policies, practices and programs through advocacy and action to help achieve MDGs 4 and 5. Qualified individuals from throughout Africa have been brought together- in separate Francophone and Anglophone teams, using a combination of mobile, web-based, and face-to-face sessions, to build their capacity to use the EONC Resource Kit and become MNH Champions. Some notable achievements of this Africa Champions Program to build the capacity of providers in the area of PE/E are as follows:

Francophone Teams:

- Led trainings in BEmONC, PMTCT; long-acting FP methods (Jadelle and IUD);
- Tasked with advocating for the availability and use of MgSO₄ as part of his Africa Champion’s workplan, **Madagascar** Africa Champion Dr. Pierana provided refresher trainings on the correct use of MgSO₄ and worked to ensure a consistent supply of the medicine at the hospital where he works on the Northwest Coast of Madagascar. In addition, after stock-outs country-wide of MgSO₄, Champion Dr. Pierana and MCHIP/Madagascar COP Jean Pierre Rakotovao met with key partners in the fall of 2012 to share information about the importance of increased use and regular availability of MgSO₄. Subsequently, the UNFPA ordered MgSO₄ and the MOH has made it available through the national health system for health centers that have trained providers on EmONC.

Anglophone Teams:

- Acceptance of abstracts for presentations at the June 2014 International Confederation of Midwives Triennial Congress. All of the 5 Anglophone countries will be represented; **Liberia** (Nancy Taylor Moses), **Kenya** (Dr. Juma Mwangi), **South Sudan** (Repent Khamis George), **Uganda** (Kevin Kabarwani) and Zambia (Rhoda Amafumba).
- Supervised trainings for health professionals on BEmONC skills, Kangaroo Mother Care (KMC)
- Development and validation of MNH job aids in coordination with MOH and multiple donors
- National and international presentations (Women Deliver in Malaysia, Newborn Health in Johannesburg)
- National level advocacy for maternal health programs
- Monitoring of hospital quality improvement efforts

4.3 Developed PE/E Briefers on Updated WHO Guidelines

MCHIP collaborated with WHO, Pre-EMPT and USAID on the preparation of a brief for the 2011 WHO PE/E Guidelines to improve the quality of care and outcomes for pregnant women who develop the two most dangerous hypertensive disorders. This PE/E brief entitled “WHO Recommendations for Prevention and Treatment of Pre-Eclampsia and Eclampsia: Implications and Actions” was translated into French, Spanish and Portuguese to make the materials accessible to other regions.

MCHIP also developed a short program brief called “Program Brief: PE/E Prevention, Detection, and Management” which summarizes the key information to help advocate for comprehensive programming to reduce PE/E related deaths and improve care.

MCHIP completed a technical briefer to outline strategic, evidence-based approaches for the prevention, detection, and management of PE/E and to advocate for an expanded community role to ensure that more women are reached with appropriate interventions for the prevention and early detection of PE/E. The technical and program briefers have been translated into French and Spanish.

All briefers can be found in the PE/E Toolkit on K4Health at <https://www.k4health.org/toolkits/preeclampsia-eclampsia>.

4.4 Created PE/E Maps

MCHIP prepared a map of both going and completed PE/E programs implemented by MCHIP/JHPIEGO and PRE-EMPT. This was shared at Asia Regional Meeting in 2012 to promote dialogue with NGO programs that are engaged in PE/E efforts, and to understand program expansion capacity.

4.5 Developed and Piloted Job Aid for PE/E Management as a Video Animation on the Correct Use of MgSO₄ in the Management of Pre-Eclamptic Cases

Using innovative solutions to promote the use of MgSO₄ at the country level, MCHIP piloted an active audit-feedback intervention to increase use of MgSO₄ among women with severe PE/E in six hospitals in **Ethiopia from March-May 2014**. This intervention involved a technical update coupled with ongoing audit-feedback of all severe PE/E cases at the facility. The technical update included an interactive instructional video developed by MCHIP that focused on the correct preparation and administration of MgSO₄. As part of the audit-feedback process, the labor/maternity ward team identified and reviewed all severe PE/E cases on a regular basis (weekly or twice monthly), and took corrective action where necessary. Progress was monitored using simple maternity dashboards and posters. Key findings from the six participating hospitals in this pilot included improvements in:

- Management of severe PE/E cases, including recording and documentation
- Average provider knowledge and confidence. Knowledge increased from 67.4% in the pre-test to 88.7% in the post-test, and confidence improved from 64.3% to 88.1%.
- Communication and discussion between the maternity and recovery/postnatal wards.

Notably, the percentage of women with severe PE/E who received full correct dosage of MgSO₄ increased from a baseline range of 25-100% (average 64%) to 100% for all hospitals by the last month of data collection. Through

the provision of this country level TA, MCHIP played a vital role improving the quality of management of pregnant women with PE/E and appropriate administration of MgSO₄.

5. Provided Technical Assistance (TA) and Country Level Support to Improve the Quality of Prevention and Management of PE/E and Appropriate Administration of MgSO₄

Over the course of the program, MCHIP provided technical assistance to a wide array of countries, focused on the promotion of technical understanding and use of the 2011 WHO global PE/E guidelines. For example, MCHIP provided country level support to **Bangladesh, Ethiopia, Pakistan, South Sudan, Guinea, and Tanzania** for improving screening and management of PE/E with a focus on the use of MgSO₄. Through technical collaborations in the area of PE/E, MCHIP was able to support Jhpiego-led bilaterals and associate award programs, which achieved noteworthy results in both Mozambique and Indonesia.

A preliminary analysis of maternal deaths reported through the routine health information system shows that the institutional maternal mortality rate, calculated from reported maternal deaths and live births in the 28 MMI facilities, dropped by over half in the first 24 months of the initiative, from 570 per 100,000 live births in the last quarter of 2009 to 286 in the last quarter of 2011. Source: Quality Improvement in Mozambique's Model Maternities: Linking Improvement on Standards with Health Outcomes

Over the life of the MCHIP/Mozambique program from May 2009 to January 2011, MCHIP worked with the MOH and other partners to establish and institutionalize the Model Maternities Initiative (MMI) in 34 of the country's largest EmONC facilities, covering 21% of all institutional births nationwide. Services were delivered by 416 skilled birth attendants trained in EMNC, Basic EmONC, PPFP and quality improvement methodology. MMI increased both quantity and quality of maternal and neonatal health services. The MMI uses a Jhpiego-developed quality improvement approach called Standards Based Management and Recognition (SBM-R). All five quality indicators for interventions with high impact on maternal and newborn mortality showed dramatic improvement, including for the management of PE/E, where in the last quarter of 2010, 70% of women with PE/E were treated with magnesium sulfate, up from less than 20% in the baseline survey. Starting in April 2011 under the Associate award, MCHIP worked in collaboration with USG partners to support MOH efforts to expand national coverage of high impact MNCH interventions, through the scaling-up of the Model Maternity Initiative to more than 80 facilities in 2013, with plans to reach more than 125 facilities by the end of 2014. Significantly, this figure covers about half of all facility births in the country.

In the three MCHIP supported districts of Bireuen, Kutai Timur, and Serang in **Indonesia**, MCHIP implemented SBM-R at multiple levels of the health system using a comprehensive, district wide approach encompassing 17 puskesmas (community health centers), 185 midwifery practices, and 3 hospitals level. The baseline SBM-R scores were low, ranging from about 15% to 50% at the hospitals, for example. By the end of the project, all of the sites achieved greater than 80% of the standards.

During the project period from June 2010-Dec. 2012, MCHIP, together with the new USAID bilateral EMAS, led by Jhpiego, worked with local stakeholders to improve the competencies of health care providers in managing complications in pregnancy and childbirth, including PE/E, through group-based BEmONC training, as well as on-the-job training/mentoring. In addition, MCHIP facilitated increasing the capacity of midwives in three targeted districts to administer MgSO₄ prior to referral, which resulted in 95% of women with PE/E receiving the MgSO₄ loading dose prior to referral. At Serang Hospital, the combination of improved pre-referral care coupled with an increase in the hospital providers' compliance to the management of emergency maternal and newborn care guidelines, translated into dramatic declines in the number of maternal (85 to 10) and neonatal (31 to 1) deaths, while simultaneously identifying more emergency maternal and neonatal cases, from 1085 to 1511 and 233 to 543, respectively (refer to table 2 below).

Significantly, the approaches utilized by MCHIP were expanded in EMAS, a large five year program to support the Government of Indonesia to reduce maternal and newborn mortality by improving the quality of maternal and newborn care. As part of these quality improvement efforts, EMAS utilizes "dashboards" or scorecards, using selected indicators to track performance with a simple computerized tool. This tool presents a health facility's

clinical data graphically using a traffic-light coding system to alert front-line staff about changes in the frequency of clinical outcomes. It provides rapid feedback on local outcomes in an accessible form and enables problems to be detected early. With partner Budi Kemuliaan Hospital, the use of dashboards is one of EMAS' main clinical interventions in both hospitals and health centers, where 75 hospitals and 150 health centers are being mentored on their use. Indonesia's experience with these innovative dashboards- notable for their focus on measurable and changeable clinical outcomes- has informed the use of dashboards in MCHIP programming.

Table 2: Emergency Room Patients—Maternal and Neonatal (Indonesia)

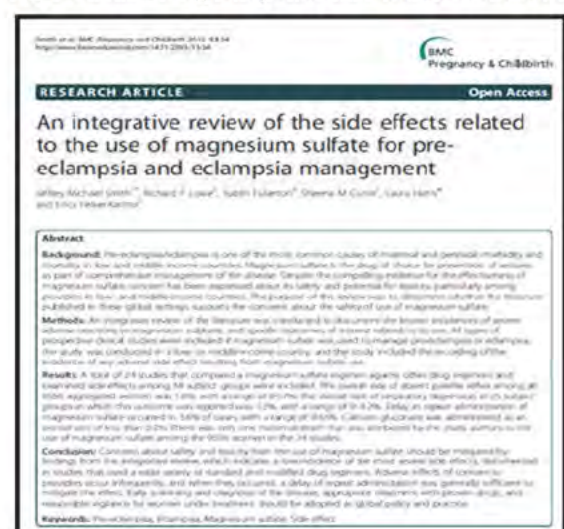
YEARS	EMERGENCY ROOM PATIENTS: MATERNAL AND NEONATAL					
	Maternal			Neonatal		
	Total	Managed	Deaths	Total	Managed	Deaths
2010–2011	1170	1085	85	264	233	31
2011–2012	1521	1511	10	544	543	1

Source: Serang hospital emergency room registers

6. Conducted Research to Address Critical Gaps in the Knowledge and Practices of PE/E Prevention and Management

6.1 An Integrative Review of the Side Effects Related to the Use of Magnesium Sulfate for Pre-Eclampsia and Eclampsia Management

Figure 3: BMC Pregnancy and Childbirth Research Article



In addition to promoting best practices at the country level, MCHIP has helped shape global thinking to make PE/E a priority maternal health intervention through publications, including a practical review article on the safety of magnesium sulfate for management of severe PE/E. In this widely disseminated BMC Pregnancy and Childbirth article and corresponding 2 page summary brief, MCHIP dispelled the myths that MgSO₄ is a dangerous drug and recommended that clinical leaders in maternal health adopt, promote and support the use of MgSO₄ as the anticonvulsant of choice in treating and managing PE/E. The findings indicate a low incidence of severe side effects (generally 1-2%) directly attributable to use of MgSO₄. (Refer to table 3 below.) The findings of the paper were shared at global events including the GMHC in Tanzania, the CORE Group spring meeting, and Women Deliver.

Table 3: Overall Outcome Rates from All Studies in 9,556 Subjects

AFFECTED PATELLAR REFLEX		RESPIRATORY DEPRESSION	OLIGURIA	DELAYED OR SKIPPED DOSE	CALCIUM GLUCONATE USE
Incidence	1.6%	1.3%	2.5%	3.6%	0.2%

6.2 Implemented a Pilot Program to Prevent Pre-Eclampsia and Eclampsia Through Calcium Supplementation, in Dailekh District, Nepal

Further contributing to the global evidence base, MCHIP conducted a study in **Nepal** on calcium supplementation for pregnant women distributed during routine ANC at health facilities, in order to assess coverage, compliance, and effectiveness at preventing PE/E and inform scale up. Calcium distribution through ANC produced very high coverage of calcium at 95% and was found to be acceptable to ANC providers and feasible to incorporate into their current responsibilities. The study therefore recommended that this model of calcium distribution be scaled up to other districts in Nepal. At the national dissemination meeting in December 2013, analysis was presented on the programmatic success of the distribution, and the government of Nepal committed to the immediate scale up in two districts in the Terai region where the prevalence of eclampsia is high.

7. Way Forward

In collaboration with key partners, MCHIP developed a novel methodology to measure coverage of uterotonic use immediately following birth (UUIFB). MCHIP modified and expanded this innovative methodology in Liberia, an Africa Champion country, to estimate coverage of other interventions, including management of severe PE/E using MgSO₄. If widely utilized in future projects, this methodology has the potential to help countless countries identify appropriate interventions for increasing access to and availability of life-saving commodities.

Based on six year of program implementation, MCHIP recognizes the value of mobilizing key stakeholders to adopt a comprehensive, Health System Strengthening (HSS) approach for improving of care for women with PE/E at all levels. This is in keeping with MCHIP's reorientation towards a more comprehensive approach to PE/E programming at global, regional, and country levels, promoting approaches for prevention, early detection, and better management, as depicted in this conceptual **PE/E**

Comprehensive Care Framework (Figure 4).

More specifically, future programming efforts should expand across the continuum of care and include two important added

components: 1) calcium supplementation during pregnancy in areas where calcium intake is low to reduce the risk of developing PE/E; and 2) screening and early detection of PE through blood pressure measurement and simple urine protein detection at every ANC visit to improve prognosis by increasing opportunities for effective interventions to prevent progression of PE/E. This shift toward earlier detection, with treatment options available from a greater pool of providers, would result in greater mortality reductions.

Figure 4: Pre-eclampsia/Eclampsia Comprehensive Framework

