USAID
FROM THE AMERICAN PEOPLE

MCHIP | 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.

Table of Contents

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.

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.

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.

Background: MCHIP and CSHGP

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.

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.

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
MNCH and FP services at the community level (either integration of two technical interventions or strengthening a platform for delivery of multiple technical interventions)	• 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
Family planning with MNCH platforms	• Liberia (MCHIP and CSHGP): FP and immunization • India (MCHIP): PPFP and MNH services
Maternal, infant, and young child nutrition (MIYCN) with MNCH platforms	• 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 elsewhere[6]), 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 COMMUNITY[8]

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-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 un-quantified cost savings to the household.

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.

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, 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.

> 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.

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	*Full integration* Postpartum family planning integrated into a range of maternal and newborn health practices.	• 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	*Partial integration* 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	• 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 uterotonic use at facility-based deliveries	*Partial integration* Shared responsibility between the ASM and health facility staff Provision of uterotonics integrated into antenatal care messages and delivery practices	• AMTSL and uterotonic use for vaginal births at facilities was very successful: Estimates of the uterotonic 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% uterotonic 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	*Partial integration* Shared responsibility between the ASM and health facility staff Provision of uterotonics integrated into antenatal care messages and delivery practices	• The combined intervention appears to have contributed to a higher number of facility-based births. • 87% of women delivering in a facility received a uterotonic. • 99% of women delivering at home used misoprostol and followed HHP instructions. (Data is for Mundri East only)

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.

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.

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.

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 2012[15]), 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.

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.

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,

[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	*Partial integration* The integration of family planning with fixed immunization service facilities Services provided by both general health workers and immunization staff	• 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	*Partial integration* Immunization, sanitation, and nutrition, breastfeeding promotion, promotion of safe birthing practices and family planning	• 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 Sukraksha Yojana, a conditional cash transfer scheme, to encourage the use of facilities for births	*Partial integration* Postpartum family planning integrated in delivery care at facilities Services provided by at least two sets of providers	• 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 Chnang 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	*Partial integration* Combines infant and young child feeding, water and sanitation, and healthy timing and spacing of pregnancy interventions	• 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	*Partial integration* Nutrition, newborn care, the use of modern family planning methods, and in the later stages, management of pneumonia	• 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	*Partial integration* Food security and nutrition promotion for pregnant and lactating women Interventions from both female community health volunteers and owners of village model farms	• 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.

[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.

Projects in Egypt and Cambodia are similar to the AAMA project in that they used community 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 to 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 leaning 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 procvess 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 question 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.

[27]Vassal, 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

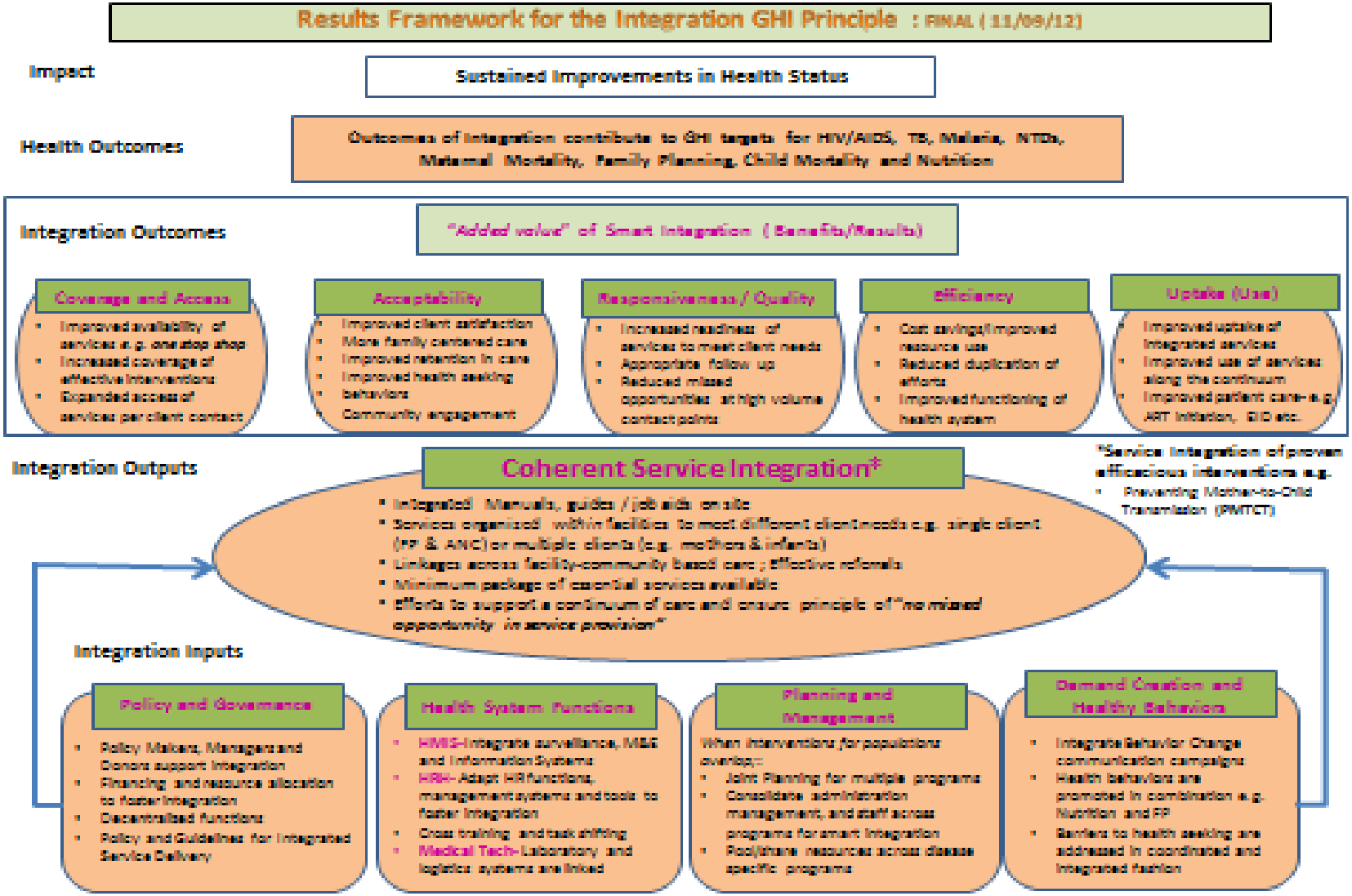
Attention should be given to the burden placed on health workers as well as to the quality of client experiences.

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**	• Project baseline survey of women who consented to participate in study • 2011 Bangladesh DHS • Project pregnancy surveillance every 2 months • 36-month postpartum survey	• No quality issues were reported.
Honduras **ChildFund Honduras Child Survival Project (CSP)**	• Operations research study, including costing study • Equity study • Knowledge, practices, coverage baseline study • Project HIS • HIS of the public health centers • Community registers	▪ 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**	• 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	• 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**	• Project-specific data • 2010 South Sudan Household Survey • MOH HMIS	• No quality issues were reported.
Integrating Family Planning into MNCH Platforms		
Liberia **FP/EPI Demonstration Project**	• 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	• 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**	• 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	• 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**	• Project data collection tools • Baseline, midline quality assessments	• No quality issues were reported.
Mozambique **Integrated Family Planning and Cervical Cancer Prevention**	• MNCH registers that feed into the national HMIS	• 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**	• 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	•
Nepal **Action Against Malaria through Agriculture**	• Adequacy assessment based on data from baseline and endline measures • KPC surveys • Qualitative evaluation • Project monitoring data	• 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**	• KPC baseline • Project data, including management data and regular reports from village health volunteers • OR data system • MOH facility data	• Midterm coverage estimates were not possible due to the lack of population-based coverage data on key project behaviors after the baseline survey.

References

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.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.

———. *Operations Research Study: Assessing the Utilization of a Community Based Model to Provide Integrated MNCHN Services in Hard-to-Reach Areas,* March 4, 2011.

Cooper C, Fields R, Taylor N. *Final Assessment Report: Integration of Expanded Program on Immunization and Family Planning in Liberia*, August 2013. Available at: https://intranet.mchip.net/RegionsCountries/Africa/West/Liberia/Documents/Reports/Liberia%20EPI%20FP%20Integration%20Final%20Assessment%20Report.pdf

Curamericas Global. *Final Evaluation for Nehnwaa Child Survival Project—Census-based Impact-Oriented Methodology for Community-Based PHC in Nimba Country, Liberia*, December 2013.

Das S. *PPIUCD Services in India: The journey from start to scale up*. Presented at the PPIUCD Services: Start-Up to Scale-Up Regional Meeting, Lusaka, Zambia, April 2013. Available at: http://www.k4health.org/sites/default/files/India%20Experience%20in%20PPIUCD_Presented%20at%20PPIUCD%20Zambia%20Mtg_April%202013.pdf

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.

Helen Keller International. *Final Evaluation Report Nepal Child Survival Project Kailali and Baitadi Districts, Far Western Region and Bajura Expansion District,* April 3, 2013.

High-Impact Practices in Family Planning (HIP). *Family Planning and Immunization Integration: Reaching Postpartum Women with Family Planning Services*. Washington, DC: USAID, July 2013. Available at: http://www.fphighimpactpractices.org/resources/family-planning-and-immunization-integration-reaching-postpartum-women-family-planning

International Relief and Development. *Mid-term Evaluation Report Evidence-based Interventions for Improved Nutrition to Reinforce Infant, Child and Maternal Health in Cambodia (ENRICH),* February 19, 2013.

Kennedy G, Kennedy C, Lindegren ML, Brickley D. *Systematic Review of Integration of Maternal, Neonatal and Child Health and Nutrition, Family Planning and HIV, Executive Summary*. May 2011. Available at: https://www.k4health.org/sites/default/files/MNCHN-HIV-ES-2011-12-12.pdf

Kerber K et al. Continuum of care for maternal, newborn and child health: from slogan to service delivery. *Lancet* 2007; 370:1358–69.

Koblinsky M. *Child Survival and Health Grants Program—Contributing to Emerging Priorities in Maternal and Newborn Health*, April 23, 2012. Available at: http://www.mchipngo.net/lib/components/documents/PVOCenter/CSHGP-Learning-Agenda-for-Maternal.pdf

Kumar S et al. *Women's Experience with Postpartum Intrauterine Contraceptive Device Use in India.* Draft, October 6, 2013.

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, 2011. Available at:

http://www.mchipngo.net/lib/components/documents/PVOCenter/MNC%20Final%20105.pdf

———. *Ethiopia KMC Study Protocol*, October 2011.

———. *Healthy Fertility Study: Operations Research to Address Unmet Need for Contraception in the Postpartum Period in Sylhet District, Bangladesh,* 2014.

———. *Integrated Community Case Management: Findings from Senegal, the Democratic Republic of Congo, and Malawi, A Synthesis Report,* September 2013. Available at: http://www.mchip.net/sites/default/files/MCHIP%20Synthesis%20Report.pdf

———. *Integrated Service Delivery of Maternal, Infant, and Young Child Nutrition (MIYCN) and Family Planning (FP) Services in Kenya.* 2012. Available at: https://intranet.mchip.net/TechnicalTeams/FamilyPlanning/Documents/Special%20Studies/Kenya%20MIYCN-FP%20Integration/Program%20Briefs/Kenya%20MIYCN-FP%20briefer%20for%20CORE%20meeting.pdf

———. *Maternal, Infant, and Young Child Nutrition and Family Planning Integration Assessment Report, Bondo District, Kenya.* 2012.

———. *Maximizing Synergies between Maternal, Infant, and Young Child Nutrition and Family Planning*, 2011. Available at: http://www.mchip.net/sites/default/files/MIYCNTechBrief_V10.pdf

———. *Operations Research for Accelerating Results toward Ending Preventable Child and Maternal Deaths—Testing 30 Innovative Community and Health System Solutions in Underserved, Vulnerable Populations across 23 Countries*, 2013. Available at: http://www.mchipngo.net/lib/components/documents/PVOCenter/OR-Innovation-Brief.pdf

———. *Postnatal Care Home Visits: A Review of the Current Status of Implementation in Five Countries,* March 2012. Available at: http://www.mchip.net/sites/default/files/Postnatal%20Care%20Home%20Visits.pdf

———. *PPIUCD Services: Start-Up to Scale-Up Regional Meeting Report—April 9–12, 2013.* Available at: https://intranet.mchip.net/TechnicalTeams/FamilyPlanning/Documents/PPIUD%20Programs/Zambia%20PPIUCD%20Regional%20Meeting%20Report_April%202013_FINAL.pdf

———. *Prevention of Postpartum Hemorrhage in Rwanda: Increasing Access to Prevention of PPH Interventions for Births in Health Facilities and at Home in Four Districts*, 2013.

———. *Prevention of PPH in South Sudan: Increasing Access to Evidence-Based Interventions,* 2013.

———. *Prevention of Postpartum Hemorrhage at Home Birth*, 2013. Available at: http://www.mchip.net/sites/default/files/PPH%20Prevention%20at%20Home%20Birth%20Briefer.pdf

———. *Program Learning for Postpartum Intrauterine Contraceptive Device (PPIUCD) Integration with Maternal Health Services—Programmatic Experience from Multiple Countries,* 2012. Available at: http://www.mchip.net/sites/default/files/MCHIP%20Guidance%20for%20PPIUCD.pdf

———. *Strengthening Postpartum Family Planning Services in Three States of India Fact Sheet*, May 2011.

———. *Successes and Challenges for Malaria in Pregnancy Programming: A Three-Country Analysis.* 2012. Available at: http://www.mchip.net/sites/default/files/MIP%20Brief_Three%20Country_Final.pdf

———. *USAID's Child Survival and Health Grants Program: Highlights from 2011 Final Evaluation, 2013.*

———. *Year One Annual Implementation Plan – Part A*, 1 October 2008–30 September 2009.

———. *Year Two Annual Implementation Plan – Part A*, 1 October 2009–30 September 2010.

———. *Year Three Annual Implementation Plan*, 1 October 2010–30 September 2011 (Approved 21 October 2010).

———. *Year 4 Annual Implementation Plan, 1 October 2011–30 September 2012.*

———. *Year 4 Annual Report, October 1, 2011–September 30, 2012,* January 14, 2013.

———. *Year 5 Annual Report, October 1, 2012–September 30, 2013,* January 14, 2014.

MCHIP & FHI360. *Integration of Immunization and Family Planning Services: An Annotated Bibliography,* November 27, 2012. Available at: http://www.k4health.org/sites/default/files/Bibliography_FP_Immunization_Final_0.pdf

McKaig C et al. *An Assessment of Integration of Family Planning and Maternal, Newborn and Child Health in Kano, Nigeria.* Jhpiego, September 30, 2009. Available at: http://www.accesstohealth.org/toolres/pdfs/Nigeria_Integration30Sept09.pdf

Partnership for Maternal, Newborn and Child Health. *Essential Interventions, Commodities and Guidelines for RMNCH*, Geneva, 2011. Available at: http://www.who.int/pmnch/topics/part_publications/essential_interventions_18_01_2012.pdf

Smith JM, Gubin R, Holston MM, Fullerton J, Prata N. Misoprostol for postpartum hemorrhage prevention at home birth: An integrative review of global implementation experience to date. *BMC Pregnancy and Childbirth* 2013; 13:44. Available at: http://www.biomedcentral.com/1471-2393/13/44

Torres R. *Evaluation of Community Based Maternal, Neonatal and Child Health Innovation in the Context of National Health System Decentralization in Francisco Morazán Sur, Honduras*, January 2013.

United States Government. *GHI Principle Paper on Integration in the Health Sector*, May 23, 2013. Available at: http://www.ghi.gov/principles/docs/principlePaperIntegration.pdf

United States Agency for International Development. *FP-MNCH-Nutrition Integration Technical Consultation, Conference Report.* March 30, 2011. Available at: http://www.esdproj.org/site/DocServer/FP-MNCH-Nutrition_Integration_Conference_Report_7.12.11.pdf?docID=4161

World Health Organization. *Optimizing Health Worker Roles to Improve Access to Key Maternal and Newborn Health Interventions through Task Shifting*, Geneva, 2012. Available at: http://apps.who.int/iris/bitstream/10665/77764/1/9789241504843_eng.pdf?ua=1

World Health Organization, USAID/MCHIP. *Programming Strategies for Postpartum Family Planning,* Geneva, 2013. Available at: http://www.mchip.net/sites/default/files/Postpartum-family-planning.pdf

World Health Organization. *Using Lay Health Workers to Improve Access to Key Maternal and Newborn Health Interventions in Sexual and RH*, Geneva, 2013. Available at: http://apps.who.int/iris/bitstream/10665/85617/1/WHO_RHR_13.09_eng.pdf?ua=1