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Equity Matters: Lessons from MCHIP and CSHGP in Measuring and Improving Equity

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

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Abbreviations and Acronyms

CFI	ChildFund International CHW Community Health Worker CRS Catholic Relief Services
CSHGP	Child Survival and Health Grants Program
DHS	Demographic and Health Survey
iCCM	Integrated Community Case Management
KPC	Knowledge, Practice, and Coverage
MCHIP	Maternal and Child Health Integrated Program
MNCH	Maternal, Newborn, and Child Health
MOH	Ministry of Health
NGO	Nongovernmental Organization
PDQ	Partnership-Defined Quality
RMC	Respectful Maternity Care
TIPS	Trials of Improved Practice
USAID	United States Agency for International Development
VMMC	Volunteer Medical Male Circumcision
WHO	World Health Organization

Introduction

Since 2008, the United States Agency for International Development (USAID) Bureau for Global Health's flagship Maternal and Child Health Integrated Program (MCHIP) has supported programming in maternal, newborn, and child health, immunization, family planning, nutrition, malaria, and HIV/AIDS, and has encouraged opportunities for integration of programs and services when feasible. MCHIP has supported the delivery of evidence-based, high impact interventions to help countries achieve impact at scale through strengthening government health systems and building the capacity of local nongovernmental organizations (NGOs) and other local partners to build linkages to communities, primary health facilities, and hospitals. MCHIP worked with the Child Survival and Health Grants Program (CSHGP) to provide technical assistance and to share grantees' experiences and expertise within MCHIP programming. Key to achieving impact at scale is making sure that interventions reach those who need them most and there is equitable distribution of coverage across socioeconomic, ethnic, gender, and other population groups within countries. This is the question of equity.

Thanks to greatly increasing political and financial commitments, and major technological advances, much progress has been made in global health over the last several decades. For example, according to the World Health Organization (WHO), globally, maternal deaths declined from over 500,000 in 1990 to around 289,000 in 2013.[1] Similarly, the number of under- five deaths worldwide has declined from nearly 12 million in 1990 to 6.9 million in 2011, but this remains insufficient to meet Millennium Development Goal (MDG) 4 (reduce childhood mortality), particularly in sub-Saharan Africa and Southern Asia.[2]

Despite overall progress, significant inequities persist. Health economists have pointed out that it is possible to achieve the MDGs while widening the gap between the rich and the poor.[3] For that reason, equity must be intentionally pursued as a strategy; it will not necessarily happen as a byproduct of other development efforts.

Maternal mortality is concentrated in sub-Saharan Africa and South Asian countries: an African woman's lifetime risk of dying from pregnancy-related causes is 100 times higher than that of a woman in a developed country.

Child Survival and Health Grants Program (CSHGP)
Through the Child Survival and Health Grants Program (CSHGP), USAID contributes to accelerating reductions in maternal, newborn, and child mortality at the national and global levels in priority countries. CHSGP has been in existence since 1985 and, as of April 2013, the current portfolio consisted of approximately 32 projects in 24 countries.

These programs generate new knowledge to address major barriers to improving and scaling up the delivery and use of integrated packages of low-cost, high-impact interventions to improve the health of women, children, and communities.

These grantees work in difficult, underserved, often isolated communities, and in recent years, many have also made a particular effort to focus on achieving health equity *within* those communities. CSHGP projects are often designed to work in some of the poorest areas of a country and applicants are required to put that type of justification in their proposals in order to receive funding. As more organizations begin to develop programs with an equity focus, examples from existing work can help inform those designs.

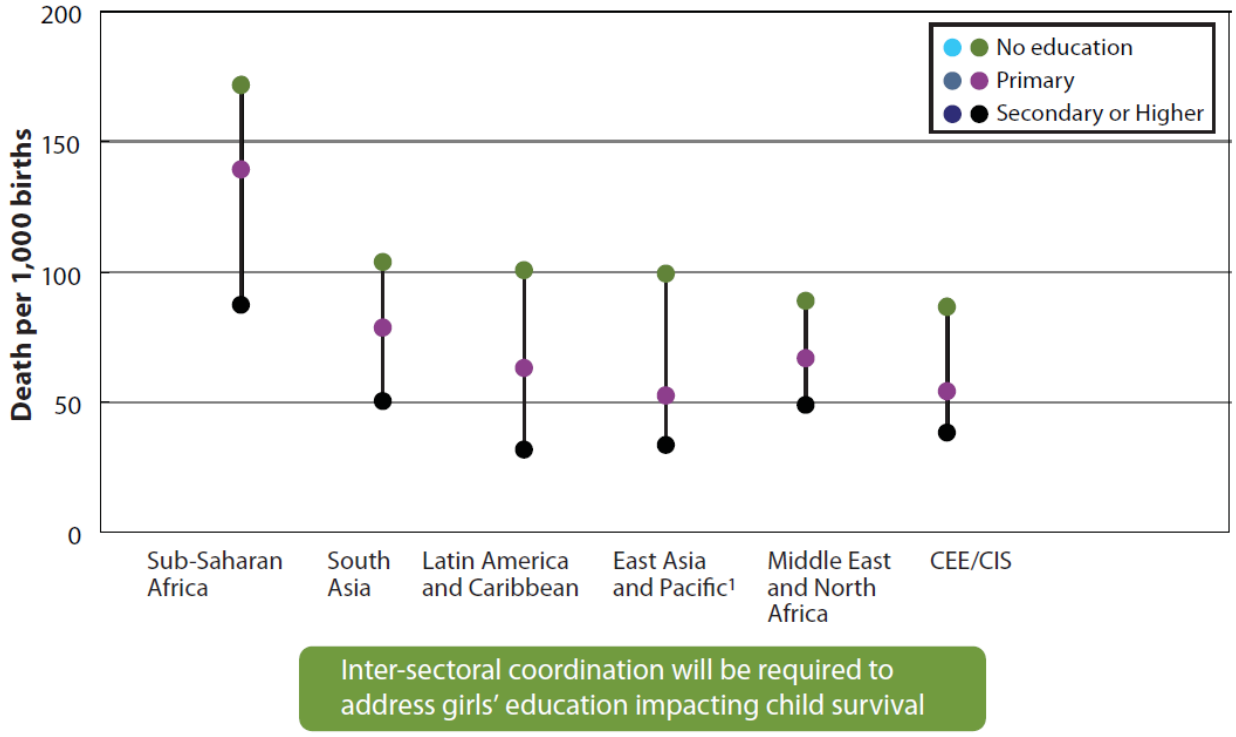
In sub-Saharan Africa, maternal mortality ratios for the poor are double those for the non-poor and are consistently higher among rural populations and less- educated women.[4] In most countries in the region, rates of skilled attendance at birth are five times higher among the non-poor than among the poor and inequities are not confined to Africa: in India, nearly nine out of

ten women in the richest quintile have skilled assistance during delivery while only two out of 10 in the poorest quintile do.[5]

It is important to remember that inequities are not just due to socio-economic status. David Gwatkin refers to the acronym (taken from presentations by Timothy Evans and Hilary Brown) "PROGRESS" to summarize the different groups that we could focus on. PROGRESS stands for "place of residence, race, occupation, gender, religion, education, socio-economic status."[6]

Figure 1, from *A Call to Action*[i], illustrates inequity based on mother's educational status.

Figure 1. Under-five mortality rate by mother's education level, by region.



1 Excludes China

Source: UNICEF, Progress for Children: Achieving the MDGs with Equity, 2010

A recent analysis of Demographic and Health Survey (DHS) data across all continents showed problems with equity for a number of high impact maternal, newborn, and child health (MNCH) interventions—and a number of USAID priority countries—for eliminating preventable maternal and child deaths: "Skilled birth attendant coverage was the least equitable intervention… followed by four or more antenatal care visits. The most equitable intervention was early initiation of breastfeeding. Chad, Nigeria, Somalia, Ethiopia, Laos, and Niger were the most inequitable countries for the interventions examined, followed by Madagascar, Pakistan, and India. The most equitable countries were Uzbekistan and Kyrgyzstan. Community-based interventions were more equally distributed than those delivered in health facilities."[7]

[i] Child Survival: Call to Action: Ending Preventable Child Deaths. 2014. Available from: http://5thbday.usaid.gov/pages/ResponseSub/roadmap.pdf

Latin America has some of the best overall health statistics, but these numbers mask large inequities. For example, life expectancy in Chile is 79.2 years while neighboring in Bolivia it is 69.1 years.[8] Life expectancy in the Dominican Republic is 76.3 years but on the same island, it is only 63.5 years in Haiti. In 2009, the region attained 94% average measles immunization coverage; however, the percentage of children vaccinated against the disease in Haiti, Paraguay, and Bolivia was only 60%, 71%, and 86%, respectively.[2] Reliable herd immunity from measles requires that immunization coverage rates for the disease reach at least 90%, meaning that the populations in those three countries remain vulnerable.[2] There is also evidence that equity gaps are widening (WHO, 2005) and in order to accelerate progress towards eliminating preventable child and maternal deaths, this trend will need to be reversed.

Within countries there are also inequities. For example, in Bolivia, overall infant mortality declined from 67 to 54 per 1,000 live births between 1998 and 2003. However, in 2003, the infant mortality rate for mothers without formal education was 87 and among the poorest wealth quintile, 72.[9] Another example is the 2011 infant mortality rate in the Brazilian state of Amapa , which was 25.4 per 1,000 live births, more than twice the rate of Rio Grande do Sul of 11.3 per 1,000 live births in the same year.[10]

There are promising strategies available to improve this situation. A review of equity-focused strategies published in 2012 by MCHIP concluded: "Although knowledge gaps exist, several strategies show promise for improving coverage of effective interventions—and, in some cases, health outcomes in children—including expanded roles for lay health workers, task shifting, reduction of financial barriers, increases in human-resource availability and geographical access, and use of the private sector. Policy makers and planners should be informed of this evidence as they choose strategies in which to invest their scarce resources."[11]

Based on the literature and program experiences, this brief summarizes practical information to help program managers leverage learnings from promising approaches that can be expanded to improve the equity of health programing. It outlines the experience with equity-based program strategies in maternal, newborn, and child health from MCHIP and the Child Survival and Health Grants Program (CSHGP).[ii]

WHAT IS HEALTH EQUITY AND WHY DOES IT MATTER?

MCHIP used a consensus building process among program staff to develop a working definition of our approach to improving health equity. Two key points from this definition are that for MCHIP: (1) It is important to improve health outcomes in vulnerable groups without allowing coverage rates to drop for groups that are better off, and (2) it is important to measure improvements in health, not just improvements in underlying conditions.

> *"Health equity is both the improvement of a health outcome of a disadvantaged group as well as a narrowing of the difference of this health outcome between advantaged and disadvantaged groups—without losing the gains already achieved for the group with the highest coverage."* [12]

This definition is related to WHO's definition,[13] which states that health equity is the absence of avoidable or remediable health differences among groups of people, whether those groups are

[ii] CSHGP has been in existence since 1985; MCHIP ran from 2008–2014, and the follow on project to MCHIP will run from 2014–2019. Technical assistance for CSHGP was included under MCHIP. Grants to CSHGP's nongovernmental organizations were funded separately from MCHIP by USAID's Global Health Bureau.

defined socially, economically, demographically, or geographically.[iii] In order to reach WHO's equity goal, rates of coverage across advantaged and disadvantaged groups need to be similar for high impact interventions.

Health equity is achieved, according to the Centers for Disease Control and Prevention, when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances."14 Health inequities arise from a lack of opportunity to achieve good health because of inadequate social arrangements, as opposed to, say, a personal decision not to worry about health, which damages health and capabilities.[15]

Health is a human right, in the sense of the right to "freedom from preventable suffering and freedom to exercise health choices,"[16] health equity implies the (growing) realization of these goals. Reducing health inequities is essential in order to achieve Millennium Development Goals 4 (to reduce child mortality) and 5 (to improve maternal health) and is a central strategy of *A Call to Action:*

"Large inequities in child survival persist and in some countries are growing. Countries need to refocus their health systems on scaling up access to high quality services for populations suffering from a disproportionate burden of disease, especially rural, poor, and marginalized populations. And, they need better mechanisms to actually measure the impacts of the health care they receive."[iv]

How is health equity improved?
Typically, groups that experience health inequities lack political, social, and economic power. Programs, therefore, often focus efforts on marginalized and disadvantaged groups, often going beyond the particular health inequity itself to empower the affected group through systemic changes.

A recent review article summarized four promising strategies to increase equity:

1. Use of community health workers (increasing numbers and task shifting)
2. Other strategies for increasing access
3. Use of the private sector
4. Financial mechanisms (e.g., conditional and non-conditional cash transfers, health insurance)[11]

This document began with a definition of what health equity is and is followed by narrative about how health equity can be improved, including descriptions of guidance developed under MCHIP, examples of implementation of relevant strategies by MCHIP country programs and CSHGP projects, and use of monitoring and evaluation to demonstrate improved health equity. Strategic implementation approaches are grouped by: increasing access by targeting the most vulnerable and by tackling social norms; strengthening community-based service provision though use of community-based workers, such as community health workers and traditional birth attendants and by engaging civil society; and strengthening the community voice.

[iii] Fabienne Peter and Timothy Evans remind us that there will always be acceptable variations in health that are randomly distributed across social groupings such as gender, occupation, race/ethnicity and are not associated with education, income or access to health care.
[iv] Child Survival: Call to Action.

Programs implemented by MCHIP and CSHGP primarily focus on the first three strategies and the narrative that follows describes these experiences. Another important strategy for increasing heath equity used by both MCHIP country programs and CSGHP grantees is strengthening the voice of the community to demand more equitable service provision. We describe experiences and lessons learned with each area in the following narrative.

Contributions by MCHIP and CSHGP

PROGRAM STRATEGY AND DESIGN

Whether programs address or exacerbate inequities depends on how the programs are designed and implemented. Equity must be intentionally pursued as a strategy; it will not necessarily happen as a byproduct of other development efforts. Although most health professionals who design and implement health programs have an intuitive sense of the meaning of equity, it is often not clearly defined within programs, nor are program managers always able to clearly articulate how health equity has been improved as a result of an intervention. In response to the need to be more systematic, MCHIP developed a practical guide to help program managers: design and implement health programs in a systematic way in order to formulate strategies to improve equity; monitor and evaluate the impact of their program on equity; and communicate and share findings with global and country-level stakeholders.[17]

The initial impulse for developing the MCHIP health equity guidance and checklist was from USAID CSHGP and built on the experience of private voluntary organizations (PVOs)/NGOs grantees and of CORE Group members, all of whom had experience working with vulnerable communities with the aim of increasing equity, but who were also interested in a systematized approach to health equity program design, monitoring, and evaluation. The guide was developed specifically to give those who design and implement community-oriented health programs a systematic way of ensuring that equity is incorporated into program designs and that its improvement can be better demonstrated and explained. However, this guidance is relevant for health programs that do not necessarily have a strong community component. MCHIP's role was to lead the process of developing systematic guidance for use by community oriented programs, such as CSHGP, and MCHP country work, including facility-based interventions. In addition, MCHIP developed a Rapid Socio-Economic Profile assessment tool, which is a simple and low-cost method for using assets (such as are collected by the DHS) to construct socio-economic profiles of beneficiary populations and to determine if the intervention is pro-poor.

The guide takes stakeholders through a process that involves understanding the barriers to access and use; developing context-relevant strategies and incorporating equity goals into policies, plans and projects; and developing monitoring and evaluation systems from the beginning of programming that can measure progress toward equity goals. While not prescriptive, the guide presents a series of concepts and approaches to take equity into consideration and facilitate decisions that lead to the development of a coherent equity strategy as part of a program design.

The guidance document and accompanying worksheets were used to generate dialog within MCHIP country programs and among technical staff. Specifically, this approach was used to start health equity dialogs in MCHIP country programs in Mozambique, Zimbabwe, Yemen, and with the Indonesia bi-lateral project, although none of these programs ended up following all the six steps in the guidance. However, MCHIP programs and CSHGP projects were able to focus on specific elements of health equity programming. The next section provides examples of how health equity was addressed by both MCHIP and CSHGP programs.

Increasing access by targeting the most vulnerable

Key to enhancing equity is to identify disadvantaged and vulnerable populations and to target activities specifically for them.[18] One of the most common approaches for doing so is geographic targeting. Populations, for example, may be vulnerable because of geographic remoteness or

certain regions may have particularly high disease burdens. Within countries, many if not most MCHIP interventions are targeted at geographically disadvantaged populations to improve access to service delivery. As in many countries where MCHIP focused on strengthening services that reach the most vulnerable populations, in Zimbabwe MCHIP worked in the province with the worst MNCH health indicators. In Malawi, MCHIP supported programming focused on disadvantaged and remote communities as well as those with the highest population density—where needs are the greatest. In Kenya, MCHIP worked in Bondo District, which has the highest HIV prevalence rate in the country, in the prevention of mother-to-child transmission of HIV.

More broadly, Reaching Every District, an approach first developed and used by the global immunization community to reach districts with the highest absolute number of unimmunized children, has been adapted by MCHIP for various technical interventions. For example, in Bangladesh, community health workers (CHWs) use community mapping exercises to reach every newborn at the sub-district level.

Targeting can also be by demographic or occupational group. In a voluntary medical male circumcision (VMMC) intervention in Tanzania, MCHIP identified a particularly vulnerable group of hard to reach men—migrant field workers who were poorly served by the traditional health care services given their marginalized status in and social isolation from the overall population. MCHIP brought services to them where they live (away from home) and work (rural areas) through focused campaigns and communicated to the employers the importance of healthy lives for their employees. MCHIP's VMMC program in Iringa, Tanzania, (in collaboration with the regional medical office of Iringa) increased the prevalence of VMMC in the region from 29% in 2009 to 50% in 2012. As a result, Tanzanian's Iringa region has become one of the few VMMC programs coming close to achieving the 80% coverage target. The region is headed toward a significant reduction in new HIV infections in the next 10 years, coupled with tremendous savings of costs that otherwise would have occurred to cover antiretroviral treatment and care.

Programs and governments can use a variety of data sources to identify populations that are vulnerable. These include national-level data such as poverty maps and nationally representative population surveys (DHS and multiple indicator cluster surveys); local sources of information such as knowledge, practice, and coverage surveys (KPC); and routine data captured through the national health management information systems. These data can reveal utilization rates and disease prevalence that can be used to target programs. India, for example, used a national-level health services indicator survey (called the District Level Household and Facility Survey—DLHS3—which is similar to the DHS) to identify the 184 lowest performing districts in terms of basic MNCH indicators. A further gap analysis at the district level helped to identify priority areas. These districts will receive 30% in additional funding to implement high-impact, evidence-based MNCH interventions.

Reaching Marginalized Ethnic Communities
Center for Human Services/Ecuador brought the community and the formal health care system together by developing innovative parish-level "micro-network" teams. Parish micro-network teams are comprised of community and social organization representatives, traditional birth attendants, and midwives and doctors who meet regularly (usually monthly) to plan and coordinate care for mothers and newborns in their parish with support from Center for Human Services project staff.

It is useful to keep in mind that NGOs have developed a range of approaches to target interventions to women and children most in need, such as: census-based impact oriented approach; CARE groups; participatory rural appraisal and LQAS, which can be used to pinpoint

geographical areas that need more attention. For more information on these techniques see the CORE Group website.[v]

Participatory and practical means for identification of underserved communities or population segments can also be used. In Bangladesh, World Renew (formally Christian Reformed World Relief Committee) used participatory rural appraisal to work with community members to identify the poorest villages, thus taking advantage of local knowledge and engagement for targeting activities to improve health equity.[19]

Targeting can be context-specific and driven by specific assessments. For example, in Ecuador, the Center for Human Services learned through its baseline household survey that indigenous populations had much lower rates of maternal health care utilization than mestizo (of mixed European descent) populations. As a result, the Center for Human Services focused their project efforts where they were most needed, i.e., on indigenous groups.

In Matagalpa, Nicaragua, through local qualitative assessments,[vi] Catholic Relief Services (CRS) identified the lack of decision-making authority and domestic violence among poorer women as significant barriers to utilization of maternal and newborn care services. In the design of their project, a gender-accommodating strategy of male involvement was included to lower the barrier for women to access needed services.

Increasing access by tackling social norms

One of the major barriers for women in seeking, accessing, and receiving quality health care is through the effect of social norms – both harmful and harmless – that either discourage women from seeking certain care for certain services or that result in providers delivering poor quality, disrespectful, and sometimes even abusive care. To tackle harmful social norms and enhance gender equity, one major area of focus under MCHIP has been respectful maternity care (RMC). By training providers and facilitating community-provider dialogue, RMC promotes respectful and culturally sensitive care for all women, irrespective of their wealth or status, and aims to ensure that health care delivery is patient-centered care and respectful of local cultural preferences. It is also equally important to integrate harmless cultural norms and client preferences, where appropriate and applicable, into service delivery.

MCHIP developed the RMC Toolkit,[20] which provides a range of resources that include a survey on RMC from 19 countries, an assessment instrument, program briefs and reports providing examples of how RMC has been implemented, training and advocacy materials, operational standards for RMC, illustrative indicators for monitoring RMC, job aids, and a resource list. This package of materials is designed to provide clinicians, trainers, managers, and other stakeholders involved in the provision of maternity care with the tools necessary to begin implementing RMC in their area of work or influence. The goal of this toolkit is to empower frontline health workers to provide RMC, enabling women and their families to experience quality maternity care and to choose to deliver with a skilled provider at home or, preferably, in a health facility. MCHIP has worked with many countries to improve RMC, including South Sudan, Pakistan, Yemen, Tanzania, Mozambique, and Ethiopia. In Mozambique, MCHIP helped the Ministry of Health (MOH) to develop the Model Maternity Initiative and to implement the National Humanization of Health Care Plan. Through this initiative, professionals from over 100 health facilities (including all the largest hospitals) and the medical and nursing schools have

[v] http://www.coregroup.org/

[vi] Catholic Relief Services conducted 34 focus groups from November 24–December 3, 2008, with traditional birth attendants, CHWs, fathers, and mothers in Matiuas, Rio Blanco, Waslala, and Bocana de Paiwas, Nicaragua.

been trained in RMC. MCHIP also established the Model Maternities Initiative in 34 emergency obstetric and newborn care (EmONC) facilities, covering 21% of all institutional births nationwide.

The Center for Health Services implemented a CSHGP project prioritizing provision of respectful maternal care in Ecuador, showing the potential for expanding patient-centered programming. As part of an equity-based strategy, the project targeted 21 priority rural parishes out of a total of 38 parishes that meet at least two criteria known to be associated with a higher risk of maternal and newborn mortality in Ecuador: 1) more than 50% of the parish lives in extreme poverty, and 2) over 40% of the population is of indigenous decent. Maternal and newborn mortality figures in these 21 parishes are much higher than in the rest of the province. The deliberate targeting of these parishes represents the project's commitment to equity for the most vulnerable. Traditional birth attendants worked closely with health facilities to increase referrals of mothers and newborns with complications during the critical early post-partum period, from 15 to 107, and 17 to 94, respectively, based on KPC survey results at baseline and endline.

Another interesting example of MCHIP-supported efforts to tackle harmful social norms comes from Nicaragua. Nicaragua has some of the highest maternal and child mortality ratios in Latin America, according to WHO. Major contributing factors include poverty and sociocultural issues such as gender norms that limit women's access to health care, especially in rural areas.[21] The cultural norm in Nicaragua is that men control household resources and are not expected to be involved in seeking care for their wives and children, especially during pregnancy, childbirth, and the postpartum period. Women are often unable to make decisions on their own, limiting their ability to access household financial resources and to seek health care in a timely manner. Yet, most existing family- and community-level strategies to improve MNCH continue to target women. In response, between 2008 and 2012, Catholic Relief Services (CRS) and its partners implemented a Child Survival Project[vii] in Nicaragua that worked with men to help them understand their role in improving their family's health. CRS worked with small groups of men using trials of improved practices (TIPS) to see what behaviors could be feasibly changed. CRS involved male leader volunteers who practiced these "improved" behaviors to work with other men, so that they too could practice the behaviors. Culturally appropriate messages addressing gender and masculinity regarding maternal and child health were developed based on TIPs' and CRS' prior experience working in the area. Endline surveys suggest that men in the intervention communities were more likely than men in the comparison communities to accompany their wives when seeking antenatal and newborn care and to participate in the delivery of their child. Both women and health providers remarked that at the end of this program domestic violence had decreased. Women also stated that they felt more supported by their husbands during their pregnancies.[22]

Trials of Improved Practices (TIPs) is a formative research technique developed by the Manoff Group. Using TIPs, program planners pretest the actual practices that a program will promote. In essence, the technique consists of a series of visits in which the interviewer and the participant analyze current practices, discuss what could be improved, reach an agreement on one or a few solutions to try over a trial period, and assess the trial together at the end of the trial period. Positive results are then moved directly into program design.

[vii] Catholic Relief Services (CRS) received funding from USAID for the implementation of a four year Child Survival Project in Nicaragua (October 2008–September 2012). Goal: Contribute to the reduction of maternal and neonatal morbidity and mortality in the municipalities of Matiguas, Río Blanco, Paiwas, and Waslala of the Matagalpa Sistema Local de Atención Integral en Salud (local system of comprehensive health care) by 2012. There are 125 target communities and 13 Ministry of Health (MINSA) facilities.

Strengthening community-based service provision through use of community- based workers

Community health workers are a diverse category of health workers who have specific names, roles, and responsibilities, depending on the country context in which they work. These workers commonly work in communities, almost always outside of fixed health facilities, with some type of formal, but limited training.[23] Since CHWs are from the community, they can better address local social and cultural issues.[24]

Community-based intervention packages, delivered through CHWs, can substantially increase coverage of multiple high-impact interventions and contribute to reductions in child and newborn mortality.[25] In this vein, MCHIP spearheaded global efforts to expand community- based services delivered through various cadres of paid or volunteer CHWs. This enabled those without access to facility-based services to still receive lifesaving health care services. CHWs can also engage communities in the process of taking responsibility for their health and in addressing the environmental, social, and cultural factors that produce ill health, including inequity, gender, and deep poverty.[26] In addition, CHWs have frequent interpersonal contact with community members, thus, accelerating the spread of promotion of health messages.[25]

The WHO guidelines for postpartum hemorrhage recommend that all women receive a uterotonic immediately after birth.[27] However, in countries where the majority of births take place at home without a skilled birth attendant, it is impossible to achieve full coverage without community-based distribution. With this in mind, MCHIP supported pilot programs for community-based distribution of misoprostol, a uterotonic, in five countries: South Sudan, Guinea, Liberia, Rwanda, and Madagascar; and expansion of the program in an additional five countries: Bangladesh, Pakistan, Ethiopia, Mozambique, and Nigeria. In these countries, CHWs were expected to identify every pregnant woman in their catchment area through community mapping. Once women were identified, CHWs conducted home visits during pregnancy to educate women about how to use misoprostol, and distributed misoprostol to women during home visits. This strategy ensured that women who are unable to deliver in facilities had access to postpartum hemorrhage prevention with a uterotonic. In South Sudan, a country with only 11% of births occurring in a health facility, home health promoters achieved 94% coverage with a misoprostol among women giving birth at home. An important observation across all programs was that advance distribution of misoprostol did not reduce the number of women delivering at a health facility. For example, in Liberia, the average monthly number of facility deliveries increased from 82 during the comparison period (December 2011–June 2012) to 108 during the community-based distribution of misoprostol intervention period (December 2012–June 2013). (While the increase in facility deliveries and the program may be associated, it is not possible from this analysis to suggest causality.)

MCHIP has also provided global leadership for integrated community case management (iCCM), a child health strategy to address inequity by bringing services to those without access to health facilities.[28] Three-quarters of deaths in children under-five are still due to a handful of preventable and treatable causes—pneumonia, diarrhea, malaria, and newborn conditions.[29] In most high- mortality countries, facility-based services do not provide adequate access and coverage of treatments within the crucial 24-hour window, especially for the most disadvantaged populations. Through iCCM, CHWs are recruited and trained in diagnosis and treatment of the most common childhood illnesses and to identify children in need of immediate referral to facilities. In Kenya, MCHIP has worked with the MOH to advocate for task shifting and the introduction of iCCM to reach communities without access to health facilities. In Malawi, over 3,000 health surveillance assistants (CHWs who receive a government salary) covered 3,500 out

of 4,000 defined hard-to- reach areas that are more than eight kilometers from the nearest health center. In Malawi, MCHIP used health surveillance assistants to increase the availability of iCCM in four districts. In Mali, MCHIP trained 100 community health workers in the essential community care package in Kita and Diema districts; part of the package includes iCCM.

In Egypt, MCHIP supported the training of 1,200 female CHWs, through local NGOs, who conducted home visits to identify all pregnant women, particularly women with first pregnancies, women who had a negative outcome of previous pregnancy, women who were not gaining one kg/month, and women whose children were underweight or stunted. Local NGOs worked with CHWs to conduct extensive social mapping to ensure that all households in their catchment area were included. MCHIP developed the Family Solidarity Module that facilitated participatory dialogues at the community level, which included husbands and mother-in-laws.

The Family Solidarity Module also served as a tool to train CHWs on how to introduce the concepts of gender roles, social and gender-based inequalities, domestic violence, and women's rights during each routine home visit. Additionally, the module sought to stimulate discussions and behavior change with community members around the division of work and decision making in the household. The modules covered topics such as violence against women, control/access of resources in the household, and importance of nutrition for mothers and children. Twelve local NGOs were also trained on how to conduct gender analysis and the information that they gathered in each district was used to inform the Family Solidarity Modules. Some CHWs (three per village, out of a total of 12 per village) also received gender sensitization training. **Figure 2** below shows that the number of men that attended at least one antenatal care appointment with their wives was higher in MCHIP intervention areas (blue). Similarly, **Figure 3** shows that more men received advice on family planning spacing in project intervention areas than in comparison areas.

Figure 2. Percentage of husbands accompanying wives for antenatal care visits in intervention and comparison areas (MCHIP/Egypt)

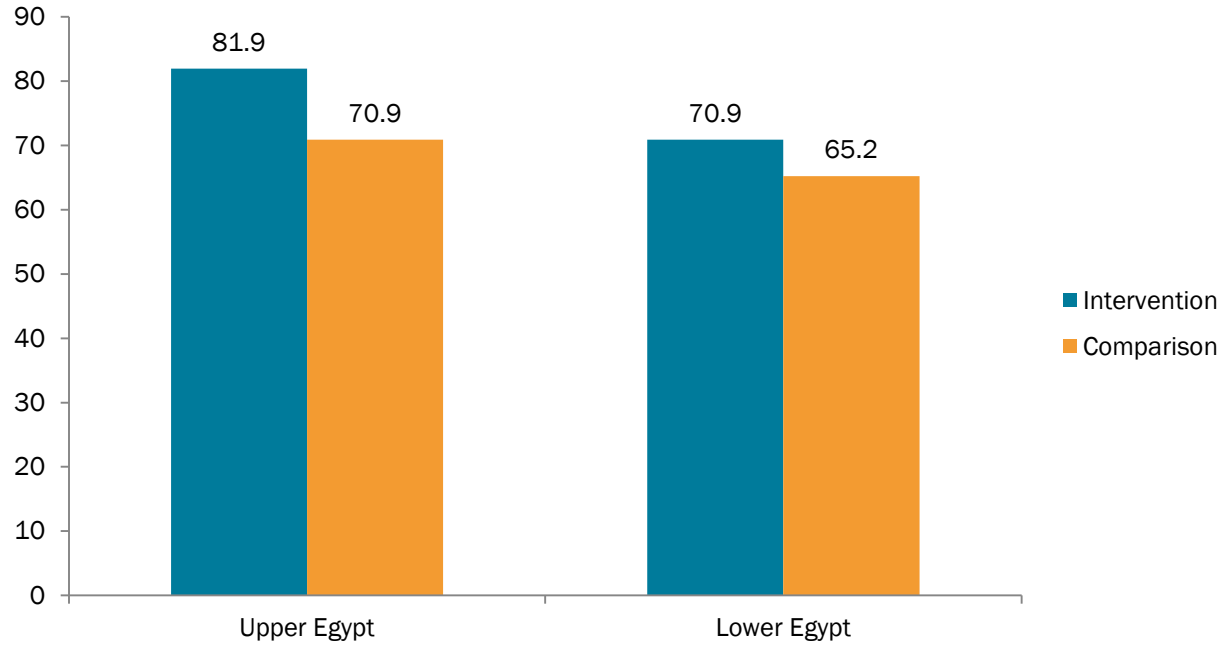
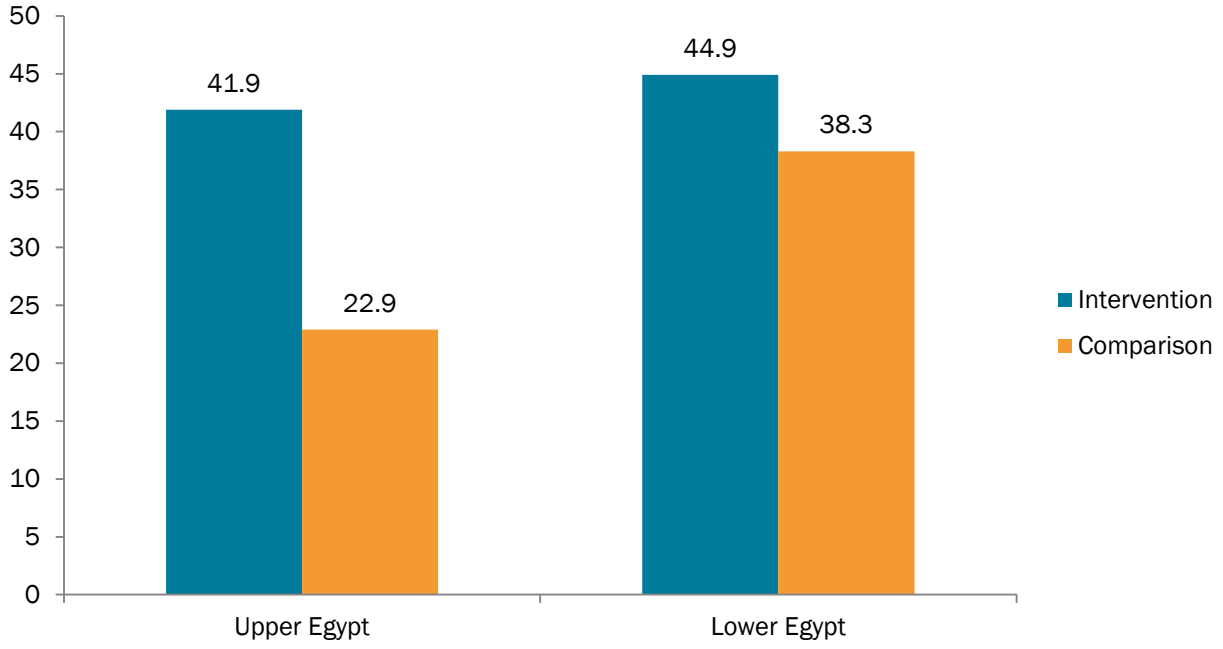


Figure 3. Percentage of men receiving advice on family planning spacing in intervention and comparison areas (MCHIP/Egypt)



Providing training to CHWs, who deliver essential services to communities, empowers the CHWs, who are often female community members. They benefit from skills development and, often, from community/peer recognition as well as increased status within their own households. In Egypt, for instance, female CHWs reported an increase in status within their households since they were empowered to work outside of the home, facilitate family solidarity meetings with men, and earned US$50 per month. Female CHWs are able to increase access to services by women in the community who may not otherwise be able to get to formal services.

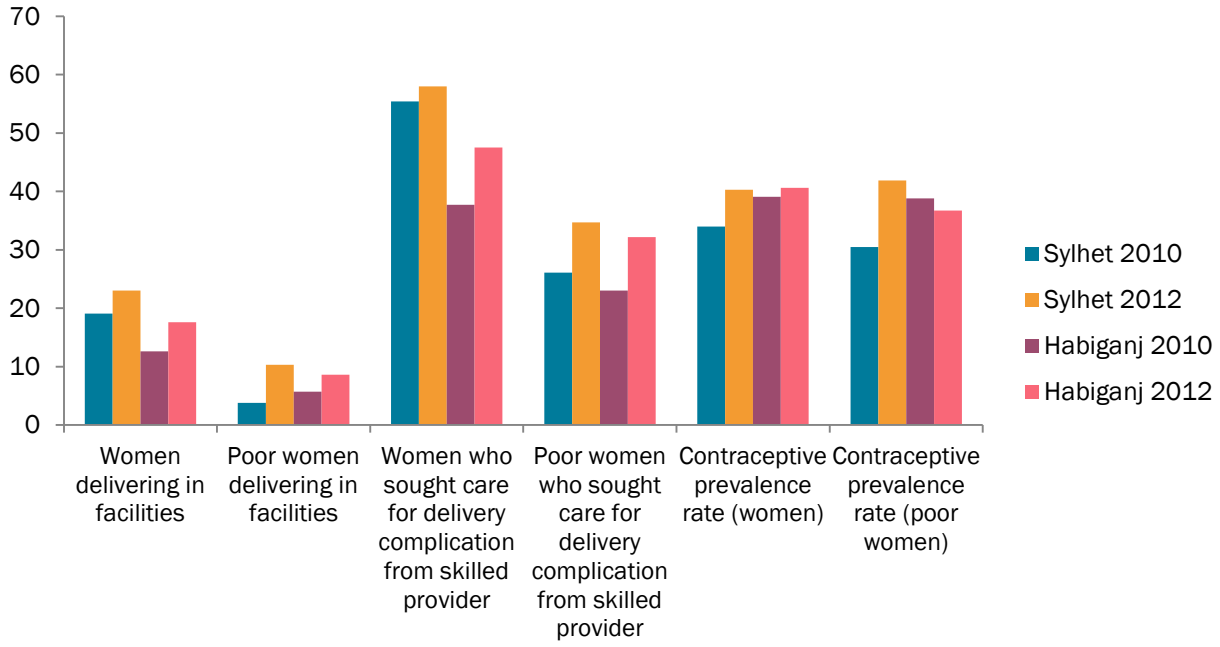
STRENGTHENING COMMUNITY-BASED SERVICE PROVISION BY ENGAGING CIVIL SOCIETY

MCHIP has also employed non-traditional methods of ensuring access to health services, even during times of conflict and unrest. In Egypt, MCHIP worked with local NGOs to implement mobile health units because the government was unable to offer services during the crisis. Originally, these mobile health units were operated by the Egyptian government to provide services for hard to reach populations, but demand for mobile services increased when facility-based public services deteriorated during the revolution and subsequent political turmoil. Approximately 38,000 women and children have received free health care from partner- operated mobile health units that MCHIP supported. The initial examinations were free, with medicine or laboratory work offered at a low-cost to patients.

The MCHIP Bangladesh program has also been on the forefront of developing innovative community strategies to increase equitable access to health services. The project financed the renovation of peripheral facilities, shifted skilled providers to those facilities, and developed a transport system to ensure timely referrals. In the urban slum communities in Habiganj municipality, Bangladesh, MCHIP partnered with private, local service providers to offer discounted rates for maternal health services to poor women. MCHIP facilitated negotiations

between a cadre of private community skilled birth attendants and union parishads (i.e., local elected representatives) to achieve consensus around the prices charged by skilled birth attendants for maternity services and to ensure that services are free to poor women in the community. Data in **Figure 4** illustrate the changes in key coverage indicators based on population-level surveys done by International Centre for Diarrhoeal Disease Research, Bangladesh.

Figure 4: Changes in population coverage for key reproductive, maternal, newborn, and child health indicators, for all women and for poor women in two communities in Bangladesh (MCHIP)



STRENGTHENING THE COMMUNITY VOICE

Strengthening the ability of ordinary community members to express their preferences and needs in terms of health care, and strengthening their ability to hold providers accountable for delivering quality, equitable care, is an essential part of enhancing health equity. MCHIP has supported several interventions that incorporate community accountability and auditing processes. This can result in increases in access through various mechanisms.

Partnership Defined Quality
Partnership Defined Quality is an approach for improving the quality and accessibility of health services with community involvement in defining, implementing, and monitoring the quality improvement process. PDQ links quality assessment and improvement with community mobilization and has been implemented by CHWs, mother-to- mother groups, and other community groups together with health facility staff.

The African Medical and Research Foundation (AMREF) worked with district health management teams in Kenya to implement Partnership Defined Quality (PDQ), a community participation approach developed by Save the Children in the 1990s[viii] to improve quality of care. In Mozambique, co-management committees, which are supported by MCHIP and comprised of health facility staff and community members, use a PDQ approach to engage communities and improve their connection with health facilities. At the same

[viii] Core Group. Partnership Defined Quality [Webpage]. www.coregroup.org/our-technical-work/initiatives/diffusion-of- innovations/83

time, associated community health committees use a "community action cycle" to identify needs in order to educate communities and develop activities to improve access to health care, such as creating transportation plans for patients. These committees have detailed terms of reference that have been approved by the MOH and stipulate group composition—for example, women should make up 60% of the committee—and that community leaders should assist in identifying community members who can participate on the committee. This approach invites community members and service providers to enter into an ongoing, respectful, constructive dialogue where expectations and concerns are discussed, and joint actions are agreed.

MCHIP also uses the Community Action Cycle, which is a community-led process that engages those most affected by, or interested in, MNCH issues. Through the Community Action Cycle, the groups set priorities, plan, act, and evaluate their actions together. The participation of those individuals who have been most affected by high maternal and newborn deaths contributes greatly to finding solutions.

The PDQ process increases a community's capacity to assess, plan, and act collectively for improved MNCH outcomes by organizing and building the capacity of Community Health Committees. To date, MCHIP has helped the MOH establish 73 Co-Management Committees. MCHIP has also assisted the MOH to establish 216 Community Health Committees in 20 districts and lead them through the application of the Community Action Cycle process. MCHIP is currently in the process of analyzing the service utilization data from Mozambique, but expects that the Community Action Cycle and PDQ approach have led to an increase in access, quality, and utilization.

MEASUREMENT AND LEARNING: MONITORING AND EVALUATING FOR EQUITY

There is no one way to measure equity in MNCH programs.[ix] In this section, we will present two examples of measurement of health equity used by two CSHGP grantees (ChildFund International in Honduras and CRS in Nicaragua), which demonstrate practical approaches to measurement that are easily incorporated in to project implementation.

ChildFund International/Honduras results: Evaluations of CFI's project in Honduras showed that health coverage for clients served by Community Health Units increased, for example, percentage of fully immunized children increased from 73.7% (2009 baseline) to 100% (2013 endline) and health facility births increased from 71.4% (baseline) to 93.7% (endline).

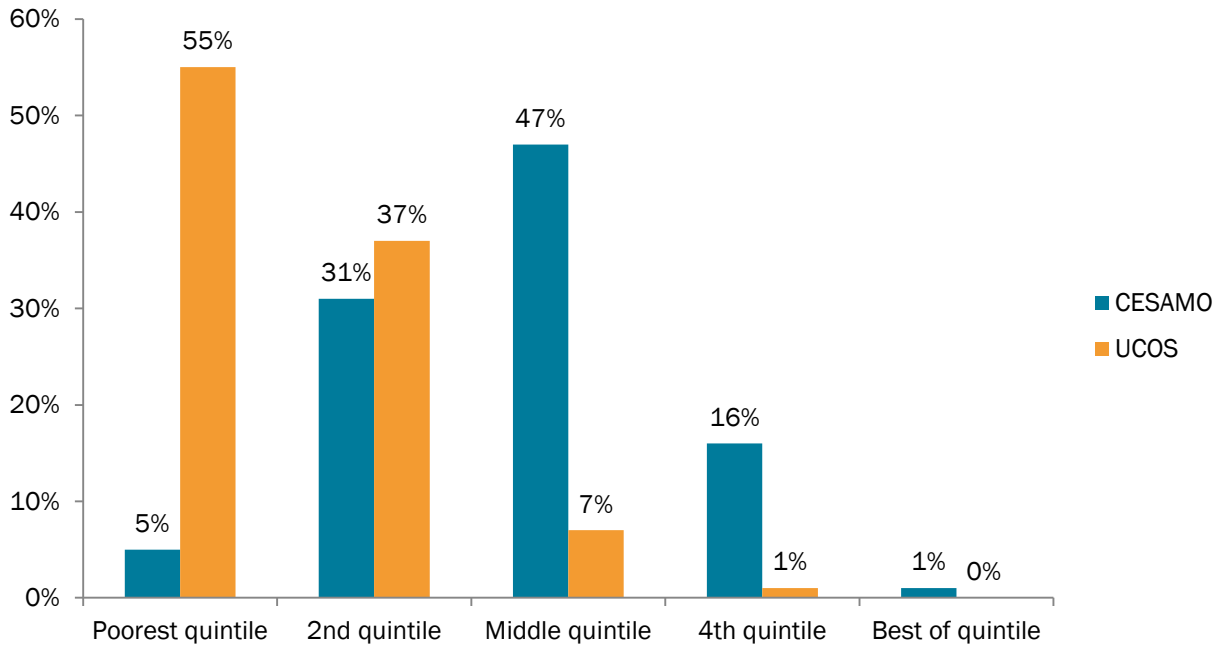
A costing study found that expenditures by families decreased: families saved US$6.03 by using Community Health Unit services for child health problems compared to MOH health posts and US$70.24 for similar services from an MOH hospital.

When collecting and analyzing standard health outcome indicators, such as skilled attendance at birth, information systems need to disaggregate information by the groups identified as disadvantaged, which may be the poor (i.e., lower socioeconomic quintiles), geographically isolated populations, ethnically diverse populations, etc. Qualitative information is also essential to more deeply explore changes in attitudes and perceptions and complement standard indicators. This information should be collected at baseline as well as endline.

[ix] Methods for measuring progress in equity include: monitoring users of services, disaggregated by the group of interest; KPC surveys; asset-based wealth quintile analysis; qualitative research to understand complex social changes; relative index of inequality and Slope index of inequality; and client service statistics tool. *Considerations for Incorporating Health Equity into Project Designs: A Guide for Community-Oriented Maternal, Neonatal, and Child Health Projects,* 2011. Available here: http://www.mchip.net/sites/default/files/Equity%20guidance_090111_formatted_final_0.pdf

MCHIP provided technical assistance to ChildFund International (CFI) to construct socio-economic profiles of beneficiaries (from brief client exit interview data at peripheral facilities) in their CSHGP project in Honduras.[x] These profiles were used to compare clients of Community Health Units[xi] and of MOH facilities in the same geographical area. They found that Community Health Units served a poorer population than the MOH health facilities in the same regions (**Figure 5**). Fifty-five percent of Community Health Unit clients were from the poorest economic quintile; while only 5% of MOH facility clients were.[xii]

Figure 5. Socio-economic profile of service users of community health units (UCOS) and MOH facilities (CESAMO). (CFI/Honduras)



In some cases, special indicators can be identified for tracking and evaluating changes in the underlying conditions that lead to inequity. For example, the CRS project in Nicaragua tracked changes in the behavior of men in terms of the degree to which they actively participate and make decisions jointly with their wives about pregnancy and newborn care. CRS used a quantitative household survey (i.e., a modified KPC survey) conducted at baseline and at the end of the project to measure service utilization and key health coverage: antenatal care (four visits); postpartum care within two days; and skilled birth attendance. The survey also measured male involvement: joint decision-making for care-seeking and husbands' participation in care (accompanying wives to health facilities) (**Figure 6**). A qualitative study was also conducted to

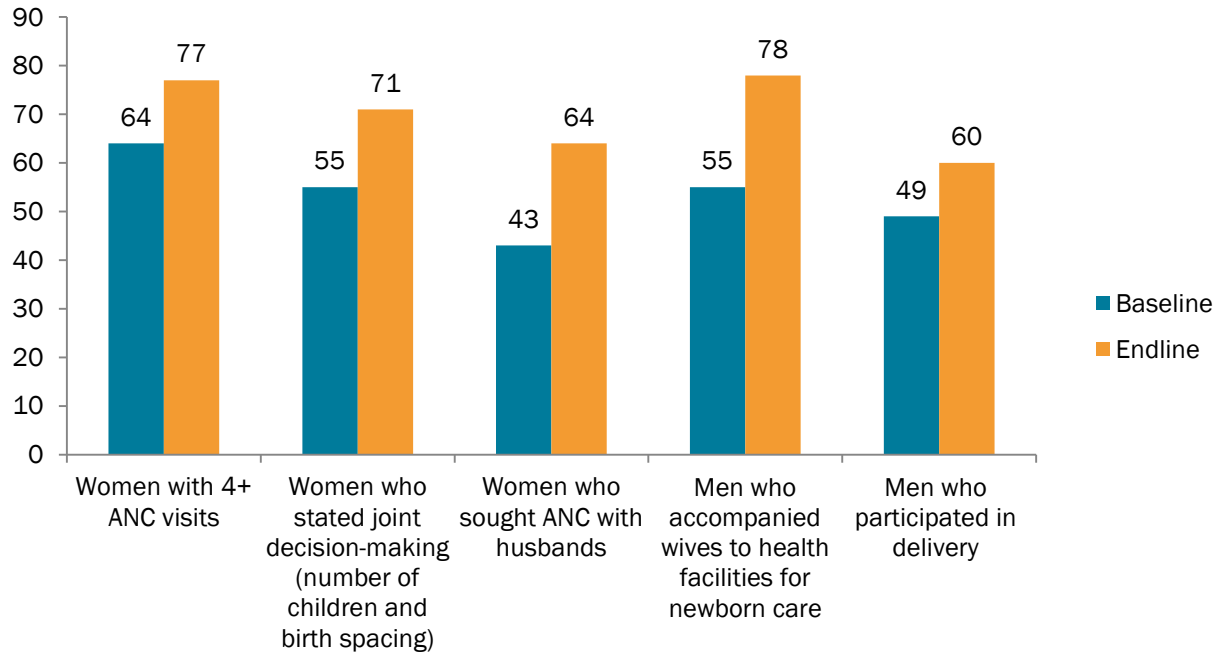
[x] ChildFund International was awarded a Child Survival and Health Grant through USAID for a four-year period (October 1, 2009–September 30, 2013) to work in Honduras in 12 Municipalities of the South of Francisco Morazán: Ojojona, Santa Ana, Nueva Armenia, San Buena Ventura, Sabanagrande, San Miguelito, La Libertad, Alubaren, Reitoca, Curaren, La Venta del Sur, and Lepaterique. MCHIP provided a small amount of funding and provided technical assistance to CFI so they could apply the socio-economic tool to the beneficiary population of their CSHGP project in Honduras and confirm that their interventions were in fact pro-poor.

[xi] Community Health Units (UCOS in Spanish) are structures where various cadres of volunteers provide basic maternal and child health services, including community-based integrated management of childhood illnesses, community case management of pneumonia and diarrhea, vaccinations (in coordination with health posts), family planning, growth monitoring and counseling, and basic maternal and newborn health care and counseling. Community Health Units were designed to be financially self-sustaining, managed by the communities, and supervised by the MOH.

[xii] CFI/Honduras Final Evaluation Report
http://mchipngo.net/controllers/link.cfc?method=project_doc_searchresult&PVO=8&Country=69&ProjYear=all&report=Final&CFID=921603&CFTOKEN=32805504

complement the KPC household survey and document the behavior change process and results. Final results of both the qualitative and quantitative surveys showed statistically significant increases in antenatal care; skilled birth attendance; postpartum care; joint decision- making; and men's participation in antenatal care, delivery, and newborn care. Qualitative surveys also discovered one unexpected result of the intervention—women reported that in addition to their husbands' increased participation in their health care and that of their newborns, they also saw marked decreases in domestic violence.[11]

Figure 6. Service utilization and male involvement, baseline and endline (CRS/Nicaragua)



To summarize, there are practical tools for tracking equity. These included qualitative and quantitative techniques; facility and population based information; and routinely collected data as well as special studies. The data gathering and analysis does not need to be onerous, but there needs to be a commitment to collecting, analyzing, and using the data to help target interventions to those most in need of them. It is best to begin collecting this information at baseline and to combine this with process documentation to be able to fully understand the effect of activities to improve health equity.

Summary of Lessons Learned Applying Equity Strategies

The following are several of the key lessons learned through MCHIP's and CSHGP's work over the course of programming for equity.

CLEARLY DEFINE EQUITY GOALS FROM THE OUTSET

To reach the most disadvantaged populations, programs must incorporate a health equity focus from the beginning by involving national and local governments and institutions as well as communities. Equity will not be achieved as a byproduct of other developmental efforts—i.e., health interventions will not automatically reach or benefit the poorest and other disadvantaged groups. In fact, unless strategies are adopted specifically, interventions can have the unintended effect of exacerbating inequities. Programs need to clearly define equity goals and communicate them to program stakeholders, along with what specific actions are aimed at improving equity; how these improvements will be demonstrated and measured; and how these actions, if successful, might be sustained, institutionalized and scaled up.

A desk review of existing information about the intervention area, complemented by additional formative research if needed, can help to provide a basic understanding of which health interventions are most inequitably distributed, which groups are disadvantaged, and what the underlying factors are that drive these inequities.

MCHIP's checklist and equity guide can be used when designing a program, or to refine current programming, to ensure equity is addressed. The checklist is based on a six-step process, which is aimed at reaching a consensus among stakeholders of the equity issues; aiding in the development of strategies to enhance equity; developing monitoring and evaluation systems to track equity; and developing communications plans concerning the lessons learned about equity.

Six-Step Checklist for Health Equity Programming

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

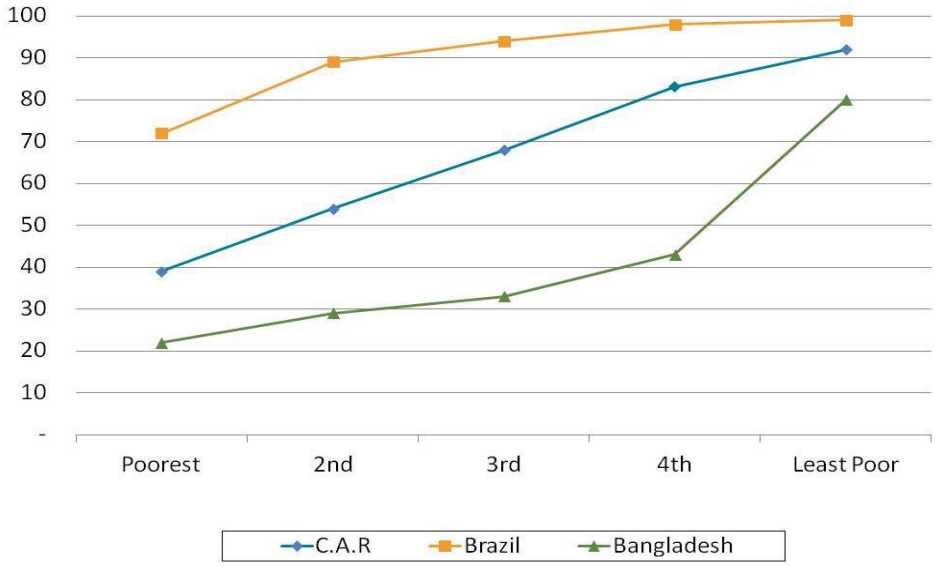
Adjust programming to the pattern of inequities for specific health outcomes
Discussions about specific patterns of inequities began under MCHIP, but should continue in subsequent programming. For example, during the design phase of the MCHIP Yemen associate award there was recognition that overall skilled birth attendance is very low, so initial plans were to work with everyone. However, asset questions are being added to the baseline to gain further understanding of the pattern of inequity and to adjust activities appropriately. These discussions should be part of the design of all programs. Cesar Victora provides an analysis of patterns of inequities that are useful to consider when designing programs.[xiii] He describes three patterns of inequity each requiring a different approach.

[xiii] Victora CG, Vaughan JP, Barros FC, Silva AC, Tomasi E. 2000. Explaining trends in inequities: evidence from Brazilian child health studies. *The Lancet*; 356.

1. "Bottom inequity," where coverage is high except for the lowest quintile. Under these conditions, programs that are targeted at the poorest families or geographical areas are essential to reach universal coverage, because the better-off groups are already well served.
2. "Top inequity," where coverage is low for everyone except for the wealthiest. Under such conditions, individual or geographic targeting does not make much sense, and widespread interventions are needed to reach the 80% of the population who are underserved.
3. "Linear inequity," which starts with low coverage for the lowest quintile, but steadily improves with subsequent quintiles. This requires working with populations from all wealth quintiles except for the wealthiest, but paying special attention to the poorest quintile.

Figure 7 illustrates these patterns in three different regions:

Figure 7. Percentage of mothers attending antenatal care by wealth quintile, in Central African Republic (CAR), Brazil, and Bangladesh (DHS)



UNDERSTAND THE POTENTIAL EFFECTS ON INEQUITIES WHEN PROGRAMS ARE SCALED-UP AND DEVELOP STRATEGIES TO AVOID INCREASING INEQUITIES

Because marginalized populations are often the hardest and most expensive to reach, it may seem more efficient to concentrate on scaling up interventions for those who can be reached with fewer resources. However, recent modeling analyses show that although strategies that target marginalized populations may cost more per beneficiary, they may in fact be more cost effective[30] and that universal coverage can never be achieved without specifically targeting these populations. This is illustrated by modeling work done by Davidson Gwatkin, as part of an analysis done for the World Bank.[3]

INCLUDE COMMUNITY-BASED SERVICE PROVISION

In many developing countries, significant portions of the population lack access to quality health services for a variety of reasons. Providing health services through community-based approaches is a promising strategy to help increase health equity by overcoming the access barrier. MCHIP

experience suggests that the best way to achieve high-quality community-based services is through linkages with the formal health system. In Bangladesh, MCHIP linked CHWs to the nearest health facility, for supportive supervision to ensure the quality of the services, as well as to the local governance system, to provide social acceptance. MCHIP also trained private cadre of community skilled birth attendants so that communities without reasonable access to health services have a private provider available in their communities. These private providers were linked to local elected representatives to jointly determine how much they could charge and ensure free services to poor women, as identified by local government representatives.

Recommendations for Future Programming

The renewed international emphasis on universal health coverage and attention to equitable health coverage provides an opportunity for programs to systematically design, implement, monitor, and evaluate health equity. A diverse set of stakeholders, including community members, civil society organizations, local and national authorities, MOH, and research institutions, should be included in initial consultations to identify equity issues. Decisions about programming to increase health equity must be tailored to the national and local context. Although socio-economic status is the most easily identifiable determinant of inequity, factors such as place of residence, ethnic group, gender, and age (especially for adolescents) may also be important. This requires more planning than untargeted scaling up that increases overall coverage without targeting or applying resources to improve coverage of vulnerable populations. Several recent analyses show that although this may cost more per client, equity-focused approaches may be equally or more cost-effective than non- targeted approaches (i.e., cost per outcome).[16,31]

STRENGTHEN THE FOCUS ON PLANNING FOR EQUITY

Understanding the health equity situation does not need to be time-consuming. National survey data, such as from the DHS, can be used to identify wealth groups or geographic areas with poor health coverage for high impact reproductive, maternal, newborn, and child health interventions. Rapid qualitative information gathering from local authorities and community members can also provide valuable information on vulnerable and inequitably served groups. Additional assessments can be performed as time and budget permit once an initial understanding of the situation is obtained, but systematic decisions about improving health equity can be discussed and made early on.

It is important to understand the underlying social determinants that produce inequities. Key information can be gained through consultation with various stakeholders, including community members and service providers. Decisions should be made and recorded about how to address these conditions. For improving gender equity, it is crucial to involve men, especially in helping them see how their participation improves the health of their family. Situations, such as early marriage, gender-based violence, and women's limited resources and agency in decision-making are areas that often lead to poor health outcomes. It is important to remember that improving gender equity is more than just ensuring that girl and boy children receive equal health coverage, but that families, communities, and the health system provide an environment that allows women and men both to make decisions that improve health.

CONTINUE FOCUS ON STRATEGIES INVOLVING CHWS AND COMMUNITY-BASED SERVICE DELIVERY; MONITOR AND REPORT ON PROGRESS

Health equity is unlikely to improve unless activities are extended beyond health facilities and into communities. CHWs play a foundational role in reaching every household with essential services and providing a referral link to enable people to more readily and effectively access higher-level services within the health system. Alternative delivery channels that include private NGOs and for-profit providers should also be considered.

In order to ensure equity strategies are having the intended effect, equity monitoring systems must be implemented. Again, these can involve simple and feasible measurement, which can include stratification of client data on routine health facility forms and CHW registers. Primarily

collected data can include exit interviews of clients or rapid population surveys of groups, again disaggregating information by relevant advantaged and disadvantaged groups. Asset questions can be included so that socio-economic profiles can be constructed to determine if those receiving services are actually from lower socio-economic groups. This is especially needed for interventions at the health facility, which tend to be the least equitably distributed.

This information should be monitored regularly and included as part of evaluations, so that progress can be demonstrated or corrective action taken.

BRING IN A FOCUS ON FINANCIAL MECHANISMS TO INCREASE EQUITY

Although not discussed in this brief, financial mechanisms for improving equity can and should be one of the types of strategies employed. These strategies include policy mechanisms to reach universal health coverage. At the point of service at the local level, mechanisms like conditional and unconditional cash transfers, transportation vouchers, and demand-side incentives have all received attention and shown promise recently. Some of these experiences like India's Janani Suraksha Yojana have shown mixed but promising results at scale.[32]

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Annex: Designing a Project through an Equity Lens: Case Studies

International nongovernmental organizations participating in USAID's Child Survival and Health Grants Program (CSHGP) have long been concerned with reaching the most vulnerable populations with lifesaving health programs. These organizations work in difficult, underserved, often isolated communities; in recent years, many have also made a particular effort to focus on achieving health equity **within** those communities. In other words, these groups are working to improve the health situation of the most disadvantaged groups within areas that are already worse off than other parts of the country. As more organizations begin to design programs with an equity focus, examples from existing work can help inform those designs. This paper provides case studies of current CSHGP projects that have taken special steps to address health equity in their programming.

THE CASE OF WORLD RENEW IN BANGLADESH

World Renew (formerly Christian Reformed World Relief Committee) began a child survival project in 2009 in two subdistricts of Netrokona, Bangladesh. Having worked in Bangladesh for many years and having implemented a previous child survival project, World Renew wanted to focus its efforts on reaching the most vulnerable populations—and documenting the success of its strategies. The project's first decision to address equity was in the choice of Netrokona, a drastically underperforming district prioritized by the Government of Bangladesh. Recognizing that reaching an underserved area was not sufficient to achieve equity, the project also decided to prioritize the poor and marginalized **within** the project area. World Renew also decided to focus on two underlying causes of inequity and test the theory that the project model better reaches the marginalized and improves equity, compared with existing models in the country.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from World Renew's CSHGP project.

Use secondary data to get an initial understanding: World Renew first identified the wealth inequity by reviewing secondary data. In the results from the national-level Demographic and Health Survey (DHS), the team found gaps in knowledge and coverage between the highest and lowest wealth quintiles, demonstrating that poverty leads to health inequities in the project area.

Build equity questions into your Knowledge, Practice, and Coverage (KPC) Survey: The World Renew team then confirmed these findings with their own local KPC data by adding in questions about household assets to compare socioeconomic quintiles. For example, in the lowest quintile, only 27.3% of women reported consuming iron/folate in their last pregnancy, versus 57.7% of women in the highest quintile.

Enrich your understanding of equity issues with qualitative techniques: To better understand the inequities between wealth quintiles, World Renew Bangladesh conducted participatory rural appraisal (PRA) activities to identify causes of inequity. Community members reported discrimination by health workers, inadequate staffing, poor transportation, and lack of awareness as reasons the poor have lower coverage. PRA also allowed the project to work with community members to identify the poorest villages in each "union" (smallest administrative and local government unit) of the project area. The community members explored the causes of

poverty, as well, which include bad road transportation, lack of formal education, landlessness, and few earning opportunities. As part of the project's operations research plan, World Renew has hypothesized that low social capital[xiv] and poor community mobilization[xv] are by-products of these underlying causes and that by increasing both social capital and community mobilization among the poor, the project can achieve significant improvements in maternal and newborn health (i.e., engage poor and disadvantaged populations by empowering them to get quality health care services).

Frame your project's goals in equity terms: After identifying the inequity, deciding to prioritize the poor, exploring underlying causes of the inequity, and deciding what the project could realistically change, World Renew formulated the project's overall goal with an explicit equity focus: "To reduce mortality and improve health status among the most marginalized mothers and newborns in two subdistricts of Netrokona: Kendua and Durgapur." It then designed the project's activities to directly increase equity. The project will define success in reducing inequity as an increase in KPC health indicators for the lowest wealth quintile of the intervention area, as compared to the control.

Use the data you've gathered to drive your strategy: World Renew Bangladesh's primary equity activity is a community mobilization strategy called "People's Institutions" (PIs) that addresses social exclusion (low social capital). The members of the primary groups that form the PIs are exclusively from the lower socioeconomic classes. Groups formed through this strategy also may decide to work on literacy and income generation, two other underlying factors of inequity. The strategy includes training community health volunteers and traditional birth attendants (TBAs) and facilitates linkages and relationships between marginalized communities and health systems/facilities (a part of social capital). Other related activities that directly target poor health outcomes include Community-Based Integrated Management of Childhood Illness to reach families that do not have access to (or do not choose to access) health facility services and behavior change communication to reach illiterate families (addressing the poorest population's lack of health knowledge identified in PRA).

Build equity into your monitoring and evaluation system: To measure the success of its equity efforts, the project is conducting operations research using both qualitative and quantitative methods. Qualitatively, the project will explore the process of the community mobilization strategy through focus groups, interviews, and participatory exercises—examining how groups form and, specifically, the role of the poor in these groups.

Quantitatively, the project is using the KPC data disaggregated by wealth quintiles to measure health indicators (the outcome of inequity) and the World Bank's Social Capital Assessment Tool to measure social capital (underlying factor of inequity). The KPC Survey is being conducted in both the project area and a similar control area, which will allow World Renew to measure equity progress. The mid-term KPC Survey (which was conducted only in the intervention area) compared wealth quintiles for two sentinel indicators—antenatal care and skilled birth attendance. Both indicators showed reductions in the gap between the highest and lowest quintiles. While not definitive without control group measurements, the results suggest that the

[xiv] Social capital is the benefit one derives from being part of cooperative social networks and includes two components: structural social capital (number of contacts and place in social network) and cognitive social capital (perceived support and trust of others in social network).
[xv] Community mobilization is defined as a capacity-building process through which community individuals, groups, or organizations plan, carry out, and evaluate activities on a participatory and sustained basis to improve their health and other needs, either on their initiative or stimulated by others. Source: Howard-Grabman L, Snetro G. *How to Mobilize Communities for Health and Social Change*. Baltimore, MD: Health Communication Partnership; 2003.

project is making progress toward reducing inequities. (The final KPC Survey will take place in July 2014.)

The project's operations research will test the theory that improving social capital and community mobilization will improve equity of health indicators between the poorest quintile and the others. During the final evaluation, the project will employ a comparative multiple-case-study analysis of the various PIs formed. World Renew will explore differences in social capital and community mobilization between the PIs that have greater equity in health outcomes with those that have less to explain the means by which the PI strategy reduces inequities.

For more information on World Renew's CSHGP project in Bangladesh, please contact Alan Talens at atalens@worldrenew.net.

THE CASE OF CENTER FOR HUMAN SERVICES IN ECUADOR

When the Center for Human Services (CHS) began the design phase of its child survival project in Cotopaxi, Ecuador, it was challenged to make a hard choice between reducing the scope of activities that it had originally envisioned or narrowing the project's geographic focus. Initially, CHS had planned to cover all 40 parishes in Cotopaxi Province (total population of 384,499), but concerns about drastic inequities uncovered during formative research led CHS to scale back from 40 to 21 parishes (total population 196,082). Planners prioritized parishes with a high percentage of marginalized populations (indigenous and poor), recognizing that the project could make the greatest impact on health outcomes by working in these areas. In order to further ensure the project was addressing inequities, CHS explored the causes of poor service utilization by these marginalized populations. By specifically addressing these causes, the project is targeting the indigenous and poor through its choice of activities.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from CHS's CSHGP project.

Use secondary and primary data to identify inequities: CHS identified inequities between ethnicities and socioeconomic levels by reviewing data from the National Survey on Maternal and Infant Health. The data showed much higher rates of maternal/newborn morbidity and mortality among the indigenous and extreme poor. It also revealed lower rates of health care utilization among the indigenous population in the project province as compared to the *mestizo* populations (those of mixed European descent). For example, the rate of home births among the total population was 46.5%, while for indigenous women it was 71.4%. CHS then conducted its own KPC Survey in the project area to confirm the same findings locally. The two indicators with largest inequities between the two groups were antenatal care (four or more visits) (49% indigenous vs. 77% mestizo*)* and delivery in a health facility (36% indigenous vs. 89% mestizo).

Explore underlying causes of inequities: To better understand why indigenous women were not accessing services, CHS conducted focus groups with trained traditional midwives. The focus groups found the cultural differences between the indigenous population and the primarily mestizo health workers was a major barrier, along with a lack of confidence in the health services and mistreatment by health workers. Midwives also reported difficulties in referring patients: many health workers did not value or recognize midwives' work in the communities and midwives lose credibility in the community if they recommend that families access institutional health services. Additionally, many indigenous communities are located far from the health centers, making geographical access another important factor in the inequity. CHS also reviewed national data which found that indigenous families preferred home births due to several factors: active presence of a family member during delivery; use of traditional teas or foods; personal choice of delivery position, room temperature, clothing, and lighting; emotional support; presence of nonthreatening TBA or family member assistant as opposed to the authoritarian behavior of doctors and nurses in facility deliveries; and an overall sense of the delivery being not mainly a "medical event" but rather a socially significant family and community event.

Prioritize the disadvantaged group(s): After identifying the inequities and exploring the underlying factors, CHS chose to focus project efforts on select parishes that had high proportions of extremely poor (>50%) and/or indigenous (>40%) citizens with the "expectation that targeting these parishes would allow the project to have the greatest impact on service coverage, household knowledge, care utilization, and maternal and newborn morbidity and mortality."

Use data to develop realistic strategies: Recognizing that both cultural factors and geographic access were primary underlying causes of the low rate of service utilization among the indigenous population, CHS had to decide what could be feasibly changed within the project's time and resource constraints. Instead of making efforts to change traditional cultural practices in the community, the project decided to improve the cultural responsiveness of institutional health services and to bring certain services to the community itself to address distance barriers.

Primary strategies and activities to address these equity barriers included fostering inclusion of the indigenous members in local community groups for advocacy with the health system, increasing awareness of rights of health service users, and using a method developed by USAID's Quality Assurance Project to improve cultural responsiveness of health facilities. The method, which has been incorporated into national Ministry of Health (MOH) guidelines, brings together community members (women, TBAs, etc.), local government representatives, and health workers to incorporate cultural elements in obstetric and newborn care that meet women's demands.

Activities to improve geographic access involve training existing TBAs and strengthening parish health outreach teams to bring services (specifically early postnatal visits) to women's homes. The project is employing a strategy to integrate traditional community health systems and the formal health system through micro-networks that bring community leaders, TBAs, and skilled birth attendants together in monthly meetings to plan and coordinate activities for improving maternal and newborn care in their parishes. These linkages serve to improve TBAs' skills, increase trust between communities and health providers, facilitate referrals, and increase demand for care from the formal health system—all of which are designed to overcome the cultural and geographical barriers that create inequities between the indigenous and mestizo populations.

Develop equity goals and objectives that allow for comparing outcomes between disadvantaged and advantaged groups: To assess progress toward reducing inequities identified at baseline, the project used the KPC Survey to disaggregate data by ethnicity (indigenous and mestizo) for two sentinel indicators (antenatal care and facility delivery). The final survey showed reductions in the gap between the groups for both indicators, but the largest gain was in facility births.

For more information on CHS's CSHGP project in Ecuador, please contact Kathleen Hill at khill@urc-chs.com.

THE CASE OF CHILDFUND IN HONDURAS

ChildFund (formerly Christian Children's Fund) had been working in Honduras for many years when it began designing its child survival project for the Department of Francisco Morazán, an area with challenging mountainous terrain and high poverty rates. ChildFund's own experience, coupled with a careful review of secondary data, showed that the poor not only had less physical access to health services, but that the quality of health care was much lower than what was available in wealthier urban centers. Recognizing the geographic and financial barriers to equitable health service access, ChildFund set out not only to bring services to the communities but also to ensure quality and reduce costs at the same time.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from ChildFund's CSHGP project.

Use secondary and primary data to identify inequities and their underlying causes: ChildFund reviewed data on costs of health services from its own studies (done in previous projects) and from the MOH. The results showed that private expenditure on health was extremely high and identified cost as a major barrier to accessing health care. In the project area, ChildFund found that facility birth was nine times more expensive than home birth and that bringing services directly to the community reduced family expenditure on health care by as much as 32 times. ChildFund used government data to map health services and providers, clearly showing that coverage was much lower in the project area. Health facilities were insufficient and generally located in the most densely populated areas, and the ratio of physicians to population was eight times higher in urban areas than in rural ones. Furthermore, MOH studies showed that health services in high-poverty regions were of poor quality—demonstrating various weaknesses, including staff absences, short hours, and disrespectful treatment of patients.

ChildFund then conducted both a KPC Survey and a GPS mapping exercise to establish baseline figures for access to and coverage of services. These confirmed the other studies, showing that two-thirds of pregnant women walked two hours or more to access health services, less than 40% of women had a postpartum check within a week of delivery, and that over a quarter of births took place at home.

Prioritize the disadvantaged group(s): Because the data showed that geographical access (and interrelated financial access) were the primary causes of low service coverage, ChildFund used the results from its GPS mapping exercise to identify the 20 least-served locations to target with its most intense community-based service delivery. This exercise factored in several variables, including locations of existing health services, transport, population, and community resources. ChildFund and its partners tailored the project strategy to the existing health care available to the communities. In the most remote areas, Community Health Units (abbreviated as "UCOs" in Spanish) were established to oversee provision of basic maternal and child health services, but in communities closer to health posts, volunteers and community groups were linked to the post for supervision and support.

Define equity and develop equity goals and objectives: ChildFund defined equity for the project as "improved physical access to services, better population coverage, and reduced health costs among the poor." It also incorporated equity into one of the project's three primary objectives: "Systematize a community-based model of maternal, neonatal, and child health and nutrition services within the project area, improving equity and quality."

Develop strategies to feasibly address inequities: ChildFund's previously tested strategy of using UCOs indicated that UCOs could **increase coverage for key child health services, lower client costs, and improve quality of health care**. The UCOs are structures where various cadres of volunteers provide basic maternal and child health services, including Community-Based Integrated Management of Childhood Illness, community case management for pneumonia and diarrhea, vaccination (in coordination with health posts), family planning, growth monitoring and counseling, and basic maternal and newborn health care and counseling. UCOs were designed to be financially self-sustaining, managed by the communities, and supervised by the MOH. ChildFund explained the rationale for the strategy in its detailed implementation plan: "The UCOs approach addresses . . . service delivery challenges by extending basic services to unserved areas. . . . UCOs increase the number of delivery points, and integrate and streamline multiple vertical MOH programs, making them more accessible to remote communities and complementing MOH peripheral facilities."

Measure and evaluate success of equity strategies: To evaluate the success of its strategy, ChildFund measured three types of results at the end of the project: health service coverage (and practices), access, and out-of-pocket expenditure. The first two were measured through a KPC Survey, and the last was assessed from a survey of clients at each level of the health system. ChildFund found that coverage and positive health practices (such as prenatal care and breastfeeding) increased significantly, as did geographic access (percentage of women walking less than an hour to receive services). The cost study demonstrated the effectiveness of the UCO strategy at reducing client out-of-pocket expenditures, thus increasing financial access. The survey questions considered costs for time requirements of the patient and caregiver, transportation expenses, any fees for direct services, expenses for medicine and supplies, and food and beverage costs. Results showed that UCO services reduced family out-of-pocket expenditures by 400%, 600%, and 2,300%, respectively, as compared to a health post, health center, and hospital.

Finally, the project also conducted an equity study to assess the success of UCOs at reaching the poorest families in the project area by applying a socioeconomic profile of UCOs users. The study involved five steps:

1. Use questions and predefined responses from the DHS to create an asset index of wealth quintiles (see box 1).
2. Conduct exit interviews with clients of UCOs and MOH health facilities (abbreviated as "CESAMOs" in Spanish) that serve the same geographical areas.
3. Calculate the asset index for responses by applying weights from the DHS (from Step 1).
4. Assign socioeconomic quintiles to respondents.
5. Group respondents into national asset categories with separate analyses of UCO clients and CESAMO clients.

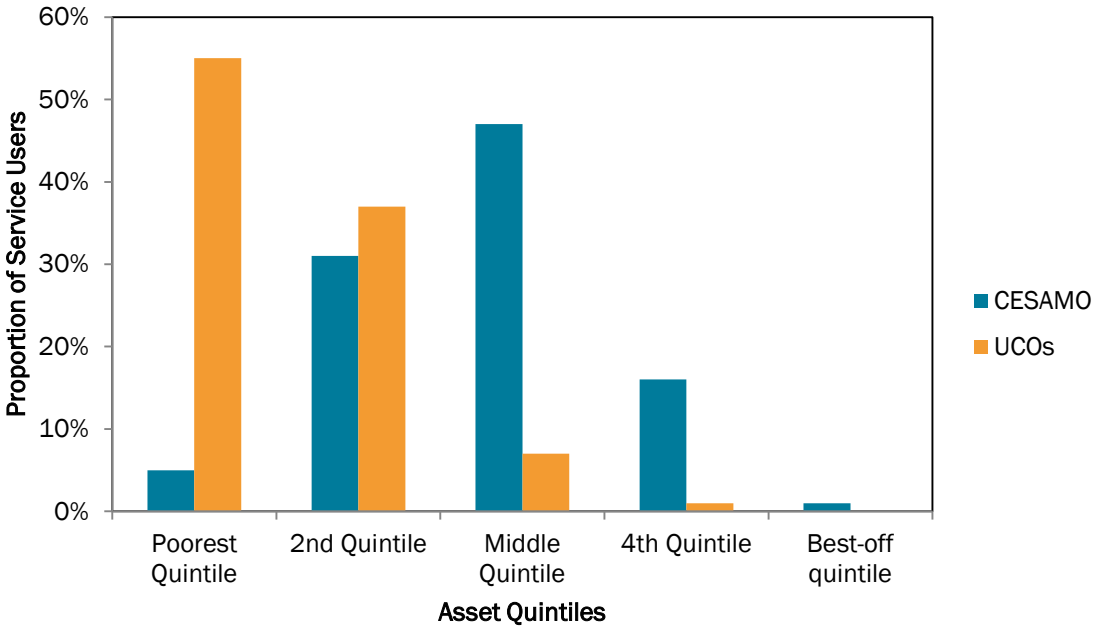
Box 1. Constructing an Asset Index

An asset (wealth) index was constructed from the data on ownership of household durable goods, as well as dwelling characteristics, source of drinking water, and sanitation facilities. Each asset was assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardized to a normal distribution with a mean of zero and a standard deviation of one.[xvi] Each household was then assigned a score for each asset, and the scores were summed for the household. Households were ranked according to the total score, and then divided into quintiles from the lowest (poorest) to the highest (richest). Specific assets measured in the survey were as follows:

- Main source of household drinking water
- Type of toilet facility
- Household assets (telephone, radio, television, etc.)
- Access to electricity
- Roof, floor, and wall materials
- Livestock
- Landownership

The results confirm that UCO services reach a higher percentage of the poorest populations than is reached by the CESAMOs (see Figure 1).

Figure 1. Socioeconomic Profile of Service Users



For more information on ChildFund's CSHGP project in Honduras, please contact David Shanklin Hill at dshanklin@childfund.org.

[xvi] Gwatkin DR. *Who Would Gain Most from Efforts to Reach the Millennium Development Goals for Health? An Inquiry into the Possibility of Progress that Fails to Reach the Poor.* Washington, DC: World Bank; 2002.

THE CASE OF CATHOLIC RELIEF SERVICES IN NICARAGUA

When Catholic Relief Services (CRS) started its child survival project in four municipalities of Nicaragua, it knew that maternal and newborn health was a major problem: coverage of key interventions was low and maternal mortality too high. CRS also knew that what had been tried before—behavior change strategies targeting women only—hadn't worked. Culturally based gender dynamics coupled with long distances to health facilities limited women's ability to access health services for themselves and their children. Recognizing these significant barriers, CRS and its partners undertook an innovative approach to engage men in women's and children's health, addressing two underlying causes of inequity: male dominance in decision-making and lack of access to quality care. While the project was designed to improve maternal and newborn care, CRS found that it also brought about some surprising (and very positive) changes in family relations.

Outlined below are practical recommendations for how to better incorporate equity considerations into similar programs, with illustrative experiences from CRS's CSHGP project.

Use formative research to determine if inequity is a cause of poor health outcomes: When CRS decided to address maternal and newborn health, it used both quantitative and qualitative research methods to explore barriers to quality care. Focus group discussions with TBAs, community health workers, men, and women revealed that the cultural norm of *machismo* prevented women from seeking care without their husbands' permission, contributing to the "first delay" in accessing obstetric and neonatal care. Respondents also mentioned high levels of domestic violence and that many women feared challenging their husbands' authority because of the threat of abuse.

CRS also used the KPC Survey to investigate how gender roles affected care seeking, adding a section in the survey to ask questions directly of men. The questions covered decision-making for seeking care (in pregnancy, for delivery, and for the newborn) and knowledge of danger signs that would cause them to seek care for their pregnant wives or newborns. The survey results confirmed the focus group discussion findings: less than half of men said they made care-seeking decisions jointly with their wives, while 40% of men said that they alone were the ones who made the decisions about care seeking. Coupled with the low knowledge that men had about pregnancy and newborn danger signs, male dominance appeared to be a key underlying barrier to maternal and newborn health care.

Make realistic decisions about what the project can change: Having worked in Nicaragua for many years, CRS knew the culture well and knew what didn't work. Many previous health projects had targeted behavior change strategies exclusively to women, encouraging them to subvert or directly challenge their husbands' authority. Because machismo is deeply ingrained in the culture, these attempts were largely unsuccessful. CRS decided to focus specifically on the decision-making process for maternal and newborn care seeking and to involve men in identifying specific motivators for joint decision-making with their wives.

Define equity success for your project: With a focus on decision-making, CRS defined its ultimate objective: "to improve negotiations and consensus building at the household level between men and women regarding seeking care during pregnancy, birth, the postpartum period, and newborn care." CRS then developed specific objectives both for the decision-making process (see box 2) and for the results of the decisions (coverage of key interventions; see box 3), considering both the process and the outcome in the organization's definition of equity success.

Box 2. Objectives for Decision-Making

- Increase from 42% to 80% the percentage of men who state that the decision to seek care during pregnancy was made with their wives.
- Increase from 46% to 80% the percentage of men who state that the decision about where to deliver was made with their wives.
- Increase from 49% to 80% the percentage of men who state that the decision to seek newborn care was made with their wives.
- Decrease from 17% to 5% the percentage of men who state that there could be consequences if the wife seeks care in case of an emergency without the man's permission.
- Increase from 10% to 90% the percentage of men who agree that under no circumstance should a man reprimand his wife.
- Increase by 50% over the baseline figure the percentage of men who know the danger signs during pregnancy, birth, the postpartum period, and in the newborn.

Box 3. Objectives for Coverage

- Increase from 48.7% to 60% the percentage of pregnant women who seek antenatal care in the first trimester.
- Increase from 41% to 70% the percentage of pregnant women who had four antenatal care visits during their last pregnancy
- Increase from 66.6% to 77% the percentage of institutional births in the municipality of Matiguás.
- Increase from 56% to 72% the percentage of women who had a postpartum examination within the 48 hours following delivery.
- Increase from 50.3% to 66% the percentage of newborns who received their first examination within the 48 hours following birth.

Use results from formative research (and do more research!) to develop strategies: Since the baseline studies clearly showed how critical men's participation was in care seeking, CRS wanted to ensure that the project design reflected a male perspective. As part of the project's operations research component, CRS conducted in-depth interviews with men to understand their feelings and beliefs that lead to current behaviors and to identify ways to encourage new behaviors. This research resulted in an initial list of 24 behaviors, which men then tested, practiced, and refined through the Trials of Improved Practices process. Based on the results from the process, project partners narrowed the list to seven behaviors, which included caring for children, helping with household chores, accompanying their wives for prenatal care, and being present during childbirth and postpartum care.

Once the behaviors were defined, the project consulted with community members to develop strategies for encouraging men to adopt these new behaviors. The project trained volunteers, called "behavior change agents," to use one-on-one counseling methods in addition to community sporting events to promote behavior change. To support men in adopting and sustaining new behaviors, the project also worked with community leaders, mothers-in-law, and other influencers to encourage them. At the health facility level, behavior change strategies with health workers created men-friendly health units that allowed men's participation and presence in prenatal care, delivery, and postpartum care for their wives and newborns.

To complement behavior change among men, CRS also implemented a variety of other strategies to improve maternal and newborn care. These efforts included addressing other barriers to care, such as organizing emergency transport and funds; health systems strengthening to improve quality of care at facility level, including cultural sensitivity in birthing practices; and training

community health workers in neonatal Integrated Management of Childhood Illness, counseling, and lifesaving skills.

Monitor and evaluate progress toward equity: In order to test its hypothesis that men's involvement in maternal and child health was a key behavioral determinant to maternal and newborn care seeking, CRS's research partner measured both the ultimate objective (coverage) and the intermediate objectives (male involvement). The partner used a quantitative survey (modified KPC) conducted at baseline and end to measure the key health interventions: antenatal care (four visits); postpartum care within two days; and skilled birth attendance. The survey also measured male involvement: joint decision-making for care seeking and husbands' participation in care (accompanying wives to health facilities and asking questions during visits). The survey was conducted in both the intervention and the control communities. The partner also carried out a qualitative study to document the behavior change process and results. Furthermore, CRS conducted a more comprehensive KPC Survey in all the project communities to measure a variety of relevant indicators (such as the ones listed in boxes 2 and 3).

Final results of both surveys showed statistically significant increases in antenatal care; skilled birth attendance; postpartum care; joint decision-making; and men's participation in antenatal care, delivery, and newborn care. The project met targets for almost all of the objectives. Qualitative results confirmed these findings and also discovered one unexpected result of the intervention—women reported that in addition to their husbands' increased participation in their health care and that of their newborns, they also saw marked decreases in domestic violence.

For more information on CRS' CSHGP project in Nicaragua, please contact Elena McEwan at elena.mcewan@crs.org.