Maternal and Child Health Integrated Program (MCHIP)

Bolivia: Final Report
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Acronyms and Abbreviations

AMTSL	Active Management of the Third Stage of Labor
AOP	Annual Operating Plan
CAI	*Comité de Análisis de Información* (Information Analysis Committee)
CBT	Competency-Based Training
CCQI	Cycles of Continuous Quality Improvement
CDC	*Centro de Desarrollo de Competencias* (Skills Development Center)
EmONC	Emergency Obstetric and Newborn Care
EONC	Essential Obstetric and Newborn Care
ENDSA	*Encuesta Nacional Demográfica y Salud* (National Demographic and Health Survey)
FEMME	Foundations to Enhance Management of Maternal Emergencies
FORTALESSA	*Fortalecimiento de Sistemas de Salud* (Health Systems Strengthening)
FP	Family Planning
FY	Fiscal Year
HCI	USAID Health Care Improvement Project
HCP	Healthy Communities Project
HIS	Health Information System
IASS	*Infecciones Asociadas a Servicios de Salud* (Infections Associated with Health Services)
IM	Infant Mortality
INE	*Instituto Nacional de Estatística* (National Statistics Institute)
IP	Infection Prevention
IRH	Institute for Reproductive Health
IUD	Intrauterine Device
JSI	John Snow International
LAM	Lactational Amenorrhea Method
MCHIP	Maternal and Child Health Integrated Program
MDG	Millenium Development Goal
MH	Maternal Health
MM	Maternal Mortality
MNH	Maternal and Neonatal Health
MSD	*Ministerio de Salud y Deportes* (Ministry of Health and Sports)
MVA	Manual Vacuum Aspiration

NGO	nongovernmental organization
PAC	Postabortion Care
PAHO	Pan American Health Organization
PPH	Postpartum hemorrhage
PROCOSI	*Programa de Coordinación en Salud Integral* (Integral Health Coordination Program)
QI	Quality improvement
RH	Reproductive Health
SAFCI	*Sistema Familiar Comunitaria Intercultural* (Family, Community, and Intercultural Health)
SBM-R	Standards-Based Management and Recognition
SDM	Standard Days Method
SEDES	*Servicios Departamentales de Salud* (Departmental Health Services)
SRH	Sexual and Reproductive Health
SUMI	*Seguro Universal Materno Infantil* (Universal Maternal-Infant Insurance)
TOT	Training of Trainers
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USSC	*Unidad de Salud y Servicio Calidad* (Health and Quality Service Unit)
WHO	World Health Organization

Acknowledgments

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MCHIP is the USAID Bureau for Global Health's flagship Maternal, Neonatal and Child Health Program. MCHIP supports programs in various areas such as maternal, newborn and child health; immunization; family planning (FP); malaria; and HIV/AIDS. MCHIP also strongly encourages opportunities for integration; cross-cutting technical areas including water, sanitation, hygiene, urban health and health systems strengthening.

The success of a project like the MCHIP Bolivia program depends on the joint efforts of so many people that it is nearly impossible to thank everyone individually for their generous and invaluable support. The outcomes presented in this report could not have been achieved without the leadership, participation, coordination and collaboration of a great many institutions and individuals who came together to develop the MCHIP Bolivia project. The individual and collective wisdom of each of our colleagues and the lessons learned from previous projects made a significant contribution to the success and legacy of the MCHIP Bolivia project. That said, we would like extend our thanks to the following institutions:

In particular, MCHIP Bolivia would like thank the Ministry of Health and Sports (*Ministerio de Salud y Deportes*, or MSD) of the Plurinational State of Bolivia, the Planning Directorate and Directorate-General of Health, the Quality Service Unit, and the networks whose support was instrumental to the success of this important project. We thank the Departmental Health Services (*Servicios Departamentales de Salud*, or SEDES) of Santa Cruz, Beni, Tarija, Chuquisaca and La Paz, with whom we coordinated the development and implementation of the Annual Operating Plans (AOPs) developed in each unit. In addition, we wish to thank the staff of each institution with whom we worked closely as well as the network, municipal and health facility coordinators at all three levels of care for their ongoing assistance and commitment to meeting the project goals: to improve the quality and humanization of health care services and to influence clear, positive outcomes for all Bolivian women, men and children.

The MCHIP Bolivia project thanks the leaders of the USAID/Bolivia Mission, who coordinated and supervised the financial and technical aspects of each intervention we carried out. With their help and with the significant support of the USAID/Bolivia health team, we worked on improving quality of care in order to meet our mutual goal: benefiting the Bolivian people.

The MCHIP Bolivia team would also like to thank the partners who worked with us on the two most recent USAID/Bolivia health strategies: ENLACE en Salud with CARE Bolivia, Integral Health Coordination Program (*Programa de Coordinación en Salud Integral*, or PROCOSI), John Snow International (JSI) and *Socios Para el Desarrollo* (Partners for Development). Recently, FORTALESSA (*Fortalecimiento de Sistemas de Salud* [Health Systems Strengthening]) with the United Nations Children's Fund (UNICEF), Pan American Health Organization (PAHO), USAID's DELIVER project and Healthy Communities Project (HCP) helped us with the technical and financial coordination of each intervention and during fieldwork.

Finally, MCHIP Bolivia would like to thank the entire project team — both permanent staff and local consultants — for their efforts, dedication and commitment to their work and the international consultants for the learning they imparted, and for all the valuable, practical teachings they left us.

We thank our main MCHIP office in the United States and Jhpiego for their excellent support and the program and finance team for all the effort they put into every technical and financial activity and for their continuous supervision and monitoring of all details large and small, allowing us to say now that we have fulfilled our mission together.

Executive Summary

MCHIP brings together a partnership of organizations with demonstrated success in reducing maternal, newborn and child mortality rates and malnutrition. In Bolivia, MCHIP worked under a Cooperative Agreement with USAID/Bolivia, providing technical assistance in order to contribute to the achievement of Millennium Development Goals (MDGs) 4 and 5.

In recent years, Bolivia has shown significant results in connection with several MDG follow-up indicators. However, despite these efforts, preliminary available data on neonatal mortality, maternal mortality (MM) and FP (National Demographic and Health Survey [*Encuesta Nacional Demográfica y Salud*, or ENDSA] 2008) show no significant improvements. This is confirmed by the last MDG progress report (2010); additional efforts and financial resources are therefore needed to promote interventions that focus on maternal and neonatal health (MNH). Additional efforts and financial resources will also be necessary to guarantee the sustainability of the actions undertaken.

The Government of Bolivia has been developing a series of policies to protect and improve the health of mothers and children. These policies present a major challenge to ensuring universal access to sexual and reproductive health (SRH) and improving service quality in a health system fragmented into various uncoordinated components, with poor guidance from the MSD and unmotivated personnel.

For approximately 15 years, USAID/Bolivia has supported efforts to improve the health of women of reproductive age, pregnant women and newborns through various projects in different geographical areas of the country based upon the needs determined by the MSD and the related policies in force.

MCHIP participated in the two most recent USAID/Bolivia programs — ENLACE en Salud (October 2009 to December 2011) and FORTALESSA (January 2012 to September 2017) — with the purpose of supporting the Government (national), SEDES (Departments) as well as health networks, municipalities and health centers to improve the health of women of reproductive age, pregnant women and newborns and reinforcing the capacity of the health care system by transforming its health networks into functional and responsive institutions, following the guidelines of the current national Family, Community, and Intercultural Health (*Sistema Familiar Comunitaria Intercultural,* or SAFCI, 2008) policy.

MCHIP focused its efforts on improving access to high-quality services, training health care providers on evidence-based clinical practices in MNH, including Essential and Emergency Obstetric and Newborn Care (EONC and EmONC), FP and Postabortion Care (PAC), as well as on supervisory skills. The Program worked in conjunction with the health networks in target areas with the goal of improving the performance and quality of services through the implementation and institutionalization of a quality improvement (QI) process based on Jhpiego's Standards-Based Management and Recognition (SBM-R®) approach, with the overall objective of strengthening health networks.

MCHIP's work encompassed 19 health networks in five departments (Santa Cruz, Beni, Tarija, Chuquisaca and La Paz), where the SEDES received support to initiate QI processes by developing in local teams a culture of quality evaluation, identifying gaps and assessing the local teams' action plans and recognition of standards-based achievements. Also, MCHIP provided support to form quality committees and teams of supervisors and clinical trainers in order to ensure the monitoring and implementation of best clinical and management practices.

A key accomplishment of MCHIP under ENLACE en Salud was the introduction of the SBM-R methodology into the design and contents of the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks," which is within the SAFCI policy framework promoted by the MSD. MCHIP also helped to develop a tool based on the Guide that includes seven areas of standards and is differentiated by level of care.

The MCHIP technical team was trained and certified by Jhpiego in the implementation of SBM-R, subsequently becoming leaders to support the implementation of QI processes at 71 health facilities in the four priority departments: Beni, Chuquisaca, Tarija and Santa Cruz. The QI process was broadened to include areas beyond the project's targeted networks in Santa Cruz and was integrated into their AOPs. Moreover, MCHIP, with the support of Jhpiego's consultants and training materials, started the training and certification of 19 clinical trainers in MNH, who would replicate the trainings to the health network staff according to identified needs. In order to support this process, MCHIP helped update and strengthen the supervisory skills of managers in the SEDES, health networks and health care facilities.

During the FORTALESSA program, MCHIP continued supporting the QI processes, now identified by the MSD as "Cycles of Continuous Quality Improvement" (CCQI), for the strengthening of health services in Chuquisaca and the initiation of the process in the La Paz. The response of directors and health services providers was excellent, just as in the previous phase with ENLACE; as a result of the motivation and confidence gained by the local teams, the local and central teams demonstrated their commitment to the QI processes, including the implementation of recommended practices, and showed increasingly less resistance to the observed changes.

It was expected that, at this stage, a clinical training team would be formed to support ongoing training processes in the health networks, the development of the National Training Center, and a system for continuous training/updating, as well as the institutionalization and sustainability of the QI process, by ensuring that these activities are incorporated into AOPs.

These processes have encountered difficulties due to the different financial management mechanisms of the implementing organizations, which complicated the coordination and reconciliation of activities. Nevertheless, it should be noted that the work with counterpart funds has permitted MCHIP to fulfill its objectives and allowed the project to exceed expectations and achieve results beyond what was originally planned.

USAID's departure from Bolivia at the request of the current government has resulted in the abrupt termination of MCHIP activities as well as the discouragement of local teams who, without technical and financial assistance, will not be able to continue their capacity building and QI processes, leaving the processes incomplete and without support for moving forward.

Background and Current Situation

The Plurinational State of Bolivia is a developing country located in the heart of South America. Its population of 10,426,154 (data from 2010) is young (64% under the age of 30), with an indigenous majority (62.5%, including Quechua, Aymara, Chiquitano and other groups). The country's annual growth rate is 1.9% and the life expectancy at birth is 66 years of age (for both genders; data from the *Instituto Nacional de Estatística* [National Institute of Statistics of Bolivia, or INE], 2005 – 2010).

In Bolivia, MM continues to be a silent epidemic along with perinatal and neonatal mortality. These occur so frequently that in many communities they are no longer considered significant

events and are accepted as natural occurrences. Bolivia's new Constitution and National Development Plan mandate "Being a mother or being born in Bolivia should not be risk factors. Meeting the conditions for a safe and healthy pregnancy and birth are fundamental for living well."

Bolivia has the highest MM ratio in the region. Between 1994 and 2003 (ENDSA most recent data), the MM ratio had a significant fall from 390 to 229 per 100,000 live births. However, that is far from meeting the MDG of 102 per 100,000 live births in 2015. Hemorrhage, infections in pregnancy, complications from abortion, hypertension and prolonged labor cause 65% of MM and 34% of MM is associated with domestic violence, accidents, homicide and suicide.

Most maternal deaths (53%) occur at home in the highlands (*altiplano*) and are associated with rural settings, a high prevalence of anemia and high vulnerability among the indigenous population. In addition, 37% of maternal deaths occur at health centers (INE, 2000) and are related to delays in accessing care and poor care. It is estimated that 7 of every 10 maternal deaths could be prevented with skilled birth attendance.

Bolivia has developed three main strategies to reduce MM and neonatal mortality rates; they are aimed at increasing demand for care and quality of care. First, Bolivia's Universal Maternal-Infant Insurance (*Seguro Universal Materno Infantil,* or SUMI, 2003) provides free prenatal and postnatal care for women and free care for children under the age of five. Secondly, the SAFCI policy (2008) represents a model for universal access to health care for the family and the community through holistic, intercultural services that emphasize prevention and health promotion. This model facilitates access to health services. And thirdly, the more recent National Strategic Plan to Improve Maternal, Perinatal and Neonatal Health (*Plan Estratégico Nacional para Mejorar la Salud Materna, Perinatal y Neonatal,* 2009 – 2015) aims to strengthen EmONC in Bolivia by applying evidence-based practices to improve maternal and newborn care.

The most recent report (2010) on progress toward the MDGs states that although advances have been made in Bolivia, they are unevenly distributed throughout the population. Rural and poor areas are the furthest behind.

With regards to MDG 4, the report indicates that infant mortality (IM) dropped significantly. Bolivia's IM rate is still one of the highest in the region. Newborn mortality is even higher. It has remained stable at 27 per 1,000 live births (between 2003 and 2008), representing 54% of IM, and is caused primarily by prematurity and perinatal asphyxia. For this reason, an initiative was needed to strengthen the country's neonatal and obstetric health service networks, including other services along the continuum of care such as antenatal care, facility-based birth and postpartum care, newborn care, access to emergency care when required, maternal nutrition, and education on breastfeeding and healthy habits. In spite of these efforts, there is still much to be done as the expected impacts have not been achieved.

With regards to MDG 5, the report shows an increase in the number of facility-based births to 67% in 2009. This can be attributed to the implementation of the "Juana Azurduy incentive" (2009) to give pregnant women access to four prenatal visits, a skilled birth attendant, one postpartum follow-up visit and follow-up visits for children under the age of two. However, further analysis is needed to understand the reasons why pregnant women do not use the services. To improve its capacity to respond to these needs, the MSD is focusing on strengthening health service networks with a referral and counter-referral system.

Prenatal care consisting of a minimum of four visits per pregnant woman increased significantly between 1994 and 2008 (72.3%) although there is still a gap in rural areas (59.5%).

The use of modern birth control methods has risen over the last 20 years, especially in rural areas, but is still lower than in other countries in the region. Nevertheless, use of birth control has fallen since 2003, indicating that stronger efforts must be made in this area. There has been minimal reduction in the percentage of unmet need for FP in the last 15 years (from 23.2% to 20.2%). As with other health indicators, there are large disparities within the population and poor populations and rural areas are the most negatively affected.

The challenges to universal access to SRH as provided by SAFCI include the availability and quality of care and the need to reduce the barriers that influence the population's use of these services. The Sectoral Development Plan (2009 – 2020) outlines challenges and outcomes based on results from 2006 to 2009. According to this Plan, the following areas require intervention: 1) fragmentation of the health sector and poor guidance from the MSD result in the policies, guidelines and norms mandated by MSD being only partially applied by stakeholders in the health care sector; 2) inequality: the health needs of the different population segments are not equally met; 3) health centers do not seem to have the necessary capacities; 4) lack of appropriate coordination and communication between MSD and the various components of the health care sector; 5) lack of recognition of traditional medicine; 6) inefficient spending in the health care sector; and 7) inadequate financing and unmotivated personnel translate into inefficiencies in implementing the proposed interventions.

In recent years, Bolivia has shown significant results in connection with several MDG follow-up indicators. However, despite these efforts, preliminary available data on neonatal mortality, MM and FP (ENDSA 2008) show no significant improvements. Bolivia continues to face serious issues that negatively impact women's and children's health; additional efforts and financial resources are therefore needed to promote interventions that focus on MNH. Furthermore, it will be necessary to guarantee the sustainability of the actions undertaken.

For approximately 15 years, USAID/Bolivia has supported efforts to improve the health of women of reproductive age, pregnant women and newborns through various projects in different geographical areas of the country. These projects are based on needs determined by the MSD and the related policies in force. MCHIP participated in the two most recent USAID/Bolivia programs — ENLACE en Salud (October 2009 to December 2011) and FORTALESSA (January 2012 to September 2017) — with the purpose of supporting the Government (national), SEDES (departments) as well as health networks, municipalities and health centers to improve the health of women of reproductive age, pregnant women and newborns and reinforcing the capacity of the health care system by transforming its health networks into functional and responsive institutions, following the guidelines of the current (SAFCI, 2008) policy.

ENLACE en Salud was a consortium of seven members originally led by CARE and later by MCHIP and *Socios Para el Desarrollo* with the goal of taking over the MNH interventions that were interrupted in 2008 due to the closing of EngenderHealth in Bolivia. USAID/Bolivia invited the consortium to participate in the design of USAID's health strategy based on prior successful experiences in the country and MSD's efforts in the field. The new program was also built on the experience of the Foundations to Enhance Management of Maternal Emergencies (FEMME) Project in Peru and Jhpiego's SBM-R approach for QI.

FORTALESSA's partners included PAHO, UNICEF and HCP. With the technical assistance of MCHIP, DELIVER and USAID Health Care Improvement Project (HCI), the project supported MSD in transforming its health networks into functional and responsive institutions in accordance with the current national SAFCI policy. The program was terminated prematurely in May 2013 as a result of an unexpected decision by the current Bolivian government to remove the USAID Mission from the country.

Overview of Goals and Activities

MCHIP's goal was to support the efforts of the Government of Bolivia to improve MNH services by implementing activities aimed to strengthen the capacity and competency of health care providers at various levels of care to apply MNH evidence-based practices through clinical updates, trainings, and the institutionalization of evidence-based standards and best practices, thus contributing to significant reductions in MM and child mortality.

MCHIP focused its efforts on improving access to high-quality services, training health care providers on evidence-based clinical practices in MNH, including EONC and EmONC, FP and PAC, as well as on supervisory skills. The Program worked in conjunction with the health networks in target areas with the goal of improving the performance and quality of services through the implementation and institutionalization of a QI process based on Jhpiego's SBM-R approach, with the overall objective of strengthening health networks.

OCTOBER 2009 – DECEMBER 2011: MCHIP UNDER ENLACE EN SALUD

In 2009, USAID/Bolivia determined that for the SAFCI policy to succeed, new advocacy activities had to be introduced targeting community members and authorities at different levels to convince them that increasing access to quality reproductive health (RH) and FP services was critical to achieving local and national goals and objectives.

For this reason, in October 2009, USAID/Bolivia decided to continue supporting the maternal and child health component of its 2006 – 2011 health strategy, whose interventions were suspended when EngenderHealth closed in 2008. In this context, **ENLACE en Salud** was created with the support of six implementing partners. Five of these were already conducting projects in Bolivia: CARE, Institute for Reproductive Health (IRH) at Georgetown University, JSI, PROCOSI and *Socios Para el Desarrollo*. MCHIP joined the program as a new partner with the exclusive role of providing technical assistance based on Jhpiego's expertise. This program also benefited from the active participation of representatives from the MSD and the four target SEDES selected by the MSD: Chuquisaca, Tarija, Beni and Santa Cruz. The ENLACE en Salud program covered 10 health networks, 27 municipalities and 293 health facilities.

ENLACE en Salud aimed to support the strengthening and implementation of functional and integrated health networks based on national policies described in the new Constitution of the Plurinational State of Bolivia, the Sectoral Development Plan, SUMI, SAFCI, and the National Strategic Plan to Improve Maternal, Perinatal and Neonatal Health and in the standards for strengthening health service networks. The following objectives were defined for MCHIP under ENLACE:

- **Objective 1:** In collaboration with partners, separate the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks" into the components of MNH, FP and PAC, applying the Guide in targeted health networks and departments;
- **Objective 2:** Improve the capacity and competencies of health care providers at various levels of care to apply evidence-based practices in maternal health (MH), FP and PAC;
- **Objective 3:** Support the process of review and dissemination of national policies and norms in MH, FP and PAC; and
- **Objective 4:** Improve the availability and quality of MNH services with improved practices and services.

From October 2009 to December 2011, MCHIP supported interventions in the three levels of the health care system: National, departmental (SEDES) and local (health networks and health facilities). Its focus was to provide technical assistance to the MSD for the review and dissemination of national policies and standards on MNH (EONC), FP, and hemorrhage in the first half of pregnancy or PAC and for the dissemination of other policies such as SAFCI, service QI, accreditation of health facilities, and referral and counter-referral in the priority networks of the four target departments.

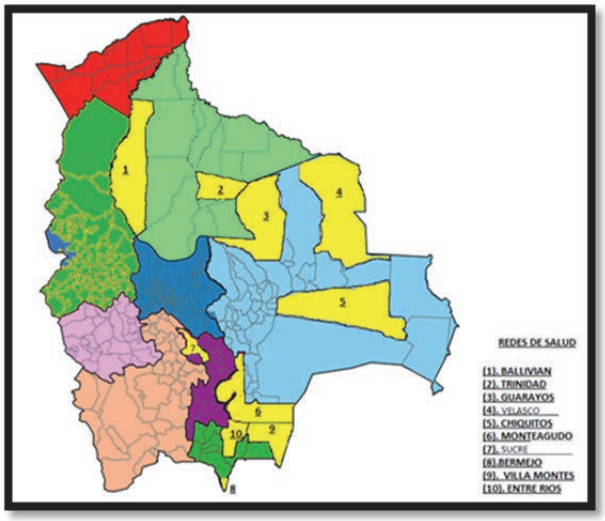
MCHIP also provided technical assistance for the implementation of clinical quality and management standards in health facilities and for trainings in clinical skills and training skills, as well as on-site monitoring with permanent presence of project staff in the clinical areas of FP, RH and PAC.

During the October – December quarter of 2010, because of the completion of various projects under ENLACE, and as mandated by USAID/Bolivia, MCHIP assumed responsibility for implementing the entire strategy of strengthening the health networks through SBM-R, adding new technical components: MNH / EONC and EmONC, previously managed by CARE, and natural FP, previously managed by IRH.

IMPLEMENTATION REGIONS—ENLACE EN SALUD

Figure 1 shows the priority areas targeted by MCHIP under ENLACE en Salud. Owing to financial adjustments in the ENLACE program, only 6 of the 10 target networks were able to receive the comprehensive intervention as planned (Chiquitos in Santa Cruz, Villamontes and Bermejo in Tarija, Sucre and Monteagudo in Chuquisaca, and Ballivian in Beni). In the other 4 networks (Guarayos and Velasco in Santa Cruz, Trinidad in Beni, and Entre Rios in Tarija), only selected tasks were carried out, such as clinical trainings in specific areas of EONC, EmONC and FP identified or requested by the facility managers, followed by replications for staff at network facilities. In addition, specific MNH standards were implemented. The selection criteria for networks that received comprehensive interventions were having better accessibility and having already started and advanced in similar QI processes.

Figure 1: MCHIP priority areas under ENLACE en Salud



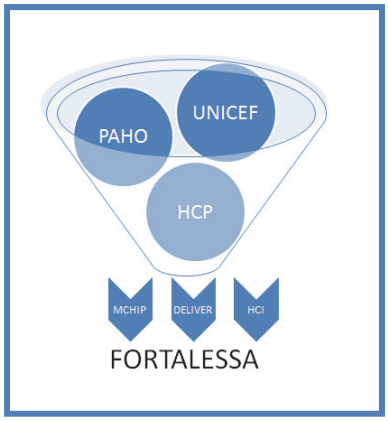
JANUARY 2012 – MAY 2013: MCHIP UNDER FORTALESSA

Since January 2012, the new joint USAID/Bolivia and MSD health program **FORTALESSA** prioritized two target departments: Chuquisaca and La Paz. Partner organizations included UNICEF, PAHO and HCP. As illustrated in Figure 2, MCHIP, DELIVER and HCI collaborated by providing technical assistance in their areas of expertise to strengthen health services at all levels of the health system (community, health facilities and municipalities).

FORTALESSA focused on meeting three results, as follows. MCHIP contributed especially to Result 2:

- Result 1: Participatory management and strengthened operational systems at all levels of the health system (participatory management and leadership)
- Result 2: Increased access to and improved quality of intercultural health care
- Result 3: Men, women, boys and girls mobilized and empowered to demand and exercise their right to health (promotion and social participation)

Figure 2: FORTALESSA organizational structure



MCHIP's objectives under FORTALESSA were as follows:

- **Objective 1:** Improve the availability and quality of MH, FP/RH and PAC services in health facilities in the targeted high-need regions within the integrated health networks.
- **Objective 2:** Strengthen the capacity and competency of health care providers at various levels of care to apply evidence-based practices in MH, FP and PAC in the targeted high-need regions within the networks.
- **Objective 3:** Strengthen Skills Development Centers (*Centros de Desarrollo de Capacidades*, or CDCs) in MH and FP/RH in hospitals in the targeted high-need regions within the departments.

IMPLEMENTATION REGIONS—FORTALESSA

The FORTALESSA program worked in 13 health networks (7 in Chuquisaca and 6 in La Paz), covering 57 municipalities, in a total of 535 health facilities at three levels of care. Table 1 shows the number of target health facilities under FORTALESSA.

Table 1: Number of target health facilities from January 2012 to September 2013

SEDES	NETWORKS	MUNICIPALITIES	HOSPITAL 3RD LEVEL	HOSPITAL 2ND LEVEL	HEALTH CENTER	HEALTH POST	TOTAL FACILITIES
CHUQUISACA	7	29	1	5	177	182	366
LA PAZ	6	28	0	9	56	104	169
TOTAL	13	57	1	14	233	286	535

As of the project closure date, MCHIP managed to cover 4 of the 6 health networks in La Paz (Yungas, Camacho, Los Andes Manco Kapac Andes and Los Andes) and 5 of the 7 health networks in Chuquisaca (Tarabuco, Oropeza, Monteagudo, Sucre and Camargo). See Figure 3 for a map showing the location of the Chuquisaca and La Paz departments. MCHIP completed the implementation of the SBM-R methodology in these networks, contributing to the CCQI process. The remaining health networks received periodic technical assistance from MCHIP depending on the budget available at the time.

At the beginning of 2012, MCHIP began implementing the SBM-R approach in La Paz, followed by a training of trainers (TOT), while simultaneously continuing SBM-R activities in Chuquisaca, which had been initiated by MCHIP under the ENLACE en Salud program. These activities continued under FORTALESSA with the inclusion of work with health authorities in Chuquisaca to develop and improve their supervisory skills as well as their knowledge of the standardization process. MCHIP also began working with UNICEF to finalize a strategy to implement the CDCs in Chuquisaca and La Paz, and to identify health institutions where they could be integrated.

Table 2 shows the number of health facilities that were supported by MCHIP from October 2012 to May 2013, by network and level of care. The total of 419 facilities represents 78% of all health facilities in all networks in the departments of La Paz and Chuquisaca.

Table 2: Number of target health facilities planned for the period of October 2012 to September 2013

REDES Y MUNCIPIOS DE INTERVENCIÓN DEL PROYECTO FORTALEZA

Gestion Octubre 2012 a Septiembre 2013

SEDES	RED	HOSPITAL 3er Nivel	HOSPITAL 2do Nivel	CENTRO DE SALUD	PUESTO DE SALUD	TOTAL EST. DE SALUD
LA PAZ	LOS ANDES	0	1	7	0	8
	RURAL 8	0	5	16	28	49
	RED RURAL 5	0	3	8	17	28
	RED RURAL 3 CAMACHO	0	1	8	20	29
	4	*0*	*10*	*39*	*65*	*114*
CHUQUISACA	MONTEAGUDO	0	1	21	37	59
	CAMARGO	0	1	17	55	73
	SUCRE	2	2	80	11	95
	OROPEZA	0	0	12	17	29
	TARABUCO	0	0	18	31	49
	5	*2*	*4*	*148*	*151*	*305*
TOTAL	*9*	*2*	*14*	*187*	*216*	*419*

FUENTE: SNS 12 01 2012 MSD

Figure 3: MCHIP priority areas under FORTALESSA

Implementation Process and Outcomes

OCTOBER 2009 – DECEMBER 2011: MCHIP UNDER ENLACE EN SALUD

<u>Objective 1</u>: In collaboration with partners, separate the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks" into the components of MNH, FP and PAC, applying the Guide in targeted health networks and departments

HEALTH NETWORKS IMPLEMENTATION GUIDE

During the first period of ENLACE, MCHIP participated in the design and proposal of the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks" upon request by USAID/Bolivia. This guide was developed based on existing health national policies and submitted to MSD for approval in December 2011.

The Guide includes the process for standards-based improvement of quality of care and management as a practical tool to support the development of integrated and functional health networks. The Guide draws upon and consolidates the different experiences in QI that ENLACE members as well as other organizations had developed in Bolivia within community, municipality and health services in recent years under USAID/Bolivia's 2006 – 2007 health strategy.

Once approved by the MSD, this guide would support health networks nationwide to make creation of the SAFCI framework a reality. It would strengthen the uniformity and quality of medical care for women across the country by establishing clear and achievable standards of service delivery.

Owing to changes in government authorities, the review and approval of this document has been delayed; however, the guide was piloted with MSD authorization in the ENLACE health networks since the document was first drafted, which allowed it to be revised based on lessons learned in the field. The guide was finalized with the support of *Socios Para el Desarrollo* as a USAID document. The MSD adopted the standards-based methodology of SBM-R, which contributes to the MSD's CCQI approach. It is important to note that the SBM-R process started in primary and secondary level of care facilities and continued even after the end of MCHIP technical assistance. In addition, the Santa Cruz and Tarija SEDES promoted and supported the expansion of SBM-R to other networks that were not part of MCHIP. Chuquisaca, as part of the USAID/Bolivia new FORTALESSA program, continued to implement SBM-R with MCHIP support.

Objective 2: Improve the capacity and competencies of health care providers at various levels of care to apply evidence-based practices in MH, FP and PAC

IN-SERVICE CLINICAL TRAININGS

Trainings were conducted in response to identified training needs in health facilities that implemented QI processes. Emphasis was placed on evidence-based, internationally recommended clinical skills. Trainings were conducted in-service to avoid leaving health facilities understaffed. Employees of the SEDES were commissioned to facilitate the trainings in order to optimize available financial and human resources and achieve sustainability of the training processes.

PAC/Hemorrhage in the First Half of Pregnancy

To improve the management and prevention of hemorrhage in the first half of pregnancy by using the **Manual Vacuum Aspiration (MVA) procedure** and to increase use of **postabortion contraceptive methods**, a technical update was provided to a total of **85 health care providers.** These providers work in 42 health facilities (out of 71 facilities targeted by the project) that had qualified staff to provide these services.

The training consisted of theory, based on current evidence, as well as hands-on practice using anatomical models. Participants then took part in internships supported by the trainers at tertiary referral hospitals: Percy Boland Maternity Hospital in Santa Cruz, Maternity and Children's Hospital in Beni, San Juan De Dios Hospital in Tarija and Jaime Porcel Obstetric Gynecology Hospital in Chuquisaca. The trainings were conducted by international experts and thereafter by local trainers selected according to their skills and interest by the external trainers.

After the internship, each provider received instruments and supplies for conducting MVA in their own facilities, an interactive CD on MVA, the national standards for managing hemorrhage during the first half of pregnancy and records for statistical monitoring. The supplies were provided as a way to promote and facilitate the practice of MVA upon the interns' return to their own workplaces, as well as to monitor compliance with the standards as part of the QI process. MCHIP also received donated MVA equipment from Ipas to supply the 42 health facilities in the project's target areas.

EONC and EmONC

MCHIP reached **545 providers** (60% of the proposed target) at 66 facilities with clinical updates or trainings in evidence-based practices in EONC and EmONC, such as focused prenatal care, use of the partogram, restrictive episiotomy, Active Management of the Third Stage of Labor (AMTSL), immediate newborn care, newborn resuscitation, and management of the most common causes of maternal and newborn morbidity and mortality in the country (hemorrhage, sepsis, pregnancy-induced hypertension, and newborn asphyxia).

In each of the training sessions, national standards of maternal care were distributed as well as the tools used by the MSD, such as the **Basic Perinatal Clinical History** and the **partogram**. MCHIP donated basic kits for normal delivery (Kocher forceps and scissors) to help address the gaps identified in 23 health facilities that did not have instruments and/or had instruments in poor condition and to facilitate delivery care according to the standards.

FP

A total of **190 health providers** received training or updates in intrauterine device (IUD) insertion, contraception and FP counseling, the last of which included, among other issues, the technique of active listening in counseling, available modern and natural methods, and sexual and reproductive rights. These trainings were implemented in only two of the project's four priority departments: Santa Cruz and Chuquisaca. It was not possible to implement in Beni as that region was on red alert because of flooding and was declared inaccessible in the period scheduled for the FP training. In the department of Tarija, the SEDES gave priority to MNH activities and thus FP trainings were not conducted.

After completion of the trainings and to support the participants in the implementation of key FP practices, MCHIP donated materials for IUD insertions to 46 health facilities in the departments of Santa Cruz and Chuquisaca and distributed counseling materials that were recently updated by the MSD with MCHIP support: "Contraception Flipchart" and "Learn to Decide."

Another methodology that was used for providing FP updates, especially in rural and remote areas, was the **Contraception Self-Study Learning Guide**, which had been previously used with good results by other projects in the country. This module was developed by EngenderHealth (2005 – 2006). A total of **32 health care providers** in the departments of Chuquisaca and Santa Cruz were trained, starting with the network authorities, who supported and monitored network staff in the correct use of the module. Furthermore, MCHIP donated 15 copies of these modules to the Chiquitos network in Santa Cruz; other municipalities (Pailón and San Jose) reproduced this material on their own.

Table 3 summarizes the number of health facilities and participants that received trainings from October 2009 to December 2011.

Table 3: Number of trainings conducted per MCHIP project under ENLACE en Salud, October 2009 – December 2011

DEPARTAMENT	Health Network	TECHNICAL AREA											
		PAC		MNH/EONC		EmONC		FP		FP Self-learning Module		SBMR/Quality	
		# HFs	# Participants	# HFs	# Participants	# HFs	# Participants	# HFs	# Participants	# HFs	# Participants	# HFs	# Participants
TARIJA	BERMEJO	7	6	6	55							8	56
	VILLAMONTES	7	7	5	87							8	41
SANTA CRUZ	CHIQUITOS	5	8	15	131	10	19	7	32	2	11	8	46
	PAILON	4	7	5	19	3	9	3	20	1	2	5	39
	ROBORE	5	12	7	30	7	18	8	48	3	8	7	87
BENI	BALLIVIAN	4	25	2	48							4	35
CHUQUISACA	SUCRE	8	16	25	98	13	23	20	72	4	11	19	79
	POROMA	2	4	1	8			8	18			6	67
TOTAL		42	85	66	476	33	69	46	190	10	32	65	450

Source: MCHIP

TOT

MCHIP used the TOT model developed by Jhpiego and launched by Jhpiego in Bolivia eight years ago. The process is based on the methodology of **Competency-Based Training (CBT)**, which promotes learning through practice. CBT focuses on the learner's performance and promotes the ability of the trainer to encourage learning. Jhpiego introduced the use of anatomical models to ensure a "humanistic approach" in order to minimize the risk to clients and allow providers to practice their communication skills during the procedures. Learners practice first with models until they demonstrate competency — using standardized checklists — at this level, which is a requirement before moving on to practice with clients. For this process, trainers used the Training of Trainers Learning Resource Package (Jhpiego, 1995) with the support of international experts from Jhpiego.

MCHIP trainings consisted of four sequential learning modules. Three modules update knowledge and standardize clinical skills: the first module covers MNH, normal delivery, newborn care, infection prevention (IP) and EONC; the second module covers EmONC; and the third module covers FP. The fourth module covers clinical training skills.

In July 2011, MCHIP began the first cycle of TOT in Sucre, conducted by two international trainers and led by an expert from Jhpiego. This first module on MNH was delivered to 20 health providers from urban and rural areas of the four target departments. It introduced and reviewed the concept of evidence-based medicine as the foundation for MCHIP training. The competency-based approach was very well received by the participants, who successfully completed the exercises included in this module.

By the end of ENLACE, **19 medical professionals** were in the process of being certified as trainers by Jhpiego. They had received the three clinical skills modules, but the fourth module on clinical training skills was pending. This final model for the 19 providers was completed under FORTALESSA.

Table 4: Number of providers certified as clinical trainers, July to December 2011

DEPARTMENT	NUMBER OF PROVIDERS WHO RECEIVED TRAINING
Santa Cruz	6
Chuquisaca	5
Beni	4
Tarija	4
Total	19

Source: MCHIP Project

The performance of the 19 providers who received trainings was evaluated at their health facilities, with the support of a Jhpiego-accredited trainer and a group of newly trained participants who were elected by the international trainers to support the certification process.

TOT, Santa Cruz, June 2012

TOT, Sucre, July 2011

During the process of certifying the trainers, **the 19 trainers replicated the trainings according to the need**, interest or priority of providers, reaching a total of **977 participants**. This figure does not reflect the number of individuals trained, but rather the number of attendees in all trainings that were replicated by the 19 trainers, since any provider who participated in more than one training was enrolled as a different participant each time.

These replications were expanded at the request of directors of health services in geographic areas that were not part of the ENLACE en Salud program, such as Camirí and Montero in the department of Santa Cruz.

QI

MCHIP held workshops and large-scale events to disseminate and promote the SBM-R approach among the MSD, implementing partners, SEDES, etc. MCHIP successfully gained **acceptance of the SBM-R methodology by government authorities**.

As part of the ENLACE en Salud project, MCHIP trained a total of **452 participants** on SBM-R. These participants became involved over time during the process of implementing the methodology.

Objective 3: Support the process of review and dissemination of national policies and norms in MH, FP and PAC

MCHIP supported the review and dissemination of policies and norms in Bolivia on MH, FP, and care for hemorrhage during the first half of pregnancy or PAC, as well as the dissemination of other policies such as SAFCI, quality assurance, accreditation, and referral and counter-referral in priority networks in the four target departments.

RESULTS

MCHIP participated in the **Safe Motherhood and Birth Technical Working Group**, the goal of which is to support and promote the implementation of public health policies that reduce maternal, newborn and child mortality by providing continuous care. This Technical Working Group is chaired by the MSD and allows coordination between the national and departmental levels. It is composed of government agencies, development agencies, women's organizations, nongovernmental organizations (NGOs) and scientific societies, among other members. MCHIP is part of the committee that implemented the Observatory on Maternal Mortality, replicating the successful model used in Ecuador.

Bolivia's national health director met with UNICEF, PAHO / World Health Organization (WHO), the United Nations Population Fund, Save the Children, and MCHIP to request technical support for the Observatory of Maternal Mortality in Bolivia, given that several Latin American countries have benefited from this initiative to advance progress toward the MDGs. The team prepared a proposal to be presented to the Safe Motherhood and Birth Technical Working Group and later to the MSD.

At the **Quality Technical Working Group**, MCHIP led a presentation on SBM-R. Other institutions presented their QI methodologies, such as UNICEF's "Short Cycles" approach focused on clinical processes, which differs from MCHIP's approach of integrating community, health services and municipal components, ensuring alignment with the current SAFCI policy.

Other institutions such as PAHO/WHO recognized the work done under USAID's ENLACE en Salud program, in which MCHIP had an important role in providing technical assistance to the Bermejo health network, thus winning the National Best Practices Award.

MCHIP provided technical assistance to the MSD in the development of standards for pre-eclampsia and eclampsia, and began applying the standards in the project's target health networks. The MSD, the Bolivian Society of Gynecology and Obstetrics, SEDES, health service networks, and agencies such as UNICEF and JSI agreed on the **standards for severe pre-eclampsia and eclampsia to be implemented throughout the country** as part of ongoing QI cycles.

The following documents were printed and distributed to the health facilities receiving support from MCHIP: 10,000 copies of the MSD's Perinatal Clinical History; 500 laminated cards for evaluating pregnant women's nutritional status according to body mass index; and 10,000 partograms.

After finalizing the project's activities under ENLACE en Salud in December 2011, SEDES Santa Cruz implemented SBM-R in two additional health networks with external financing. As of MCHIP's closing date in Bolivia, SEDES Tarija was still reporting results from monitoring the networks that had begun implementing QI processes with support from MCHIP.

Objective 4: Improve the availability and quality of MNH services with improved practices and services

SBM-R IMPLEMENTATION

In the four target departments, MCHIP implemented the SBM-R methodology for QI and adapted the standards instruments to the local Bolivian context, in accordance with MSD norms and protocols as well as the evidence-based practices included in the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks." The SBM-R approach in Bolivia contributed to the CCQI process, which the MSD has been implementing for improving the quality of health services at all levels of care.

Figure 4: Methodology of CCQI

Figure 4 shows the four steps of CCQI. This tool was implemented for 79 and 97 quality standards at, respectively, the 1st level of care and the 2nd and 3rd levels of care (see Table 5). This included health care facilities, community and management. Standards were evaluated periodically, as were action plans based on identified gaps. Each health facility's quality committee carried out quarterly evaluations, which helped to establish a "culture of monitoring quality" in health care facilities.

Table 5: Total number of standards by area and level of care, 2010 – 2011

Nº	AREA	N° OF STANDARDS	
		1ST LEVEL	2ND/3RD LEVEL
1.	Management	12	12
2.	Supplies and resources	9	15
3.	Support systems (logistics, laboratory, transfusion unit)	15	21
4.	IP	3	
5.	Maternal, Newborn and Child Health	11	
6.	EmONC	20	20
7.	Counseling and Contraception	9	15
TOTAL		79	97

RESULTS

Of the 71 health facilities included in the work plan, **65 health facilities (91.5%) have implemented standards-based QI processes**, as shown in Table 6. These facilities were selected according to their number of births, accessibility and — in some cases — because the facilities themselves had requested to be included in the processes implemented in the four priority SEDES. Table 7 shows that at the close of the project, the health facilities that had initiated the QI process conducted follow-up evaluations of the standards, some up to four evaluations. The SEDES of Beni was only targeted by the project for six months. Some facilities have continued their monitoring efforts, now led by the network's own technical staff and the SEDES in each department; note that this information is not included in Table 7.

Table 6: Number of facilities that implemented all seven areas of standards, by type of facility and by department, October 2009 – December 2011

Department	Health Post	Health Center	Hospitals	Total
Santa Cruz	9	9	2	20
Chuquisaca	10	11	4	25
Tarija	9	5	2	16
Beni	0	2	2	4
Total	**28**	**27**	**10**	**65**

Source: MCHIP Project

Table 7: Number of facilities that conducted four evaluations of the standards, by department, October 2009 – December 2011

Department	Number of Health Facilities				
	Baseline	1st Evaluation	2nd Evaluation	3rd Evaluation	4th Evaluation
Santa Cruz	20	20	13	7	3
Tarija	16	16	12	6	4
Chuquisaca	25	25	18	10	6
Beni	4	4	4	2	0
Total	**65**	**65**	**47**	**25**	**13**

Source: MCHIP Project

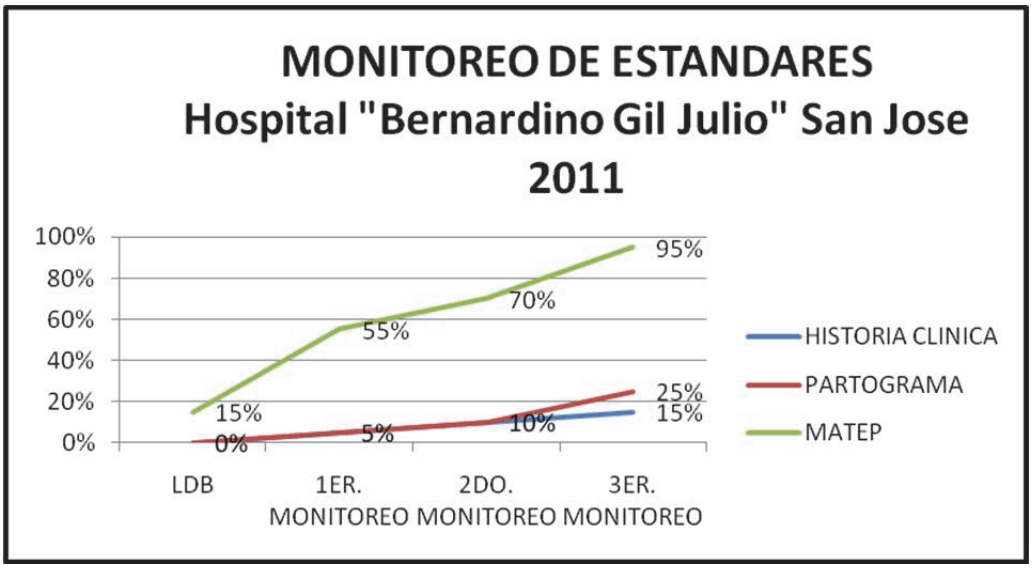
As an example of the results obtained by implementing quality standards and action plans, Table 7 shows that 20 health care facilities applied the methodology in the department of Santa Cruz. During the baseline phase and the first evaluation a total of 266 gaps were identified across the seven areas at Hospital Bernardino Gil Julio in San Jose (see Table 8). Specific interventions were defined and action plans were created, with quarterly evaluations by the local quality committee. The last evaluation conducted at the time of the project closing date showed that **only 54 gaps remained, representing 80% improvement over the life of the project**. The remaining gaps require long-term interventions or large economic investment, such as purchasing x-ray machines, improving infrastructure, hiring more personnel and other actions that would be the responsibility of the health facility directors and the municipality.

Table 8: Number of gaps identified and resolved at Hospital Bernardino Gil Julio in San Jose, Department of Santa Cruz, October 2009 – December 2011

GAPS	AREAS OF THE STANDARDS MEASUREMENT TOOL							
	1	2	3	4	5	6	7	TOTAL
IDENTIFIED	39	40	43	32	35	40	37	266
RESOLVED	28	35	36	28	27	25	33	212
PENDING	11	5	7	4	8	15	4	54

Figure 5 shows the effects of quarterly monitoring of the action plans and regular evaluation at the same hospital. Local quality committees analyzed the identified gaps and followed up with feasible, specific, short-term interventions which health care personnel could implement themselves.

Figure 5: Evaluation of standards at Hospital Bernadino Gil Julio in San Jose, Department of Santa Cruz, January – December 2011



Source: MCHIP Project

Although some standards show minimal progress, this does not necessarily indicate that interventions were not conducted or that an intervention did not produce results. Each standard has a series of criteria that must be fully met. This means that a standard will not be met if even one of the criteria is missing. MCHIP Bolivia designed a monitoring system that included the various criteria for each standard. This permits identification of the precise criteria that are not being met, what the specific gap is, and which intervention is required to close that gap. This allowed health administrators and teams to improve their decision-making efficiency.

For example, at baseline, only 1 of the 12 criteria for filling out a patient's clinical history was met in 80% of the analyzed case files (measuring maternal height). After four months of various interventions, while the standard was only fully met 15% of the time, 6 criteria were being met in over 80% of the sample.

A similar situation occurred with the standard for partograms. At baseline, only 1 of the 16 criteria was met in the sample. At the third evaluation, 10 criteria were met in 95% of the sample, indicating that the standard was close to being met and, at the same time, identifying the missing criteria.

The AMTSL standard had a more notable advance thanks to the fact that it only had 3 criteria as defined by MSD. The initial objective was to ensure that the three phases of the procedure were recorded in the patient's clinical history, under the assumption that the fact that they were recorded indicated that they had been carried out, but without indicating specifically whether they were carried out correctly.

The majority of clinical standards were verified by reviewing a set number of clinical case files. This methodology also emphasized to the health care providers the importance of thorough recordkeeping, which was and continues to be deficient. The motto in review was, "If you didn't write it down, it didn't happen." Case files are becoming more complete, but recordkeeping must still be improved.

OTHER RESULTS RELATED TO SBM-R

The authorities of SEDES Santa Cruz **replicated** the MCHIP standards implementation model throughout their **15 departmental health networks in all 56 municipalities** of the department of Santa Cruz.

The MSD's National Quality Committee requested support from its members, including MCHIP, in implementing an accreditation process for health care facilities based on the MSD accreditation system. MCHIP selected and supported 11 primary, secondary and tertiary level health care facilities for accreditation. MCHIP also supported one facility from each level of care from the Sucre network in Chuquisaca department (3rd level: Gyneco-Obstetric Hospital; 2nd level: San Pedro Claver Hospital; 1st level: Chuqui Chuqui Health Center).

OTHER ACTIVITIES

Management

MCHIP planned and coordinated a visit to the Bermejo network in Tarija in April, 2011, with the participation of donors and other parties (Japan International Cooperation Agency, PAHO, SEDES Chuquisaca and SEDES Santa Cruz). USAID/Bolivia invited MCHIP to observe some of the programs USAID has been funding over the last five years to develop emergency obstetric care networks that integrate the components of health care services, municipalities and the community. These programs began by using the methodology developed in Peru for the FEMME Project, which was adapted to the MSD norms in Bolivia, including six United Nations indicators. Then, from 2006 to 2009, EngenderHealth and CARE applied the Standards-Based Quality Assurance methodology. From 2009 to 2011, the ENLACE en Salud program continued with the activities to strengthen the networks based on the implementation of the SBM-R approach and the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks." The Bermejo health network is an example of this strategy's success in creating functional and integrated networks that reduced MM to zero. MCHIP is writing about this experience as a case study.

USAID/Bolivia visit to Hospital de Chiquitos

Celebration of USAID's 50th anniversary, June 2011

Together with USAID and SEDES personnel, MCHIP also coordinated a visit to Velasco and Chiquitos de la Chiquitanía health networks in the department of Santa Cruz to observe directly in the field the progress made in strengthening the health networks and the implementation of SBM-R with the integration of the clinical, municipal and community components.

With the occasion of USAID's 50th anniversary celebration (June 2011), MCHIP Bolivia was recognized by Wayne Nilsestuen, Director of USAID/Bolivia, and Connie Johnson, Director of the USAID/Bolivia Health Team, for its leadership and fieldwork in FP and MNH in Bolivia.

The MCHIP Bolivia Management Team also participated in a USAID event designed to educate UNICEF and PAHO health teams on the technical activities of USAID-financed projects. MCHIP delivered a presentation on the technical assistance it has provided to the MSD at the national, departmental, municipal and local levels (October 2011, La Paz).

The MCHIP team, along with other agencies, presented its project and results to USAID/Bolivia's Health Team Director, providing information about the coordination among different partners given the new governmental policies and the problems that have arisen in the absence of a current bilateral agreement between Bolivia and the United States. MCHIP also informed the Health Team Director about the importance of observing the policies set by the MSD, in particular in the case of partners who had not managed to integrate their activities into the development targets defined in the Health Sector Development Plan. MCHIP also provided information on the implementation of the SBM-R approach focused on integrated and functional health service networks, the instrument used to assess QI in seven areas of standards, and the opportunities for ensuring sustainability of the QI processes.

Technical Assistance

MCHIP Bolivia carried out several activities beyond the scope of the work plan. Over the course of the project, it became clear that these activities were needed, either at the request of SEDES or the USAID/Bolivia Mission.

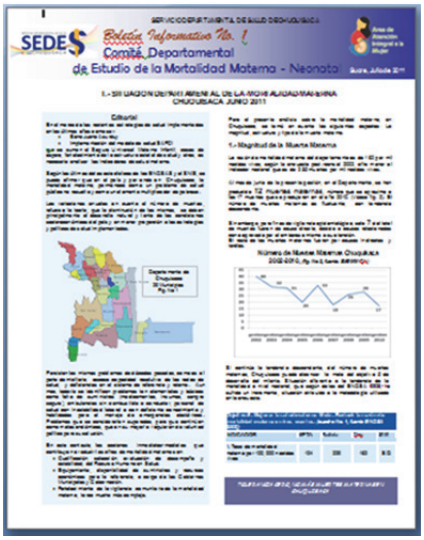
Workshop with IRH on natural FP methods, March 2011

In March 2011, the MCHIP team coordinated and participated in the workshop **"Technical Update and Training Resources in Standard Days Method (SDM) and Lactational Amenorrhea Method (LAM)."** Jeannette Cachan from IRH facilitated the workshop with MCHIP. The list of participants included trainers from USAID partners and USAID-funded institutions. The IRH focus area in natural FP methods was transferred to MCHIP, which began managing that component in January 2011 after IRH's Bolivia closing in December 2010.

In 2011, MCHIP participated in the national best practices competition organized by PAHO's Safe Motherhood Initiative. The goal of the competition was to recognize initiatives developed in the Americas that can contribute to lowering the MM rate and can be replicated throughout the region. **MCHIP presented its experience in the Villamontes Health Network, the only network in Bolivia that achieved 100% facility-based birth coverage in rural areas.** Key personnel in the network filled out detailed surveys and the experience was systematized and documented. MCHIP's experience was awarded first prize in the competition. MCHIP and two other Bolivian institutions that had also won awards competed in the regional PAHO/WHO Latin American competition in Washington at the end of July 2011.

MCHIP organized the workshop **"Supervising Health Care Services with a Focus on Standards-Based Management and Recognition"** from November 23 to 25, 2011. It was held in Santa Cruz with the participation of **25 program supervisors, SEDES personnel, hospital directors and health providers** from Santa Cruz, Beni, Tarija and Chuquisaca. The goal was to train participants in the use of the SBM-R methodology to support their supervisory duties.

An important component of this training was the concept of **multidimensional supervision**, in which supervision is shared equally with all components of the health care system including the community, health facilities and providers. This facilitates adherence and sustainability for continuous improvement processes at the health care facilities. The participants were very interested and participated actively in the workshop.



The Department of Santa Cruz's Safe Motherhood and Birth Technical Working Group requested technical assistance from MCHIP to support the Maternal Health Working Group in Santa Cruz to develop a **Code Red Implementation Guide**, adapted from the "Guide for Managing Obstetric Hemorrhage 'Code Red' " protocol produced originally by the Section Directorate of Antioquia, Colombia, with the support of Jhpiego. The Code Red Implementation Guide details responses to obstetric emergencies including hemorrhage in the first half of pregnancy, postpartum hemorrhage (PPH), shock, and others. The guide covers the needs identified during the QI process and validated for facilities providing 1st, 2nd and 3rd level of care. Based on this document, the Santa Cruz department implemented transfusion units at the municipal level and in network referral hospitals. The MSD had been developing a Code Red guide but, because of delays, the SEDES Santa Cruz decided to develop the guide on its own.

The Obstetric Network Committee of Sucre in Chuquisaca department is composed of technicians from the Quality Service Unit, directors of 2nd and 3rd level hospitals, network administrators, civil society, and municipalities. The Committee requested technical assistance from MCHIP to restructure its processes and activities. MCHIP also provided support for the review and publication of the bulletin **"Maternal Mortality Surveillance in Chuquisaca"** (January 2011). This bulletin is an important component in the implementation of MNH and FP functional and integrated networks.

EmONC Simulations

In order to evaluate the coordinated response of community groups, the municipality and health facility services to obstetric and neonatal emergencies — either in the community or at a health care facility — MCHIP and its partners under ENLACE, in coordination with municipal leaders, SEDES and network managers, conducted **four simulations in four health care networks** (see Table 9): Bermejo in Tarija, Monteagudo in Chuquisaca, Ballivián in Beni, and Chuiquitos in Santa Cruz. Below are the key features of the simulation methodology:

- Every simulation exercise is a real-time simulation.
- The exercises are practical ones of actions to be performed by participants involved in managing obstetric and neonatal emergencies.
- Participants included representatives from the health care sector, municipal government authorities, community leaders and ENLACE partners.

- Conditions similar to what might exist in a real emergency were created to the extent possible.
- The tools used were based on *Guidelines for Developing Emergency Simulations,* PAHO, June 2010.
- Response gaps were identified and analyzed in a collaborative and participative manner by the actors involved: community members, health care personnel and municipal representatives.
- The team chose remote communities in the health care networks of Bermejo, Monteagudo, Ballivián and Santa Cruz to evaluate the need to transfer an obstetric and/or neonatal emergency to a 1st level Health Center or a 2nd level referral hospital.
- MCHIP personnel evaluated the management of a patient with PPH using the corresponding clinical standard.

Table 9: MCHIP Simulations by Department, Network and Date

Department	Health Network	Date
BENI	Ballivián	October 2010
CHUQUISACA	Monteagudo	May 2011
TARIJA	Bermejo	August 2011
SANTA CRUZ	Chiquitos	December 2011

FINDINGS AND RESULTS

Community

The following **strengths** were identified in the community:

- High motivation to react and seek help.
- Demonstration of various alternatives for transporting the pregnant woman.
- Trust in the emergency plan; individuals fulfilled their pre-assigned roles, tasks and responsibilities.
- There was an emergency fund available for emergencies.
- The family and the community worked together in solidarity to face the emergency.

The following **weaknesses** were identified in the community:

- There was no health worker present in the community to identify danger signs.
- There was a time lag in obtaining appropriate transportation for the pregnant woman.
- There is no means of communicating with the health center about the emergency.

1st and 2nd Level Care Facilities

The following **strengths** were identified in the emergency response of 1st and 2nd level health care facilities:

- Some of the providers were trained and used quality standards in their services.
- Communication between levels of care was fluid and timely.
- Some of the facilities have appropriate means of transportation available.

- Their equipment is sufficient to resolve or refer obstetric and neonatal emergencies.
- The emergency services unit is prepared with all the necessary supplies.

The following **weaknesses** were identified in the emergency response of 1st and 2nd level health care facilities:

- Obstetric emergency care protocols were not observed.
- The emergency plan was not followed.
- The equipment was insufficient for attending to emergencies.
- Personnel at 1st level facilities did not have the skills and training necessary for referring obstetric emergencies, especially in health posts.
- Some of the facilities lack appropriate transportation for taking the patient to the next level of care.

RECOMMENDATIONS

Based on an analysis of the identified gaps, several recommendations were made for improving care in the care network:

- Train community health workers, promoting the training of Community Health Agents (*Agentes Comunitarios de Salud*).
- Equip and update health care facilities to respond to obstetric emergencies (for 1st level facilities: stretchers and access ramps).
- Provide additional equipment to health care facilities, including an ambulance.
- Improve supervision of compliance with norms and protocols in health care facilities, with an emphasis on training new personnel in compliance.
- Create flow charts for obstetric emergency care at health care facilities.
- Promote and support teamwork at health care facilities.

CONCLUSIONS

This activity motivated all three actors (the community, the municipality and health care personnel) to continue their work and to improve teamwork by implementing ongoing QI strategies using the SBM-R methodology.

After participating in the simulation in Roboré (in Santa Cruz's Chiquitos health network), the SEDES personnel in Santa Cruz observed the motivating effect that the simulation had among health care providers, community members and municipal representatives. They decided to **replicate the drill in three other rural and urban networks throughout the department** with the added participation of 3rd level care facilities. The chief of MH in Roboré stated, "this is a good strategy that should be replicated all over the country to determine the response capacity for these emergencies at health care facilities, in the community and in municipalities."

FINALIZING MCHIP TECHNICAL ASSISTANCE IN SANTA CRUZ

The MCHIP project concluded its activities in Santa Cruz department on December 31, 2011, because the USAID/Bolivia health program for the following phase did not include Santa Cruz department. MCHIP led a closing workshop at which project results were presented. Three health networks from Chiquitanía participated along with their municipal representatives, community members and health care service personnel. All parties committed themselves to

continuing the QI efforts began by MCHIP and ENLACE en Salud, including trainings and support to create sustainable participation from the three networks. At the event, MCHIP presented network authorities with anatomical models and other instruments and supplies to support local trainers and facilitate ongoing trainings.

SUSTAINABILITY OF MCHIP ACTIVITIES

After the end of the ENLACE en Salud's activities in December 2011, SEDES Santa Cruz replicated the CCQI/SBM-R methodology in two additional health networks with external financing. In Tarija, the SEDES is still reporting on results obtained from monitoring the health networks previously supported by MCHIP.

JANUARY 2012 – MAY 2013: MCHIP UNDER FORTALESSA

Objective 1: Improve the availability and quality of MH, FP/RH and PAC at health care facilities belonging to prioritized health care networks

IMPLEMENTING AND MONITORING STANDARDS OF THE CCQI

MCHIP under FORTALESSA continued supporting the QI process in health care networks, incorporating the SBM-R methodology in the MSD's CCQI as described in the "Implementation Guide for Functionally Integrated Maternal and Neonatal Health Networks." MCHIP continued implementing CCQI in Chuquisaca, and began the process in La Paz.

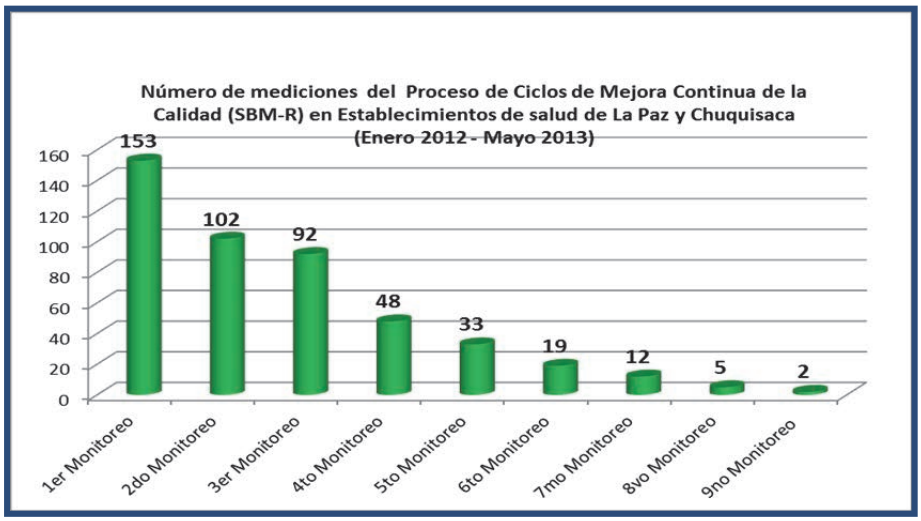
By Ministerial Resolution No. 1472 (2013), the MSD mandated that all level 2 and 3 health care services must apply the CCQI methodology. This institutionalized the QI process throughout the entire country.

RESULTS

A total of 153 health facilities began the CCQI process with support from MSD, which involved conducting a baseline and creating action plans. This figure represents 105% of the 146 health facilities prioritized and originally targeted by the project. The health care facilities did not implement CCQI at the same time; they were gradually initiated into the QI process starting in January 2012. The project had originally aimed to support all of the health facilities that initiated the QI process to conduct a minimum of three evaluations of the standards by September 2013.

Figure 6 shows the progress made in the number of evaluations conducted by health facilities. By May 2013, 153 health facilities had conducted a baseline, 102 health facilities (66%) had conducted two assessments, and 92 health facilities (60%) had conducted three assessments. Figure 6 also shows those health facilities that first started the process in early 2012 have since already conducted eight or nine assessments. This reflects the continued implementation of the QI process by local teams, as well as the sustained culture of monitoring standards.

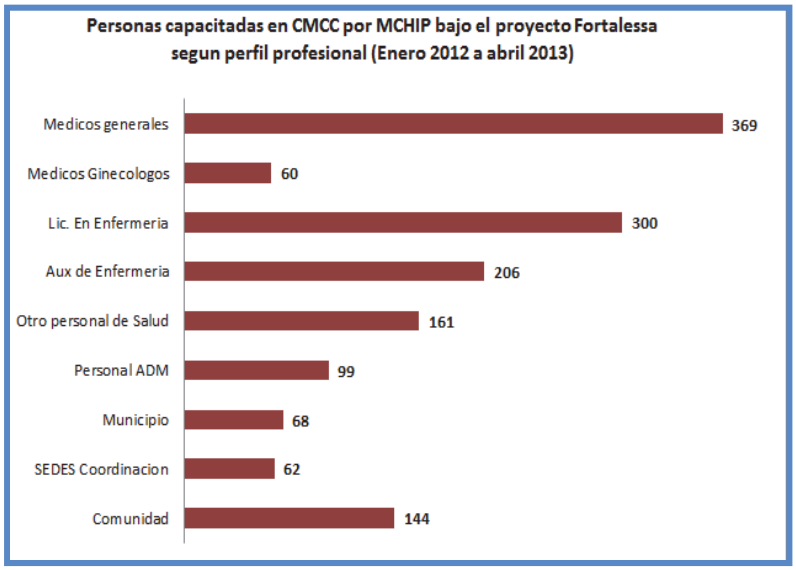
Figure 6: Number of CCQI measurements at health care facilities in La Paz and Chuquisaca, January 2012 – May 2013



As part of the implementation of the CCQI methodology, each health care network created a quality committee led by a quality manager. These committees oversee CCQI after having received training to carry out ongoing evaluations. Quality committees include representatives from municipalities, the community and the health care sector, thus complying with Bolivia's SAFCI policy.

Between January 2012 and April 2013, a total of **1,469 participants were trained in CCQI** (Figure 7). Participants included SEDES authorities, health care providers, municipal authorities and community members. Of the level 1 and 2 health care facilities in the prioritized networks of Chuquisaca and La Paz, 179 participated in the process of monitoring standards, along with the Hospital de Ginecología y Obstetricia (level 3).

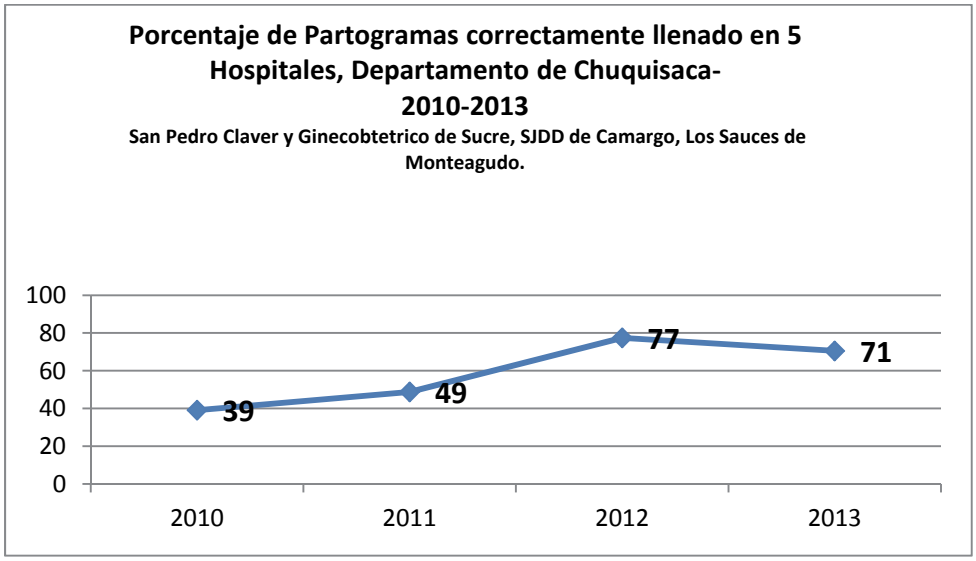
Figure 7: Number of individuals trained in CCQI by MCHIP under FORTALESSA per cadre, January 2012 – April 2013



Results from the baseline assessments show low scores in all areas, with an average of between 25% and 50% achievement of the standards. The main gaps identified were incorrect completion of perinatal clinical history forms and partograms and insufficient AMTSL recordkeeping. For EmONC, assessments found that treatments provided did not correspond to the diagnoses.

Figure 8 shows the progress of one standard at 153 health care facilities between 2010 and May 2013. Filling out clinical histories completely and legibly has been a very difficult gap to resolve for many years. MCHIP identified two deficiencies: 1) personnel did not know how to fill out the partogram and 2) personnel did not use partograms because there was not a sufficient supply of partogram forms.

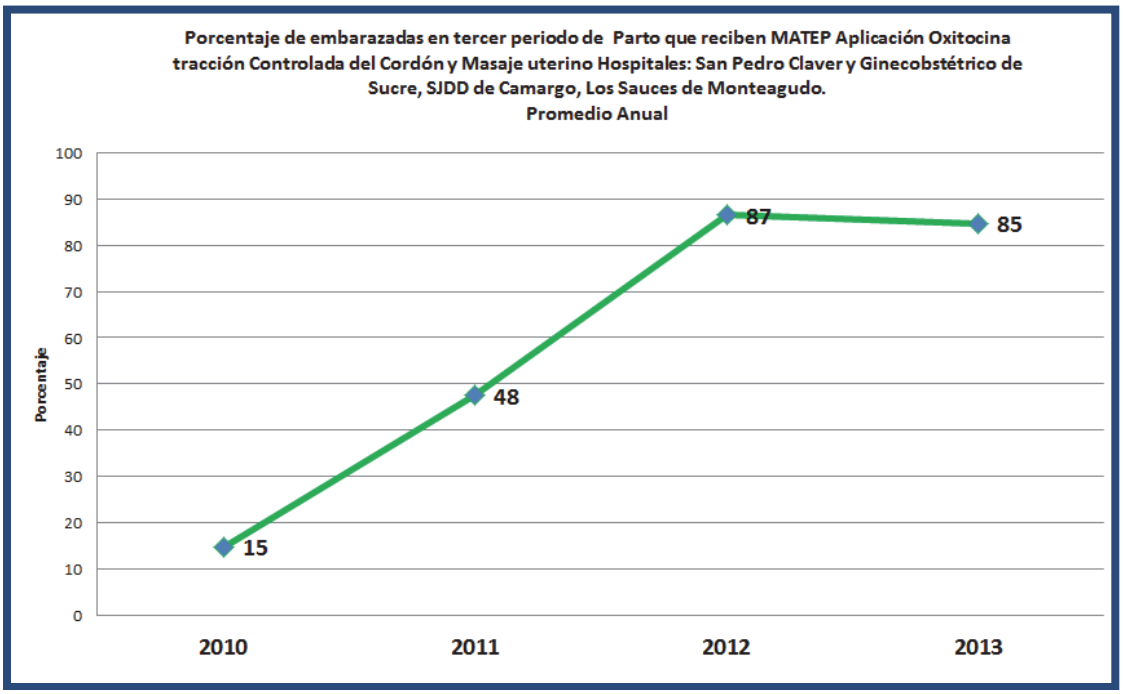
Figure 8: Percent of correctly filled out partograms in five hospitals, Chuquisaca, 2010 – 2013



Identifying the specific causes of noncompliance with this standard allowed local teams to gradually improve by using specific interventions, such as ensuring an adequate supply of partograms, providing hands-on training to personnel, installing a very large poster of the partogram in labor wards, and making the partogram part of the Perinatal Clinical History routine. The downward trend seen in the last evaluation (2013) in the Chuquisaca hospitals is associated with staff taking vacations and changes in personnel, who often are not trained or motivated to change their practices.

The main cause leading to MM in Bolivia is PPH. Although it has been demonstrated that AMTSL lowers the risk of PPH by 60% and AMTSL is recommended by PAHO, many gynecologists — particularly those working at tertiary care facilities — refuse to change their practices. These gynecologists defend the practices they have used for years and to which they are accustomed. By contrast, it was not difficult to implement AMTSL in rural areas (Figure 9) by providing trainings, oversight and follow-up to younger personnel who had a positive attitude toward improving care from the beginning.

Figure 9: Percent of pregnant women in the third stage of labor who receive AMTSL (oxytocin, controlled cord traction and uterine massage) at three hospitals, Chuquisaca, 2010 – 2013



When implementing CCQI, MCHIP engaged the involvement of "Quality Managers" designated by SEDES Chuquisaca in each health network; the quality managers were responsible for obtaining accreditation for each health care facility. SEDES gave a certificate of recognition for improved standards at the following level 1 care facilities: San José, Villa Margarita, Morro Municipal, El Rollo and El Tejar. The evaluations accompanied by SEDES or municipal personnel received more positive responses and led to greater commitment for implementing action plans.

CCQI implementation, Villa Abecia Health Center, July 2011

At several health care facilities that were monitoring their standards, the staff has taken action to resolve gaps related to poor infrastructure. For example, the staff at Villa Abecia Health Center (in the Camargo network of Chuquisaca) painted the facility with paint provided by the mayor's office. Villa Abecia is also developing the required manuals and norms to receive accreditation.

CCQI implementation, Las Carreras Health Center, August 2011

For the first time, the Camargo network included in its AOP the action plans developed by CCQI efforts. With support from the networks' authorities, which guarantee that CCQI will be adopted, evaluations have become routine at Network 3 (Camacho) and Network 8 (Yungas Norte and Los Andes). Level 2 hospitals Escoma and Coroico are reporting their evaluation results monthly to the MSD.

In order to support QI in IP standards, MCHIP printed handwashing awareness materials. SEDES La Paz and SEDES Chuquisaca distributed them in health care networks in Camacho, Yungas, Camargo, Azurduy and Sucre during supervision visits.

ACCREDITATION OF HEALTH FACILITIES

MCHIP's QI process supported the initiative of the MSD to formally certify the health facilities with improved services. In the department of Chuquisaca, a group of 82 leaders (SEDES, health coordinators from 7 health networks and municipal leaders) gathered to design an accreditation system for health facilities based on improved use of standards and national referral and counter-referral guidelines. As a result, 29 municipalities elaborated action plans based on MCHIP's QI process. The San Pedro Claver and Jaime Porcel Obstetric Gynecology Hospitals were in the process of accreditation by their SEDES, based on successes to date and results achieved in an evaluation planned for October 2013.

In La Paz, the Camacho health network initiated the accreditation process in coordination with the Quality Committee of SEDES La Paz and formed accreditation committees. Four health facilities were selected to initiate the accreditation process (Table 10).

Table 10: Health Facilities selected for certification in 2013

Department	Health Network	Health Facility
Chuquisaca	Sucre	Hosp. Gineco Obstetrico
		Hosp. San Pedro Claver
La Paz	Los Andes	C.S. Palcoco
	Los Andes Manco Kapac	C.S. Germán Buch
	Camacho	C.S. Ambaná
	Coroico	Hosp. de Coroico

TRAININGS IN MULTIDIMENSIONAL SUPERVISION

MCHIP conducted two trainings on multidimensional supervision. These were conducted by Jhpiego experts in La Paz and Chuquisaca. The trainings were delivered to a total of **66 participants** from the two SEDES, covering 13 health networks, tertiary hospitals, quality managers, and representatives from *Centro de Investigacion, Educacion y Servicios* (CIES), UNICEF and PAHO. The objective of the trainings was to introduce a new approach to supervision by integrating the involvement of new actors, such as clients and health facility personnel. Supervisory activities are supported with specific tools based on quality standards. These tools facilitate the process of supervision and help facilities achieve results in improving the delivery of health services.

The participants from Chuquisaca and La Paz received an intensive two-day training in multidimensional supervision. This model allows health directors to support the network QI processes based on the routine monitoring of standards. The participants appreciated the comprehensive and participatory approach of multidimensional supervision and recognized the purpose and importance of using quality standards for the evaluations. This tool facilitates their supervisory role to strengthen the performance of health providers, as well as the accreditation of health facilities.

Multidimensional Supervision workshop in La Paz, November 2012

SIMULATIONS

Following the "Guidelines for Developing Emergency Simulations" (PAHO), and building on the experience under ENLACE, MCHIP — in coordination with the SEDES, municipality and the community — conducted **three simulations in Chiquitos, Sacopaya and Camargo.** The purpose of the simulations was to evaluate the coordinated response of community groups and health facility services to an obstetric emergency, according to a community preparedness and response plan and health care quality standards.

The simulation process was similar to those carried out under ENLACE, and it helped identify similar advantages and challenges. Therefore, the same recommendations provided to ENLACE health networks were used in this case as well (see page 22 in this report).

USE OF FLOW CHARTS FOR OBSTETRIC EMERGENCIES

MCHIP worked with the MSD, including the participation of six gynecologists invited by the MSD, to review a set of existing flow charts for obstetric emergencies. These were then updated to reflect current national protocols and the CCQI standards.

A follow-up for this activity was scheduled for 2013. Because the project ended in early May, no data is available to measure progress for this critical activity.

SAFE MOTHERHOOD AND BIRTH TECHNICAL WORKING GROUP

MCHIP continued to participate in the Safe Motherhood and Birth Technical Working Group, led by MSD. This Technical Working Group includes government agencies and NGOs that advocate for and work to protect the health of women and children by seeking technical and financial support for the various strategies focused on reducing MM and child mortality. MCHIP's participation in these meetings was important in terms of technical and financial support at the MSD level and in the target departments.

Objective 2: Strengthen the capacity and competency of health care providers at various levels of care to apply evidence-based practices in MH, FP and PAC in the target networks

MCHIP continued to implement Jhpiego's TOT approach and methodology. Four sequential modules were designed. Each module focused on the update and standardization of a set of clinical skills and clinical training skills:

- Module 1 – MNH, normal childbirth and newborn care
- Module 2 – Emergency Obstetric Care
- Module 3 – FP and IP
- Module 4 – Clinical training skills

STANDARDIZATION OF CLINICAL SKILLS

Under FORTALESSA, MCHIP delivered in-service trainings to **2,869 participants** from 291 health facilities in Chuquisaca and La Paz (Table 11); this translates into an actual total of **1,952 health providers** who received at least one training or update with technical assistance from the project.

Furthermore, MCHIP-certified clinical trainers from the SEDES **replicated the trainings to over 1,000 providers** in different health facilities in seven health networks in Chuquisaca and two in La Paz.

SBM-R

A key component for MCHIP under the FORTALESSA program was the delivery of SBM-R trainings to **1,469 participants** from 179 health facilities (12 hospitals and 167 health facilities at the primary level). Participants include network managers, SEDES personnel, municipal authorities and community members. MCHIP also supported the implementation of other tools such as User Flow Analysis and Client Exit Surveys in Chuquisaca and La Paz.

MNH, EONC AND EMONC

MCHIP conducted in-service trainings in 10 health networks in the two targeted departments. The trainings were delivered to **954 providers** from 218 health facilities (12 hospitals and 206 health facilities at the primary level) where birth deliveries total 15,575 a year. Trainings helped to improve the correct completion of the Perinatal Clinical History Form and the use of the partogram. The trainings also facilitated the implementation of the Perinatal Information System, and helped improve management and referral of obstetric and neonatal emergencies and surveillance of MM.

FP COUNSELING AND CONTRACEPTION

Trainings and updates were delivered in six health networks in Chuquisaca and three in La Paz. A total of **446 providers** from 73 health facilities (2 hospitals and 71 primary level health facilities) received trainings and updates in Counseling and Contraception. These health providers attended to 6,425 FP visits where they helped clients with the use of modern and natural contraceptive methods. An FP training was not conducted in one health network in La Paz because technical assistance began in April 2013.

Internships were arranged in high-volume facilities (Gineco Obstétrico and San Pedro Claver Hospitals) for **122 providers.** Doctors and nurses from 49 health facilities in Chuquisaca were able to improve their skills in MVA, FP counseling, and PAC or care for hemorrhage in the first half of pregnancy.

Table 11: Total number of participants who received training under FORTALESSA, by Health Network and type of intervention, January 2012 – April 2013

DEPARTMENT	Health Network	TECHNICAL AREA			
		SBM-R	FP	EmONC	EONC
CHUQUISACA	AZURDUY	6	10	0	4
	CAMARGO	235	85	74	177
	MONTEAGUDO	240	32	56	71
	OROPOEZA	124	76	89	65
	SUCRE	322	80	49	131
	TARABUCO	205	22	14	57
LA PAZ	CAMACHO	62	25	0	32
	LOS ANDES	112	30	2	20
	LOS ANDES MANCO KAPAC	60	0	0	0
	NOR Y SUD YUNGAS	59	79	27	70
	SEDES	44	7	0	16
TOTAL		1469	446	311	643

MCHIP **supported a total of 291 health facilities** with at least one intervention, which **represents 54% of the 535 health facilities targeted** under FORTALESSA for the period 2012 – 2017 (Table 12).

Table 12: Total number of target facilities– under FORTALESSA, 2012 – 2017

SEDES	NETWORK	MUNICIPALITY	HOSPITAL 3RD LEVEL	HOSPITAL 2ND LEVEL	HEALTH CENTER	HEALTH POST	TOTAL HEALTH FACILITIES
CHUQUISACA	6	29	2	5	177	182	366
LA PAZ	6	28	0	9	56	104	169
TOTAL	12	57	2	14	233	286	535

As a result of the early termination of MCHIP, the remaining 244 target health facilities will not receive technical assistance and will therefore not be able to improve the quality of the health services provided to Bolivian families in their catchment areas.

STANDARDIZATION OF CLINICAL TRAINING SKILLS

Under FORTALESSA, MCHIP conducted three training cycles following the TOT methodology: two in the department of Chuquisaca and one in the department of La Paz. The trainings were conducted entirely by international trainers certified by Jhpiego.

First TOT cycle, July 2011

The first TOT cycle began under the ENLACE en Salud program and included participation of providers from the four priority departments under ENLACE: Chuquisaca, Santa Cruz, Tarija and Beni. The trainings began in July 2011 and were concluded in June 2012 under FORTALESSA.

The second TOT cycle included participation of providers from secondary and tertiary hospitals in the municipalities of Chuquisaca. The trainings began in July 2012 and were concluded in February 2013.

Second TOT cycle, February 2013

The third TOT cycle was conducted for staff from the priority networks in La Paz. The trainings began in July 2012 and were concluded in February 2013.

Upon completion of the trainings, a total of **67 clinic trainers were certified by Jhpiego** (33 obstetrician-gynecologists [OBGYNs], 29 general practitioners) from 36 health facilities in rural areas and departmental referral hospitals in urban areas. These trainers are in five departments of Bolivia (Chuquisaca, La Paz, Tarija, Beni and Santa Cruz).

Third TOT cycle, March 2013

The most visible and immediate outcome of this process is **the introduction of emergency obstetric care services in the 1st level of care**. Providers who participated in all three cycles began providing emergency obstetric care at their facilities.

After completion of each clinical module, the results became clear almost immediately. For example, in the Oropeza network in Chuquisaca, where no birth delivery care had been reported, the provision of this type of service was initiated using best practices learned from the Clinical Modules (see Annex B: Success Stories – Roberto Peñarrieta).

In the third TOT cycle, conducted for La Paz providers, an almost immediate result occurred. Health centers used to refer all obstetric emergencies to hospitals with higher service capacities. However, after the trainings, these facilities began to resolve some emergency cases on their own, as in the case of Kollaña Uta Health Center in Yanacachi, in the municipality of South Yungas. During an event organized by the US Embassy in La Paz to donate equipment to health facilities, a representative presented to the audience the Success Story of Dr. Fabiola Almaraz, one of the TOT-certified providers, as an example of USAID's contribution to the health of Bolivian women (see Annex B: Success Stories – Fabiola Almaraz).

In April 2013, MCHIP launched two new TOT cycles, one each in La Paz and Chuquisaca departments, **targeting 53 health care providers**. Because of the untimely closure of the project, these providers were only able to receive Module 1 and the training processes were left unfinished and without a plan for follow-up.

To strengthen and secure the sustainability of the training processes, the MCHIP technical team selected a team of 15 doctors and OBGYNs who participated in one of the three TOT cycles. The selected participants demonstrated mastery of the skills and the competencies needed to effectively lead similar trainings in the future. These providers had the opportunity to co-facilitate some sessions during the TOTs, with advice and feedback from international experts.

Currently, the 67 certified clinical trainers support the SEDES and MSD authorities by conducting trainings for providers from the nearly inaccessible geographical areas of Chuquisaca and La Paz, with the aim of supporting QI in specific technical areas such as PAC.

Objective 3: Reinforce the CDCs in MH and FP/RH at hospitals of the selected departments

One of the objectives of the MSD's strategy for MNH was to establish CDCs to improve the skills and abilities of providers and thus reinforce the quality of services provided by health institutions. MCHIP's goal was to provide technical assistance to the health facilities selected to become accredited as CDCs for training in MNH and FP/RH clinical practices.

MCHIP held several coordination meetings with the MSD, FORTALESSA partners and other interested donors to share experiences in the implementation of CDCs in other countries and the initiatives already undertaken in Bolivia. MCHIP presented the standards tool developed by Jhpiego and implemented in other countries. The MSD committed to systematizing and developing a document based on the experiences of all organizations in Bolivia; as of MCHIP Bolivia's date of closing, this document had not yet been developed.

In addition, meetings were held with each SEDES and health facility directors, agreeing on the decision to establish CDCs at the Jaime Porcel Obstetric Gynecology Hospital in Chuquisaca and Los Andes Hospital in La Paz. These health facilities have been implementing QI processes and have 12 Jhpiego-trained clinical trainers. MCHIP presented a proposal to include 16 standards focused on equipment and training in the accreditation process of the CDCs. Using these proposed standards, MCHIP planned to begin working with the Chuquisaca SEDES in May 2013 to support the Jaime Porcel Obstetric Gynecology Hospital to becoming an accredited CDC.

OTHER ACTIVITIES

Technical Assistance Requested by Partner Organizations, SEDES and Network Coordinators

- As a partner of FORTALESSA, MCHIP participated in workshops to develop AOPs for SEDES, network coordinators and municipalities in Chuquisaca and La Paz. These plans included technical and financial assistance elements from all FORTALESSA partners in all areas according to their expertise. MCHIP included CCQI activities in the seven areas of standards, as well as clinical training and certification, IP in MNH, and multidimensional supervision in order to meet MCHIP's objectives.
- MCHIP provided quarterly evaluations to USAID/Bolivia through the preparation of reports, material for USAID/Bolivia's quarterly bulletin, and weekly reports to USAID/Bolivia about the most outstanding activities or best results obtained during the week.
- MCHIP participated in the review of new forms to monitor the epidemiological surveillance of MM. MCHIP suggested including the following elements in the surveillance system:
  - Move up the first and second postnatal visits so they occur within the first three days after birth, as most MM and neonatal mortality occurs during this time frame; and
  - Include PPH and the use of LAM and implants into the surveillance system.
- The National Health Information System (HIS) was planning to adopt the evaluation tool of SEDES Santa Cruz to be applied at the national level once the tool is reviewed by MCHIP and other SEDES — particularly La Paz and Chuquisaca — to learn from SEDES Santa Cruz's experiences; this review was being conducted at the time of the project's closing.
- MCHIP provided technical assistance to Maternal and Neonatal Mortality Surveillance Committees to develop the final report for 2012 and 2013 in Chuquisaca and La Paz. Twenty-six cases of maternal deaths were reviewed, of which 65% occurred at health care facilities. An immediate action plan was created with MCHIP's support to improve clinical standards at the health care facilities and train personnel in order to improve timely referral of obstetric emergencies. Immediate actions were developed as part of the technical and financial assistance provided by MCHIP and the FORTALESSA program.
- By the end of the project, MCHIP was providing technical assistance to the MSD through the local and national Information Analysis Committee (*Comité de Análisis de Información*, or CAI), the Maternal Mortality Surveillance Committee, the development of norms and guidelines on Infections Associated with Health Services (*Infecciones Asociadas a Servicios de Salud*, or IASS), and the development of educational materials (CD and FP flipchart). This assistance was designed to combine MCHIP's QI methods with technical tools to create national guidelines that ensure sustainability; however, this process was not completed due to the early termination of the project.

OTHER ACTIVITIES LEFT INCOMPLETE BECAUSE OF THE EARLY CLOSING OF MCHIP BOLIVIA

- MCHIP participated in the review of the methodology of the national CAI. The CAI's purpose was to review progress in management commitments, indicators and quarterly activity planning. MCHIP's proposal, which had already been accepted, was to incorporate CCQI evaluations as part of the information analysis, share the results and seek to recognize local authorities for their progress toward QI.
- MCHIP provided assistance to departmental CAIs and recommended a network-centered approach, as is done with CCQI, with the participation of representatives from all levels of care and a focus on competency-based performance from service providers. This would be

achieved through trainings with hands-on practice on models and close mentoring on effective, evidence-based interventions for reducing MM and neonatal mortality that are based on national norms. These interventions were defined in an action plan and an agreement of commitment signed by all participating institutions.

- Owing to IASS' link with MM and neonatal mortality, MCHIP provided technical assistance to MSD's Health and Quality Service Unit (*Unidad de Salud y Servicio Calidad*, or USSC) for the review of the IASS guidelines. The SBM-R methodology would also be used for developing other standards. At the workshop to analyze the IASS guidelines, significant weaknesses were identified:
  - Lack of a designated nurse at health care facilities
  - Lack of IASS training for health care personnel
  - No monitoring plans
  - Lack of basic infrastructure — such as handwashing stations, isolation rooms, hygiene supplies and sterilization centers — at many facilities
- This workshop produced a draft national guideline on IASS with the following principal recommendations:
  - Establish an MSD policy for IASS control.
  - Define strategic plans.
  - Promote financial support to achieve IASS control.
- A key roadmap presented by the USSC for IASS was approved, along with a number of activities leading to the strengthening of departmental teams. One of the most important tasks was the final review of a guideline whereby MCHIP would provide technical support in developing a standard with handwashing criteria to create a uniform requirement for the entire country.
- SEDES Chuquisaca's AOP included developing a self-study interactive CD about FP, based on EngenderHealth's self-study module (developed in 2004 and updated in 2006). With technical assistance from MCHIP and financial assistance from UNICEF, SEDES Chuquisaca's CD was completed in April 2013. At the closing of MCHIP, the CD still needed to be field tested and then fully implemented.
- With PAHO funding, and based on the FP flipchart, MCHIP's technical team of consultants (OBGYNs) developed the proposed flipchart for MNH and identification of obstetric emergencies. The review of this material by MSD is still pending.

Lessons Learned and Conclusions

Through our experiences, we have learned that:

- The CCQI processes are more feasible if technical assistance is provided for specific and practical issues (that is, avoiding generalization), on-site, and with the participation of the community, teams and managers (MSD, SEDES, Network Coordinators, Municipal Managers and Facility Directors). This helps to gain the support and involvement of staff as well as to institutionalize the processes implemented, thus ensuring their continuity beyond external support.
- Implementing a project with several partner agencies in different components without good coordination and clear common goals generates 1) a dispersion of efforts in the implementation of activities and 2) confusion at the operational level due to saturated activity schedules. This distracts health facility staff from their routine work, causing discomfort and inadequate care for patients.

- MCHIP began providing technical assistance under FORTALESSA as part of the field support agreement requested by USAID/Bolivia for the CCQI, MNH, FP and IP components. It was a rough start with many difficulties with partners, especially UNICEF, which originally did not accept MCHIP's technical assistance. Finally, after several discussions and coordination with UNICEF, collaborative work efforts with all FORTALESSA partners were made possible. From April 2012 to April 2013, USAID/Bolivia's Health Office, under its new 2011 – 2017 strategy, conducted quarterly evaluation and programming meetings with FORTALESSA organizations to discuss the components of the technical assistance and the MSD. This proved to be an excellent strategy for USAID to better understand and monitor technical and financial activities of USAID-funded projects, and to support coordination among partners.
- MCHIP scheduled activities using its own resources, which were not sufficient to carry out all planned activities at the operational level. As such, we searched for counterpart strategies and resources that were channeled through UNICEF in 2012. UNICEF allocated resources directly to each SEDES in order to finance the activities included in the AOPs. This process took several months to be approved and implemented by these institutions and, as a result, MCHIP activities had to be suspended several times. For 2013, USAID/Bolivia made financial adjustments to the health strategy under the FORTALESSA program, allowing MCHIP to begin working closely with the local organization HCP, which facilitated the timely completion of MCHIP's planned activities.
- As a result of the ongoing analysis and implementation of strategies, we think other strategies for staff motivation should be explored. In our experience at the operational level in rural areas, health personnel tend to seek opportunities in major cities because they sense a lack of attention from local authorities or do not have adequate channels for professional development because academic opportunities and/or new knowledge or techniques are limited. As such, cooperating agencies have been providing support with technical and financial assistance to create opportunities that encourage staff to stay in their workplace. MSD, the governorates and municipalities should seek strategies to prevent labor instability and high staff turnover rates: every change creates a vacuum and a setback in the development and implementation of QI processes because new staff must initiate their own training and involvement, leading to greater use of resources and time. The impact of these changes adversely affects the population demanding quality services from competent providers.

The National HIS, used as the single official information source for reporting health system data in Bolivia, presents a significant delay (in one quarter, only 25% of the required information was available) as of the date of this report, so we have used preliminary information available for this report. The information for the last three years of the entire Chuquisaca rural network has been sent to the local HIS, but has not been consolidated by the National HIS despite our attempts to coordinate with staff at both levels. Therefore, this information is not yet available, resulting in significant underreporting of the project's achievements. MCHIP had proposed the collection of data on the use of best practices after training at all project-supported facilities.

It is important to note that the activities conducted by MCHIP with USAID funding, as of the moment of the project's unexpected closing, were in the process of being institutionalized by different management levels because of the acceptance and success of the project's interventions. The ultimate goal of our technical assistance was to strengthen the capacity and competency of health care providers at various levels of care and to replicate ongoing trainings in clinical skills in-service and/or at national CDCs, so that future personnel changes would involve only a change of destination rather than a change of process, and these changes would not affect the continuity of knowledge.

Furthermore, in the second half of 2013, MCHIP planned to strengthen the local quality and supervisory teams to emphasize direct observations of the providers conducting clinical procedures during the evaluations of standards, in addition to a review of medical records as another methodology aimed at improving quality, assessment of which is based on the performance of the service provider according to the clinical training received.

We are aware that one of the consequences of the involuntary and untimely closure of the USAID Mission in Bolivia and, therefore, of its funded projects, will be a climate of destabilization in the workplace with a domino effect on all other activities and actors related to each of the intervention processes of the health strategy agreed to by the Governments of Bolivia and the United States of America. Undoubtedly, the immediate impact of the closure will mean a general void in all aspects directly or indirectly related to international cooperation efforts. The sudden closure also impeded the provision of support to local teams in the design of a plan for long-term follow-up, which may translate into a setback in all progress that has been made to date.

One program that has been left incomplete is the USAID/Bolivia 2011 – 2017 strategy that began under the FORTALESSA program, which aimed to impact two SEDES in a geographic area of 13 health networks, including 535 1st, 2nd and 3rd level of care facilities to benefit women, newborns, men, children and adolescents who would be seen in these health facilities by qualified providers. As of the closing date of the MCHIP project, 9 networks included in the aforementioned strategy had started and were in the process of implementing QI processes. Without the technical or financial assistance to continue, these health networks will not see their processes to completion.

These processes have encountered difficulties due to the different financial management mechanisms of the implementing organizations, which complicated the coordination and reconciliation of activities. Nevertheless, it should be noted that the work with counterpart funds has permitted MCHIP to fulfill its objectives, and allowed the project to exceed expectations and achieve results beyond what was originally planned.

Annex A: Monitoring and Evaluation Matrix

Indicator	Definition	Source of Information/ Data Collection Method	Frequency of Data Collection	Fiscal Year (FY) 11		FY 12 (Oct – Dec)		FY 12 (Jan – Sept)		FY 13 (Oct – Apr)	
				Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Objective 1: Improve the availability and quality of MH, FP and PAC services in health facilities in the target integrated health networks											
1. Number of health centers that have begun QI processes in MH	Number of health centers implementing QI processes in MH in the target networks	QI tools and instruments, quality standards, monitoring instruments, user flow analysis, user exit surveys, UN indicators	Semi-annually	79	71	71	65	127	120	146	153
2. Percentage of health centers that have begun QI processes in MH, FP, and PAC[a]	Number of health centers implementing QI processes in MH, FP and PAC in the target networks x 100 / Total number of health centers in the target networks	QI tools and instruments, user exit surveys, UN indicators	Quarterly							80%	103%
3. Number of health centers with action plans developed[a]	Number of health centers that have identified gaps through the SBM-R methodology and developed action plans	Program reports, action plans	Quarterly							146	153
4. Number of postpartum women with a correctly completed partogram	Number of postpartum women with correctly completed partogram	Partograms	Quarterly	600	425	150	198	783	883	1,400	738
5. Number of pregnant women who received AMTSL	Number of pregnant women who received AMTSL during vaginal delivery in the health centers of the target networks	Basic perinatal clinical history	Quarterly	400	443	150	70	1,103	940	1,400	4,790
6. Number of women receiving PAC who select a FP method[b]	Number of women receiving PAC who received a FP method of their choice in the health centers of the target networks	Evaluation of the health center or FP registers, MCHIP forms	Quarterly	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Indicator	Definition	Source of Information/ Data Collection Method	Frequency of Data Collection	Fiscal Year (FY) 11		FY 12 (Oct – Dec)		FY 12 (Jan – Sept)		FY 13 (Oct – Apr)	
				Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
Objective 2: Strengthen the capacity and competency of health care providers, at various levels of care, to apply evidence-based practice in MH, FP and PAC in the target networks											
7. Number of health care providers trained as clinical trainers in MH, prenatal care, labor and delivery care, EmONC, neonatal care, FP, IP	Number of health care providers trained as trainers in the project components, disaggregated by sex	Training reports, pre- and post-test evaluations, participant lists,	Annual	20	0	20	19	40	44	44	48
8. Number of health care providers updated in MH, FP, and PAC[c]	Number of health care providers updated in MH, FP and PAC, based on best practices and evidence	Training reports, participant lists	Quarterly					960	731	1,084	669
9. Number of health care providers who have received training on SBM-R in target networks[c]	Number of people trained in the SBM-R methodology	Training reports, pre- and post-test evaluations, participant lists	Quarterly					450	351	600	1,118
10. Number of supervisors in the SEDES and the target networks with proven abilities in supervision of health services, focused on monitoring quality standards[c]	Number of supervisors trained in the project components, disaggregated by cadre	Training reports, pre- and post-test evaluations, participant lists	Annual					25	35	45	70
Objective 3: Strengthen CDCs in FP/RH in the target departments											
11. CDCs are standardized according to national norms and the implementation of evidence-based practices[c]	CDCs that comply with the quality standards for a CDC	Project reports	Annually					1	0	1	0
12. Number of CDCs with annual plans including internships for health facility personnel prioritized according to the needs of each department[c]	Number of CDCs with annual plans including internships for health facility personnel	Project reports	Annually					2	0	2	0

Indicator	Definition	Source of Information/ Data Collection Method	Frequency of Data Collection	Fiscal Year (FY) 11		FY 12 (Oct – Dec)		FY 12 (Jan – Sept)		FY 13 (Oct – Apr)	
				Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
USAID PMP Indicators											
13. Number of pregnant women attending antenatal care	Number of pregnant women attending antenatal care in the health centers of target networks	Data from the National Health Information System	Quarterly	15,000	12,800	18,000	26,911	6,000	77,482	70,100	55,803
14. Number of deliveries with a skilled birth attendant in US Government-assisted program	Number of deliveries with physicians, nurses, and midwives	Data from the National Health Information System	Quarterly	7,000	7,149	2,187	2,235	28,300	14,335	13,900	10,348
15. Number of clients receiving FP counseling	Number of people who received FP counseling in the health centers of target networks	Data from the National Health Information System	Quarterly	18,000	21,900	5,000	24,238	17,700	72,028	70,500	53,243
16. IUD: New users[d]	Number of new IUD users	Data from the National Health Information System	Quarterly				252		758	447	547
17. Injectables: New users[d]	Number of new injectable users	Data from the National Health Information System	Quarterly				10,228		30,584	5,781	23,123
18. Condoms: New users[d]	Number of new condom users	Data from the National Health Information System	Quarterly				3,613		9,712	2,884	9,039
19. Pills: New users[d]	Number of new birth control pill users	Data from the National Health Information System	Quarterly				1,605		5,611	2,045	2,124
20. Natural methods: New users[d]	Number of new users of natural methods	Data from the National Health Information System	Quarterly				2,112		6,243	3,671	3,849
21. Female sterilizations[d]	Number of female sterilizations	Data from the National Health Information System	Quarterly				167		526	519	331

Indicator	Definition	Source of Information/ Data Collection Method	Frequency of Data Collection	Fiscal Year (FY) 11		FY 12 (Oct – Dec)		FY 12 (Jan – Sept)		FY 13 (Oct – Apr)	
				Target	Achieved	Target	Achieved	Target	Achieved	Target	Achieved
22. Emergency contraceptive pills: New users[d]	Number of new users of emergency contraception	Data from the National Health Information System	Quarterly				41		144	210	32

NOTES:
a. New indicator introduced in FY13.
b. Only available data is the number of women who have received PAC. The MOH has not yet begun collecting data on the number of these women who have selected a FP method.
c. New indicators introduced in January 2012.
d. New indicators introduced in FY13. However, given our FP mandate, MCHIP has been monitoring this data since FY12.

Annex B: Success Stories

Fabiola Almaraz español.pdf

Yucra Chuquisaca ingles.pdf

Roberto Peñarrieta español.pdf

Ruth Galvez ingles.pdf

Colonia Linares ingles.pdf

Camacho espanol.pdf

Annex C: MCHIP Staff and Consultants

MCHIP BOLIVIA STAFF

Patricia Arana	Program Manager
Karina Cabrera	Deputy Program Manager and Monitoring and Evaluation Officer
Jose Illanes	Finance Manager (50%)
Milenka Orlandini	Finance and Administration Coordinator
Jackeline Reyes	MH Advisor
Rosario Romero	Administrative Assistant
Marjorie Viscarra	FP/RH Advisor

HEADQUARTERS STAFF

Ricardo Bonner	Team Lead Finance, Jhpiego
Debora Bossemeyer	Lusophone and Latin American Countries, Regional Director, Jhpiego
Rebecca Fielding	Finance Coordinator, Jhpiego
Laura Goodman	Program Officer, Jhpiego
Michelle Goshen	Senior Program Coordinator, Jhpiego
Connie Lee	Senior Program Officer, Jhpiego
Kelly Taylor	Global Human Resources Specialist, Jhpiego

INTERNATIONAL CONSULTANTS

Vicente Bataglia	Consultant, MNH and RH specialist, Jhpiego
Gloria Metcalfe	Consultant, QI and Training Skills specialist, Jhpiego
Edgar Necochea	Director, Health Systems Development, Jhpiego
Washington Santos	Consultant, MNH and RH specialist, Jhpiego
Jeffrey Smith	Technical Team Lead for MH, MCHIP

LOCAL CONSULTANTS

Eliseo Caballero	Consultant, Clinical Trainings
Angel Contreras	Consultant, Clinical Trainings
Eliana Garcia	Consultant, QI Processes
María Elena Mamani	Consultant, QI Processes
Cristina Renteria	Consultant, QI Processes
Teresa Rivero	Consultant, QI Processes
Liseth Sanabria	Consultant, QI Processes
Raul Verastegui	Consultant, Clinical Trainings
Angela Zarate	Consultant, QI Processes