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Maternal and Child Health Integrated Program (MCHIP)



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Abbreviations and Acronyms

AAP	American Association of Pediatrics
ACCESS	Access to Clinical and Community Maternal, Neonatal and Women's Health Service
ALAPE	<i>Asociación Latinoamericana de Pediatría</i> /Latinamerican Association of Pediatrics
ANC	Antenatal Care
BASICS	Basic Support for Institutionalizing Child Survival
BEmONC	Basic Emergency Obstetric and Newborn Care Services
CEmONC	Comprehensive Emergency Obstetric and Newborn Care Services
CHC	Community Health Councils
CODENI	<i>Comision por los Derechos del Nino</i> /Commission for Children's Rights
CSS	Clinical Skills Standardization
DGPS	General Directorate of Health Programs
DIRSINA	Directorate of Childhood and Adolescent Health
FEPPEN	<i>Federación Panamericana de Profesionales de Enfermería</i>
FHU	Family Health Unit
FP	Family Planning Services
GOP	Government of Paraguay
HDHER	District Hospital of Hernandarias
HDMG	District Hospital of Minga Guazu
HDMRA	District Hospital of Mariano Roque Alonso
HDPF	District Hospital of Pdte. Franco
HRCDE	Regional Hospital of Ciudad del Este
HSP	Hospital San Pablo
IAB	Instituto Andrés Barbero (Midwifery School, Paraguay)
ICM	International Confederacy for Midwives
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
IMPAC	Integrated Management of Pregnancy and Delivery
INAN	<i>Instituto Nacional de Alimentación y Nutrición</i> /National Institute for Nutrition
KMC	Kangaroo Mother Care
LAC	Latin America and Caribbean Region
MCH	Maternal and Child Health
MCHIP	Maternal and Child Health Integrated Program
MM	Maternal Mortality
MMR	Maternal Mortality Rate
MNCH	Maternal, Neonatal, and Child Health
MNH	Maternal and Neonatal Health
MOHSW	Ministry of Health and Social Welfare
MVA	Manual Vacuum Aspiration
NM	Neonatal Mortality

PAHO	Pan-American Health Organization
PHC	Primary Health Care
PPIUD	Postpartum IUD Services
SBM-R	Standards-Based Management and Recognition
TU	Technical Update
USAID	United States Agency for International Development
UNA	Universidad Nacional de Asunción (Paraguay National University)
UNICEF	United Nations Children's Fund
USMP	Universidad San Martin de Porres (Midwifery School, Peru)

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The success of a large-scale project, like that of MCHIP/Paraguay, depends on the joint efforts of many people and often times it is nearly impossible to thank everyone individually for their generous and invaluable support. Our team would like to take a moment to express our special thanks to the key collaborators whose support was instrumental to the success of this project.

Many thanks to the Paraguayan Ministry of Health and Social Welfare (MOHSW) as well as the hospital administration and medical staff at the following hospitals: Hospital San Pablo, Hospital Mariano Roque Alonso, Hospital Lambaré, the Regional Hospital of Ciudad del Este, and the Hospital of Districts Hernandarias and Minga Guazú. The ongoing cooperation received from these facilities as well as their exemplary commitment to achieving the project's goals demonstrates the type of fundamental support needed to improve the quality and humanization of health care services for the men, women and children of Paraguay.

In particular, MCHIP/Paraguay thanks Dr. Esperanza Martínez, former Minister of Public Health, and her successor, Professor Dr. Antonio Arbo, for their extraordinary support. We also would like to thank the staff of Dirección General de Programas de Salud (General Directorate of Health Programs, DGPS) and Dirección de Niñez y Adolescencia (Directorate of Childhood and Adolescence Health, DIRSINA), especially Dr. Margarita Bazzano, Dr. Natalia Meza, Dr. Elke Strubing, and Professor Dr. Julio César Nissen, as well as all USAID Mission in-country representatives, our key partners in carrying out this important work.

It would not have been possible to obtain the results presented herein without the leadership, participation, coordination, and collaboration of many people who joined together to implement the MCHIP/Paraguay 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 of the MCHIP/Paraguay project.

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

Executive Summary

The main objective of this report is to document the MCHIP/Paraguay project's main activities while also sharing the project's objectives, focus, results, and lessons learned over the last two years.

In light of the USAID/Paraguay Cooperation and in order to support the efforts of the Government of Paraguay to improve Maternal and Newborn Health (MNH), the MCHIP/Paraguay program was implemented from 2009 to 2012. MCHIP is a global initiative with the goal of contributing to the significant reduction of global Maternal and Child Mortality while also progressing towards the United Nation's Millennium Development Goals 4 and 5, which aim to reduce child mortality and to improve maternal health.

In 2009, MCHIP began preparation for its implementation in Paraguay by collaborating closely with the Paraguayan MOHSW, represented by the DGPS and more specifically by DIRSINA. Program activities commenced in August 2010 and continued until September 2012.

MCHIP's overarching goal in Paraguay was to improve access to high quality MNH services as well as to increase the use of MNH best practices both by communities and families in the targeted regions of Central and Alto Parana, Paraguay.

The specific objectives carried out under the MCHIP/Paraguay program were:

Objective 1: *To support the MOHSW's efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.*

- Worked on the validation of newborn care protocols in the Newborn Care Manual published in 2011.
- Incorporated the updated norms and protocols on MNH and emergency obstetric care into eight hospitals in the two targeted regions.

Objective 2: *To increase the availability of quality, high-impact Essential and Basic Emergency Obstetric and Newborn Care (BEmONC) services.*

- Provided two rounds of Technical Updates (TU) and Clinical Skills Standardization (CSS) in BEmONC services, with the participation of staff from six hospitals in the two targeted regions
- Provided five trainings on advanced newborn resuscitation skills in the two targeted regions.
- Implemented Standards-Based Management and Recognition (SBM-R), a quality improvement process, in six targeted services

Objective 3: *To improve communities' and families' knowledge and practices in relation to pregnancy, childbirth and newborn care.*

- Produced culturally-appropriate materials to promote key messages for best practices in MNH including: the My Birth Plan ("Mi Plan de parto") pamphlet, the Pregnancy Booklet, community radio broadcast campaigns in the Guaraní and Spanish languages, pamphlets and posters about key PHC practices, and the development of the Kangaroo Mother Care (KMC) leaflet.
- Launched three MNH advocacy workshops with Community Health Councils (CHC's): two in the Alto Parana region and one in the Central region. The advocacy workshops aimed to

define strategies to improve MNH through close collaboration between the Unidades de Salud de la Familia (Family Health Units, FHU's) and the community, led by the CHC's.

- Established two demonstration KMC sites in each target region. In total, 100 health professionals were trained during the two-year implementation period of the MCHIP program. Also, published KMC Training Guides: one Facilitator Guide and one Participant Handbook.

In addition to the activities carried out with local funds, MCHIP also carried out two activities with regional funds (LAC funds): the Neonatal Sepsis Prevention activities and the South-South Cooperation between Midwifery schools in Peru and Paraguay.

This report describes the work performed by MCHIP and offers recommendations that may be useful to assist the USAID Mission and other partners in improving future programs.

This document covers the following sections:

- I. Background and Current Situation
- II. Summary of MCHIP/Paraguay
- III. Results: Principal Achievements
- IV. Results: Description by Area
- V. Financing of Regional Activities (LAC)
- VI. Program Management
- VII. Program Learning

This document also includes the following Annexes: Annex 1: Monitoring and Evaluation Framework; Annex 2: Success Stories; Annex 3: Interventions Map; Annex 4: MCHIP Employees and Consultants; Annex 5: Educational Materials. A detailed list of the annexes is included in the Table of Contents.

Background and Current Situation

When former bishop Fernando Lugo assumed the presidency in August 2008, the country embarked on the *Alternancia* stage of its democratic process, which had been postponed for nearly 20 years since the Stroessner dictatorship which ended in 1989. The *Alternancia* government's main goals were: to fight poverty, create jobs, and to respond to key social problems such as poor health care.

Despite gains in Maternal and Child Health (MCH) and Family Planning (FP) efforts over the past decade, Paraguay continues to face pressing challenges that adversely impact their MCH status. Several health indicators included in the MOHSW's¹ online database reveal the maternal-infant health situation:

- **Maternal Mortality Rate:** 125.3/100,000 live births
- **Neonatal Mortality Rate:** 11/1,000 live births
- **Infant Mortality Rate:** 15.4/1,000 live births
- **Percentage of mortality due to other causes, 2005–2009:** abortion 24%; toxemia 21%; hemorrhage 20%; other pregnancy, childbirth and postpartum complications, 27%; sepsis 8%
- **Percentage of newborns with low birth weight, under 2,500 kilograms:** 6.3%
- **Maternal mortality rates (MMR) and unmet basic needs:** the poorest 20% of the population accounts for 26.8% of the MMR, while the 20% with the strongest socioeconomic position accounts for 14.5% of the MMR. Considering all risks throughout the social strata and prorating against the population in the target regions, the inequality in the MMR between the two extremes of the social strata is equivalent to 64.57 maternal deaths for every 100,000 live births. As a consequence, the maternal mortality risk at the lowest end of the spectrum is 1.65 times greater than for those with the strongest socioeconomic position.
- **Percentage of hospital births/total live births:** 93.2%
- **Percentage of pregnant women receiving Antenatal Care (ANC) before the 4th month:** 29.7%

Other important statistics² demonstrate that only 11% of Paraguayan hospitals provide comprehensive emergency obstetric and newborn care (CEmONC), mostly concentrated in urban areas, and that 65% of hospitals provide an insufficient version of these services, or do not offer them at all. Less than 50% of hospitals have the necessary equipment, supplies, or trained staff to provide basic newborn care.

In addition Paraguayan midwives, or *Licenciadas en Obstetrica*, are not bound by any formalized legal regulations. There is no existing standardized curriculum in place for the various midwifery schools within the country. Due to the lack of a national set of standards the range of quality in training and in-turn clinical skills of Nurse Midwives is below par, and the care provided in MNH does not comply with the international recommendations.

¹ See <http://www.mspbs.gov.py/v2/index.php>

² Monitoreo sobre disponibilidad y utilización de servicios con CONE en los establecimientos de salud en Paraguay, Nov 2005

In this context, USAID/Paraguay's strategic approach for its health program will support the Government of Paraguay's (GOP) prioritization of improving Paraguay's public health system, decreasing corruption, and providing better access to key health care services. The long-term goals for improving the health status of rural women and infants includes: 1) reduced infant and maternal mortality rates, 2) increased contraceptive prevalence in rural areas for women in the lowest quintiles and 3) detecting, responding to, and controlling infectious disease outbreaks.

Due to the aforementioned:

- **USAID/Paraguay** supported the efforts of the GOP to improve MNH by enhancing the technical capacity of health care professionals in order to provide high-quality care. This was achieved through the training and institutionalization of evidence-based norms which are directly linked to the improvement of newborn and maternal health survival rates. It should be noted that the USAID Mission/Paraguay's dedicated assistance concluded in 2012.
- **MCHIP** is a global initiative with the overarching goal to contribute significantly to the reduction of global maternal and child mortality while progressing toward the United Nation's MNCH Millennium Development Goals 4 and 5.
- **Jhpiego** is an international nonprofit affiliated with The Johns Hopkins University. MCHIP was awarded in September 2008 to Jhpiego and leading partners³ whose work has had proven success in reducing maternal, neonatal and infant mortality and malnutrition. MCHIP works closely with the USAID Missions in the target countries.

In 2009, MCHIP began preparations for its implementation in Paraguay by collaborating closely with the MOHSW, represented by the Directorate of Health Programs and the DIRNSA. The initial steps consisted in identifying technical areas for effective MNH service delivery, selecting technical and administrative staff, formulating a work plan and setting up in-country offices. With MCHIP staff selected, technical areas identified (**Maternal Health, Neonatal Health, and Community Interventions**) and the work plan reviewed and approved the MCHIP program activities began in August 2010 and continued until September 2012.

In June 2012, Luis Federico Franco Gómez became the new President of the Republic of Paraguay. As a result of the political change, new authorities were chosen in many governmental institutions throughout the country, including the MOHSW. The MCHIP Team concluded the coordination of its activities without major changes within the DIRNSA. Provided that the political turn-over occurred during the last three-month period of the program, activities were completed without major delays or additional challenges.

³ JSI—John Snow, Inc., Save the Children, ICF Macro, PATH, JHU/IIP, Broad Branch, PSI

Summary of MCHIP Paraguay

OBJECTIVES AND STRATEGIES OF MCHIP GLOBAL

As stated previously, the goal of MCHIP is to reduce maternal, newborn and infant mortality rates by 25% in 30 prioritized countries throughout the world. MCHIP works to increase the use of high impact MNH interventions by addressing the barriers to accessing and using focused, evidence-based interventions along the MNCH continuum of care from pre-pregnancy to age five, and by linking communities, first-level facilities, and hospitals.

Building on program experience and lessons learned from other programs (ACCESS, BASICS, IMMUNIZATION, POPPHI, ACCESS-FP, and Child Survival Technical Support Plus [CSTS+]), MCHIP addresses major causes of maternal, newborn and infant mortality guided by five interrelated principles:

- Scaling up proven interventions
- Maximizing the use of resources through integrated programming
- Building on existing efforts of programs and partners
- Ensuring a focus on evidence generation through program learning
- Taking a global leadership role

MCHIP PARAGUAY—OBJECTIVES AND STRATEGIES

The MCHIP-Paraguay program was carried out over a 3-year period, from October 2009 until September 2012. The program was implemented under Cooperative Agreement GHS-A-00-08-00002-000.

The goal of MCHIP-Paraguay was to improve access to high quality MNH services and increase use of best practices in MNH by communities and families in targeted areas and facilities in the Regions of Central and Alto Paraná. To this end, throughout the project duration (2009-2012), MCHIP carried out the project activities outlined in its work plans for MNH and community mobilization components.

With the assistance of MCHIP's Technical Team, the MOHSW selected the targeted services for implementation of the program interventions for Year 1 (September 2010–September 2011) and Year 2 (October 2011–September 2012). The intervention areas related to the program objectives were: **Maternal Health, Neonatal Health, and Community Mobilization.**

In addition to the activities related to the above intervention areas which were implemented with local funds, MCHIP also carried out two interventions with regional funds (LAC): the Newborn Sepsis Prevention Program and the South-South Exchange: Learning and Sharing Best Practices to Support Midwifery Education in Paraguay.

	CENTRAL REGION AND CAPITAL	ALTO PARANÁ	OTHER
MCHIP Year 1 Selected services	<ul style="list-style-type: none"> ▪ Hospital San Pablo (Asuncion) 	<ul style="list-style-type: none"> ▪ Hospital Regional de Ciudad del Este 	
MCHIP Year 2	<ul style="list-style-type: none"> ▪ Hospital Materno-Infantil de Lambaré ▪ Hospital Distrital Ñemby ▪ Hospital Distrital Mariano Roque Alonso 	<ul style="list-style-type: none"> ▪ Hospital Distrital Hernandarias ▪ Hospital Distrital Presidente Franco ▪ Hospital Distrital de Minga Guazú 	
Neonatal Sepsis			<ul style="list-style-type: none"> ▪ San Estanislao (Santaní) ▪ Hospital Regional de Coronel Oviedo ▪ Hospital Regional de Caacupé
South-South Cooperation	<ul style="list-style-type: none"> ▪ IAB; Instituto Andrés Barbero 		

The three specific objectives of MCHIP's work in Paraguay were:

- **Objective 1:** Support the MOHSW's efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.
- **Objective 2:** Increase the availability of quality, high-impact essential and basic emergency maternal and newborn care services in targeted facilities by improving providers' knowledge and skills.
- **Objective 3:** Improve communities' and families' knowledge and practices in relation to pregnancy, childbirth and newborn care.

Results: Principal Achievements

The Program's Overall Results include:

- Formulated, updated and validated newborn care protocols from the Newborn Care Manual published in 2011.
- Formulated, updated and validated National Norms and Protocols for essential and basic emergency obstetric care.
- Incorporated the updated norms and protocols into supervision tools for use by providers in targeted services during years 1 and 2.
- Implemented workshops on TU and CSS in BEmONC in targeted services. Year 1 included a focus on: Hospital San Pablo and Hospital Regional de Ciudad del Este. These two facilities also received advanced newborn resuscitation trainings. In addition, Hospital Regional de Ciudad del Este received trainings on inpatient newborn care. In Year 2, the same workshops were delivered in Alto Parana with the participation of medical personnel from six facilities and the district hospitals of Hernandarias, Minga Guazú and Pdte. Franco. The workshops were also delivered in the Central Region at the district hospitals of Lambaré, Ñemby and Mariano Roque Alonso.
- Delivered workshops on Newborn Resuscitation and Inpatient Newborn Care with the participation of hospital health workers, nurses and doctors in Year 1 and Year 2 targeted services.
- Established one clinical training site in each of the program regions: Central (Asuncion) and Alto Parana (Ciudad del Este).
- Implemented the use of the SBM-R approach in 6 targeted facilities in two program regions. Created quality committees, developed baselines and action plans.
- Completed an assessment of client behaviors related to maternal and newborn health. The results provided valuable information to improve the Objective 2 activities and to develop learning materials.
- Developed culturally-appropriate materials to promote key messages for best practices in MNH by the communities and families, including: *My Birth Plan* (pamphlet), Pregnancy Booklet, and a community radio campaign to broadcast key messages.
- Conducted three advocacy workshops with CHC's to strengthen their role in improving maternal and newborn health outcomes: Two workshops took place in Alto Parana and one in the Central Region. These workshops developed strategies for collaboration among the FHU's, the community, and the local health councils.
- Established two KMC demonstration sites: Hospital San Pablo and Hospital Regional de Ciudad del Este. Provided technical assistance to establish another KMC demonstration site at Hospital Regional de Coronel Oviedo.

Results: Description by Area

Objective 1: *Support the MOHSW's efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.*

The activities in Objective 1 included:

- Formulated, updated and validated newborn care protocols from the Newborn Care Manual published in 2011
- Formulated, updated and validated national norms and protocols for essential and basic emergency obstetric care. A Draft Manual was submitted to MOHSW for editorial finalization.
- Incorporated the updated norms and protocols into trainings and supervision tools for use by providers in targeted services.

MNH PROTOCOLS

From October 2010 to February 2011, four workshops were held to evaluate and update norms and analyze the regulatory framework related to maternal and infant care. Collaboration was initiated between the MCHIP Team and their counterparts at MOHSW to review the MNH policies and norms.

The first TU and CSS in BEmONC took place in November 2011 with the participation of 15 providers selected by the local authorities. The following objectives were met:

- Reviewed existing MOHSW resolutions defining health care service delivery;
- Completed a competency-based revision of the regulatory framework for MNH service delivery;
- Identified obstacles and gaps for effective MNH service delivery;
- Support given to the MOHSW to update national norms, protocols and regulatory framework to improve the use of evidence-based practices.

Two MNH Technical Working Groups were created. Each Working Group held a technical workshop to create a preliminary manual per area: **Skills Standardization in emergency newborn care** and **Skills Standardization in emergency obstetric care**,

The Newborn Emergency Care Manual creation/review workshop was held in December 2011 with participants from San Pablo Hospital, Trinidad Hospital, Villarrica Hospital, *Centro Materno Infantil* (Maternal-Infant Center), *Instituto de Previsión social* (Institute of Social Welfare), *Sociedad de pediatría* (Society of Pediatrics), and the *Escuela de Enfermería de la Universidad Nacional* (Nursing School of the National University).

A limited number of copies of the *Newborn Care Manual* were released by the MOHSW, with PAHO funding, for distribution in the targeted service areas.

The revision/approval workshop of the *Emergency Obstetric Care Manual* was postponed to 2011, in order to improve the workshop's logistics, to insure the inclusion of all updated revisions, and to increase the participation of key MOHSW personnel. In February 2011, the aforementioned MNH organizations participated in updating the manual's protocols to include international standards as previously, only the MOHSW's standards were included. This

information was compiled into a draft *Emergency Obstetric Care Manual* and then given to the MOHSW for editorial finalization.

The finalization and final release of the updated *Emergency Obstetric Care Manual* was expected to occur in the following months, and dissemination of the updated policies and norms was to take place during the trainings with health care providers, as planned in Objective 2. However, despite repeated communication to the MOHSW authorities on the relevance of releasing a finalized copy of the manual, the task was not completed during the remaining months of the project. In June 2012, a new government administration took office in Paraguay. The new authorities were contacted and although they expressed interest in printing and distributing the *Emergency Obstetric Care Manual*, funds were no longer available.

During the initial months of the project, support was given by MCHIP to update Paraguay's national norms and protocols, to review the existing regulatory framework and to complete a competency-based revision for MNH service delivery.

To this end, MCHIP identified MOHSW resolutions defining health care service delivery by both doctors and skilled midwives, as well as the resolution enforcing the use of the IMPAC Guide as the MOHSW standard. Then, a decision was made to begin the trainings (Objective 2 activities) even though the Emergency Obstetric Care Manual had not been officially released by MOHSW, under the recognition that IMPAC reflected the latest available updated norms based on scientific evidence.

***Objective 2:** Increase the availability of quality, high-impact essential and basic emergency maternal and newborn care services in targeted facilities by improving providers' knowledge and skills.*

The activities in Objective 2 included:

- 1. Trainings in MNH:** Trained providers in TU and CSS in essential and basic emergency obstetric and newborn care in targeted services.
- 2. Implemented the use of the **Standards-Based Management and Recognition, SBM-R approach**** with content on high-quality BEmONC service provision.
- 3. Following MCHIP program's M&E Plan, implemented ongoing monitoring of use of best practices for maternal and newborn health in targeted services.**
- 4. Delivered trainings on Advanced Newborn Resuscitation in each region to strengthen clinical skills of participants, who were selected among specialized cadres at intervention facilities.**

MNH TRAININGS: TECHNICAL UPDATE AND CLINICAL SKILLS STANDARDIZATION IN ESSENTIAL AND BASIC EMERGENCY OBSTETRIC AND NEWBORN CARE

The training modules implemented at the targeted services in Year 1 (San Pablo and Ciudad del Este) covered Normal Delivery Care, Obstetric Emergencies, and Clinical Training Skills.

These modules were developed by the local technical teams with the support of MCHIP Paraguay. Thirteen topics related to obstetric and newborn care were defined, including MVA, provision of equipment to all health regions and postpartum IUD insertion. Models, materials, and supplies were made available to begin the trainings. Anatomical models and MVA equipment were provided for practice during the workshops.

The training process began in May 2011, instead of March, due to a health emergency caused by a dengue fever outbreak. Due to this outbreak health service workers were overwhelmed with work and patients & were instructed to remain in their respective health facilities. However, the MOHSW did make one exception in March 2011 to allow health workers to hold and participate in the Advanced Neonatal Resuscitation workshops which took place in the San Pedro Hospital.

In **May 2011** the first rounds of workshops was conducted in both San Pedro Hospital (HSP) and Ciudad del Este Regional Hospital (HRCDE). The workshops ended in August 2011.

HSP enrolled a total of 18 participants who met the appropriate requirements, and attended all sessions, while at HRCDE only 13 of the 20 enrolled participants were able to attend regularly and did not meet the requirements (instead of medical staff with management duties, only residents and skilled midwives were enrolled).

The following modules were covered:

1. MNH key concepts
2. Normal Delivery I
3. Normal Delivery II
4. Newborn Care and Basic Newborn Resuscitation
5. Infection Prevention
6. Managing postpartum hemorrhage and hypovolemic shocks
7. Pre-Eclampsia/Eclampsia
8. Abnormal Labor
9. Managing Incomplete Abortions
10. Pregnancy, Delivery and Postpartum Infections
11. Postpartum Family Planning
12. Clinical Training Skills I
13. Clinical Training Skills II

All participants from HSP completed all 13 modules and graduated as “Master Trainers”. At the HRCDE, however, not all of the modules were delivered due to the lack of participants. The Central Region enrolled 20 participants from the District Hospitals of Lambaré, Ñemby and Mariano Roque (of whom only 14 completed the training) while Alto Paraná enrolled 21 participants from the District Hospitals of Hernandarias, Minga Guazú and Pte. Franco. Other individuals from neighboring health institutions were invited to participate because the selected facilities were not able to fill the available slots.

All of the participants from the targeted facilities in Year 2 in the Alto Parana region graduated as Clinical Trainers except those performing as birth assistants (nurses) in their respective facilities. During the last year of the project, supervisory visits were made to HRCDE and HRHER to monitor the practice of updated MNH clinical skills.

Training Sites

The program committed to installing one clinical training site in each of the two regions. As such, the program supported the existing training site at HSP and created a new training site at HRCDE. In both locations, the following actions were taken to improve the training facilities: each site was renovated and painted, while also being supplied with the appropriate classroom

furniture, heating/cooling units, a provision of audiovisual equipment, and the essential teaching materials.

At HSP, the process was carried out easily. However, at the Alto Paraná site, the renovations had to be postponed until the last six months of the project due to the fact that the HRCDE could not identify a suitable location/space for the training site. Similarly, in Alto Paraná, all training models and supplies had to be temporarily stored at the *Universidad Privada del Este*, where trainings took place the first year.

Training Impact

It is important to note that although only a portion of service staff received MNH training, it was reported that the standardization process allowed for the facilities to progressively improve. Regarding MMR, MCHIP-supported facilities in the Central Region accounted for 12.5% of the region's MM in 2010. However, this fell by 50% in 2011 and 100% in 2012, with no cases of MM reported as of the end the project.

The impact could also be seen in the Alto Parana region. MCHIP-supported facilities accounted for 44% of the region's MM in 2010; this figure fell to 33% in 2011 and 22% in 2012. MM in MCHIP facilities fell by 50% in 2011 and 75% in 2012 versus the 2010 figures.

Traditionally, MMR as an indicator is difficult to improve or modify over the short-term due to its multiple causes which require interventions in several different areas. However, it is encouraging for future MNH interventions to recognize the impact of MCHIP's activities which contributed to the reduction of MMR in both regions where the program operated. Please see the targeted region's data below:

Table 1. Data on MMR, Courtesy of the MOHSW's Department of Statistics, November 2012

REGION	FACILITY	MATERNAL MORTALITY			
		No. of MM/2009	No. of MM/2010	No. of MM/2011	No. of MM/2012
Central & capital, Asuncion	HMI San Pablo	1	1	0	0
	HMI M. R. Alonso	1	0	0	0
	HD Lambaré	0	1	1	0
	HD Ñemby	0	0	0	0
Alto Paraná	HR Ciudad del Este	10	6	3	2
	HD Hernandarias	0	1	0	0
	HD Minga Guazú	1	1	1	0
	HD Pte. Franco	4	0	0	0

Challenges and Recommendations

The implementation of training programs in Paraguay has always involved a significant challenge. It is difficult to secure full participation of MNH physicians as they often work at multiple sites and have little free-time. To a lesser degree this is also seen with the technical medical staff, who are often available to participate in training programs, but who in general hold lower positions with little influence on the overarching decision-making processes. In turn if both groups do not participate in the training, much of the effort is wasted. This can create a feeling of discouragement or a lack of motivation amongst lower-level personnel as they cannot provide improved care when their decisions are undermined in the delivery room by higher level authorities or physicians.

In response to these challenges, MCHIP proposed a 6-hour module training course to be taught in weekly sessions. While this encouraged participation in the Central Region, in Alto Parana only a few higher-level physicians participated in the trainings. Despite promises from the MOHSW authorities to insure all OBGYN's participation, full attendance by MNH physicians could not be obtained. However, this was not the case with technical medical staff, all of whom participated in all of the training sessions successfully, and despite the obstacles were able to create remarkable change in MMR in the region.

To increase the impact of future interventions, it is important to ensure the participation and commitment of the MOHSW authorities, both within the Directorate of Health Programs and the DGPS.

To ensure sustainability of the improvements in service delivery, it is extremely important to ensure the continuity of the trained/updated health systems, as well as supporting newly installed training sites and trained providers.

SBM-R

The Standards-Based Management and Recognition (SBM-R) approach was implemented in the framework of Objective 2. SBM-R is the result of years of Jhpiego's international experience in human resource development, strengthening clinical practice and policies in health, such as strengthening clinical training systems, and supporting trained providers to deliver high-quality, science-based clinical services.

SBM-R is a practical management tool for improving the performance and quality of health services and seeking solutions for identifiable, measurable gaps in the quality improvement process. It includes the systematic implementation of objective performance standards for a defined service delivery process, measuring progress to guide the improvement process toward these standards and rewarding achievement of standards through social/peer recognition mechanisms. SBM-R empowers local health teams by identifying gaps between actual and desired performance and devising detailed action plans to address the gaps.

In **April 2011**, the process to improve performance and the quality of services began with the implementation of the **first SBM-R workshop** led by an external MCHIP/Jhpiego Consultant. Participants included representatives from the MOHSW and from eight hospitals selected by the MOHSW from the regions of Asuncion and Ciudad del Este. The two regional hospitals began the process in Year 1 (HSP and HRCDE) and the six regional hospitals (Hernandarias, Presidente Franco, Minga Guazú, Ñemby, Mariano Roque Alonso and Lambaré) began the process in Year 2.

During the first session of SBM-R, areas for improvement and performance standards were defined as follows:

Area 1: Managing pregnancy emergencies;

Area 2: Labor, birth and postpartum care, and newborn care;

Area 3: Support services;

Area 4: Infection prevention;

Area 5: IEC and outreach;

Area 6: Human, Physical and Material Resources;

Area 7: Logistics and Management Systems. Also, guidelines were agreed upon to form quality assurance teams in each of the selected hospitals.

Between **April and June 2011** the quality assurance teams at HSP and HRCDE (with support from the Jhpiego Consultant and the MCHIP team) conducted the first round of evaluations of

standards, thus creating a baseline. From there, action plans were formulated to address the identified gaps.

In **October 2011**, the **second SBM-R workshop** took place in both Ciudad del Este and Asuncion. The workshop's goal was to plan appropriately for the first round of monitoring/evaluation of the standards process. These results would be used to create the baseline study. The evaluations would be performed with the quality assurance teams from six hospitals selected in Year 2. In addition these same quality assurance committees (whom participated in Year 1's evaluations) would conduct the second round of evaluations to measure progress made. In addition, work was done with the quality committees at the six new hospitals to develop baselines and action plans based on the identified gaps. The results of the second round of measurements at San Pablo and Ciudad del Este showed overall improvements, thus proving the effectiveness of the SBM-R process.

The identified gaps were fairly similar among the eight participating hospitals: poor infrastructure; lack of an adequate onsite laboratory; lack of 24-hour blood bank/supply; insufficient human resources; lack of service guidelines and job aids; incomplete clinical records; and non-standardization or compliance with clinical practices for maternal and newborn care (including hand washing and client integrity).

The main improvement observed in follow-up measurements was the increase in the use of recommended practices in obstetric and newborn care, such as: restricting routine episiotomies; active management of the third stage of labor; and to a lesser degree, use of the partogram. An improvement was also noted in filling out clinical records and in infection prevention. Regarding complications, an improvement was observed in shock management and basic newborn resuscitation. These achievements can be attributed to clinical reinforcement/training workshops directed at health workers.

Throughout the implementation of the SBM-R process, the action plans were periodically reviewed and adjusted, in order to record progress and define further improvements over the coming months. Although the quality teams were dedicated to the process of improving performance, it was necessary to provide ongoing support to encourage teamwork and the execution of the evaluations.

During the last three months of the program a final round of evaluations was conducted by the Jhpiego consultant, accompanied by the representative from the MOHSW (Dra. Natalia Meza). At the end of the program, the facilities that began the quality improvement process:

- Had created and strengthened quality teams to pursue the process on site and support expansion to other hospitals;
- Had incorporated the ongoing performance and quality improvement process into their routine operations and carried out regular measurements of standards;
- Had achieved an upward trend toward the achievement of standards specifically in the areas of infection prevention;
- Two quality teams of the eight participating facilities had delays; one due to the reconstruction of the hospital and the other due to resistance to change on behalf of the person in charge of maternal health;
- Changes in personnel in some health teams did not affect the process of quality improvement;
- The results of all measures taken by MCHIP at the participating facilities were presented to the new MOHSW authorities, including their action plans.

According to testimonies by high-level facility directors, the quality improvement process was significant due to the following achievements:

- Standardization of the facility health care practices and services, based on identified standards;
- Empowering health service providers and the quality improvement process, and particularly the implementation of obstetric and newborn care best practices;
- Awareness among medical staff regarding the importance of records for daily and transversal tracking of obstetric and newborn care practices;
- Strengthening teamwork with key stakeholders from public health, neonatology and obstetrics, which allowed for collaboration among the various sectors involved in management and supervision.
- Awareness and interest among other facilities to implement the SBM-R approach.

The following table shows the results of the SBM-R initiative in the eight participating facilities during the two-year program. Five of the eight hospitals completed the implementation of all SBM-R steps/process, while three hospitals did not complete the process due to several factors: the hospital building was under construction, the local team was not committed, changes in hospital administration, etc.

	BASELINE STUDY	BASELINE STUDY	1 ST EVALUATION	2 ND EVALUATION	3 RD EVALUATION
Central Region and Asuncion	June 2011	October 2011	October 2011	May 2012	September 2012
Hospital San Pablo	28%		52%	46%	65%
Hospital Lambare (3)		46%		55%	4 pending areas
Hospital Nemby (1)		21%		Did not complete	Did not complete
Hospital Mariano Roque Alonso		46%		53%	51%
Region of Alto Parana	June 2011	October 2011	October 2011	May 2012	September 2012
Regional Hospital	11%		48%	40%	55%
Hernandarias		37%		45%	65%*
Minga Guazu (3)		24%		35%	45%
Pdte. Franco (2)		Information was Lost		26%	Did not complete

(1) Hospital was under construction

(2) Health Team did not show interest nor want to involve themselves in this process

(3) New Quality Committees (evaluated in Sept 2012)

Challenges and Recommendations

Improving the performance and quality of health services requires follow up, guidance, and occasional technical assistance and management support, particularly at the beginning of the implementation process in order to ensure internal buy-in as a tool for improving health services. MCHIP initiated this process at the selected facilities with established quality improvement teams that were largely motivated to participate in the process and achieve positive outcomes. However, this process will require further consolidation efforts at the participating facilities.

In light of the changes within the Paraguayan government's administration during the final stages of the MCHIP program, the new MOHSW authorities had to be briefed on the SBM-R initiative, the use of standards, and the results achieved to date within each facility. In this way, the authorities are equipped to follow-up and provide necessary support to local teams in order to continue with the improvement process and ideally to also expand it to other health institutions across the country.

Given the regular follow-up and support requirements of SBM-R, it is highly recommended that future projects using this strategy consider hiring one key person dedicated exclusively to this task.

ADVANCED NEWBORN RESUSCITATION

In order to improve the knowledge and clinical skills of newborn care, MCHIP provided workshops on Newborn Resuscitation and Inpatient Newborn Care. These workshops were developed for health workers, nurses, and physicians from the selected facilities throughout Years 1 and 2.

In Year 1, advanced newborn resuscitation workshops took place at HSP and HRCDE. During the first half of 2011, 37 neonatal health care professionals (physicians, technicians and nursing assistants) from HSP were trained; at HRCDE, 20 health workers were trained.

In Year 2, the program conducted newborn resuscitation workshops in Alto Parana and Lambare with the participation of health workers from the selected facilities.

Five advanced newborn resuscitation workshops were delivered. The trainings were based on the most recent edition of the AHA and AAP's Guidelines on Neonatal Resuscitation, using recommended methods for teaching the eight lessons and clinical practices with anatomical models, tests, and evaluations. In response to a request from the MOHSW, the workshop included materials related to Inpatient Newborn Care such as: infection prevention, hand washing, airway management, newborn handling, managing newborns breathing complications, and use of oxygen. Over the two-year program, 82 health providers selected by the MOHSW and local authorities were trained. Neonatal models were supplied to HSP and HRCDE for future trainings.

Objective 3: Improve communities' and families' knowledge and practices in relation to pregnancy, childbirth and newborn care.

- Completed an assessment of client behaviors related to maternal and newborn health. The results provided valuable information to improve Objective 2 activities and to develop educational materials.
- Conducted three advocacy workshops with CHC's to strengthen their role in improving MNH outcomes: Two workshops in Alto Parana and one in the Central Region. Through these workshops, the program developed strategies for collaboration among the FHU's, the community, and the local health councils.
- Developed culturally-appropriate materials to promote key messages for best practices in MNH both by the communities and families, including: My Birth Plan (pamphlet), Pregnancy Booklet, a community radio campaign to broadcast key messages in the Guaraní and Spanish languages, pamphlets and posters about key practices, and the KMC leaflet.
- Established two KMC demonstration sites: Hospital San Pablo and Hospital Regional de Ciudad del Este. Trained health professionals and published KMC Training Guides: one Facilitator Guide and one Participant Handbook.

TARGETED ASSESSMENT

During the first six months of MCHIP implementation from August to December 2010, an **assessment of client behaviors** related to maternal and newborn health was conducted. The results—reported as the *Qualitative Study of Client Behaviors Related to Maternal and Newborn Health*—provided valuable information to improve Objective 2 activities and to develop educational materials.

In addition to presenting this report at the two participating facilities and the MOHSW, the results were disseminated through:

- **Data Sheet** summarizing the study's key data.
- **PowerPoint Presentation** used by the MCHIP Technical Team at clinical trainings.

The results were also shared with other international agencies such as: UNICEF, INAN and PAHO. The study revealed that clients had scarce knowledge of MNH and that ANC and postnatal mother care and newborn care practices in the selected facilities were in fact insufficient.

Based on this information and taking into account the 23% incidence of first and second delays in maternal mortality (MM), (for example, delays caused by identifying complications/warning signs and/or not having appropriate transportation on the day of delivery) and considering the high prevalence of MM and neonatal mortality during the week immediately after birth, increasing women's knowledge of MNH was identified as a priority; specifically, knowledge related to health care during pregnancy, postpartum care, and newborn care during the first week, with an emphasis on danger signs and exclusive maternal breastfeeding. Likewise, considering that clients are discharged within 24 to 48 hours and the fact that the mother will be at home during the week immediately after birth (which is the week of highest prevalence of MM and NM) it was also considered extremely important to improve community capacities and increase clients' knowledge.

In response, MCHIP focused on creating educational and outreach materials for use in the targeted services and communities.

During the course of the project, another organization with a community mobilization component was identified, named Plan Paraguay. Plan Paraguay has been working in Paraguay since 1994 aiding children and communities in accessing education, health care, food security, and sustainable protection and growth. Its areas of intervention include: the regions of San Pedro, Caaguazú, Guaira and Paraguari.

STRENGTHENING COMMUNITY HEALTH COUNCILS (CHC)

In accordance with the MOHSW three MNH advocacy workshops with CHC's were conducted: two in the Alto Parana region and one in the Central region. The advocacy workshops (Titled: *Aty ñemonguetara sy ha mitakuera hesai porave hagua* in the Guarani language) aimed to define strategies to improve MNH through close collaboration between the FHU's and the community, led by the CHCs.

The first advocacy workshop was conducted in the Municipality of Hernandarias from September to December of 2011; the second advocacy workshop was conducted in Minga Guazú from February to June of 2012; and a third one in Mariano Roque Alonso from August to September 2012.

The objective of the advocacy workshops was to create a space for debate and reflection about improving maternal and infant health through close cooperation of all participants: CHC's, FHU's directly related to the MCHIP-supported facilities, community leaders, and hospital representatives. The workshops utilized the IMCI methodology, developed by PAHO and applied by the MOHSW.

The **specific goal** of the advocacy workshops was to improve MNH by mobilizing key community stakeholders and promoting capacity building to identify health concerns and address them appropriately.

Desired participant profile: Representatives from FHU's; FHU community leaders (schools, parishes, neighborhood committees, etc.); CHC representatives, one representative from CODENI; and other community representatives interested in the area of women and child health.

Desired number and frequency of meetings: A minimum of four meetings were held on a weekly or bimonthly basis, allowing participants to carry out activities in their communities.

Steps to be completed to organize advocacy workshops:

1. Coordinate a visit to the CHCs with representatives from the local Health Division;
2. Present the proposed activity to the CHC;
3. Coordinate a visit to the facility with representatives of the local Health Division, and related FHUs;
4. Coordinate activities with CHCs and the facility;
5. Schedule meetings, ensuring the participation of local authorities and local health officials, especially for opening and closing events. Identify maternal and infant health concerns, stakeholders, and their networks.
6. Identify the status of key practices and prioritize maternal and infant health concerns.
7. Create action and follow-up plans
8. Present these plans to the community

Each advocacy workshop included six to eight meetings and covered the following modules:

Day I	MODULE I – LOCAL CONTEXT and instruments for community analysis.
Day II	MODULE II – IDENTIFYING KEY STAKEHOLDERS: Civil society organizations, health services, community organizations.
Day III	MODULE III – IDENTIFYING AND PRIORITIZING maternal and neonatal health concerns.
Day IV	MODULE III – PRIORITIZING maternal and neonatal health concerns.
Day V	MODULE IV – STATUS OF KEY PRACTICES related to maternal and neonatal health
Day VI	MODULE V – PLANNING: Formulate community plans and create maternal and neonatal health networks.
Closing	Close the forum by presenting the COMMUNITY ACTION PLANS and hand out certificates of participation.

The key practices promoted at advocacy workshops were selected from IMCI key community practices and complemented the practices identified as priorities by the qualitative study conducted at the beginning of the project. The following key practices were identified:

- All pregnant women must receive adequate prenatal care. All pregnant women must have at least four prenatal checkups during their pregnancy.

- All pregnant women must complete the *My Birth Plan* pamphlet at the beginning of their pregnancy so that both the mother and her family are prepared for the baby's arrival.
- All women must go to their health provider immediately if they have: intense abdominal pain or headache, swelling in hands or feet, vaginal bleeding, seizures, fever, or bad-smelling vaginal discharge.
- After the child's delivery, the mother should take time to rest whenever she can and take care of her hygiene and personal care. She should also go to the closest health facility immediately if after giving birth she has any of the following symptoms: heavy vaginal bleeding, bad odor in genitals, genital pain, headache, fever, chills, abdominal pain, swollen or painful breasts or painful/wounded nipples.
- Men should actively participate in caring for their children and take responsibility for the family's health, including reproductive health.
- Breast milk is the best food for the newborn baby. Women should feed their newborns within the first hour after birth and continue nursing exclusively whenever the baby wants, night and day, until the age of six months.
- After six months, it is important to start giving other foods to the baby.
- All women should be sure to follow the instructions about caring for their baby during his or her first month of life. They should take the baby for a newborn checkup the third day after mother/child are discharged from the hospital.
- All women should take their child to the nearest health facility if their newborn has a fever or becomes cold, if he or she can't nurse or vomits everything back up, if he or she has difficulty breathing or has diarrhea or eye secretions, if his or her bellybutton is red or has pus, or if his or her skin turns yellow.

At each session, FHU representatives spoke to community leaders to detect maternal and infant health problems, prioritize them, relate these problems to key practices mentioned above, and to formulate action plans.

At the end of each workshop participants from all groups (FHU representatives, community leaders, health providers, members of the CHCs, and community organizations) defined community strategies in the form of action plans to improve maternal and infant health in the communities.

Each workshop ended with a closing ceremony where participants exhibited posters of their work. Approximately 100 people received certificates of participation for 75% attendance to sessions.

A total of 19 FHUs related to the CHCs from the target districts participated in the advocacy workshops. All of them presented at least one action plan to improve a key practices for maternal and infant health. The most notable practices were: timely prenatal checkups, adequate prenatal nutrition, and early initiation of breastfeeding, exclusive breastfeeding, responsible sexuality, and healthy pregnancy among adolescents, among others.

The FHU participants from Alto Parana (from the districts of Minga Guazú and Hernandarias) and from the Central Region (from the district of Mariano Roque Alonso) were:

- Km 20 Acaray, Valle Hermoso; MG
- Km 13,5, Monday; MG

- Km 30, Comuneros, MG
- Km 30 San Jorge, MG
- Km 28, 21 de setiembre, MG
- Km 16 Villa nelida, MG
- Toryvete, HER
- Caacupemi, HER
- Itakyry, HER
- Niño Jesús de Prada, HER
- Her II; ex hospital, San Lorenzo, HER
- Her I, ex hospital, Santo Domingo, HER
- San Ramón, HER
- Acaraymi, HER
- San Francisco, HER
- Chino cue; HER
- Paso Ita, HER
- Villa alegre, MRA
- La amistad, MRA
- Virgen de Guadalupe, MRA

The advocacy workshops were coordinated and managed by the corresponding CHCs. In all cases, meetings took place in locations near the hospitals. The FHU representatives, located within a radius of up to 20 kilometers from the training location, traveled to that location to participate in the meetings, along with MOHSW members in order to incorporate participation at the local and regional levels.

The maternal and infant health plans reflected real concerns of their respective geographical areas and responded to the characteristics of the populations where each FHU is located in the districts of Hernandarias, Minga Guazú and Mariano Roque Alonso. For example, in Hernandarias, one of the FHUs has a completely indigenous population where most health problems are related to the use of unsafe water as most of their water sources are contaminated by underground residues of agrotoxins; another FSU in Minga Guazú has a young population and a high percentage of pregnancies among very young women.

At the end of the workshops follow-up meetings were planned to pursue the implementation of the action plans in Hernandarias and Minga Guazú. However, as mentioned above, FHUs are widely dispersed geographically and the roads are of poor quality and difficult to travel on. Due to these factors, it was not possible to carry out a detailed follow-up of the implementation of each of the action plans by the 19 FHU participants from the three participating districts.

However, during follow-up meetings, representatives did have the opportunity to share their achievements and challenges they faced throughout the process. They stated that the best result from the workshop was the opportunity to work closely with other stakeholders

(hospitals, FHUs, CHCs) to address difficult situations related to maternal and infant health, such as timely referrals of pregnant women from FHUs to their hospital, laboratory access, etc.

In May 2012, the First National Showcase of Primary Health Care (PHC) took place in Asuncion with the participation of FHUs from across the country. Representatives from the FHUs participating in the MCHIP program (Hernandarias I and Acaraymi) presented on their activities and community plans.

Lastly, the MCHIP/Paraguay objective to strengthen the role of the CHCs in improving MNH outcomes has been more successful in Alto Parana than in the Central Region.

In Alto Parana the CHCs actively participated in all workshop sessions. In addition, after the MCHIP program ended, various partnering stakeholders reported that the CHC's continued in their activities, insuring: timely transportation of clients from CHCs to the reference hospital; use of the local Health Division vehicles to transport CHC personnel to remote areas; use of hospital resources to transport materials for hospital tests, etc.

However, in the Central Region partnering stakeholders were not able to participate fully due to several unforeseen circumstances which in turn limited the leadership of CHCs. For example, the dates planned for activities with the Mariano Roque Alonso CHC coincided with a change in government administration. This resulted in a change in leadership at the corresponding facility which changed the priorities of the CHC. These dates also coincided with a tornado that severely affected the neighborhoods surrounding the hospital, causing the region to be declared a disaster zone for several weeks. Due to these factors the advocacy workshop was held and all modules were presented, but the CHC representatives could not be present at all of the sessions nor participate fully in the activities.

Recommendations for successful implementation of the advocacy workshops in other districts:

1. Plan the activity with leaders from the CHC and the local Health Division.
2. Involve the participation of the targeted hospital administration, FHUs leadership, and community leaders in the planning phase.
3. For the opening and closing events:
4. Have active participation from local Health Division authorities, Municipality authorities, hospital authorities, and CHCs.
5. Present FHU activities at the opening and action plans at the closing event.
6. Hand out certificates of participation signed by central MOHSW and regional health authorities.
7. Ensure the participation of CHC members and all representative community leaders at all meetings.
8. Ensure that participants carry out the designated tasks in their communities, that they truly consult with their communities and attend future meetings with their input.
9. For the Planning Module, content regarding outreach and networking must be strengthened including input on how to create detailed community plans and how to implement them.
10. Reinforce the elaboration of Follow-Up and Monitoring Tools to monitor plan implementation, by using instruments that later on will support the recording of the activities in the community plans.

The project established community work through the Community Health Leaders. Throughout the development of activities it was evident that the participation of the indigenous groups and rural communities was very weak. The project did not have the human resources, or finances, to be able to complete the necessary visits to these health facilities in order to train their staff. This was also notable in the Forums whose participants were mostly comprised of the FHUs, Hospitals, and other education and municipal organizations. However, even in the face of these limitations there is reason to support the integration into these forums. The participation of the FHU's could allow for a future increased integration of the community organizations.

HEALTH MESSAGES AND CULTURALLY APPROPRIATE MATERIALS

Based on the conclusions of the qualitative report mentioned in the previous section, key program areas of MNH were identified. The following themes would be strengthened through key messages included in educational materials: prenatal checkups; prenatal nutrition and care; warning signs during pregnancy; preparation for breastfeeding; preparation for childbirth; newborn care at facility and at home; warning signs for mother and newborn during the postpartum phase; newborn care and first postpartum checkup for newborn and mother; sexuality and family planning.

Survey results showed some differences in terms of knowledge and practices among clients regarding MNH; for example, HSP clients in Asuncion generally began prenatal visits before HRCDE clients, while HRCDE clients breastfed at a greater rate than HSP clients. Generally, the surveys showed the need for strengthening knowledge and practices in both areas.

Throughout MCHIP's second year, culturally appropriate educational materials were developed to promote key messages about MNH best practices. The following materials were approved by several divisions within the MOHSW.

My Birth Plan (Pamphlet): The pamphlet's content was based on the information provided by the MOHSW's Prenatal Care Guidelines. The pamphlet included essential information to help clients and their families prepare for the birth. Sections include spaces for clients to complete their: personal data; information about the health care provider where the client has prenatal checkups and where she will deliver; useful information for the delivery day; information about transportation and caring for the family during the client's hospital stay; and important information about warning signs of complication/risk during pregnancy.

At both HSP and HRCDE, the *My Birth Plan* strategy was implemented thanks to support from their areas of Programs and Education. From August 9th–17th, 2011, educational training modules were offered on a daily basis to hospital health providers and service personnel in order to raise awareness and increase training on how to use the Birth Plan Brochure. Eighty-two professionals from both hospitals were trained. Beginning August 2011, the pamphlet had been distributed to all hospital MNH clients.

In October, December, and August of 2012 (Year 2), follow-up visits were made to confirm that booklets were still being handed out. Throughout 2012 the individuals responsible for distributing booklets to hospital clients were interviewed. Through these interviews, it was verified that most HSP clients were provided with the pamphlets and completed all items on their birth plan. At HRCDE clients showed less interest or had greater difficulty in obtaining the requested information to complete the booklet prior to delivery. At the end of the program a total of 6,000 pamphlets had been handed out at the two hospitals. The demand for pamphlets had been covered through the second year of the project. At the end of the project, sufficient materials were available for one additional month. It is important to note that the content of the birth plan pamphlet was incorporated into an additional material created by MCHIP, the

Pregnancy Booklet, and each service was also provided with copies of this publication to be distributed starting in September 2012.

The Pregnancy Booklet is an interactive tool for both the pregnant client and the health care professional. See Annex 5.

The booklet contains important information about health care during pregnancy, delivery, and postpartum care. Starting in June 2012, monthly meetings were held at the DIRSINA to discuss the technical content, as well as the narratives, gender focus, formatting, and illustrations of this booklet. The final printed version incorporated suggestions from different divisions of the MOHSW, including the Directorate of Health Promotion and the Directorate of Reproductive Health. A total of 1,000 copies were printed and delivered to DIRSINA for distribution. The distribution of this booklet began in September 2012 to all clients in the participating health care facilities. In addition, as this material was developed to be used at the national level, the MOHSW included in its 2013 work plan the funding to reprint and distribute the booklet at the national level.

A community radio broadcast campaign, was developed and implemented in the local communities with participating CHCs and FHUs. These radio spots were created with important information in Guaraní and Spanish regarding MNH themes. These messages were complemented by the distribution of visual materials such as pamphlets and posters detailing best practices in MNH. The radio spots are presented in the format of friendly dialogues between stakeholders: mother, father, health care professional, neighbors.

In addition to using important information developed by MCHIP, the radio message scripts also incorporated key messages from IMCI. As with the booklet content, the radio scripts were approved by several divisions of the MOHSW through recommendations provided by DIRSINA. At the end of September, one CHC and three FHUs received a compact disk of the radio spots in Guaraní and Spanish and the corresponding posters to be displayed in their health facilities. Given that these materials were delivered at the end of the project there is no concrete data regarding the use of these materials.

As a strategy for the sustainability of MCHIP/Paraguay outcomes, the educational materials were shared with other agencies and organizations (Plan Paraguay, PAHO and UNFPA) in order to promote the implementation and dissemination of these materials. In September 2012, Plan Paraguay confirmed its interest in reprinting the Pregnancy Booklet and the printed materials that accompany the radio messages. To that end, their organization's logo was added to the reprinted Pregnancy Booklets and Community Radio Broadcast Campaign visual aids.

At the end of October 2012, all educational materials were ready for distribution. Although the MCHIP program had already ended, MCHIP team members were able to attend the ceremonies where the educational materials were distributed to health facilities in Alto Parana. Plan Paraguay also used these materials to support its activities in various regions of the country: San Pedro, Caaguazú, Guaira and Paraguari.

KANGAROO MOTHER CARE (KMC) DEMONSTRATION CENTERS

With the support of Save the Children and in constant communication with the MOHSW, MCHIP worked with the teams from HSP and HRCDE to implement the Kangaroo Mother Care program. The process initiated with the review and preparation of all educational materials on the KMC program. At the suggestions of the MOHSW two manuals were created a Facilitator Guide and a Participant Pamphlet. These materials were based on: the MCHIP Technical Guide, a Manual developed by MCHIP Bolivia, the KMC guide from Colombia, and the technical standards set forth by the World Health Organization. The manuals were elaborated to serve as interactive materials for training workshops which were held in both regions of Alto Parana and Region

Central. Thirty-two health care professional were trained in these workshops, not only by MCHIP personnel but also by trainers from the MOHSW, HSP, and the local university.

During the second half of 2011, two demonstration sites were equipped and provided with basic supplies to implement the KMC program. The KMC sites in Asuncion at the HSP and the HRCDE were inaugurated within the region of Alto Parana.

Notably, the MCHIP technical lead for neonatal health, as well as the two medical leaders from the HSP and HRCDE, participated in the Regional Workshop on Program Implementation of KMC, held in the Dominican Republic in December 2011. This workshop allowed for the team to share their experiences with other countries and learn from fellow programs within the region. Paraguay is now an active member of the KMC Community of Practice.

The KMC units of HSP and HRCDE were evaluated by Dr. Nathalie Charpak, from the KMC Foundation of Colombia in June 2011. During the visit Dr. Charpak provided technical assistance and recommendations for improving KMC services. One of the recommendations given was to strengthen the technical capacity of the staff of HSP and transform it into a demonstration center for technical application. The KMC Foundation is managing the participation of a team of HSP staff to visit the Kangaroo Unit in Colombia.

At the end of the program, with one full year of implementation, the HSP had a total of 38 infants and HRCDE had 17 infants. To date there are no records of mortality. In addition to the two planned demonstration KMC sites, an additional site was implemented by MCHIP at the Hospital Regional of Coronel Oviedo. This unit was initiated and created by the efforts of three professionals: 2 nurses and 1 doctor whom received KMC training in Year 1 at the HSP. To date, 12 babies have been admitted as kangaroos.

During the present year 2012, MCHIP also trained a team of facilitators from the Institute Andrés Barbero, midwives and nurses on the KMC method. They are now equipped with the training materials developed by MCHIP.

MCHIP also provided a training DVD on KMC for the MOHSW to complete future trainings. The DVD contains: a copy of the Facilitator and Participant's Manual, Videos and a bibliography on the effectiveness of the KMC method.

It is important to recognize that there were some factors which inhibited the operation of the KMC units. These included facility problems which forced the closure of these units. In addition, the year-end holidays left the staff unequipped to provide proper KMC care. These problems led to the KMC units being non-operable for 3 months out of the year.

In quarterly reports it was mentioned that the KMC intervention was limited by time constraints. New habits or changes need sufficient time to develop into an intervention. Then additional time is needed to monitor the results, consolidate data, and provide follow up which shows the benefits of the method. After which the method can be integrated as a part of routine care and a standard for a hospital. Had more time been allotted, the program could have established additional data on the benefits of the KMC program.

The MOHSW has shown there want and availability to continue with this initiative. The MOHSW has also solicited assistance from Plan International Paraguay for the integration of the KMC method into the hospitals where they are actively working. This will allow for the kangaroo babies to continue follow up care once their mothers return to their rural communities. It will be important to follow up with the MOHSW via the Neonatal Alliance with the support of the WHO and UNICEF.

Kangaroo Mother Care Data

Kangaroo Unit: Hospital San Pablo

Name/Gestational Age at Birth (in Weeks)/Date Admitted/Weight when admitted in grams/Date of Return/Weight on Return in Grams

UNIDAD CANGURO HOSPITAL SAN PABLO / ASUNCION, PARAGUAY							
	Nombre	Edad Gestacional nacimiento	Edad corregida	Fecha de ingreso	Peso de ingreso, grs	Fecha de egreso	Peso de egreso, grs
1	Laura	29	36,8	26,09,2011	1560	28,09,2011	1600
2	Petrona	31	34,5	28,09,2011	1850	30,09,2011	1900
3	Zulma	30	34,7	5,1,2011	1640	10,1,2011	1640
4	Medina	28	35,2	7,11,2011	1590	11,11,2011	1680
5	Lorena	33	37,5	9,11,2011	1850	12,11,2011	1850
6	Selena	28	35	10,11,2011	1480	16,11,2011	1650
7	Delia	26	36	16,12,2011	1880	19,11,2011	1940
8	Flavia	30	36,7	20,12,2011	1380	24,12,2011	1440
9	Julia	31	35,4	20,12,2011	1580	27,12,2011	1560
10	Liz	33,5	36,6	27,12,2011	1620	29,12,2011	1670
11	Victoriana	32,5	35,2	8,03,2012	1780	10,03,2012	1880
12	Paola	31,5	34	13,03,12	1820	21,03,2012	1960
13	Delia	33	34,8	14,03,2012	1770	16,03,2012	1800
14	Ines	35	36	16,03,2012	1710	19,03,2012	1790
15	Paola	33,5	36,7	19,03,2012	1800	21,03,2012	1800
16	Mariana	32	36,7	19,03,2012	1640	23,03,2012	1710
17	Luciana	32	34	20,03,2012	1750	23,03,2012	1770
18	Rossana	32	37,5	18,03,2012	1890	23,03,2012	1930
19	Alaida	34	41,2	9,04,2012	1730	12,04,2012	1790
20	Elizabeth	31	34,4	9,04,2012	1730	12,04,2012	1960
21	Liz	36	39,4	16,04,2012	1640	18,04,2012	1700
22	Sara	32	35,5	16,04,2012	1580		
23	Antonia	35	37	26,04,2012	1700	30,04,2012	1780
24	Liz	34	35	6,07,2012	1960		
25	Noelia	30	37,2	6,07,2012	1750	11,07,2012	
26	Analia	33	37	6,07,2012	1750	9,07,2012	
27	Rossana	33,5	38	23,07,2012	1870	25,07,2012	1960
28	Cristina	27	39	23,07,2012	1850	04,08,2012	2050
29	Mirna (gemelar2)	34	37	23,07,2012	1930	6,08,2012	2360
30	Mirna (gemelar1)	34	38	1,08,2012	1800	6,08,2012	1930
31	Celia	34	38	3,08,2012	1760	14,08,2012	1900
32	Miriam	35	41,8	9,08,2012	1830	13,08,2012	1920
33	Susana	30	38	12,08,2012	1980	18,08,2012	1980
34	Wilma	32	38	13,08,2012	1820	22,08,2012	2110
35	Lidia	31	39,8	16,08,2012	1710	22,08,2012	1790
36	Lidia D	33,5	36,5	16,08,2012	1770	21,08,2012	1870
37	Julia	31,7	38,1	25,08,2012	1800	27,08,2012	1810
38	María	32		28,09,2012	1840	1,10,2012	1880

Kangaroo Unit: Hospital Regional Ciudad del Este

Name/Gestational Age at Birth (in Weeks)/Date Admitted/Weight when admitted in grams/Date of Return/Weight on Return in Grams

UNIDAD CANGURO HOSPITAL REGIONAL DE CIUDAD DEL ESTE / DEPARTAMENTO DE ALTO PARANA / PARAGUAY							
1	Juliana	32	36,4	26,09,2011	1470	11,10,2011	1870
2	Maria	36,1	38,3	6,10,2011	1350	22,10,2011	1800
3	Sonia	36,1	37,5	15,10,2011	1620	26,10,2011	1960
4	Evelin	39	40	8,11,2011	1930	15,11,2011	2100
5	Sabrina	35	36,5	22,11,2011	1800	30,11,2011	2000
6	Nilda	33,5	36,5	9,04,2012	1530	5,05,2012	2330
7	Francisca	35	39,5	18,05,2012	1485	1,06,2012	1960
8	Nimia	30,5	35,2	18,05,2012	1610	1,06,2012	1960
9	Norma	33,6	36,5	08,06,2012	1620	26,06,2012	1980
10	Wilma	33,5	36	11,06,2012	1690	28,06,2012	2000
11	Gloria		39,3	27,06,2012	1700	3,07,2012	1990
12	Rosa	35,5	42,2	2,07,2012	1780	10,07,2012	2160
13	Norma	34,2	36,6	4,07,2012	1740	23,07,2012	2380
14	Sonia	31	35,1	25,07,2012	1840	04,08,2012	2140
15	Yeny	31	39,5	28,07,2012	1460	17,08,2012	2120
16	Noelia	37,6	40	27,08,2012	1200	05,08,2012	2200
17	Blacida			23,08,2012	1730	15,09,2012	2080
18	Maria Teresa	31	37,3	08,09,2012	1530	29,09,2012	2010

Financing of Regional Activities (LAC)

NEONATAL SEPSIS

The Regional Initiative to improve the prevention and treatment of Neonatal Sepsis, implemented in April 2011, focused on the identification of gaps in quality of care and the formulation of short-term action plans with ongoing follow up of improvements.

The Neonatal Sepsis Initiative was facilitated in Paraguay through the use of a distance learning tool, Elluminate. With the support of the local MCHIP team and the headquarters staff in Washington, these Elluminate sessions served as an interactive way to share knowledge and experiences between Neonatal Sepsis teams in Paraguay and the Dominican Republic.

The methodology of the Neonatal Sepsis Initiative included collaboration between the different teams to: Identify common objectives; Define a baseline using the PAHO/USAID evaluation tools; Identify and Evaluate problems; Define team-based problem-solving techniques; select measuring indicators; and to disseminate results to the local team and other countries.

In Paraguay, three hospitals were selected by the MOHSW to participate in the Sepsis Initiative: the Santaní District Hospital, the Caacupé District Hospital, and the Cnel. Oviedo Regional Hospital. In 2010, the Santaní Hospital had a total of 1,705 newborns and 18 neonatal deaths due to sepsis. A total of 218 newborns were admitted to the neonatology unit (1.7%). The Caacupé Hospital had 2,010 births and a 26% rate of neonatal sepsis. In 2010, the Cnel. Oviedo Hospital had 2,659 births and 385 newborns admitted to the neonatology unit, of which 106 (4%) were admitted for sepsis. No cases of neonatal mortality were identified.

The information exchange regarding Sepsis took place between Paraguay and the following hospitals in the Dominican Republic: Hospital Regional Universitario San Vicente de Paul, Hospital Regional Universitario Dr. Antonio Musa, and the San Lorenzo de los Minas Maternal Infant Center.

The Sepsis Quality Improvement teams included the service director, the chief hospital administrator, a pediatrician, neonatology nurses, infections nurses, OBGYNs, and delivery room and maternity ward nurses. In addition, other individuals were involved such as maintenance, sterilization, and cleaning personnel.

Quality Improvement Teams shared common objectives for newborn infection prevention and management and jointly analyzed the effects of care improvements in their respective areas: delivery room, operating room, maternity ward, and neonatology. The teams communicated on a regular basis via “Elluminate” to share information about the improvements implemented, results, experiences, and lessons learned. “Elluminate” allowed the teams in Paraguay and the Dominican Republic to connect every four or six weeks with headquarters in Washington, and to receive technical updates.

Each session lasted approximately two hours and included one or two technical presentations, sharing of results and in-country experiences, followed by discussion. Eleven total “Elluminate” sessions were held with colleagues from the Dominican Republic, led by Dr. Goldy Mazia from MCHIP headquarters in Washington, DC.

The baseline study regarding Neonatal Sepsis revealed that the common problems among all health providers were:

- **Insufficient Human resources and Poor Practices:** Insufficient human resources (physicians and nurses) and poor training of existing human resources; lack of protocols; poor hand washing practices; lack of communication between pediatricians and OBGYNs; practice of bathing newborn too early; and practice of non-exclusive maternal breastfeeding. Other factors also mentioned were: a lack of cleaning personnel available 24 hours a day; a lack of compliance with biosafety standards and cleanliness practices; poor scheduling of activities; and poor management of waste materials.
- **Equipment and Materials** such as incubators were not maintained properly; most sites had a lack of resuscitation trolleys; insufficient infusion pumps; insufficient number of sterile compresses for the immediate care of newborns; lack of antiseptic; sterilization equipment unavailable due to repairs; and lack of sterile clothing for mothers and health providers.
- **Clients and family members:** late initiation of breastfeeding; poor practice of exclusive breastfeeding.

The problems were analyzed to determine intervention areas and the hospitals agreed to prioritize the following needs: hand washing; equipment, instrument, and clothing sterilization; continuing education; breastfeeding; airways management; and newborn resuscitation.

Of the selected areas of need, the following interventions were implemented: hand washing; breastfeeding; and vigilance for sepsis.

Hand Washing

Implemented in the three hospitals with monitoring/observations every two to three months. This intervention was cost-effective and simple to implement. When implemented the hospitals improved notably; however, it was also observed that when supervision ceased, the practice of hand washing diminished. The training cycle was held several times at all three hospitals. This intervention also drew attention to the importance of making basic hospital supplies available including the provision of antiseptic soap, paper towels, and dispensers by the hospital administration. A commitment to budget for these items in the future was also reiterated.

Breastfeeding

Implemented with an extended purpose to support the accreditation process of hospitals in the framework of the Baby-Friendly Hospital Initiative at the request of and in coordination with the MOHSW. A baseline study was initially conducted by interviewing 40 mothers in Caacupé, 26 in Cnel. Oviedo, and 30 in Nantani. The results were as follows:

- Mothers were shown how to breastfeed: 60% in Caacupé, 40% and 38% in Cnel. Oviedo and Santani.
- Received breastfeeding orientation:
 - from obstetrician, 61%;
 - from nurse, 33%;
 - from physician, 6%.
- The highest indicator was early attachment at 84%.

Other interview questions included: whether the mother received information about breastfeeding during prenatal care. In Santani, 52% received information during prenatal care, 19% in the delivery room, and 16% in the maternity ward. It is notable that in Cnel. Oviedo and Caacupé, 44% of clients received information in the delivery room while only 17% received it

during prenatal care. Breastfeeding Working Groups were formed at the three participating hospitals and a letter of commitment, signed by regional directors, directors, the head of pediatrics, the head of neonatology, and the head of obstetrics at the hospitals, has been sent to the MOHSW.

A data analysis conducted by the head of infection control concluded that there was clear improvement in the area of sepsis prevention. Below is a translated message received from the head of infection control in Coronel Oviedo:

“The Neonatal Sepsis Prevention Program has contributed to a closer follow up of newborns admitted to the neonatology ward in the Coronel Oviedo Regional Hospital, and allowed for a more detailed analysis of the factors that contribute to the prevention of neonatal sepsis by improving practices in three areas: delivery, neonatology, and maternity. A culture of hand washing was created and strengthened in the neonatology ward by everyone working in the area, as well as in the delivery room and in the maternity ward. The Kangaroo Mother Care initiative was also implemented, along with the Mother-Baby Friendly Hospital Initiative and aseptic techniques.”

Lessons Learned and Challenges

All initiative teams expressed their gratitude to the project. They understood that teamwork is absolutely essential to identifying and solving infection related problems. They emphasized that high-tech or expensive solutions were not required to make serious changes in the services. They also highlighted the cost-effectiveness of the intervention and pledged their commitment to insuring the programs sustainability. The teams also underlined the importance of obtaining the support of service authorities (mostly Directors and Administrators) in order to guarantee the availability of supplies. The main challenge was to obtain the commitment and participation of all medical staff.

Neonatal Alliance

From its inception, MCHIP has worked directly, or with the support of counterparts, to promote the implementation of priority interventions to reduce neonatal mortality in the LAC region. In order to provide regional support to the MNH work MCHIP has participated in the LAC Neonatal Alliance since its inception and has been one of the main coordinating mechanisms during the last two years. The forum was organized through the cooperation of PAHO, USAID, UNICEF and Save the Children, in alliance with professional associations ALAPE, ICM and FEPPEN. Participants attended from Bolivia, Ecuador, Colombia, Peru, Brazil, and Paraguay.

During the forum, MOHSW representatives from the participating countries created a draft Neonatal Health Plan for each nation. MCHIP, PAHO, and UNICEF worked closely with the Paraguayan representatives to create a local Neonatal Alliance. This Alliance revised the changes made to the National Neonatal Health Plan and elaborated action plans to accelerate the process of reducing the neonatal mortality rate. All of the organizations agreed upon the indicators to continue with this work. The Ministry of Health pledged their commitment to coordinating and promoting participation from other key organizations, such as PLAN International, Association of Obstetricians of Paraguay, and UNICEF, among others. As part of the forum, a workshop was held during the forum entitled “Helping Babies Breathe”. Twenty-nine trainers were trained from the six participating countries (Bolivia, Ecuador, Colombia, Peru, Brazil, and Paraguay) and all participants received materials to replicate the workshop in their respective nations. During the forum, representatives from each country’s MOHSW formulated a local Neonatal Health Plan.

SOUTH-SOUTH TECHNICAL ASSISTANCE: LEARNING AND SHARING BEST PRACTICES TO SUPPORT MIDWIFERY EDUCATION IN PARAGUAY

To contribute to resolving the persistent inequality in access to health services in Paraguay, the MCHIP program aimed to build maternal health service capacity by supporting the standardization of skills and duties of midwives across the country. Due to the lack of a national standardized curriculum and training programs on midwifery education, the nonexistence of a regulated curriculum results in professionals with a range of skill levels and academic training. As a result, midwifery practices and the performance of midwifery service providers suffers negatively. In response to this situation, the Universidad Nacional de Asunción (UNA) through its affiliate the Instituto Andrés Barbero (IAB) requested technical assistance to improve the quality of education that midwifery students receive.

MCHIP technical assistance included South-South cooperation between the Midwifery School of Universidad San Martín de Porres (USMP) in Lima Peru, known for its prestigious professional training, and the Midwifery School Instituto Andrés Barbero in Paraguay. A memorandum of cooperation between the two universities was signed between the two schools stating that the USMP faculty would provide technical support to the IAB's School Midwifery faculty in order to implement a comprehensive midwifery skill-based curriculum.

In the framework of this agreement, training workshops and professional exchanges took place. The main goal was to define the professional credentials of a Midwife in Paraguay, while also updating the national curriculum based on the standards defined by the International Confederation of Midwives (ICM).

In May 2011, professors and directors of the Obstetrics Department at USMP-Peru and a Consultant from Jhpiego visited IAB in Paraguay to carry out a baseline evaluation and to define a work plan. In October 2011, a team of Paraguayan obstetricians, IAB professors, a representative from the National Obstetricians Association, and the head of obstetrics at MOHSW Paraguay all traveled to Lima, Peru to attend USMP's first workshop.

The objectives of the workshop were: to provide guidance on the methodology for implementing the skills-based Midwifery curriculum as defined by the ICM; provide guidance on the methodology for defining the required professional background/credentials of a Midwife; while also gaining insight into the Peruvian experience with standardizing the national obstetrics educational curriculum. The IAB team members were able to see first-hand how the Obstetrics Department at USMP has implemented its skills-based curriculum.

At the end of the workshop, a working team including members from the two universities created an action and technical assistance plan for the time frame of November 2011 through December 2012. The Paraguay team dedicated itself to the implementation of the plan with the support of the Peruvian faculty and MCHIP staff. The plan included a competency-based adaptation of the curriculum; clinical skill updates; and reinforcing clinical and training skills of professors at the IAB School to support the implementation of the modified curriculum at IAB, as well as at a minimum of four other Midwifery Schools across the country.

In February 2012, the USMP team and the Jhpiego Consultant visited Paraguay to perform a follow-up of compliance with the action plan. Due to personnel changes within IAB, no progress had been made; so the follow-up plan was adjusted to reflect new action dates and activities. The curriculum workshop was redesigned to incorporate both distance-based and in-person learning sessions, shortening the number of required in-person participatory hours. Participating faculty from the IAB were required to provide all lecture materials and assignments for each MNH topic covered, in turn receiving technical support from the USMP faculty via email.

The USMP team interviewed representatives from other private midwifery universities and identified four directors of Midwifery Schools (UniNorte, del Chaco, Guairá, and Técnica) who expressed interest in participating in implementing a national curriculum with IAB. The head of curriculum development at IAB was designated as the coordinator between the group of Peruvian professors and the directors of the new Midwifery Schools.

In July 2012, the in-person component of the workshop took place with four USMP Professors traveling from Peru to Paraguay to conduct a series of informative trainings. Under the direction of the Peruvian team, the participating faculty of the IAB in Asuncion was able to define a new standards-based curriculum. The Training of Trainers (TOT) model was adapted the idea being that the participants would in turn teach their colleagues at the university.

Likewise, during this visit from the Peruvian team, an action plan was created to include the participation of the four additional Midwifery Schools (organized by the Association of Schools of Obstetrics of Paraguay) and IAB. The goal of the action plan is to develop the process for standardizing and implementing the curriculum nationally. To this date, the new schools are pursuing both distance and in-person educational sessions to review the curriculum in order to bring it into line with IAB. All five schools will then have collective follow-up trainings and activities.

During 2013, MCHIP will continue supporting the implementation of the competency-based curriculum in all five participating Midwifery schools by updating and reinforcing knowledge and clinical skills, as well as teaching skills of the schools' faculties. Likewise, MCHIP will continue to attempt to seek a consensus to adopt national teaching and administration norms for obstetrics in accordance with ICM standards.

Program Management

MCHIP PARAGUAY STAFF

The MCHIP/Paraguay Team, based in Asunción, had five members, three of whom were Technical Area experts and two of whom were administrative staffs. The team received support from program and financial advisors as well as from experts in MNH from the MCHIP headquarters in Washington DC. Each member of the team had clear roles and responsibilities.

Jhpiego was MCHIP/Paraguay's leading organization and the leading expert on maternal health and quality control. Other MCHIP partners who provided technical support included: PATH (Newborn health), Save the Children (Kangaroo Mother Care and Community Interventions), and ICF-Macro (Monitoring and Evaluation).

MCHIP TEAM COMMUNICATIONS

The Program Officer from MCHIP headquarters oversaw the implementation of the MCHIP program through ongoing communication with the in-country team. This communication consisted of weekly administrative teleconferences (between headquarters and in-country staff), weekly program teleconferences (between headquarters and the Paraguay team), and monthly meetings with all MCHIP partners (Jhpiego, PATH, Save the Children, ICF-Macro). These meetings ensured good communication and support.

Each of MCHIP's program areas (Maternal Health, Neonatal Health, Community Mobilization, SBM-R, and Monitoring & Evaluation) had the support of external consultants, who maintained regular communication with their technical counterparts on the Paraguay team and traveled to the country to carry out activities related to each component, in accordance with the scheduled timeline. The consultants were constantly ensuring the full completion of the tasks defined in the work plan.

In addition, teamwork was strengthened to integrate efforts from various program areas: team members looked for duplication of effort, shared ideas, held team meetings, and committed to regular communication.

COLLABORATION WITH KEY PARTNERS

During implementation of the program, in addition to the MHSOW, MCHIP/Paraguay sought to include key institutions in the MNH field such as: PAHO, UNICEF, Plan International, Sociedad Científica (Scientific Society), Escuela formadora de Recursos Humanos Para la Salud (Training School for Health Human Resources), and Instituto Andrés Barbero (IAB) involved in the program's activities. These partners participated in discussions about the project's sustainability and dedicated themselves to providing support to the program in specific technical areas. Networks and key contacts within the organizations were established to ensure the future continuity of the success started via the MCHIP project.

Program Learning

Training should be structured to facilitate health service providers' participation, offer opportunities to practice skills, and minimize interruptions in the provision of services.

Based on the situational analysis of health care providers, MCHIP/Paraguay adopted a training strategy for updating/standardizing clinical skills in essential and emergency maternal and newborn care (EmONC). To this purpose, instead of programming one course for several weeks, training was structured into thirteen modules to be delivered weekly.

In addition, MCHIP/Paraguay used the "Training of Trainers" model to reach an increased number of health service providers. Health workers who participated in the first rounds of trainings later trained other colleagues in their workplaces. The focus on weekly classes allowed participants time during the work-week to put lessons into practice. It also facilitated the participation of health care workers because it minimized interruptions in provision of services in their workplaces and did not require their absence from their jobs for an extended period of time.

Note: For sustainability and increased impact of future trainings, the program should ensure the participation and active involvement of representatives of the MOHSW; more specifically the Directorates of Health Programs and Health Services.

MOHSW leadership and active participation is key for the expansion of the SBM-R interventions at the national and community levels.

The SBM-R approach offers a practical strategy for improving health services performance and quality. It is critical to involve the MOHSW's participation from the beginning for the SBM-R initiative in order for the standards to be adopted nationally. It would also be useful to create ties between SBM-R and health management systems, thereby establishing a connection between health care services and the outcomes.

The MOHSW's participation from the inception of the project also ensures that the important community messages related to MNH will be adopted and used after the termination of the MCHIP program. The active participation of the MOHSW in developing the educational training materials insured the adoption of these materials for use across the nation.

An assessment of client behaviors (community and family) related to maternal and newborn health can provide information for creating appropriate messages to include in MNH trainings, job aids, and community education materials.

Due to scarce information about MNH and deficiencies in current practices (prenatal care, postnatal care, and the care and feeding of newborns), MCHIP/Paraguay carried out an evaluation to better understand the community's needs. Educational materials were based on the evaluation's results to improve the clarity of the message and ensure that all messages would cover the key information that health care providers wanted to communicate to their clients. (See Annex 5 for a list of health education materials and the website where they can be accessed.)

Adapting the KMC Guide to this context can increase acceptance nationwide.

MCHIP/Paraguay worked with the MOHSW to adapt the Kangaroo Mother Care Guide to the in-country reality. Although changes were minor, the adaptation process contributed to its acceptance nationwide. MCHIP/Paraguay also collaborated with the IAB to guarantee that the KMC method and the guide be incorporated into the Midwifery school's curriculum. MCHIP trained IAB faculty and provided educational tools/materials for them to continue trainings.

Connections to regional networks are highly valuable for promoting key newborn health interventions.

MCHIP/Paraguay helped establish connections between Paraguay and two regional groups: the Regional KMC Network and the Neonatal Alliance. These partnerships led field experts to participate in regional conferences as well as allowing them the opportunities to share experiences and lessons learned in the field. In this same way other participating countries in the region during the implementation of important newborn health interventions, including: KMC, prevention of neonatal sepsis, and newborn resuscitation. As a result, the Paraguayan authorities began to commit to implementing these interventions and to work closely with MCHIP to fulfill their commitment.

Empowering health service providers to improve their practices contributes to SBM-R sustainability.

Several participants from HSP and HRCDE mentioned that empowering health service providers was a key factor for sustaining the quality improvement process. Dr. Carlos Gomez, Quality Team Leader at HRCDE, stated that the initiative was sustainable *“because of the simple fact that the interventions to be applied and improved are closely related to the behavior and knowledge of health providers and other personnel that works with us... The key is empowering those who apply the interventions to improve service quality.”* Dr. Gomez He added that the most notable aspect was *“showing improvements in health quality due to small actions; this is attributable to empowerment and constant teamwork, which demonstrates the importance of the changes made.”*

Dr. Ruben Ruttia, Quality Team Leader at HSP, also commented that the most notable aspect was that *“empowering people through the process of quality improvement and implementing best practices in obstetric care led to the creation of an empowered team that has sustained itself over recent years with the support of ongoing oversight and supervision.”*

Key sustainability factors are: continuing support from MOHSW; the institutionalization of processes from the very beginning; commitment from directors and health care providers; and the use of low-cost, high-impact interventions.

MCHIP’s work plan included the creation of a sustainability plan as a useful instrument for ensuring that program sustainability would be considered. MCHIP took steps to institutionalize processes from the very beginning insofar as possible. Also, through sustainability workshops during the final phase of the project, facility representatives defined action plans specifying methods to continue their activities after the MCHIP program ends. MOHSW held discussions about sustainability with partner organizations that work on maternal infant health and these partners agreed to provide support in specific areas. Partner organizations include: PAHO, UNICEF, Plan International, Sociedad Científica (Scientific Society), Escuela formadora de Recursos Humanos Para la Salud, and Instituto Andrés Barbero (IAB).

In addition, as indicated by colleagues at HSP and HRCDE, there is a commitment to guaranteeing sustainability. All teams expressed gratefulness to the project. They understood that teamwork is absolutely essential to identify and solve problems. They emphasized that high-tech or expensive solutions were not required to make changes in the services. They highlighted the cost-effectiveness of the intervention and committed to making it sustainable. In the words of Dr. Diego Scalzadona, Coordinator of Southern Programs at HSP, *“I am more than convinced that this is sustainable, because it aims at creating acceptance among health personnel and these strategies are effective and low-cost.”*

The Program Leadership Team at headquarters can help strengthen integration efforts.

MCHIP/Paraguay was supported by many organizations and worked in several technical areas. Given that situation, the Program Management from headquarters was responsible for ensuring that efforts were as coordinated and streamlined as possible. Initiatives undertaken by the Program Management Team routinely included the following for the entire duration of the program: routine meetings of all partners; constant communication among colleagues; and attention to possible areas of duplication of effort and opportunities to share ideas and best practices. As a result, MCHIP/Paraguay was successful in operating and in carrying out its activities in a coordinated manner.

Annex 1: M&E Framework

Monitoring and evaluation of the MCHIP/Paraguay program had three objectives:

- Provide data to **MOHSW** and **MCHIP** on progress achieved in different intervention areas over the project implementation and feed activity adjustments as necessary.
- Support **MOHSW** personnel in making decisions about maternal and newborn health care in the following areas: **prenatal and obstetric care** (active management of the third stage of delivery, pre-eclampsia/eclampsia); **newborn care** (newborn resuscitation, Kangaroo Mother Care); and **community education** (through health service providers and CHC to promote maternal and newborn health best practices).
- Provide the **USAID** Mission in Paraguay and the USAID Bureau of Global Health in Washington, DC with data on specific outcomes in improving maternal and newborn health care service quality.

The monitoring and evaluation system uses the following data sources:

- MOHSW information system, data from birth records
- A complementary data collection system not contained in instruments used by MOHSW
- Measurement tools used by SBM-R
- Supervisory visits
- Project activity logs

The indicators defined for MCHIP/Paraguay were related to the three specific objectives:

- **Objective 1:** Support the MOHSW's efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.
- **Objective 2:** Increase the availability of quality, high-impact essential and basic emergency maternal and newborn care services in targeted facilities by improving providers' knowledge and skills.
- **Objective 3:** Improve communities' and families' knowledge and practices in relation to pregnancy, childbirth and newborn care.

The majority of indicator compliance data from the Monitoring and Evaluation Plan should originate from the project's regular data. The indicators for Objective 1 were available directly. However, some of the Objective 2 indicators regarding maternal and newborn care were not directly available at the hospitals and required implementing an additional system. Objective 3 indicators also required additional systems, since the hospitals did not possess instruments to measure client satisfaction or knowledge; therefore, a system had to be created to determine what knowledge hospital clients had gained.

Tasks in the Work Plan included analyzing and studying the feasibility of analyzing data obtained from the Perinatal Information System (SIP) through MCHIP's monitoring system.

During the first year of implementation, the Chief of Maternal Health at MCHIP, jointly with key personnel from MOHSW undertook M&E responsibilities. During the second year, the Chief of Community Interventions took over these responsibilities.

During the two years of the project, the monitoring and evaluation advisor from MCHIP/Washington provided technical assistance to the monitoring and evaluation process. She visited Paraguay three times, in January and July 2011 and in February 2012 with specific monitoring objectives.

On the first M&E support visit in January 2011, the objective was to define how the monitoring system would be implemented and which tool would be used for data collection.

Finding:

- Lack of data on MCHIP/Paraguay indicators in MOHSW tools.
- It was found that medical history forms, including CLAP, did not contain data required for certain indicators contained in Objective 2, i.e. active management of labor, basic newborn care, neonatal sepsis, and Kangaroo Mother Care. Although the document does have boxes for pre-eclampsia/eclampsia, these boxes are not often filled out.
- A lack of data about services to verify compliance with defined indicators for the Kangaroo Mother site and for community activities.
- Deficiencies in how the SIP/CLAP sheet was filled out; lack of basic required infrastructure; lack of qualified personnel to enter data from forms into the computerized information system; insufficient supply of SIP forms; lack of computers loaded with the CLAP program; lack of control mechanisms for ensuring forms are filled out in a timely manner; and forms with incomplete data. For these reasons the system could not provide data with which to analyze cases or situations

On the second visit in July 2011, the objective was to launch the monitoring and evaluation system at health care services and in the community. The following decisions were made:

- Instruments and mechanisms were defined for data collection and processing. The system decided to use one additional daily record sheet, attached to the daily emergency services sheet, which was already in use at one of the hospitals.
- In both HSP and HRCDE, one individual was designated to support monitoring tasks. At HSP this individual was an assistant from the hospital's training area who would help upload data into an electronic form on a daily basis. At HRCDE, a statistics expert was designated to aid with weekly consolidation.
- It was decided that the local technical team would assist for monitoring and evaluation work. The head of community interventions would provide materials (forms) to the hospitals, collect them regularly, and consolidate the information on a monthly basis. The heads of maternal and neonatal health would regularly verify the quality of the information obtained.
- The launch of the monitoring system at HSP and HRCDE was planned for August 2011.
- It was decided to discontinue efforts to improve the system for filling out SIP/CLAP forms, as is noted in the annual report of September 2011, given the magnitude of the problem and the fact that resolving it would require actions beyond the scope of the project. Some of the problems identified regarding efficient use of the SIP/CLAP record system were: poor infrastructure (IT equipment); limited availability of internet service, which is required for updating the SIP program and uploading data; insufficiently trained human resources; insufficient availability of data sheets; and poor filling out of those sheets.
- Regarding compliance indicators for Objective 3, a baseline questionnaire was drafted to determine clients' knowledge of maternal and infant health. The questionnaire was used at the two hospitals the first year, and the primary sources were clients admitted to the hospitals.

The questionnaire should be used again at the end of the program, in July 2012, to measure the change in client knowledge achieved by implementing the tasks included in Objective 3.

The objective of **the last visit** was to follow up on data collection and link data from the monitoring system to the GEBER quality improvement process. The findings were:

- The electronic record form was improved with technical assistance from an IT expert and graphs included in the monthly reports.
- Additional adjustments to the record form were made relating to AMTSL for caesarian sections, pre-eclampsia treatment, and basic newborn care.
- It was verified that the hospitals did not provide the requested local assistance for uploading and data consolidation on a monthly basis.
- Two of the six hospitals selected in Year 2 were incorporated into the monitoring and evaluation system of project indicators. Based on criteria such as greater affluence of clients and providing a greater number of health care professionals who attended the MCHIP trainings, the following two hospitals were selected to join the monitoring system: Mariano Roque Alonso Hospital in the Central Region and Hernandarias District Hospital in Alto Paraná. Not all hospitals were included for the following reasons: budgetary constraints; limited flow of clients at the hospitals not included; and the large amount of time that would have been required to implement the system at all the hospitals, given their widely dispersed locations over the project's two target regions.

The principal difficulties encountered during the implementation of the MCHIP/Paraguay system for the collection of monitoring and evaluation data were the following:

1. The lack of some data for Objective 2 indicators regarding maternal and newborn health care on the record forms used by the Ministry of Health for its records at public hospitals, and the resulting need to use a new additional form to obtain this information. The same issue occurred with an Objective 3.
2. The hospitals had varying levels of commitment to participating in the process. Commitment was needed from the hospital directors, from health personnel directly responsible for filling out information, and from administrative personnel responsible for transferring data into electronic format.
3. There were a lack of ongoing participation, irregularities, and varying levels of commitment from directly health staff involved. The professionals who participated in MCHIP trainings were most committed while those who were benefitted only indirectly by the program were least committed.
4. Regarding an Objective 3 indicator, measuring the knowledge of clients, an exit survey was planned to measure the project's impact. That survey was not conducted because the printing of educational materials was delayed by several months while waiting for approval from the Ministry of Health. This in turn caused a subsequent delay in their distribution, and there was not sufficient for the knowledge to be absorbed.

Achievements

- Regarding the Objective Two's clinical indicators, progressive improvements were achieved in filling out the forms over the year in which the monitoring system was launched. At the end of the program, HRCDE medical staff stated that they would continue collecting the data and they would use it in the decision-making process. The improvement required several meetings to raise awareness among personnel who provided direct maternal and newborn care, shift leaders, and the medical director.

- Thanks to the joint efforts of the different project areas and the information generated by the record forms about indicators and measurements of SBM-R quality improvements, hospital staff identified maternal and infant health problems at the facilities and drafted action plans that were partially implemented during the MCHIP program.

MCHIP collected data during the first and second years of the program and that data was provided to USAID/Paraguay and USAID/Washington through the MCHIP annual report.

INDICATOR	ACHIEVED		CLARIFICATION
	2010-2011	2011-2012	
<i>Objective 1: Support the Paraguayan Ministry of Health and Social Welfare's (MOHSW) efforts to improve the health system's response to the needs of pregnant women and their newborns, including the formulation of protocols for MNH based on updated policies and norms.</i>			
1.1 Number of national protocols developed (or revised) through USAID-supported programs*+	2	3	(3) Newborn Care Guide, Newborn Emergency Care Manual (under review by MOHSW) and IMCI procedures
1.2 Number of health facilities using at least one norm or protocol formulated or updated with MCHIP support	2	8	(8), Hospital San Pablo, Hospital Regional de Ciudad del Este, Hospital de Ñemby, Hospital de Mariano Roque Alonso, Hospital de Lambare, Hospital Distrital de Hernandarias, Hospital distrital de Minga Guazu & Hospital Distrital de Pte. Franco. Included facilities whose medical staff received trainings.
1.3 Number of health facilities with identified issues based on the improvements of service delivery, with formulated action plans and have started their implementation.	2	6	(6), Hospital San Pablo, Hospital Regional de Ciudad del Este, Hospital de Mariano Roque Alonso, Hospital de Lambare, Hospital Distrital de Hernandarias, Hospital distrital de Minga Guazu. Included facilities that completed the SBM-R approach.
<i>Objective 2: Increase the availability of quality, high-impact essential and basic emergency maternal and newborn care (BEmONC) services in targeted facilities by improving providers' knowledge and skills.</i>			
2.1 Number of individuals who received training on maternal/newborn health*+	405 (329 F, 76 M)	1664 (1382 F, 282 M)	
2.2 Number of health providers (physicians or technical health staff) trained on using updated protocols with MCHIP support+	361 (297 F, 64 M)	1226 (1034 F, 192 M)	
2.3 Number and percentage of women with vaginal delivery receiving AMTSL through USAID-supported programs*+	115 65.3%	3013 98.1%	
2.4 Number of women receiving birth skilled assistance by providers trained through USAID-supported programs*	307	5847	
2.5 Number of women with pre-eclampsia/eclampsia receiving appropriate treatment through USAID-supported programs.	6	151	
2.6 Percentage of women with pre-eclampsia/eclampsia receiving appropriate treatment through USAID-supported programs.	66.7%	74.4%	
2.7 Number of newborns receiving basic newborn care through USAID-supported programs*+	118	3203	

INDICATOR	ACHIEVED		CLARIFICATION
	2010-2011	2011-2012	
2.8 Percentage of newborns receiving basic newborn care through USAID-supported programs.	40.8%	82,%2	
2.9 Number of health facilities which implemented the SBM-R process with improved standards.	0	6 (75% of all MCHIP hospitals)	(6) Hospital San Pablo, Hospital Regional de CDE; Hospital Hernandarias & Hospital Mariano Roque Alonso, Hospital de Lambare, & Hospital de Minga Guazu.
<i>Objective 3: Improve communities' and families' knowledge and practices in relation to pregnancy, childbirth and newborn care.</i>			
3.1 Number of community initiatives strengthened through the maternal and neonatal health component.	2	21	2 HRCDE & HSP received My Birth Plan and Pregnancy Notebook, and all FHUs and HDHER communities (10), HDMG (6) & HMRA (3) received radio messages, pamphlets and posters.
3.2 Number of CHCs that completed at least one community mobilization activity with materials or resources formulated or revised with the support of MCHIP.	1	3	(3) CHC of Hernandarias, Minga Guazu, Mariano Roque Alonso, advocacy workshops
3.3 Number of CHCs MNH action plans formulated and implemented in Year 2.	0	17	(17) CHC action plans, 1 plan per advocacy workshop per FHU with 75% active attendance.
3.4 Number of culturally appropriate materials on MNH prepared and disseminated at selected services.	1	7	(7) Pregnancy Notebook, key message pamphlets, posters and radio spots, My Birth Plan booklet, 2 KMC education items: client pamphlets and one training guide.
3.5 Number of clients from Year 1 selected facilities that at the end of the program recognized at least two key maternal health messages and two neonatal health messages.	N/A	N/A	Baseline findings: Out of a total of 154 clients interviewed at HSP and HRCDE over a one-month period, approximately 20 recognized 1 maternal health message and 1 neonatal health message. However, no final interview was conducted due to delays to release and disseminate learning materials, published only after the end of the project
3.6 Number of KMC sites established.	2	2	3.6 Number of KMC sites established. (2) KMC site at Hospital San Pablo, and Hospital Regional de Ciudad del Este.
3.7 Percentage of newborns alive at discharge against total number of newborns with low weight admitted to KMC, by facility and weight bracket: <1000g; 1000g-1499g; 1500g-1999g; 2000g-2500g	N/A	100	100% survival of newborns who participated in the KMC initiative.
3.8 Number of mothers and family members of low-weight newborns who received KMC orientation in Year 2.	N/A	209	

Annex 2: Success Stories

MCHIP TRAININGS DEMONSTRATE THE VALUE OF HUMANIZING CARE IN PARAGUAY

By: Vicente Bataglia; MCHIP/Paraguay

A series of MCHIP training courses for hospital staff in Paraguay has resulted not only in increased quality of clinical care in health facilities targeted by the Program, but has also influenced the views of professionals caring for women during childbirth.

At the conclusion of the maternal and newborn health (MNH) technical updates and clinical skills standardization (TU/CSS) training courses, one participant—Dr. Elba Segovia of Hospital Mariano Roque Alonso—expressed this paradigm shift well. Standing up during the closing ceremony, she spoke to her colleagues about her experience, stating that beyond the important technical updates, the training had also opened her eyes to the value of humane treatment of her patients.



Photo by: Maria S. Pena; MCHIP/Paraguay

MCHIP Trainings Demonstrate the Value of Humanizing Care in Paraguay.

“I have realized after 30 years of clinical practice that the treatment of our patients as human beings is important,” she said. “The patients arrive with anxiety and fear, wanting to be treated courteously and with support from their families.”

Dr. Segovia spoke to her colleagues about how, in the last month, she put into practice what MCHIP had taught her about humanization of care, and that the intervention was producing incredible results—a pleasant surprise she had not expected. Dr. Segovia shared anecdotes and provided striking examples of situations in which she allowed husbands to enter the delivery room and provide support to their wives, something she had never allowed before.

“This simple change had transformed the picture of despair and lack of cooperation into a proactive and cooperative environment,” she said, “and had ended in normal deliveries with no complications.” Both mother and father expressed great satisfaction with being participants in this unique birth experience.

After Dr. Segovia’s impromptu speech, many of the other participants also approached the MCHIP team to share that they had experienced similar situations in the past month, since they began working to humanize the care they provide.

As a result of the training conducted by MCHIP in Paraguay, service providers, such as Dr. Segovia and her colleagues, have begun to make changes in their workplace. The hospital environments are becoming much more pleasant and safe, both for providers and for women and their families.

EMPOWERING WOMEN'S KNOWLEDGE ABOUT PREGNANCY & DELIVERY: SAVES LIVES IN PARAGUAY

By: Maria Pena; MCHIP/Paraguay

The Regional Hospital of Ciudad del Este is the referral hospital for the entire department of Alto Parana, Paraguay. Due to the complexity of the hospitals services, approximately 1/3 of the patients treated are from Ciudad del Este, while the rest come from rural communities such as: Hernandarias, Minga Guazú and Pte Franco. Every month HRCDE attends to approximately 180 births. The patients that visit the Hospital to deliver their babies, in many cases travel long distances from remote towns. Due to this factor it is of the utmost importance that each woman has a confirmed and prepared plan for their delivery date.

The pamphlet “My Delivery Plan,” or “*Mi Plan de Part*,” first implemented in July 2011, is one of the educational materials designed to help educate women about their pregnancy. These pamphlets designed and distributed to local health facilities during MCHIP’s first project year, contained information in separate chapters, for example one titled “Preparing for my Birth,” based on the recommendations for Prenatal Care provided by the MOH of Paraguay. The pamphlet was designed as an interactive material that motivates the user and their families to make decisions prior to the mother’s due date. It also brings attention to the varied scenarios that could occur upon delivery.

Specifically the pamphlet requests the following information from the users: (1) Name of the person who will take the mother to the hospital and/or the method of transportation that he/she will use on the due date, (2) A list of documents that the mother should bring with her to the hospital (ID, etc.), (3) A list of what to prepare and set aside for the mother’s stay in the hospital (the personal articles for mom/baby which will be necessary during her stay at the hospital), (4) The names of the people that will care for the mother’s other children while she is away, and/or (5) The names of possible blood donors in case of an emergency. Furthermore the pamphlet contains detailed information about the high risk, or, warning signs for pregnancy which require immediate medical attention.

Through the use of the “Plan de Parto” pamphlets, the staff hopes that HRCDE will decrease the rate of maternal mortality which often times is caused by first and second delays (delays in home and transportation). In addition the ability to recognize any warning signs and to get to a health facility will also reduce the number of deaths.

Juana Lidia Riveros is expecting her fourth child. She is a cook and her husband works in construction. Juana started her prenatal care at 7 months in the Regional Hospital of Ciudad del Este. Her family is comprised of her husband, two daughters 8 & 10, and her son, 12. Juana and her family live only 4 KM from the hospital and during this interview she informed us that she was about to begin her 9th month, and in turn her maternity leave as she would be expecting the arrival of her baby at any moment. The principal reason for her visit to the hospital on this day is because of the terrible headaches she had been experiencing. She remembered that the pamphlet listed this as a symptom/warning sign which could lead to further complications and as such she had immediately sought help from the hospital. In this same line of thought, Juana, who is having her fourth child after a gap of eight years, says that the “Plan de Parto” also served to help her remember all of the essential items that she should prepare prior to the birth, for example her baby bag for the hospital, anticipating would care for her children, etc. She and her husband both state that they are very happy to be parents for the fourth time after so many years.

Waldina Delgadillo is a nurse at the Regional Hospital of Ciudad del Este. Since she was 22 years old she has worked in the Consultation Sector of the prenatal care unit. She is the person designated to complete all of the forms for the pregnant women admitted to the hospital for

prenatal care. Every day from 7:30AM to 11:20AM Waldina sees approximately 45 patients. Approximately 15 of these 45 women are there for the first time and Waldina is in charge of providing them with a copy of “Pamphlet Mi Parto,” at the time of their visit.

It has now been a year since Waldina started utilizing the Plan de Parto. Waldina reports that in the beginning the women did not fill out the booklets during their first visit, instead they might return to the hospital for the second or third time and fill it out. The situation improved after she and the other hospital staff started to insist that the women complete the booklet giving them instructions in both Guarani (local language) and Spanish, in a personalized manner. Currently, Waldina says the majority of the women complete the forms and the booklet Plan de Parto as soon as they receive it—in some cases even asking for help from a neighbor or older children. The item that is most difficult for the women to fill out is the part which requires the names of two people who would be available to donate blood in case of an emergency.

Finally, Waldina mentioned that the use of the booklet has been an overall positive experience and that thanks to its creation the majority of women arrive at the hospital well prepared on their due date. They have their children with a babysitter, they have a mode of transportation lined up to get them to the hospital, and they have their pockets prepared with a little bit money for any unexpected costs that may arise along the way.

Even though the booklets that MCHIP provided during its service will only last through the end of September 2012, the MOH will carry the torch into 2013 by adopting the model and printing their own version the “Prepared for my Birth” Plan. The content of which will be distributed to all users and will be utilized in the same way as the MCHIP pamphlet.

In this way the MOH and MCHIP insure the sustainability of their efforts and in turn will continue to prepare and protect women and children’s lives.



Photo by: Maria S. Pena; MCHIP/Paraguay

Pamphlet “My Delivery Plan”

KANGAROO MOTHER CARE SAVES A CHILD'S LIFE IN PARAGUAY

By: Mercedes Portillo, MCHIP/Paraguay, Bertha Pooley; consultant from Save the Children

In South America like in other parts of the world premature births are common in rural populations. Often times a baby is born with a low birth weight weeks or months before their scheduled due date. The direct cause of premature delivery is unknown, but factors such as malnutrition, lack of prenatal care, and the mother's age can add to the increased risk of a premature birth. In Paraguay, few women seek out prenatal care during their pregnancy and it is not uncommon for babies to be born prematurely. In fact the number of babies born premature in Paraguay was 6.3%.* Furthermore, the mortality rate for premature infants is approximately half of all newborn deaths and without the appropriate care and attention the probability of a newborn's survival decreases.**

In the case of Ms. Selena Acevedo, a young mother at 22, she planned to have her child in the local hospital. However, when she first felt labor pains and began to travel to the hospital from Caaguazú, she gave birth a mere 250 km from San Pablo Hospital. Her son was born premature and with a low birth weight, weighing only 1,440 grams. Luckily, for both Selena and her son, Hospital San Pablo is one of the only hospitals in Paraguay that has a specialized unit to care for premature infants.



Dr. Bogarin KMC Specialist and Baby Denis.

Selena and her baby were admitted to the Kangaroo Mother Care Unit established by MCHIP and the local Ministry of Health in Paraguay to decrease the newborn mortality rate amongst preemies. Kangaroo Mother Care (KMC) is an MCHIP-supported and scientifically proven set of practices which has been shown to greatly reduce newborn mortality in premature and low-birth-weight babies. The KMC method was originally conceived in Colombia due to the lack of incubators and other modern equipment to care for premature and low-birth-weight babies. KMC implements three major components, if possible, constant skin-to-skin contact, exclusive breastfeeding, and close follow-up & monitoring. In Selena's case she was taught how to implement the KMC method and the hospital discharged her and her son at a weight of 1,460 grams.

Selena continued to attend her daily monitoring check-ups at the KMC unit, while staying at the home of a relative living in Asunción. When her son reached a weight of 1900 grams, he was discharged and graduated to a routine of monthly check ups at the Hospital San Pablo. Now her son, Denis Alvarenga, is four months old and is a normal healthy baby. Selena explained "Dr. Bogarin taught me how to use Kangaroo Mother Care to treat my son and I am sure this is what saved his life."

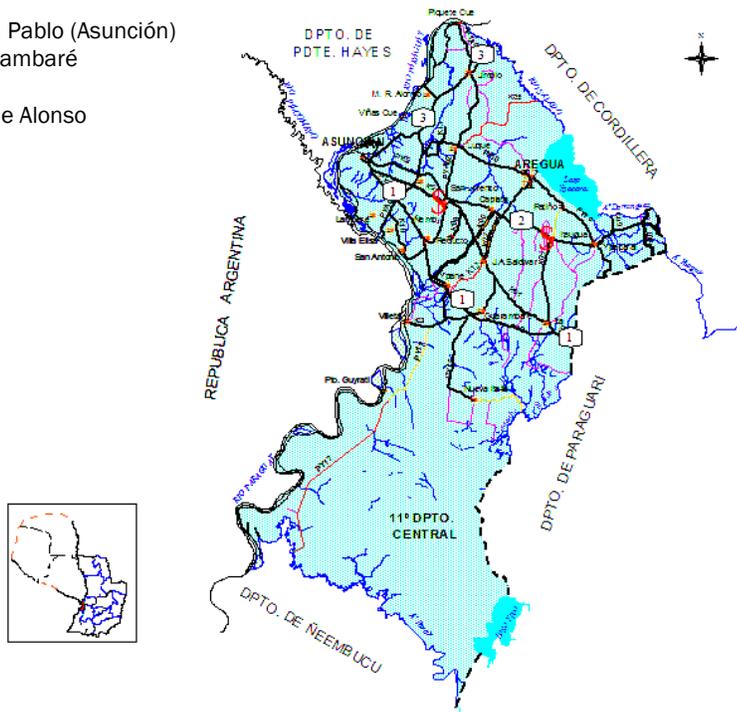
*<http://www.mspbs.gov.py/>

**<http://www.who.int/mediacentre/news>

Annex 3: Interventions Map

Región Central

- Maternal and Infant Hospital San Pablo (Asunción)
- Maternal and Infant Hospital of Lambaré
- District Hospital of Ñeemby
- District Hospital of Mariano Roque Alonso



Alto Paraná

- Regional Hospital of Ciudad del Este
- District Hospital Distrital of Hernandarias
- District Hospital of Presidente Franco
- District Hospital of Mingá Guazú



Annex 4: MCHIP Employees and Consultants

MCHIP PARAGUAY STAFF

Dr. Vicente Bataglia	Technical Assistant for Maternal Health; Technical Leader for MCHIP Paraguay
Dra. Mercedes Portillo	Technical Assistant for Neonatal Health
Maria Peña	Technical Assistant for Community Intervention
Jhalily Hermosilla	Program Coordinator
Mirtha Ayala	Coordinator for Administration and Finance

HEADQUARTERS STAFF

Carmen Sheehan	Senior Program Officer, Jhpiego
Michelle Goshen	Senior Program Coordinator, Jhpiego
Ricardo Bonner	Team Lead Finance, Jhpiego
Rebecca Fielding	Finance Coordinator, Jhpiego
Silvia Alford	Program Officer, Save the Children

CONSULTANTS

Dr. Jeffrey Smith	Technical Team Lead for Maternal Health, MCHIP
Gloria Metcalfe	Consultant for Maternal and Neonatal Health, Jhpiego
Dra. Bertha Pooley	Consultant for Neonatal Health, MCHIP, Save the Children
Dra. Goldy Mazia	Technical Assistant for Neonatal Health, MCHIP, PATH
Jennifer Luna	Technical Assistant for Monitoring and Evaluation, MCHIP ICF/MACRO



Photo by: MCHIP/Paraguay Team

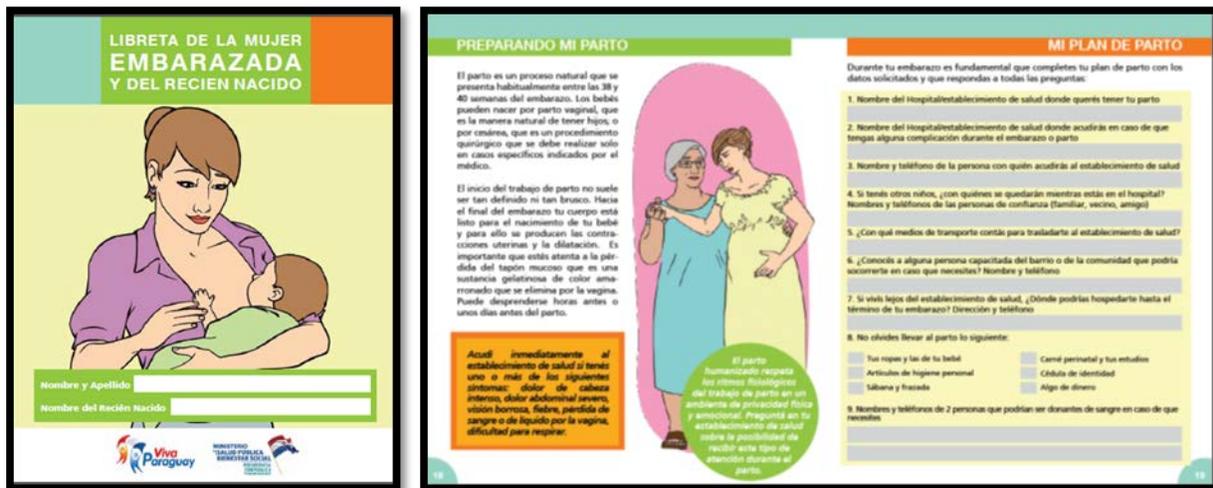
Dr. Mercedes Portillo, Mirtha Ayala, Dr. Vicente Bataglia, Jhalily Hermosilla, Carmen Sheehan, Maria S. Pena

Annex 5: Educational Materials

LIBRETA DE LA MUJER EMBARAZADA/PREGNANCY BOOKLET

<http://www.mchip.net/node/1267>

The Pregnancy Booklet was created to help expectant women by providing them with a guide to help them during their pregnancy, delivery, and postpartum care. This booklet was printed at the end of the program and will be utilized within the clinics and hospitals of Paraguay—the women will bring it with them to each appointment and they will fill in the information about how they felt, what information the doctor provided, and the plan for their birth. In addition, the booklet has an entire section dedicated to the warning signs of complications/risk during pregnancy. The booklet will be distributed by the MOHSW.



FOLLETO MI PLAN DE PARTO/MY BIRTH PLAN PAMPHLET

<http://www.mchip.net/node/1268>

This pamphlet was developed by MCHIP to insure that each client was presented with information guiding them to reflect on and prepare for her baby's delivery. I.e.-How will she get to the hospital? Who can take her there? How much time will it take to get to the hospital? Etc. In this manner all of the women treated in the hospitals/clinics were well-prepared for the birth of their children. This pamphlet was distributed by MCHIP with support from MOHSW.

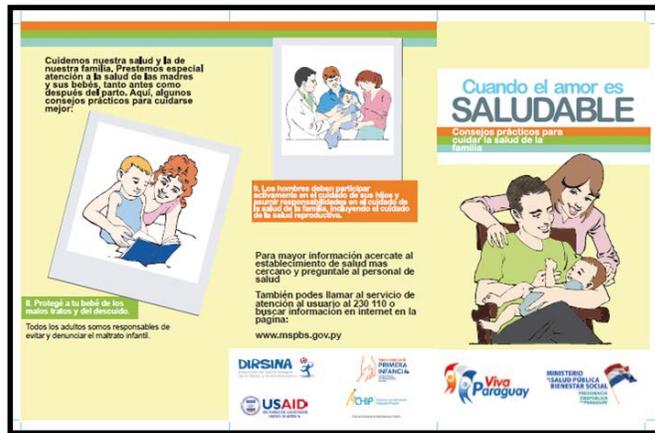


IMPORTANT HEALTH MESSAGES/POSTER AND PAMPHLET

<http://www.mchip.net/node/1265>

<http://www.mchip.net/node/1266>

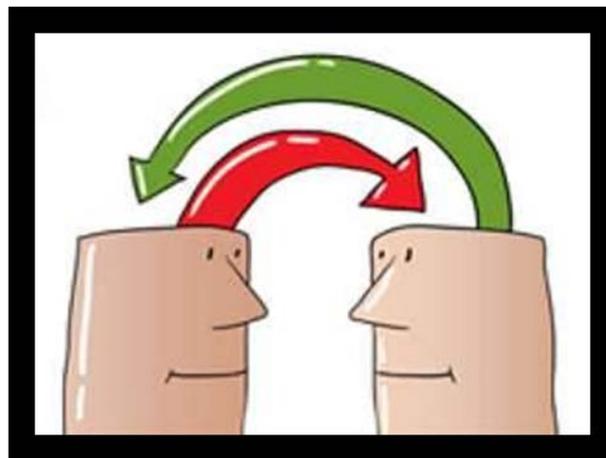
A series of positive messages on how to live a healthy life, addressed to both men and women, was developed. These messages explained how a pregnant mother should care for herself as well as mentioning ways in which she can involve her partner not only during the pregnancy but afterwards in terms of caring for and raising their children. The messages motivate all members of the family to support the family unit.



IMPORTANT HEALTH MESSAGES/RADIOS SPOTS

<http://www.paho.org/spanish/ad/fch/ca/si-practicasclave.pdf>

The MCHIP program organized a series of radio spots which will be broadcast through local Paraguayan community radio stations. The idea being that the dissemination of these important health messages, in both Guarani and Spanish (the languages of the country) would help the project's messages to reach the entire population.



KANGAROO MOTHER CARE GUIDE AND PAMPHLET

<http://www.mchip.net/node/1259>

The Kangaroo Mother Care guide and pamphlet were created by MCHIP for use in the program's Hospital San Pablo and Hospital Regional de Ciudad del Este, where KMC units were implemented in order to care for premature newborns with a low birth weight. The implementation of the KMC methodology, skin to skin contact, exclusive breastfeeding, and continual check-ups is known to reduce the mortality rate of premies. These educational materials were used in MCHIP trainings and will be distributed by the MOHSW.

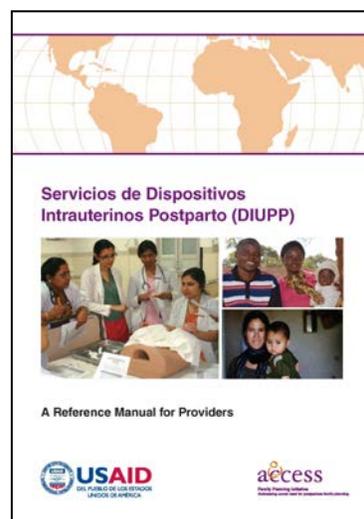


PPIUD MATERIALS

<http://www.mchip.net/node/727>

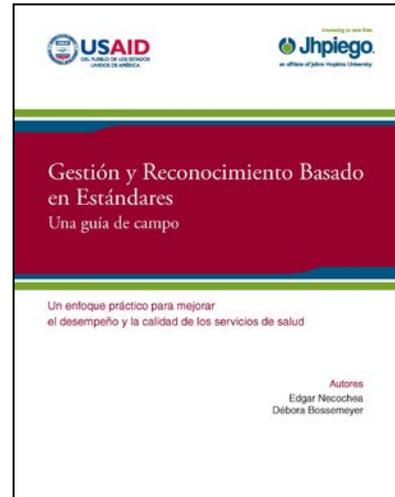
The MCHIP Paraguay team developed a variety of materials in English and Spanish about PPIUD insertion, including a training manual for health care providers, a manual about the facts of PPIUD, and a learning manual for the health care professional. Furthermore a short animated film on how to insert the IUD correctly was created to demonstrate the correct practice of how to place and use this Family Planning Method.

Both materials were used during MCHIP's three day course in PPIUD insertion, which consisted of 6 information sessions. This course's main objective was to save lives by preparing a wide-spread of service providers who can offer high quality PPIUD as part of their postpartum Family Planning options. (Available in English/Spanish.)



SBM-R MATERIALS

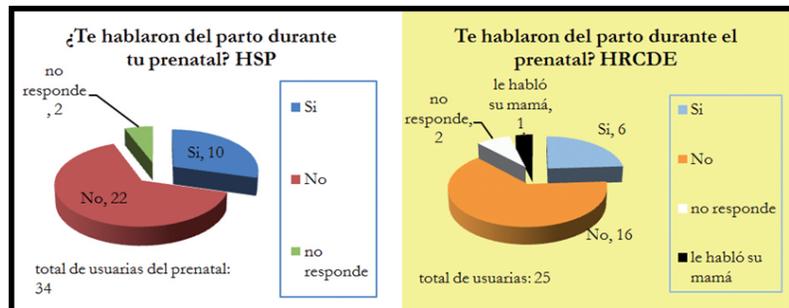
SBM-R offers a practical focus to improve the dissemination and quality of health care services. The participation of the ministry of health from the inception of the project is critical in order for the host country, or community, to adopt these standards at the national level. It is also useful to coordinate and create ties between SBM-R and the management systems in health information. Jhpiego translated the field guide for SBM-R into Spanish in order to explain the detailed process of how to implement SBM-R.



PUBLICATION OF MCHIP MNH ASSESMENT EVALUATION

<http://www.mchip.net/node/1294>

There is limited MNH data or information available in Paraguay. As such, the MCHIP program made it a priority to create printed publications which evaluated and elaborated on the community's behaviors in relation to MNH. These publications displayed the situation as well as areas in need of improvement in all of the health facilities in regards to: prenatal care, postnatal care and care for the newborn.



KNOWLEDGE SHARING

The MCHIP program always prepared educational sessions which were able to share lessons learned. Here are some examples of these interactive sessions:

Session #1 (4:00–4:30 en el 1 de Oct)

Link: <http://webcast.jhu.edu/mediasite/Viewer/?peid=079c796cc2894feeb465ae00d132f3861d>

Title: Program Learning—MCHIP Paraguay (English)

Session #2 (4:30–5:00 en el 1 de Oct)

Link: <http://webcast.jhu.edu/mediasite/Viewer/?peid=ff35d8a017fd4db7b1f73d046abf84061d>

Title: Aprendizaje en Español—MCHIP Paraguay (Español)

Description: The MCHIP team in Paraguay shared the success of their program, lessons learned, and a quantity of resources. This presentation will be useful for colleagues whom are implementing MHH programs and which include community work aspect. Both in English/Spanish.