Ministério da Saúde

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Abbreviations and Acronyms

AAP	American Academy of Pediatrics
ACS	*Activista Comunitário de Saúde*/Community Health Volunteer
AMOG	*Associação Moçambicana de Obstetras e Ginecologistas*/Mozambican Association of Obstetricians and Gynecologists
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
APE	*Agente Polivalente Elementar* / Community Health Worker
CAC	Community Action Cycle
CDC	Centers for Disease Control
CECAP	Cervical Cancer Prevention
CH	Central hospital
CHC	Community Health Committee
CHW	Community Health Worker
CMC	Co-Management Committee
DDNC	Department of Non-Communicable Diseases
DePROS	Department of Health Promotion
DH	District Hospital
DIS	Department of Health Information Systems
DNAM	National Directorate of Medical Assistance
DNSP	National Directorate of Public Health
DPC	Directorate of Planning and Cooperation
DPS	Provincial Health Directorate
DSMI	Department of Maternal and Child Health
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EmONC	Emergency Obstetric and Neonatal Care
ENAP	Every Newborn Action Plan
FHI-360	Family Health International-360
FP	Family Planning
GH	General hospital
HBB	Helping Babies Breathe
HC	Health center
HIS	Health Information System
HW	Health Worker
ICAP	International Center for AIDS Care and Treatment Programs
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
IMNCI	Integrated Management of Newborn and Childhood Illnesses
IPTp	Intermittent Preventive Therapy during pregnancy
IRB	Institutional Review Board
ISCISA	*Instituto Superior de Ciências de Saúde*/Superior Health Sciences Institute
I-TECH	International Training and Education Center for Health

KMC	Kangaroo Mother Care
LARCs	Long-acting reversible contraceptives
LBW	Low birth weight
LEEP	Loop electrosurgical excision procedure
LOP	Life of Project
MCHIP	Maternal and Child Health Integrated Program
MMI	Model Maternity Initiative
MNCH	Maternal, Neonatal and Child Health
MOH	Ministry of Health
NHIS	National Health Information System
PDQ	Partnership Defined Quality
PH	Provincial hospital
PMTCT	Prevention of Mother-to-Child Transmission
PPC	Postpartum Care
PPH	Postpartum Hemorrhage
QHC	Quality and Humanization of Care
RH	Reproductive Health
RMNCH	Reproductive, Maternal, Newborn and Child Health
SBM-R	Standards-Based Management and Recognition
SDSMAS	*Serviços Distritais de Saúde Mulher e Acção Social*/District Services for Women's Health and Social Affairs
SESP	*Secção de Educação em Saúde Pública*/Education and Public Health Sector
SRH	Sexual and Reproductive Health
SVA	Single Visit Approach
SWAp	Sector-Wide Approach
TB	Tuberculosis
TBA	Traditional Birth Attendant
TWGs	Technical Working Groups
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

Acknowledgements

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.

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The success of a large-scale project, like that of MCHIP/Mozambique, depends on the joint efforts of many people. It is impossible to thank everyone individually for their generous and invaluable support. Our team would like to take a moment to express our special gratitude to key collaborators whose support was instrumental to the project's success.

The MCHIP team would especially like to thank the Ministry of Health, Provincial and District Health Directorates, public health facilities, and communities with whom we worked. Their mission gave shape to our mission as a project. Their collaborative spirit galvanized our own efforts in support of our shared goal to improve the technical quality of health services, promote the practice of respectful care for all Mozambican women and their families, and engage communities in the 'co-production' of health through citizen involvement in quality improvement and health promotion efforts. In particular, MCHIP is appreciative of the openness and support provided by former Minister of Health, Dr. Alexandre Manguele, as well as his successor, Dr. Nazira Abdula, and their staff, especially Drs. Mouzinho Saíde, Lidia Chongo, Francisco Mbofana, Quinhas Fernandes, Carla Silva Matos, Munira Abudou, Maria Benigna Matsinhe, Edite Tuzine, Nazir Amade, Olga Sigauque, Marina Karagianis, Rosa Marlene Cuco, Nida Abdula, Rosália Mutemba, Olinda Muguande, Teresa Mapasse, Marta Bule, Armando Melo, Ussene Isse, Ana de Lurdes Cala, Cassimo Bique, and Deolinda Sarmento. Without them the project's results simply could have not been achieved.

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Executive Summary

The United States Agency for International Development (USAID) awarded the global flagship maternal, newborn and child health program, or MCHIP, to Jhpiego and partners in 2009. The USAID mission in Mozambique used this global mechanism to begin the first phase of MCHIP support in Mozambique from 2009–2010, during which MCHIP provided technical support to the Ministry of Health (MOH) in implementing evidence-based approaches to improve the quality of maternal, newborn and child health (MNCH) and reproductive health (RH) services including family planning (FP).

To continue building on this initial work, the Mission then established the MCHIP Associate Award in Mozambique that began in April 2011, with the goal of reducing maternal, newborn and child mortality in the country through the scale-up of high-impact interventions and increased use of maternal, newborn, and child health (MNCH), family planning (FP) and reproductive health (RH), and HIV services. The program focused on building a favorable national policy environment while supporting the MOH in two of their national priorities: to scale up the Model Maternities Initiative (MMI), including malaria in pregnancy (MIP) and prevention of mother to child transmission of HIV (PMTCT), and the Cervical and Breast Cancer Prevention/Control Program (CECAP) in order to rapidly expand the implementation of high-impact MNCH/RH interventions. MCHIP also supported the provision of FP services through the MMI and CECAP initiatives.

MCHIP's efforts, designed to address both the supply and demand barriers that were compromising the health of women and newborns, resulted in the following outcomes:

Decreased direct institutional maternal mortality ratio by 57% (based on NHIS), with estimated 1,130 maternal lives saved (based on a LiST analysis of 102 MMI facilities)

- Data from 102 MMI facilities that participated in the MMI between 2009 and 2014 and which presented complete data were analyzed on self-reported practices, evolution of key indicators, and directly measured and modeled Institutional MMR using the Lived Saved Tool (LiST). These data provide a consistent picture of quality improvement in these maternities.
- The 102 MMI facilities included in this analysis cover roughly one-third of the country's institutional deliveries. According to the DHS 2011, Mozambique has a 53% institutional delivery rate. It is therefore estimated that the implementation of high-impact practices through the MMI have contributed to a national drop in Institutional MMR of over 10%.

Scaled-up quality, high-impact and respectful MNH interventions to 125 maternities

- By the end of the project, 32% (42/125) of all facilities involved in the MMI had achieved 80% or more of all standards on their last measurement, and 71% (89/125) had improved their performance on quality standards by at least 50% as compared to their baseline performance. By April 2015, 10 maternities qualified for recognition as a Model Maternity after having reached a sustained pattern of 80% achievement in all quality standards and having achieved 80% or more in all applicable standards areas during a Ministry of Health-led external evaluation.

Scaled-up the integration of cervical and breast cancer prevention services into 134 RH/FP outpatient services

- Trained 749 health professionals in the visual inspection with acetic acid (VIA) screening approach and cryotherapy treatment
- Increased the VIA screening rate from 14% in 2011 to almost 60% in 2015. By the end of the project, 76% of eligible women received cryotherapy on the same day of screening.

Strengthened the quality and coverage of integrated FP services in 143 health facilities

- Supported more than 1 million first FP visits in the 143 MCHIP-supported health facilities, with a CYP of more than 675,000. Trained 1,564 health professionals in Family Planning, including post-partum family planning through the MMI, implants and interval IUD through integrated CECAP/FP training, post-partum and post-abortion IUCD, and regional implants trainings.." Through the MCSP-contracted MOH Logistics Advisor, provided technical assistance to central and provincial level authorities to strengthen the forecasting, procurement and distribution of FP methods and other essential commodities.

Supported an enabling environment for RMNCH through policy development and implementation, information systems strengthening and expansion of the knowledge base of RMNCH interventions

- Supported the development, dissemination and/or implementation of 20 national MNCH and FP/RH strategies, norms, standards and guidelines.
- Led the process of revising the national MNCH register books alongside other partners, and served as the lead organization in the development of the cascade training plan and materials for the introduction and implementation of the revised HIS tools to ensure quality and reliable data for informed and timely decision-making.

Transformed the culture and delivery of in-service training and quality improvement standards for RMNCH

- Led the development and finalization of national performance standards in Maternal and Newborn Care (including malaria in pregnancy, PMTCT, TB in pregnancy), FP, and CECAP, as well as draft performance standards for IMCI, Nutrition, TB and Malaria.
- Trained 1,079 health professionals in the Standards-based Management and Recognition (SBM-R) methodology for quality improvement, including 265 health managers from the MOH, Provincial Health Directorates, District Health Directorates and health facilities to support the implementation of the quality improvement process.

Mobilized 389 community groups to lead or engage in efforts to improve the health of their communities

- Created 309 CHCs and 80 CMCs – of the total CHCs, 267 (86%) developed action plans to improve health outcomes in their communities. In this way, community engagement efforts reached more than 1.7 million individuals through educational sessions and over 3,452 radio spots were aired to create demand for family planning, maternal, newborn and other reproductive health services.
- Referred 86,566 pregnant women to ANC services and 36,951 women for institutional delivery through home visits and other outreach activities.

Valuable experiences were gained through the four years of implementation of the MCHIP Associate Award. The following are several key lessons that were learned that have implications for future programming through the MCSP Award and other MNCH programs.

- MOH leadership and appropriation is critical for the success of high functioning health facilities.
- A unifying theoretical framework between institutional and community components is essential to ensuring programmatic integration as well as promoting a shared mission among project staff.
- In the context of a national human resources crisis for health, maximizing existing resources is necessary.
- The motivation of health workers must be increased and improvements in the quality of services should be continuously recognized.

- Knowledge and skills in key RMNCH areas must continuously be reinforced.
- The quality and reliability of data collected/reported and its use for decision-making must be reinforced at all levels.
- Community and facility linkages are essential for accountability.
- There is a need to re-conceptualize reproductive health that understands both women and men as resources for improved family health.

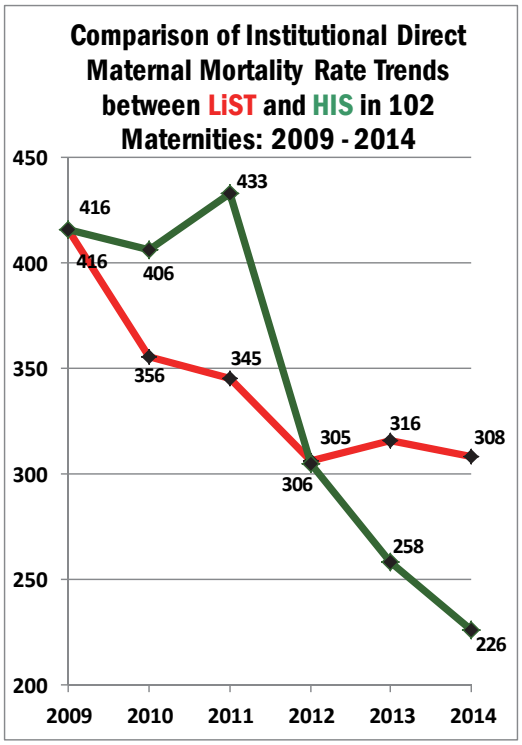
The main objective of this report is to document and share MCHIP's approach, accomplishments and lessons learned during the past five years.

Major Achievements

Decreased direct institutional maternal mortality ratio by 57% (based on NHIS), with estimated 1,130 maternal lives saved (based on a LiST analysis of 102 MMI facilities)

- Data from 102 MMI facilities that participated in the MMI between 2009 and 2014 and which presented complete data were analyzed on self-reported practices, evolution of key indicators, and directly measured and modeled Institutional MMR using the Lived Saved Tool (LiST). These data provide a consistent picture of quality improvement in these maternities.

  When improvements in coverage of three key practices (completed partograph, magnesium sulfate, AMTSL) were modeled with LiST, the predicted decline in Institutional MMR by Direct Complications was consistent with the decline reported through the NHIS (26% modeled versus 46% directly measured). (The difference between reported and modeled decrease may due to practices not included in the LiST modeling analysis that have an impact on the reduction of Institutional MMR.)

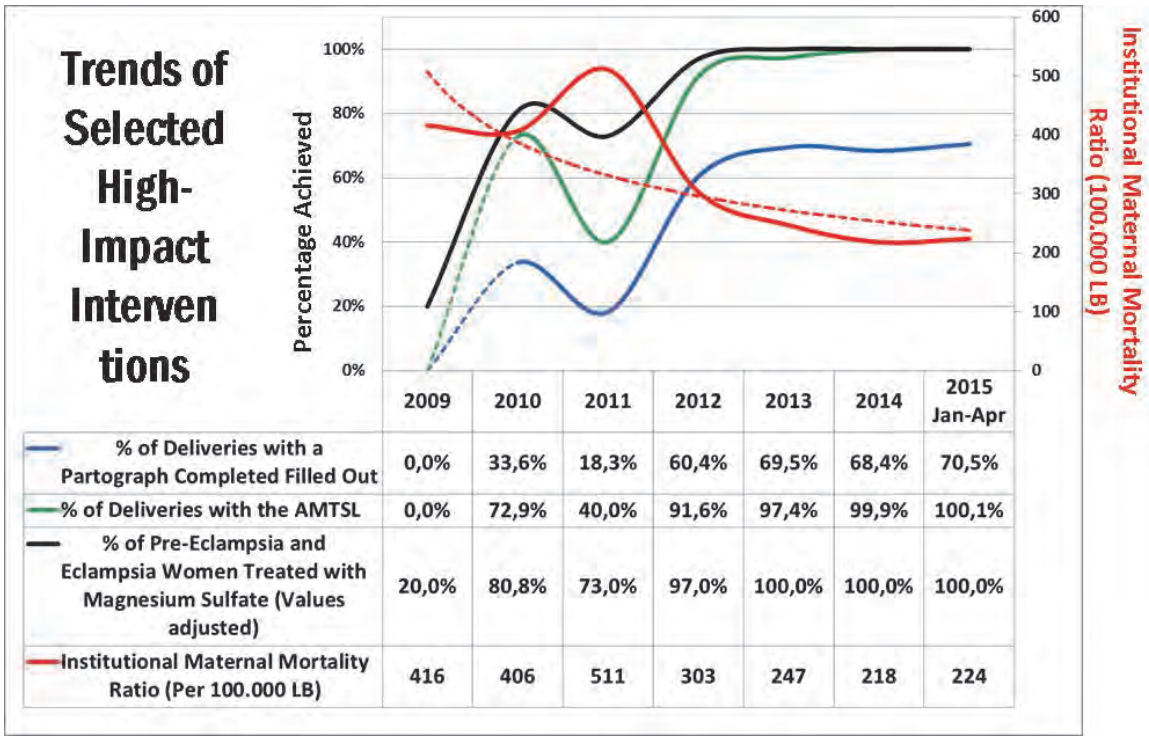


- The 102 MMI facilities included in this analysis cover roughly one-third of the country's institutional deliveries. According to the DHS 2011, Mozambique has a 53% institutional delivery rate. It is therefore estimated that the implementation of high-impact practices through the MMI have contributed to a national drop in Institutional MMR of over 10%.

Scaled-up quality, high-impact and respectful MNH interventions to 125 maternities

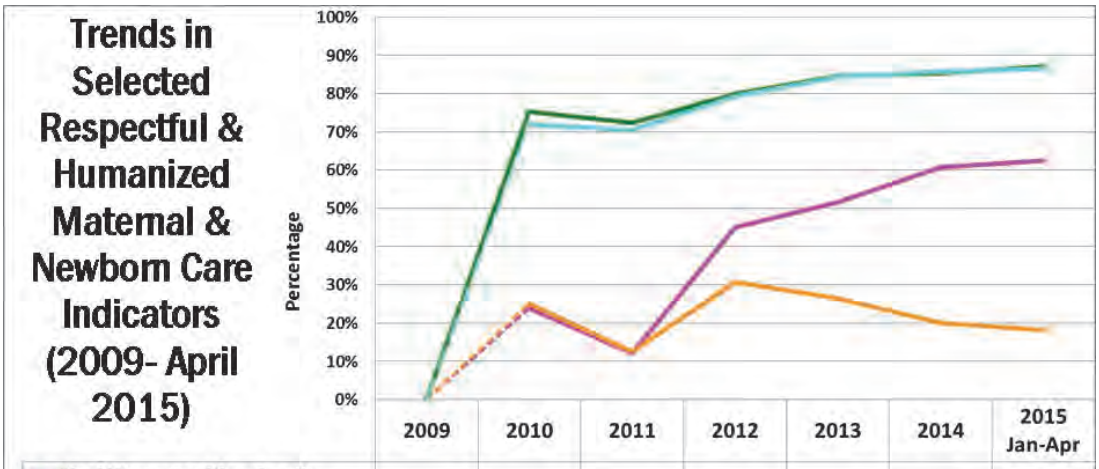
- The MMI was expanded from 34 health facilities at the beginning of 2011 to 125 health facilities by April 2015. By the end of the project, 32% (42/125) of all facilities involved in the MMI had achieved 80% or more of all standards on their last measurement, and 71% (89/125) had improved their performance on quality standards by at least 50% as compared to their baseline performance. By April 2015, nine maternities qualified for recognition as a Model Maternity after having achieved 80% or more on quality standards areas during a Ministry of Health-led external evaluation, recognizing a sustained pattern of achievement.

- The practice of high-impact interventions was expanded, supported, and reinforced. These included completed partographs, treatment of severe pre-eclampsia and eclampsia (PE/E) with magnesium sulfate (MgSO4), and AMTSL. As the graph below illustrates, the institutional maternal mortality ratio at MMI facilities declined over the course of five years as implementation of the three key high-impact interventions increased.



	2009	2010	2011	2012	2013	2014	2015 Jan-Apr
% of Deliveries with a Partograph Completed Filled Out	0,0%	33,6%	18,3%	60,4%	69,5%	68,4%	70,5%
% of Deliveries with the AMTSL	0,0%	72,9%	40,0%	91,6%	97,4%	99,9%	100,1%
% of Pre-Eclampsia and Eclampsia Women Treated with Magnesium Sulfate (Values adjusted)	20,0%	80,8%	73,0%	97,0%	100,0%	100,0%	100,0%
Institutional Maternal Mortality Ratio (Per 100.000 LB)	416	406	511	303	247	218	224

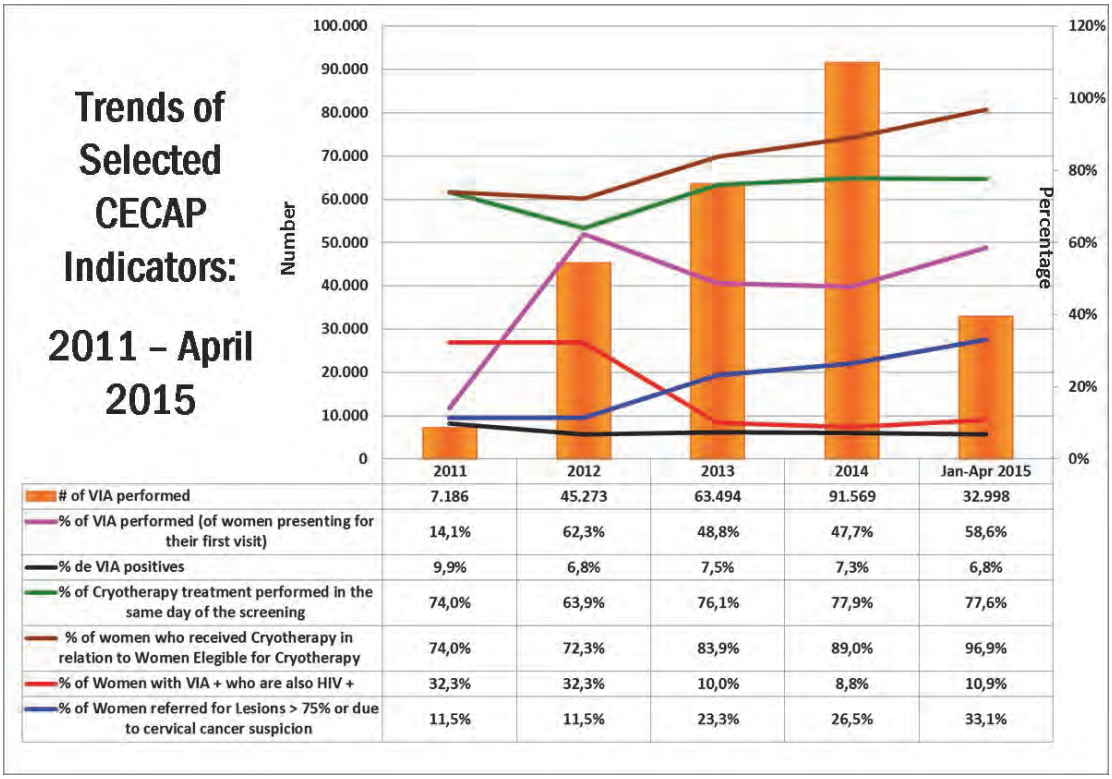
- 4,622 health professionals trained in RMNCH areas, enabling the expanded implementation of high-impact practices. Target themes included the training of 629 providers in respectful and high-impact MNH interventions through the MMI; 3,993 in other MNCH related areas including postpartum and postabortion FP, Helping Babies Breathe, malaria case management (including women and children), Kangaroo Mother Care, PMTCT Option B+, fistula repair, Child Health, and Quality Improvement.
- Respectful MNH care practices were also expanded, with over 85% of newborns breastfed within the first hour of delivery and provided immediate skin-to-skin contact with the mother in 2015 (compared to around 71% in 2011), and over 60% of women who were accompanied by companion for labor and delivery (compared to 12% in 2011).



	2009	2010	2011	2012	2013	2014	2015 Jan-Apr
% of Women with a Family Companion during Labor/Delivery	0,0%	24,0%	12,2%	45,0%	51,7%	60,8%	62,5%
% of Deliveries in Vertical and Semi-Vertical Positions	0,0%	25,0%	12,5%	30,7%	26,4%	20,0%	18,2%
% of New-Born Babies with Immediate Skin-to-Skin Contact with the Mother	0,0%	75,2%	72,3%	79,8%	84,5%	85,3%	87,0%
% of New-Born Babies Breastfed Within the First Hour after Delivery	0,0%	71,9%	70,4%	79,4%	84,3%	85,7%	86,5%

Cervical and breast cancer prevention services scaled up and integrated into 134 RH/FP outpatient services

- Recognized as lead technical advisor to the MOH and to USG Implementing Partners in establishing the Integrated Reproductive Health Outpatient Services in 134 Health Facilities (from 17 in 2011), primarily for integrating Cervical and Breast Cancers Screening into the existing FP outpatient visits.
- 749 health professionals trained in the visual inspection with acetic acid (VIA) screening approach and cryotherapy treatment, increasing access for women to these vital services
- 39 Provincial Maintenance Technicians trained to undertake repairs of CECAP Equipment, enabling more consistent service provision.
- VIA screening rate increased from 14% in 2011 to almost 60% in 2015. By the end of the project, 96% of eligible women received cryotherapy on the same day or the days following screening.



	2011	2012	2013	2014	Jan-Apr 2015
# of VIA performed	7.186	45.273	63.494	91.569	32.998
% of VIA performed (of women presenting for their first visit)	14,1%	62,3%	48,8%	47,7%	58,6%
% de VIA positives	9,9%	6,8%	7,5%	7,3%	6,8%
% of Cryotherapy treatment performed in the same day of the screening	74,0%	63,9%	76,1%	77,9%	77,6%
% of women who received Cryotherapy in relation to Women Elegible for Cryotherapy	74,0%	72,3%	83,9%	89,0%	96,9%
% of Women with VIA + who are also HIV +	32,3%	32,3%	10,0%	8,8%	10,9%
% of Women referred for Lesions > 75% or due to cervical cancer suspicion	11,5%	11,5%	23,3%	26,5%	33,1%

Strengthened the quality and coverage of integrated FP services in 143 health facilities

- More than 1 million first-time FP visits were supported in the 143 MCHIP-supported health facilities, with a CYP of more than 675,000. These figures do not include 2011 data, or any data on Depo-provera and implants.
- 1,564 health professionals trained in Family Planning, including post-partum family planning through the MMI, implants and interval IUD through integrated CECAP/FP training, post-partum and post-abortion IUCD, and regional implants trainings.
- Technical assistance provided to central and provincial level authorities by the MCSP-contracted MOH Logistics Advisor to strengthen the forecasting, procurement and distribution of FP methods and other essential commodities.

Supported an enabling environment for RMNCH through policy development and implementation, information systems strengthening and expansion of the knowledge base of RMNCH interventions

- The development, dissemination and/or implementation of 20 national MNCH and FP/RH strategies, norms, standards and guidelines was supported by MCHIP playing a leading role.
- Two high-level meetings—the National Advocacy Meeting spearheaded by the MOH and the First Lady's Cabinet in May 2013, and the 7th Stop Cervical Cancer in Africa International Conference hosted in Mozambique in July 2013—were successful in advancing and reaffirming national commitments to RMNCH, in part due to MCHIP's technical and organizational leadership.
- MCHIP led the process of revising the national MNCH register books, alongside other partners, and supported the development of the cascade training plan and materials for the introduction and implementation of the revised HIS tools to ensure quality and reliable data for informed and timely decision-making.

Transformed the culture and delivery of in-service training and quality improvement standards for RMNCH

- Six Integrated In-Service Training packages were developed and the first national Training of Trainers (TOT) in the methodology for their utilization, testing, and validation was conducted. To be responsive the national health HR crisis by training providers onsite, instead of pulling them out for professional development, 31 partner organizations were trained in order to build synergies in the rollout of these in-service training packages and to expand the technical assistance available.
- The country's first and second MOH National Quality and Humanization of Care (QHC) Meetings in November 2012 and December 2014, and presided over by the Minister of Health, were supported by MCHIP. Both meetings experienced active participation by representatives from the Provincial Health Directorates, religious leaders, community leaders, traditional medicine practitioners, representatives from the League of Human Rights, health workers, and partners.
- The finalization of national performance standards in Maternal and Newborn Care (including malaria in pregnancy, PMTCT, TB in pregnancy), FP, and CECAP, as well as draft performance standards for IMCI, Nutrition, TB and Malaria were led by MCHIP.
- 1,079 health professionals trained in the Standards-Based Management and Recognition (SBM-R®) methodology for quality improvement, including 265 health managers from the MOH, Provincial Health Directorates, District Health Directorates and health facilities to support the implementation of the quality improvement process.

Mobilized 389 community groups to lead or engage in efforts to improve the health of their communities

- Supported the development and harmonization of the MOH's packages for mobilizing communities for improved MNCH, including tools, methods, monitoring indicators, and national guidelines for the establishment and functioning of Community Health Committees (CHCs) and Co-Management Committees (CMCs).
- 309 CHCs and 80 CMCs were created by MCHIP. Of the total CHCs, 267 (86%) developed action plans to improve health outcomes in their communities.
- More than 1.7 million individuals were reached through educational sessions and over 3,452 radio spots were aired to create demand for family planning, maternal, newborn and other reproductive health services.

- 86,566 pregnant women were referred to ANC services and 36,951 women were referred for institutional delivery through MCHIP-supported home visits and other outreach activities.

Background

MATERNAL AND NEWBORN HEALTH

Mozambique's maternal mortality ratio stands at 408 per 100,000 live births, one of the 20 highest in the world.[1] With one in 41 women at a lifetime risk of maternal death[2], and 30 newborn deaths per 1,000 live births[3], the Mozambican MOH is currently advocating for the increased utilization of delivery services within health facilities, where women can receive lifesaving care to reduce maternal and neonatal mortality. Since 2008, the proportion of women giving birth in health facilities has stagnated at 55%, with this number varying widely between rural (44%) and urban (80%) areas, thus inhibiting Mozambique's chances of achieving MDGs 4 and 5.[4] A 2013 scoping study funded by the Department for International Development (DFID) found that the most significant barriers to institutional delivery in Inhambane, Zambézia, and Cabo Delgado provinces were delays in reaching care (lack of affordable or available transportation, distance to facilities, and poor roads), as well as delays in seeking care (mostly due to cultural and gender barriers, particularly the influence of family and partners).[5] As such, it is clear that demand-side interventions are critical to bridging the gap between women and families and facilities.

Drivers of maternal and neonatal mortality in Mozambique also include two significant supply-side barriers: poor availability of essential services and low quality of care. In 2007, 28.2% of maternal deaths were due to delays in receiving care after arriving in the health facility.[6] Although there has been some expansion in the availability of basic emergency obstetric and neonatal care (BEmONC) and comprehensive emergency obstetric and neonatal care (CEmONC), the main causes of intra-hospital maternal deaths in Mozambique continue to be postpartum hemorrhage (PPH), pregnancy hypertension, ante- and post-delivery sepsis, and uterine ruptures.[7] The 2011 quality of care survey conducted by MCHIP and the MOH revealed that addressing health worker shortages; increasing competencies through on-the-job training of nurses and doctors; and clinical mentoring and high-frequency supportive supervision would significantly reduce maternal and neonatal morbidity and mortality. Furthermore, the infrastructure of many facilities including inadequate water and sanitation and lack of electricity is a limiting factor to delivery of quality of services during labor and delivery.

Beyond delivery, the postnatal period is also of concern. Ensuring mothers and newborns receive postnatal care is essential to the prevention of maternal and newborn deaths, as many mothers and newborns die during this critical period. About a third of the newborns who die do so in the first week of life; about two thirds of these die in the first day. In Mozambique only about 20% of newborns are reported to receive postnatal care,[8] and the proportion of newborns delivered at home who receive early postnatal care is not known. While breastfeeding is nearly universal in Mozambique, only 43% of infants under six months are exclusively breastfed. It is common to give newborns water, traditional

[1] ICF Macro, Manhica Health Research Center (CISM), Ministry of Health (Mozambique), National Statistics Institute (Mozambique). Mozambique Demographic and Health Survey (DHS) 2011. Calverton, MD, United States: ICF Macro, 2013.
[2] Countdown to 2015, Mozambique Health Data 2014 Profile. http://www.countdown2015mnch.org/documents/2014Report/Mozambique_Country_Profile_2014.pdf
[3] Mozambique DHS 2011
[4] Mozambique DHS 2011
[5] Pathfinder International Mozambique 2013- Barriers to institutional deliveries and family planning: A qualitative study from Cabo Delgado, Zambezia and Inhambane provinces, Mozambique. Study commissioned by DFID Mozambique.
[6] Ministerio da Saúde de Moçambique. (2009). "Integrated Plan for the Achievement of MDGs 4 and 5 in Mozambique (2009–2015)."
[7] UN Mozambique. MDG 5 – Improve Maternal Health (http://mz.one.un.org/eng/What-we-do/MDG-5-Improve-Maternal-Health), accessed 10 August 2013
[8] Mozambique DHS 2011

medicines or other infusions, and complementary feeding (e.g., watery porridges) is often begun at a couple of months of age. Based on service data from health facility mortality registers and other sources, the MOH reports that the principal causes of neonatal death in country are consistent with the worldwide trend.[9] These include low birth weight/preterm birth; birth asphyxia; sepsis; pneumonia; and other causes (HIV infection, syphilis, and malaria).

MALARIA IN PREGNANCY

According to data from the 2011 DHS, Mozambique has made relatively little progress on scaling up intermittent preventive treatment of malaria for pregnant women (IPTp), with only 18.6% of women having received two or more doses of IPTp during their last pregnancy, compared to 16.2% in the 2007 MIS. The reasons for Mozambique's low coverage have not been confirmed but are thought to be due to a combination of factors, including inconsistent stocks of sulfadoxine pyrimethamine (SP), lack of clearly articulated guidelines on the administration of IPTp, and lack of supervision, together with poor reporting practices. During the course of MCHIP, Mozambique adopted the new World Health Organization (WHO) IPTp guidelines, which are expected to increase the national SP needs and improve IPTp coverage.

PMTCT

Mozambique bears a high mortality rate due to HIV both in mothers and children. It is the third leading cause of indirect maternal mortality (19% of maternal deaths, INCAM 2009), the third leading of postneonatal (11%) mortality, and the second cause of mortality in children 1–4 years (13%) (Study on Child Mortality, 2009). Geographically, HIV is the second most frequent cause of death in urban areas while in rural areas, it is the third. To overcome the burden of transmission of HIV from mother to child, the government of Mozambique endorsed the Global Action Plan for the Elimination of Mother-to-Child Transmission (eMTCT) of HIV in July 2011. The Plan aims to reduce the number of new pediatric HIV infections by scaling up effective PMTCT interventions to at least 90% of pregnant women living with HIV and their infants by the end of 2015, with at least 30% of pregnant women initiating antiretroviral treatment for their own health (HAART).

With MCHIP's support, the eMTCT plan (2012–2015) was designed to rapidly increase service coverage, improve the quality of services, and increase utilization so as to reach the ambitious goals set in the Government of Mozambique's Health Sector plan. As part of this strategy, Option B+ was officially introduced in June 2013, with the eventual goal of expanding this PMTCT services to all health facilities with antenatal care and maternity wards in the country, and of reaching 861 facilities—almost 90 per cent of all facilities – by 2015.

FAMILY PLANNING

A 2015 re-analysis of 2011 DHS data highlights the persistent unmet need for family planning, both among postpartum and non-postpartum women. Women 0–23 months postpartum have a 68% unmet need for family planning.[10] The modern contraceptive prevalence rate has remained steady at 11.3%, and of women using modern contraception, 96% are using a short-acting methods.[11] A number of barriers continue to hinder the uptake of family planning in Mozambique, including poor access to services and missed opportunities to provide family planning in the health care system. The MOH, with MCHIP support, developed the Acceleration Plan to Increase the Utilization of FP Services and Modern Methods of Contraception, as well as the National Guidelines for Integration of FP Interventions Into Other Health Facility Services (including in HIV and Chronic Diseases Services) to guide the national efforts to increase the acceptance of family planning.

[9] World Health Organization (WHO), World Health Report, cause-specific mortality estimates for 192 countries, 2005.
[10] Moore. Z et al, "Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low and middle-income countries." Contraception 92 (2015). 31-39.
[11] Mozambique DHS 2011

Mozambique is actively working to improve family planning service delivery, both at the health facility and community level, with the goal of reaching 34% contraceptive prevalence rate by 2020.[12]

CECAP

The burden of cervical cancer in Mozambique is higher than the average for developing countries. The incidence and mortality rates are 37.3 and 33.2 per 100,000 women, respectively, compared with 8.8 and 8.2 globally, and 3.0 and 2.7 in developed regions (Globocan 2008). In order to address this issue, in 2009, the Government of Mozambique launched the National Cervical and Breast Cancer Prevention and Control Program, with technical leadership and assistance from Jhpiego under the first phase of MCHIP in Mozambique. The MOH has been working over the past five years with support of its partner agencies, especially UN agencies and USAID implementing partners, to implement and consolidate this plan.

The Mozambique MOH adopted the "Single Visit Approach" (SVA) as the basis for its cervical cancer prevention program (CECAP). This approach links testing with the offer of treatment during the same visit. The main objective of the CECAP program is to increase access to screening and treatment for all target women in order to reduce the incidence and mortality due to cervical cancer in the country. CECAP services in Mozambique are integrated into Sexual and Reproductive Health (SRH)/Family Planning (FP) services, targeting women between 30–55 years old, including HIV+ women. Services aim at providing screening with visual inspection with acetic acid (VIA) and treatment of pre-cancerous lesions with cryotherapy at the primary health facilities. Colposcopy, biopsy and treatment with the loop electrosurgical excision procedure (LEEP) are offered at referral sites for the management of advanced lesions.

Program Approach

In response to the problems and challenges highlighted in the previous section, MCHIP first began work in Mozambique in 2009–2010 with the overall goal of accelerating the reduction of maternal, newborn and child mortality by supporting the Government of Mozambique's efforts to achieve Millennium Development Goals (MDGs) 4 and 5. During this first phase, MCHIP provided technical support to the MOH in implementing evidence-based approaches to improve the quality of MNCH and RH services, including FP.

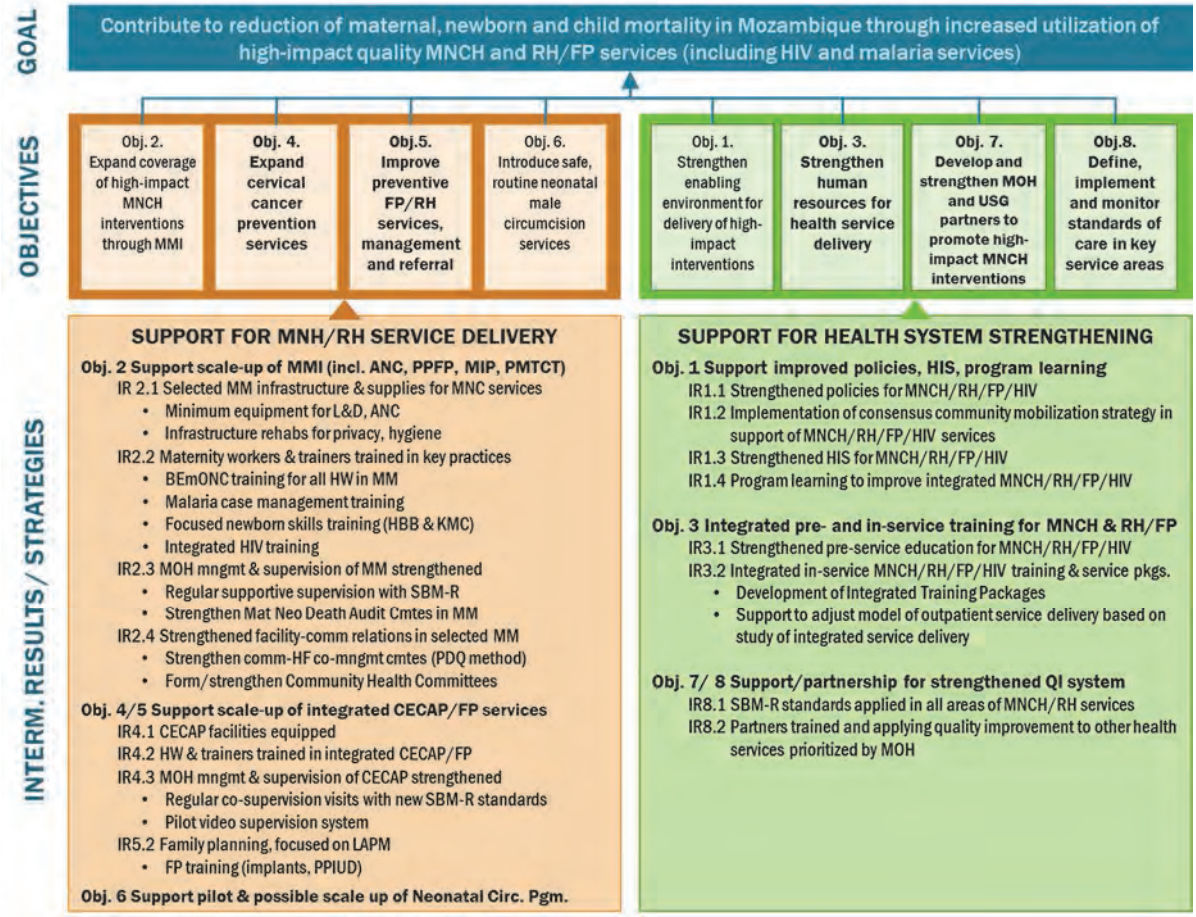
Building on progress made during the first MCHIP program, the follow-on MCHIP Associate Award in Mozambique began in April 2011 with the goal **to reduce maternal, newborn and child mortality in Mozambique through the scale-up of high-impact interventions and increased use of MNCH, FP/RH, and HIV services**. MCHIP's mandate was to work in all 11 provinces in the country, including Maputo City. As illustrated in Figure 1 and also listed below, the project had eight objectives:

- **Objective 1:** Work with the MOH and all USG partners to create an enabling environment at the national level to provide high-impact interventions for integrated MNCH/RH/FP services in the community and Health Facilities
- **Objective 2:** Support efforts of the MOH to increase national coverage of high impact interventions for MNCH through the expansion of the MMI, in collaboration with USG partners in all provinces
- **Objective 3:** Support the MOH to strengthen the development of human resources for the provision of basic health services and comprehensive Emergency Obstetric and Neonatal Care (EmONC) and RH

[12] Family Planning 2020: Countries. http://www.familyplanning2020.org/entities/127

- **Objective 4:** Support the expansion of activities for prevention of cervical and breast cancer using the single-visit approach and assisting in the implementation of the MOH's *"Action Plan for the Strengthening of and Expansion of Services for Control of Cervical and Breast Cancer"*
- **Objective 5:** Assist in the development, implementation, and management of FP/RH services for selected health facilities
- **Objective 6:** Promote and test the introduction of neonatal circumcision services in selected health units
- **Objective 7:** Partnerships developed and strengthened (MOH and all USG partners) at the national level to promote high impact integrated MNCH services
- **Objective 8:** Work with the MOH and all USG partners to define, implement and monitor standards of care at the point of service in essential areas

Figure 1. MCHIP Mozambique Associate Award Results Framework



The **direct service implementation** objectives of the project were encompassed in Objectives 2, 4, and 5. The organizing principle for service delivery was the MOH's Integrated Service Packages—a modular integrated training package for MNCH and FP/RH that addresses the continuum of care throughout the life cycle, as well as the different levels of health care and provider cadres. MCHIP supported the MOH in its rollout of this package of service delivery and training as part of Objective 3 to address low performance by health workers by creating a more effective in-service training approach.

In accordance with national expansion plans for the MMI and CECAP programs, MCHIP supported the MOH to expand the MMI to a total of 125 health facilities, covering over half of institutional births nationwide, and to expand the CECAP program to a total of 134 health facilities (see Annexes 1 and 2 for the expansion plans). MCHIP supported all of

these facilities in terms of training in technical areas and quality improvement methods, as well as assisting the Provincial Health Directorates (DPS) in their supportive supervision. MCHIP's goal was to help the MOH recognize 22 facilities as Model Maternities by the end of the project. To be recognized as a Model Maternity, the facilities must have reached a sustained pattern of 80% achievement of all quality standards. Upon achieving this goal, the facility would be acknowledged formally through an MOH-defined process for recognition.

In terms of FP service delivery, MCHIP's support focused on increasing uptake of postpartum FP in MMI facilities and strengthening the integration of family planning and CECAP through the Integrated RH Outpatient Services. MCHIP gave special attention to the introduction of long-acting reversible contraceptives (LARCs), namely interval, postpartum and postabortion intrauterine contraceptive devices and implants. The Lactational Amenorrhea Method was also strengthened in the MMI health facilities, as was the range of MOH-approved family planning methods at integrated RH sites.

Besides supporting service delivery, MCHIP also provided technical assistance in **strengthening the health system** more generally at the national, provincial, facility and community levels. MCHIP supported policy and strategy development; health information system strengthening, including updating and rolling out revised RMNCH national registers; human resource development through training, especially with the Integrated Training and Services Packages; and strengthening the institutionalization of the quality improvement regime based on the SBM-R approach. MCHIP also contributed to the harmonization and coordination of efforts through strengthening partnerships and technical leadership of USG and other implementing partners for MNCH and RH/FP.

To complement these institutional efforts, MCHIP worked to increase service utilization through **strengthened facility-community linkages**. MCHIP applied a *Partnership Defined Quality* (PDQ) approach as a mechanism for community participation in health facility quality improvement initiatives through the Co-Management Committees. Working through Community Health Committees, MCHIP also used the Community Action Cycle (CAC), a community-led process that engages those most affected by, or interested in, MNCH issues to identify problems and generate and implement solutions.

MCHIP provided strategic technical support to the MOH, to more fully realize its *Strategy for Community Involvement* (2004). Working closely with the Department of Health Promotion, MCHIP supported the development and harmonization of the MoH's packages for mobilizing communities for improved MNCH, including tools, methods, monitoring indicators, and national guidelines for the establishment and functioning of community health committees (CHCs) and health facility co-management committees[13]. MCHIP has also provided support to train government health workers and MOH partners to ensure nationwide implementation of these strategies and guidelines.

MCHIP also worked to increase demand for FP/RH services from youth; women of child bearing age; and high-risk mothers (e.g., young mothers, multi-partum, HIV positive, etc.) using an integrated approach. Through the promotion of behavior change and key RMNCH health practices in communities, MCHIP addressed the underlying causes of poor MNCH demand, including issues of gender; power and traditional values. In order to move away from unidirectional 'health talks' to dialogue, reflection and action, a peer support model was promoted through Pregnancy Support Groups and New Mothers Support Groups.

[13] *Envolvimento Comunitario: Como Mobilizar as Comunidades para un Maior Envolvimento na Promocao da sua Saude. Manual do Participante,* Ministry of Health, May, 2012;
Estabelecimento e Funcionamento dos Comites de Co-Gestao das Unidades Sanitarias – Termos de Referencia, Ministry of Health, May, 2012.
Comites de Saude Comunitario, *Termos de Referencia*, Ministry of Health, May, 2012

Description of Results, by Objective

OBJECTIVE 1: Work with the MOH and all USG partners to create an enabling environment at national level to provide high-impact interventions for integrated MNCH/RH/FP services in the community and health facilities

IR1.1 Strengthened policies and planning processes for MNCH/RH/FP

To ensure an enabling environment and guide the adoption of high-impact interventions for RMNCH, MCHIP provided technical assistance to the MOH to prioritize, revise and develop national policies, norms and guidelines in support of reducing maternal, neonatal and child mortality. These efforts were conducted in collaboration with the National Directorate of Public Health (DNSP) and other development and implementing partners through the Sector-Wide Approach (SWAp) technical working groups (TWGs). A total of 20 national policies, norms, and guidelines were developed and finalized with MCHIP support.

MCHIP supported the development and implementation of important policy, strategic and programmatic documents, including:

- National Malaria Policy
- National Malaria Plan – 2012 -2016
- National Malaria M&E Plan – 2012 – 2016
- National Norms for Well-Child and At-Risk Child
- National Sexual Reproductive Health Policy
- Graded Recognition Process for MMI and CECAP
- Family Planning Supervision Guide
- Guidelines for Integration of Family Planning into Other Services
- National Strategy for Prevention of Postpartum Hemorrhage in the Community
- Guide for National Health Weeks
- National Norms for Delivery and Newborn Care and Obstetric and Neonatal Complications
- National Norms for Prenatal, Postpartum and Postnatal Care
- National Family Planning Norms and Guidelines
- Acceleration Plan to Increase Utilization of Family Planning Services and Modern Methods of Contraception 2014-2017
- National Plan for Elimination of Vertical Transmission of HIV
- Operational Plan to Accelerate the Reduction of Maternal, Neonatal, and Child Mortality
- Reproductive, Maternal, Neonatal, and Child Health Flowcharts
- National Community Mobilization Manual
- Terms of Reference – Community Health Committees
- Terms of Reference – Co-Management Committees

Gender Analysis

MCHIP's implementation experience in Mozambique has shown that gender inequality and discriminatory practices, especially early marriage and the control of husbands over resources and their influence over decision-making, often dictate the health-seeking behaviors of women and can put women at risk. Because getting health care entails expenditures—if only for transport—many women feel pressure to forego care, including ANC or a facility-based delivery. Delays in deciding to seek care during the antenatal, delivery or postpartum periods can be mitigated through early and continuous involvement of male partners and influential community leaders[14]. During MCHIP, the team made efforts to initiate the identification of opportunities for the incorporation of gender-transformative strategies into future RMNCH work through the conduct of a gender analysis. MCHIP established strong linkages with the MOH's Gender Equality Unit and conducted gender training for MOH focal points to increase their capacity in gender-related programming.

MOH Maternal & Child Health Department – Support for Technical Advisors

During the last two quarters of FY14, MCHIP contracted three key advisors who were seconded to the MOH's Maternal and Child Health Department (*National Directorate of Public Health*) for the remainder of the project, including an MNH Advisor, Family Planning Advisor, and Logistics Advisor. The three advisors provided daily technical assistance within

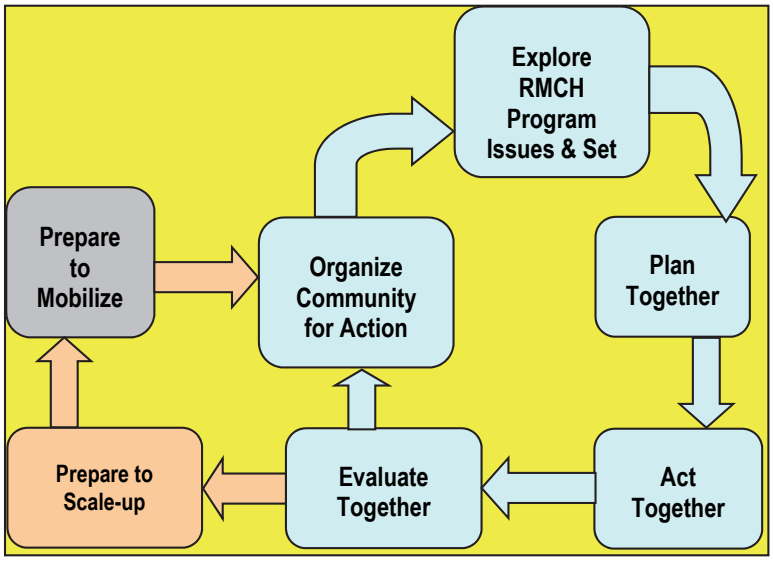
[14] Mangeni J et al. (2013). Male Involvement in Maternal Health Care as a Determinant of Utilization of Skilled Birth Attendants in Kenya. ICF/DHS Working Paper, 93.

the MOH, including conducting provincial supervisions and technical assistance visits with central and provincial MOH counterparts with the support of MCHIP.

IR1.2 Implementation of consensus Community Mobilization strategy in support of MNCH/SRH/FP

Institutional Capacity Building for PDQ and community mobilization through application of community action cycle

Figure 2. MCHIP Community Action Cycle



In support of the MOH's Strategy for Community Involvement, MCHIP supported the Department of Health Promotion to develop and harmonize the tools, methods, monitoring indicators and national guidelines to establish and operationalize community health committees (CHCs) and health facility Co-Management Committees (CMCs). MCHIP printed and distributed 2,500 copies of the CHC and CMC guides to the MOH, DPS/SDSMAS and partners. The program trained 39 trainers, 302 health providers from 121 districts, and 24 NGOs in PDQ and Community Mobilization to ensure implementation at scale by MCHIP and other MOH partners.

Establishment of health committees and co-management committees

Health Committees

MCHIP established and provided support to 309 CHCs throughout the life of the project. All CHCs developed action plans based on prioritized solutions to addressing MNCH issues in their respective communities. The program applied the Community Action Cycle (CAC) as the strategy to establish and mentor CHCs (see **Figure 2**). **Table 1** shows the number of CHCs established by province.

Table 1. Number of CHCs by Province

Province	FY12 - FY15		
	# CHC established	# CHC with action plans based on prioritized solutions	# CHC with action plans implementing action plans addressing MNCH
Nampula	32	32	32
Cabo Delgado	33	33	33
Niassa	33	33	33
Zambezia	22	22	22
Manica	33	33	33
Tete	29	29	29
Sofala	30	30	30
Gaza	38	38	38
Maputo Province	21	21	21
Inhambane	38	38	38
Total CHC	**309**	**309**	**309**

Co-Management Committees

Beginning in May 2012, MCHIP and Provincial Health Directorate staff developed a Partnership Defined Quality (PDQ) team and held meetings with district and target health facility officers with the goal of building support for PDQ as part of the CMC strategy. Eighty health facilities were selected to receive support and specific PDQ objectives were defined for each facility.

The program team used a variety of participatory exercises with health workers and with communities (focus group discussion with women of reproductive age, women in the postpartum period, mothers with children under 5 years old, mothers-in-law, men, youth, community leaders, community health workers, traditional birth attendants, and traditional healers) and explored their perspectives of quality in MNC health services. Each group (community and health workers) produced a list of issues related to quality and jointly developed a common list of issues identified as key barriers to quality care. During these joint meetings, CMCs were formed in each of the 80 target health facilities. The CMCs prioritized the identified barriers using a problem tree analysis and the fish bone approach, and developed their action plans to address these issues. **Table 2** presents the list of health facilities that now have CMCs created with MCHIP support.

Table 2. Co-Management Committees Created with MCHIP Support

Province	Life of Project (LOP) # of CMCs established in non-intensive focus areas	LOP # of CMCs established in intensive focus areas	Name of health facilities with CMCs (intensive focus areas)
Nampula	6	4	Marere GH, 25 de Setembro HC, Muhala Expansão HC, Angoche RH
Cabo Delgado	5	2	Natite HC, Mueda RH
Niassa	9	2	Cuamba RH, Mandimba HC/DH
Zambezia	5	4	Milange RH, Gurue RH, Coalane HC, 17 de Setembro HC
Manica	12	2	Manica DH, 1 de Maio HC
Tete	1	4	No 2 HC, No 4 HC, Angonia RH, Mutarara RH
Sofala	5	5	Muxungue RH, Ponta Gea HC, Munhava HC, Chingussura HC, Macurungo HC
Inhambane	0	4	Vilanculos RH, Mapinhane HC, Macunhe HC, Homoine DH
Gaza	2	2	Chicumbane RH, Manjacaze RH
Maputo Province	2	4	Boane HC, Matola II HC, Machava II HC, Bedene HC
Total	47	33	

MCHIP supported the creation of 309 CHCs and 80 CMCs; 267 of these CHCs developed action plans to improve their MNCH indicators in their communities.

National, Provincial and District-Level Community Mobilization Meetings

In order to ensure capacity building and institutionalization of the community mobilization strategy, MCHIP provided technical and financial support to the MOH's Department of Health Promotion (DePROS), the Provincial Health Directorates, and the District Health Directorates to conduct partner coordination meetings, generally known as community mobilization meetings.

MCHIP provided support to DePROS to conduct two national community mobilization meetings. Participants of these meetings included Provincial Health Directorate representatives, USG and non-USG NGOs, MCHIP, and bilateral and multilateral donors. The meetings had the following objectives:

1. To ensure harmonization of the different approaches being implemented at the community level under the MOH prior to the design of the community mobilization package, and
2. To disseminate the terms of reference/guidelines developed for the establishment of the co-management and community health committees.

At the provincial and district levels, the program also supported community mobilization meetings with Provincial Health Directorates, District Health Directorates, NGOs, health facility representatives, administrative structure representatives, and community leaders. The provincial level meetings were conducted annually and district level meetings were conducted nearly every quarter. The meeting objectives included the dissemination of the community mobilization strategy (CMC and CHC guides), support for implementation of the strategy amongst the partners, and monitoring the implementation of the recommendations made at the previous community mobilization meeting. Near the end of the program, the district level meetings also served to guide health committees and districts to continue implementing their action plans without the physical presence of a project-supported community official, and concretized linkages to ensure that SDSMAS functioned as the key technical support to these groups. On average, 30 to 35 participants took part in each of these meetings.

Coordination meetings with SDSMAS, CHW, Committees and Health Facilities

MCHIP supported SDSMAS to conduct coordination meetings between the target health facilities (health workers and program leads) and community actors (*Agente Polivalente Elementar*, APEs), traditional birth attendants (TBAs), community health agents (ACS), CMCs, CHCs) on a quarterly basis in all 20 target districts and in each health facility with a co-management committee. The participants of the meetings included community health workers (ACS, APEs, and TBAs) that referred patients to the target health facilities, leaders from the CMCs and CHCs, and health workers that were responsible for MCH, immunization, Education and Public Sector (SESP), and tuberculosis programs. The average number of participants in each meeting was 24 to 30, depending on the number of CHWs in the health facility catchment area.

These meetings served to promote dialogue between community actors and health facilities, to discuss interventions carried out at community level, to jointly plan activities for the following quarter based on results of implemented activities in the community, and to analyze data from health facilities. Recommendations from these meetings served to strengthen the integration of health facility programs into the community action plans. For example, with analysis of the Epidemiological Weekly Bulletin, community health workers started to incorporate discussions of other diseases that are threats to public health (i.e., cholera, tungiasis) during community-based IEC sessions, and also assisted with positive case detection and identification of families and children most affected by these other diseases. The meetings also guided health committees in the development of small projects (collective farms, fairs, etc.) to raise funds for the maintenance of bicycles donated by MCHIP. In addition, the meetings served to provide mentoring to community actors to improve data collection, to

orient the meeting participants in protocols to improve customer service in coordination with the "*gabinete do utente*" (Patients' Rights Cabinet), as well as clarifying misunderstandings about procedures of hospital pharmacies. Finally, the meetings helped to ensure the implementation of the Community Action Cycle, verbal autopsies in the community in the case of maternal and newborn deaths, management of conflicts, and clarification on the roles of the community health agents and TBAs in relation to MNCH interventions and reporting on activities.

During the last quarter of project implementation, the meetings served as a forum for discussion and planning for the sustained implementation of community interventions after the close of MCHIP under the supervision and guidance of the SDSMAS.

IR1.3 Strengthened Health Information System for MNCH/RH/FP

Support to revise national data collection tools and registers

Throughout the life of the program, the MCHIP team worked extensively with the MOH and collaborating partners, including USAID, CDC, WHO, UNFPA, ICAP, EGPAF, I-TECH, and FHI360, to strengthen the quality of the data collected and reported through the national Health Information System (NHIS) for RMNCH. MCHIP provided technical support and advocacy during a first revision of the national RMNCH registers in 2011 to include key quality and RMC indicators in the national registers for the MMI and CECAP national programs. MCHIP provided financial support to print the national registers for all 11 provinces. Indicators, including the list below, have been collected through this channel since January 2012 and have shown significant improvement:

The Package of HIS Instruments were revised for the following R/MNCH Areas:

1. Ante-Natal Care;
2. Admission Care;
3. Delivery Care;
4. Post-Partum/Post-Natal Care;
5. Reproductive Health/Family Planning;
6. Gynecological Emergency Services;
7. At-Risk Child Care.

Each Package comprises:

- ☑ The Register Book – including Instructions for register and for construction of Main Indicators;
- ☑ Daily Compiling Forms;
- ☑ Monthly Report Forms for Health Facility, District and Provincial Levels;
- ☑ Instructions for the Compiling and Reporting Forms;

- Number of births with Active Management of the Third Stage of Labor (AMTSL)
- Number of eclampsia cases treated with $MgSO_4$
- Number of deliveries with a completed partograph
- Number of obstetric complications and number of maternal deaths by obstetric complication
- Number of deliveries with a companion
- Number of newborns with immediate skin-to-skin contact with the mother
- Number of newborns breastfed within the first hour

Following the distribution of the revised registers, MCHIP supported the MOH to conduct a rapid data quality assessment of the new register system. Specifically, the assessment examined the quality of data being reported from January through September 2012 using the following new registers: (1) maternity admission; (2) family planning; (3) prenatal visits; (4) postpartum visits; (6) gynecological emergencies, and (7) consultation for at-risk children. The study sought to determine the level of data completeness, accuracy, and timeliness in reporting to assess the impact on the provision of health services, to evaluate the health workers' perceptions on the comprehensiveness of information included in the tools, and to ultimately give recommendations for improvement.

The recommendations from this study fed into the second round of revisions of the integrated RMNCH registers, including register books, daily/monthly report forms, indicators and instructions for RH/FP, ANC, Maternity Admission, Maternity, Postpartum Care, At-Risk Children, and Gynecological Emergencies. These revisions included updates to reflect important policy changes such as the updated WHO IPTp Guidelines, postpartum FP, PMTCT, postpartum hemorrhage, and newborn resuscitation. MCHIP supported the MOH to conduct a pilot of the revised registers, as well as a retreat with the MOH and partners to incorporate changes based on recommendations from the pilot. These registers are now finalized and are in the process of being rolled out across Mozambique in 2015, pending finalization of printing by the MOH (with funds from the World Bank). Additional activities conducted by MCHIP to support the MOH to roll out the revised registers included the development of a training plan for national, provincial and district trainings on register use and reporting, and development of a monitoring protocol for the rollout of the registers, including technical support visits to facilities and quarterly data review meetings with the MOH. Regional trainings of trainers were conducted in May and June, and provincial and district training are expected to take place from September through November 2015.

Technical assistance to strengthen provincial- and health facility-level M&E capacity

In addition to the support provided to strengthen the national HIS, MCHIP also provided ongoing technical support to health facilities involved in the MMI and National CECAP Program to strengthen data quality and use of data for decision-making for RMNCH. Through technical assistance visits conducted at the provincial level with 75 target health facilities, MCHIP conducted the following key activities:

- On-the-job training in M&E for the MCHIP-supported provincial MNCH nurse and the health facility-based MNCH nurses and physicians
- Reviewed the record books and monthly summaries of daily Maternity services, including admission, family planning services, antenatal, gynecology and emergency consultation postpartum
- Provided support to health facility staff to correctly complete the new registers
- Observed health facility staff completing health records and registers
- Reviewed monthly reports and data with health facility staff, including interpretation of indicators and results for MMI, CECAP, and family planning
- Reviewed data on high impact interventions to reduce maternal mortality
- Reviewed SBM-R data and results with health facility staff
- Assisted health facility staff to display data in their hospital/health center using simple dashboards
- Assisted health facility staff to analyze their data and discuss how to use data for decision-making (again using the display of data using dashboards to facilitate discussions)

Seconded M&E personnel for the MOH

MCHIP supported the hiring of two key personnel for the DNSP M&E Unit, including the M&E Team Leader, who reports to the Director of the National Public Health Directorate, as well as the M&E Advisor for MCH, who reports to the MCH Department Team Leader and

works closely with personnel in the Maternal and Child Health department. In addition to salary support, MCHIP also provided financial support for the activities of these seconded personnel to conduct M&E supervision visits in the provinces, as indicated by the MOH.

IR1.4 Strengthened capacity for program learning in MNCH/RH/FP

As reflected in the framework of the Health Sector Strategic Plan (2014–2019), Mozambique's health system is composed of service delivery and support mechanisms whose purpose is to deliver satisfactory health care services. Critical to the quality of care is operational research to generate evidence and provide quality information to support informed decision-making at the MOH.

In order to expand the evidence-base on RMNCH in Mozambique, MCHIP supported the MOH to conduct relevant program learning activities throughout the life of the project. These program learning activities included surveys on quality of care provided at maternities, community knowledge, practices and behaviors in intervention districts, as well as operational research to generate evidence for the development and implementation of policies, strategies and interventions related to RMNCH. Specific learning activities conducted by MCHIP and their findings and recommendations are detailed in Annex 3.

OBJECTIVE 2: Support efforts of the MOH to increase national coverage of high impact interventions for MNCH through the expansion of the MMI, in collaboration with USG partners in all provinces

The Mozambican MOH launched the Model Maternity Initiative (MMI) in 2009 as part of the National Plan for Humanization and Quality of Health Care. The goal of this initiative is to reduce maternal and neonatal mortality by creating maternities nationwide to serve as models for quality of care in maternal, newborn and child health and as clinical practice sites for in-service training and pre-service education. Under the MMI process, 81 quality standards (across nine areas) were developed by a team of experts from all levels of management and care, taking into consideration both national and international norms, guidelines, and evidence-based MNCH practices.

Through the first phase of MCHIP in Mozambique (2009–2010), Jhpiego provided leadership and technical assistance to the MOH to implement evidence-based approaches to improve the quality of MNCH services. Under Phase I, MCHIP supported the MOH to:

- Establish 34 MMI sites to disseminate quality, humanized and evidence-based MNCH practices under the MMI;
- Train more than 300 health professionals, including 29 trainers, in essential obstetric and newborn care, emergency obstetric and newborn care, and quality improvement methodology (SBM-R);
- Implement MNCH quality standards and monitor key indicators; and
- Develop key policies, guidelines and strategies to strengthen MNCH.

The follow-on MCHIP Associate Award collaborated with the MOH to deliver critical, evidence- and facility-based health services as well as strengthen community interventions on a national scale to reduce maternal and neonatal morbidity and mortality. MCHIP worked throughout the life of the project with national and provincial partners and stakeholders to scale up key MNCH interventions through an integrated approach that aligns with the Government of Mozambique's efforts to achieve MDGs 4 and 5. With the expansion, the MMI covered approximately half of all institutional births nationally by the end of 2014.

MMI Approaches and Main Interventions

The MMI is implemented through an approach that: centers on the individual; emphasizes the fundamental rights of the mother, newborn and families; promotes birthing practices that recognize women's preferences and needs; focuses on humanistic/respectful care; and scales up of evidence-based high-impact interventions, such as:

- Antenatal care (ANC): Promotion of a minimum of four ANC visits and provision of high-impact interventions, including tetanus toxoid immunization; supplementation with iron folate; IPTp; PMTCT; and discussion/elaboration of a birth and obstetric complications preparedness plan;
- Normal labor and delivery: Consistent use of the partograph; liberty of movement; newborn care (skin-to-skin contact with mother and early breastfeeding); active management of the third stage of labor (AMTSL); mother/newborn close monitoring in the immediate postpartum; immediate postpartum family planning (PPFP); and avoiding: room transfer for delivery; routine supine position; intended pushing; frequent vaginal examinations; Kristeller maneuver; and routine episiotomy.
- Basic Emergency Obstetric and Newborn Care (BEmONC): Intravenous antibiotics; oxytocics; MgSO4; manual removal of placenta; assisted vaginal delivery; newborn resuscitation; Kangaroo Mother Care and antibiotics for the newborns; and timely referral to facilities that offer Comprehensive Emergency Obstetric and Newborn Care (CEmONC);
- Postpartum/Postnatal Care: Promotion of three visits for the mother and newborn (2nd or 3rd day, 7th day, and 21–28 days after delivery); and
- Family Planning (FP): Comprehensive FP counseling and services, including the promotion of long-acting methods (IUD, implants, tubal ligation).
- Addressing Social Determinants of MNCH: community capacity strengthening to explore, plan and act together for improved care-seeking and family MNCH practice

MCHIP recognized that formal health systems alone will not improve health. As such, MCHIP sought to bridge the facility and community by engaging local residents in institutional quality of care improvement initiatives, conducting public education and outreach and empowering local leaders through skills development in planning, implementing and monitoring health initiatives. By addressing the social and behavioral determinants of MNCH through promotion of positive health practices at individual, household and community levels, the program sought to promote the utilization of facility-based services and to increase the quality of care, especially from the perspective of the client.

IR 2.1 Selected Model Maternities equipped with minimal infrastructure and supplies for humanized and quality MNCH services

Rehabilitative works for selected maternities

Poor infrastructure represents a big challenge in accomplishing the objective of strengthening the provision and utilization of high-impact, quality RMNCH services. During the final two years of the project, MCHIP collaborated with the MOH to increase infrastructural capacity at selected facilities to offer humanized, quality maternal and newborn health services, thus contributing to the overall objective of the National Model Maternity Initiative, which is to transform the selected maternities to centers of quality and humanized care provision. In order to address this need at selected facilities (which were selected based on provincial priorities and promising performance on quality improvement measures), MCHIP assessed the infrastructural needs of the maternities alongside the Provincial Health Directorate's infrastructure official and health facility management, and jointly determined the priority rehabilitative works needed to improve the provision of quality and humanized care. Contractors were selected through a competitive process for

rehabilitations at Macurungo Health Center, Xai-Xai Provincial Hospital, 25 de Setembro Health Center, Tete Provincial Hospital, Jose Macamo General Hospital, Vilankulos Rural Hospital, Nacala Porto District Hospital, Chimoio Provincial Hospital, and Matola II Health Center. The works were supervised by MCHIP's infrastructure team, including engineers and an architect, alongside DPS representatives to ensure quality. Annex 4 summarizes the key rehabilitative works.

MCHIP conducted needs assessments as well as public bids, but did not receive USAID prior approval to conduct rehabilitations under the Associate Award at Pemba Provincial Hospital, Quelimane Provincial Hospital, Chamanculo General Hospital, Mandimba Health Center, Inhambane Provincial Hospital, Manjacaze Rural Hospital.

Provision of materials and supplies for improved MNCH care

During FY13, MCHIP procured and distributed materials for ANC, maternity, and postpartum care, including birth kits, caesarian section kits, sheets, gowns, hysterectomy kits, tubal ligation kits, vacuum extractors, episiotomy kits, blood pressure cuffs, stethoscopes, and ambus, among other items, for the 70 Model Maternities included in the MOH expansion plan through the end of 2012. Medical materials for maternities included in the MMI in 2013 and 2014 were supported directly by USAID through a separate funding mechanism. MCHIP, however, provided technical support to USAID to develop the list and specifications for the materials.

IR 2.2 Corps of maternity care workers and trainers up to date on key evidence-based practices

Training in MMI—Evidence-based MNH interventions and Respectful Maternity Care

From the inception of the Associate Award in 2011,629 health workers from 125 maternities have been trained in high-impact interventions in MNH, including PMTCT and malaria in pregnancy, with a focus on respectful maternity care. Thirty-three of these health professionals were trained as national trainers (TOT). The objective of these trainings was not only to provide health professionals with the knowledge and skills to implement high-impact, evidence-based interventions in maternal and newborn health, but also to help build and maintain a national infrastructure for training and supportive supervision in MNH.

Training in PMTCT

MCHIP worked in collaboration with the MOH and Provincial Health Directorates to train a total of 724 health workers in PMTCT over the life of the project, including 629 health workers trained in this area as an integral component of the MMI training, as well as 95 health workers trained in the management and treatment of HIV positive pregnant women (Option B+). The trainings in Option B+ included a provincial training in Niassa for 20 health workers, as well as three regional trainings in the Northern Region (27 health workers trained), Central Region (25 health workers trained), and Southern Region (23 health workers trained). These trainings were conducted in support of the National Plan to Accelerate the Reduction of HIV in order to achieve the following objectives:

- To integrate MCH nurses into the cadres of health professionals that administer ART;
- To review the essential components of clinical management for HIV+ pregnant women, as well of the availability and management of ARVs in the MCH and Maternity sectors of the health facility;
- To increase knowledge and skills of MCH nurses regarding HIV/AIDS, with the goal of supporting the country to reduce vertical transmission from 15% to less than 5% by 2015.

Training in Malaria

Training in Malaria in Pregnancy

To address malaria in pregnancy, MCHIP provided training for 629 health workers in the use of Sulfadoxine-Pyrimenthamine (SP) for intermittent preventive treatment of malaria in pregnancy (IPTp) as one of the essential modules of the MMI training. MCHIP was a key partner in promoting the dissemination of the revised WHO guidelines for IPTp,[15] and assisting in drafting a circular which was distributed to health facilities to inform provincial director, health facility managers, and health workers about the change in guidelines. This policy change was reinforced during supportive supervision and technical assistance visits to health facilities. Despite this support and some improvements seen in IPTp coverage, significant challenges remain in the area of IPTp uptake, including inconsistent stock of SP and a clear understanding of the changes in the IPTp guidelines.

Trainings in Malaria Case Management

MCHIP also provided support for trainings and supervisions in malaria case management, including for pregnant women, resulting in the training of 1,306 health professionals. This support included technical assistance to review training materials, including training modules, exercises, and pre- and post-tests. The two-day training course included the following modules:

- Epidemiology of malaria
- Assessment of knowledge and quality of current practices
- National norms for the treatment of malaria
- Diagnosis and treatment of uncomplicated malaria
- Diagnosis and treatment of complicated malaria
- Assessment of patient recovery and health education
- Malaria in special populations
- Malaria chemoprophylaxis
- Pharmacovigilance
- Supervision
- Data collection and reporting

In the final year of MCHIP, support was provided to the MOH for consultancies for malaria experts, who provided technical assistance to strengthen malaria case management at selected facilities (see IR2.3 for more detailed results).

Training in Helping Babies Breathe (HBB)

HBB training materials had been translated by the Church of Jesus Christ of Latter Day Saints prior to the Associate Award, but there was a need to revise the materials and adapt them to the Mozambican context. MCHIP provided technical support to the MOH in the review and revision of these training materials. MCHIP also provided logistical support and facilitation in collaboration with the American Academy of Pediatrics (AAP) for the national training of 43 trainers. These trained facilitators trained a total of 903 health workers in target provinces, in collaboration MCHIP and Church of Jesus Christ of Latter Day Saints (in Tete). MCHIP also provided 112 Neonatalies to 84 target districts (110 MMI health facilities) to ensure continuing on-the-job education to improve the abilities of health

[15] Updated WHO IPTp Policy Recommendation October 2012. http://www.who.int/malaria/publications/atoz/who_iptp_sp_policy_recommendation/en/

workers to manage birth asphyxia using HBB approach. **Table 4** shows the number of health workers trained in HBB by province.

Table 4. Number of HW trained by Province in HBB

Province	HW trained in HBB
Maputo	70
Gaza	130
Inhambane	80
Sofala	89
Zambezia	25
Tete	138 *
Manica	117
Nampula	97
Cabo Delgado	83
Niassa	74
TOTAL	**903**

Kangaroo Mother Care (KMC)

Over the life of the program, MCHIP trained a total of 420 health workers from 68 health facilities in KMC (see **Table 5**). The health facilities initially selected for inclusion in KMC implementation were also included in the MMI. However, in order to respond to SDSMAS concerns regarding the capacity of health workers from peripheral health facilities (who periodically rotate through the selected MMI facilities or who refer to MMI health facilities) MCHIP also agreed to include additional health workers from selected facilities in the trainings. **Table 5** below presents cumulative data on KMC interventions implemented in target health facilities from FY13 to FY15.

Table 5. Number of HW trained by Province in KMC

Province	HW trained in KMC	Number of health facilities with staff trained in KMC	Health facility names
Maputo	30	9	Machava II HC, Bedene HC, Matola II HC, Mavalane HC
Gaza	99		Chibuto RH/HC, Manjacaze RH/HC, Xai Xai PH, Xai-Xai RH, Bilene HC
Inhambane	0	3	Vilanculos RH, Zavala RH, Inhambane PH
Sofala	64	7	Nhamatanda RH, Chibabava HC, Muxungue RH, Beira CH, Chigunssura HC, Munhava HC, Macurungo HC
Zambezia	18	17	Quelimane PH, Madal HC, Icidua HC, Micajune HC, Chabeco HC, Coalane HC, Inhangulue HC, Varela HC, Maquival Sede HC, 17 de Setembro HC, 24 de Julho HC, 4 de Dezembro HC, Sangarivera HC, Milange RH, Gurue RH, Muapagera HC, Murrubala HC
Tete	0	2	Tete PH, Mutarara RH
Manica	0	5	7 de Abril HC, Chimoio PH, Manica DH/HC, Mossurize HC, Barue HC
Nampula	28	9	Niarro HC, Mucuache HC, Marratane HC, Marrere GH, 25 de Setembro HC, Muhala Expansao HC, Angoche RH, Namitil HC, Namapa RH
Cabo Delgado	133	9	Palma HC, Namuno HC, Natite HC, Mueda RH, Metuge-Sede HC, Balama HC, Chiure DH, Mocimboa da Praia HC, Montepuez HC

Province	HW trained in KMC	Number of health facilities with staff trained in KMC	Health facility names
Niassa	70	7	Metarica HC, Maua HC, Massangulo HC, Mandimba HC, Cumba RH, Mecanhelas HC, Lichinga PH
TOTAL	442	68	

Training in Fistula Repair

During its final project year, MCHIP initiated support to increase access to surgical fistula repair services. The consequences of fistula are life-altering, leaving women with chronic incontinence and often leading to isolation from family, community life, and neglect or abandonment by male partners. Without surgical repair, a woman's prospects for work or family support are greatly diminished. These problems are compounded in cases of traumatic fistula, which is caused by rape or sexual violence. In these cases, women face greater psychological trauma and increased vulnerability to HIV or other sexually transmitted infections. To address the social isolation stigma, and inequity these women face, MCHIP worked to support the MOH to expand the coverage of fistula repair services at Xai-Xai Provincial Hospital (Gaza) and Lichinga Provincial Hospital (Niassa). A total of 58 health workers were trained in fistula repair services, including the entire support team.

PPH Implementation Workshop

The project provided logistical and technical support to conduct a MCHIP Core-Funded Regional PPH Implementation Workshop from February 5–7, 2014, with 50 participants representing Ministries of Health, Implementing Agencies, and donor/multilateral agencies from Mozambique, Madagascar, Zambia, Belgium, Pakistan, Australia, Nigeria, Tanzania, Swaziland, Kenya, Uganda, Ethiopia, and the United States. The primary objective of this workshop was to share strategies, policies, and program development needed to ensure the sustainable implementation of effective interventions for reducing the global burden of PPH. This workshop included in-depth discussion of implementation of PPH prevention programs which include advance distribution of misoprostol for self-administration.

IR2.3 MOH management and supervision of Model Maternities strengthened

Supportive supervision visits for MMI

MCHIP worked in partnership with the Provincial Health Directorates to provide provincial-level supportive supervision visits to the MMI facilities. During these visits, technical assistance was provided to health care workers to ensure the implementation of high-impact interventions during labor, delivery and postpartum; to carry out internal SBM-R measurements and to develop action plans; to clean and reorganize maternity services; to improve the register of information, analysis of data, display of data using simple dashboards, and the use of data for decision-making; and to establish mechanisms for client satisfaction measurement. A total of 848 supportive supervision visits were conducted over the life of the project.

Model Maternity Recognition Process

A key step of the SBM-R quality improvement process is to recognize achievements and progress made in the improvement of quality of MNH services. With MCHIP support, the MOH established a graded process by which a facility that has achieved two or more internal measurements of 80% or more against MMI quality standards may request an external evaluation. If the facility achieves 80% or more of standards in this external evaluation, they are accredited as a Model Maternity by the MOH.

In FY14, MCHIP trained a core group of external evaluators from the Ministry of Health, Sofala DPS, Gaza DPS, Nampula DPS, Cabo Delgado DPS, Jose Macamo General Hospital, Niassa DPS, Pemba Provincial Hospital, Nacala Porto District Hospital, Manica DPS, Beira Central Hospital, Zambézia DPS, Vilankulos Rural Hospital, Xai-Xai Provincial Hospital,

Machava II Health Center, Jose Macamo General Hospital, Bagamoio Health Center, and MCHIP. During FY14, four facilities (Xai-Xai Provincial Hospital, Tete Provincial Hospital, Nacala Porto Provincial Hospital, and Pemba Provincial Hospital) received external evaluations from the MOH. Of these, Xai-Xai Provincial Hospital, Tete Provincial Hospital, and Nacala Porto Provincial Hospital received external evaluation scores of 80% or above on all applicable categories of the MMI and were recognized as Mozambique's first Model Maternities. MCHIP supported the MOH to publically recognize these three facilities in ceremonies with the Vice-Minister and Minister of Health, Ministry of Health officials, provincial government representatives, USAID, hospital workers, MCHIP representatives, and representatives of other partners present in the province. The recognition ceremonies had wide press coverage in various media outlets including television news spots, newspaper articles, radio spots, and the MOH newsletter.

In Quarter 1 of FY15, Vilankulos Rural Hospital and Quissico District Hospital successfully passed external evaluations with 90.1% and 89.7% of standards achieved, respectively. During International Women's Week in March 2015, MCHIP supported the MOH to organize the recognition ceremonies for these two maternities. These ceremonies were presided over by the First Lady of Mozambique, Dra. Isaura Ferrão Nyusi, as a demonstration of her commitment to improving maternal and newborn health in Mozambique. The ceremonies were attended by the Minister of Health, Dra. Nazira Vali Abdula, USAID Mission Director, Alexander Dickie, MOH officials, provincial and district level government officials, health committee and co-management committee representatives, and health facility staff. The ceremonies had wide press coverage, including spots on TVM, Rádio Moçambique, Rádio Moçambique Corredor and the MOH bulletin.

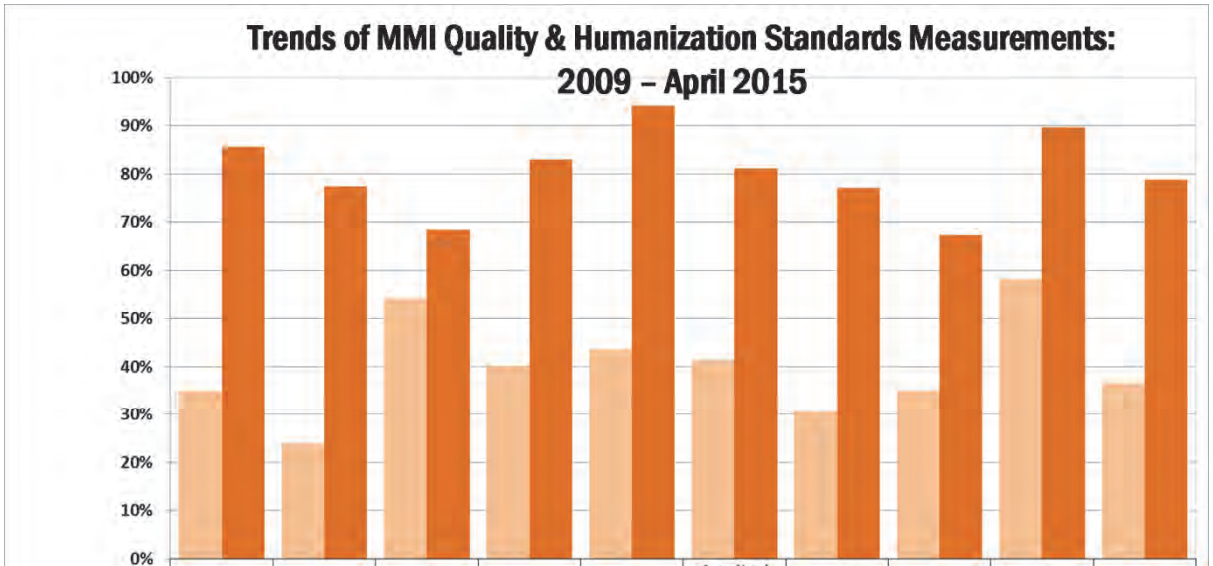
In the last two quarters of the final year of the project, MCHIP supported the MOH to conduct external evaluations at Chiure District Hospital in Cabo Delgado, Caia District Hospital in Sofala, and Gurue District Hospital in Zambezia. These three hospitals all successfully passed the external evaluations with respective scores of 87.5%, 88.8% and 85.9%.

Filomena Bernardo attended the Quissico District Hospital's recognition ceremony which coincided with one of her postpartum follow up appointments, and said: *"I am very happy. A lot of girls and women don't like to come to the hospital - they come to the first consult and then they never come back. It is not only the transport problem - they are also used to hearing that the service is bad and that the nurses treat the patients poorly. That was in the past, now things have changed. The hospital is clean, the nurses receive training and are more respectful with the patients. And with this recognition more women will start to come for deliveries, and will change their mind about the services. Thank you to the MOH and the staff for the good work."*

As of the end of the project, a total of **nine health facilities** had achieved the status of Model Maternities and five of these had received official recognition ceremonies to celebrate their achievements. The other recognition ceremonies could not be realized during MCHIP because of MOH scheduling conflicts; however, the project will continue to work during the MCSP Bridge period to schedule these ceremonies with the Provincial Health Directorates and the MOH.

While not meeting the criteria for recognition as Model Maternities during the project implementation period, other facilities made significant advancements towards improving quality of care. For example, 71.2% (89/125) of all facilities improved their compliance with quality standards by at least 50%, as compared to their baseline, and 32% (40/125) of all facilities achieved at least 80% of all standards on their last internal SBM-R measurement. As **Figure 3** illustrates below, average scores across all MMI facilities for each of the nine standards increased between the first and last measurements.

Figure 3. Trends in MMI Quality & Humanization Standards Measurements, 2009–2015



	Humanized Management of MNH Care	Information and M&E	Resources: Human, Infrastructure and Commodities	Humanization of Work Conditions and Safety	Health Education and Community Participation	Ante-Natal and Post-Partum Quality & Humanized Care for Mother & Newborn	Quality & Humanized Care during Labor, Delivery and Immediate Pos-Partum	Management of Obstetric and Newborn Complications	Teaching	All Areas
Baseline	34,9%	23,9%	54,1%	40,2%	43,6%	41,5%	30,6%	35,0%	58,2%	36,6%
Last Measurment	85,5%	77,4%	68,4%	82,9%	94,1%	81,1%	77,1%	67,3%	89,6%	78,8%
Last Measurement VERSUS Baseline	50.7%	53.5%	14.3%	42.6%	50.5%	39.7%	46.5%	32.2%	31.3%	42.2%

Support to the National Maternal and Neonatal Death Audit Committee

MCHIP, together with WHO, facilitated discussions with the ***National Maternal and Newborn Mortality Death Audit Committee***, the MOH Maternal Health Technical Working Group, and the technical working group that worked on the revision of the RMNCH HIS instruments and tools, to revise the maternal deaths classification according to the WHO International Classification of Deaths from 2012.

Beginning in 2012, MCHIP provided financial and technical support to the **National Maternal and Newborn Death Audit Committee** to improve their capacity to review and analyze maternal deaths according to the WHO International Classification of Deaths, and to conduct supportive supervision visits to Provincial, District and Health Facility Committees to strengthen their capacity to analyze maternal and neonatal deaths at these various levels. In addition, MCHIP also supported selected provinces to conduct provincial-level maternal and neonatal death audit reviews, as well as meetings between referral level facilities and their network of peripheral facilities which refer women to them, with the objective of studying maternal and newborn deaths, as well as the constraints surrounding timely referrals for complications.

PMTCT

MCHIP provided technical assistance to the MOH to develop and disseminate *the National Plan for the Elimination of Vertical Transmission (2012–2015)* and aid in the rollout of Option B+. In FY13, MCHIP provided technical assistance to the MOH, in partnership with UNICEF, to plan and conduct meetings for the Southern/Central, and Northern Regions to introduce the Mozambique National Plan for Elimination of Vertical Transmission, discuss the rollout of Option B+, and provide technical assistance to revise the provincial plans, targets, and indicators in order to be aligned with the national plan. As a result of these meetings, all provinces have a road map to work toward the nation's goal of eliminating vertical transmission and saving the lives of mothers and children. MCHIP also served as the "PMTCT godparent" ("Padrinho de PTV") in Niassa, and played a special role in this province to assist the Provincial Health Directorate to rollout Option B+. Specifically, MCHIP supported the organization of a provincial PMTCT meeting, where the provincial rollout of Option B+ was discussed, and also supported supportive supervision visits at selected health facilities in Niassa to monitor the implementation of Option B+ to verify the degree of implementation at the facilities, to provide support to health facilities to overcome challenges in implementation of Option B+, and to verify the management of patient information on antiretroviral therapy (ART) in MCH – Single Stop (MCH and Pharmacy services).

Malaria

MCHIP provided technical assistance to the DNSP and National Malaria Control Program to develop job-aid, including posters for the Use of the Rapid Diagnostic Test for Malaria, and flowcharts for malaria in pregnancy (including management of the pregnant woman with malaria and IPTp during pregnancy).

MCHIP also supported the supervision of malaria activities in selected provinces. This support included the contracting of two consultants in FY15 for the Ministry of Health's National Malaria Control Program to provide intensive technical assistance to the NMCP for a period of 5 months in the implementation of supervision and technical assistance visits in Malaria Case Management. These technical advisors conducted provincial supervision visits at 19 health facilities (see **Table 6** for a complete list of facilities visited) with the following objectives:

- To improve adherence to the national treatment guidelines regarding the diagnosis and treatment of severe malaria at selected hospitals, with the aim of achieving a more than 90% adherence level

- To improve good clinical practices in terms of malaria data collection and analysis (i.e., evaluate data consistency as well as malaria trends in terms of cases and deaths)
- To obtain baseline and monitoring data for selected indicators
- Among targeted facilities, to certify/recognize high quality services or departments demonstrating excellence in malaria case management
- To promote in-service training where needed

During these supervision visits, job aids for artesunate preparation and administration, RDT and malaria treatment standards were distributed to relevant wards and departments. Moreover, during the supervision, in-service training was conducted in all visited hospitals. These included not only the clinical staff of facilities, but also students and teachers engaged in practicum studies.

In addition, during site visits, baseline data on services was collected in all facilities, and support to staff was provided to promote quality documentation in the registers and data collection. Although the technical advisors did not actively engage in the stock management activities, they did report on the stock out of antimalarial drugs and other essential supplies. In later visits, noticeable improvement was recognized in the area of data collection and recording. For example, databases were created at Nampula Central Hospital, Tete Provincial Hospital, and Beira Central Hospital. In the case of Beira, the statistical sector started to collect malaria information daily, thereby contributing to improved data quality.

Table 6. Provincial Supervisions in Malaria Case Management conducted in FY15

Type of HF	Name of HF	Total
Central Hospitals	Maputo, Beira, Nampula	3
General Hospitals	José Macamo, Marere, Machava	3
Provincial Hospitals	Maputo, Xai-Xai, Inhambane, Chimoio, Tete, Quelimane, Lichinga, Pemba	8
Rural Hospitals	Chicuque, Chockwe, Chicumbane	3
Health Centers	Dondo, Moatize	2
	Total	19

Technical assistance for HBB

To ensure quality implementation of HBB and KMC, in FY14 MCHIP supported technical meetings to discuss HBB and KMC implementation and to document lessons learned and challenges. The meetings were held every quarter or semester in Gaza, Cabo Delgado, Nampula, Niassa and Sofala provinces. The other five provinces did not hold the meetings due to conflicting agendas of the SDSMAS, health facilities and the program. Participants of the meetings in each province included MCH nurses, clinical directors, the health facility directors, and the District Health Director. During these meetings the participants reviewed data collected on KMC and HBB and discussed case studies related to the benefits of KMC, criteria for admission and discharge of low-birth wright (LBW) babies, and demonstrations of how to use the HBB action plan.

There remains a range of constraints with ensuring quality implementation of KMC, including the lack of: appropriate physical space for KMC; physical space for visitors; running water; functional bathrooms for mothers; materials (cushions, chairs); and lack of service delivery resources such as eligibility criterion for admission and discharge, pamphlets and posters. There is also a need to reinforce education and counseling for mothers to improve adherence to and acceptance of the KMC method in the home. Despite the number of providers trained by MCHIP, the number of MCH nurses trained in KMC is still insufficient to address staff rotation. Deficient record keeping, data analysis and use of data for decision-making also constitute key challenges to district health authorities to

ensure quality KMC implementation. **Table 7** provides key data from KMC sites from FY13 to FY15.

Table 7. Cumulative data on LBW newborns at KMC sites from FY13 to FY15

Province	Name of health facility	# of NB that born with LBW at target HF	# of LBW babies admitted to KMC at target HF *	# LBW graduated from KMC (discharged based on weight gain)
Niassa	Cuamba RH	63	63	63
	Mandimba DH	36	36	36
Nampula	Marrere RH	84	84	58
	25 Setembro HC	194	191	108
	Muhala Expansao HC	32	32	17
	Angoche RH	22	22	21
Inhambane	Vilankulos RH	122	178	69
	Mapinhane HC	2	110	1
	Macunhe HC	1	15	0
	Homoine DH	2	2	2
Zambezia	Gurue DH	23	17	23
	Milange DH	23	23	23
	Quelimane PH	57	208	201
	Coalane HC	24	15	19
	17 Setembro HC	17	11	17
Tete	No. 4 HC	51	29	35
	No. 2 HC	39	11	19
	Mutarara RH	75	4	41
Cabo Delgado	Mueda RH	143	127	121
	Natite HC	53	30	23
	Pemba PH	230	228	295
	Montepuez RH	71	83	88
	Chiure DH	67	67	61
	Mocimboa da Praia DH	51	54	45
	Balama HC	26	26	19
	Namuno HC	30	30	26
	Metuge HC	21	21	18
	Palma HC	29	29	24
Gaza	Manjacaze RH	20	3	0
	Chicumbane RH	16	2	1
Manica	Manica DH	72	0	0
	Chimoio RH	78	0	0
Maputo Province	Boane HC	3	0	0
Sofala	Muxungue RH	30	9	9
	Ponta Gea HC	49	15	3
	Macurungo HC	60	3	3
	Chingussura HC	130	6	5
	Munhava HC	113	9	9
TOTAL **		2,159	1,793	1,503

(*) Admissions to KMC at target HF includes babies from other HFs .If the baby is born with a very LBW, the baby is transferred to a secondary health facility.
(**) All data presented in this table was collected directly from each HF (raw, unprocessed data), and may not reflect the data from the HIS. This data was collected to support HF discussions for informed decision making and to demonstrate how data records/quality are important for monitoring KMC implementation and progress.

HBB program documentation and Every Newborn Action Plan (ENAP) baseline

During the last quarter of MCHIP, the team started to review project documentation regarding HBB implementation. A protocol for HBB documentation was submitted to the local IRB committee; unfortunately, due to a delay in receiving Provincial Health Directorate approval letters, this activity was reprogrammed to continue during the MCSP bridge period.

National MNCH Meeting

MCHIP provided technical and financial support to the MOH to conduct two national MNCH meetings in October 2011 and November 2013, with the theme, "***Advances, Challenges, and Lessons Learned through the Implementation of Maternal, Newborn, and Child Health Programs and the Reduction of Maternal and Neonatal Mortality.***" In each meeting, approximately 150 participants from the MOH, Provincial Health Directorates, professional associations, higher level educational institutions, cooperating partners, and NGOs attended the meeting. The meeting themes focused on national results for the principal MNCH indicators and the challenges encountered in Mozambique in the implementation and expansion of interventions to improve the quality of MNCH services, as well as innovations in MNCH. A key theme discussed was the importance of family planning in reducing maternal mortality in Mozambique. MCHIP provided assistance in organizing the logistics of the meeting, as well as full support for its technical preparation, including support to develop guidelines for the Working Groups and presentations on Maternal Mortality, Reduction of Neonatal Availability, Assessment of the National Integrated Program, National Strategy for PPH Prevention at the Community Level, ANC – Package of Interventions, Prevention of the Vertical Transmission of HIV, and Neonatal Health.

Adolescent Health

In the final year of MCHIP, the MOH's Department of School and Adolescent Health requested support to contract a consultant to initiate the process of developing guidelines for the School and Adolescent Health Program, including the identification of priority interventions for in- and out-of-school youth. The MOH and MCHIP conducted joint interviews and selected a consultant to lead this activity. The initial phase of support for this activity included: conducting provincial visits to meet with youth and adolescent associations, community leaders, youth activists, and parents, to hear their perceptions regarding available health services for youth at both the health facility and community levels. These meetings also served as a platform to learn about their needs and expectations related to their health. Instruments were developed to support the collection of information through interviews and focus group discussions. A total of five youth associations, most of which focused on work in sexual and reproductive health, were visited in Maputo City and Maputo Province. The findings will feed into the development of the national guidelines, which will be supported under the MCSP Bridge mechanism.

IR2.4 Strengthened facility-community link in selected Model Maternities, leading to increased service utilization

Community Health Committees

At the close of MCHIP, all 309 health committees had engaged in the process of implementing their action plans. The main activities that were conducted by CHCs during the life of project included: home visits and referrals for pregnant women, newborns, and children; group education sessions in the communities; development of birth plans; and discussions on the use of community-based emergency transport. CHCs also provided support in mobilizing communities for national health days, and conducted activities in the community to promote water treatment, use of mosquito nets, elimination of mosquito reservoirs, proper disposal of animal and human waste, and construction and correct use of latrines. **Table 8** below summarizes the key activities conducted by CHCs during the life of the project.

Table 8. Key activities conducted by MCHIP-supported CHCs

Indicators	FY 2013	FY 2014	FY 2015	Total LOP
# Pregnant women referred to ANC	2,475	24,171	35,749	62,395
# Pregnant women referred for institutional deliveries	636	10,771	14,773	26,180
# women referred for family planning	4,865	21,491	25,844	52,200
# referrals for newborns to receive check-ups/ postnatal check-ups	0	575	0	575
# of couples with birth plans	12	776	2,693	3,481
# of cycle of Pill distributed	0	3,399	7,902	11,301
# of condoms distributed	0	6,536	21,165	27,701
# of maternal waiting homes established/ functioning with MCHIP support	0	10	10	10 ***
# of community emergency transport systems in place	12	219	16	235 (*)
# of pregnant women transferred to HF with community transportation	0	4,678	11,605	16,283
# of CHC using data for decision-making	160	136	83	296 (**)
# of community maternal death audits, dialogue and analysis/community(verbal autopsy)	42	53	6	101
# of community newborn death audits, dialogue and analysis/community (verbal autopsy)	0	93	84	177

(*) At the end of the Project a total of 235 CHCs had an emergency transportation system in place (i.e.—motorcycle bicycle, donkey/cow cart ambulance, or emergency funds). Data from FY14 is cumulative and includes the 12 CHCs with emergency transportation systems developed during FY13.
(**) During October–December 2014, all 309 CHCs were using data for decision making. However, as the program only worked in 10 Districts from January to March 2015, the total takes into account only the CHCs supported during this period (108), and of those the number that used data for decision-making (83). The Life of the Project (LOP) total is the sum of FY13 and FY14, as the total of FY15 (83) had already been included in the FY14 data.
(***) No new maternal waiting homes; the data refers to the maternal waiting homes MCHIP supported starting in FY13.

The provinces of Tete (Mutarara District, Mutarara Rural Hospital) and Maputo (Matola City, Machava Gare Co-Management Committee), Nampula Province (Angoche Rural Hospital and Nampula City, Marere General Hospital and 25 de Setembro HC) in partnership with the Co-management Committees and their municipalities, were provided with a motorcycle ambulance, ambulance driver, and mobile phones for the maternity with MCHIP support. MCHIP also supported the communities to identify a community focal point to establish a community-based emergency transport system. In addition, MCHIP donated 12 bicycle ambulances to CHCs in Zambezia and 5 bicycle ambulances for CHCs in Gaza. The CHCs in Gaza also received ten cow/donkey cart ambulances. MCHIP worked to improve the capacity of CHCs, CMCs and CHWs for referral as a complementary action to the establishment of community-based emergency transport systems. Beginning in FY13, the CHCs, CMC members, TBAs, and CHAs in target districts were trained to better identify danger signs during pregnancy, labor, and postpartum periods, as well as in the newborn, for early referral to health services.

To support the implementation of Community Action Plans, MCHIP also provided materials for remodeling of maternity waiting homes in Chibabava district, Nampula City, Mutarara district and Vilanculos district.

In the District of Vilankulos, city of Mapinhane, the MCHIP-supported Mapinhane Health Committee rallied community members in order to raise money, donate materials, and build a new maternity house. MCHIP provided transport for the materials to encourage the health committee's efforts, with many community members providing the labor/construction as their contribution to the house. The end result: a safe, secure, clean shelter where women could stay during the initial stages of labor, and/or in anticipation of delivery. It also allows women from rural communities to prepare and travel, prior to their delivery dates, to ensure that they will be able to give birth in a health facility. The Mapinhane community is delighted and proud. One woman who had stayed in the previous tent during her pregnancy said: "We are very happy with the new house. Although it is simple and made of local materials, the house is much better than a tent. Now we can sleep without fear of rain. "

Co-Management Committees

MCHIP supported the establishment of 80 CMCs across 10 target provinces (excluding Maputo City), and provided ongoing direct support to 33 sites in the project focus areas to support PDQ implementation. All 33 CMCs developed action plans and implemented their activities. MCHIP provided technical support to CMCs to improve their ability to achieve operational standards defined in the National CMC Terms of Reference (for example, the use of data for decision-making based on the review of Hospital/Health Center data, record of meetings minutes and follow up of meeting recommendations, and mobilizing resources to implement their action plans) and financial support for materials to facilitate implementation of their plans. The materials provided by MCHIP included materials for hygiene and public sanitation (indoor and outdoor materials such as hoes, rakes, wheelbarrows, trash buckets, boots, and shovels), bulletin boards, and bookshelves for IEC materials. In addition, materials were provided for the CMC of Chicumbane Rural Hospital to build benches and shelters in waiting areas.

To respond to their defined quality action plans, members of CMCs promoted and conducted cleaning days ("jornadas de limpeza") with participation of community members to improve health facility hygiene, promoted user rights and obligations at the health facility, participated in opening of medicine kits to ensure accountability, organized queues and accommodated users in waiting areas, and facilitated IEC sessions at health facilities. Each CMC also conducted at least one meeting per quarter where facility data related to ANC, births and family planning, and user complaints related to these services where discussed.

Training and mentoring of community actors

a) Training of Co-Management Committees and Community Health Committees

The MCHIP team provided training and refresher trainings to CMCs and CHCs in the PDQ methodology and the Community Action Cycle, as well as in key RMNCH topics. A total of 33 CMCs (294 members) and 309 CHCs (10,108 members) were trained in all 10 target provinces. In addition to PDQ and CAC, the key topics covered during the trainings included: how to conduct an effective meeting; verbal autopsy (i.e., community-based maternal death audits) discussion in the community; monitoring and use of data for decision-making; how to give feedback to community members; importance of birth plans; danger signs during the pregnancy, labor and delivery, and postpartum periods, and for the newborn and the child; the role of the accompanying partner for delivery; how to establish a community-based emergency transport system; and users rights and obligations.

Training of community health workers (TBAs and ACS)

MCHIP trained a total of 698 community health agents (ACS) in the Integrated Package for Community Care, as related to maternal and neonatal health (community IMNCI, neonatal component), as well as 239 ACS in reproductive health/family planning promotion (including CECAP) and community-based distribution of pills and condoms. Furthermore, two ACS in Maputo Province were trained in TB screening, and 300 others were trained to support vaccination campaigns and mosquito net distribution.

In addition, MCHIP trained 454 TBAs using the revised MOH curriculum for TBAs. Of those trained, 27 were also trained in community IMCI and 147 in RH/FP. The trained TBAs and ACS were mentored by the MCHIP Community Development Agent and were responsible for facilitating IEC group discussions and conducting home visits in order to provide counselling to pregnant women and their partners for birth planning, facility-based delivery, essential newborn care (ENC), FP, promotion of cervical cancer prevention services, and active case identification of sick newborns and children for earlier referral to health facilities.

Fátima Vicente Saide, a 26 year-old mother of two, was pregnant with her third child when she first heard about a birth-preparedness plan. *"I heard about the plan from a health activist near my house. The activist was talking to a group of women about maternal and child health and I approached her. She was very happy and she explained to me and my husband how the plan worked. We found it to be a very good tool! It helps you plan for the day."* The comprehensive tool helps women and their families to map out: their expected delivery date, transportation and transport funding, child-care, and a routine check-up schedule. Fatima added *"It also helped to remind me when I should return to the health facility for the newborn's vaccines, as well as for Family Planning methods."*

Supervision visits

MCHIP, in partnership with the Provincial and District Health Directorates, conducted supervision visits of community actors, including 309 CHCs; 1,991 community health agents (ACS), 904 traditional birth attendants, 312 polyvalent agents (APEs), and 194 traditional healers. The supervision visits were carried out on a quarterly basis with support of a supervision checklist. The supervision visits also included direct observation of the community actors during home visits or group counseling.

During CHC supervisory visits, MCHIP helped to identify opportunities for local resource mobilization to support community initiatives. For example, in Niassa the CHC built their headquarters with community support for labor and materials. In Gaza and Maputo Provinces, the CHCs mobilized community members to contribute financially to an emergency transportation fund, as well as to establish community gardens, from which part of the product sales were put toward the emergency fund. In Inhambane and Tete, the CHCs secured the contribution of local materials as well as community members' time and labor, to support the remodeling of maternity waiting homes, and to build a shelter to accommodate health workers and mothers during monthly mobile brigades. In Vilankulos, the CHC mobilized communities to build latrines in one of the local schools.

The program team also supervised and assessed the performance of CMCs based on six standards included in the CMC's terms of reference. The assessments were carried out during supervision visits to gain a better understanding of CMC needs and to improve capacity building activities. The six standards assessed included the following:

- Regular meetings and documentation of issues discussed and actions taken

- Ability to engage its members for collective action
- Common shared purpose with community members
- Definition of roles and responsibilities for implementation of action plans
- Skills to mobilize resources within and outside the community and to use these resources rationally
- Problem solving skills

Table 9 below presents the results of the last assessments conducted in Niassa, Sofala, Tete, Inhambane, Zambezia and Maputo Provinces. The main areas identified for improvement were related to:

- Lack of regular meetings of the members, failure to record the minutes of the meetings, and follow-up of recommendations
- Low motivation of CMC members due to lack of incentives
- Lack of use of data to inform the CMC's work or help make decisions
- Difficulty of the District Health Directorate and health facilities to contribute internal resources to improve the quality of services

Table 9. Achievement of CMC Performance Standards, FY15 Q1

Health Facility / CMC	Percentage of CMC standards achieved
Cuamba RH	80%
Mandimba HC	80%
HR Muxungue RH	75%
C.S. Ponta Gea HC	63%
C.S. Macurungo HC	80%
C.S. Chingussura HC	64%
No. 4 HC	70%
No. 2 HC	60%
Mutarara RH	100%
HR Vilankulo RH	80%
C.S. Mapinhane HC	45%
C.S Macunhe HC	57%
HD Gurue DH	80%
HD Milange DH	100%
HP Quelimane PH	100%
C.S. Boane HC	70%

OBJECTIVE 3: Support the MOH to strengthen the development of human resources for the provision of basic health services and comprehensive Emergency Obstetric and Neonatal Care and RH

The Mozambican MOH's National Integrated Plan to Achieve Millennium Development Goals 4 and 5 points out that one of the main factors contributing to the low performance of health care personnel in MCH is weak in-service training. The approach, contents and duration of such training may not take into consideration the real needs of health personnel in the acquisition of knowledge and skills related to evidence-based best practices. In general, training has tended to be vertical, fragmented, and uncoordinated. In order to address this issue, the MOH, in collaboration with partners has been working to develop a more effective training approach. MCHIP provided support to the MOH to strengthen both pre-service and in-service training for RMNCH.

IR3.1 Pre-service education strengthened in MNCH/RH/FP

MCHIP supported higher education institutions to strengthen pre-service education in RMNCH, including FP, during FY13 and FY14. This support included collaboration with the Instituto Superior de Ciências de Saúde (ISCISA) during FY13 to develop performance standards for quality and humanization for higher-level education. MCHIP later provided support to additional higher education institutions (Unilurio, UniZambeze, Catolica) to adopt these performance standards to monitor the quality of education. In addition, MCHIP provided technical assistance to ISCISA to revise the Maternal Health and Hospital Administration curricula.

During FY13, MCHIP supported the pre-service training of 28 MCH nursing students in PMTCT at the Chicumbane Health Training Center, in collaboration with the CDC "Strengthening Safe Hospitals and Clinics in HIV/AIDS Prevention Activities" project. In FY13 and FY14, MCHIP also supported two training of trainers for a total of 30 clinical professors from ISCISA and the School of Medicine in competency-based clinical teaching with a focus on RMNCH. MCHIP also supported the training of 66 recent graduates from ISCISA and the School of Medicine in the Model Maternity Initiative (including aspects of PMTCT/Option B+ and Malaria in Pregnancy) and CECAP/FP.

IR3.2 In-service training strengthened through support of rollout of Integrated Training and Services Packages

MCHIP worked with the MOH's Maternal and Child Health Department, in collaboration with other partners, to develop a more effective approach to in-service training through a modular integrated training package for maternal, newborn and child health, family planning, and reproductive health. This package addresses the continuum of care throughout the life cycle, as well as the different levels of health care and provider cadres. The approach emphasizes two important principles:

1. Efficiency: removing all unnecessary training contents, reducing the training time and avoiding the absence of the health professional from his/her job for long periods; and
2. Relevancy: training contents are relevant for the level of care the health worker is performing.

MCHIP provided support to the MOH on the implementation of the following activities related to in-service training over the life of the project:

- *Development of the teaching-learning materials associated with the modular integrated training package*: These materials consist of a reference manual, facilitator's and participant's manuals, and are based on the existing national norms, guidelines and quality standards. Technical support focused on the development of the following packages:
    - Package 1: Community Care
    - Package 2: School-Based, Pre-adolescent, Adolescent and Youth-Friendly Services
    - Package 3: Reproductive Health (Non Pregnant Women)
    - Package 4: Maternal and Newborn Care
    - Package 5: Care to Children Under 5
    - Package 6: Cross-Cutting Issues (Interpersonal Communication, Community Involvement, Program Management, Monitoring and Evaluation, Commodities Security)

The implementation of this in-service training approach is carried out according to the needs and priorities identified. It begins with a "Performance Evaluation" using tools developed and structured according to the six Integrated In-Service Training Packages.

- *Introduction, training of trainers and promotion of the use of the integrated in-service training package approach and materials:* MCHIP provided support to organize and facilitate a national meeting in Maputo in July 2012, with personnel from the MOH central level, provinces, training institutes, and selected partners to disseminate the materials and train trainers to implement and validate the Integrated In-Service Training Packages. During this training, participants were oriented to the methodology for implementing the Integrated In-Service Training Packages in health facilities and at the district and provincial levels.
- *Training members of partner organizations in the implementation methodology of the Integrated In-Service Training Packages.* In November 2012, MCHIP and the MOH trained 31 members of partner organizations, including participants from WHO, UNICEF, CHASS-SMT, CHASS-Niassa, Pathfinder, Fundação Arial, SCIP/Zambézia, FHI360/Fanta, and CCS in the implementation methodology of the Integrated In-Service Training Packages. This was done not only to build expanded capacity in the methodology, but also to promote the use of the packages uniformly and consistently throughout the country.
- *Provincial-level rollout:* With support of MCHIP and other partners, the Integrated In-Service Training Packages were implemented by the trained trainers at the provincial level, from August 2012 to March 2013.
- *Organization and implementation of trainings using the Integrated In-Service Training Packages.* MCHIP supported the MOH to conduct training for health care providers from nine provinces in Child Health (Package 5: TATE Component—Triage, Assessment, and Treatment of Emergencies) and collaborated to facilitate regional trainings for providers from the Northern, Central and Southern regions of Mozambique in the area of Child Health (Package 5: Well-Child/At-Risk Child Component).
- *Revision of the Integrated In-Service Training Packages:* Based on the feedback from the provincial-level rollout, as well as policy updates, MCHIP provided support to the MOH in FY15 to update and revise the Integrated In-Service Training Packages.

OBJECTIVE 4: Support the expansion of activities for prevention of cervical and breast cancer using the single-visit approach and assisting in the implementation of "Action Plan for the Strengthening of and Expansion of Services for Control of Cervical and Breast Cancer" of the MOH

Under the first phase of the MCHIP program in Mozambique, 17 health facilities were equipped with trained staff and materials to provide VIA and cryotherapy services. Building upon the experiences and lessons learned during the first phase, the MCHIP Associate Award continued to collaborate with the MOH to strengthen and expand the delivery of CECAP services in primary health facilities as part of a comprehensive integrated package of SRH services.

IR4.1 Intensive focus CECAP facilities equipped

During the Associate Award, MCHIP supported the MOH to expand cervical and breast cancer prevention and control services from 17 facilities to a total of 134 facilities supported across all provinces. This support included installing cryotherapy units, as well as providing materials, including acetic acid, batteries for timers, replacement parts for cryotherapy units, CO2 gas tanks, and IEC materials at these health facilities.

Also during the life of the project, MCHIP supported the MOH to establish and implement referral services by installing LEEP and colposcopy equipment at Xai Xai Provincial Hospital, Nampula Central Hospital, Nacala Porto District Hospital, Lichinga Provincial Hospital, Tete Provincial Hospital, and Matola Provincial Hospital. MCHIP also provided

consumables for the provision of LEEP, and coordinated with ***Doctors Without Borders*** to provide Lugol solution to CECAP referral facilities.

Throughout the project, MCHIP and the MOH encountered ongoing problems with malfunctioning cryotherapy units due to misuse and poor storage/maintenance. To address the problem, MCHIP provided on-the-job training for health care providers on the correct use of equipment and worked with maintenance technicians to repair malfunctioning units. In addition, MCHIP supported provinces to repair cryotherapy units and return them to their respective health facilities to ensure the continued implementation of CECAP services. In July 2014, MCHIP, in collaboration with ***Medegyn***, trained provincial maintenance technicians for the Provincial Health Directorate in order to ensure local capacity for repair of malfunctioning equipment. MCHIP advocated with the MOH and partners to purchase a reserve stock of cryotherapy units for each province, so that when a cryotherapy unit needs to be repaired it can be replaced by a "loaner" until the health facility receives the repaired unit. MCHIP also worked with the MOH to ensure a stock of replacement pieces for the cryotherapy units so that repairs can be made more quickly.

IR4.2 Trained corps of CECAP health workers and trainers in place

MCHIP collaborated with the MOH to train 749 health workers in integrated CECAP and FP services across all provinces. Health workers were trained through formal (group-based) provincial trainings, and targeted on-the-job trainings in visual inspection with acetic acid (VIA) and FP (with a focus on implant insertion/removal and interval IUD). Provincial trainings were conducted to train health workers from facilities that were newly integrated into the National CECAP Program, while on-the-job training was conducted in selected facilities to address lack of trained staff (because of rotation of trained staff out of CECAP facilities) and to address weaknesses identified during supportive supervision visits. MCHIP had great success in working with USG (PEPFAR) partners to achieve synergies in the area of CECAP/FP in both FY14 and FY15. MCHIP worked with other implementing partners to conduct provincial trainings in VIA/cryotherapy and family planning. MCHIP provided technical assistance for facilitation while the Implementing Partners supported the logistical costs of the trainings.

Range of RH Outpatient Services:

- ☑ IEC and Counseling on FP, STIs, HIV, CECAP, GBV and other reproductive health conditions;
- ☑ Provision of Services:
  - ✓ Family Planning;
  - ✓ Screening and Immediate Treatment of STIs;
  - ✓ Screening, Treatment and Follow Up of HIV+ Women;
  - ✓ VIA Screening and Immediate Treatment of Pre-Cancerous Lesions with Cryotherapy;
  - ✓ Screening and Referral of Breast lumps or abnormalities:
  - ✓ Screening, treatment, follow up and/or referral of other reproductive conditions (infertility, uterine benign tumors)

IR4.3 Increased capacity for CECAP management

MCHIP supported the MOH to initiate the SBM-R process for VIA and cryotherapy services to improve the quality of these services in FY14. In 2013, MCHIP provided technical support to the MOH to initiate the development of SBM-R standards for colposcopy and LEEP offered at referral sites. MCHIP provided ongoing support to Provincial Health Directorates and health facilities to carry out a total of 342 supportive supervision visits to address challenges in CECAP service delivery and provided technical assistance for CECAP SBM-R assessments. Health facilities were selected for supportive supervision/TA visits based on identified challenges such as malfunctioning cryotherapy equipment or incomplete information presented in monthly reports. During the visits, the supportive supervision team provided TA in completing registration forms and addressing practices that were being performed incorrectly by health workers in the areas of screening and treatment of precancerous lesions.

As a result of the support provided through training and supervision, 238,613 women were screened by VIA from 2011 to April 2015; 17,298 (7.2%) of these women were identified as VIA positive; and 76.7% (cumulative) of eligible women were treated with cryotherapy on the same day of the screening.

National Leadership and Advocacy for CECAP

National leadership and advocacy for the CECAP Program in Mozambique has been significantly enhanced with MCHIP's support. In May 2013, a National Advocacy Meeting was carried out under the leadership of the First Lady Cabinet and the MOH, with the support of several partners. This meeting was attended by roughly 400 people (spouses of the provincial governors, civil society organizations, community leaders, national and international NGOs private sector, professional associations, health personnel, multilateral and bilateral cooperating partners).

Another important recognition of the success of the CECAP Program efforts was the selection of Mozambique to host the 7th Stop Cervical Cancer in Africa Conference, in July 2013 with the presence of the President of the Republic, the First Lady and the Minister of Health of Mozambique, African First Ladies and Ministers, parliamentarians and other authorities, health workers, and civil society representatives, for a total of around 2,000 participants. During this conference, the government of Mozambique reaffirmed its commitment to support cervical cancer prevention. MCHIP provided support in the organization and technical content of this conference, the supply of materials and equipment for the exposition (booths on VIA/cryotherapy, FP, and colposcopy/LEEP), financial support for the installation of panels and stands, and support for the travel costs of provincial gynecologists.

In 2002, Amelia Tamele, a 61 year old mother of four and grandmother of three, was diagnosed with cervical cancer. The diagnosis and treatment came about due to Amelia's seeking health care services from the MCHIP supported Model Maternity Centers. After feeling ill for several days, Amelia went to the Polana Canico Hospital to receive care. During her appointment she received a pelvic exam, and a pap smear which informed her that she had a precancerous lesion on her cervix. A biopsy later revealed the lesion to be high-grade and a risk to her health. As such, Amelia underwent surgery for a hysterectomy. Amelia has now fully recovered: *"After the surgery, I was fine. I don't have any problems."*

OBJECTIVE 5: Assist in the development, implementation, and management of FP/RH services for selected health facilities

To help the GOM achieve targets set in the Family Planning National Strategy, MCHIP supported the MOH to integrate FP services into the Model Maternity Initiative, working closely with partners to increase the availability and quality of FP services, as well as promoting demand at the community level.

IR5.1 Strengthen national level capacity in FP

One important issue related to FP access is the guarantee of contraceptive methods availability at service delivery points while also guaranteeing women's and men's right to obtain and use the contraceptive of their choice. In order to address this issue, the MOH's Central Warehouse for Medicines and Medical Supplies and the reproductive health (RH)/FP National Department created the RMNCH Commodity Security Task Force in 2005 to support the planning, forecast, acquisition and distribution of contraceptives among other RH commodities. Throughout the life of the project, MCHIP provided technical support to

the Task Force on: 1) quarterly revision of provincial contraceptives requests; 2) quarterly provincial needs forecast and distribution plans (adjusting the requests made by provinces); 3) and national and provincial needs forecasting and distribution plans for syphilis tests.

MCHIP also provided support to revise the Training Materials Package for Stock Control of Contraceptives and Medicines, and conducted a 1-day training for the RMNCH Commodity Security Task-Force on: 1) Definition of terms related to the Stock Control Process; 2) Data record files and data from the Health Information System important for Stock Control of Contraceptives; 3) Stock Control of Contraceptives, Drugs and Supplies / Medical Surgical Equipment.

Furthermore, in collaboration with other partners, MCHIP also supported the RMNCH Commodity Security Task Force to set up a mechanism similar to the National Task-Force at the provincial level, aiming to improve the coordination, forecast, discussion of Health Facility/District/Provincial requisitions, as well the distribution of RMNCH commodities, with emphasis an on FP methods.

In 2013, MCHIP was elected Co-Chair of the FP Technical Working Group. In this role, MCHIP provided technical guidance to the group on the development of important documents and guidelines, such as the Terms of Reference for a consultancy for the development of the FP Communication and Advocacy Strategy, National Guidelines for Community Distribution of Contraceptives, the Acceleration Plan to Increase Utilization of Family Planning Services and Modern Methods of Contraception, and the Guidelines for Integration of Family Planning into Other Services.

MCHIP also provided support to:

- Develop information, education and communication (IEC) materials (posters, pamphlets, fact sheets), including a postpartum intrauterine contraceptive device (PPIUCD) video for training;
- Revise and update the National Family Planning Norms and Guidelines;
- Develop National Supervision Guidelines for FP services;
- Support the Head of the FP Program on various programmatic issues, including the development of FP presentations for different audiences, the calculation of the target population size (by province/district), and determining contraceptive needs and distribution plans (by province) for the National Maternal and Child Health (MCH) Weeks.

IR5.2 Improved FP service capacity in Model Maternity and CECAP facilities, focusing on LARM

Training

MCHIP worked closely with the MOH to promote the use of postpartum FP throughout the continuum of care, integrating these services into MNH and SRH services. In this context, MCHIP supported the MOH to train 629 health providers through the Model Maternity Initiative in all FP methods except implants and IUD insertion. In addition, MCHIP supported the MOH to train 117 health professionals from all provinces in post-partum and post-abortion FP, with a focus on PPIUCD.

Furthermore, the project provided financial and technical support to train 749 health professionals in FP and implants and interval IUD insertion for integrated services (Reproductive Health Outpatients Services). Additionally, MCHIP supported three regional trainings on implants insertion and removal, for a total of 69 health workers trained.

Through the Integrated Reproductive Health Outpatients Services at MCHIP-supported sites, a total of 2,365,511 women received balanced family planning counseling.

Supportive Supervision and Technical Assistance for Family Planning

MCHIP provided support for integrated supportive supervision and technical assistance to health facilities involved in MOH's the Model Maternity Initiative (MMI) and National Cervical and Breast Cancer Prevention Program (through the Integrated Reproductive Health Outpatient Services) to strengthen the provision of FP services. During these TA/supportive supervision visits, MCHIP identified a general need for balanced FP counseling at health facilities. To address this need, MCHIP printed and distributed MOH FP counseling materials and IEC materials to MCH nurses and community health workers. In addition, MCHIP supported the development and printing of quality standards for FP services.

IR5.3 Increased demand for FP (and other RMNCH) services in Model Maternities and CECAP facility catchment areas through community mobilization

In order to increase demand for RMNCH services, MCHIP provided technical assistance to create support groups, to coach community health agents and TBAs to conduct group-based IEC sessions at community level, and to broadcast radio spots on community radios with key RMNCH messages.

Support groups

MCHIP initiated the creation and mentoring of support groups during FY13. By the end of the project, MCHIP had provided support to CHCs to establish a total of 411 support groups for pregnant women (115), mothers to mothers (168), mothers with malnourished children (45), and men (39) and other specific situation groups, such as water and sanitation, (44) across the 10 target provinces. In these support groups, themes related to maternal, newborn, and reproductive health, including family planning, were discussed, and demonstrations about how to make an enriched porridge for children were conducted.

Group IEC Sessions

MCHIP supported a total of 609 group education sessions at the community-level during the life of the project, reaching a total of 1,707,865 community members (888,090 females and 819,775 males). The group education themes included nutrition during pregnancy; birth plans; danger signs during pregnancy, delivery and the postpartum period; family planning; malaria prevention; diarrhea and cholera prevention; complementary feeding; newborn care including recognition of danger signs; prevention of breast, cervical and prostate cancer; and care for children, including dangers signs. The group dialogues were conducting by gathering people of same sex or age group to discuss the planned theme for the month. Each community health agent was responsible to facilitate 10 group-based IEC sessions per month.

Radio Programming

Over the life of the project, MCHIP, in partnership with Provincial and District Health Directorates, supported community radio stations to air 3,452 radio spots, in the provinces of Cabo Delgado (Pemba), Niassa (Cuamba and Mandimba), Sofala (Beira), and Tete (Tete City and Mutarara), Maputo Province (Matola and Boane), Gaza (Xai Xai and Manjacaze), Manica (Chimoio), Zambezia (Quelimane, Gurue and Milange), and Nampula (Nampula City and Angoche). The radio spots were aired in Portuguese and the main local language of each province. They were aired three times per day twice a week. The principal messages of the radio spots included: family planning (including promotion of LARCs); ANC; nutrition and care during pregnancy; danger signs during pregnancy, delivery and postpartum; postpartum consultation; post abortion care; institutional delivery; postnatal care; malaria; newborn danger signs; vaccination; exclusive breastfeeding; and prevention of diarrhea and cholera. During FY15, in partnership with the MOH/DeProS, MCHIP also broadcasted radio spots at the national level.

In Gaza Province, MCHIP, in partnership with Radio Mozambique and its radio program "*The Doctor in Your House",* conducted an interactive program that involved discussions in the community and was directly broadcasted from the community. Participants in this program included a broad range of community and facility-based representatives including the heads of the county, community leaders, mothers of childbearing age, men, and MCH nurses. Discussions served to help participants better understand as well as respond to concerns related to the health of their communities.

Since FY13, the project has reached more than 1.7 million individuals through educational sessions and over 3,452 radio spots have been aired.

Through home visits and other outreach activities, the project has referred 86,566 pregnant women to ANC services and 36,951 women for institutional delivery.

Open radio sessions were aired in Chicumbane and Manjacaze in Gaza which were focused on a select few areas of MNCH that showed low service coverage of institutional deliveries and family planning. The information and community feedback collected during these open radio sessions served as a basis for the improvement of the "*The Doctor in Your House"*" program so as to better respond to the concerns of the community.

In addition, MCHIP also provided support to 52 health facilities to develop health education plans and facilitated the participation of health workers in radio programs. Themes addressed by health workers during the radio spots included: quality and de-medicalization of the health services; family planning; essential newborn care; the importance of postpartum and postnatal consultations; facility-based delivery; danger signs during pregnancy, delivery and postpartum; danger signs for newborns; and prevention of diarrhea and cholera.

Support to Provincial and District Health Directorates to implement the Social and Economic Plan in non-intensive focus areas

MCHIP provided support to Provincial and District Health Directorates to implement priority activities outlined in the annual Provincial Economic and Social Plans. This support included transport to conduct mobile brigades and school health brigades, as well as transport, fuel and travel allowances for provincial and districts health staff to conduct supervision visits to non-intensive focus areas to ensure follow up of the implementation of the community mobilization strategy. The project also supported the provinces and districts in the printing and distribution of IEC materials and outreach during the cholera outbreaks in Tete and Niassa.

OBJECTIVE 6: Promote and test the introduction of neonatal circumcision services in selected health units

During FY12, MCHIP held discussions with the MOH to attempt to build consensus for the model of neonatal male circumcision (NMC) and a pilot of the model in selected facilities. However, the MOH stated that NMC was not an immediate priority within the national MC strategy. It was therefore agreed upon with USAID not to focus on this objective during the life of the project.

OBJECTIVE 7: Partnerships developed and strengthened (MOH and all USG partners) at the national level to promote high impact integrated MNCH services

Since the late 1990s, the Ministry of Health (MOH) has promoted humanization and quality improvement (H&QI) of health care services in the context of health sectorial reforms and towards the achievement of the Millennium Development Goals. In 2004, the MOH, with technical support from Jhpiego, introduced the SBM-R approach to improve quality in Infection Prevention and Control and later in Model Inpatient Wards. Progress in these areas informed the development and implementation of the National Plan to Humanize and Improve Quality of Care in Reproductive Health and Maternal, Neonatal and Child Health Services (2009), including the Model Maternities Initiative. In March 2011, the MOH launched the National Strategy for Humanization and Quality Improvement of Health Care, with the aim to deliver client-centered health services based on scientific evidence. SBM-R was adopted as the main approach under this national strategy.

MCHIP provided technical assistance to the MOH to build and strengthen partnerships to enable the implementation of the National Strategy, and to promote the standardization of practice within priority service delivery areas, including maternal, newborn and child health (MNCH), reproductive health (RH), family planning (FP), and cervical cancer prevention (CECAP).

IR7.1 Partnerships strengthened with the MOH and USG implementing partners for key MNCH/SRH/FP activities, including quality improvement and community mobilization

MCHIP worked with the MOH to build a national infrastructure of committees (functioning at the central, provincial, district and health facility levels) to promote and facilitate the participation of clients, community, health workers and partners in the H&QI process. Key areas of support included the following:

National H&QI Committee

MCHIP supported the MOH to organize and implement meetings of the National H&QI Committee, chaired by the Minister of Health with 60 members, including community leaders, NGOs, CBOs, donor agencies, professional and non-professional associations, health workers and managers, representatives from the medical and nursing training institutions and government. The committee oversees the implementation, monitoring and evaluation of the National Strategy.

Technical Secretariat for Quality and Humanization

MCHIP supported the development of the official constitution of the Technical Secretariat for Quality and Humanization, an integral arm of the National Committee for Quality and Humanization chaired by the Minister of Health. MCHIP provided ongoing support to DNAM to organize and co-facilitate regular meetings of the Technical Secretariat to coordinate and monitor quality and humanization activities. Each meeting consisted of an average of 15 participants, including the MOH heads of programs, USG and non-USG partners.

Provincial, District, and Health Facility H&QI Committees

MCHIP provided support to the MOH to establish 11 provincial, 79 district, and 155 health facility H&QI committees with over 2,500 members, 60% of which are community and civil society representatives. This support included the organization of provincial meetings which resulted in the training of the members of these committees. These committees are responsible for coordinating H&QI activities at the provincial and district levels, identifying innovative solutions to address key issues related to quality, and monitoring H&QI efforts.

National Review Meetings for H&QI

MCHIP provided technical and financial support to the MOH to conduct two national appraisal and best practices meetings in 2012 and 2014. These meetings were each presided over by the Honorable Minister of Health and had 250 and 280 participants in attendance, respectively, including advisors to the Minister of Health, the National Director of Medical Assistance, the National Director of Human Resources, the National Director of Public Health and their respective deputy directors, the USAID Mission Director, Provincial Medical Chiefs, Provincial QHC Focal Points, community leaders, religious leaders, traditional medicine practitioners, representatives from the Religious Council of Mozambique (COREM), as well as representatives from development partners and implementing partners (USG and non-USG). During the two day meetings, participants shared and assessed their progress, and discussed lessons learned and challenges encountered in the implementation of Respectful and Quality Care in Mozambique.

Regional Meetings for Feedback and Sharing of Best Practices and Innovations

In FY13, MCHIP provided technical and financial support to the MOH to hold three regional feedback meetings for H&QI. A total of nearly 400 participants attended these meetings, including community leaders, religious leaders, traditional medicine practitioners, private sector representatives, representatives from national associations, MOH Program Directors and Provincial Health Directors, Training Institute Directors, MOH representatives, development partners, and implementing partners.

Capacity building for H&QI at Provincial and District Levels

H&QI provincial focal points were identified and trained in 2012 through three regional formative meetings. These trainings focused on the key areas of the National H&QI Strategy, how to establish H&QI Committees, as well as how to conduct monitoring activities and how to support the use of the SBM-R approach at facility level. Throughout the life of the project, these focal points were afforded learning opportunities including technical support to analyze data and prepare presentations for national and regional H&QI meetings, as well as writing skills for developing reports and articles to document progress on best practices and lessons learned.

MCHIP provided technical and financial support to the MOH to conduct technical assistance visits with provincial H&QI committees across all 11 provinces of the country. In order to strengthen capacity at the provincial level, the Provincial H&QI Focal Points were included in these visits and worked closely with the MCHIP and MOH technical advisors to improve their abilities to lead and monitor the H&QI implementation in their respective provinces. During these visits, MCHIP and the MOH used the Performance Checklists for H&QI Committees to identify areas of strengths and weaknesses in the following areas:

- Presence of functional H&QI Committees working with community representatives, health workers, and partners and the conducting of quarterly meetings to coordinate, evaluate and share progresses
- The degree to which the local H&QI activity Plan was aligned with the national H&QI Strategy
- Existing H&QI initiatives with reports and trends on performance quarterly evaluations
- Provision of health information to patients and their families on Patient Rights and Responsibilities
- Implementation of mechanisms to address wait-lists and wait-time, illicit charges and patient complaints
- Utilization of informed consent for clinical procedures
- Regular dissemination and sharing of H&QI results through meetings, local press, newsletters and the MOH webpage

The results of these visits were used to raise the awareness of health managers, health workers and committee members on H&QI processes, focus provision of future technical support to areas of greatest concern, and to inform ongoing assessments of progress.

Support for the development of the National Strategy for Quality and Humanization of Health Care, 2015 – 2019

During the last year of the project, MCHIP supported the MOH to develop the draft National Strategy for Quality and Humanization 2015 – 2019. Specifically, MCHIP support to the MOH to finalize the Terms of Reference for the creation of a working group to lead the development of the National Strategy for Quality and Humanization of Health Care, 2015 – 2019. MCHIP actively participated in this working group to finalize the first draft of the National Strategy for Quality and Humanization 2015 – 2019, in collaboration with the various MOH departments/programs and implementing partners.

Presentation of Mozambique's H&QI experience in international conferences

To increase the visibility of the MOH's and MCHIP's work in H&QI, MCHIP supported the MOH to deliver an oral presentation at ISQua's 30th International Conference—*Setting the Grounds to Improve Quality and Humanize Healthcare: the case of Mozambique*. MCHIP also supported the MOH and a community representative of a Quality and Humanization Committee to attend the International Conference for the Humanities and Humanization in Health in Sao Paolo, Brazil. At this conference, the team presented a poster, "Involving the community in improving the quality and humanization of healthcare" and shared Mozambique's experience in establishing and institutionalizing quality and humanization of care within the health care system, as well as the community's perspective regarding its participation in the quality improvement and humanization efforts in Mozambique.

IR7.2 Strengthened partnerships with key national stakeholders to disseminate best practices in MNCH/RH/FP

In order to sustain the MOH's efforts to improve quality in RMNCH services and community outreach initiatives, and to promote the adoption of the H&QI agenda, MCHIP worked with the principal health professionals associations in country, including the Mozambican Association of Obstetricians and Gynecologists (AMOG), the Mozambican Association of Pediatricians (AMOPe), and the Mozambican Association of Nurse-Midwives (APARMO). In this context, technical and financial support was provided for one AMOPe national meeting, two AMOG national meetings, and one APARMO national assemblies. In addition, MCHIP supported USAID and the MOH to conduct a meeting for the new Survive and Thrive Global Development Alliance in August 2013.

OBJECTIVE 8: Work with the MOH and all USG partners to define, implement and monitor standards of care at the point of service in essential areas

IR8.1 Performance standards produced and applied in all areas of integrated MNCH/RH/FP services

MCHIP provided technical support to the MOH, in partnership with Technical Working Group members, USG partners, and clinical experts to develop/update, test, and finalize H&QI Standards in the following areas: MMI (MNCH including PMTCT), Malaria, IMCI, Nutrition, FP, and CECAP.

As part of the implementation of these standards, MCHIP trained 1,079 health workers and managers in SBM-R to implement the Model Maternity Initiative, Family Planning, and CECAP programs, including health program managers from the provincial and central-level who were trained to implement, supervise, monitor, and evaluate H&QI initiatives. Onsite technical assistance was provided by MCHIP to strengthen the capacity of local teams to implement the H&QI standards, including the development of action plans to address identified gaps.

In addition, MCHIP also developed the "Guidelines for SBM-R Implementation" and "Guidelines for Recognition of HF in the Quality Improvement Process".

IR8.2 Partners trained and applying the method of SBM-R for the improvement of quality for other priority health services

To promote and support the implementation of the H&QI initiatives, particularly the MMI and the National CECAP Program, MCHIP trained 25 health professionals from USG partners (EGPAF, Pathfinder, FHI-360, CHASS-SMT, FGH, and ICAP) on SBM-R. MCHIP also developed an MOU with EGPAF for collaboration in the area of Performance Based Financing (PBF) within select Model Maternity facilities. Specifically, MCHIP provided training to health workers from PBF intervention facilities in Gaza and Nampula provinces in collaboration with EGPAF.

During FY14, MCHIP also trained 30 MOH staff and partners in the newly developed SBM-R performance standards for Care for Children Under 5. These performance standards were field tested in Maputo Province and Maputo City, and were thereafter finalized with MCHIP support and submitted for approval.

Program Management

The MCHIP program in Mozambique was led by **Jhpiego**, MCHIP's global lead organization and its technical leader for maternal and neonatal health and family planning. **Save the Children**, a partner in the global MCHIP Leader award, was the only partner under MCHIP/Mozambique. Save the Children served as the technical lead for newborn health, and was responsible for the implementation of the project's community engagement component. The MCHIP/Mozambique team was based in Maputo. The project's operational and management structure, as shown in **Figure 10,** was organized into four technical units (MNCH, RH/FP/CECAP, Human Capacity Development and Community Mobilization) and two support units (M&E and Finance/Administration).

In Year 1, MCHIP established a provincial structure in coordination with the MOH and the DPS. A team consisting of a mid-level MCH Nurse (Clinical Assistant), contracted by Jhpiego to supervise and provide technical assistance for clinical activities, and a Provincial Community Mobilization Official, contracted by Save the Children, to implement community engagement activities was placed in each DPS. On a monthly basis, a province-specific joint work plan was developed by the Clinical Assistant and the Provincial Community

Mobilization Official in collaboration with the DPS MCH Chief Nurse. The Chief Medical Officer of the province would review the plan, which was then sent to the MCHIP Chief of Party or his specified designee for final approval.

The program's structure was supported in Maputo by an experienced Senior Management Team (SMT) of technical and administrative staff, including the Chief of Party (COP), Deputy COP, Technical Director, and Community Senior Program Manager. Throughout the life of the project, the SMT met to provide strategic direction, as well as managerial and technical support to staff. SMT members also participated in meetings with USAID, represented the project at key stakeholder meetings, worked to establish strong partnerships with the MOH and other stakeholders, and helped to foster a transparent, collaborative, and mission-driven work environment.

In addition, MCHIP was supported by the management structures of in-country partners, with a predominant reliance on the Jhpiego country office. The Jhpiego Country Director also provided oversight and support to the management of this program. MCHIP was able to benefit from Jhpiego's other in-country projects in terms of administrative and financial support.

Finally, MCHIP received technical, management and administrative support from its highly qualified country support staff at Jhpiego and MCHIP headquarters (HQ). The US-based staff provided critical technical and administrative support, helping to ensure the project's compliance with all reporting requirements. The HQ-based team also served as a valuable conduit of information for the project, acting as its person on-the-ground at HQ, ensuring that the project staff was well informed about technical updates, training opportunities, and emerging administrative requirements or updates.

While the essential structure described above did not change through during the life of the project, a few significant additions were made over time to enhance MCHIP's capacity to achieve its programmatic goals, both at the central and provincial levels. The most substantive changes are highlighted below:

- **Advisors to the Ministry of Health:** At USAID's request based on recognition of the MOH's shortage of personnel, MCHIP provided financial support to fill critical positions at the MOH. The project's support directly benefited areas that play an important role in the prevention of maternal and neonatal mortality. By the project's close, MCHIP was supporting: 1) a maternal health advisor, 2) family planning advisor, 3) a logistician, 4) a quality and humanization advisor, as well as 5) two monitoring and evaluation advisors.
- **Architect and Rehabilitation Officers:** Though the level of effort varied, MCHIP incorporated one architect and two engineers to provide critical support in the area of facility rehabilitation. Linking excellence in quality of care with physical sites that are conducive to, and enable, compassionate care, was important for the Model Maternities Initiative.
- **Communications Officer:** MCHIP had been hampered in its efforts to communicate effectively to the public and major stakeholders because of a lack of time and expertise to devote to working with the press. The Communications Officer filled that void and was able focus on publicly highlighting the partnership between USAID and the MOH to improve maternal and neonatal health in the country.

PARTNERS

During the life of the project, MCHIP provided support to its main counterpart, the National Directorate of Public Health (DNSP), which included the following departments:

- Department of Maternal and Child Health (DSMI) for Model Maternities, Family Planning, and PMTCT integration, and update of neonatal resuscitation

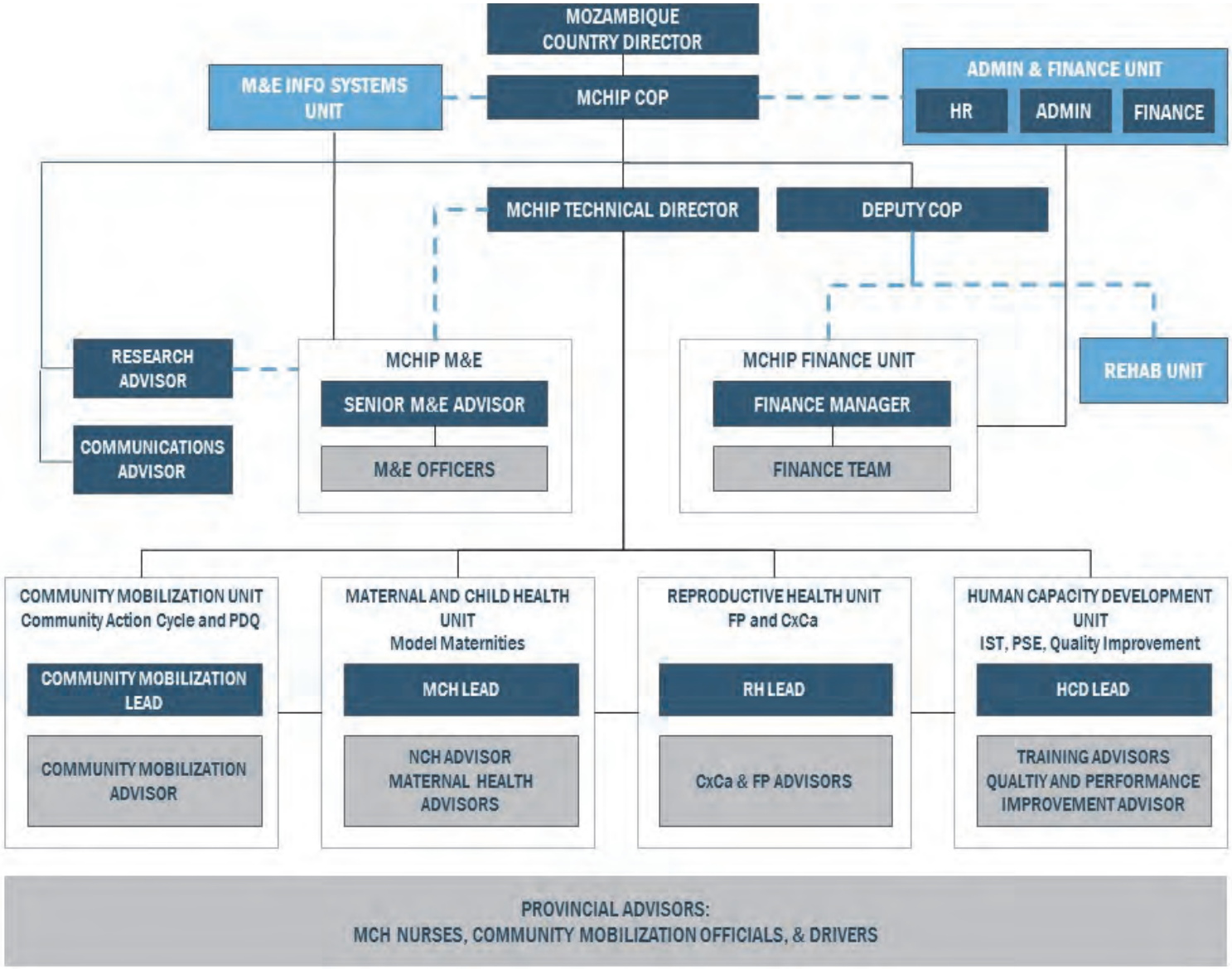
- Department of Non-Communicable Diseases (DNCD) for CECAP
- Department of Health Promotion (DePROS) for mobilization and linkage of communities to increase appropriate utilization of MNCH/RH services

MCHIP also worked with the National Directorate of Medical Assistance (DNAM) on quality and service integration issues; the Department of Human Resources (DRH) and its Training Department for coordination on the integrated training packages; the Directorate of Planning and Cooperation (DPC) and its Department of Health Information (DIS) on the revision of the national RMNCH registers; and the National Malaria Control Program for integration of Malaria in Pregnancy issues. Furthermore, MCHIP worked with ISCISA for integrating quality and humanization of care for pre-service education in the areas of MNCH and RH/FP/CECAP.

MCHIP actively collaborated with other USG partners as well as other donor funded programs under each of its eight objectives.

- MCHIP worked with partners (USAID, CDC, WHO, UNFPA, ICAP, EGPAF, I-TECH, and FHI) to support the MOH in the revision and dissemination of the national MNCH registers for data collection.
- MCHIP actively collaborated with WHO, UNFPA, ICAP, EGPAF, I-TECH, FHI, CCS, & Pathfinder to support the finalization of the Integrated In-Service Training Packages.
- In the area of PMTCT, MCHIP collaborated with UNICEF to improve the integration of services for prevention, diagnosis and treatment of HIV, including Option B+.
- In the area of community mobilization, MCHIP participated in Partners' Coordination Meetings, which included the Malaria Consortium, SCIP, Pathfinder, TBAs, community health workers, district representatives, and Health Committee members. During these meetings, partners coordinated activities to ensure a complementary approach to responding to problems identified by communities.

Figure 10: Organizational Structure of MCHIP Mozambique



Conclusions

Valuable experiences were gained through the four years of implementation of the MCHIP Associate Award, and several key lessons were learned that have implications for future programming through the MCSP Award and other MNCH programs.

- **MOH leadership and appropriation is critical:** It is important to identify and support champions at all levels of management and service delivery. A case study was conducted by MCHIP which compared facilities that had been in the Model Maternity Initiative process for similar periods of time and which had similar characteristics (for example, level of health facility, rural vs. urban setting, etc.), but which had very different levels of results with the achievement of performance standards, in order to understand some of the influencing factors for success. One of the areas that seemed to be very influential for success was the presence of a strong leader or champion for the MMI who drove the process forward and motivated other staff to make changes to their behaviors and to the quality of services provided. Future programs should work to identify and foster the leadership qualities of Ministry of Health staff at all levels. Management skills, including skills in planning, implementation, and monitoring of programs, should be considered as areas that are essential to successful programs and should be included as a key area for support.
- **The health work force must be enabled to respond to increased demand for services**: One of the key lessons learned from MCHIP is that a unity of mission, vision, and theoretical framework between the institutional and community components is essential. Demand creation is critically linked to the quality of services, and health facilities and health workers alike must be prepared to provide high quality services in response to increased demand. The main challenges to increasing the health work force are largely structural in nature and are related to the national budget capacity to respond to the increased need for health personnel. Nonetheless, there are several recommendations that can improve the capacity of the existing workforce to respond more effectively within current conditions:
  - **Improved management of staff and clinic flow**: Health facility management (the Health Facility Director, the Director of the Maternity Ward and MCH Nurses in charge of the maternal/newborn external consultations (ANC, PNC, FP)) should be assisted to reorganize staff and services in order to maximize the existing resources. Insufficient resources are available for rehabilitations of health facilities, but relatively simple modifications can be made without infrastructure-related support to ensure a planned and logical flow of clients through clinical services.
  - **Improved management of client flow:** Results from the Integrated Packages study indicate that that scheduling of integrated appointments for services allows for not only a better organization of consultations for the provider and a reduced waiting time for clients, but also presents a viable opportunity to increase the number MCH services that clients receive in a single visit. The observation of the appointment schedule also provided an opportunity to see how services could be more effectively organized to serve a wider client population. In addition, in many facilities, MCH services are only offered until 12:00, while the working hours of the clinic officially extend until 15:30. The reasons for the restriction in offering services should be studied in the future in order to provide increased access to the target population with these essential services.

- **Improved retention of trained health facility staff:** One of the key challenges confronted by MCHIP was the frequent rotation of trained health care workers, often leaving a severe shortage of trained personnel to provide essential services. The proposed recommendations to address this issue in future programming is two-fold: 1) Increase advocacy efforts with provincial and district government decision-makers to ensure the retention of trained staff for a period of time in order to assist in mentoring and training other health professionals, and 2) Develop district-level trainers and implement and on-the-job training approach to enable the training of a greater number of health workers in each facility.

- **The motivation of health workers must be increased and improvements in the quality of services should be continuously recognized:** Health workers function in very challenging conditions, with low salaries and sometimes without all of the material resources required to perform their job. The motivation of personnel is a key factor in ensuring the behavior change component of providing quality health services. Several ways of increasing the motivation of health workers include the following:
  - Establish mechanisms for recognition of high-performing individuals, RMNCH champions within health facilities that drive quality improvement efforts, and the collective health facility to recognize improvements in quality of care and achievement of performance standards. The experience of graded recognition shows that recognition and motivation can take many different forms (recognition during health facility management meetings, verbal or written recognition from the Provincial Health Directors, recognition ceremonies, etc.).
  - Provide support to make small improvements in working conditions, including provision of a table and chairs, tea kettle, and cups in the staff rest area.
  - Utilize the entire working day (until 15:30) to decrease the work load in the morning hours, as well as to allow more time per client for improved care.

- **Knowledge and skills in key RMNCH areas must continuously be reinforced:** The experience of MCHIP has shown that a more efficient and effective way of training staff and reinforcing knowledge needs to take place. Staff rotation is frequent, and group-based training often results in leaving a health facility short-staffed during the time of the training. In addition, the methodology of supervision visits is often variable amongst individuals/teams and is not always conducted according to a supervision guide. For future programming, the following shifts in approach are recommended:
  - **Support a shift to decentralized, on-the-job training techniques:** Using the Ministry of Health's Integrated In-Service Training Packages for RMNCH, support a shift away from group-based training to an on-the-job, mentoring model by which health workers from peripheral facilities can rotate through training centers with district-level trainers to receive targeted, module-based training based on key identified needs. This model could also serve as a learning and exchange program, by which health workers from different facilities are able to learn from each other and share lessons learned and promising practices.
  - **Establish a culture of using checklists for supervisions:** In order to increase the effectiveness and quality of supportive supervision visits, it is recommended that standardized guides/checklists be utilized. It is expected that the use of the standardized supervision guides will lead to the identification of key training needs for health workers, which could then be addressed through the targeted on-the-job training described above

- **The quality and reliability of data collected/reported and its use for decision-making must be reinforced at all levels:**
  - Support should be provided to central, provincial, and district levels to establish the expectation for performing data quality control before sending the report to the next level.
  - eHealth technologies should be explored to reinforce the efficiency of data collection and reporting.
  - Support should be focused on the health facility level to reinforce the use of data for decision-making, where it can have the greatest immediate impact on the quality of services.
- **Community and facility linkages are essential for accountability:** The experience of MCHIP has shown that Co-Management Committees can be an effective means of ensuring that the community's perspective and needs are heard and recognized by the health facility. Throughout the life of MCHIP, Co-Management Committees were instrumental in voicing the concerns of the communities and participating in the improvement of quality of services at facilities involved in the Model Maternities, including organizing clients for more efficient provision of services, assisting in the organization and cleaning of health facilities, evaluating patient satisfaction ratings alongside health personnel (through the "Satisfaction Meter" client feedback box), and helping to identify solutions to identified challenges in quality of care. These structures should be reinforced in future programming, and when possible, collective incentives to Co-Management Committees that support their ability to respond to health-related priorities in their communities should be considered.
- **There is a need to re-conceptualize reproductive health and family health to include men:** Planning for the incorporation of gender into RMNCH programming was initiated during the MCHIP project, when an analysis was conducted to identify ways to integrate gender-transformative approaches into existing RMNCH interventions. The resulting recommendation for future programming is an approach to gender that seeks to empower women and adolescents, involve men, and promote services for couples. In order to make a greater impact on health outcomes, it is necessary to change the dynamics of power in relationships and families and to consider both men and women as *resources* for the improvement of overall family health. Future programming should work towards the increased positive involvement of men in family planning, prenatal care, joint HIV counseling and testing, the promotion of facility-based deliveries, teaching couples to recognize the danger signs of a complicated birth (first delay). Other important priorities include addressing gender inequalities that can result in delays in deciding to seek care by involving expecting couples in a proactive planning process to identify the strategies they will employ to get to a facility on time (second delay). By constructively involving men and other significant family decision-makers early, and continually, programs can help to model and promote shared decision-making by women and men concerning health—a strategy that has been shown to be effective in improving overall reproductive and family health.

Annex 1: MCHIP Support for MOH Model Maternities Initiative Expansion Plan

Basic Package of MCHIP Support: Clinical training in EMNC, BEmONC, ANC (including PMTCT and Malaria in Pregnancy), clinical supervision, basic materials and supplies for maternal and newborn care, support for implementation of QI system for MNCH/RH/FP, leadership of other USG health partners in support of MNCH/RH/FP activities.

Red text = Intensive Package of MCHIP Support: Basic Package plus minor repairs for improving privacy and basic hygiene and intensive supportive supervision

Bold text = Intensive community focus: Basic package plus direct support for community mobilization (health and co-management committees)

Province	HF that entered in 2010 (34)	HF that started in 2011 (22)	HF for expansion in 2012 (23)	HF for expansion in 2013 (22)	HF for expansion in 2014 (23)
Niassa	• HP Lichinga • **HR CUAMBA** • CS Chiuaula	• CS Metangula	• CS Mecanhelas • **CS MANDIMBA**	• CS Maúa • CS Metarica	• CS Marrupa • CS Massangulo
Cabo Delgado	• HP Pemba • HR Montepuez • CS NATITE	• HR Mocimboa da Praia	• **HR MUEDA** • CS Chiure	• CS Balama • CS Pemba Metuge	• CS Palma • CS Namuno
Nampula	• HC Nampula • HG NACALA • HR Monapo	• HG Marere • HR Ribaue • CS 25 DE SETEMBRO	• **HR ANGOCHE** • HR Alua • CS Ilha de Moçambique	• CS Meconta • CS Mossuril • CS Muhala Expansão	• CS Anchilo • CS Iapala
Zambézia	• HP Quelimane • HR Mocuba • **HD GURUE**	• HR Alto Molócuè • **CS 17 DE SETEMBRO**	• HD Maganja da Costa • HD MILANGE • HD Nicoadala	• CS Coalane	• CS Gilé • CS Mopeia • HR Morrumbala • CS Macuse
Tete	• HP Tete • HR Songo • **CS NO. 2 MATUNDO**	• **HR ULONGUE** • CS Moatize	• HR Mutarara • CS Nº 4 MUTHEMEBA	• CS Lifidzi • CS Chitima	• CS Changara • CS Macanga
Manica	• HP Chimoio • HR Catandica • **CS 1º DE MAIO**	• HR Gondola • **CS MANICA**	• HD Espungabeira • CS Vanduzi	• CS Guro Sede • CS Sussundenga	• CS Nhamahonha • CS Marera • CS Catandica
Sofala	• HC Beira • HR Buzi • CS Macurungo	• **HR NHAMATANDA SEDE** • **HR MUXUNGUE** • CS Ponta Gêa	• HR Marromeu • CS Chingussura	• CS Caia • CS Dondo Sede • CS Gorongosa	• CS Munhava • CS Mafambisse • CS Tica
Inhambane	• HP Inhambane • HR Chicuque • **CS HOMOINE**	• HD Massinga • HR VILANCULO	• CS Maxixe • CS Morrumbene.	• CS Inhassoro • CS Quissico	• CS Panda • CS Inharrime
Gaza	• HP Xai-Xai • **HR MANJACAZE** • **HR CHICUMBANE**	• HR Chókwè • CS Macia	• HR Chibuto	• CS Chigubo • CS Massingir	• CS Maciene

Province	HF that entered in 2010 (34)	HF that started in 2011 (22)	HF for expansion in 2012 (23)	HF for expansion in 2013 (22)	HF for expansion in 2014 (23)
Maputo Province	• CS Manhiça • **CS BOANE** • CS MATOLA II	• HR Xinavane • CS MACHAVA II	• CS Marracuene • CS Namaacha	• CS Bedene • CS Moamba	• CS Magude • CS Ressano Garcia
Maputo City	• HC Maputo • HG José Macamo • HG Chamanculo • HG Mavalane	• CS 1º de Junho	• CS 1º de Maio • CS Bagamoio	• CS Catembe	• **CS Ndlavela**

Annex 2: MCHIP Support for MOH Cervical and Breast Cancer Prevention and Control Plan

BASIC PACKAGE OF MCHIP SUPPORT: Clinical training, supervision, equipment maintenance, SIS. All health facilities provide VIA and cryo services. Only "+LEEP" facilities provide treatment for serious lesions.

Red text = Intensive package of MCHIP support: Basic Package plus equipment donation

Province	HF entering in 2009/10 (17)	HF entering in 2011 (29)	HF for expansion in 2012 (31)	HF for expansion in 2013 (20)	HF for expansion in 2014 (32)
Niassa		• HP Lichinga • CS Lichinga • CS Metangula	• HR Cuamba • CS Mecanhelas • CS Mandimba	• CS Metarica • CS Marrupa	• CS Mavago • CS Massangulo
Cabo Delgado		• HP Pemba • CS Natite • CS Chiúre	• HR Montepuez	• CS Balama • CS Mueda • CS Mocímboa da Praia	• CS Palma • CS Namuno • CS Ancuabe
Nampula	• HC Nampula (+LEEP) • CS 25 de Setembro • CS 1º de Maio	• HR Ribáue • CS Muhala Expansão	• HG Nacala Porto • HR Angoche • CS Mossuril • CS Ilha de Moçambique	• CS Monapo	• CS Moma • CS Namapa • CS Lapala
Zambézia	• HP Quelimane (+LEEP) • CS 17 de Setembro • CS Coalane • CS Namacurra • CS Inhassunge	• HR Mocuba • CS Mocuba • CS Mopeia • CS Maganja da Costa • CS Morrumbala	• CS Milange	• HR Alto Molocué	• CS Gilé • CS Gurué • CS Nicoadala
Tete		• HP Tete • CS nº 2 - Bairro Matundo • CS Moatize	• CS Lifidzi • CS Nº 4 - Bairro Muthemba	• CS Chitima	• CS Changara • CS Chiúta
Manica		• HP Chimoio • HR Catandica • CS 1º de Maio	• CS Manica • CS Vanduzi	• CS Guro Sede • CS Eduardo Mondlane	• CS Nhamahonha • CS Espungabeira • CS Gondola
Sofala	• HC Beira (+LEEP) • CS Ponta Gêa • CS Macurungo		• CS Chingussura • CS Dondo • CS Gorongosa	• CS Munhava	• CS Caia • CS Búzi • CS Nhamatanda
Inhambane		• HP Inhambane • CS Maxixe • CS Homoine	• HR Massinga • CS Inhassoro • CS Urbano • CS Morrumbene	• CS Inharrime • CS Vilanculos	• CS Panda • CS Zavala • CS Chicuque

Province	HF entering in 2009/10 (17)	HF entering in 2011 (29)	HF for expansion in 2012 (31)	HF for expansion in 2013 (20)	HF for expansion in 2014 (32)
Gaza		• HP Xai-Xai • CS Xai-Xai • CS Manjacaze	• CS Guijá • CS Chokwe • CS Macia	• HR Chibuto	• CS Mabalane • CS Massingir • CS Marien Nguaby • CS Chicumbane
Maputo Province	• CS Boane • CS Matola II	• HR Xinavane	• HD Manhiça • CS Marracuene • CS Moamba • CS Ressano Garcia • CS Machava II	• CS Ndlavela	• CS Magude • CS Namaacha • CS Matutuíne
Maputo City	• HC Maputo (+LEEP) • HG José Macamo* (+LEEP) • HG Mavalane * • CS Polana Caniço	• CS Bagamoio • CS Zimpeto • CS Jose Macamo	• HG Chamanculo • CS 1º de Maio • CS 1º de Junho	• CS Catembe • CS Inhaca • CS Alto-Maé • CS Xipamanine • CS Mavalane	• CS Malhazine • CS Albasine • CS Malhagalene

*Not attending patients because of inadequate security conditions for equipment.

Annex 3: MCHIP-Supported Research

MCHIP's research implementation objectives were encompassed in **Objective 1:** Work with the MOH and all USG partners to create an enabling environment at national level to provide high-impact interventions for integrated MNCH/RH/FP services in the community and in health facilities.

1. Quality and Humanization of Care Assessment: A Study of the Quality of Maternal and Newborn Care Delivered in Mozambique's Model Maternities

MCHIP assisted the MOH with a health facility survey entitled, "Quality and Humanization of Care (QHC) in Model Maternity Facilities," conducted from September to November 2011. Seventeen health facilities participating in the Model Maternity Initiative (MMI) and 29 health facilities not in the MMI were compared. Preliminary results were presented in November 2011 to the Deputy Director of the MOH's National Public Health Directorate and the final report was completed in March 2013.

Objective

The primary purposes of this study was to: 1) determine the coverage and quality of interventions that address the direct causes of maternal and neonatal deaths; and 2) generate practical and evidence-based information to guide decision-making about improving the quality and humanization of facility-based MNCH services.

Selected Findings and Results

- Policies/practice guidelines, which cover all the key areas assessed, are in place: postpartum hemorrhage, pre-eclampsia/eclampsia, obstructed labor, essential newborn care, newborn resuscitation.
- Knowledge scores for routine labor and delivery care were high but mean scores for recognizing and managing specific complications, newborn care, and newborn sepsis were generally less than 40%. Approximately 35% of providers knew how to diagnose and treat bleeding associated with an atonic uterus and 34% knew how to diagnose and treat a retained placenta.
- With the exception of blood pressure cuffs and stethoscopes, key drugs, commodities and supplies were available.
- All facilities had partographs in stock. However, correct initiation of the partograph occurred 38% of the time (partographs were often filled out, but were incomplete and often filled out after delivery).
- In general, staff at non-MMI facilities performed less well than their counterparts at MMI facilities on antenatal care (ANC) counseling topics.
- The results of the study have been used by the MOH and MCHIP to highlight successes (e.g., almost universal use of oxytocin, and validation of the data being collected by facilities) and prioritize urgent needs for quality improvement (e.g., use of partograph, and readiness for emergencies, such as neonatal resuscitation) for maternal and newborn

care and guide the MOH's MMI expansion plan (2011-2014) and MNCH program at the national level.

2. Measuring Coverage in MNCH: Testing the Validity of Women's Self-Report of Key Maternal and Newborn Health Interventions during the Peripartum Period in Mozambique

Nested within the Quality and Humanization of Care health facility survey, in 2012, MCHIP assisted the MOH in conducting the study entitled, "Measuring Coverage in MNCH: Testing the Validity of Women's Self-Report of Key Maternal and Newborn Health Interventions during the Peripartum Period in Mozambique." Of the 487 women whose births were observed and documented from September to November 2011, 304 were interviewed eight to ten months later in their homes regarding the care they received during labor, delivery, and the immediate post-partum period. Data from the follow-up interviews were compared against data from the observations, which served as the reference standard.

Objective

The objective of this study was to assess the validity of women's self-reports of selected health facility–based, peripartum MNCH interventions in Mozambique. The validity of 34 indicators was tested in two complementary ways: (1) calculation of sensitivity and specificity, using the receiver operating characteristic (ROC) and the area under the curve (AUC) analysis; and (2) estimation of the inflation factor (IF), which is the ratio of the prevalence of these interventions that would be obtained from a population-based survey, given the sensitivity and specificity from this study and the indicator's true prevalence.

Selected Findings and Results

- Women were able to report on some aspects of intra-partum care.
- Twenty seven indicators had sufficient numbers for robust analysis, of which 4 met acceptability criteria for both (AUC 0.6 and 0.75, IF1.25). These included: the newborn was placed skin-to-skin against the mother, the woman identified her place of birth as a hospital versus a health center, the woman was encouraged to have a companion during labor or birth, and a support person was present during labor or birth.
- Two of these indicators are considered high demand and were incorporated into the Demographic and Health Survey's bank of indicators: presence of a support person during labor/delivery and placement of the newborn skin-to-skin against the mother. These two indicators have also been included within national MNCH norms and technical guidelines as part of the essential standards of care.
- An article on this study was published in May 2013 as a peer-reviewed paper in PLoS One, with contributing authors from the MOH and MCHIP.

3. Evaluation of a Postpartum Systematic Screening Tool in Maputo, Mozambique

As part of an effort to address unmet need for FP, especially postpartum family planning (PPFP), between August 2013 and February 2014, MCHIP in collaboration with the MOH, started piloting a postpartum systematic screening (PPSS) tool in three health facilities in Maputo City (Polana Caniço, Bagamoyo and Xipamanine) through referral from postnatal care, immunization and other relevant MCH services to FP. In May 2014, the study was expanded to an additional eight sites, divided in two group of four intervention and four control sites (25 de Setembro, Anchilo, Namialo, Monapo and 1º de Maio, Rapale, Meconta, Carapira, respectively) in Nampula Province. Between April and December 2014 the same intervention with case control approach was implemented to

validate the results of the pilot, where control sites were not included. The study in general used pre-and post-intervention design to evaluate the intervention effect.

Objective
The objective of the study was to assess whether the use of the PPSS tool, and the referral/linked services process, increased the uptake of PPFP services among women in their first year after delivery.

Selected Findings and Results

- **Baseline**: There was no systematic screening and referral system from other MCH services to FP at either the pilot or expansion sites.
- **At Pilot phase**, of the 22,196 women who brought their children for immunization and postnatal care services, 79% (17,510) were screened for FP through PPSS toll. After counselling and information session on FP, 22.2% of these women (3,894/17510*100%) reached the FP clinic through PPSS referral, of which 72.3% (2,816/3,894*100%) received a FP method either at same or other day, and 87% (2,459) received in the same day of referral.
- From the total of 6,890 new FP users registered on the three HF service statistics systems, during the study period, 2.816 were referred through PPSS tool contributing by 40,8% of the total of new FP users (2,816/6,890) during the study period.
- **At expansion phase,** from 32,357 women who brought their children for immunization and postnatal care services, 25.4% (8,232/32,357*100) were screened for FP through PPSS toll and after counselling and information session on FP, 73.8% (6,077/8,232*100) reached the FP clinic through PPSS referral. From these referred women, 88% (5,345/6,077*100) received a FP method either on the same or other day, and 80% (4,910/5,3458*100) received on the same day of referral.
- From the total of 12,535 new FP users registered during the study period at the four intervention sites, 5.3452 were referred through PPSS tool, contributing 42.6% of the total number of new FP users (5.3452/12,535) during the study period.
- Looking at volume of new FP users among intervention and control sites, results shows that while the two groups started with similar rates at baseline, during the study period, the intervention sites reached a total of 12.535 new FP users compared to 7.243 at control sites, a difference of 73% in the number of new users in the same period.

Conclusions

- Study results demonstrate that the PPSS intervention was feasible with consistent potential to increase the uptake of FP utilization by about 40% without negative effects on immunization or postnatal care services.
- Effective group or individual counselling and communication among providers and clients seemed to be the key factors associated with referral and service utilization.
- An abstract entitled “Using Postpartum Systematic Screening for Family Planning and Immunization Integration: Feasibility and opportunities for future expansion in Mozambique” was submitted, approved, and will be presented as a poster at 2015 International Conference on Family Planning that will be held in November 9–12 in Nusa Dua, Indonesia.

It is noteworthy to mention that as a result of this study, MISAU has approved the PPSS flowchart (modified PPSS tool as job aid) as part of national maternal and child health algorithms. This will further encourage the integration between family planning services with other maternal and child health services, which is also in line with the MISAU’s National Strategy for Family Planning and Contraception 2011-2015.

Implementing of Integrated Service Packages for Reproductive, Maternal, Neonatal, Child and Adolescent Health

MCHIP is supporting the MOH to conduct formative research to monitor and evaluate the implementation of the Integrated Training and Services Packages for Reproductive, Maternal, Newborn, Child and Adolescent (RMNCA) Health. The program's aim is to implement rapid quality improvement cycles
(i.e., assess, identify, prioritize, plan, act, evaluate). A feasibility study that was conducted in Zambézia and Inhambane in 2012 was followed by formative research conducted over a six-month period to improve integration of RMNCA Health.

Objective

The objective of the study was to evaluate the general conditions and level of readiness at selected health facilities for implementing integrated MNCH services, taking into consideration opinions of key informants, conditions at different levels of service provision, and the level of client satisfaction with the provision of integrated facility-based MNCH and RH services.

Based on the findings of the first round of the study and related recommendations, MCHIP worked with the MOH to draft a proposed intervention for the study. The intervention tested the implementation of an Integrated MNCH Preventive Consultations Booking System to determine its effect on improved integration of services. The study facilities (five in Zambézia and five in Inhambane) initiated the implementation of the appointment system in September 2013. From October 2013 to April 2014, MCHIP and the MOH conducted supervision visits to the study facilities to monitor the appointment system. In May 2014, MCHIP conducted a training of data collectors, followed by fieldwork for the endline. The study report was finalized in Quarter 2 of FY15.

Key Findings and Results from the study include the following:

- In general, both clients and providers were satisfied with the approach of offering services by scheduled appointments, with 95% of clients and 86% of providers interviewed rating the intervention favorably.
- During the study implementation period, there was a general movement toward clients being scheduled for appointments for service provision (65%) versus clients attending services without appointment (45%). In Inhambane, 80% of clients attended who RH/MNCH services during the implementation period had a scheduled appointment, whereas in Zambézia 59% of clients had a scheduled appointment.
- Comparing pre- and post-intervention results, there was a significant reduction in the proportion of clients in Postpartum Services and Family Planning Services that said had waited a long time to receive services (41.2% to 21.3%, and 47.4% to 17% respectively). Additionally, there was a 100% increase in the percentage of clients in ANC services that said they had waited a short period of time to receive services.
- In the area of Child Health services, At-Risk Child Services registered a 100% increase from baseline to endline in the proportion of clients that said that had the opportunity to ask questions about the health of their child(ren) during their consultation. This result suggests that, in this particular service, the provider may have had more time to interact with the client and more time to respond to their questions. On the other hand, in Maternal Health Services, this indicator showed an increase of only 10%.
- In addition to the reduction in the waiting time experienced by clients, there was a positive increase in the number of services received by clients during a single visit. On average, clients received 1.6 services during a single visit at endline, compared to an average of a single service at baseline. In total, 44% of clients served during the implementation period received two or more services during a single visit to the health facility.

- The implementation of the appointment scheduling system did not show a negative effect on the overall volume of activities carried out at the health facility.

Conclusion

- The study results indicate that scheduling of integrated appointments for services allows not only better organization of consultations for the provider and a reduced waiting time for clients, but also presents a viable opportunity to increase the number MCH services that clients receive in a single visit. The observation of the appointment schedule also provided an opportunity to see how services could be more effectively organized to serve a wider client population. In all of the health facilities involved in the study, appointments were scheduled only until 12:00. However, clients stated an interest in also having the option to schedule appointments in the afternoon. The reasons for the restriction in offering services in the afternoon were not explored during this study; however, this information will be important to collect in future studies to explore how to increase access to the target population with essential services.
- This operational research was exploratory in nature, and the sample did not follow the criteria of representativeness in the number of provinces and health facilities included in the study. The results should be regarded as an indication of possible benefits of implementing a specific approach to service delivery though integrated appointment scheduling at 10 health facilities in two provinces. However, the lessons learned through the implementation of this study can serve as useful information to guide the design of a more comprehensive study which could be used to scale up the expansion of this intervention, especially if there is an interest in incorporating male involvement into MCH services.
- An appointment book was developed as a result of the study.
- The Ministry of health has scheduled the presentation of the study results for SWAP meeting in August to share with other stakeholders.
- An abstract entitled "TESTAGEM DA MARCAÇÃO INTEGRADA DA CONSULTA NAS PROVÍNCIAS DE INHAMBANE E ZAMBÉZIA EM MOÇAMBIQUE" was approved for Oral Presentation on the XV International Conference of the National Institute of Health that will be held in September 2015 in Maputo.

4. Community Study on Knowledge, Attitudes and Practices (KAP) Related to Care during pregnancy, birth, postpartum and care for newborns and children up to 2 years old in Gaza, Nampula and Tete Provinces, Mozambique

In addition to its work towards the creation of a favorable national policy environment and strengthening the quality of care at health facilities around the country, MCHIP also sought to build greater individual and community ownership, collective action for improved maternal, newborn and child health and promote behavior change through its community engagement component. To better understand the impact of MCHIP's community work and the current status of reproductive health practices, MCHIP supported the MOH to conduct a community KAP study.

Objectives

The specific aim of the study was to obtain information about the knowledge, attitudes and practices related to pregnancy, delivery, the postpartum, newborn and infant health in the communities in which MCHIP was involved in community engagement activities. The study was intended to serve as an opportunity for MCHIP to assess its current community engagement approaches, synthesize lessons learned, and identify ways to incorporate lessons into the design of any future MNCH project in the country.

The study included six districts: Nampula city and Angoche in Nampula; Tete city and Mutarara in Tete province; and Xa-xai city and Mandlakaze in Gaza). A total of *65 clusters* were purposefuly selected, from which, 1668 households were randomly selected (24 in urban areas and 28 in rural areas) and 1300 Women aged between 18 and 49 with child up to 24 months age and 975 Children of these households were included. Data analysis and report writing was completed in September 2014, with the final report completed in October 2014 and summited to the MOH.

Key Findings and Results from the study include the following:

- *Immunization against tetanus* - about 58% (n = 507) of women interviewed were protected. Among women who claim to have participated in an education session for women and children health, 64% received at least two doses of TT against 54% of women who did not participate in such sessions. Tete district and Mandlakaze recorded the higher rate (70%), while the two districts of Nampula Province had the lowest (50%).
- *Awareness of danger signs during pregnancy* - It was found that 54% of women surveyed could spontaneously mention at least *two* danger signs and 95% when prompted. There was a big difference between the proportion of women who knew the danger signs in Nampula province (about 90%) and the remaining two provinces (30% in Tete and 34% in Gaza). Looking at district level, a large divergence was noted between Mutarara district and Nampula city. In Mutarara 22% could name two signs of pregnancy, spontaneously, but 92% recognized when prompted and in Nampula City the divergence was small with 89% and 99% respectively.
- *Antenatal Care (ANC)* - the majority of women (98%) reported that had at least one antenatal care consultation during their last pregnancy and 68% (n = 598) four or more antenatal consultations. Even so, only 37% at attended with their partner/husband;
- *Preparation of birth plan* - It was found that 97% of women claimed that had prepared at least two elements of the birth plan in their last or current pregnancy. Choose the facility where the birth would take place and one's delivery partner were the most nominated as completed elements, with 80% and 99% respectively. "Knowing where to find additional money, if it were necessary, the least completed, even though the majority of women (67%) involved their partner/husband in the preparation of the birth preparedness plan.
- *Assistance in childbirth* - Of the total surveyed, about 87% said that they labor took place in a health facility, 12% at home and the other gave birth "on the way to the facility". No major differences were observed in terms of proportion of institutional deliveries among the provinces ranging from 84 to 88%. The cities of Tete and Nampula had the highest proportions of deliveries at health facility. Immediately afterwards, with a very close percentage, comes the district of Mandlakaze, despite its much more rural characteristics.
- *Newborn Care*- interviewees responsible for 287 children under 6 months old were asked about the number of appointments that the child had during their first month of life; 32% didn't have any appointment; 41% had one, 15% had two and 9% had three consultations. Among children 0-6 months of age, percentage of those who were exclusively breastfeeding was 79% (n = 262).
- *Family planning and contraception* - 30% (n = 436) of women indicated that they were using a contraceptive method and 43% (n = 617) reported having used a contraceptive method during the
  12 months preceding the study. When comparing the rate by district, Mandlakaze in Gaza had the highest rate (57%) and Mutarara district in Tete the lowest (24%). In addition, the majority of surveyed women (70%) said that they had been informed about the side effects of their family planning method. Even so, discontinuation rates were high at 37% in the MCHIP sites. Next to the women herself, male partners were reported as the biggest influencers in the decision whether to use family planning.

- *Malaria* - Few of the total women interviewed responded about malaria. From 105 who responded,
  85 (62%) reported sleeping under a mosquito net on the night before the survey. In regard to children up to 24 months, 78% of children slept under a mosquito net in the night before the survey.
- *HIV/AIDS* - Even though, the participants demonstrated high usage of HIV counseling and testing services (+95%), only 41% they discussed their test results with their partners.
- *Community work* - The target of the project was to reach 20%. Of the women surveyed, 27% indicated that received a visit from a community agent in the previous 12 months and 21% reported having participated in a session of health education for women and children promoted by the community agent. Xai-Xai district had the highest proportion of women who claims to have received a visit from a community worker (43%), while the percentage in other districts was 25%.

Conclusion

The results of the study are very encouraging when examined against other national and provincial data such as the findings of the 2011 DHS (though it should be noted that these studies are not comparable due to differences in methodology). Gender emerged as an important consideration in the study. The results demonstrate the need for the increased involvement of male partners to increase access to pregnancy-related care and to family planning services, and to give men a meaningful role in the supporting women and children's health. The study revealed that women's participation in the MCHIP-supported health promotion activities was weak. As a result, the study recommends incentivizing women's participation in the community health committees and co-management committees as well as the health promotion activities they sponsor.

An abstract based on the results of this study was approved for Poster presentation on the XV International Conference of the National Institute of Health to be held in September 2015 in Maputo.

Annex 4: Key Rehabilitative Works Conducted With MCHIP Support

1.	Macurungo Health Center (Sofala)
	• Mounting of dividers and curtains to create conditions for privacy in the delivery rooms • Placement of ceiling fans in the delivery and postpartum rooms • Repair of the ceiling in the postpartum room and in the ward • Painting of windows (opaque) to improve privacy of patients • Painting of walls • Review and repair of electricity throughout the maternity ward • Placement of signs to indicate the rooms of the maternity • Repair of bathrooms • Placement of wall hooks to display flowcharts/posters and data • Repair of doors, replacement of locks
2.	**Xai-Xai Provincial Hospital (Gaza)**
	• Repair of wooden frameworks replacement of broken glass, painting of glass (for privacy), replacing door locks • Repair of electrical installations (mounting of ceiling fans, lighting, switches, bulbs, sockets, etc.) • Placement of tiles on work stations and replacement of damaged taps • Small plumbing repairs, replacement of toilets/sinks • Painting of walls and trim • Creation of compartments for privacy of patients in the maternity ward, using stainless steel tubes for the box structure and placement of curtains • Placement of identification plaques in the various areas of the hospital (admission, labor ward, etc.)
3.	**25 de Setembro Health Center (Nampula)**
	• Replacement of floor tiles • Replacement of wall tiles • General painting of interior and exterior, including doors and windows • Repair of doors and placement of new locks on interior doors • Painting of window panes (for increased privacy in maternity ward) • Repair of the electrical installations, including placement of new lighting • Review the interior plumbing • Reconstruction of inspection boxes and replacement of exterior sewage pipe • Replacement of toilets in WCs • Replacement of tile on work stations, and mounting of new sinks, taps and accessories • Placement of vents in the labor, delivery and postpartum wards • Rehabilitation of the canopy • Repair and subsequent painting of “false” ceiling/roof • Execution of boxes (partitions), including tubes and rods of stainless steel and curtains • Repair of leaks • Reconstruction of the exterior access of the building
4.	**Tete Provincial Hospital (Tete)**
	• Installation of sinks and running water in the various sections of the maternity ward • Repair of bathrooms • Repair of counters and sinks in sterilization room • Repair and replacement of windows and placement of ceiling fans to improve circulation
5.	**José Macamo General Hospital (Maputo)**
	• Repair of the infiltration in the corridor above the maternity • Placement of ceiling fans in various key points in the maternity ward to improve air circulation • Substitution of floorboard • Installation of new curtains for privacy • Masonry work • Mounting of dividers • Replacing tiles on the walls of work station • Painting in the admission area • Replacement of ceiling with plasterboard panels

6.	Chimoio Provincial Hospital (Manica)
	• Removal and replacement of countertops and sinks in admission areas, observation room, gynecological emergencies, labor and delivery rooms, medical consultation room, and storage and waste areas • Removal and replacement of sinks, faucets, and toilets • Repair of plumbing and tubes, and cleaning of drains to ensure reliable water supply in the maternity • Repair of doors and windows • Creation of a station for newborn resuscitation • Repair of infiltrations • Repair and plastering of walls • Replacement of floors with vinyl flooring • Replacement/repair of tiling behind sinks • Painting of interior and exterior walls • Creation of individual compartments with curtains in the labor and delivery ward • Review and repair of electrical system to ensure consistent electrical supply in the maternity
7.	Vilankulos Rural Hospital (Inhambane)
	• Removal and replacement of countertops and sinks in pantry areas, admission room, and labor and delivery rooms • Removal and replacement of sinks, faucets, and toilets • Repair of plumbing and tubes, cleaning of drains to ensure reliable water supply in the maternity • Repair of doors and windows • Repair and plastering of walls • Repair of floors with ceramic tiles • Placement of chairs in waiting areas • Painting of interior and exterior walls • Creation of individual compartments with curtains in the labor and delivery ward • Review and repair of electrical system to ensure consistent electrical supply in the maternity
8.	Nacala Porto District Hospital (Nampula)
	• Rehabilitation of the waiting area to include a covered porch area • Rehabilitation of washrooms • Repair of electrical wiring the maternity • Placement of curtains • Painting of windows for privacy • Mounting of “boxes”/compartments for women and their companions to improve privacy
9.	Matola II Health Center (Maputo Province)
	• Removal and replacement of countertops and sinks in admission areas, gynecological emergencies, labor and delivery rooms, storage, pantry, cleaning room and waste areas • Removal and replacement of sinks, faucets, and toilets • Repair of plumbing and tubes, cleaning of drains, to ensure reliable water supply in the maternity • Replacement/repair of doors and windows • Creation of a station for newborn resuscitation • Repair of infiltrations • Repair and plastering of walls • Replacement of floors with vinyl flooring • Replacement/repair of tiling behind sinks and replacement of pavement tiles in cloakrooms • Painting of interior and exterior walls • Creation of individual compartments with curtains in the labor and delivery ward • Review and repair of electrical system to ensure consistent electrical supply in the maternity

Annex 5: Performance Management Plan Indicator Matrix

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Objective 1: Work with the MOH and all USG partners to create an enabling environment at the national level to provide high-impact interventions for integrated MNCH/RH/FP services in the community and Health Facilities							
Number of (national) policies drafted with USG support*	8	3	4	5	21	20	• TORs – Community Health Committees • TORs – Co-Management Committees • National Malaria Policy • National Malaria Plan – 2012 -2016 • National Malaria M&E Plan – 2012 – 2016 • National Norms for Well-Child and At-Risk Child • National SRH Policy • Graded Recognition Process for MMI and CECAP • FP Supervision Guide • Guidelines for Integration of FP into Other Services • National Strategy for Prevention of PPH in the Community • Guide for National Health Weeks • National Norms for Delivery and Newborn Care and Obstetric and Neonatal Complications • National Norms for Prenatal, Postpartum and Postnatal Care • National FP Norms • Acceleration Plan to Increase Utilization of FP Services and Modern Methods of Contraception 2014-2017 • National Plan for Elimination of Vertical Transmission of HIV • Operational Plan to Accelerate the Reduction of Maternal, Neonatal, and Child Mortality • RMNCH Flowcharts • National Community Mobilization Manual

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Percent of target health facilities utilizing updated/revised MOH forms and registers	100%	100% (97)	100% (124) for MMI and 100% (129) for CECAP	100% (125/125) for MMI and 100% (129/129) for CECAP	80% (98) of 122 MMI HF 80% (78) of 96 CECAP HF	100% (125/125) for MMI and 100% (129/129) for CECAP	
Percent of target health facilities analyzing and displaying data	100%	95.1%	-	-	37 (30%) of 122 IMM HF 29 (30%) of 96 CECAP HF		MCHIP worked with health facility staff and management during M&E and MMI TA visits to build capacity for data analysis and use of data for decision-making. However, the project did not have a systematic way of recording which health facilities have met this indicator on a quarterly basis. MCSP will include a different data quality/use indicator in the future to avoid this challenge.
Number of community groups developed and implementing action plans addressing MNCH issues with MCHIP support	0	216	148	309	150	309	"Community Group" is defined as a Community Health Committee. This indicator is the same as the one listed above.
Percentage of communities using data for decision making to improve MNCH	0	74% (160/216)	95.8% (296/309)	95.8% (296/309)	60%	95.8%	During Oct-Dec 14 all 309 CHCs have been using data for decision making, but as the program only worked in 10 Districts in Jan-Mar 15, during which time 83 of the 108 CHCs supported by MCSP used data for decision making. LOP total is the sum FY13 and FY 14, as the total of FY15 (83) has already been counted in the FY14 data. (
Objective 2: Support efforts of the MOH to increase national coverage of high impact interventions for MNCH through the expansion of the MMI, in collaboration with USG partners in all provinces							
Direct Obstetric Case Fatality Rate**	1.3%	1.6%	1.7%	1.4%	Reduced 10% from baseline in all MMI facilities	1,4%	
Number and Percentage of MCHIP-supported health facilities demonstrating improved compliance with quality standards at least 50% compared to base line	24%	43.1% (44/102)	45.5% (56/124)	71,2% (89/125)	61 (50%) of 122 MMI HF	71,2% (89/125)	

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Number and percentage of health facilities that reach 80% achievement of all standards	3	7% (7/102)	18.5% (23/124)	32% (40/125)	26 (21.3% of 122 MMI HF)	32% (40/125)	
Number and percentage of pregnant women receiving at least two doses of IPTp in USG-assisted health facilities*****	34%	40.8% (98,028/ 239,947)	45.0% (120,274/ 267,362)	54.8% (100,537/ 183,623)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	54.8%	
Number of postpartum/newborn visits within 3 days of birth in USG-assisted programs*	56,206 postpartum / newborn visits April – December 2011) 44,051 postpartum / newborn visits Jan – Sept 2012	39,244	95,359	68,854	MCHIP Intensive HFs: 80% Other MMI HFs: 40% EOP: 258,325	303,714	
Number of antenatal (ANC) care visits by skilled providers from USG-assisted facilities*	570,749	720,400	818,798	546,146	MCHIP Intensive HFs: 582,922 Other MMI HFs: 1,082,569 EOP: 1,665,491	2,656,093	
Number of deliveries with a skilled birth attendant (SBA) in USG-assisted programs*	138,769	237,266	252,357	143,093	EOP: 1,033,304 MCHIP Intensive HFs: 465,632 Other MMI HFs: 567,671	771,485	
Percentage of women receiving active management of the third stage of labor (AMSTL) through USG-supported programs	83.0%	100% (200,436/ 200,635)	98.5% (216,242/ 219,503)	99.7% (125,385/ 125,812)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	99.2% (542063/54 5950)	

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Number and percentage of women with pre-eclampsia/ eclampsia treated with MgSO4 per protocol	67.1% (4,627/ 6,894)	64.4% (3,716/ 8,008)	48.4% (4,466/ 9,224)	51.8% (2,516/ 4,861)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	52.9% (15,325/ 28,987)	
Percentage of health facilities with at least one provider trained and equipped for neonatal resuscitation****	100%	100% (102/102)	100% (124/124)	100% (125/125)	61 (50%) of 122 MMI HF	100% (125/125)	
Fresh Stillbirth Rate	-	-	8.1%	11,4%	Reduced 10% from baseline in all MMI facilities	9,8%*	
Percentage of deliveries with partograph completely filled	53.3%	71% (167,307/ 237,266)	71.5% (180,534/ 252,520)	72,5% (103,800/ 143,093)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	71.3% (451,641/6 32,879)	
Percentage of newborns with skin-to-skin contact immediately after birth	82.9%	86% (194,982/ 227,933)	86.0% (211,533/ 245,999)	87.5% (121,487/ 138,892)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	86.2% (528,002/6 12,824)	
Percentage of newborns breastfed within one hour of birth	81.6%	85% (192,884/ 227,933)	86.5% (212,820/ 245,999)	88.2% (122,535/ 138,892)	MCHIP Intensive HFs: 80% Other MMI HFs: 40%	86.2% (528,239/6 12,824)	
Percent of pregnant women and children who slept under LLIN night before	Data not available	*	-	-	Not in LOP PMP	Not in LOP PMP	
Percent of household with a pregnant woman and/or child less than 5 years of age with at least one ITN	Data not available	*	-	-	Not in LOP PMP	Not in LOP PMP	

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Number of services outlet providing counseling and testing according to national and international standards (for pregnant women)***	80	102	124	125	Not in LOP PMP	125	
Number and percentage of pregnant women who received HIV counseling and testing for PMTCT and received their test results***	92% (142,770/ 155,091)	98.2% (261,796/ 266,474	99.1% (305,718/ 416,673)	99.4% (204,291/ 205,569)	MCHIP Intensive HFs: 80% Other MMI HFs: 40% EOP: 832,745	87,6% (914,575/ 1,043,807)	
Number of HIV-positive pregnant women who received antiretroviral therapy to reduce risk of mother-to-child transmission	15,901 (Jan – Sept 2012 using new HIS)	48,694	22,147	22,816	Total: 107,924 (54% of all ANC1 clients, assuming 12% HIV prevalence)	109,558	
Number and percentage of KMC sites established/ operational, by type of facility	11	-	19	36	34 (MMI HF with intensive MCHIP support)	36	
Proportion of babies who graduated from KMC[16]	Data not available	-	95.9% (401/418)	90.9% (469/516)	60%	92,9%	
Number of Individuals reached through USG-funded community health activities (HIV/AIDS, Malaria, FP/RH)	3,511	815,747	356,367	184,640	1,108,253	1,360,265	
Number of Community Health Agents trained in providing MCH/FP including PPFP/CECAP prevention messages at community level	0	228	260	304	310	792	

[16] The current HMIS registers do not collect this information; with MCHIP support, the new registers have been revised to collect this data. It is expected that the new registers will be rolled out in the next year.

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Number of Co-management Committees formed/strengthened with active participation of community & health providers	0	80	33	33	80	80	A total of 47 CMCs were formed in non-intensive focus areas and 33 CMCs were formed in intensive-focus areas. The 33 intensive-focus CMCs were provided with ongoing support through the life of the project.
Number of Community support Groups Developed and Supported with assistance from USG	73	289 (cumulative)	309 (cumulative)	0	330	309	Total number of Community Health Committees formed with MCHIP support
Objective 3: Support the MOH to strengthen the development of human resources for the provision of basic health services and comprehensive Emergency Obstetric and Neonatal Care (EmONC) and RH							
Number of health workers who successfully complete an in-service training program	1,779	1,203	11,311	329	1,500*****	4,622	
Total number of health workers trained to deliver ART services, according to national and/ or international standards (includes PMTCT+)*	378	93	253	0	60 trainers	724	
Number of people trained in maternal/newborn health through USG-supported programs*	378	393	942	268	940*****	1,981	Includes MMI, HBB, KMC, and fistula trainings
Number of people trained in malaria treatment or prevention with USG funds*	1,384	393	158	0	940*****	1,935	Includes 629 trained in MIP through the MMI and 1,306 trained in Malaria Case Management
Number of people trained in child health and nutrition through USG-supported health area programs*	0	280	0	0	100	280	Includes TATE and CCS/CCR trainings
Number of people trained in strategic information (includes M&E, surveillance, and/ or HMIS)**	1,384	393	183	0	940*****	1,960	Includes MMI, malaria case management, and M&E OJT (MMI and MCM have M&E modules)

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Total number of individuals trained to provide cervical cancer prevention practices at primary level (VIA & cryotherapy) and at the referral level (colposcopy, biopsy and LEEP)*	310	173	205	61	239	749	
Objective 4: Support the expansion of activities for prevention of cervical and breast cancer using the single-visit approach and assisting in the implementation of the MOH's *"Action Plan for the Strengthening of and Expansion of Services for Control of Cervical and Breast Cancer"*							
Number and percentage of MCHIP-supported health facilities demonstrating improvement of SBM-R standards at least 50% compared to base line	0	1 (1%)	7/128 (5.5%)	8,5% (11/129)	48 (50%) of 96 CECAP HF	8,5% (11/129)	CECAP facilities are initiating the SBM-R quality improvement process and few facilities have completed multiple internal measurements
Number and percentage of health facilities that reach 80% achievement of all CECAP standards	2	7.2% (7/97)	8.6% (11/128)	6,2% (8/129)	33 (34%) of 96 CECAP HF	6,2% (8/129)	CECAP facilities are initiating the SBM-R quality improvement process and few facilities have completed multiple internal measurements
Total number of service outlets providing HIV-related palliative care[17]	75	97	129	134	96 (33 with intensive MCHIP support)	134	
Number of women who received VIA screening	39,457	56,255	85,610	57,921	112,586 (57% of women to be reached at sites with intensive MCHIP support)	238,613	
Total number of individuals provided with HIV-related palliative care (PEPFAR), disaggregated by HIV status* (Alias: Number of women who received VIA screening)	39,457	56,255	85,610	57,291	112,586 (57% of women to be reached at sites with intensive MCHIP support)	238,613	
Number of women with positive VIA result	2,985	3,919	6,679	3,715	Estimated 8% positive VIA results	17,298	

[17] Cervical cancer screening and treatment fall under PEPFAR's definition of "HIV-related palliative care"

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Percentage of women screened with VIA with a positive result	7,6	7.0%	7.8%	6.5%	Estimated 8% positive VIA results	7.2%	
Number of screened women with VIA positive results treated with cryotherapy on the same day as screening	1,538	2,311	3,770	2,350	Estimated 80% of all VIA + results	9,696	
Percentage of eligible cervical cancer screened women with VIA positive results receiving immediate cryotherapy	63.2%	76.8%	74.7%	76.1%	MCHIP Intensive HFs: 80% Other CECAP HFs: 40%	76.7%% cumulative	Eligible for cryotherapy = 9,969 VIA positive/(VIA positive (17,298) – Lesions >75% (2,294) – Cervical Cancer Suspicion (1,999))
Number of VIA positive women receiving LEEP for treatment of large lesions		-	-	-	-	-	
Percentage of VIA+ women receiving LEEP or colposcopy for treatment of large lesions	Data not available	-	-	-	1% of VIA+ women)	-	
Objective 5: Assist in the development, implementation, and management of FP/RH services for selected health facilities							
Number of MCHIP-supported service delivery points providing integrated FP counseling or services**	75	128	143	143	33 health facilities with intensive MCHIP support (34% of the total sites in the MOH expansion plan)	143	
Couple Year Protection (CYP) in USG-supported programs	40,603 (Jan – Sept 2012 from the 54 CECAP/FP facilities reporting complete data for the period	148,628	276,806	212,226	TBD after baseline in CECAP HF	678,263	

Indicator	YEAR 1 RESULTS Apr 2011-Sep 2012	YEAR 2 RESULTS Oct 2012-Sep 2013	YEAR 3 RESULTS Oct 2013-Sep 2014	Year 4 RESULTS Oct 2014-April 2015	Life of Project Targets	Life of Project Results	Comments
Number and percentage of MCHIP-supported health facilities demonstrating improved compliance with FP/RH standards	Data not available (CECAP/FP facilities have only completed baseline measure-ment)	-	-	-	33 (34%) of 96 CECAP HF		FP standards will be implemented starting in the MCSP bridge period.
Number of people trained in FP/RH, including PPFP*****	773	323	407	61	940	1,564	Includes 629 trained in FP through the MMI; 749 trained in implants/interval IUD through CECAP/FP integrated trainings; 117 trained in PP/PA IUCD; and 69 trained in implants
Number of women who received integrated package of FP counseling and cervical and breast cancer screening	236,723	601,681	878,730	639,377	137,280	2,356,511	First and repeat visits
Objective 7: Partnerships developed and strengthened (MOH and all USG partners) at the national level to promote high impact integrated MNCH services							
Number of target partners staff trained in state-of-the-art community mobilization tools/methods/approaches	285	22	NA	0	204	307	
Number of target partners trained in modular integrated in-service training package for MNCH and SRH	0	31	0	0	-	31	
Objective 8: Work with the MOH and all USG partners to define, implement and monitor standards of care at the point of service in essential areas							
Number of target technical areas for which performance standards have been developed and approved	3	0	1	2	6	6	IMCI, Nutrition, TB, MMI, CECAP, FP
Number of staff trained in quality of care standards and guidelines	534	212	333	0	100	1,079	

Annex 6: Success Story

A GOOD FATHER IS A FATHER WHO PARTICIPATES

A story of partner involvement in Nampula, Mozambique
By: Denise Alves

Adelino Agostino is an exemplary father-figure in his community, and he's not afraid to share it. *"I am Adelino Agostino. I am 23 years old and I am a farmer. I live with my wife and 3 children in Mitemane village in Nampula province of Mozambique. I am very proud to be an active father for my children. I know that being a father is not just providing my family with money and food but it is most important to be supporting my wife and children's health."* One of MCHIP's program objectives in Mozambique is to support the reduction of maternal, neonatal and child mortality through the incorporation of active partner involvement in both mother/child's life cycle. Because getting health care entails expenditures—even if only for transport—many women feel the pressure to forego care, including antenatal care (ANC) or a facility-based delivery. Delays in deciding to seek care during the antenatal, delivery or postpartum periods can be mitigated through early and continuous involvement of male partners[18].

In Adelino's case, he heard MCHIP's message loud and clear during a community health worker's session. *"After the community lecture, my wife didn't say anything. I told her that I wanted to go with her to the baby's next doctor appointment. She was 6 months pregnant with our 3rd baby. I could see from her face that she was very happy with the news."*

During his wife's next ANC appointment, the attending nurse praised the couple for Adelino's participation. The nurse also commented that she'd invited Adelino to previous appointments, but that he'd never attended. Although his wife had never relayed these messages on to him, Adelino remained quiet. Instead he took advantage of the consultation and the nurse's suggestion to complete an HIV test, which his wife had completed at a previous appointment. Adelino was tested and learned that his HIV status was negative.

Adelino recalls that the nurse thanked him at the end of the visit and encouraged him to attend future appointments with his wife. She also reminded him to be vigilant of his wife's health, explaining the warning signs of complicated labor, and reiterating that a woman should deliver at the health facility.

Only later, on their walk home from the appointment, did Adelino ask his wife why she hadn't told him about previous ANC appointments. His wife shared that she was afraid that he'd say no, or that he would say that the hospital is not a place for a man. Adelino hugged her and told her that *"The child was made by two persons and should be accompanied by both mother and father. I am the chief of the family and I must know about the health condition of my son and family."*

[18] Mangeni J et al. (2013). Male Involvement in Maternal Health Care as a Determinant of Utilization of Skilled Birth Attendants in Kenya. ICF/DHS Working Paper, 93.

At the time of their son's birth, Adelino and his wife went together to the health center for her delivery. Today, Jerry is 1 year and 1 month, and growing. Adelino reminds us that sometimes he still takes his son for weigh-ins, when his wife is busy and unable to go.