

MCHIP Rwanda End-of-Project Report

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Maternal and Child Health Integrated Program (MCHIP) Rwanda

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

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

Country Summary: Rwanda



Selected Health and Demographic Data for Rwanda

GDP per capita (USD)	521.71
Total population	10,537,222
Maternal mortality ratio (deaths/100,000 LV)	487
Skilled birth attendant coverage (%)	69
Antenatal care, 4+ visits (%)	35
Neonatal mortality rate (deaths/1,000 LV)	27
Infant mortality rate (deaths/1,000 LV)	50
Under-five mortality (deaths/1,000 LV)	76
Malaria prevalence in children under 5 years	1.4
HIV prevalence rate (%)	3
Children under five sleeping under LLIN	70
Modern contraceptive prevalence rate	45

Sources: World Bank, Rwanda 2010 Demographic and Health Survey; Rwanda 2012 population and housing census, WHO, UNICEF.
*UNICEF <5 mortality ranking (1 = highest mortality rate)

Major Activities

- Strengthen the country's malaria program at national, facility, and community levels
- Improve access to quality care through strengthening the minimum package of maternal, newborn, and child health services at facilities and in communities
- Develop a national sub-strategy for behavior change communication
- Strengthen family planning program implementation and policy update
- Conduct studies on the quality of maternal and newborn health care, as well as studies on postabortion care, malaria in pregnancy, and postpartum hemorrhage
- Introduce rotavirus vaccine
- Support the White Ribbon Alliance for Safe Motherhood program
- Strengthen pre-service education

Program Dates	October 1, 2009–March 30, 2014					
Total Mission Funding to Date by Area	OHA: \$1,281,100 Malaria: \$5,520,799 MCH: \$3,900,001 FP: \$1,840,000 Nutrition: \$450,000 Total: \$12,991,900					
Geographic Focus	27 districts out of 30 in Rwanda					
Geographic Coverage	No. (%) of provinces	5 (100%)	No. (%) of districts	27 (90%)	No. (%) of facilities	331 HC (73%) and 33 DH (76%)
Partners	MCHIP Organizations: Jhpiego, JSI, Save the Children, Path Key Partners: USAID, MOH-MOPDD and MCH, WHO, UNICEF					
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Acronyms and Abbreviations

ACT	Artemisinin-Based Combination Therapy
AIDS	Acquired Immunodeficiency Syndrome
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
ASM	Animatrice de Santé Maternelle
BCC	Behavior Change Communication
C-IMCI	Community IMCI
CBP	Community-Based Provision
CCM	Community Case Management
CHW	Community Health Worker
EmONC	Emergency Obstetric and Newborn Care
EPI	Expanded Programme on Immunization
FANC	Focused Antenatal Care
FP	Family Planning
HBB	Helping Babies Breathe
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSSP	Health Sector Strategic Plan
iCCM	Integrated Community Case Management
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood Illnesses
ITN	Insecticide-Treated Bed Net
KMC	Kangaroo Mother Care
MCH	Maternal and Child Health
MCHIP	Maternal and Child Health Integrated Program
MIP	Malaria in Pregnancy
MNCH	Maternal, Newborn, and Child Health
MNH	Maternal and Newborn Health
MOH	Ministry of Health
MOPDD	Malaria and Other Parasitic Diseases Division
NMCP	National Malaria Control Program
PCR	Polymerase Chain Reaction
PMTCT	Prevention of Mother-to-Child Transmission [of HIV]
PPH	Postpartum Hemorrhage
RDHS	Rwanda Demographic and Health Survey
RDT	Rapid Diagnostic Test
RNP	Rwandan National Police
SBA	Skilled Birth Attendant
SIScom	Rwanda's Community Health Information System
USAID	United States Agency for International Development
USG	United States Government
VMMC	Voluntary Medical Male Circumcision
WRA	White Ribbon Alliance for Safe Motherhood

Acknowledgments

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and do not necessarily reflect the views of USAID or the United States Government.

MCHIP would like to acknowledge the close collaboration and contributions of the Ministry of Health (MOH) of Rwanda and its different department such as: the Rwanda Biomedical Center, Maternal and Child Health (MCH), and Health Management Information System throughout the life of MCHIP's projects in Rwanda. We would like to acknowledge specifically the support of Dr. Fidèle Ngabo, the Director of MOH/MCH Department, and Dr. Corine Karema, the Head of the Malaria and Other Parasitic Diseases Unit. We would also like to recognize the technical support received from:

- Dr. Ferdinand Bikorimana, MCH/MOH In-Charge of Child health
- Dr. Felix Sayinzoga, MCH/MOH In-Charge of Maternal and Newborn Health
- Mrs. Cathy Mugeni, Desk Coordinator for Community Health Workers
- Mr. Maurice Gatera, Director of Expanded Immunization Program
- Mr. Thomas Nsengiyumva, MCH/MOH, In-Charge of Family Planning
- Mrs. Mary Murebwayire, Nursing and Midwifery Schools Coordinator
- Directors of Nursing and Midwifery Schools of Rwamagana, Kibungo, Nyagatare, Byumba, and Kabgayi
- Dr. Rubanzana Wilson, Rwandan National Police (RNP) Health Director

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MCHIP would like to acknowledge with gratitude the time, expertise, and support given by the numerous institutions, stakeholders, and individuals that contributed to the successful achievements of the MCHIP program, particularly:

- The district hospital directors and mayors of supported administrative districts who tirelessly helped us achieve our goals and contributed to the outstanding reduction of child mortality in Rwanda.
- The team members of different MOH technical working groups, particularly for child health, community health, family planning, and maternal health.
- All health professional staff of the MCH department, the National Malaria Control Program, and the RNP.
- All health care workers and local leaders in MCHIP-supported districts.
- Local community members throughout the country who demonstrated enthusiasm for education and actively participated in building the system.

Several people contributed to the implementation of the MCHIP Program in Rwanda, including staff from USAID, UN agencies, international nongovernmental organizations, and private consultants.

Executive Summary

Although important achievements have been realized in maternal, newborn, and child health (MNCH) in Rwanda, there is still a need for improvement. The maternal mortality rate decreased from 750/100,000 live births in 2005 to 476/100,000 live births in 2010, while neonatal mortality decreased from 37/1000 live births in 2005 to 27/1000 live births 2010. Malaria decreased from the first cause of mortality in 2005 to the eighth cause of mortality since 2011. Continued dedication and support to address MNCH programming is necessary to sustain and replicate these successes. As outlined in Rwanda's Health Sector Strategic Plan (HSSP) II 2009–2012 and then HSSP III (2012–2018), the government of Rwanda/Ministry of Health (MOH) is committed to comprehensively addressing MNCH programming to improve health outcomes for pregnant women and their children¹.

The goal of USAID's Maternal and Child Health Integrated Program (MCHIP) in Rwanda was to assist in scaling up evidence-based, high-impact MNCH interventions, including malaria, malnutrition, family planning (FP), [immunization](#), and HIV/AIDS, thereby contributing to significant reductions in maternal, newborn and child mortality toward Millennium Development Goals 4 and 5.

MCHIP/Rwanda has been well-positioned to support Rwanda to address MNCH interventions, drawing on technical and programmatic expertise from previous global programs including BASICS, IMMBasics, and the ACCESS Program. Since 2009, with support from the U.S. Government, through both core and field support funds, MCHIP has provided technical support to the National Malaria Control Program and the Community Health Desk to accelerate efforts in malaria in pregnancy (MIP) at both the health facility and community levels, as well as in integrated community case management (iCCM).

In October 2010, MCHIP was awarded a bridge project to build upon the successes of multiple awards that were ending in Rwanda, including ACCESS, BASICS, Twubakane, and Capacity, and the beginning of a new USAID bilateral, the Family Health Project. In addition to the malaria program, the bridge project extended to more districts and more technical areas including MNCH, FP, nutrition, pre-service education, HIV/AIDS, and support to MOH entities.

MCHIP ensured an approach of no missed opportunities in supporting high-impact, evidence-based interventions as well as building the country capacity in MNCH, FP, malaria, nutrition, and HIV/AIDS, reaching a total number of 26,912 health care providers both at the facility and community level. Thanks to a strong partnership with the Rwandan MOH and other implementing partners and support from USAID, achievements were observed in the following technical areas.

MALARIA

Before MCHIP interventions, many health care providers working in antenatal care (ANC) services were not updated on the new MIP policy or trained in focused antenatal care (FANC). Therefore, MCHIP trained 895 health care providers from 20 of the 30 districts in FANC including malaria prevention, diagnosis, and treatment. This training allowed providers to focus on assessment and actions needed to make decisions and provide care for pregnant women seeking services at project-supported sites.

Due to the increase in skilled ANC providers, ANC services that were formerly only available twice a week are now offered on a daily basis. Data from formative supervision and provided in

¹ DHS 2005 and 2010

program reports show a decrease in waiting time from more than six hours to less than two hours, allowing health care providers to allocate enough time for counseling, examination, and care of pregnant women.

Community involvement is an important factor to the success of health programs because it is the conduit through which people outside of the health system receive messaging and information about available care. Buy-in from the community is essential to the proliferation of health programming. In Rwanda, each village selects a female community health worker (CHW)—called an *Animatrice de Santé Maternelle* (ASM)—to deliver services in maternal and newborn health (MNH). Using especially designed curricula, MCHIP trained 9,556 female ASMs from 11 of the 30 districts on the topics of early ANC attendance, birth preparedness, skilled birth attendance, and malaria prevention. As a result, 61,010 women in labor were accompanied by an ASM to deliver at the health facility, and 45,344 pregnant women in their first trimester were referred to ANC services in 2013. By working in 28 of 30 districts, MCHIP contributed to national trends in combating MIP where, according to Rwanda’s DHS 2010, 96% of pregnant women register for ANC in both rural and urban areas. The rate of pregnant women sleeping under a bed net at night increased from 60.3% in 2008 to 72.3% in 2010.

MCHIP also conducted a study on the prevalence of MIP in six districts. The study population included 4,037 women who were tested for malaria during ANC visits. Three different malaria tests revealed the following results: polymerase chain reaction, or PCR (5.6%), rapid diagnostic test (2.5%), and microscopy (1.6%). The study also showed that insecticide-treated bed net (ITN) users were more protected against malaria than non-users (4.9% of ITN users tested positive for malaria using the PCR, while 8.5% of non-users tested positive). As such, ITN use will continue to be highly recommended to all pregnant women during ANC visits. These results call for more vigilance regarding MIP control interventions as many cases are asymptomatic and malaria tests are not yet given routinely during ANC service provision. The next step will be to revise the current MIP policy to integrate a systematic screening and testing approach for malaria during ANC for all pregnant women at both the facility and community levels.

In Rwanda, effective case management of malaria remains a very important component of malaria control. Before 2010, malaria treatment in children under five years old was based mostly on clinical diagnosis. With decreasing malaria transmission due to ITN use, indoor residual spray, iCCM program implementation, and the introduction of artemisinin-based combination therapy (ACT), national policy shifted to parasitological confirmation prior to treatment in all age groups. At the community level as well, use of the RDT was not integrated with the Community Case Management (CCM) program. To align the CCM program with the change in national treatment policies, CHWs needed to be trained or updated. MCHIP trained and equipped 8,960 CHWs from five districts, integrating RDT into the CCM training package. After the training, CHWs conducted 64,186 RDTs between May 2011 and June 2012. Of these RDTs, 18,616 were positive and as a result patients received correct treatment based on national guidelines and protocols.

CHILD HEALTH

With the spread of antimalarial drug resistance, accurate diagnosis has become an important means of ensuring that malaria treatment is administered on the basis of confirmation of malaria parasites. Moreover, with decreasing malaria transmission and the introduction of ACT, presumption of malaria in all cases of fever could lead to an overestimation of the incidence and excessive use of the ACT. In response to these trends, MCHIP, along with other stakeholders, led the revision of the Facility Integrated Management of Childhood Illness (IMCI) training package which reduced the duration of training from 11 to six days. The training time was reduced in response to feedback from providers that the long training took them away from their jobs and increased absenteeism in the workplace. The shortened training also focuses more on the practicality of IMCI implementation and is more cost-efficient due to

the reduction of days. MCHIP trained 550 health workers from eight districts in Facility IMCI which led to higher coverage of quality facility-based IMCI services.

The findings of the latest national health assessment on the quality of malaria case management at the facility level (October 2013), which was conducted by the National Malaria Control Program with technical and financial support from MCHIP, revealed that care for sick children is available every day in 100% of health facilities and most of the health centers have basic equipment for services including functioning scales, timers, thermometers, microscopes, and hemoglobin tests. In addition, 92% of health centers had first-line antimalarial drugs and more than 60% of health workers were trained in malaria case management and RDT use. The assessment found that 96.4% of simple malaria cases were correctly managed and 100% of severe malaria cases were correctly managed at the health center level. As a follow-up to this, MCHIP supported the Malaria and Other Parasitic Diseases Division to conduct an assessment of severe malaria and malaria deaths in patients admitted to district hospitals in Rwanda. Findings from this assessment provided evidence for the MOH to revise its policy and strategies for malaria prevention and case management. According to Health Management Information System (HMIS) data, malaria incidence decreased from 83.7/1,000 in 2008 to 26/1,000 in 2011.

In general, Rwanda made great progress with iCCM interventions due to the leadership of the MOH in partnership with MCHIP and other implementing partners. The following factors have also contributed to the progress of iCCM interventions:

- High coverage of health insurance for all Rwandans (90.7%)
- Institution of performance-based financing at the community and facility level
- Capacity building and support to providers at the community and facility level
- Large distribution of ITNs free of charge and high ITN use rate of 72.3% (DHS 2010)

MATERNAL AND NEWBORN HEALTH

According to the DHS (2005) the maternal mortality ratio in Rwanda was 750 deaths/100,000 live births. Hemorrhage was listed as the leading cause of death (46.1%) in the MOH's 2008 Maternal Death Audit Report. The neonatal mortality rate was 28/1,000 and the main causes of death were prematurity, infections, and low birth weight.

The MOH, in partnership with the Rwandan development partners, calls for innovative approaches to saving lives in order to combat these staggering statistics. Among the interventions proposed, MCHIP supported the improvement of MNH programs at the national level, starting with the revision and adaptation of the Integrating Lifesaving Interventions training package, which includes Kangaroo Mother Care (KMC), Helping Babies Breathe®, active management of the third stage of labor (AMTSL), prevention of pre-eclampsia and eclampsia, and prevention of postpartum hemorrhage (PPH) at the community level using misoprostol.

As a result of MCHIP contributions—which included revision of the emergency obstetric and newborn care (EmONC) training package, training of health care providers, post-training follow-up, and provision of basic equipment—the Integrating Lifesaving Interventions training package has been used at the national level by all partners to train providers. There was a need for refresher training for many providers who, according to the MCHIP needs assessment report, had spent more than three years without any in-service training. A total of 16 providers were trained as clinical trainers for other providers using the revised training package. They, in turn, trained 261 providers on basic EmONC and 39 in comprehensive EmONC in eight districts. Due to capacity building and systems strengthening, a total of 11 district hospitals now have KMC units that function without the support of MCHIP. From October 2010 to September 2012, 7,741 low birth weight babies received KMC services.

To better understand the status of quality of care in Rwanda, in 2010 MCHIP conducted a health facility survey on quality of care for prevention and management of common maternal and newborn complications. The survey revealed the following key findings:

- All policies were in place to support AMTSL use in Rwanda at the time of the survey
- Administration of oxytocin was universal at all facilities (100%)
- 56% of providers gave oxytocin intramuscularly within three minutes following delivery
- Only 7% of deliveries observed received all components of AMTSL
- The most dramatic differences were due to delays in administration of uterotonic
- 75% of women who received iron folic acid were counseled on how to use it
- 44% of women were asked about bleeding during their current pregnancy and only 36% about bleeding in a previous pregnancy

Using the results of the survey, the MOH with MCHIP and other stakeholders drafted the following recommendations to improve MNH services in Rwanda:

- Disseminate and orient providers to in-service training in basic EmONC
- Standardize data collection tools at the facility level to collect information for the MOH and the project, including data on delivery, the status of the mother and baby, and use of uterotonic for the AMTSL
- Update the national guidelines and integrate the recent inclusion of the use of the misoprostol
- Magnesium sulfate should be made available at all health facilities that offer EmONC services
- All facilities should maintain effective procedures for procurement and distribution of key EmONC drugs and supplies (magnesium sulfate, oxytocin, and misoprostol)

The number of maternal deaths in district hospitals decreased from 211 in 2010 to 134 in 2012 according to HMIS. A decrease occurred in neonatal mortality (from 37/1,000 in 2005 to 27/1,000 in 2010), as did an increase in skilled birth attendance (from 39% in 2005 to 69% in 2010). With MCHIP targeted interventions in these areas, the project hopes that these trends will continue to improve.

To contribute to prevention of PPH, MCHIP implemented a combined approach at both facility and home deliveries, designed to increase the use of uterotonics at all births. ASMs for MNH were mobilized to counsel pregnant women and administer misoprostol at the time of delivery. The program measured uterotonic use at facility-based deliveries to provide an overall picture of uterotonic coverage for PPH prevention at all births. The program was conducted in four districts of Rwanda (Rubavu, Musanze, Gakenke, and Nyanza) from September 2012 to February 2013. The next step of this introductory study is to scale up PPH prevention using misoprostol at the community level throughout the country. The training package, guidance, job aids, and information, education and communication (IEC) materials developed by MCHIP will be used for the scale-up.

FAMILY PLANNING

MCHIP's contributions to FP improvement began with an assessment of the comprehensiveness and effectiveness of the existing FP policy developed for 2006–2010. After reviewing the results, MCHIP developed a new FP policy in 2012 that promotes integration, quality, accessibility,

voluntarism, community, male and youth participation, and women's empowerment. MCHIP operationalized the revised FP policy by strengthening health care providers' capacity to provide long-term and permanent FP methods as well as to scale up FP provision at the community level. Until May 2011, health care providers (relevant cadres) could not offer tubal ligation without general anesthesia or during a caesarian section. These methods were not only risky for women but were also not accessible due to the lack of trained providers in tubal ligation. MCHIP was the first program to initiate the training of 41 health care providers in tubal ligation under local anesthesia and 11 trainers in tubal ligation. MCHIP also trained 77 nurses in IUD insertion and 325 health care providers in all FP methods. The MOH decided to use the training package and the pool of trainers developed by MCHIP to scale up tubal ligation training nationwide.

Based on HMIS data, IUD use increased and data shows that with MCHIP support, 4,340 IUDs were inserted between 2011 and 2013 and 1,301 tubal ligations were performed between 2011 and 2013.

At the community level, a total of 177 providers were trained to become trainers of CHWs for community based provision (CBP) of FP methods. Training in CBP of FP teaches CHWs where and how to find FP products, how to use them, contraindications, and distribution methods. It also reminds CHWs how to make referrals to a health facility in case of contraindications and/or emergencies. MCHIP trained 2,798 CHWs from five of the 30 districts, subsequently validating and equipping them to provide FP methods at the community level including pills, injectables, condoms, and the Standard Days Method®.

HIV/AIDS PREVENTION

MCHIP supported HIV/AIDS prevention through two main interventions: strengthening of the MOH pediatric HIV/AIDS program, and increasing voluntary medical male circumcision (VMMC) service provision with the Rwandan National Police (RNP).

To strengthen the pediatric HIV/AIDS program, MCHIP introduced a mentorship approach in 13 out of 30 districts where trained mentors coached providers on a monthly basis to improve the quality of pediatric HIV/AIDS services and to make sure that providers were following standards.

HIV prevalence within the RNP is 0.4 percentage points lower than the national average (3%). This slightly lower rate is attributed to the intense HIV prevention activities conducted across the country and especially the IEC messages targeting policemen since 2005 through mobile voluntary counseling and testing activities. MCHIP initiated the VMMC program in four RNP health facilities by training 60 health care providers in the procedure; these providers subsequently performed 1,226 male circumcisions within six months. In Rwanda, when 44 men are circumcised, one new HIV infection is averted and \$3,304 is saved.²

For increased infection prevention management, MCHIP also procured a modern incinerator in Kayonza District. This incinerator not only serves the district hospital's waste management needs, but is also used to fill the gap in a lack of modern incinerators in the region. In addition, it generates income for the district.

OTHER AREAS SUPPORTED

² Emmanuel N et al. Voluntary Medical Male Circumcision: Modeling the Impact and Cost of Expanding Male Circumcision for HIV Prevention in Eastern and Southern Africa. PLoS Medicine. (2011)

- MCHIP provided technical assistance to the Expanded Program of Immunization (EPI) team in preparation of the rotavirus vaccine introduction as well as revising the country's comprehensive multi-year plan for immunization (cYMP) and in developing proposals for measles-rubella (MR) catch up campaign proposal. The rotavirus vaccine, MR catch up introduction plan and measles second dose (MSD) have now all been introduced into the routine immunization system.
- To fight against malnutrition at the community level, MCHIP strengthened the capacity of 1,993 community members in the establishment of family kitchen gardens. 156,601 (76%) family kitchen gardens out of 204,860 have been established in 717 villages. At the facility level, 162 health care providers have been trained to monitor and counsel in the areas of infant and child nutrition.
- To improve pre-service education, MCHIP collaborated with the Nursing and Midwifery Council to conduct a needs assessment of five nursing and midwifery schools and develop a plan for improvement. A total of 72 preceptors and teachers have been trained on Effective Teaching Skills followed by formative supervision. In addition, 282 students have been supported to complete clinical practicums.
- In partnership with the White Ribbon Alliance for Safe Motherhood, an international coalition of individuals and organizations was established to promote increased public awareness of the need to make pregnancy and childbirth safe for all women and newborns. MCHIP supported the training of 27 journalists who organized radio shows to help change public behavior on safe motherhood and FP and also increase the level of commitment from stakeholders towards this issue. Nationally, 16 media houses participated and published or aired stories; regionally, an article was published in *The New Vision* in Uganda during WRA Citizen Voice coverage of the IPU General Assembly. At the international level, the *Huffington Post* published three articles to increase awareness within the public and with stakeholders.
- MCHIP led the process and provided financial support for the development of the Social Behavior Change Communication sub-strategy for MNCH. After this sub-strategy was finalized, MCHIP initiated its implementation in the two districts of Nyabihu and Nyanza.

Introduction

Rwanda is a landlocked country situated in central Africa with a population of 10.5 million, living within an area of 26,338 square kilometers. With 416 people per square kilometer, it is the most densely populated country in Africa. Although important achievements have been realized in maternal, newborn and child health (MNCH), there is still a need for improvement. According to the 2010 Rwandan Demographic and Health Survey (RDHS), the country's maternal mortality rate decreased from 750/100,000 live births in 2005 to 476/100,000 live births in 2010, while neonatal mortality decreased from 37/1,000 live births in 2005 to 27 per 1,000 live births 2010. Malaria went from the first cause of mortality in 2005 to eighth cause of mortality since 2011.

Continued dedication and support to address MNCH programming is necessary to sustain and replicate these successes. As outlined in Rwanda's Health Sector Strategic Plan (HSSP) II 2009–2012 and then HSSP III (2012–2018), the government of Rwanda/Ministry of Health (MOH) is committed to comprehensively addressing MNCH programs to improve health outcomes for pregnant women and their children.

In 2009, at the end of the ACCESS Program led by Jhpiego, the President's Malaria Initiative (PMI) requested the Maternal and Child Health Integrated Program (MCHIP) to expand efforts implemented under the ACCESS Program. Specifically, MCHIP supported the national strategy for prevention and treatment of malaria in pregnancy (MIP), including a change in the national policy on intermittent preventive treatment for pregnant women and the involvement of community health workers (CHWs) in prevention of MIP. With the MOH's Maternal and Child Health (MCH) Desk and National Malaria Control Program (NMCP), MCHIP and PMI also organized training and supervision of CHWs and implementation of the CHW package, focusing on the linkage between the CHWs and the health facilities.

In October 2010, MCHIP was awarded a bridge project to build on the successes of multiple awards that were ending, including ACCESS, BASICS, Twubakane, and Capacity in Rwanda, and the beginning of a new USAID bilateral, the Family Health Project. MCHIP's bridge interventions were focused on:

1. Improving access to high-quality care, specifically by strengthening the minimum package of MNCH services at facilities and in communities
2. Establishing the foundation for demand creation through the development of a national sub-strategy for behavior change communication (BCC)
3. Strengthening data collection and the management process/system
4. Improving capacity within the nursing council to elevate education for nurses

From October 2012 to March 2014, MCHIP-Rwanda provided support to the MOH in the following six technical and programmatic areas: evaluation of community case management of malaria, support to a study on death audits resulting from malaria, a malaria impact evaluation, continuation of an MIP study, support for malaria program documentation, and introduction of misoprostol for the prevention of postpartum hemorrhage (PPH).

The goal of MCHIP is to assist in scaling up evidence-based, high-impact MNCH interventions, including malaria, malnutrition, family planning (FP), and HIV/AIDS, thereby contributing to significant reductions in maternal, newborn, and child mortality toward Millennium Development Goals 4 and 5. Based on the work plan developed, the program objectives were to:

MALARIA

- Support the NMCP in malaria prevention and case management
- Strengthen MIP interventions through reinforcement of focused antenatal care (FANC) services and community involvement
- Strengthen malaria case management at facility and community level by scaling up Integrated Community Case Management (iCCM), including integration of rapid diagnostic tests (RDTs)

CHILD HEALTH

- Strengthen Integrated Management of Childhood Illness (IMCI) at facility level

MATERNAL AND NEWBORN HEALTH

- Strengthen the capacity of providers, to effectively deliver MIP/MNCH services according to national norms and protocols
- Revise and adapt the training package to integrate key missing lifesaving interventions such as Kangaroo Mother Care (KMC), Helping Babies Breathe® (HBB), and active management of the third stage of labor (AMTSL)

FAMILY PLANNING

- Develop a new FP policy for Rwanda
- Strengthen the capacity of health care providers in counseling and provision of FP methods
- Scale up community-based provision (CBP) of FP methods in five districts

HIV/AIDS PREVENTION

- Assist the MOH to increase early identification, management, and referral of HIV-infected infants through the integration of pediatric HIV and prevention of mother-to-child transmission (PMTCT) services at all entry points to care
- Support introduction of voluntary medical male circumcision (VMMC) in Rwandan National Police (RNP) health services
- Procure incinerator for waste management to the MOH

OTHER AREAS SUPPORTED

- Support introduction of rotavirus vaccine
- Design and implement a national BCC sub-strategy for all MNCH components
- Support the nursing council and schools to complete initiatives previously started
- Support the Rwanda White Ribbon Alliance for Safe Motherhood (WRA)
- Strengthen nutrition drives through the establishment of family kitchen gardens

INTERVENTIONS AND COVERAGE

Table 1. Trained Health Care Providers under MCHIP from October 2009 to March 2014

TECHNICAL AREAS	# OF PEOPLE TRAINED				TOTAL
	TRAINERS DEVELOPED		HEALTH PROVIDERS TRAINED		
	FEMALE	MALE	FEMALE	MALE	
FANC	23	10	584	205	822
Child Health	15	6	360	263	644
MNH	21	23	283	167	494
Pre-service education	49	22	0	0	71
Family Planning	0	0	265	178	443
HIV/AIDS	8	7	19	41	75
iCCM CHWs (Binomes)	196	171	5,582	3,861	9,810
MNH CHWs (ASM)	268	176	8,743	58	9,245
OTHERS AREAS					
Nutrition	0	0	1,017	1,117	2,134
Data management	0	0	118	80	198
CBP of FP methods	97	80	1,691	1,108	2,976
Total	677	495	18,662	7,078	26,912

Major Accomplishments

MALARIA

In 2008, Rwanda discontinued the use of intermittent preventive treatment for pregnant women due to high rates of sulfadoxine-pyrimethamine resistance as well as its therapeutic failure. However, marked improvements have been made to strengthen the integration of MIP in antenatal care (ANC) services. Under the leadership of the MOH/NMCP and MCH, Rwanda has focused its efforts on:

1. Strengthening human capacity, including the training of health providers, trainers, and supervisors;
2. Linking communities and facilities to strengthen care at all levels; and
3. Empowering communities through CHWs to disseminate knowledge about malaria and promote ANC to help prevent and control MIP.

As part of ANC, a package of interventions has been provided to address maternal anemia, which is caused by malaria, other parasites, and inadequate dietary intake. MCHIP built its support on these successes to accelerate MIP prevention and control at the community, district, and national levels.

Malaria was also among the top three most prevalent causes of mortality for children under five, along with acute respiratory infections and diarrheal disease. Thus, assuring correct treatment of these diseases at the community level for all children is an urgent priority in Rwanda. One of the most effective and comprehensive ways to boost care-seeking behavior and improve treatment services are through community IMCI (C-IMCI) and community case management (CCM). At the health center level, malaria diagnosis is confirmed through microscopy; at the community level, RDTs are used. The malaria treatment protocol for the community level uses the artemisinin combination therapy (ACT), Coartem (known as PRIMO in Rwanda).

A total of 895 health care providers from 20 out of 30 districts have been enabled to conduct FANC. MCHIP was able to achieve this goal through training, follow-up, supervision, and reorganization. Providers focused on assessment and actions needed to make decisions and provide care for each woman's individual situation. This improved the quality of services provided to pregnant women, especially in the areas of malaria prevention, diagnosis, and treatment.

To link with the community, 9,556 female CHWs from 11 districts were trained by MCHIP to communicate messages to pregnant women for early ANC attendance, birth preparedness, skilled birth attendance, and malaria prevention.

Due to the efforts of MCHIP and the support of the MOH, 96% of pregnant women register for ANC in both rural and urban areas according to the 2010 RDHS. The rate of pregnant women sleeping under a bed net at night increased from 60.3% in 2008 to 72.3% in 2010. Thanks to a study on MIP prevalence conducted by MCHIP in six districts, data on MIP prevalence is now available. The study revealed the following malaria rates by type of test used: 5.6% for polymerase chain reaction (PCR), 2.5% for RDT, and 1.6% for microscopy.

MCHIP contributed to national scaling up of iCCM interventions in five out of the 30 districts, leading to the training and equipping of 8,960 CHWs who have treated 250,488 children under five for malaria, diarrhea, and pneumonia.

To strengthen the C-IMCI program, MCHIP supported an evaluation of the iCCM strategy in Rwanda by designing tools for the assessment. The specific objectives of the evaluation were to:

- Assess the demographic information of CHWs
- Review of C-IMCI tools in use
- Assess the supply chain of drugs and others commodities
- Assess the supervision carried out by the health center to the community
- Evaluate the follow-up of the CCM system through supervision
- Assess knowledge of CHWs and caregivers
- Calculate the rate of children under five years treated according to the national guidelines

MCHIP supported financially the evaluation and is currently awaiting the final results from the MOH.

MCHIP also supported an analysis of the status of prevention and control of malaria in Rwanda to determine best practices and bottlenecks to program implementation. The study consisted of interviews with key stakeholders, partners, and contributors in the fight against malaria. The purposes of the documentation were to:

1. Document the process and steps Rwanda undertook to address its challenges in the fight against malaria;
2. Learn and share best practices/strategies that have supported malaria programming success;
3. Contribute to increased visibility of how Rwanda is effectively using donor funding to address malaria prevention and control;
4. Offer lessons learned to neighboring countries that continue to struggle with high malaria burdens; and
5. Highlight challenges and the way forward.

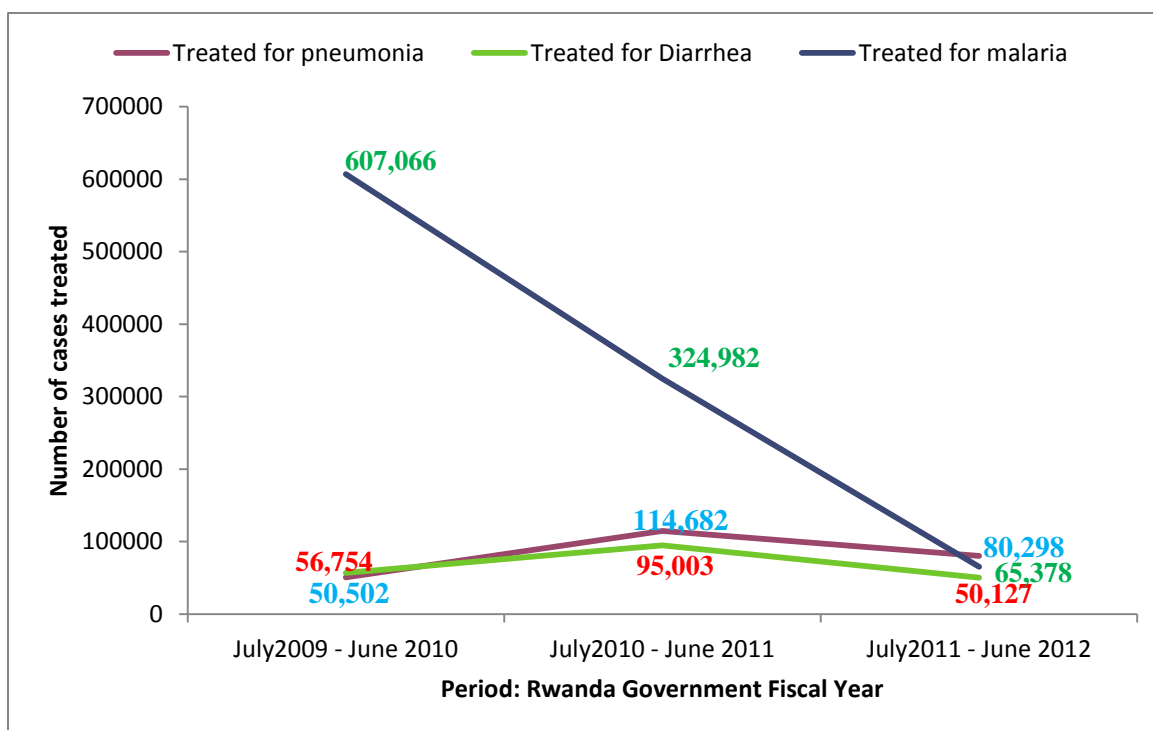
The analysis highlighted the following successes in malaria prevention and control in Rwanda.

- **Leadership and commitment:** In many ways, the greatest factor in Rwanda's success in malaria control has been the commitment of its leadership. From setting evidence-based policies to decentralized decision-making to creating national awareness of malaria interventions, Rwanda's leadership has shown that it can rapidly mobilize funds and other resources to address its priorities.
- **Data for decision-making:** Rwanda's extensive database system is indicative of its dedication to data for decision-making. Of specific value is the continuous collection of malaria microscopy and RDT data from all levels. Moreover, data is not retained only at the central level; it is also used in districts, health centers, and communities.
- **Accountability:** Performance-based financing has set up a system of accountability so that funding is spent appropriately and results are expected and rewarded.
- **Availability:** Prompt and appropriate malaria treatment is now available at the community level for children.
- **Commitment to parasitological diagnosis:** Nearly all health centers have labs/microscopes and CHWs use RDTs to ensure accurate diagnoses and appropriate treatment.

- **Use of multiple strategies:** For instance, a focus of the program has been on using both mass and routine distribution of insecticide-treated bed nets (ITNs) rather than relying on just one approach.

In collaboration with PMI and ICF Macro, MCHIP contributed to an evaluation of the impact of malaria control interventions on all causes of child mortality from 2000–2010 in Rwanda. This impact evaluation assessed whether or not changes have occurred in all causes of under-five mortality. MCHIP supported the work by organizing the workshops and writing of the report. The evaluation confirmed several positive trends in the treatment of causes of under-five mortality (as shown in Figure 1) and that malaria rates have decreased due to targeted interventions.

Figure 1. Management of Illnesses in Community for Under Five in Rwanda: Trends in the Treatment of Pneumonia, Diarrhea, and Malaria*



*Data Source: SIScom (Rwanda’s community health information system).

All combined malaria control efforts by MCHIP and other partners resulted in significant improvements in malaria outcomes. According to the health management information system (HMIS), deaths due to malaria decreased from 1,445 in 2005 to 380 in 2011. Malaria ranking passed from first cause of consultation in 2005 to number eight in 2011. The next steps are to enter the pre-elimination phase by continuing early detection, early treatment, ITN distribution, use of RDTs, and indoor residual spraying.

CHWs Trained on RDT Use



CHWs Trained on iCCM



Trained Health Care Provider Performing FANC



CHW Performing RDT on a Child



CHILD HEALTH

According to the three successive Demographic and Health Surveys (DHS), under-five mortality rate in Rwanda halved in the last five years, dropping from 152 per 1,000 live births in 2005 to, 103 in 2007 and to 76 per 1,000 live births in 2010 (RDHS 2005, RDHS 2007-8, RDHS 2010). When MCHIP started the Ikiraro project, treatment from a health facility/provider was sought for only 35% of these children. Among children who had diarrhea, 33% were taken to a health provider, 21% were given an oral rehydration packet and 39% received some form of oral rehydration therapy (RDHS 2007-8).

MCHIP's contribution consisted of support to the MOH to improving the quality of and increasing the access to life-saving treatment of childhood illnesses at both facility and community level.

First, at facility level, MCHIP supported the revise the training course Integrated Management of Childhood Illnesses (IMCI), engaging both the national level experts and district supervisors as trainers in IMCI enhanced the future possibilities that health care providers will receive the continued support and mentorship they need to put into practice.

MCHIP helped reduce the national IMNCI training package from 11 days to 6 days to improve the efficiency and to reduce the cost. The identified barriers to the scale-up of IMNCI in Rwanda included the absence of the provider at his post during this lengthy course and the high cost of the training, as expensive as \$1,000 per participant in average. Because the training requires participants to remain in large cities where they can find enough sick children for clinical practices, a significant proportion of the training budget were lodging cost and per diem. MCHIP organized a series of technical mini-workshops followed by a national consensus workshop from March to May 2012 to develop and validate the IMCI training tools, to adopt a new IMNCI register and to identify an appropriate training methodology to the new shortened course. The latest changes in guidelines for malaria, nutrition and pediatric HIV were integrated into the new modules. Once the modules approved, MCHIP supported the training of

550 health care providers in 8 of 30 districts. The training included a personal action plan that each trainee took back to their health center to help them, their colleagues and their supervisors put IMCI into action. Services have been reorganized so that pieces of IMCI are carried out by various personnel in larger facilities in order to reduce waiting time and not miss opportunities. MCHIP reviewed the health facility records to compare the quality of case management by a group of nurses trained with regular 11-day IMNCI training vs. nurses trained with shorter 6-day training and has established that there is no loss in skills. Moreover, the cost of the training has been reduced by more than half, saving more than \$280,000 in MCHIP supported districts alone. In addition to its comparative advantages on cost reduction, the shortened course also has the benefit of reducing the absence of the provider at his post. The new training courses have been rolled out by the MOH nationwide.

According to the interim 2008 RDHS, 15% of children 0–59 months of age presented symptoms of acute respiratory illness and 21% had symptoms of fever in the two weeks before the survey. Of the latter, treatment from a health facility/provider was sought for only 35% of these children. Among children with diarrhea, 33% were taken to a health provider, 21% were given an oral rehydration packet, and 39% received some form of oral rehydration therapy. MCHIP supported the MOH to revise the current training course in IMCI. Engaging district supervisors as trainers in IMCI enhanced the future possibilities that health care providers will receive the continued support and mentorship they need to put IMCI into practice.

MCHIP contributed to improve IMCI by revising the training package from 11 days to six days, as well as building the capacity of 550 health care providers in IMCI at facility level in eight districts. Training in IMCI included a personal action plan that each trainee took back to their health center to help them, their colleagues, and their supervisors put IMCI into action. Services have been reorganized so that elements of IMCI are carried out by various personnel in larger facilities to reduce waiting time and ensure no miss opportunities. The new training courses have been rolled out by the MOH.

MCHIP supported the Malaria and Other Parasitic Diseases Division to conduct an assessment of severe malaria and malaria deaths in patients admitted in Rwanda's district hospitals. Findings from this assessment helped the MOH to revise its policy and strategies for malaria prevention and case management. Malaria incidences decreased sharply from 83.7/1,000 in 2008 to 26/1,000 in 2011 (HMIS 2011).

Second, at the community level, MCHIP helped MOH improve the quality and expand the coverage of the integrated Community Case Management (iCCM) program. Since 2006, iCCM has been rolled out countrywide through 30,000 Community Health Workers (CHWs) known as Binomes. They are part of a pool of 45,000 CHWs countrywide, serving a population of approximately 10,000,000 inhabitants to provide treatment of childhood diarrhea, pneumonia and malaria. Prior to MCHIP, the treatment of fever in under-five children at the community level was still based on presumption of malaria while the MOPDD revised its treatment policy in 2009, to require diagnostic confirmation of all fever cases regardless of age, making diagnostic confirmation before treatment. MCHIP helped update the training curriculum for the binomes to include the new recommendations. MCHIP also updated the supervision and reporting tools to include the new materials. Once the new guidelines developed and approved, MCHIP helped roll-out the program in two districts in the Southern province where all binomes provide iCCM services and in three districts of Kigali City where only some of them provide iCCM services. MCHIP program involved a total number of 3,251 binomes as presented in the table below.

Province	District	Number of binomes	
		in total	... those providing iCCM
South	Ruhango	1,066	1,066
	Nyamagabe	1,022	1,022
Kigali City	Gasabo	884	590
	Kicukiro	408	295
	Nyarugenge	682	278
		4,062	3,251

Facility IMCI Training Practice



During the supervision visits jointly performed by district team and MCHIP staff, there was evidence that the supervisors do not necessarily have enough time to see the CHWs managing cases of sick children and that the supervision visit is often limited to checking the register and management tools. MCHIP supported the district teams who individually assessed the skills of 3,011 CHWs in its five focus districts and developed tailored refresher trainings for binomes based on their individual strengths and weaknesses. This strategy helped shape the way coaching and support to CHWs are being

reconsidered in Rwanda: personalized refresher trainings, recognition of highly skilled CHWs and more intensive targeted coaching for lower-performing CHWs.

Finally, MCHIP introduced the use of Personal Data Assistants (PDAs) -- a practical, cost-effective and high performance device – to help facilitate monitoring and decision-making about CHWs' training. Despite its obvious potential, formal assessments and feasibility studies of its multiple possibilities should be carried-out in the Rwandan context.

MATERNAL AND NEWBORN HEALTH

As in most developing countries, women in Rwanda die from a range of complications in pregnancy, childbirth, or during the postpartum period. Maternal deaths are due largely to hemorrhage, infections, complications related to unsafe abortion, eclampsia, obstructed labor, malaria, and HIV. Geographical access to services has improved with the construction and rehabilitation of new district hospitals and health centers, but approximately 31% of Rwandan women still deliver at home, and only 18% of women receive postnatal checkup within two days of delivery. Even though 98% of women receive at least one ANC visit, only 35% of women complete the four standard ANC visits. As mentioned in the introduction, Rwanda's maternal mortality ratio decreased from 750/100,000 in 2005 to 476/100,000 live birth in 2010³.

MCHIP supported the MOH to strengthen the quality of care at facilities by strengthening the capacity of health providers to promote and support essential maternal and newborn care, including both comprehensive EmONC and basic EmONC, specifically focusing on: the management of normal labor and birth including AMTSL, essential newborn care, and the

³ DHS 2005 and 2010

detection and management of maternal and newborn complications, including PPH, pre-eclampsia, postabortion care, newborn asphyxia, and other complications. In collaboration with the MOH and districts, MCHIP worked with providers and service delivery sites to ensure they have the ability to provide lifesaving interventions such as manual removal of placenta, manual vacuum aspiration for retained products of conception, newborn resuscitation and KMC.

This support included the adaptation of existing global evidence-based training materials to the Rwandan context, implementation of modern training approaches, coaching and mentorship, and supportive supervision to help providers implement what is learned and improve the quality of care.

MCHIP supported the improvement of the MNH program, starting with the revision and adaptation of the training package to integrate key missing lifesaving interventions such as KMC, HBB, AMTSL, prevention of pre-eclampsia/eclampsia, and prevention of postpartum hemorrhage at community level using the misoprostol.

MCHIP conducted a health facilities survey on the quality of care for prevention and management of common maternal and newborn complications.⁴ The purpose of the survey was to generate information to quantify the need for and guide the content of quality improvement activities for MNH care at facility, district, and national levels through documentation of the appropriate use, quality of implementation, and barriers to performance of key preventive, screening, and treatment interventions during facility-based maternal and newborn care. The ultimate aim was to contribute to reduction of frequent, preventable maternal and newborn deaths through increased use and quality of known lifesaving interventions. Overall, the study found the quality of services provided to ANC and labor and delivery clients for the prevention, early detection, and treatment of common MNH complications was mixed.

However, care was frequently below the standards recommended in the World Health Organization's IMPAC manual of evidence-based protocols and guidelines. Findings from this survey have been discussed at the national level and recommendations have been made to improve MNH services, including postabortion care, at facility and community levels. Recommendations were developed to address the many facets of the health system involved in the delivery of quality care, including policies and guidelines, capacity building and training, drug and supply chain logistics, monitoring and evaluation, improved prevention and treatment of routine complications, and cross-cutting themes. A complete list of recommendations can be found in Section 8 of this report.

A total of 16 providers have been enabled to provide clinical training to other providers using the revised training package. They, in turn, have trained 261 providers on basic EmONC and 39 in comprehensive EmONC from eight districts. A total of 11 district hospitals supported by MCHIP have a functional KMC unit that exists and functions without the support of MCHIP. From October 2010 to September 2012 a total of 7,741 low birth weight babies received KMC services. The number of KMC admissions, by birth weight category, was 2,815 and the proportion of LBW babies who received KMC at health facilities was 36.3%.

As a result of these interventions, routine formative supervision noticed improvement of providers' practices in AMTSL and neonatal resuscitation as well as in the referral system, thanks to a successful initial assessment of women and use of the partograph.

⁴ Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: http://www.mchip.net/sites/default/files/Rwanda_QoC.PDF

Figure 2 below shows a decrease in neonatal mortality from 37/1,000 in 2005 to 27/1,000 in 2010, while Figure 3 depicts an increase in skilled birth attendance from 39% in 2005 to 69% in 2010. These results can be attributed to all stakeholders, partners, and programming, including MCHIP.

Figure 2. Trends in Newborn Mortality

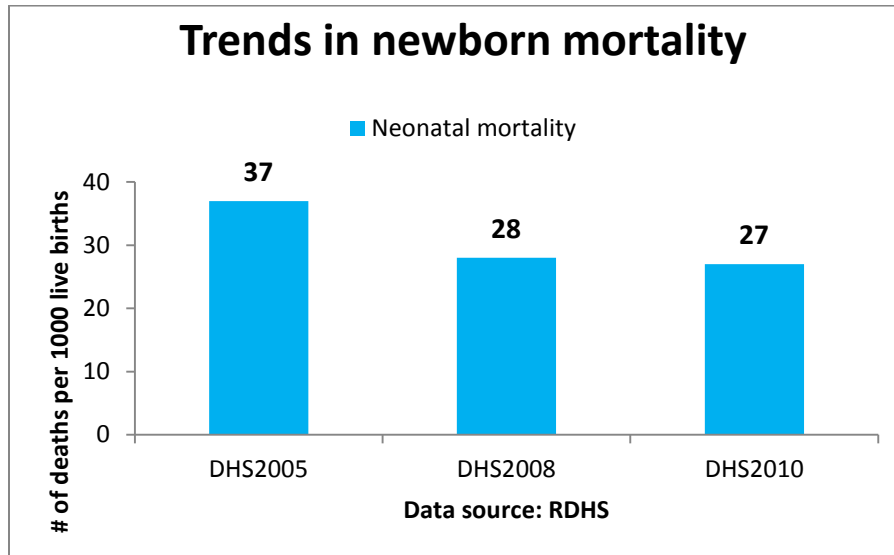


Figure 3. Percent of Deliveries Attended by a Skilled Provider

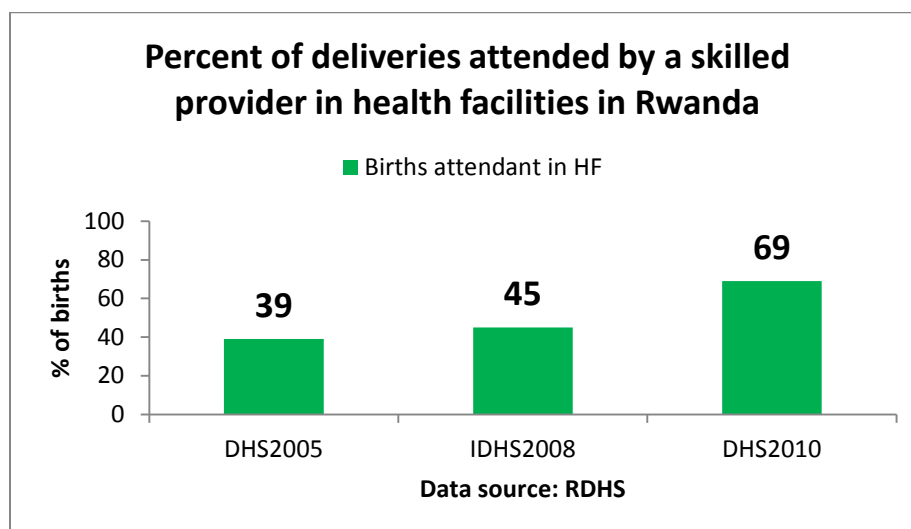
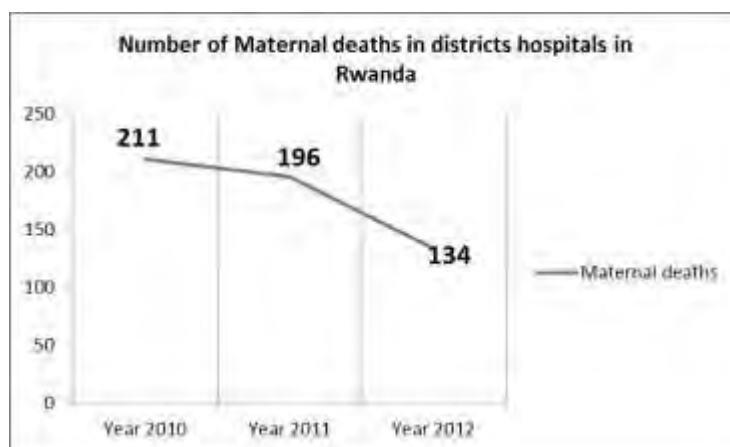


Figure 4: Maternal Deaths in District Hospitals



Source: HMIS.

Figure 4 above shows a decrease—according to the HMIS—in the number of maternal deaths in district hospitals from 211 in 2010 to 134 in 2012. During the intervention period, 259,263 ANC visits were conducted by skilled providers. The number of deliveries with a skilled birth attendant (SBA) in U.S. Government (USG)-assisted programs was 184,105 during the intervention period. The number of SBAs who know how to manage severe pre-eclampsia/eclampsia (trained in EmONC) was 525.

To contribute to the prevention of PPH, the leading cause of maternal death in Rwanda, MCHIP conducted a combined approach targeting deliveries in facilities and at home. This introductory program was designed to increase use of uterotonics for all births. Community-based MNH workers (*Animatrices de Santé Maternelle*, or ASMs) were mobilized to counsel pregnant women and administer misoprostol at the time of delivery. This approach also measured uterotonic use at facility-based deliveries to provide an overall picture of uterotonic coverage of all births for PPH prevention.

The program was conducted in four districts of Rwanda (Rubavu, Musanze, Gakenke, and Nyanza) from September 2012 to February 2013. Specific objectives were to:

1. Assess if the use of ASMs is a feasible and effective mechanism for providing education and administering misoprostol for PPH prevention to women who deliver at home;
2. Assess if the availability of misoprostol for preventing PPH at home births affects skilled birth attendance at facilities;
3. Determine if misoprostol is acceptable to women and their families for PPH prevention.

A total of 4,074 pregnant women consented and were enrolled in the study after counseling by the ASM during the six-month program period in four districts. At the time of delivery, ASMs reached 791 women at home birth, or 21.4% of expected home births (Estimate 1), and 58.6% of home births recorded by SIScom, Rwanda's community health worker information system (Estimate 2). For about 40% of these births, the ASMs arrived at the house during childbirth and 60% after delivery.

Of those reached, 599 (75.7%) were eligible to receive misoprostol from the ASM. The misoprostol distribution rate was 44.4% of SIScom-recorded home births. Nearly all women (598/599 or 99.8%) who received misoprostol ingested it. Timing of administration was evenly split immediately after delivery (49%) and after the delivery of the placenta within two hours (51%). The study found that uterotonic coverage at health facilities increased from 56% to 86.3% among facility deliveries and from 0% to 44.4% at home births, according to HMIS and SIScom data.

Misoprostol as a PPH prevention intervention was embraced by pregnant women. At the community level, when women received misoprostol at the correct time during delivery, they were very likely to consume it, and 99% of women who took misoprostol reported they were satisfied.

A Trained Provider Performing Newborn Resuscitation on a Model



Provider Helping Mother with KMC



CHWs and a Mother during a Postnatal Visit



Uterotonic coverage increased from 56% to 86.3% among facility deliveries and increased from 0% to 44.4% for home births (based on HMIS and SIScom data). Women were also satisfied with the drug as shown in Table 2 below.

Table 2. Women Who Consumed Misoprostol: Satisfaction with Misoprostol for PPH Prevention Reported during Postpartum Interviews (n=598)

INDICATOR	NUMBER	PERCENT
Recommend misoprostol to a friend/relative	592	99.0%
Take misoprostol for the next delivery	583	97.5%
Purchase misoprostol	585	97.8%
Women who are satisfied with use of misoprostol (answered yes to all three acceptability questions above)	577	96.3%

Some key lessons learned and actions to be considered for the PPH program in the future include:

- Efforts to increase uterotonic coverage at both facility and home births need to ultimately reach and benefit the greatest number of women. This program showed that uterotonic coverage was high (over 85% in both estimates). A revised strategy is needed to increase uterotonic coverage for home births.
- In the current program design, the proportion of ASMs who counsel pregnant women and who attend births on time to administer misoprostol needs to significantly increase to have public health impact.
- Qualitative formative research should be conducted among ASMs to better understand barriers and facilitating factors to misoprostol counseling and administration.
- Possible alternative strategies to increase uterotonic coverage at home births include:
 - allowing ASMs to provide counseling and advance distribution of misoprostol directly to pregnant women during the eighth month of pregnancy, and
 - providing counseling and advance distribution of misoprostol to pregnant women during ANC.
- To improve ASM management of a catchment area, it is recommended to introduce the mapping of each village where the ASM will be trained to illustrate households and receive information on the coverage population.
- The current HMIS data collection can be improved by including data from private clinics.
- Facility and community-level tracking tools used by the program can be integrated into the data collection system.

FAMILY PLANNING

Contraception use was low in Rwanda in 2008. According to the 2007–2008 RDHS, the contraceptive prevalence rate for modern methods is 27%, total fertility rate is 5.5 children per woman, and birth-to-birth spacing between the last two children is less than 35 months among 41% of women. In Rwanda, the majority of women do not receive adequate (or any) counseling about FP, either during ANC, delivery, or postpartum. To address these challenges, Jhpiego, in partnership with other implementing partners, has been supporting the MOH to promote and implement postpartum FP in four districts.

As a first step, MCHIP participated in the MOH effort to assess implementation status and impact of the existing national FP policy and five-year strategy (2006–2010) to identify current needs, challenges, and opportunities to inform the development of the updated FP policy and next five-year strategy (2012–2016). MCHIP supported the effort by: providing technical assistance in the field for the assessment, previewing the assessment, editing the new policy, and supplying the final policy. The new policy promotes integration, quality, accessibility, voluntarism, community, men and youth participation, and women's empowerment.

In addition to providing assistance to assess and revise the old national FP policy, MCHIP's role has been to:

1. Scale up FP provision at the community level by CBP, and
2. Strengthen health care providers' capacity in provision of long-term and permanent FP methods.

For the first of these, key elements of the program included: advocacy among key stakeholders for CBP activities; training of CBP agents, including emphasizing knowledge and dispelling rumors and myths that may be widespread at the community level; and supportive supervision. Training materials, developed by the FP Technical Working Group have been used to support training needs. At the community level, a total of 177 providers have been enabled to become trainers of CHWs in CBP of FP methods. CBP teaches CHWs where and how to find FP products, as well as their use, contraindications, and distribution methods. It also reminds CHWs how to make referrals to a health facility in the case of contraindications. MCHIP trained 2,798 CHWs from five of the 30 districts, subsequently validating and equipping them to provide FP methods at the community level, including pills, injectables, condoms, and the Standard Days Method®. In addition, 177 providers have been enabled to train CHWs in CBP of FP methods, ensuring that these trainers can continue to train additional CHWs in the future.

In the area of long-term and permanent methods of FP, MCHIP moved forward with the MOH to expand FP efforts in 14 target districts focusing on improving FP counseling, especially for long-term and permanent methods. Up until May 2011, no health care provider could offer tubal ligation without general anesthesia or during a caesarian section. These methods were not only risky for the woman but were also not accessible due to the lack of trained providers in tubal ligation. For the first time in Rwanda, MCHIP trained 41 health care providers in tubal ligation under local anesthesia, 77 nurses in IUD insertion, and 325 health care providers in all FP methods. The MOH decided to use the training package and the pool of trainers developed by MCHIP to scale up tubal ligation training nationwide.

A Trained Provider Inserting Implant

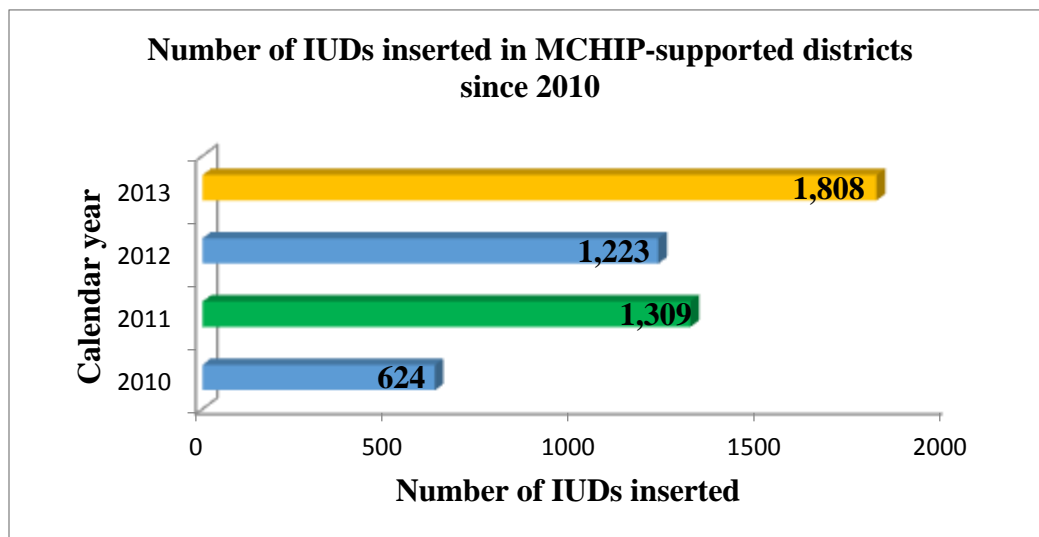


A CHW Preparing for Injection at Home



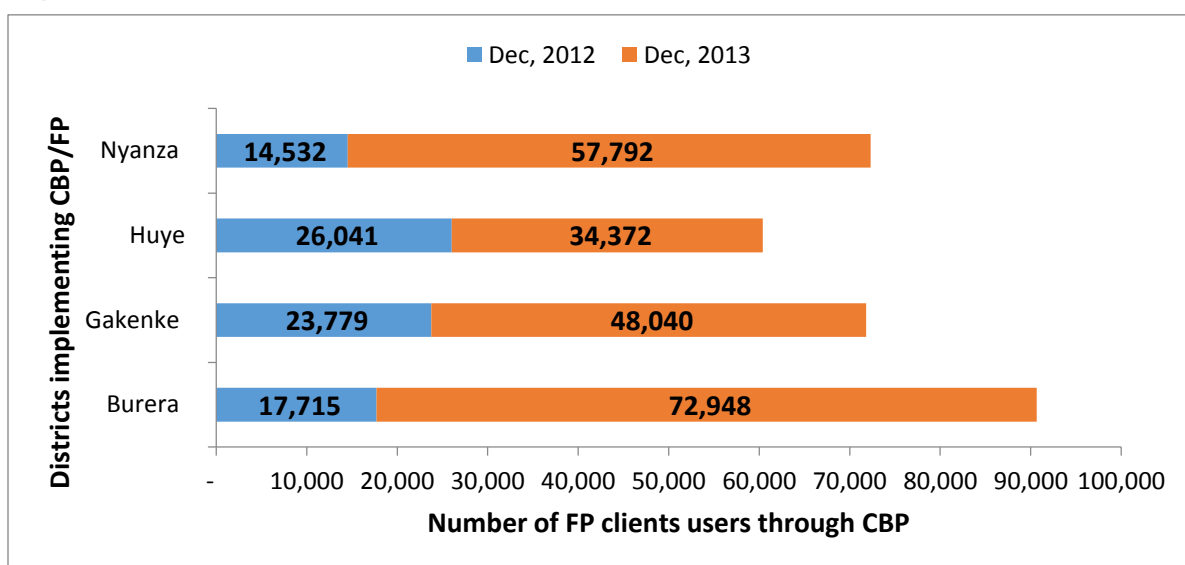
The following figures indicate the number of new FP users of long-term methods (IUD and tubal ligation) in MCHIP intervention zones.

Figure 5. Number of New FP Users of IUDs in MCHIP-Supported Districts since 2010



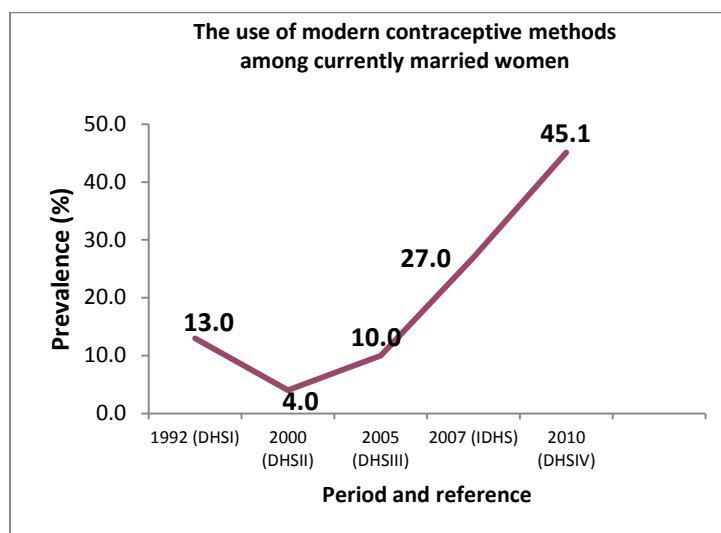
As shown in Figure 6, CBP of FP can have a noticeable impact on uptake of the FP methods provided. The graph includes data collected from the four districts (Gakenke, Nyanza, Burera, and Huye) where the CBP/FP interventions were implemented. A comparison of FP data from SIScom in 2012 and 2013 showed an increase of 260% in the number of FP users who renewed their FP methods at the community level through trained CHWs in all districts where MCHIP scaled up CBP/FP interventions. In 2012, CHWs reported 82,067 FP client users at the end of 2012 as compared to 213,152 at the end of 2013.

Figure 6. Comparison of FP Clients in Four Districts through CBP in MCHIP in December 2012 Compared to December 2013



With the support of MCHIP and other implementing partners, Rwanda has made strides in FP user rate. Figure 7 shows the use of modern contraceptive methods among current married women increased from 27% in 2008 to 45% in 2010. In addition, the total fertility rate decreased from 5.5 in 2008 to 4.6 in 2010.

Figure 7. Use of Modern Contraceptive Methods



To continue improving access to FP methods moving forward, Rwanda should implement the FP policy, which includes important components such as access to permanent methods at hospitals, the provision of long-acting methods at all health facilities (including health centers and health posts), and the provision of short-acting methods at the community level, including injectable, condoms and the pill. Access to FP methods has been shown to improve female empowerment and ultimately aid in the development of a country as women are more likely to enter the workforce when they have fewer children and more resources.

HIV/AIDS

Rwanda's HIV prevalence in 2005 was 3% (3.6% for women and 2.3% for men⁵). It was estimated that 7,700 new pediatric HIV infections occur each year in Rwanda. While intense efforts to scale up treatment exist, many HIV-infected children die of common childhood illnesses without being diagnosed as having HIV. There are many missed opportunities to identify and treat HIV-infected children. For example, children of HIV-positive mothers who have participated in PMTCT programs are not always considered for follow-up after delivery to ensure they are protected by receiving a preventive care package and cotrimoxazole to protect them from opportunistic infections.

MCHIP assisted the MOH and its partners to increase early identification, management, and referral of HIV-infected infants in the priority districts through the integration of pediatric HIV and PMTCT at all entry points to care. This included peer training and coaching, as well as mentorship. MCHIP introduced the mentorship approach in 13 districts where trained mentors coach monthly providers. This approach improved the quality of pediatric HIV/AIDS services by having mentors review the practices of care and make sure that providers were acting in accordance with standards.

There is convincing epidemiological, biological, and clinical-trial evidence that VMMC has a strong protective effect against female-to-male HIV transmission. The use of VMMC as a biomedical prevention for HIV has proven to be both cost-effective and often acceptable, even in areas where VMMC is not traditionally practiced. In the case of Rwanda, only 13% of men aged 15–59 have been circumcised according to RDHS 2010.

⁵ DHS 2005

MCHIP supported the RNP to provide VMMC services, which are now offered as part of an expanded approach to reduce HIV infections in conjunction with other prevention programs, including HIV testing and counseling, treatment for other sexually transmitted infections, promotion of safer-sex practices, and condom distribution. MCHIP initiated the VMMC program in four RNP health facilities by strengthening the capacity of 60 health care providers who subsequently performed 1,226 male circumcisions within six months. In Rwanda, when 44 men are circumcised, one new HIV infection is averted and more than \$3,304 is saved. This program is still ongoing within the police force.

In addition to the two HIV-prevention interventions above, MCHIP procured a modern incinerator to Kayonza District. This incinerator serves not only as the district hospital's waste management, but is also used to fill the gap of lack of modern incinerators in the region, thereby improving infection prevention practices for the region. As an added benefit, it also generates income for sustainability of its use.

Incinerator Procured for Kayonza District (two pictures)



Trained Providers Performing VMMC



OTHER AREAS SUPPORTED

In addition to the programs above, MCHIP also supported activities in other important areas that can improve health outcomes. These areas include technical support to the national Expanded Program of Immunization (EPI) and its partners toward the smooth introduction of rotavirus vaccine by 2012, training of teachers from five nursing and midwifery schools in Effective Teaching Skills, support to the Nutrition Desk for growth monitoring and promotion at facility and community levels for tracking growth, support to WRA to improve public awareness on FP and maternal health services and rights, and support for the development of a Social Behavior Change Communication (SBCC) sub-strategy for all MNCH components.

MCHIP provided technical assistance to the EPI team in preparation of the rotavirus vaccine introduction. This lifesaving vaccine prevents the spread of diarrhea which is one of the leading causes of death among children. Rwanda's proposal was approved by the Global Alliance for Vaccine and Immunization and now the rotavirus vaccine is part of the routine vaccines taken by children in Rwanda. Further, MCHIP provided substantial technical support to the EPI in revising their comprehensive multi-year plan for immunization (cMYP) and in developing proposals for measles-rubella (MR) catch-up campaign proposal, Both the MR introduction plan and measles second dose (MSD) have now been introduced into the routine immunization system.

Malnutrition is a key public health concern in Rwanda and is one of the major causes of infant, child, and maternal morbidity and mortality. According to the 2010 RDHS, chronic malnutrition or stunting, which results in delayed growth, affects 44% of children under the age of five years. To fight against malnutrition at the community level, MCHIP strengthened the capacity of 1,993 community members in the establishment of family kitchen gardens. Out of 204,860 kitchen gardens, 156,601 (76%) have been established in 717 villages. At the health facility

level, 162 health care providers have been trained to monitor and counsel on infant and child nutrition.

To improve pre-service education, MCHIP collaborated with the Nursing and Midwifery Council to conduct a needs assessment in five nursing and midwives schools that helped to establish a plan for improvement. A total of 72 preceptors and teachers have been trained on Effective Teaching Skills, followed by formative supervision, and 282 students have been supported to complete clinical practicums. As determined by pre- and post-tests, this training has improved the preceptors' and teachers' knowledge of effective teaching skills and their abilities to put those skills into practice.

In partnership with WRA, an international coalition of individuals and organizations formed to promote increased public awareness of the need to make pregnancy and childbirth safe for all women and newborns, MCHIP supported the training of 27 journalists who organized radio shows and wrote various articles to increase awareness within the public and among stakeholders in order to change public behavior on safe motherhood and FP. WRA also worked to increase the level of commitments from stakeholders towards the issue.

MCHIP led the process and provided financial support for the development of the SBCC sub-strategy for MNCH. After the SBCC was finalized, MCHIP initiated its implementation in the two districts of Nyabihu and Nyanza.

Family Kitchen Garden



SBCC Official Launch Ceremony



Journalists during WRA's Workshop



Journalist MCHIP staff handing over the SBCC to a delegate of the National Children's Council

Rotavirus immunization launching



Recommendations and Way Forward

MALARIA

- As Rwanda moves to the pre-elimination phase of malaria, support is needed for the NMCP in malaria prevention, case management, and scale-up of best practices documented for the fight against malaria.
- According to the MIP study findings, malaria cases identified by the PCR test have been found in districts with low endemicity of malaria and where no confirmed malaria cases were revealed using RDTs and microscopy. Therefore, it is important to support the process of revision of Rwanda's malaria policy and advocate for MIP, systematic RDT during ANC, and PCR in districts with low endemicity.

CHILD HEALTH

- Due to a lack of information on the causes of death in children under five that can lead to erroneous decision-making, support is needed for the process of death audits for children under five years old in Rwanda.

MATERNAL AND NEWBORN HEALTH

- Since PPH is still the leading cause of maternal mortality and there is still a high proportion of home births in Rwanda, it is important to scale up an integrated PPH prevention and management program both at the community and facility levels.
- Because uterotonic coverage at the community level is low, qualitative formative research should be conducted among ASMs to better understand the barriers to uterotonic coverage, understand better ways to reach pregnant women, and improve misoprostol counseling and administration.
- Since community health interventions are an integrally important factor to the success of health programs, support is needed for Rwanda to strengthen the capacity of CHWs in areas such as:
 - Training of newly recruited CHWs and regular refresher training of CHWs based on findings of the CHW performance assessment.
 - Use of rapid SMS as a tool to track indicators of community interventions using electronic medical records.
 - Support to the department of health community interventions in program management and data processing
- Given that newly graduated nurses and midwives in Rwanda are not competent in new MNH skills (e.g., AMTSL, HBB, KMC, Helping Mothers Survive, and integration of early infant male circumcision into postpartum care) all nurses and midwives should be trained in these new areas. In addition, these topics should be integrated into the pre-service curriculum of nurses and midwives.
- Given that PPH and AMTSL indicators are not yet integrated in the current HMIS tracking tools, HMIS data collection tools should be updated with new MNCH indicators like PPH.

FAMILY PLANNING

- Since the new FP policy for Rwanda and the SBCC sub-strategy for MNH are not accessible to all and are not made available to future users, support should be provided for the dissemination of Rwanda's new FP policies, norms, standards, and guidelines.
- Based on innovations developed in the new FP policy and the BCC strategy for MNH, support is needed to scale up new technologies in FP (including tubal ligation under local anesthesia, no scalpel vasectomy, IMPLANON®, and task shifting for nurses to provide IUD insertions).

HIV/AIDS PREVENTION

- Given the potential for VMMC to reduce HIV transmission from HIV-positive females to HIV-negative circumcised males by almost 60%, and given that Rwanda is a traditionally non-circumcising society, continued support should be provided for Rwanda to reach the target set in the national HIV strategic plan to reduce the burden of HIV/AIDS and the human papilloma virus, which is responsible of cervical cancer.
- Continued assistance should be provided to the MOH to increase early identification, management, and referral of people living with HIV/AIDS.

Annex 1: Indicator Matrix

INDICATOR	OCT 2009–SEPT 2010	OCT 2010–SEPT 2011	OCT 2011–SEPT 2012	OCT 2012–MARCH 2014	CUMULATIVE
Number of deliveries with an SBA in USG-assisted programs	N/A	83,965	81,864	18,276	184,105
Number of pregnant women provided with misoprostol	N/A	N/A	N/A	598	598
Number/percentage of SBAs who know how to manage severe pre-eclampsia/eclampsia (Trained in EmONC)	N/A	446	79	N/A	525
Number of people trained in MNH through USG (MCHIP)-supported programs (EmONC, CB-MNH, KMC, others [data management, teaching at nursing schools])	ASM: 756 ASM Training of Trainers (TOT): 32	C-EmONC:21 Clinical Training Skills:16 B-EmONC: 200 KMC: 26 ASM TOT: 211 ASM: 3,903 Others: 270	C-EmONC:18 B-EmONC: 61 ASM TOT: 201 ASM: 2,903 Others: 96 SBCC: 151	PPH: 1,994	10,859
Number of policies drafted with USG support	N/A	1	1	N/A	2
Number of ITNs distributed to pregnant women at target facilities	287	91,000	36,668	N/A	127,955
Number of ANC visits by skilled providers	16,042	243,221	No longer in HMIS	N/A	259,263
Number of people trained in malaria treatment or prevention with USG funds (FANC and iCCM)	Binome: 2,324 FANC: 299 FANC TOT: 16 iCCM TOT: 68	Binome: 3,265 FANC: 225 FANC TOT: 17 iCCM TOT: 203	Binome: 3,028 FANC: 265 MIP: 73 iCCM TOT: 72	N/A	9,855
Number of children under five with malaria treated correctly following the national protocol	3,799	13,956	2,644	N/A	20,399
Number of children under five treated by CCM in target districts	44,163	184,028	22,297	N/A	250,488
Number of pregnant women tested for malaria using an RDT	N/A	N/A	4037	N/A	4,037
Number of people trained in child health and nutrition through USG-supported health programs (e.g., Facility IMCI)	N/A	Facility IMCI: 153 HIV Ped: 15	Facility IMCI: 397 Nutrition: 141 Trainers: 21 Kitchen Gardens: 1,993	N/A	2,720
Proportion of low birth weight babies who received KMC at health facilities	N/A	36% (1,746/4,828)	37% (1,069/2,913)	N/A	36.3%
Number of KMC admissions, by birth weight category	N/A	1,746	1,069	N/A	2,815

INDICATOR	OCT 2009– SEPT 2010	OCT 2010– SEPT 2011	OCT 2011– SEPT 2012	OCT 2012–MARCH 2014	CUMULATIVE
Number of policies or guidelines developed or changed with USG assistance to improve access to and use of FP/RH services	N/A	1	N/A	N/A	1
Number of counseling visits for FP/RH as a result of USG assistance	N/A	360,068	384,673	N/A	744,741
Number of USG-assisted service delivery points providing FP counseling or services	N/A	265	265	N/A	265
Number of people trained in FP through USG (MCHIP)-supported programs	N/A	IUD:77 Tubal ligation: 23 FP classic: 109 CBP/TOT: 149 CBP: 2,186	Tubal ligation: 18 FP classic: 216 CBP/TOT:28 CBP: 612	N/A	3,418
Number of studies completed	2	2	1	3	8
Number of VMMCs performed as part of HIV prevention	N/A	N/A	368	858	1,226
Number of RNP health care worker trained in VMMC skills	N/A	N/A	20	40	60

Annex 2: Success Stories

LAUNCH OF COMMUNITY-BASED PROVISION OF FAMILY PLANNING IN RWANDA



Nyanza District's Mayor and MCHIP COP at CBP Launch

Community-based provision (CBP) of family planning (FP) services, including commodities, is a strategy for increasing access to FP that has already been adopted in many countries. Until recently, FP services in Rwanda were offered only at health facilities by trained health care providers. In 2010, the Ministry of Health (MOH) introduced CBP in three districts (Gatsibo, Rusizi, and Kicukiro) as the first phase of a national CBP program. Based on the results of an evaluation of CBP in the three districts, national scale-up of CBP in other districts across the country was recommended.

During the scale-up phase, community health workers (CHWs) were authorized to provide condoms, oral contraceptive pills, injectables, and the Standard Days Method in the form of resupplies to FP clients who had already been introduced to the method by a health provider.

The MOH in collaboration with MCHIP scaled-up CBP in the districts of Huye, Nyanza Gakenke, and Burera. The launch of this second phase was carried out in the Nyanza in Mukingo Sector on December 8, 2011.



Trained CBP Providers

Mukagisagara Leocardia is a mother of three who was pleased to benefit from the services offered by CHWs in her neighboring village. “We used to have a problem getting these services because our health facility is faith-based,” she explained, “belonging to Catholics and who do not offer FP services. We used to go to Kigoma Health Center, which is very far from where we live. Now that we can access services near us, it will help us to follow the scheduled appointments and we are very happy about that.”



Mrs. Leocardia Receiving FP from CHW

She also added: “The services are very good, as I have not had any problems with the injectable that I’m using and my husband is supportive because our CHW managed to sensitize him. I take this opportunity to call upon other mothers to go for FP as services have been brought closer to us.”

Mukansengiyumva Juliene is the CHW providing services to Leocardia. She received a 10-day training in CBP for FP by nurses who came from their health center.

When asked to give her impression about the program, she said, “I’m happy to see that I can help the community to get FP services. We do our best and we are supported by the community and this is our major motivation. As I’m talking to you now, I have three women waiting for this service.” When asked if they are respected by the community to the extent that they can come for their services, she added: “We are respected because we try to give quality services and communicate clearly with the community.” According to Mukansengiyumva, the most preferred FP method is injectable contraception.

The official launching of CBP of FP was officiated by officials from the MOH, the district, MCHIP representatives, other partners working FP, and the citizens of Nyanza District.

IN RWANDA, GREATER AVAILABILITY OF MISOPROSTOL PREVENTS POSTPARTUM HEMORRHAGE AND SAVES LIVES

Twenty-five-year-old Epiphanie felt her labor begin and immediately called Immanaculee, the community health worker (CHW) assigned to 100 households in the Bugosa Village in the Gakenke District of Rwanda. Immanaculee had educated Epiphanie on the importance of regular prenatal care visits and encouraged her to deliver at the health center. These were key messages the CHW had been taught by trainers from USAID’s flagship Maternal and Child Health Integrated Program (MCHIP). Since 2009, MCHIP-trained CHWs have been teaching women like Epiphanie that their odds of a safe delivery are much better in a health facility (with a midwife or doctor) than at home, where they often don’t have access to essential medicine or trained assistance when complications arise.



**Epiphanie with Her Daughters:
9-month-old Patiente and 3-year-old Les**

Soon after she received the call, Immanaculee accompanied Epiphanie on the hilly, five-kilometer (more than three miles) trek to the health center. Because the contractions were coming very quickly, they decided it would be quicker to walk instead of waiting for local transport, which is a makeshift hammock carried by four men. But the baby would not wait. So Immanaculee found a hidden area along the way and covered the spot with the colorful loincloths traditionally wrapped around women’s waists. There, she helped Epiphanie deliver a healthy baby girl who she named Patiente.

Right after the baby was born, Immanaculee remembered the training she had received from MCHIP and gave Epiphanie three tablets of a lifesaving drug known as misoprostol. Misoprostol has been proven highly effective at preventing excessive bleeding after birth, known as postpartum hemorrhage (PPH). PPH is the leading cause of death for pregnant women globally, including in Rwanda, where an astounding 45% of women who perish during childbirth die from PPH. Weeks before the birth, Immanaculee had counseled Epiphanie about the possible mild side effects of misoprostol, but the mother chose to take the medicine anyway, knowing it could save her life.

Recognizing that deaths caused by PPH can be prevented if women have access to the right medicine, since September 2012, the Rwandan government and MCHIP have been collaborating on an innovative pilot program in four districts (see map). As part of the program, MCHIP trainers teach CHWs like Immanaculee how to educate women to recognize the danger signs of life-threatening complications. MCHIP also trains these CHWs to give women misoprostol just after birth if they are not able to deliver in a facility.

Every pregnant woman is at risk for PPH. As a result, the World Health Organization recommends that women receive a uterotonic medicine—such as misoprostol—to prevent PPH. While another drug, oxytocin, is the best drug for preventing PPH, it requires refrigeration and must be injected with a needle and syringe by a skilled health worker, such as midwife or doctor. Misoprostol, by contrast, does not need to be refrigerated and comes in pill form. As such, it is ideally suited for preventing PPH at home births and in resource-poor settings like Rwanda due to its stability, ease of use, effectiveness and safety.

Importantly, MCHIP trainers also teach CHWs to help women plan in advance to give birth in a health facility. The Program’s Maternal Health Advisor in Rwanda, Dr. Beata Mukarugwiro, said CHWs are highly effective at promoting these types of key messages to encourage safe deliveries. However, despite the government’s concerted efforts, there are still women who chose to give birth at home, she admitted. Having worked in a hospital maternity ward for more than 12 years, Dr. Beata described the women who would come to the hospital suffering from PPH after delivering at home: “They would arrive in shock and we would try to resuscitate them and give them blood transfusions. Many came too late and did not survive. The first two hours after delivery are critical for the mother to prevent excessive bleeding.”

Given the mountainous terrain in Rwanda, which is known as “the land of a thousand hills,” women like Ephiaphanie living in isolated areas often find it difficult to give birth in a facility for transport, cost, or other reasons. Regardless of why women give birth at home, Dr. Beata is convinced that the government’s efforts to make misoprostol available are very important. “The 10 to 20% [of women] who don’t give birth in a facility need to live if they suffer from PPH,” she said.

Ephiaphanie was very pleased with her experience with misoprostol and grateful that she was able to take this essential drug. “I still remember the tragic day when we lost my neighbor who died during childbirth from excessive bleeding,” she said. “I wish the drug was available in our village to save her life.” Since her daughter’s birth, Ephiaphanie has been teaching other mothers in her village about the importance of preparing in advance for childbirth and taking misoprostol immediately after the birth if delivering outside a health facility.

And with MCHIP support, Immanaculee is continuing her critical work to ensure that women who give birth at home have access to the vital medicine they need. Through this Rwandan pilot program—and many other activities being carried out globally—MCHIP is successfully empowering women and their health care providers to prevent PPH. To date, more than 700,000 women giving birth have received lifesaving medicine to prevent PPH thanks to USAID/MCHIP-supported programs.



DIRECTOR OF KABGAYI NURSING AND MIDWIFERY SCHOOL EXPRESSES HER APPRECIATION FOR MCHIP’S WORK

During the need assessments conducted with the nursing and midwifery schools and the Ministry of Health, MCHIP identified the challenge of sending nursing students for clinical placements in communities and the health centers as one of the key gaps in pre-service

education. In response, MCHIP supported all 59 third-year students and their 18 supervisors with packages that would ensure accommodation and logistics in the field. This practicum phase of the students' education is essential to ensuring they will be competent in the clinical skills they will need once they graduate.

“I cannot find the right words to thank USAID through MCHIP,” said Sister Domitille, Director of Kabgayi Nursing and Midwifery School. “Only God can provide the blessings, because the support that has been rendered to the students and supervisors to carry out the outreach and clinical placements in the health centers and communities has indeed alleviated the burden on our institution. With the tight budget left, I can be able to take care of the second year students and support their placements.”

Annex 3: List of Presentations at International Conferences

1. Feasibility of Determining the Prevalence of Malaria in Pregnancy during ANC in Rwanda, presented at Global Health Conference in 2011, Washington DC.
2. Improving the Health of Pregnant Women in Communities in Rwanda, presented at Jhpiego Mini-University in June 2013, Baltimore, MD.
3. Patient Centered Care in the Labor and Delivery Wards of Rwandan Health Facilities: Results of an Observational Assessment of 72 Health Facilities, presented at ISQUA 29th International Conference, Geneva in October 2012.
4. Postpartum Hemorrhage Prevention and Management Require Strengthening: Findings from a National Quality of Care Assessment in Rwanda, presented at XX FIGO World Congress in Rome in October 2012.
5. Saving Mothers Lives: Jhpiego's Innovative Approach to Prevent PPH using Mama Natalie, Podium Presentation, Rwanda Society of Obstetrics and Gynecology 1st Conference, Kigali, July 2013.
6. Scaling Up Kangaroo Mother Care in Sub-Saharan Africa: What Works?, presented at IX International Conference on Kangaroo Mother Care, Ahmedabad, November 2012.
7. Emergency Obstetric and Neonatal Care Contributes to the Improvement of Maternal and Newborn Health in Rwanda, Panel presentation at neonatology conference, Kigali, November 2011.
8. Community Health Workers in Home-Based Maternal Newborn Care in Rwanda, podium presentation during the Rwanda First International Summit on Community Health, January 2011.
9. Increasing Access to Prevention of PPH Interventions: Health Facilities and Home Births in Four Districts of Rwanda, FIGO Africa Regional Conference of Gynecology and Obstetrics, October 2013.

Annex 4: List of Materials and Tools Developed or Adapted

TRAINING RESOURCES PACKAGE

1. In collaboration with MOH, UNICEF, and other implementing partners, MCHIP provided assistance to the Community Health Desk for the development of the ASM strategy and training manual, job aid including:
 - i. The ASM counseling card materials
 - ii. The ASM training manual
2. Development of a community-level PPH prevention program trainer's guide, participant's guide, and a monitoring guide.
3. Development and adaptation of PPH educational training materials.
4. Development of FANC training resource package (trainer's manual and participant's manual).
5. Development of job aids and adaptation of pocket guide for EmONC.
6. Adaptation of IMCI training content to shorten the duration of the course from 10 days to 6 days.
7. Technical support to the development of training guide for Rotavirus vaccine.
8. Technical support during the process of adaptation of iCCM resources training package and the SISCOM monthly data collection tool.

POLICIES AND GUIDELINES

1. Development of KMC national guidelines.
2. Development of the National Social and Behavior Change Communication Sub-strategy for MNC.
3. Development of the new Rwandan FP Policy.

Annex 5: List of MCHIP Staff from 2009 to 2013

	STAFF NAMES	POSITION
1.	Aaron Gatabazi	Procurement and Logistic Officer
2.	Alice Nshemereirwe	Administrative Assistant
3.	Angelique Mugirente	Malaria Screening and Treatment Technical Officer
4.	Annie Marie Mutegwaraba	CCM/RDT Technical Officer
5.	Augustin Gatera	Immunization Advisor
6.	Augustine Gatete	Finance Manager
7.	Caleb Igiraneza	Logistician
8.	Celestin Butera	Driver
9.	Claude Kalisa Migisha	Information Technology Officer
10.	Dr. Beata Mukarugwiro	MNH/FP Team Leader
11.	Dr. Bosco Ahoranyezu	Malaria Consultant
12.	Dr. Christopher Mazimba	Senior Technical Advisor
13.	Dr. Pascal Musoni	PPH Study Coordinator
14.	Dr. Valentin Nkuba	Field Program Coordinator
15.	Dr. William Twahirwa	Monitoring and Evaluation Advisor
16.	Evariste Habakurama	Driver
17.	Flavia Mutamutega	BCC Consultant
18.	Gloriose Abayisenga	MNH Technical Officer
19.	Jean Baptiste Musafili	CCM/RDT Technical Officer
20.	Jean de Dieu Ntabakirabose Kagoma	CB MNH Technical Officer
21.	Jean Modeste Harelimana	IMCI/Pediatric HIV Technical Officer
22.	Jeremie Zoungrana	Country Director, MCHIP COP
23.	Jovite Sinzanhera	Monitoring and Evaluation Officer
24.	Monique Nyiringabo	Pre-Service Education Advisor
25.	Odette Kamanzi	Nutrition consultant
26.	Petronille Musengente	MNH Technical Officer
27.	Reinelde Uwukunda	Field Program Coordinator
28.	Rosine Bigirimana	FP/CBP Technical Officer
29.	Sharon Tumusenge	Finance Assistant
30.	Sophie Nyirangendo	FP/Facility Technical Officer
31.	Therese Bishagara	National Field Coordinator
32.	Tim Marty Gawayo	Finance Assistant
33.	Tony Gershom	Administrative Manager
34.	Valentin Kabalisa	Driver
35.	Valerie Kamwana	HR Officer
36.	Veneranda Umubyeyi	Malaria Screening and Treatment Technical Officer
37.	Yvette Mugeni	Human Resources Assistant
38.	Yvonne Mwanangu	BCC Focal Point