



MCHIP Kenya End-of-Project Report

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

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Country Summary: Kenya



Selected Health and Demographic Data for Kenya	
GDP per capita (USD)*	875
Total population**	38,610,097
Maternal mortality ratio (deaths/100,000 live births)***	488
Skilled birth attendant coverage (%)***	43.8
Antenatal care, 4+ visits (%)***	47.1
Neonatal mortality rate (deaths/1,000 live births)***	31
Infant mortality rate (deaths/1,000 live births)***	52
Under-five mortality (deaths per 1,000 live births)***	74
Treatment for acute respiratory infection (%)***	55.9
Oral rehydration therapy for treatment of diarrhea (%)***	72
Diphtheria-pertussis-tetanus vaccine coverage, 3 doses (%)***	86
Contraceptive prevalence rate among currently married women (%)***	45.5
Total fertility rate***	4.6
Total health expenditure per capita (USD) in 2011*	36.25
Sources: *World Bank; **Kenya Population and Household Census, 2009; ***Kenya Demographic Health Survey, 2008-09.	

Major Activities:

- **Systems strengthening:** Strengthened the technical and managerial capacity and the ability of the **Department of Family Health (DFH)** (currently Division of Family Health) to direct and monitor the implementation of national maternal, newborn, and child health (MNCH) policy
- **Nutrition:** Supported the **Division of Nutrition (currently Human Nutrition and Dietetics Unit)** to improve maternal, infant, and young child nutrition nationally and in high-priority counties and districts
- **Immunization:** Supported the **Division of Vaccine and Immunization (currently the Unit of Vaccines and Immunization)** to increase immunization coverage in lower performing districts
- **Child health:** Supported the **Division of Child and Adolescent Health (currently Neonatal, Child and Adolescent Health Unit)** to address the primary causes of child death in Kenya—diarrhea and pneumonia
- **Maternal and newborn health:** Supported the **Division of Reproductive Health (currently Reproductive and Maternal Health Unit)** and **Division of Adolescent Health** to improve the quality of maternal and newborn health (MNH) and family planning (FP) services
- **PMTCT:** Improved the quality and uptake of prevention of mother-to-child transmission of HIV (PMTCT) by integrating along the MNCH continuum-of-care using an adaptation of the Reaching Every District approach
- **Malaria in Pregnancy:** Support the **Division of Malaria Control** and **Division of Reproductive Health** to plan, coordinate, monitor, and implement malaria in pregnancy (MIP) interventions in Nyanza, Western, and Coast regions of Kenya
- **Community Prevention with Positives:** Supported the **National AIDS and STI Control Program** to roll out **Community Prevention with Positives** interventions in Kenya
- **Infection Prevention and control:** Supported selected sub-counties in promoting infection prevention and control, including injection safety and medical waste management in the community using Community Health Workers/Volunteers
- **Cervical cancer prevention:** Supported the **Reproductive and Maternal Health Services Unit** to strengthen the policy environment for cervical cancer prevention and control in Kenya
- **Community Health Strategy:** Implemented the Community Strategy in MCHIP Demonstration Sub-C to improve reproductive health, MNCH, FP, and HIV indicators using Community Health Workers/Volunteers



Program Dates	October 2009–September 2014							
Total Mission Funding to Date by Area	Funding Source	MCH (Non water)	MCH (Water)	OPH	Nutrition	Malaria	PEPFAR	Total
	Total Funds Obligated to Date (US \$)	5,583,252	200,000	1,200,000	1,200,000	2,104,000	3,696,820	13,983,072
Total Core Funding to Date (US \$)	5,000,000							
Geographic Coverage	County	Sub-county	No. of facilities					
			Public and FBO			Private		
1327.4 km ²	Meru	Igembe North	11			14		
593 km ²	Siaya	Bondo	23			12		
4,516 km ²	Baringo	East Pokot	16			4		
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Acronyms and Abbreviations

AMREF	African Medical Research Foundation
AOP	Annual Operational Plan
APHIAPlus	AIDS, Population and Health Integrated Assistance Plus
ART	Antiretroviral Therapy
BEmONC	Basic Emergency Obstetric and Newborn Care
BFCI	Baby Friendly Community Initiative
CDC	Centers for Disease Control and Prevention
CECAP	Cervical Cancer Prevention
CHAI	Clinton Health Access Initiative
CHANIS	Child Health and Nutrition Information System
CHC	Community Health Clinic
CHEW	Community Health Extension Worker
CHSU	Community Health Strategy Unit
CHV	Community Health Volunteer
CHW	Community Health Worker
cMIP	Community Malaria in Pregnancy
CPR	Contraceptive Prevalence Rate
CPwP	Community Prevention with Positives
CU	Community Unit
DCAH	Division of Child and Adolescent Health (<i>now Neonatal, Child and Adolescent Health Unit – NCAHU</i>)
DFH	Department of Family Health (<i>now Division of Family Health – DFH</i>)
DHIS	District Health Information System
DHMT	District Health Management Team
DHRIO	District Health Records and Information Officer
DOMC	Division of Malaria Control (<i>now Malaria Control Program – MCP</i>)
DON	Division of Nutrition (<i>now Human Nutrition and Dietetics Unit (NDU)</i>)
DQSA	Data Quality Self-Assessment
DRH	Division of Reproductive Health (<i>now Reproductive and Maternal Health Services Unit – RMHSU</i>)
DVI	Division of Vaccines and Immunization (<i>now Unit of Vaccines and Immunization Services – UVIS</i>)
EID	Early Infant Diagnosis
EmONC	Emergency Obstetric and Newborn Care
ENC	Essential Newborn Care

EPI	Expanded Program for Immunization
FIC	Fully Immunized Child
FP	Family Planning
FP/MIYCN	Family Planning and Maternal, Infant and Child Nutrition
GAPP	Global Action Plan for the Prevention and Control of Pneumonia
GAVI	Global Alliance for Vaccines and Immunization
HBB	Helping Babies Breathe
HCW	Health Care Worker
HEI	HIV-Exposed Infant
HMT	Health Management Team
HNDU	Human Nutrition and Dietetics Unit
ICC	Interagency Coordinating Committee
iCCM	Integrated Community Case Management
ICT	Information and Communication Technology
IEC	Information, Education, and Communication
IFA	Iron and Folic Acid
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
IP	Infection Prevention
IPC	Infection Prevention and Control
IPTp	Intermittent Preventive Treatment in Pregnancy
ITN	Insecticide-Treated Net
IYCN	Infant and Young Child Nutrition
KAPP	Kenya Action Plan for the Prevention and Control of Pneumonia
KAPPd	Kenya Action Plan for the Prevention and control of Pneumonia Including Diarrhea
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
KMC	Kangaroo Mother Care
KMIS	Kenya Malaria Indicator Survey
KSPA	Kenya Service Provision Assessment
LAM	Lactational Amenorrhea Method
LAPM	Long-Acting and Permanent Method
LEEP	Loop Electrosurgical Excision Procedure
LRP	Learning Resource Package
M&E	Monitoring and Evaluation

MCH	Maternal and Child Health
MCHIP	Maternal and Child Integrated Program
MCU	Malaria Control Unit
MDG	Millennium Development Goal
MI	Micronutrient Initiative
MIP	Malaria in Pregnancy
MIYCN	Maternal, Infant and Young Child Nutrition
MNCH	Maternal, Newborn and Child Health
MNH	Maternal and Newborn Health
MPDSR	Maternal and Perinatal Death Surveillance and Response
MOH	Ministry of Health
MOPHS	Ministry of Public Health and Sanitation
MOMS	Ministry of Medical Services
NACC	National AIDS Coordinating Council
NASCOP	National AIDS and STD Control Program
NICC	Nutrition Interagency Coordinating Committee
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PCV-10	Ten Valent Pneumococcal Conjugate Vaccine
PLWH	People Living with HIV/AIDS
PHMT	Provincial Health Management Team
PMTCT	Prevention of Mother-to-Child Transmission
PPH	Postpartum Hemorrhage
PSI	Population Services International
PwP	Prevention with Positives
QoC	Quality of Care
RED	Reaching Every District
RMHSU	Reproductive and Maternal Health Services Unit
RRI	Rapid Results Initiative
SBA	Skilled Birth Attendant/Attendance
SBM-R®	Standards-Based Management and Recognition
SCHMT	Sub-County Health Management Team
SIA	Supplementary Immunization Activity
SP	Sulfadoxine-Pyrimethamine
STI	Sexually Transmitted Infection
SUN	Scaling Up Nutrition

TA	Technical Assistance
TOT	Trainer/Training of Trainers
TWG	Technical Working Group
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
UVIS	Unit of Vaccines and Immunization Services
WASH	Water, Sanitation, and Hygiene
WBW	World Breastfeeding Week
WHO	World Health Organization

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 Kenya Ministry of Health (MOH), including the Division of Family Health (DFH), the National AIDS and STD Control Program (NASCO), the National AIDS Coordinating Council (NACC), and the Malaria Control Unit. Under the DFH, MCHIP would like to acknowledge the partnership with the Reproductive and Maternal Health Services Unit (RHMSU), the Neonatal Child and Adolescent Health Unit (NCAHU), the Nutrition and Dietetics Unit (NDU), the Unit of Vaccine and Immunization Services (UVIS), the Community Health Strategy Unit (CHSU), and the Health Promotion Unit (HPU). In addition, MCHIP would like to recognize the leadership and support of the Siaya, Baringo, Bungoma and Meru County Health Teams as well as the Bondo, East Pokot, Bungoma South and Igembe North sub-County Health Teams. Finally, we would like to thank the USAID Kenya Health Team for the guidance, and other partnering organizations who helped to realize this project:

- APHIAP*Plus* projects
- World Health Organization
- UNICEF

Executive Summary

Kenya has experienced tremendous development since 2000, including advancements in the economic, educational, and health sectors. Because of its strategic importance and motivated population, Kenya is a priority country for USAID's investments.

The most recent Kenya Demographic and Health Survey (KDHS), from 2008–09, saw some significant improvements in infant and child health but stagnation in the areas of maternal health and family planning as compared to the previous survey in 2003–04. For example, in 2003, the under-five mortality rate was 115/1,000 live births and the infant mortality rate (IMR) was 77/1,000 live births. By 2008, these figures had dropped to an under-five mortality rate of 74/1,000 and IMR of 52/1,000. Matching this were gains in coverage of key child health interventions such as treatment for acute respiratory infections (45.5% coverage in 2003 vs. 55.9% in 2008), use of oral rehydration therapy for treatment of diarrhea (50.6% in 2003 vs. 72% in 2008), and vaccination coverage of 3+ doses for diphtheria-pertussis-tetanus (72% in 2003 vs. 86% in 2008).

However, in maternal health there was little progress, as the maternal mortality ratio was measured at 414 per 100,000 live births in 2003 and 488 per 100,000 live births in 2008; this was not a statistically significant difference. In addition, skilled birth attendance increased minimally from 42% coverage in 2003 to 44% coverage in 2008, and antenatal care coverage for four or more visits actually decreased from 52.3% in 2003 to 47.1% in 2008. Family planning indicators saw similar sluggishness with the total fertility rate declining only from 4.9 in 2003 to 4.6 in 2008. Finally, the neonatal mortality rate—which is closely linked to maternal health—reduced slightly from 33/1,000 live births in 2003 to 31/1,000 in 2008. The next KDHS survey is currently under way in Kenya and the expectation is that there will be improvements in all areas.

Around the time that these data were emerging, the U.S. Agency for International Development (USAID)/Kenya began investing in large-scale, integrated health and HIV programs in different zones across the country, known as APHIAs (AIDS, Population and Health Integrated Assistance Programs). While these programs support service delivery and local governance within their respective zones, there was a need for national coordination and technical guidance. The Division of Family Health (DFH) under the Ministry of Health (MOH) made this request for support to USAID in 2009, and as a result, the MCHIP program was engaged to assist the DFH, and its divisions, to provide management, coordination, and technical leadership in maternal, newborn, and child health (MNCH) across the country.

Since 2009, MCHIP has built the management, supervision, information technology, monitoring and evaluation (M&E), institutional, and technical capacity of the divisions and strengthened the DFH's overall capacity to lead effective health programs countrywide. An element of technical leadership has also included supporting the DFH to demonstrate innovations and high-impact interventions in MNCH and develop strategies for scale-up. These demonstrations were implemented in selected districts of Bondo, Igembe North, and East Pokot. In 2012, MCHIP's role expanded to implementing activities in reproductive health (RH), malaria in pregnancy (MIP), infection prevention, maternal and newborn health, and HIV-related areas such as Prevention with Positives and prevention of mother-to-child transmission (PMTCT). All strategies are geared to attaining four main objectives:

Objective 1: To strengthen the technical leadership, coordination, and management capacity of the DFH and its principal divisions.

Objective 2: To promote the scale-up of high-impact MNCH, family planning, nutrition, malaria, and HIV interventions and best practices through implementing partners.

Objective 3: To develop, test, and share promising innovations and best practices in scaling up high-impact MNCH, family planning, nutrition, malaria, and HIV-related interventions.

Objective 4: To improve RH, MNCH, FP, and FP indicators through implementation of the Community Strategy in the MCHIP demonstration districts.

Within these four main objectives, the MCHIP program has been working to attain 10 separate sub-objectives, which have guided and focused the program.

MCHIP Kenya Sub-Objectives

1. Strengthen technical and management capacity of the DFH
2. Address maternal, infant, and young child nutrition in high-priority areas
3. Increase immunization coverage for low-performing districts; introduce rotavirus vaccine
4. Address diarrhea and pneumonia in children
5. Improve the quality of maternal and newborn health and family planning services
6. Improve quality and uptake of PMTCT using an adapted Reaching Every District (RED) approach
7. Plan, coordinate, monitor, and implement malaria in pregnancy (MIP) interventions in Nyanza, Western, and Coast
8. Roll out Community Prevention with Positives (cPwP)
9. Promote infection prevention and control, including injection safety and medical waste management in the community
10. Scale up cervical cancer prevention and control (CECAP) interventions

The overall program has had a number of successes and lessons learned, as described in detail in the full report. However, there are some highlights that can be noted as successes of the program.

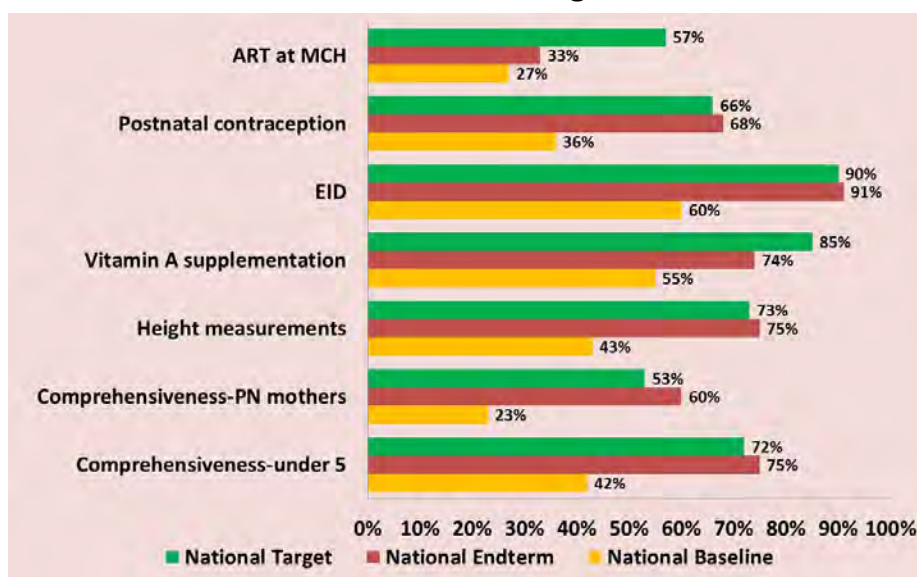
ORGANIZATIONAL CAPACITY BUILDING

One of the key roles of the MCHIP program was to build the skills and capacity of the national-level MOH managers. MCHIP worked with the MOH to institute essential management strategies such as setting up regular, effectively run meetings; coordinating partners; and creating a more streamlined process for developing and reviewing policies, guidelines, and strategies. In particular, MCHIP was able to assist the DFH to functionalize Inter-Agency Coordinating Committees (ICCs) that led the process of endorsing and approving national documents such as the iCCM (integrated community case management) Operational Guide and the Maternal and Newborn Health Roadmap. In addition, MCHIP worked closely with Program Officers within DFH to improve their supportive supervision and training skills so that policies are implemented effectively. In collaboration with the Division of Child and Adolescent Health, MCHIP supported the revision, adoption, and launch of a new national vaccination policy that had stagnated for more than 10 years. This policy was complemented by the introduction of three new vaccines in Kenya—PCV-10 (Ten Valent Pneumococcal Conjugate Vaccine) to address pneumococcal disease; rotavirus vaccine, to prevent one of the leading causes of childhood diarrhea; and HPV vaccine, to eliminate the cause of cervical cancer. Furthermore, MCHIP supported the Division of Nutrition (DON) to develop an M&E framework for key nutrition indicators. After approval by the ICC, the M&E Framework was launched, resulting in tracking of exclusive breastfeeding until six months of age, tracking of fortification of maize flour and baby food, and tracking of management of breastfeeding complications, among others. MCHIP facilitated the compilation of evidence on community use of zinc, which led to a policy change moving zinc from prescription to over-the-counter availability. This means that Community Health Workers (CHWs) are now able to provide zinc to children with diarrhea at the household level and scale up this evidence-based intervention. With MCHIP's technical assistance, the MOH now has an effective structure for managing health interventions at a national level.

DEMONSTRATING SUCCESS IN SERVICE DELIVERY

MCHIP supported selected aspects of service delivery, mainly in its target districts of Bondo, Igembe North, and East Pokot, but also in other areas of the country as needs arose. For example, MCHIP worked in the 64 districts with high malaria endemicity to address MIP through intermittent preventive treatment in pregnancy (IPTp) with sulfadoxine-pyrimethamine (SP). MCHIP supported the Division of Malaria Control and the Division of Reproductive Health to update 5,759 service providers in IPT-SP—exceeding targets, with 117% coverage—from 1,165 facilities (94% of target). The facility work was complemented by updating CHWs on community MIP where pregnant women were registered and referred to antenatal care services. These inputs led to increased coverage of two doses of IPTp, measured as rising from 25% to 63% in one independently evaluated district. Another example of successful service delivery was supporting the MOH to use the rapid result initiative (RRI) approach to integrate HIV services at maternal and child health (MCH) clinics in 40 facilities. The RRI approach was focused on reducing missed opportunities for linking HIV and MCH services. Targets were set for indicators such as postnatal contraception, early infant diagnosis (EID) of HIV, vitamin A supplementation for newborns, and others. During the RRI interventions, MCHIP measured baseline provision of these services and endline provision. The facilities surpassed the targets for five out of the seven indicators, as shown below. For example, at baseline EID was being provided at a level of 60%. After the RRI, EID coverage was 91%, higher than the 90% target.

National Achievements on the MNCH RRI Indicators among 40 Health Facilities



Key:

EID – Early Infant Diagnosis
 ART – Antiretroviral Therapy
 PN – Postnatal

SCALING-UP THROUGH PARTNERS

MCHIP developed strong relationships with all USAID-funded partners—including the APHIAPlus partnerships—as well as non-USAID partners. MCHIP linked the MOH with APHIAPlus programs to scale up selected interventions. In Eastern and North Eastern regions, MCHIP worked with APHIAPlus Kamili and Imarisha, respectively, to roll out essential newborn care (ENC) training. MCHIP supported the training of 45 APHIAPlus staff as mentors in ENC. These mentors then scaled up ENC training to more than 300 health workers. In addition to providing technical assistance, MCHIP also led the process of bringing partners

together to tackle challenges. Seven districts were identified by the Division of Vaccines and Immunization as low-performing districts in terms of immunization coverage, with high numbers of unvaccinated children. MCHIP coordinated efforts with the United Nations Children’s Fund (UNICEF) and APHIAPlus to address these gaps. MCHIP supported the training on Reaching Every District (RED)¹ in each district while UNICEF and APHIAPlus provided the funds to implement the micro-plans developed. MCHIP then also provided technical support to follow up these plans. Due to these joint efforts, the seven districts recorded significant reductions in the numbers of unvaccinated children and, in 2012, five of the districts were weaned off of donor support.

INNOVATIVE IMPLEMENTATION APPROACHES

Finally, in the target districts, MCHIP demonstrated successful, innovative approaches to addressing MNCH, which included adapting strategies from one technical area to another, piloting and testing different models, and sharing its lessons learned with partners. The RED approach, which was so successful for vaccination coverage, was also adapted and applied to increase PMTCT coverage. Between 2010 and 2012, there was an increase in coverage of the district with CHW interventions from 38% to 100%. This led to marked improvements in the proportion of HIV-exposed infants getting tested at six weeks of age: 27% to 78%. MCHIP also tested a client referral model using HIV support groups in Bondo and Igembe East districts increase the numbers of people living with HIV/AIDS (PLWH) coming in for HIV care and treatment services. This approach connected the support groups to the facilities and enabled PLWH peer educators to do referrals as well. To elevate levels of family planning use, MCHIP supported the Bondo Sub-County Health Management Team to roll out distribution of family planning commodities through CHWs. This was measured in April 2014, and preliminary findings show impressively high contraceptive prevalence rates of 64% among all women and 72% among married women. MCHIP worked with the DON to demonstrate the Baby Friendly Community Initiative (BFICI) in Bondo and Igembe North. The BFICI package implements interventions at primary care facilities and in the community to improve maternal nutrition, breastfeeding rates, and complementary feeding. Following the training, supervision, and support group activities in Bondo, new mothers had improved knowledge and skills in infant feeding practices. To address infection prevention and control (IPC) at health facilities, MCHIP pioneered the on-site, whole-site training approach. This approach facilitates practical exposure to IPC for everyone at the facility, which resulted in the development of plans and allocated collective responsibility for IPC at the facility. MCHIP shared these and other innovative approaches with APHIAPlus Kamili, APHIAPlus Nuru Ya Bonde, FHI 360, and African Medical Research Foundation partners during several learning field visits to Bondo over the course of the program.

“There has been a threefold increase in enrolment into our HIV services in this health facility; we are seeing mothers referred by their partners to the PMTCT and MCH for HIV testing. We are also seeing index clients referring their sexual partners for testing and HIV care at our HIV comprehensive clinic.”

– HIV clinic nurse in-charge at Bondo district hospital, Siaya County

In conclusion, the MCHIP program in Kenya successfully led to the adoption of best practices for maternal, newborn, and child health at the national, county, district, facility, and community levels. It brought together all stakeholders to address priority problems and fill gaps in services, and paved the way for adoption of innovative and effective approaches. The report below fully details achievements over the five-year program.

¹ RED is an operational strategy for reaching every child with vaccinations by: addressing planning and management of financial and human resources; extending services to target population; creating community links with the health facility; providing supportive supervision; and monitoring data.

Introduction

The goal of the U.S. Agency for International Development’s (USAID’s) Maternal and Child Health Integrated Program (MCHIP) is to assist in scaling up evidence-based, high-impact maternal, newborn, and child health (MNCH) interventions, thereby contributing to significant reduction in maternal and child mortality toward achievement of Millennium Development Goals (MDGs) 4 and 5. In January 2009, USAID/Kenya requested that MCHIP provide support to the Ministry of Public Health and Sanitation (MOPHS) through the Department of Family Health (DFH), where the Divisions of Child and Adolescent Health (DCAH), Vaccines and Immunization (DVI), and Nutrition (DON) are domiciled.

Following the general elections of March 2013, Kenya adopted a devolved governance structure. The internal administrative units changed from the previous eight provinces to the current 47 counties. Each county has multiple sub-counties that were derived from the former districts that existed in the provinces before devolution. At the same time, the MOPHS and the Ministry of Medical Services (MOMS) were merged into the current Ministry of Health (MOH), which is led by a Cabinet Secretary who is a non-politician. The MOH internally reorganized its departments and divisions. What was previously known as the Department of Family Health (DFH) became the Division of Family Health (DFH). While the functions of the Division of Family Health remain the same as those of the former Department of Family Health, the former divisions are now referred to as units. The Division of Family Health was in addition expanded to incorporate the Community Health Strategy Unit (CHSU) and the Health Promotion Unit (HPU). The Division of Malaria Control (DOMC) was also changed to the Malaria Control Unit (MCU). These changes are summarized in the Table 1 below.

Table 1. Restructure within the Division of Family Health of the MOH

DIVISIONS WITHIN DEPARTMENT OF FAMILY HEALTH (DFH) FORMER STRUCTURE WITHIN MOPHS	UNITS WITHIN THE DIVISION OF FAMILY HEALTH (DFH) NEW STRUCTURE WITHIN MOH
Division of Reproductive Health (DRH)	Reproductive Health and Maternal Health Services Unit (RMHSU)
Division of Child and Adolescent Health (DCAH)	Neonatal, Child and Adolescent Health Unit (NCAHU)
Division of Vaccines and Immunization (DVI)	Unit of Vaccines and Immunization Services (UVIS)
Division of Nutrition (DON)	Human Nutrition and Dietetics Unit (HNDU)
	Community Health Strategy Unit (CHSU)
	Health Promotion Unit (HPU)
Division of Malaria Control (DOMC)	Malaria Control Unit (MCU)

It is necessary to point out these changes because they have necessitated that MCHIP adapt to the new terrain in its approach to supporting the MOH to provide high-priority interventions. Due to these changes, in certain sections of this report, reference will be made to the former geopolitical internal administrative units of the country such as districts and to the former MOH structure.

To align the health services delivery system with the devolved governance structure, the MOH has, through the Kenya Health Policy 2012–2030, reorganized the structure from the previous six levels to four tiers of the health care system, as shown in Table 2 below.

Table 2. Restructured Health Care Service Delivery System in Kenya

LEVEL OF HEALTH CARE SYSTEM IN PREVIOUS STRUCTURE	CURRENT FOUR-TIER HEALTH CARE SYSTEM
Level 1: Community Services	Tier 1: Community Services
Level 2: Dispensaries	Tier 2: Primary Care Services - Dispensaries, Health Centers, and Maternity Homes
Level 3: Health Centers and Maternity Homes	
Level 4: District and Sub-District Hospitals	Tier 3: County Referral Services – Former District and Sub-District (now County and Sub-County) Hospitals)
Level 5: Provincial Hospitals	
Level 6: National Referral Hospitals	Tier 4: National Referral Services

At the community level, Community Health Workers (CHWs) provide integrated health information and services. In recognition of the fact that CHWs are community-based volunteers, the MOH has proposed to rename them Community Health Volunteers (CHVs) to reflect the nature of their work. The Government of Kenya recommends a monthly, performance-based incentive of approximately US\$23.00 per CHV where resources are available. Since this position is on a voluntary basis, this stipend remains an incentive and not a salary. Currently, it is frequently unavailable in many parts of the country. With devolution, county governments are expected to budget and provide it to the CHVs.

Within this new government framework, one of MCHIP’s primary goals was to build the capacity of the MOH. MCHIP’s support to the MOH focused on building the management, supervision, information technology, and monitoring and evaluation (M&E) skills of staff, as well as strengthening the overall capacity of the DFH to provide effective leadership and coordination of health programs across the entire country. When ACCESS Uzima² ended in March 2012, MCHIP’s mandate was extended to cover support to the DRH. This entailed implementing activities in reproductive health (RH), malaria in pregnancy (MIP), infection prevention (IP), maternal and newborn health (MNH), and HIV-related areas such as prevention of mother-to-child transmission (PMTCT). Within this expanded mandate, MCHIP also provided support to the DOMC/MCU and the National AIDS and STI Control Program (NASCOP).

MCHIP/KENYA HAD FOUR MAIN OBJECTIVES

- Objective 1:** To strengthen the technical leadership, coordination, and management capacity of the DFH and its divisions/units.
- Objective 2:** To promote the scale-up of high-impact MNCH, family planning, nutrition, malaria, and HIV interventions and best practices through implementing partners.
- Objective 3:** To develop, test, and share promising innovations and best practices in scaling up high-impact MNCH, family planning nutrition, malaria, and HIV-related interventions.
- Objective 4:** To improve RH, MNCH, FP, and FP indicators through implementation of the Community Strategy in the MCHIP demonstration districts.

SUB-OBJECTIVES THAT GUIDED PROGRAM IMPLEMENTATION

- Sub-Objective 1:** Strengthen the technical and managerial capacity and the ability of the Department of Family Health (DFH) to direct and monitor the implementation of national MNCH policy.

² ACCESS Uzima was an Associate Award to the global USAID ACCESS Program and ran in Kenya from 2007–2009, focusing on maternal health and HIV.

- Sub-Objective 2:** Support the Division of Nutrition (DON) to improve maternal, infant, and young child nutrition (MIYCN) nationally and in high-priority counties and districts.
- Sub-Objective 3:** Support the Division of Vaccine and Immunization (DVI) to increase immunization coverage in low-performing districts and successfully introduce rotavirus vaccine nationwide.
- Sub-Objective 4:** Support the Division of Child and Adolescent Health (DCAH) to address the primary causes of child death in Kenya—diarrhea and pneumonia.
- Sub-Objective 5:** Support the Divisions of Reproductive Health (DRH) and Child and Adolescent Health (DCAH) to improve the quality of maternal newborn health (MNH) and family planning (FP) services.
- Sub-Objective 6:** Improve the quality and uptake of PMTCT by integrating along the MNCH continuum of care using an adaptation of the Reaching Every District (RED) approach.
- Sub-Objective 7:** Support the Division of Malaria Control (DOMC) and Division of Reproductive Health (DRH) to plan, coordinate, monitor and implement malaria in pregnancy (MIP) interventions in three targeted regions of Coast, Nyanza, and Western Kenya.
- Sub-Objective 8:** Support the National AIDS and STI Control Program (NASCO) to roll out Community Prevention with Positives (CPwP) interventions in Kenya.
- Sub-Objective 9:** Support the Division of Reproductive Health to scale up national cervical cancer prevention and control (CECAP) interventions.
- Sub-Objective 10:** Support districts in Eastern and Rift Valley Provinces in promoting infection prevention and control (IPC), including injection safety and medical waste management in the community.

MCHIP/Kenya initially established demonstration sub-counties to show the effect of implementing high-impact MNCH interventions. The program began in Bondo district in 2010 and then, in 2013, added Igembe North and East Pokot.

Major Accomplishments

This section is organized by the MCHIP/Kenya sub-objectives and includes the sub-objective's major accomplishments, challenges, and lessons learned.

OBJECTIVE 1

To strengthen the technical leadership, coordination, and management capacity of the DFH and its divisions

SUB-OBJECTIVE 1

Support to Department of Family Health: Strengthen the technical and managerial capacity and the ability of the Department of Family Health (DFH) to direct and monitor the implementation of national MNCH policy. This is a cross-cutting sub-objective. It laid the foundation for the implementation and achievement of all the other sub-objectives.

Background

Starting in 2009, MCHIP supported managerial capacity, technical leadership, policy development, and national coordination for the DFH and its divisions. This support has enabled the DFH to effectively oversee implementation of the holistic MNCH program, including nutrition, immunization, PMTCT, MIP, etc. As a result, achievements were realized in the following areas:

Management Capacity for the DFH

Management skills training for DFH staff: Thirteen members of the DFH staff, including Heads, Deputy Heads, and Program Managers, underwent strategic leadership and senior management courses at the Kenya School of Government in Nairobi. Following training, the Head of the DFH initiated weekly managers' meetings to enhance coordination in the department. With these increased management skills, some MOH staff were promoted to senior positions. MCHIP also procured two vehicles for the DON and DCAH, respectively.

Table 3. Unduplicated Number of DFH Personnel Trained, by Division and Type of Training

COURSE	DFH	DVI	DCAH	DON	DRH	TOTAL
Strategic Leadership and Management	1	3	2	4	3	13
Supportive Supervision for Health Service Providers	3	4	14	5	5	31
Clinical Training Skills	0	3	3	3	3	12
Basic Information and Communication Technology (ICT) Skills	15	3	1	2	2	23

Improved supportive supervision skills and development of supervision tools: Forty technical staff (31 from DFH and nine from MCHIP) were trained on the effective use of data for decision-making as well as supportive supervision to improve the quantity (coverage) and quality of high-impact MNCH interventions, including nutrition and immunization. Broadly, MCHIP supported various MOH units to develop supervision tools in different technical areas, and is assisting in the development of an integrated supportive supervision tool for monitoring of health services.

Improved training skills: Given that DFH staff are often at the top of the training cascade, it is important that they have strong training skills to be able to ensure transfer of learning in new clinical areas. Therefore, 12 staff from the DFH divisions were trained on skills for effective training of trainers (TOT).

Improved utilization of information, communication, and technology (ICT): MCHIP conducted an assessment of ICT skills and supplies within the DFH. Based on the findings, MCHIP procured 27 pieces of ICT equipment and accessories and distributed them to the DFH and its units. MCHIP also facilitated the establishment of an official email address for all staff at the DFH through a Google domain and has continued to support its annual subscription to Google apps. This has led to improvement in communication, and the official email system has provided the DFH with an official email address system to enhance identity.

Support to the DFH’s Inter-Agency Coordinating Committees and Technical Working Group

MCHIP supported functions of the DFH’s Nutrition and Child Health Interagency Coordinating Committees (ICCs), resulting in more focused (agenda and deliverables) and regular meetings. Through these ICCs, MCHIP has assisted in developing or reviewing policies, strategies, and guidelines such as the iCCM (integrated community case management) Operational Guide and MNH Roadmap. Additionally, the ICCs have facilitated scaling up of high-impact interventions such as emergency obstetric and newborn care (EmONC), FP/MIYCN integration, and cervical cancer prevention, among others.

Provision of Direct Technical Support to DFH Units

MCHIP hired and stationed immunization, child health, nutrition, and M&E technical advisors at DFH to work directly with the four divisions on a full-time basis. These advisors focused on ensuring technical excellence and effective use of data. MCHIP also supported the annual work plan review meetings for the DCAH, DON, and DVI, specifically in the coordination and development process. This support has resulted in an organized business plan or work plan for the divisions that has enhanced their coordination role.

Linkage with APHIAPlus Programs and Dissemination of Evidence-Based, High-Impact Interventions

Collaboration with implementing partners for scale-up: MCHIP collaborated with APHIAPlus programs in different regions to spread the utilization of tools, job aids, strategies, and models of implementation developed through central-level support. For example, MCHIP provided newborn training materials and trainers (MCHIP staff) who facilitated the trainings in APHIAPlus North Eastern Province. MCHIP also facilitated a series of meetings with all maternal and child health (MCH) stakeholders for sharing implementation experiences and innovations to improve health outcomes. MCHIP has used these meetings to advocate for promotion of high-impact interventions such as the use of the RED approach and Nutrition Baby Friendly Community Initiative (BFCl) intervention.³ With MCHIP’s support, DFH representatives visited five APHIAPlus zones and got a firsthand look at program implementation across Kenya, allowing them to compare strategies and realize opportunities for linkages to national-level guidelines, tools, and materials. The APHIAs also became aware of and utilized MCHIP’s technical expertise for MNCH training and development of sub-county work plans.

M&E Support to DFH Divisions

MCHIP, after conducting M&E assessments of DFH divisions, particularly with the DCAH and DON, determined the need for an M&E framework. The Monitoring, Evaluation and Research (MER) team at MCHIP held several workshops and led the writing process for the M&E framework for both divisions. The frameworks were taken through the various vetting processes

³ The RED approach is described under Sub-Objective 3, while BFCl intervention is described under Sub-Objective 2.

at different Technical Working Groups (TWGs) as well as the ICCs, where the documents were finalized and approved. They served as the foundation for development of supervision guidelines.

Facilitated DFH Staff Attendance and Presentations at Scientific Conferences

MCHIP supported DFH staff to develop abstracts and attend international conferences to share and also learn the promising and best practices from experts in the relevant fields of reproductive, maternal, newborn, and child health. This promoted the dissemination of the best practices beyond the intervention areas and the country. Table 4 below gives a sample of conferences attended.

Table 4. Conferences MCHIP Supported DFH Staff to Attend

CONFERENCE	DATE	LOCATION	NO. OF DFH STAFF SUPPORTED TO ATTEND
Essential Maternal and Newborn Care conference (EMNC)	2011	Addis Ababa, Ethiopia	3
International Federation of Gynaecology and Obstetrics (FIGO) Conference	October 2013	Addis Ababa, Ethiopia	1
International Nurses Conference (<i>Supported a day at the conference to share evidence-based, high-impact MNCH interventions</i>)	2012	Mombasa, Kenya	MCHIP paid for a full-day session to share its program with over 1,500 members of the National Nurses Association of Kenya

Challenges

The following are challenges that MCHIP faced as it implemented activities under this sub-objective:

- a. Reorganization as a result of devolution: The reorganization has also resulted in redeployment of DFH staff who had been trained by MCHIP and hiring of new staff who require orientation and training on MCHIP activities. There was some disruption of program implementation and achievement levels.
- b. Given the position the DFH holds nationally, all partners and stakeholders demand its attention and time. This usually results in delays in making program decisions and implementing planned activities, affecting the overall MCHIP program.
- c. One of MCHIP/Kenya's overarching goals was integration of the activities, such as integrated support supervision, within the DFH. This goal was not achieved, as each division still conducts vertical supervision to the districts.

Lessons Learned

MCHIP learned the following lessons during the implementation of this sub-objective:

- a. Strengthening systems has led to improvement in MNCH program coordination.
- b. Improvement of supportive supervision skills and provision of tools have led to a more structured, organized visit.

SUB-OBJECTIVE 2: NUTRITION

Support the Human Nutrition and Dietetic Unit (HNDU) to improve maternal, infant, and young child nutrition (MIYCN) nationally and in high-priority counties and sub-counties.

MCHIP sought to improve maternal and child nutrition through the promotion of high-impact nutrition interventions, the BFCI, and improved prevention and control of maternal anemia. MCHIP nutrition technical support was provided at the national and district levels while

programmatic support was provided to APHIAPlus nutrition focal persons and to MCHIP demonstration districts.

2.1: Support for national-level activities: At the national level, MCHIP supported the Human Nutrition and Dietetics Unit (HNDU) to convene Annual Operational Plan (AOP) stakeholder meetings and other meetings where major government deliberations, decisions, and approvals are made. Quarterly Nutrition Interagency Coordinating Committee (NICC) meetings served as the multi-stakeholder and multi-agency platform to coordinate nutrition activities in the country, endorse key policies, guidelines, and strategies, and mobilize resources for annual nutrition plans. The NICC is supported by five subcommittees: Maternal Infant and Young Child Nutrition (MIYCN); Nutrition Technical Forum; National Micronutrient Deficiency Control Council; Healthy Diets and Lifestyle; and Research Monitoring and Evaluation. MCHIP directly supported the MIYCN subcommittee and was a member of the others.

MCHIP has provided technical support to HNDU for various activities at national level including the launch of the scaling up nutrition (SUN) movement in Kenya and to the post-SUN committee in developing a dissemination plan for the National Nutrition Action Plan. MCHIP supported the printing of the revised Child Health and Nutrition Information Systems (CHANIS) tools for the national level and for the demonstration sub-counties. Every quarter, MCHIP convened meetings with nutrition focal persons for the APHIAPlus projects and other stakeholders to share best practices and lessons learned from MCHIP’s work.

2.2: Support for World Breastfeeding Week activities: MCHIP annually supported the HNDU, Igembe North, and Bondo to celebrate World Breastfeeding Week (WBW). They conducted advocacy activities and media events and disseminated breastfeeding messages through their WBW Facebook Page, “Let’s Talk Breastfeeding, Kenya.” Created in 2011, the WBW Facebook page has accrued 1,094 “likes” from Kenya and worldwide over the course of three annually held WBW events, and 904 people have shared stories about breastfeeding over the same period.

2.3: Provided technical support to the DON to develop, review, and disseminate MIYCN policy, strategies, and guidelines in collaboration with partners: MCHIP provided technical support to the DON to develop and/or disseminate policy, strategy, and guidelines on MIYCN, which are listed in Table 5 below.

Table 5. MIYCN Policy, Strategies and Guidelines Developed with Support from MCHIP and in Collaboration with Partners

DOCUMENT	TYPE OF SUPPORT MCHIP PROVIDED	COLLABORATING PARTNERS
National Nutrition Action Plan 2012–2017	Technical, as part of the development team	HNDU (lead), United Nations Children’s Fund (UNICEF), World Food Programme, and World Health Organization (WHO), Micronutrient Initiative (MI)
MIYCN National Policy Guidelines	Technical, as part of the development team	UNICEF (lead)
MIYCN National Strategy 2012–2017	Technical, as part of the development team	UNICEF (lead)
MIYCN Policy Summary Statement	Technical, as part of the development team	UNICEF (lead)
Advocacy on Breast Milk Substitute (BMS) Regulation and Control Act 2012 passed by the National Assembly	Technical, as part of the development and advocacy team	UNICEF and MOH (lead)

DOCUMENT	TYPE OF SUPPORT MCHIP PROVIDED	COLLABORATING PARTNERS
Developed, printed, and disseminated MIYCN national nutrition operational guidelines for health workers to guide service providers in counseling and support of caregivers at facility level on optimal MIYCN feeding practices	Technical and financial as part of a team of partners	USAID MCHIP (lead), WHO, UNICEF, other partners
Developed and disseminated the National Nutrition M&E Framework	Technical and financial as part of a team of partners	MCHIP (lead) Other partners – UNICEF and Action Against Hunger
Supported development and printing of Nutrition behavior change communication materials. MCHIP disseminated the materials within its demonstration Sub-Counties of Bondo, Igembe North, and East Pokot for use at oral rehydration therapy (ORT) corners in facilities. The materials assisted service providers in counseling of caregivers on feeding during and after diarrheal disease.	Technical and financial as part of a team of partners Child Health team was also involved	MCHIP (lead) DON and DCAH
Printed the Child Health and Nutrition Information System (CHANIS) reporting tool for the national level and supported its dissemination on the District Health Information System (DHIS) for child health and nutrition indicators in Igembe North, Bondo, and East Pokot districts. The tools have been scaled-up to the APHIAPlus programs.	Technical and financial as part of a team of partners	DHIS and HNU (lead), MCHIP supported printing
The Baby Friendly Community Initiative Monitoring and Assessment Protocols – 2014	Technical and financial as part of a team of partners	MCHIP lead
Accelerating Reduction of Iron Deficiency Anemia among Pregnant Women in Kenya; Plan of Action 2012–2017	Technical and financial as part of a team of partners	MCHIP lead

The development and dissemination of the finalized documents have resulted in improved services to mothers and children at the community and facility levels in the demonstration districts.

2.4: Supported development of the Accelerating Reduction of Iron Deficiency Anemia among Pregnant Women in Kenya, Plan of Action – 2012–2017: Iron and folic acid (IFA) supplementation, a part of maternal anemia prevention and control activities, had been ignored. IFA supplements had been removed from the Essential Drugs List. Because of this neglect, the KDHS (2008–09) found that only 2.5% of pregnant women take IFA for more than 90 days. MCHIP supported a National Anemia Stakeholders meeting, which resulted in a work plan and budget for scale-up of anemia control programs, mainly IFA supplementation. The adoption of the work plan also generated funds from the World Bank for IFA supplements, and the development of an IFA behavior change communication strategy and materials. In addition, IFA is now back on the Essential Drugs List in the form of a fixed-dose combination that has low-dose folic acid to improve on client compliance through less frequent dosing and minimize interference with sulfadoxine-pyrimethamine (SP) for prevention of malaria in pregnancy. In order to continue advocacy efforts, MCHIP worked with HDNU to kick off an Anemia Task Force of stakeholders dedicated to implementing an integrated approach toward anemia prevention and control.

2.5: Increased uptake of MIYCN services due to use of BFCI package in Bondo and Igembe North Sub-Counties and Supportive Supervision: The Baby Friendly Community Initiative (BFCI) package is an assessment and monitoring protocol developed under the leadership of the HDNU. The BFCI package is designed with the realization that the majority of pregnant and lactating women seek health care from primary care and community services and that the majority (56%) of women deliver at home. Therefore, BFCI implements primary care

and community-level interventions for improving maternal nutrition, breastfeeding rates, and complementary feeding, as outlined in the National Nutrition Action Plan (2012–2017).

This tool was field-tested in Bondo, has been nationally disseminated, and is in use in facilities across the nation. To get to this point, MCHIP started with a BFCI assessment in four facilities in Bondo Sub-County and three facilities in the Eastern part of Kenya, in collaboration with APHIAP*lus* Kamili and HNDU. The main objective was to assess the level of implementation and to provide targeted BFCI mentorship to the health care providers in the facilities. This led to the accreditation of one facility, Kavutha Dispensary in Kitui County, as baby-friendly, which was officially done by the Head of HNDU during the World Breastfeeding Week in 2013.

In Bondo, MCHIP supported orientation of **24** health care providers and **41** CHVs on the BFCI package from four health facilities and the five community units (CUs) attached to these four facilities. In Igembe North, MCHIP supported the orientation of 10 Sub-County Health Management Team (SCHMT) members, 30 Community Health Extension Workers (CHEWs), and over 543 CHVs on BFCI, Community Support Group Guidelines, and Community-Based Health Information System Data Quality Audit (CBHIS DQA), and formed 25 support groups. MCHIP supported Bondo and Igembe SCHMTs to carry out supportive supervision visits on BFCI implementation. In Bondo, mothers interviewed via client exit interviews had knowledge of most of the infant feeding practices; 17 community support groups were formed and the MIYCN policy statement was translated into the local language (Dholuo) and strategically placed at all key areas in the facility. Use of the BFCI package in Bondo and Igembe North Sub-Counties and regular supportive supervision on BFCI implementation have led to considerable improvement in uptake of optimal MIYCN practices.

2.6: Initiated links with the Ministry of Agriculture to identify complementary food local recipes for improvement and demonstrations through community support groups: Igembe North had very poor child nutrition practices when MCHIP started working there. MCHIP provided technical support to the SCHMT to establish at least one MIYCN support group per CU. These groups included pregnant women, mothers with young children, mothers-in-law, and husbands. MCHIP initiated linkages with the Ministry of Agriculture to identify complementary local food recipes for infant and young child diet improvement and nutrition demonstrations. More than 20 nutritious complementary local food recipes were developed with demonstrations ongoing. A controlled assessment of 15 of the 25 community support groups was conducted to compare knowledge, attitudes, and practices of pregnant women or women with young children attending the groups compared with women not attending the groups within the same CUs. A cross-sectional assessment conducted in April 2014 with 106 caregivers (*attendees and non-attendees* of support groups) of children less than two years of age to examine their knowledge, attitudes, and practices around maternal, infant, and young child nutrition revealed that more than 90% of the mothers were living in male-headed households and were between 16 and 43 years of age. Over 80% were married and about 50% had completed primary school education, while just about the same number were self-employed. All mothers who were members of a support group had made at least one antenatal care (ANC) visit, and twice as many of those who were members of a support group attended ANC more than three times. Eighty-six percent of the mothers who were members of support groups delivered in health facilities while 71% of those who were not support group members delivered in health facilities. There was no significant difference in knowledge of exclusive breastfeeding among the two groups. Complementary feeding practices were significantly better among the mothers who were in a support group than those who were not. Most of those in a support group received information on how to feed their child from a CHV while the others received information from a facility health worker.

2.7: Developed nutrition M&E framework: MCHIP supported the HNDRU to develop an M&E framework in collaboration with other partners to monitor and evaluate the national nutrition action plan, which gives the roadmap for nutrition activities in Kenya. The framework was approved by the Nutrition ICC. The framework was disseminated nationally in 2013 together with the MIYCN materials. The development of the framework brought together key nutrition stakeholders to agree on indicators that should be tracked nationally, defining them in terms of output, outcomes, and impact. A lesson learned was that key stakeholders need to be involved in M&E to ensure utilization, scale-up, and sustainability.

Challenges

MCHIP experienced the following challenge in the implementation of activities under this sub-objective:

- a. The national-level structures put in place to support various divisions of the DFH such as task forces, TWGs, and ICCs are good but laborious, especially with regard to consensus-building and approval of documents.
- b. Difficult terrain, especially in East Pokot, was a hindrance to advocacy activities and participation in stakeholder meetings.
- c. In certain parts of the country, health care facilities are far from each other, resulting in poor access and delays in implementation of activities.
- d. Changes in governance and within the MOH have been a challenge to navigate.

Lessons Learned

The following lessons were learned as MCHIP implemented activities under this sub-objective:

- a. Partnerships and collaborations are key factors in the development and implementation of micronutrient initiatives at the national and district levels.
- b. Linkages with APHIA*Plus* programs have facilitated scale-up of the MCHIP-led nutrition interventions.
- c. Each community is unique, and implementers should be sensitive to these peculiarities, e.g., in Bondo, mothers-in-law play a crucial role in infant feeding, whereas in Igembe North this responsibility rests with the infant's mother.
- d. Other factors besides food availability affect feeding practices, e.g., the number of cases of malnutrition is high among infants and children in Igembe North despite the area having a lot of food and a significant cash crop.
- e. A supportive SCHMT facilitates implementation of activities.
- f. Addressing nutrition at national and county levels requires a multisectoral approach for success, for example, the Igembe North work with the Ministry of Agriculture to improve complementary feeding practices.
- g. Integration of nutrition in other health services and task-shifting are key to maximizing opportunities, especially in Kenya, when there are very few nutritionists employed in the government health facilities.
- h. Involvement of men, grandmothers, and mothers-in-law as key influencers of MIYCN is critical for the uptake of nutrition knowledge, attitudes, and practices.

SUB-OBJECTIVE 3: NEW VACCINES AND ROUTINE IMMUNIZATION

Support the Division of Vaccine and Immunization (DVI) to increase immunization coverage in lower-performing districts and successfully introduce rotavirus vaccine nationwide by 2014

The 2012 immunization coverage survey found a 3% improvement in fully immunized coverage, up to 80% from the 77% reported in the 2008/9 KDHS, with penta 3 at 85%. However, within that coverage, there were significant disparities among provinces and districts. MCHIP supported DVI and worked closely with UNICEF, WHO, and other partners to help address the gaps, achieving the following results at national and district levels:

3.1: Scaled up the implementation of RED and the data quality self-assessment (DQSA) approach in low-performing districts of Nyanza, Western, and Eastern Provinces:

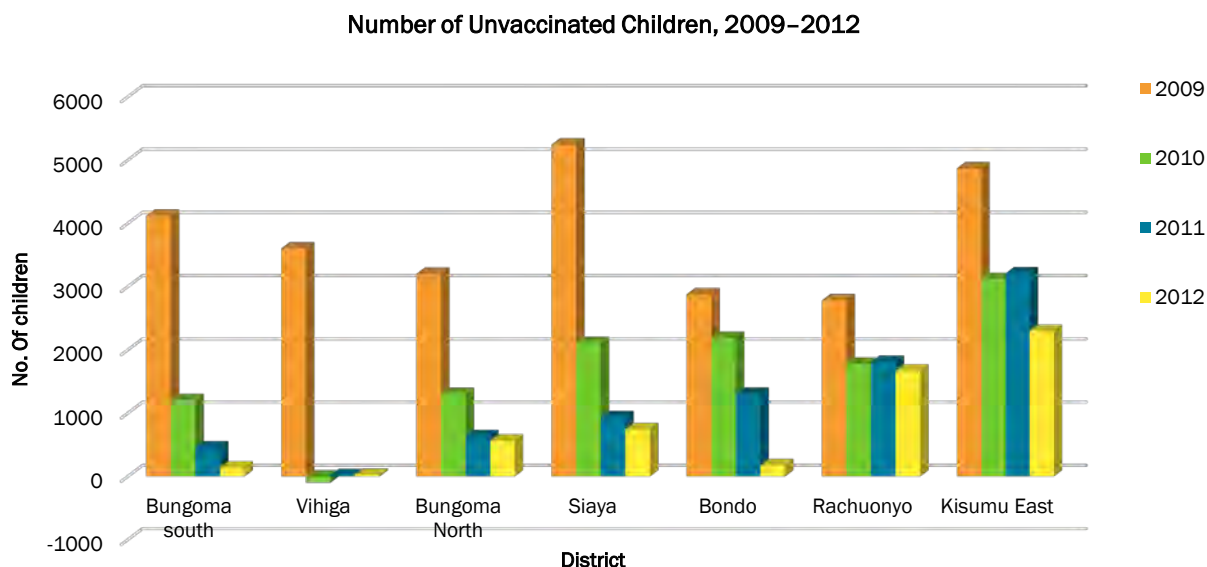
Between 2010 and 2014, in consultation with DVI, MCHIP selected seven districts in Nyanza, Western, and Eastern Provinces that had high numbers of under-vaccinated children for support with the RED/DQSA approach. The RED approach is a district-based, operational strategy for reaching every child with potent vaccines through five components designed to strengthen capacity at the district and health facility levels by addressing common immunization obstacles (Figure 1). The components are implemented on the basis of effective leadership, coordination, planning and management, and integration.

Figure 1. Components of RED



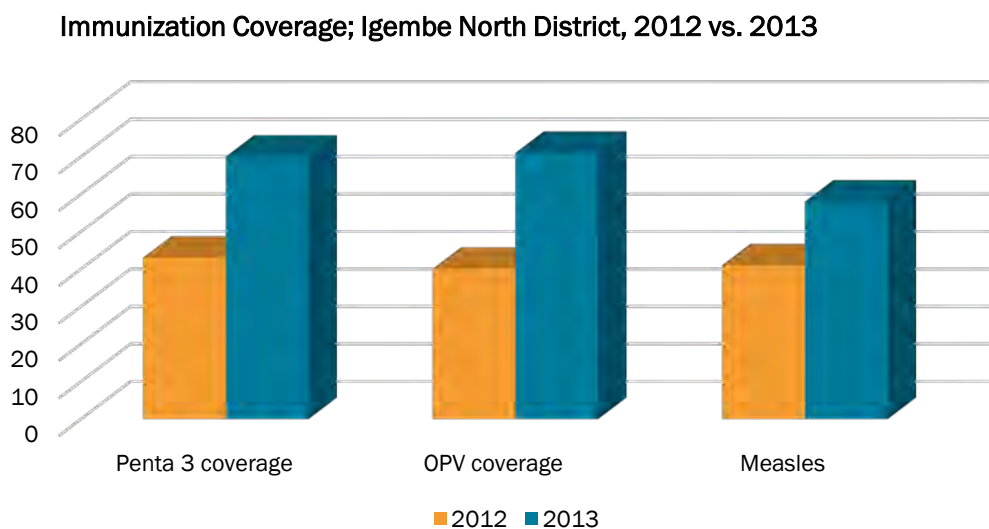
Within these seven districts, infrequent supply of vaccines, stock-outs of documentation and reporting tools, the need for community linkages, and inadequate funds to procure gas for the cold chain were the major challenges. MCHIP facilitated the RED/DQSA trainings in these districts while UNICEF and APHIAPlus provided the funds to implement the micro-plans developed by the districts. To ensure that the micro-plans were being implemented, MCHIP funded and provided technical support during both district and provincial Expanded Program for Immunization (EPI) review meetings. The review meetings provided an opportunity for benchmarking among the facilities and for district and national supervisors to provide feedback on performance to the various facilities. Progressively, these districts recorded significant reductions in the numbers of unvaccinated children (i.e., those who have not received three doses of pentavalent), as seen in the graph below.

Figure 2. Unvaccinated Children in Selected Sub-Counties between 2009 and 2012



In 2012, districts in Nyanza and Western Provinces that had recorded remarkable results were weaned from donor support and advised to use local resources to implement the RED approach. From 2013 through 2014, MCHIP focused its efforts in Igembe North and East Pokot districts. Initial results by the end of 2013 showed a reduction in the number of unvaccinated children, with increased coverage in Igembe North district, as shown in the graph below.

Figure 3. Immunization Coverage in Igembe North Sub-County in 2012 and 2013



Although RED implementation has not been fully operationalized in Igembe North district because of the short implementation period, this success can be attributed to the following:

- MCHIP procurement and installation of 13 cold chain equipment units in the district, increasing access to immunization services by having more facilities that store vaccines and can therefore offer daily immunization services.
- Improved effectiveness of outreach services and regular District Health Management Team (DHMT) supportive supervision.

- EPI training for mid-level managers, which particularly targeted new district public health nurses. This, plus the recruitment of additional staff through the economic stimulus program, resulted in improved service delivery and quality, i.e., increased frequency and quality of supportive supervision, uninterrupted immunization services at facility level, and better community engagement.

3.2: Supported introduction of PCV-10 vaccine in Kenya: Pneumococcal disease is one of the leading causes of mortality among children under five in Kenya. The country introduced the 10-valent Pneumococcal Conjugate Vaccine (PCV-10) into the childhood vaccination program in February 2011. MCHIP provided key technical input to the national training, communication, and logistics sub-committees and supported the training of health workers in the priority districts (Bungoma South, Vihiga, Bondo, Kisumu East, and Rachuonyo districts). In addition, MCHIP supported the development, reproduction, and distribution of information, education, and communication (IEC) materials across the country, and participated in the official launch of the vaccine in February 2011. The importance of this public health initiative was evident as the President of the Republic of Kenya and other international and local dignitaries participated in the high-level launch.

3.3: Reviewed and updated the National Vaccination Policy: The introduction of new vaccines and technologies necessitated the updating of the vaccination policy. MCHIP initiated and supported the process of reviewing and finalizing the National Vaccination Policy that had remained as a draft for over 10 years. The launch, held in Nairobi, was graced by the Cabinet Secretary for Health, County Executives of Health, County Health Coordinators, and senior MOH officials as well as partner organizations such as the Kenya Medical Association, WHO, UNICEF, and USAID.



Dr. Sheila Macharia of USAID Kenya receives a copy of the immunization policy from the Cabinet Secretary during the launch of the policy.

3.4: Supported updating of nationwide medical and nursing schools' EPI curricula and training materials: For over two decades, the EPI resource materials used for training health workers and pre-service medical students in Kenya had not been updated. As a result of a collaborative effort between MCHIP, DVI, UNICEF, and various medical institutions and universities, the nursing and medical school EPI manuals used in their curricula have been revised and are to be launched in 2014. In addition, MCHIP supported the DVI and partners to revise the training package for operational-level health workers. The package has been used by APHIAPlus and UNICEF to train operational health workers in various districts.

3.5: Built capacity for middle-level EPI managers: The proliferation of districts from 72 to over 280 between 2007 and 2013 resulted in many districts with inexperienced district EPI managers. Efforts to address this gap have been slow due to inadequate funding for immunization services and therefore not in tandem with the pace of creation of new districts. To address this gap, MCHIP conducted and co-facilitated four nine-day comprehensive EPI trainings targeting 160 newly posted District Public Health Nurses, District Health Records and Information Officers (DHRIOs), and District Disease Surveillance Coordinators from all counties in Kenya. In addition, 40 participants from the Kenya Medical Training Institutions (KMTI) and DVI section heads benefited from these trainings.

3.6: Supported supplementary immunization activities: During the last four years, MCHIP has supported DVI to respond to outbreaks, such as the recent cases of wild polio virus in the Daadab Refugee Camps. In the four MCHIP demonstration districts, coverage has improved in successive polio rounds. In addition, MCHIP has utilized these several rounds of supplemental immunization activities (SIAs) to strengthen routine immunization micro-planning for birth dose oral polio vaccine and all antigens in the priority districts in Siaya (Bondo district), Bungoma (Bungoma South district), Meru (Igembe North district), and Baringo (East Pokot district) counties. Information from social mapping and profiling of zero dose children during the SIAs has been instrumental in routine immunization micro-planning. Focused targeting of areas with high numbers of zero doses has resulted in reduced numbers of zero doses in subsequent campaigns in Bondo and Bungoma districts.

3.7: Use of cellular phone contacts to increase return rates for immunization services: In Kenya, the failure to complete the immunization schedule for children who have previously accessed immunization services is an obstacle to ensuring that most children are fully immunized. Home visit approaches used to track defaulting children have not been successful in reducing the drop-out rate. This study tested the use of phone contacts as an alternative approach for tracking immunization defaulters in three districts in Western Kenya. Twelve facilities from three districts were purposively selected participated in the study. For nine months, children accessing immunization services (penta 1) in the 12 facilities were followed up. To shed light on the obstacles to achieving high return rates for immunization, the study also profiled the common reasons for defaulting as reported by the caregivers.

Results: In all the facilities, ownership of a reliable phone among caregivers was above 80%. In all facilities save one, the reduction in defaulter rates between penta 1 and penta 3 was significant and within the acceptable limit cut-off of <10%. Caregivers were willing to provide reliable contacts and responded to calls when called by health workers. Overall, the perception of tracking of immunization defaulters using phone contacts was positive among the health workers. The cost and time spent on tracking a defaulter were on average 2 minutes and Ksh 6 (\$0.07) respectively. Competing tasks, as well as the fear of vaccinating a sick child and vaccine-related side effects, were the two reasons most often cited for caregivers' defaulting on immunization appointments. Notably, a significant number of children categorized as defaulters had been vaccinated in either a neighboring facility or in another district ("apparent" defaulters).

Conclusion: Use of phone contacts to follow up defaulters is a feasible and cost-effective alternative method for tracking defaulters. However, this approach should complement the traditional home visit approaches that remain relevant, especially for caregivers without phones. Given that competing tasks and the fear of vaccinating a sick child were the most common reasons for children defaulting immunization, it is important that health workers and immunization managers scale up community education activities, especially on the importance of timely vaccination even when a child is sick. A forum or avenue of sharing details of defaulting children among health facilities should be established to reduce numbers of "apparent" defaulters.

3.8: Timeliness of vaccination among vaccinated children in Western Kenya

In preparation for the introduction of rotavirus vaccine in Kenya's national EPI schedule, MCHIP conducted a study to establish how well the schedule was observed in selected districts in the western region of Kenya. Eight districts were selected. Given the initial age restriction for rotavirus vaccines, we established the proportion of children who received their penta 1 before seven weeks and the proportion who received their first dose before 15 weeks. In addition, we established the proportion of children who received 3 doses of pentavalent vaccine before 32 weeks.

Table 6. Pentavalent Vaccination in Children in Various Districts of Kenya

N = 15,000	PENTA 1 AT 6 WEEKS (%)	PENTA 1 AT 15 WEEKS (%)	PENTA 2 AT 32 WEEKS (%)	PENTA 3 AT 32 WEEKS (%)
Bondo	73.8	96	98	97
Bungoma Kimilili	39	92	98	94
Bungoma North	32	86	94	97
Bungoma South	54	95	98	98
Kisumu East	52	87	96	93
Kisumu North	46	87	94	94
Rachuonyo North	46	87	97	94
Rachuonyo South	59	93	97	95

As the summary table indicates, the following were important observations:

- Over 85% of the children received penta 1 before 15 weeks of age in all districts.
- More than 90% of the children in all districts completed their penta schedule before they were 32 weeks old.
- Despite many children not beginning the schedule on time, most of them get the recommended vaccines before 32 weeks.
- Bondo district had the highest proportion of children who started their schedule on time. This is partly explained by the existence of very active CUs with very knowledgeable community health workers.

These observations indicate that even with the age restriction, it will be possible for Kenya to achieve a high coverage with rotavirus vaccine. The low proportion of children who begin the schedule on time suggests a need to educate the caretakers on the need for starting the schedule on time.

Challenges

- There was an over-dependency on donor funding and lack of cost-share for immunization services. Since 2008, when the MOH was split into two (MOMS and MOPHS) and public health care (cost-share) funds abolished, health facilities have relied heavily on inconsistent donor funding to conduct outreach services. The lack of funds also resulted in shortages of gas for maintaining the cold chain, causing facilities to re-schedule immunization sessions. MCHIP and other partners supported immunization outreaches and sustenance of the cold chain operational costs, but more sustainable approaches are needed to ensure that these recurrent costs are met.
- Frequent outbreaks of vaccine-preventable diseases diverted the attention of both national and operational health workers from routine immunization services.
- Inconsistent population figures made it difficult for districts and health facilities to adequately plan and monitor immunization performance. The 2010 census report did not adequately address this problem.

- Severe stock-outs of PCV-10 occurred a few months after introduction due to high community demand for the vaccine and catch-up vaccination for children not in the birth cohort. Demand for the new vaccine also created demand for other vaccines and consequently general stock-outs were experienced due to depletion of the buffer stock.
- Frequent stock-outs of BCG and pentavalent vaccines in 2010 and 2011 undermined efforts to improve coverage.

Lessons Learned

- Adequate preparation to meet high demand for services is critical in order to:
 - Avoid frustrating caregivers who come for the newly introduced vaccines and other vaccines but are turned away due to stock-outs or miscommunication (e.g., child too old); and
 - Enable catch-up with other vaccines and thereby reduce missed opportunities.
- Fear of multiple injections is more of a false health worker perspective than a real caregiver concern.
- There is a need for appropriate and well-scripted communication on target ages for vaccination.
- To benefit more children, donors such as the Global Alliance for Vaccines and Immunization (GAVI) should consider funding vaccines for the entire catch-up cohort under one year of age.
- To advance equity in vaccination, there is a need to deliberately target populations not normally reached by immunization services.
- The RED approach is practical and effective in reducing the numbers of unvaccinated children but continued advocacy for and implementation of the RED approach at district level is important for sustainability.
- Community engagement, such as the use of village elders to create demand and track defaulters, is essential for success of fully immunized child (FIC) coverage.
- Innovations such as the use of tickler files, immunization appointment diaries, and cell phone contacts complement CHWs' responsibility of creating demand and following up on defaulting children.
- There is a need to maintain adequate vaccine supplies in order for the RED approach to succeed.
- New vaccine introduction provides an excellent opportunity to refresh health worker knowledge on vaccine management and to reach populations previously underserved by immunization services.
- Initial external funds are required to jumpstart the RED approach and local funds are required to sustain it. These funds are essential for its success.
- Effective MOH leadership and management are key at all stages of the planning and implementation of immunization to encourage ownership and sustainability.
- Continued updates to health workers through job aids, on-the-job training, refresher courses, and supportive supervision are essential, especially when a new vaccine is introduced.
- The introduction of PCV-10 created momentum for the Global Action Plan for the Prevention and Control of Pneumonia/Kenya Action Plan for the Prevention and Control of Pneumonia (GAPP/KAPP) implementation.

SUB-OBJECTIVE 4: CHILD HEALTH

Support the Division of Child and Adolescent Health (DCAH) to address the primary causes of child death in Kenya—diarrhea and pneumonia: Kenya experiences over 189,000 child deaths annually, with diarrhea contributing to approximately 38,800, malaria to about 20,600, and pneumonia to about 30,400 deaths (WHO 2011). Despite declining IMR over the last five years, Kenya is not on track to achieve MDG 4. Achievement of this goal requires Kenya to make an annual reduction in child mortality of 4.4% per year compared to the current reduction rate of 1.9% (CHERG 2010).

To accelerate reduction in child mortality, Kenya has to increase its coverage of high-impact child health interventions. According to the KDHS 2008/2009, there is a high unmet need for childhood curative interventions including zinc (less than 1% coverage) and oral rehydration salts (ORS) (39% coverage) for treatment of children with diarrheal diseases. Care-seeking and service provision are also inadequate, with only 56% of children with cough or rapid breathing brought to a health facility or appropriate service provider for treatment, and only 50% of those brought to a facility receiving an antibiotic. Data from home-based surveys in Bondo district suggest that health surveillance underestimates the burden of disease in the community for common childhood illnesses (Ayieko et al. 2012). In children with fever (possible malaria attack), care-seeking at the health facility was at 49%, with only 23% of the children who sought care receiving an anti-malarial medication.

Based on this background, MCHIP has since its inception in Kenya in 2009 supported the Division of Child and Adolescent Health (DCAH), now called the Newborn Child and Adolescent Health Unit (NCAHU). In partnership with WHO, UNICEF, Clinton Health Access Initiative (CHAI), PATH, John Snow, Inc./Supply Chain for CCM (JSI/SC4CCM), Micronutrient Initiative (MI), Population Service International (PSI), and APHIAPlus, MCHIP has achieved the following results:

4.1: Supported advocacy for iCCM and development of policy and training documents for implementation of integrated community case management of childhood illness in Kenya: MCHIP together with UNICEF and WHO led sustained advocacy through the DCAH among high-level MOH authorities and national-level partners for the acceptance of integrated community case management (iCCM) in Kenya. Jointly, the partners led the development of iCCM policy documents, the CHW iCCM training curriculum, and community-level monitoring tools to aid implementation of iCCM, as shown in Table 7 below. The Malaria Control Unit supported the DCAH to print 3,000 copies of this iCCM CHW curriculum (Participant and Facilitator manuals)—an endorsement of the documents.

Table 7. National iCCM Policy, Training, and Monitoring Documents

POLICY AND TRAINING DOCUMENTS	MCHIP'S INPUT	PARTNERS
iCCM National Implementation Framework and Plan of Action	Development – technical assistance (TA) and financial	USAID MCHIP, UNICEF, WHO, MI, Kenya Red Cross Society, PSI, Kenya Medical Research Institute (KEMRI), PATH, SAVE the Children (UK), World Vision, AMREF, and MOH
iCCM M&E Plan	Development Printing – TA and financial	USAID MCHIP, UNICEF, WHO, MI, Kenya Red Cross Society, PSI, KEMRI, PATH, SAVE the Children (UK), AMREF, and World Vision, and MOH – NCAHU, CHSU, Malaria Control Unit
iCCM CHW Training Curriculum (Facilitator and Participant Manuals)	Development Printing – TA and financial	WHO, UNICEF, USAID, KEMRI, MI, CHAI, and MOH – Malaria Control Unit and NCAHU

POLICY AND TRAINING DOCUMENTS	MCHIP'S INPUT	PARTNERS
ICCM MONITORING TOOLS	MCHIP'S INPUT	PARTNERS
CHW Treatment and Tracking Register	Development – TA and financial	USAID MCHIP, UNICEF, WHO, Jhpiego, MI, Kenya Red Cross Society, PSI, KEMRI, PATH, SAVE the Children (UK), AMREF, World Vision, and MOH
CHEW iCCM Monthly Summary	Development – TA and financial	USAID MCHIP, UNICEF, WHO, Jhpiego, MI, Kenya Red Cross Society, PSI, KEMRI, PATH, SAVE the Children (UK), World Vision, AMREF, and MOH
CHW Sick Child Recording Form	Led the review – TA and financial	USAID MCHIP, UNICEF, WHO, Jhpiego, MI, KEMRI, and MOH
Community Referral Form	Reviewed-TA	USAID MCHIP, UNICEF, WHO, Jhpiego, MI, Kenya Red Cross Society, PATH, SAVE the Children (UK), and MOH
Newborn Danger Signs Checklist	Reviewed-TA	USAID MCHIP, UNICEF, WHO, Jhpiego, MI, Kenya Red Cross Society, SAVE the Children (UK), World Vision, AMREF, and MOH

The MOH is currently at an advanced stage of preparing for the launch of iCCM and its documents.

4.2: Facilitated approval of zinc as an over-the-counter drug for management of diarrhea at the community level: CHWs are now able to provide ORS and zinc for management of diarrhea in children under five, thanks to evidence that MCHIP took the lead in compiling, which made the case for community use of zinc. Policy changes included the approval of zinc as an over-the-counter drug and for use at the community level.

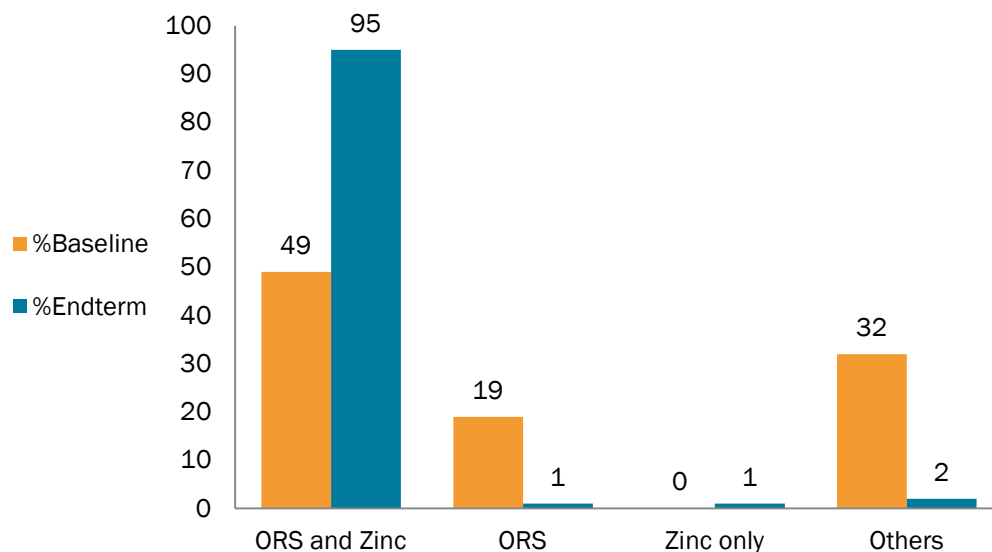
4.3: Supported revitalization of oral rehydration therapy (ORT) corners: In support of the DCAH and DON to reduce diarrhea among children, MCHIP together with national child health stakeholders and implementing partners led efforts to revitalize ORT corners at health facilities to serve as models for their catchments area. Specifically, MCHIP Child Health supported establishment of ORT corners at 26 rural health facilities in Bondo Sub-County, 10 ORT corners in East Pokot, and 16 ORT corners in Igembe North Sub-County. MCHIP led the development and dissemination of National ORT Corner Operational Guidelines, a Diarrheal Disease Monitoring and Evaluation Framework for health facilities, and an Orientation Package for training health workers. The documents were disseminated to all 47 DHMTs and facility in-charges in Nyanza and Western Provinces.

MCHIP also led the MOH and partners to ensure that integrated water, sanitation, and hygiene (WASH) and nutrition messages were mainstreamed into the prevention, management, and treatment of sick children with diarrhea at ORT corners. This involved packaging WASH communication messages for diarrhea prevention and control and for nutrition during a child diarrheal illness; development of a WASH training and behavior change communication inventory; and a partner engagement matrix. This effort led to more holistic management and counseling of sick children with diarrhea treated at ORT corners in all facilities in Nyanza, Western, and nationally.

4.3.1: Rapid results initiative to scale up zinc and ORS in 230 health facilities in Kenya (November 2012–April 2013) : Through MCHIP's technical support, the MOH and its stakeholders conducted a rapid results initiative (RRI) to scale up use of ORT and zinc in the management of sick children with diarrhea in 230 facilities across the county. The facilities were selected based on the burden of diarrheal disease. The national ORT corner operational guidelines and revised Integrated Management of Childhood Illnesses (IMCI) guidelines were disseminated, and supervision and mentorships were conducted for all health care workers (HCWs) in all facilities selected. The RRI sought to measure the combined use of zinc and ORS in the management and treatment of diarrhea in children.

Results of ORT and zinc RRI: The results showed tremendous improvement in the use of zinc and ORS in the treatment of diarrhea in children, as shown in Figure 4.

Figure 4. Proportion of Treatments for Children Using ORS and Zinc



This graph shows an increase in the proportion of combination treatment intervention of ORS and zinc in children managed in the 230 facilities in Kenya. There is a concomitant reduction in the proportion of those children treated using single treatment interventions mainly ORS, zinc, and others (antibiotics, anti-diarrheal treatments).

4.4: Facilitated the adoption and adaptation of Global Action Plan for Pneumonia Prevention and Control (GAPP) to Kenya Action Plan for Pneumonia Prevention and Control including diarrhea (KAPPd): The need to accelerate efforts to prevent childhood pneumonia using vaccines and strengthen case management led to a global initiative named the Global Action Plan for Prevention of Pneumonia (GAPP) This has now been combined with diarrhea under the promote, prevent, and treat global GAPPD framework.

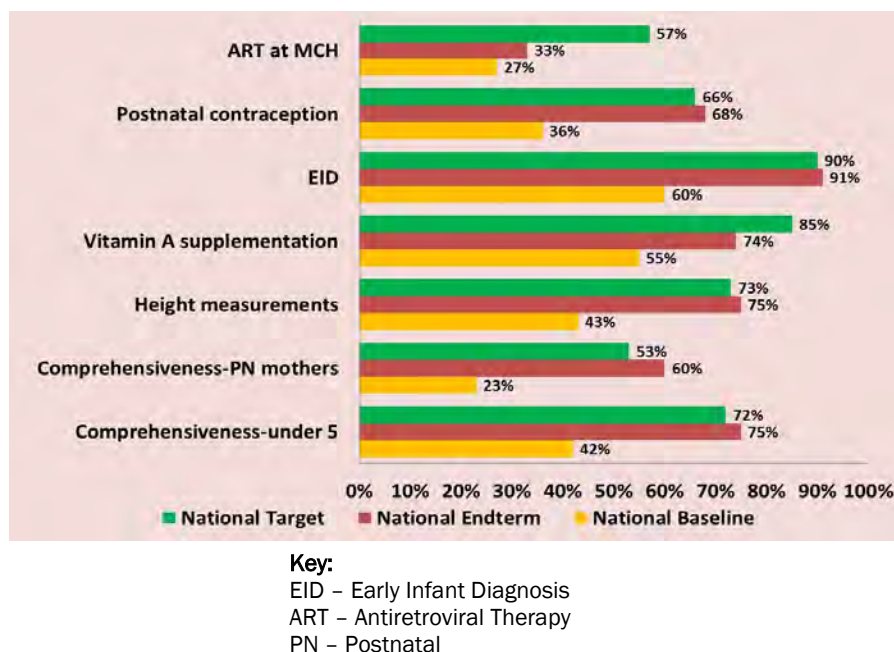
MCHIP in collaboration with WHO, UNICEF, and other partners adopted and adapted GAPP into KAPPd, with the addition of diarrhea, and provided TA for the development of action plans for KAPPd. MCHIP led the development of terms of reference for KAPPd and designation of a KAPPd champion, and supported advocacy for KAPPd with key policymakers, resulting in buy-in by the Chief Nursing Officer and the Director of Public Health and Sanitation.

4.5: Supported MNCH and HIV service integrations using a rapid results initiative (RRI) approach : This RRI was conceptualized to link HIV services with services provided at MCH clinics in 40 selected facilities countrywide. Institutionalizing MCH clinics as a one-stop-shop for all services needed by children, including HIV, was meant to address “missed opportunities” occasioned by vertical HIV and MCH services. MCHIP facilitated the launch of this RRI meeting.

Accomplishments: MNCH and HIV service integration rapid results initiative (October 2011–February 2012)

Five out of the seven indicators tracked surpassed the national target set for the RRI, which sought to measure provision of antiretroviral therapy (ART) services, postnatal contraception, early infant diagnosis, vitamin A supplementation, height measurements, and comprehensiveness of care to postnatal mothers and children under five years of age at MCH clinics. The results of the RRI are presented in Figure 5 below.

Figure 5. National Achievements on the MNCH RRI indicators among 40 Health Facilities



4.6: Supported DCAH’s annual operational planning: MCHIP supported the DCAH in development of the 2011–2012, 2012–2013, and 2013–2014 annual work plans. The main accomplishments from these planning processes were documentation and prioritization of key strategies of national importance, namely:

Policy and guidelines development: Development of a Child Health M&E framework (currently being used by the MOH), ORT corner operational guidelines, and iCCM implementation framework and M&E plan, and ensuring that partners rallied their support behind their finalization.

Planning and coordination of key activities: This process institutionalized coordination and planning of child health activities/programs resulting in scheduled TWGs and child health ICCs, all of which were instrumental in endorsing critical national child health agendas.

Integration across Government of Kenya departments in tackling child health challenges: Example is evident in lobbying for the environmental health service department to participate in integration of WASH interventions in ORT corner and iCCM guidelines, and bringing in the community health services unit as a key partner during development of the iCCM framework, ORT corner operational guidelines etc.

Elevation of prioritization of key health strategies of national importance, e.g., mainstreaming of high-impact interventions in all key child health strategies and programming.

Accountability in shared objectives and activities, i.e., by supporting development and reviews of annual work plans, MCHIP assisted the unit to own successes and failures coming out of implementing the planned objectives and activities.

4.7: Provided technical support in the planning and conduct of the 8th International Conference on the Maternal and Child Health (MCH) booklet, held in October 2012

The MCH booklet brings together all health services for pregnant women and their children under five years. These services include ANC, labor and delivery, postnatal care, newborn care, and well care of the sick and well baby up to the age of five years. It is used by HCWs at the facility level to document all routine services given to the mother and the well baby during these periods and it helps ensure that there is no missed opportunity for these services. Kenya adopted its MCH booklet in 2010. In 2012, Nairobi was chosen to hold the 8th International Conference on the MCH booklet. The overall goal of the conference was to share experiences from countries using the booklet and to make a case for its adoption by countries that had not developed their own booklets. The MOH set up a national steering committee with supporting sub-committees; MCHIP chaired the technical sub-committee and was a member of the national steering committee preparing for the conference. The conference was held at the Multimedia University of Kenya in Nairobi.

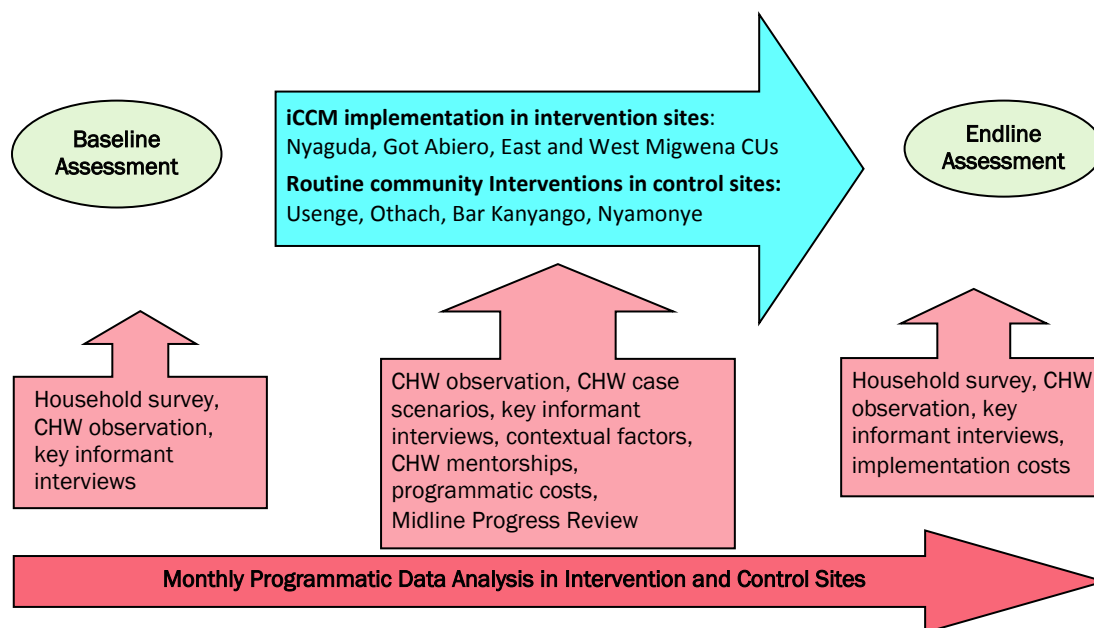
4.8: Initiated an iCCM feasibility study in Bondo Sub-County of Kenya

The main objective of this study was to assess whether iCCM improves coverage and quality of services of childhood illnesses at community and facility levels.

Specific Objectives

- To measure changes in the community's knowledge and practices including care-seeking behavior
- To document the feasibility of iCCM implementation through CHW performance, CHW satisfaction, client satisfaction, and implementation challenges
- To measure household and program *costs* related to treatment of pneumonia, diarrhea, and malaria in children under five

Figure 6. Schema of the Study Design



Source: iCCM Baseline Survey Report 2013.

The study commenced in October 2013 with a baseline survey followed by training of CHWs in October/November and then actual data collection, which began in December 2013. The accomplishments so far include: Training of 58 CHWs in four CUs in intervention areas (Got Abiero, Nyaguda, East and West Migwena) and 13 TOTs (six from Siaya, six from Bondo Sub-Counties, and one from the national level MOH) in iCCM; mentorships for eight CHEWs from Nyaguda, Got Abiero, East and West Migwena CUs, and their respective CHWs; DHMT supportive supervision for community initiatives; formation of a sub-county research committee to monitor all community researches in Bondo including iCCM; supervision of the CHWs; development and dissemination of standard operating procedures for the iCCM research; iCCM programmatic data collection in intervention and control areas; and community demand creation and sensitizations. Programmatic data collection for the first six months shows an improving trend in capacity of CHW and CHEWs to implement iCCM. The process and lessons learned are being documented and used to inform decisions about scale-up plans for iCCM.

Challenges

The main challenges MCHIP faced under this sub-objective include:

- Frequent turnover of the heads of the divisions slowed down progress toward achievements of the sub-objective.
- Despite being for a good cause for the health of children, the polio campaigns slowed down the momentum in many planned activities. Furthermore, they took away facility staff/HCWs and CHWs from their routine activities.
- Due to competing demands on their time, the involvement of the national-level personnel in implementation activities delayed implementation at the district and facility levels.

Lessons Learned

National Level

MCHIP learned the following lessons as it implemented activities under this sub-objective:

- Government leadership and goodwill are essential to success of all national-level strategic initiatives.
- Advocacy at a national level needs good interpersonal communication and networking skills, and takes a long time.
- Partner buy-in and participation facilitate scale-up of MOH-endorsed interventions.
- Technical support to the MOH is critical for meaningful translation of global debate into the national-level policies, strategies, and guidelines and eventually shepherding of implementation.
- Support for the MOH departments' and divisions' annual operational plans/business plans facilitates their leadership and coordination responsibility.
- Monitoring and evaluation of iCCM needs to be initiated at national, county, and sub-county levels.
- There is a need for a proper policy analysis landscape to inform current and future debates on iCCM and to bring out opportunities for future engagements.

Sub-County Level

- A shared vision with the sub-county health team is critical in the success of child health activities.
- Community service support is critical to increasing coverage of high-impact, low-cost, evidence-based interventions at the implementation level.
- Sub-county management team champions are key to increasing coverage and sustaining new and established strategies.
- Establishment of integrated ORT corners (WASH, nutrition, and immunization) can improve outcomes of sick children with diarrhea.
- Improvement of the capacity of health care workers through use of peer mentors can improve outcomes of children with diarrhea.
- Use of CHVs to improve access and deliver high-impact interventions at community level through iCCM is a feasible strategy with very good results.
- A fully operational community health strategy is critical in order to ensure increased coverage of high-impact interventions for the community.
- Health programming for interventions targeting nomadic populations calls for clear and innovative approaches.
- Provision of community health strategy data tools should be an effort supported by the government for it to be sustainable.
- Monitoring and evaluation is a critical component for success of community interventions. Mentorships to improve skills, supervision, data quality assessment for proper data collection, entry, archiving, and analysis are key to a good iCCM intervention.
- The sub-county needs to factor in reviews of data and even graphical illustrations of the same data at the community level so that CHWs can make visual and mental sense of their data. The national and county levels should invest in data dashboards to achieve this end.

SUB-OBJECTIVE 5: MATERNAL AND NEWBORN HEALTH

Support the Reproductive and Maternal Health Services Unit (RMHSU) and Newborn Child and Adolescent Health Unit (NCAHU) to improve the quality of maternal and newborn health (MNH) and family planning (FP) services: This sub-objective was divided into distinct activity areas as follows: support to RMHSU and NCAHU to improve maternal and newborn health outcomes; FP/MIYCN integration in Bondo; prevention of postpartum hemorrhage (PPH) in low-income urban communities of Nairobi; and enhancement of FP services and coverage in MCHIP demonstration districts of Bondo, East Pokot, and Igembe North.

5.1: Enhanced maternal and newborn health: Over the last 15 years, Kenya's MNH indicators have shown slow improvement. According to successive KDHS reports (KDHS 1998, 2003, and 2008–09), the maternal mortality ratio was 590 per 100,000 live births in 1998, 414 per 100,000 live births in 2003, and 488 per 100,000 live births in 2008–09. Though more recent estimates have computed the maternal mortality ratio to be 400 per 100,000 live births (Kenya Health Policy 2012–2030), Kenya is not on track to achieve the MDG target of 147 deaths per 100,000 live births by 2015. Over the same time period, the neonatal mortality rate has worsened from 28 deaths per 1,000 live births in 1998 to 33 per 1,000 live births in 2003 and 31 per 1,000 live births in 2008–09 (KDHS 1998, 2003, 2008–09). The marginal reduction in neonatal mortality between 2003 and 2008–09 is not fast enough to reduce it to the MDG target of 21 deaths per 1,000 live births by 2015.

Skilled birth attendance (SBA) contributes significantly to reductions in maternal and neonatal mortality; however, there is low utilization of SBAs during delivery. Data from the KDHS 2008–09 demonstrated that only 43% of women delivered in a health care facility, a one percentage point increase from the rate in 2003 (KDHS 2003, 2008–09). In total, only 44% of deliveries were reported to have occurred under skilled attendance in 2008–09. In addition to the low utilization of skilled attendance during childbirth, Kenya also experiences challenges with the capacity of health care facilities to provide delivery services. The Kenya Service Provision Assessment (KSPA) 2010 reported that only 30% of all health care facilities provide normal delivery services and only 5% have the capacity to provide cesarean section delivery. The country also faces challenges on the number and distribution of SBAs who may also lack core competencies necessary for reducing maternal and neonatal deaths. For example, the MCHIP quality of care (QoC) study demonstrated that in 40% of women who delivered in health care facilities, evaluations for vaginal bleeding after birth and completeness of the placenta were not performed. Palpation of the uterus to check the tone was performed in only 30% of women who had delivered. In the same survey, 35% of newborn babies did not receive essential newborn care, including drying and wrapping. (KSPA 2010; MCHIP MNH QoC Survey 2010).

MCHIP/Kenya achieved the following during the life of the program:

5.1.1 Supported harmonization and standardized emergency obstetric and newborn care (EmONC) curriculum and learning resource package (LRP): Kenya has challenges in the number and distribution of skilled attendants, a situation compounded by deficiencies in core competencies necessary for reducing maternal and newborn deaths (KSPA 2010; MCHIP QoC Survey 2010). The DRH also noted that there were many different curricula, approaches, and variations in techniques taught to service providers by different organizations. This lack of standardization results in confusion among health workers and consequently affects the quality and effectiveness of MNH services. MCHIP assisted the DRH to develop a standardized, competency-based EmONC training package comprising: facilitator and participant manuals; an orientation package; posters; and job aids. EmONC training using the updated curriculum is currently being conducted and it is expected to improve the knowledge, skills, and competencies of all health care workers who provide EmONC services throughout the country.

5.1.2 Supported DRH and DCAH to develop the Maternal and Newborn Health Scale-Up Strategy and Implementation Plan 2014–2017 to improve coordination of maternal and newborn activities and facilitate partner buy-in: Support for development of this plan was provided in collaboration with other partners, including CHAI, UNICEF, the United Nations Population Fund, and PATH. The plan will also guide counties in developing their plans in line with the national plan.

5.1.3 Field-tested, adapted, and scaled up the Helping Babies Breathe (HBB) curriculum in Bondo district: The HBB curriculum is an evidence-based educational program to teach neonatal resuscitation techniques in low- and middle-income countries. It has been developed through the initiative of the American Academy of Pediatrics, WHO, USAID, and other global health organizations. The aim of the field-test was to establish the effectiveness of training service providers on HBB for newborn survival. With MCHIP assistance, the HBB curriculum has been adapted and adopted in Kenya as the Essential Newborn Care (ENC) LRP. Using a cascade approach to training, national and regional TOTs in each county were conducted on ENC/HBB. MCHIP also procured 40 NeoNatalie newborn simulators to facilitate practical sessions in effective bag-mask-ventilation during ENC trainings. The NeoNatalies have been distributed where ENC training has been undertaken. The TOTs facilitated the rollout of training to the district levels. Supervision tools for the ENC LRP were also developed to aid supportive supervision and encourage on-the-job training by DRH/DCAH staff on their supervision visits. Additionally, newborn components have been incorporated into IMCI, integrated FP/MIYCN, iCCM, and EmONC LRPs. In the iCCM and

FP/MIYCN areas, a CHW newborn referral checklist was developed including danger signs and conditions for immediate referral. These new tools and materials have contributed to better MNH outcomes.

5.1.4 Developed a Kangaroo Mother Care (KMC) module and incorporated it in the ENC/EmONC LRP: This was also linked with the nutrition component of MCHIP to promote the three pillars of KMC, namely: warmth, nutrition, and early discharge and follow-up. The intervention was tested in two sites in MCHIP demonstration sub-counties. This has resulted in the establishment of a KMC Center of Excellence in Igembe North that can be replicated in other regions of the country.

5.1.5 Advocacy to avail chlorhexidine (CHX) 4% for umbilical cord care after birth: MCHIP has included chlorhexidine 4% in the ENC/EmONC LRP to facilitate the rollout of the intervention countrywide. MCHIP, working with UNICEF and PATH, has been supporting the MOH to have chlorhexidine registered for umbilical cord care in Kenya and thereafter have it available for use in health care facilities and in the communities to reduce the incidence of neonatal sepsis through infection of the umbilical cord stump.

5.1.6 Linked with APHIAPlus (Kamili and Imarisha) to roll out ENC clinical skills training in Eastern and North Eastern regions: MCHIP supported the DCAH in ENC training of 21 APHIAPlus Kamili and 24 APHIAPlus Imarisha staff as mentors in their specific regions. These were newborn focal persons from the national and regional levels. Under MCHIP’s technical leadership and support, the mentors scaled up ENC training to over 300 health workers. These health care workers have acquired improved knowledge and skills in EmONC that resulted in improved pregnancy outcomes and an increase in deliveries by SBAs in these two zones. For example, APHIAPlus Imarisha has realized an increase in the number of deliveries with skilled birth attendants in 2013 compared to 2012 in the districts where they trained HCWs (see Table 8).

5.1.7

Table 8. Skilled Birth Attendance in Selected Sub-Counties in 2012 and 2013

SUB-COUNTY WHERE HCWS WERE TRAINED ON ENC PACKAGE	SKILLED BIRTH ATTENDANCE		% INCREASE
	2012	2013	
Marsabit	2,265	3,062	35
Isiolo	1,745	2,323	25
Wajir	3,473	4,289	23
Mandera	3,160	3,703	17
Samburu	1,558	1,622	4

Source: DHIS 2014.

5.1.8 Conducted a survey nested within KSPA to assess the quality of care (QoC) during labor and delivery in high-volume facilities especially with regard to screening and management of pre-eclampsia/eclampsia: Also explored were QoC issues around prevention of PPH, obstructed labor, puerperal sepsis, and ENC and resuscitation practices. The survey was conducted with technical assistance from Macro International, one of the MCHIP partners.

5.1.9 Conducted a formative assessment on handwashing with soap for newborn survival: The assessment revealed poor communication by health care providers to pregnant women and mothers of newborns on the benefits of handwashing, resulting in low uptake of proper handwashing practices.

Challenges

- The evolving devolved governance in Kenya has contributed to a reduction in the speed at which interventions are implemented. The current governance structure requires direct discussion with the county health leadership.

Lessons Learned

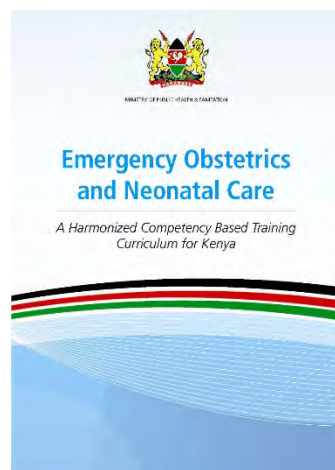
- Collaboration with other partners is important for better coordination and achievement of results.
- The evolved governance terrain requires new strategies and approaches that take into consideration the unique factors in each county.

SUPPORT TO RMHSU

Accomplishments

5.2 EmONC training and quality improvement. There is evidence to illustrate that improving the quality of health care using the Standards-Based Management and Recognition (SBM-R®) approach works. The successful use of SBM-R to improve the performance and quality of services in PMTCT, IPC, and FP has been illustrated. The RMHSU requested that MCHIP support development of an MNH SBM-R tool for maternity and MCH/FP clinics. The training in MNH service delivery standards was piloted with 20 service providers based at Machakos Level 5 Hospital, Mutuati, Makueni, and Mama Lucy Kibaki district hospitals. The service providers were taken through Modules 1, 2, and 3 of the SBM-R approach. By using the tools (standards), the service providers identified areas within their health facilities that required improvement. The comments of the service providers were incorporated in finalizing the tool, which is currently at the RMHSU awaiting authorization signature for it to be used nationally. The standards will help improve the performance and quality of MNH services.

Figure 7. The Standardized EmONC Training Package



Skilled birth attendance contributes significantly to reductions in maternal and neonatal mortality. However, Kenya experiences challenges with the number and distribution of SBAs. SBAs lack the core competencies necessary for reducing maternal and neonatal deaths (KSPA 2010; MCHIP MN QOC Survey 2010) and require capacity-building in EmONC. The need for a standardized and harmonized EmONC training package was determined when it was recognized that there were many existing training packages in various versions targeting the same audience, and this led to confusion and difficulties in measuring the impact of such trainings. The multiplicity

further led to duplication and overlap in trainings, thereby taking away many health workers from their work stations in their effort to earn every training certificate available. As a result, MCHIP assisted the RMHSU to finalize the standardized EmONC training package, and review feedback from the pre-test trainings conducted in four counties, namely Garissa, Kitui, Isiolo, and Kakamega. EmONC trainings for service providers and TOTs are being



EmONC training in Baringo County: Service providers practice how to repair perineal tears using perineal models.

rolled out in the country. Thus far, MCHIP has supported the RMHSU to roll out EmONC trainings in Meru and Baringo counties, where 63 service providers have been trained. Five out of the 63 service providers trained were identified to be mentored as TOTs.

The need to equip all health care providers with maternal and neonatal health care knowledge, skills, and positive attitudes at all levels of service delivery, and with updated evidence based interventions, led to the development of the National Guidelines for Quality Obstetrics and Perinatal Care (National MNH guidelines). MCHIP supported the RMHSU to reproduce 1,350 copies (CDs and manuals) of these National MNH Guidelines, which were disseminated in four counties (Baringo, Kisumu, Meru, and Siaya).

Lessons Learned

- Including all stakeholders and experts in maternal and newborn health in the development of policy documents is important for success.
- With enhanced skills acquisition in EmONC, service providers have the capabilities to prevent maternal and neonatal deaths.

FAMILY PLANNING/MATERNAL, INFANT AND YOUNG CHILD NUTRITION INTEGRATION IN BONDO SUB-COUNTY

Introduction

5.3 Integration of interventions in maternal, infant, and young child nutrition (MIYCN) and family planning (FP) is mutually beneficial for mothers and their children. For example, exclusive breastfeeding in the first six months after childbirth not only protects the child from being malnourished but also meets the mother's contraceptive needs if she practices the lactational amenorrhea method (LAM).

The linkage between FP and MIYCN is further demonstrated by findings that short intervals from birth to the next pregnancy increase the risk of neonatal, child, and maternal mortality; stunting in children (the most prevalent form of undernutrition); and poor pregnancy outcomes. Vertical nutrition programs generally do not include information about modern methods of contraception. Maternal health care and family planning providers may also not offer enough information about maternal and infant nutrition. Integrating MIYCN and FP counseling and services from before pregnancy to early childhood can improve MCH outcomes through pregnancy spacing and better nutrition practices.

Accomplishments

MCHIP supported the RMHSU and NDU to implement a demonstration project focused on integrating FP and MIYCN in Bondo Sub-County in Nyanza region. The main aim was to provide a one-stop shop to enhance and strengthen evidence-based, high-impact FP and nutrition interventions. The main aim was to strengthen routine provision of MIYCN and FP information and services, highlighting the critical linkages between MIYCN and FP, both at the facility and community levels. At the health facility, a “one-stop-shop” approach was introduced in which women were provide integrated FP and MIYCN information and services while at the health facility for antenatal, intrapartum, postnatal, child welfare, and FP visits. The community activities involved strengthening CHW knowledge on MIYCN and FP (and the links between the two), and promoting routine incorporation of FP information, services, and referrals during home visits as well as through community dialogue sessions, mother support groups, and health action days. This approach would reduce missed opportunities for provision of FP and MIYCN and reduce the time a mother spends at the facility to obtain the services

when vertically provided. The entry points for FP/MIYCN integration are at the facility and community levels.

An assessment was undertaken in six facilities in Bondo Sub-County in 2011 to establish the feasibility of integrating the two services—FP and nutrition—from the perspective of 14 service providers, 28 CHWs, and 32 mothers through in-depth interviews and focus group discussions. From the assessment, it was found that there was inadequate knowledge of the benefits of FP, exclusive breastfeeding, and maternal nutrition. There were also a number of misconceptions about exclusive breastfeeding and FP, and unclear understanding about recommended practices. The service providers; CHWs, and mothers who participated in the assessment supported the integration of FP and nutrition services.

Following the assessment, MCHIP supported the RMHSU and NDU to develop and produce materials to support the integration process including job aids, counseling flip charts, posters, brochures, and supplementary data tools to capture service statistics. The FP/MIYCN integration materials were pilot-tested and comments incorporated before finalizing the materials. The materials are currently in use in Bondo Sub-County.

Figure 8. FP/MIYCN Integration Materials

The figure displays four key materials for FP/MIYCN integration:

- FP/MIYCN Integration – PNC/FP Clinic:** A vertical flowchart with four stages:
 - ASK:** Date of delivery/status of infant; Assess knowledge on danger signs; Fertility intentions / Current FP method; Mother / infant's nutritional status.
 - CHECK:** PNC examination of mother; Mother child booklet; FP / PNC register.
 - COUNSEL ON:** Maternal Nutrition; Breastfeeding and breast care; Complementary feeding as appropriate; Family Planning; CWC services including immunisation and growth monitoring.
 - PROVIDE:** Vitamin A - if not given at delivery; Contraceptive method as requested by patient; PMTCT / ITC services as appropriate; ALL other FP / PNC services required for that visit.
- Mother, Child Nutrition and Child Spacing Counseling Card for Community Health Workers:** A central card featuring an illustration of a family and text: "Mother, Child Nutrition and Child Spacing Counseling Card for Community Health Workers".
- Feed your baby ONLY breast milk for the first 6 months!** A poster with an illustration of a woman breastfeeding. Key messages include:
 - Feed your baby ONLY breast milk for the first 6 months (no water or other food).
 - Helps your child grow strong and healthy.
 - Protects your baby from many diseases.
 - Helps you space pregnancies as long as you want.
 - Your monthly period has NOT returned AND your baby is below 6 months of age.
 - Breast milk alone is enough for your baby for the first 6 months. It has all the nutrients and water your baby needs for the first 6 months.
 - Wait at least 2 years before another pregnancy.
 - Good things about family planning and pregnancy spacing include:
 - Helps you and your children to be healthier.
 - Gives you more time to breastfeed and care for each child.
 - Gives you more time for your body to recover between pregnancies.
 - Gives you more time to earn money for the family.
 - Remember, you can become pregnant again even if your monthly period has not returned. Ask your health provider for a family planning method that you can use while you continue to breastfeed.
 - Practice good nutrition for you and your baby.
 - Breastfeeding mothers should eat a variety of locally available foods.
 - Women who are breastfeeding should:
 - Eat 2 extra meals each day, take extra fruit, and vegetables.
 - Take vitamin A and iron-folate supplementation after delivery.
 - Examples of foods rich in vitamin A and iron are: beans, meat, green leafy vegetables, eggs, papaya, fish, tomatoes, pumpkin.
 - Ban when food is scarce, a mother's milk is complete for the baby for the first 6 months.
- Remember the following:**
 - Breastfeed:**
 - With one focus after delivery: the benefits to your baby and you.
 - Do it you love the baby's life!
 - Plan to feed on the breast!
 - Ask your health worker how to attach or latch your baby correctly on your breast.
 - Even if you are not pregnant, you should be breastfed by your baby.
 - Good breastfeeding does:
 - Protects your baby from many diseases.
 - Helps you space pregnancies as long as you want.
 - Helps your baby grow strong and healthy.
 - When the baby has 2-3 months, you should use other methods to space pregnancies. You can use a condom, a diaphragm, a pill, or a family planning method that you can use while you continue to breastfeed.
 - Protects and Mothers-to-be:** You can feed babies and space pregnancies by using a family planning method that you can use while you continue to breastfeed.
- Feed your baby ONLY breast milk for the first 6 months:** A smaller version of the poster above, with additional text:
 - Breastfeeding helps:**
 - Your baby GROW strong and healthy.
 - PROTECT your baby from many diseases.
 - You SPACE your pregnancies ONLY if you meet all these 3 conditions:
 1. Feed your baby on ONLY breast milk
 2. Monthly period has NOT returned
 3. Child is BELOW 6 months of age
 - Breast milk has all the nutrients and water your baby needs for the first 6 months.**
 - For more information, visit the nearest health facility.

In collaboration with the Bondo DHMT, MCHIP trained 26 frontline service providers and seven CHEWs working in Bondo Sub-County Hospital; Ogam dispensary; and Kapiyo, Usigu, Got Matar, and Gobei health centers; and 111 CHWs working in BarKowino, Nyawita, Nyamonye, Ajigo, BarChando, Kapiyo, Pala, and Usigu CUs. The service providers and CHEWs were trained on FP, including use of the Medical Eligibility Criteria wheel; nutrition; infection prevention; and use of MOH registers and tools; and introduced to the MIYCN/FP supplementary registers. The

CHWs were trained on FP methods, nutrition practices for the mother and child, and the use of MOH registers and tools, and were introduced to the MIYCN/FP supplementary registers. Furthermore, both groups participated in practicum sessions.

MCHIP, in conjunction with the Bondo DHMT and Health Management Team, conducted regular supportive supervision visits on FP/MIYCN for service providers working in six health facilities: Bondo Sub-County Hospital; Ogam dispensary; Kapiyo, Usigu, Got Matar, and Gobei health centers; and for CHEWs and CHWs working in the eight affiliated CUs of BarKowino, Nyawita, Nyamonye, Ajigo, BarChando, Kapiyo, Pala, and Usigu. Findings and observations from two supportive supervision visits conducted in April 2013 revealed that:



Nyamonye community unit: A CHW uses the FP/MIYCN counseling flip chart to counsel a young mother on family planning and MIYCN.

- 55% of nurses demonstrated knowledge and skills in promotion of FP and exclusive breastfeeding;
- 87.5% of CHWs were reported as intensively conveying FP/MIYCN messages at the community level; and
- Clients interviewed reported that 54.23% of nurses discussed mother and infant nutrition, and 58.3% discussed benefits of child spacing.

Findings and observations from the supportive supervision visits showed that service providers are making an effort to integrate FP and MIYCN when counseling clients who visit the health facilities, and that CHWs are doing a good job in conveying FP/MIYCN messages to clients when they carry out household visits. However, some gaps were identified during supportive supervision that needed to be addressed. As a result, during June and July of 2013, MCHIP and the Bondo SCHMT oriented 52 service providers, six CHEWs, and 102 CHWs on data management using the supplementary register and CHW newborn checklist to identify danger signs and maternal nutrition and infant feeding options. Service providers, CHEWs, and CHWs are continuously mentored through supportive supervision.

Documentation of FP/MIYCN success stories is an ongoing activity. In 2012, MCHIP Kenya developed a presentation on FP/MIYCN integration in Bondo for the global FP integration meeting held in Washington, D.C., as well as at a number of other international conferences and meetings. The presentation highlighted the achievements of the integration process including IEC materials that were developed; trainings conducted at the facility and community levels; and supportive supervision visits. In collaboration with the Jhpiego communicology unit, the MCHIP team documented stories of several beneficiaries of MIYCN/FP. One of the success stories, titled *In Kenya, Mother and Baby Thrive Postpartum Thanks to Family Planning and Nutrition Counselling*, was presented during the international FP conference in Addis Ababa, Ethiopia, in November 2013 and will be used for future publications. Documenting the success stories illustrates that FP and MIYCN integration is feasible at the facility and community levels.

The demonstration FP/MIYCN integration is ongoing and an evaluation was planned for June 2014 to measure its effectiveness on MCH indicators at the facility and community levels in Bondo Sub-County. Based on findings from the evaluation and especially from the lessons learned, it is hoped that the integration will be scaled up all over the country.

Challenges

- There were competing activities at the sub-county level, for instance, **polio campaigns**, which involve several MOH and community staff, hence halting implementation of other activities.
- Annual staff rotations within Bondo Sub-County Hospital resulted in more staff being trained so that the integration process could continue in the pre-selected service areas of maternity, MNCH/FP, and outpatient department.
- Service providers lament that they do not have sufficient time to complete the FP/MIYCN supplementary register (health facility-based) and at the same time complete the MOH registers, which they are mandated to complete regularly. The service providers requested that the FP/MIYCN supplementary register be harmonized with the MOH registers.

Lessons Learned

- Integrating FP and exclusive breastfeeding meets mothers' contraceptive (LAM) requirements and prevents infant malnutrition.
- Planning, coordination, and implementation with the Bondo DHMT and HMT are key in achieving FP/MIYCN objectives through the integration approach.
- Community involvement, education, and demand creation significantly contribute to increased uptake of FP and nutrition services.

5.4: Postpartum hemorrhage (PPH) and FP study in urban slums: In Kenya, PPH is the leading cause of maternal mortality, accounting for about 25% of maternal deaths. The majority of these deaths (88%) occur within four hours of delivery (MOH-Kenya Annual Statistical Report 2008). Prevention and early recognition at the community level and prompt management of PPH are crucial to maternal survival, especially because most deliveries take place at home (approximately 56%; KDHS 2008–09). The current WHO PPH guidelines do not include recommendations for non-skilled providers or community-level education.

In light of this situation, MCHIP designed an intervention study to demonstrate a community approach to prevention of PPH, working with the DRH, DCAH City Council of Nairobi, and the Tupange project, which is funded by the Bill & Melinda Gates Foundation. Working through CHVs, the intervention targeted community members to improve knowledge about the dangers of PPH, encourage delivery with a skilled provider, and help prevent unwanted pregnancies. The study targeted young mothers, CHVs, and service providers within three slum areas in Nairobi, covering a community of about 400,000 people. MCHIP was able to leverage the Tupange project's already established community units with active CHEWs and CHVs.

After conducting a baseline assessment on FP intention after delivery and intention to deliver with a skilled birth attendant, MCHIP adapted training materials and used a modular approach to orient service providers and CHEWs at intervention sites on PPH and FP at the community level. The CHEWs then oriented the CHWs on providing information on PPH and FP to mothers. They were also updated on their role as a link between the community and the health facility, which was a weakness established during the baseline. After orientation, the CHEWs and CHWs established young mothers clubs within their communities. The clubs met weekly under the CHW facilitation to provide information on PPH and FP.

Of the 256 women who participated in the first session of young mothers clubs in the nine health care facilities, 75% completed both the pre- and post-orientation questionnaires, the source of the baseline knowledge for comparison. Between 21 and 28 women attended each session of the young mothers club. Following the intervention, there was a significant increase in knowledge on prevention and treatment of PPH and on the use of FP. Improvement in

knowledge was highest for maternal and newborn health; this ranged from 24 to 41 percentage points above the baseline. This improvement included gains in knowledge about what an individual birth plan entails (such as identifying a place to give birth, a skilled birth attendant, and how to get the health care facility, among others). There was a 5% point increase in the proportion of women who could correctly identify that bleeding after childbirth is a danger sign. This increase was accompanied by a significant increase in the knowledge on what actions to take should a woman identify heavy bleeding after childbirth. These actions include seeking immediate hospital care, passing urine, and breastfeeding. Even though there was improvement on the knowledge related to urination and breastfeeding as an intervention in a woman with heavy bleeding following childbirth, the knowledge remained low even at endline, suggesting that the value of these interventions in reducing postpartum bleeding is not obviously apparent. Knowledge about vaginal bleeding, anemia, and body swelling being danger signs during pregnancy also improved after the intervention.

Even though a large percentage of the young mothers already knew that a woman should space pregnancies by at least two years (84%), there was a statistically significant increase to 94% following the intervention (p=0.008). Before the intervention, only 18% of the women knew the three requirements for LAM to act as a contraceptive method, but this increased to 52% following the intervention (p<0.001).

The proportion of young mothers reporting current use of a FP method rose from 77% to 86%, which was statistically significant at the p<.0001 level. There was no change, however, in the method mix of family planning used between pre- and post-intervention.

Table 9. Family Planning Use of Young Mothers Club Participants (n=162)

YOUNG MOTHER KNOWLEDGE, ATTITUDE, PRACTICE (KAP) INTERVIEW	PRE-INTERVENTION	POST-INTERVENTION
	% (n)	% (n)
Currently using contraceptive method	77 (102)	86 (114)

Challenges

- A few young mothers did not attend all eight sessions.
- There was a high turnover of mothers due to high mobility among the slum community and other personal reasons
- Although CHEWs were supposed to be in attendance at all the young mothers club sessions facilitated by CHWs, in a number of sessions, this did not happen and CHWs facilitated the sessions without support from the CHEWs.

Lessons Learned

- Young mothers clubs provide opportunities to exchange knowledge that can be translated to practice.
- Young mothers clubs are an effective approach to improving knowledge and increasing the uptake of institutional delivery as well as contraceptive use.

5.5: Supported institution of an MNH surveillance system: In 2010, MCHIP undertook a countrywide quality of care assessment linked to the KSPA with technical assistance from Macro International. The purpose of the survey was to determine the need for QoC improvement activities in facilities and to guide district and national QoC efforts through policy development and implementation. The survey revealed poor data collection practices; incomplete documentation in the sector tools; poor utilization of critical tools, e.g., the

partograph; mixed notes/records on mothers and well babies; no registers for babies; and deficient competencies in the skills being tracked (examples of deficient skills were those for active management of third stage of labor for management of PPH, and use of magnesium sulfate by nurses for pre-eclampsia and other emergencies). In part to address this issue, MCHIP supported the initiation of an MNH surveillance system to help the four hospitals collect data correctly and on time, analyze and use the data on-site, and forward the data to the DHIS on time. The four facilities are Makindu, Kangundo, and Naivaisha District Hospitals, and Gilgil Sub-District Hospitals.

The support by MCHIP strengthened the skills of health care workers in the use of maternity registers and the partograph and data utilization. The service providers were also trained in active management of third stage of labor, management of pre-eclampsia/eclampsia, immediate newborn care, HBB and keeping the baby warm (warm chain), and use of maternal and perinatal death surveillance and response (MPDSR) forms. As a result, there was revitalization of MPDSR, increase in and correct use of the partograph, correct tracking and documentation of key indicators, and utilization of data for decision-making at the facility level. Mothers admitted to the study health care facilities received quality care. In addition, the sentinel facilities started including the referring facility in MPDSR meetings to discuss causes of death and how to prevent them. This enabled the understanding of the referring facility's role in effective and timely referrals and in addressing areas of weakness in the referral process. Some facilities also started looking at "near misses" to be able to learn "what went wrong" during their monthly meetings. Separate pages for notes for well babies were introduced within the mothers' files. This helped in capturing a baby's information separately from the mother's to foster quality care to the baby.

The intervention was scaled up to antenatal and child welfare clinics. Two of the sentinel hospitals decided to use the MNH surveillance model to improve services within their ANC and child welfare units. It was also used in MNH RRI campaigns and the APHIA*Plus* programs. During the training, the facilities were asked to involve the lower referring facilities in review of maternal deaths and near misses, and were also mentored so that they could stabilize and prepare patients before referral. This changed the whole picture in the referral hospitals. The patients are ready for the theater on arrival in referral hospitals. APHIA*Plus* in the community followed up the index patient and informed the community on the cause of death and how to prevent fatalities by ensuring that patients get to the hospital in time. In facilities where there is no transport, the lower facilities can call the referral facility for the ambulance to collect the patients on time. There was improved data collection and utilization. All four facilities in the pilot are now collecting data correctly and are using their data for planning for identifying areas of weaknesses and for mentoring.

Challenges

- The nurses' strikes affected program implementation and impeded project achievement.
- Staff rotation within facilities and staff transfers, especially with the re-organization of health services following devolution of governance in Kenya, presented a challenge.

Lessons Learned

- Correct collection and utilization of data save lives.
- On-site training enables MCHIP to reach more service providers at a lower cost, effectively, and efficiently.
- Updated service providers are empowered and motivated to work.

- Community involvement in MNH interventions is essential to improvement in skilled birth attendance.
- Utilization of locally available materials and existing structures enhances uptake and sustainability of interventions.

5.6: FP support to MCHIP demonstration sub-counties

Background

Baseline assessments in the three demonstration sub-counties had indicated that long-acting and permanent methods (LAPMs) of contraception were the least available and least used methods despite the obvious benefits of being highly safe, cost-effective, and providing continuous protection against unplanned pregnancy and allowing families to space their children. This and the well-documented evidence of leveraging on community participation informed the two MCHIP strategies employed to increase uptake of and reduce the unmet need for FP. MCHIP worked with CHVs to increase demand for FP services. Health facility strengthening was done to ensure that all methods were available at the facilities and that service providers could respond to the increased demand for FP commodities. Implementation began in Bondo in 2012, in Igembe North in January 2013, and in East Pokot in October 2014.

Accomplishments

5.6.1: Health facility strengthening in Igembe North, East Pokot, and Bondo Sub-Counties: MCHIP responded to the existing unmet need for FP/LAPM by making available a balanced contraceptive method mix that included LAPM among the choices and options. MCHIP provided Contraceptive Technology Updates to service providers, and then liaised with a Jhpiego project, Accelerating Scale-up of Implants (ASI), to develop four service providers in each sub-county as mentors in FP. These mentors spent significant time with service providers in the sub-counties, equipping them with the skills to provide FP methods. MCHIP procured anatomic models that remained in the MCHIP demonstration sub-counties for service providers to practice on. Health facilities were equipped with basic supplies and equipment to ensure that all methods are provided (see Table 10).

Table 10. FP Equipment and Supplies for Training and Service Provision in Demonstration Sub-Counties

ITEM	IGEMBE NORTH	EAST POKOT	BONDO
Implant Insertion Kit	24	24	24
Implant Removal Kit	24	24	24
IUCD Insertion Kit	24	24	24
PPIUCD Insertion Kit	24	24	24
IUCD Removal Kit	24	24	24
Model - IUCD hand held	20	15	15
Model - Mama-U Postpartum	1	1	1
Family Planning: A Global Handbook for Providers	20	20	20
Myths and Misconceptions Booklet	80	80	80
Myths and Misconceptions Brochures	80	80	80
WHO Medical Eligibility Criteria Wheel for Contraceptive Use	20	20	20

5.6.2: Leveraging on the community platform to increase uptake of FP

Bondo Sub-County: The functional community units (100% coverage) in Bondo Sub-County provided an excellent natural platform for improving the home-to-hospital continuum of care. MCHIP engaged all of the CHVs to create demand for FP, and some of the CHVs to distribute

FP commodities in the community. MCHIP supported community dialogue days to address FP myths and misconceptions. MCHIP also supported a total of 87 community integrated outreaches that included FP service provision to hard-to-reach areas.

In addition, MCHIP partnered with Family Health Options Kenya to set up the community-based distribution of FP services and commodities. MCHIP covered 58% of the sub-county and Family Health Options Kenya covered the rest. CHVs undertook the five-day training on community FP. Planning was done with the SCHMT, CHEWs, and health facility in-charges to set up a distribution and reporting framework and to ensure availability of FP commodities. Action plans developed during the training were implemented. CHVs distributed pills (Microlut and Microgynon) and condoms (male and female). Supervision was conducted to ensure timely and correct implementation. Monthly data review was done. Table 11 shows FP commodity distribution by CHVs in Bondo Sub-County after review of the eight months of implementation in the MCHIP CUs.

Table 11. FP Commodity Distribution by CHVs in Bondo Sub-County

MONTH	COC (CYCLES)	POP (CYCLES)	MALE CONDOM (PIECES)	FEMALE CONDOM (PIECES)
October 2013	248	256	4,430	48
November 2013	518	51	6,376	136
December 2013	359	104	5,819	210
January 2014	536	85	6,204	38
February 2014	525	81	9,413	117
March 2014	536	96	10,283	13
April 2014	409	63	10,934	48
May 2014	328	53	12,292	57
TOTAL	3,459	789	65,751	667

As part of MCHIP’s exit strategy from Bondo Sub-County, MCHIP worked with the CUs to develop and sustain income-generating activities. MCHIP successfully weaned the sub-county off support for dialogue and action days and the integrated community outreaches. Supervision indicated that these activities continued even without MCHIP support, mainly supported by funds collected at the health facilities and from the income-generating activities.



West Migwena CHWs working on their tomato farm



CHVs in Othach CU displaying plastic seats, which they hire out

IGEMBE NORTH AND EAST POKOT

Igembe North, with a population of 253,231, is served by only 11 public health facilities, with an average distance of 12 km to the nearest health facility. East Pokot, with a population of 153,429, is served by 20 health facilities, with an average distance of 17 km to the nearest health facility. Both districts have many geographically hard-to-reach areas with huge unreached populations. In addition, both districts suffer a substantial staff shortage, making provision of health services a major challenge. In recognition of this challenge, MCHIP

leveraged on the community strategy to reach the underserved communities. CHEWs were trained on community FP. With the knowledge and skills gained, these CHEWs supported CHVs to create demand for FP services and respond to myths and misconceptions about FP. CHVs were supported with a monthly stipend of KES 2,000 per CHV. This enabled them to visit all households within their catchment area every month, disseminating FP messages and referring clients to the health facilities to receive their methods of choice. The CHVs were also issued with IEC materials, which included badges, T-shirts, and bags. These items were also given to CHC members and CHEWs.

A review of the DHIS indicated improved uptake of FP methods (see figures below).

Figure 9. FP Uptake in Igembe North Sub-County between 2011 and 2013

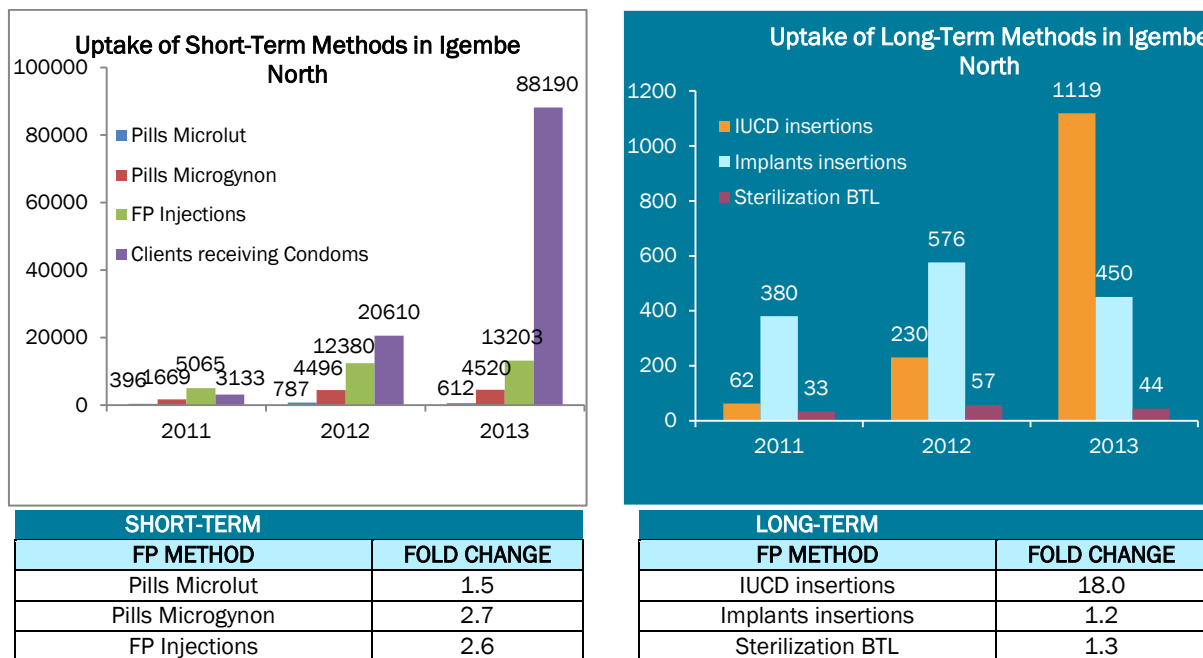
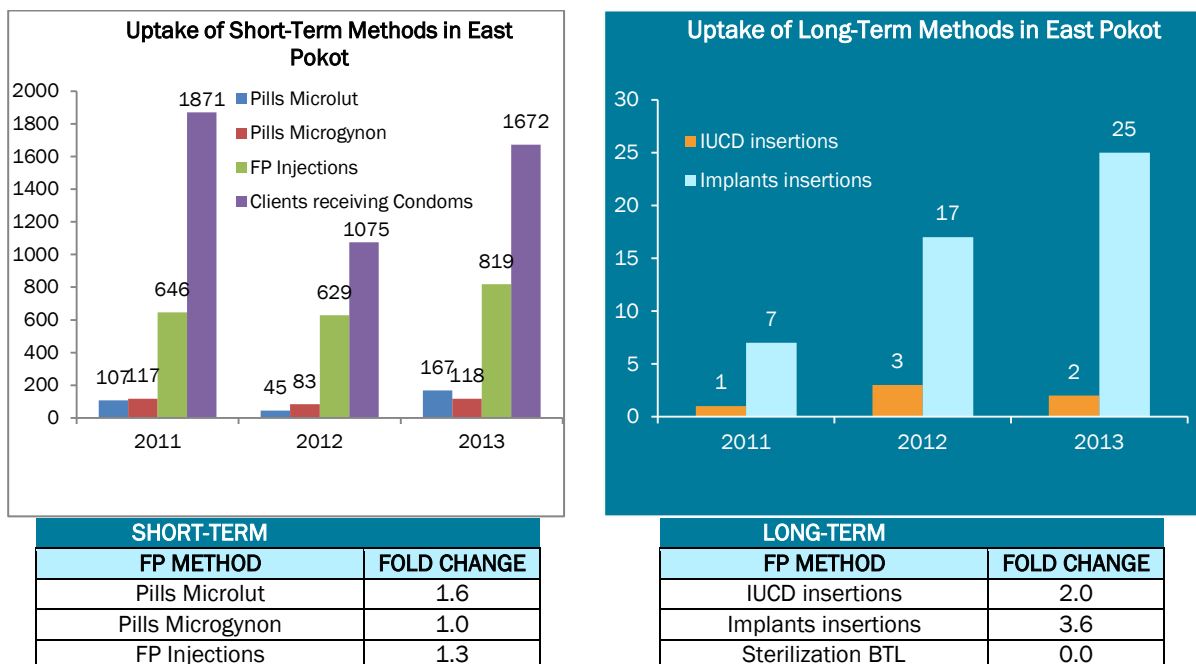


Figure 10. FP Uptake in East Pokot Sub-County between 2011 and 2013



5.6.3: Bondo contraceptive prevalence rate survey

Background

Family planning can avert more than a third of maternal deaths, a fifth of under-five mortality, and a tenth of neonatal deaths. The national contraceptive prevalence rate (CPR) was reported as 46% for any contraceptive method among married women in the 2008–09 KDHS. Though this was an increase from the previous rate of 39% (2003 KDHS), the increase was not good enough to contribute toward improvement of MNH indicators. The MOH planned to increase the national CPR from 46% to 56% by 2015.

In the 2008–09 KDHS, the CPR in Nyanza Province (where Bondo is located) was estimated to be 37%. MCHIP has provided intensive support to Bondo Sub-County since 2010 to improve contraceptive use. It was expected that these interventions had increased contraceptive use in Bondo, thereby improving the sub-county's CPR.

In April 2014, MCHIP embarked on a survey to estimate the CPR of Bondo, leveraging on the fact that the sub-county had 100% coverage by CHVs. A simple questionnaire with five questions related to reproductive health and contraceptive use was designed to complement the information that CHVs routinely collected using the MOH 513 register. The questions were:

- Have you ever given birth?
- How old were you at first birth?
- Are you now pregnant?
- Are you or your partner using contraception?
- What method (s) are you using?

Figure 11. Data Collection Tool for Bondo Sub-County CPR Survey



Bondo CPR Survey for Women aged 15-49 years Start date _____ End date _____ Side 1

Health Facility name _____ HF MLF No: _____ CU Name: _____ CHW Name: _____

List ALL women aged 15-49 entered on the MOH 513 form below. Then ask to interview them to ask five short questions as on this sheet. If a woman is not at home, return three times to find her at home. ONLY ask the questions of the woman, do not get the opinion of another person. If you do not find the woman after three attempts (write the date of each attempt), then leave the interview questions blank.

Enter from the MOH 513:			Dates / result of finding woman						Q1	Q2	Q3	Q4	Q5	
HHD No.	Line No.	Age	Marital Status	(Try three times)						Have you ever given birth? <i>If No=skip to Q3</i>	How old were you at first birth? <i>Enter age in years</i>	Are you now pregnant? <i>If Yes=end</i>	Are you/partner using contraception? <i>If No => End</i>	What method(s) are you using? <i>End Interview</i>
				Day	Result	Day	Result	Day	Result					

Codes to use:

Marital Status:

- 1: Single
- 2: Married
- 3: Separated
- 4: Divorced
- 5: Widowed
- 9: Missing

Interview result:

- 1: Completed
- 2: Not at home
- 3: Postponed
- 4: Refused
- 5: Incapacitated
- 9: Missing

Q1:

- 1: Yes
- 2: No
- 9: Refused

Q3:

- 1: Yes
- 2: No
- 3: Not sure
- 9: Refused

Q5: Write numbers of all methods mentioned:

- | | |
|-------------------------|-------------------------------------------|
| 1: Female sterilization | 9: Breastfeeding LAM |
| 2: Male sterilization | 10: Spermicide / jelly or foam |
| 3: Daily Pill | 11: Natural (safe days / withdrawal) |
| 4: IUD | 12: Emergency pill |
| 5: Injectables | ___ if other, then write in space on line |
| 6: Implants | |
| 7: Female condom | |
| 8: Male condom | |

Q2:

- Write age in completed years

Q4:

- 1: Yes
- 2: No
- 9: Refused

Interview Day:

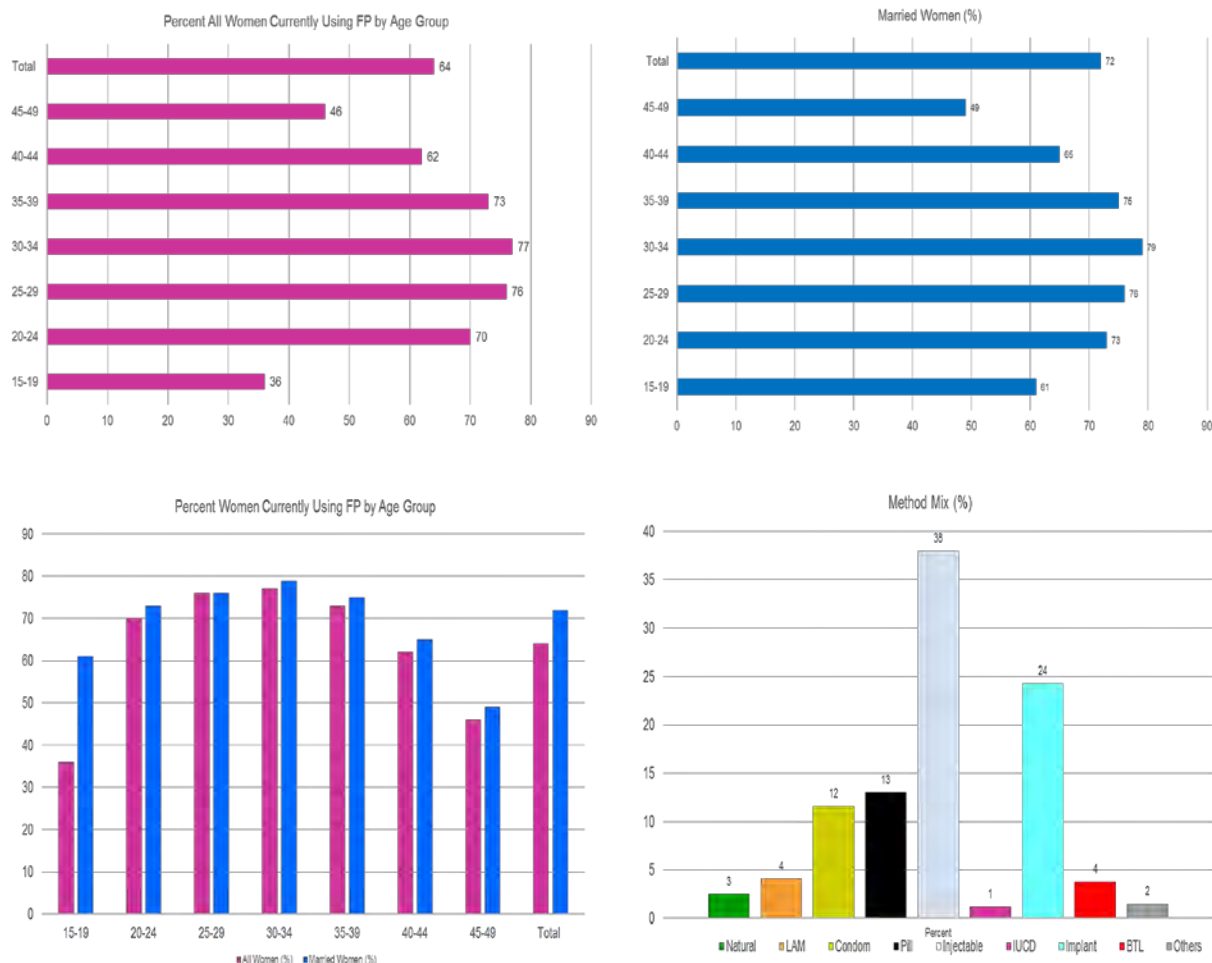
Enter ONLY day of the month of April 2014

Date entry done by _____

MCHIP, together with the sub-county HMT, conducted training of all CHEWs and CHVs on the data collection tool. The CHVs administered a questionnaire to all women of reproductive age (15–49 years) in each household as identified through the current database (MOH 513).

Preliminary results show that of the 31,273 women aged 15–49 years who were recorded in the MOH 513 register, 30,131 completed the interviews, a 96% response rate. Their mean age was 27.7 years and 66.8% were married. Overall, 6.1% of the women reported being pregnant at the time of the survey. The age group 20–24 years had the highest pregnancy rate of 9.3%, followed by 25–29 at 7.4%, and 15–19 at 5.7%. Of all the non-pregnant women, 64% reported using a contraceptive method. This was highest for those aged 30–34 years (77%) and lowest for those aged 15–19 years (36%). Among married women, 72% reported using a FP method; this was highest for those aged 30–34 years (79%). Among married women aged 15–19 years, 61% reported using a contraceptive method. For this age group, being married was more likely to be associated with contraceptive use. The most commonly used FP method was DMPA (38%) followed by progesterone-only contraceptive implants (24%).

Figure 12. Preliminary Results of Bondo Sub-County CPR Survey



These preliminary results, which showed an impressively high CPR in Bondo, were shared with the Siaya County and Bondo Sub-County Health Management Teams during the MCHIP end-of-project dissemination in Siaya County. The high teenage pregnancy rate was also pointed out and the sub-county health team was urged to identify interventions to address this.

Representatives from the County Health Team indicated that they will use these results for advocacy, with an aim of scaling up the appropriate interventions to the rest of Siaya County.

Study limitations included:

- Data accuracy, especially age and marital status
- Being questioned by CHVs may have inhibited some women from providing accurate details

Challenges

- Although planning was done with the sub-county health teams to ensure availability of FP commodities, there were periods of stock-out that interfered with provision of services.
- Community myths and misconceptions about the use of FP hindered uptake.
- Migration among the beach clients was an impediment to service provision and client follow-up.
- The distance to the health facility for referrals remained a challenge.

Lessons Learned

- Use of FP mentors and provision of models for practice were important for retention of skills and improving the service providers' confidence in provision of contraceptives, especially LAPM.
- Capacity building of the tier 1 workforce (CHVs) to support distribution of FP commodities and services was crucial. CHVs are advisers on matters pertaining to reproductive health in homes, schools, and social gatherings within their catchment area.
- Task shifting: CHEWs and CHVs supported health care providers with record keeping. CHEWs and CHVs assisted in the transfer of the information recorded in the community daily activity register to the facility daily activity register, thus easing the work of the service providers. In addition, because of community-based distribution, there were shorter queues at the facility for FP pills and condoms. Health workers at the facility therefore concentrated on provision of injectables and LAPMs.

SUB-OBJECTIVE 6: PMTCT/MNCH INTEGRATION

Improve the quality and uptake of PMTCT by integrating along the MNCH continuum of care using an adaptation of the RED approach

Background

In 2010, Kenya adopted Option A for PMTCT from the WHO recommendations of 2009. These guidelines called for earlier initiation of antiretrovirals for PMTCT (at 14 weeks gestation). However, according to the KDHS 2008/9, only 15% of pregnant women access ANC in their first trimester. There was also a declining trend in the proportion of mothers completing four ANC visits, from 52% in 2003 to 47% in 2008/9. This trend and the unchanging high maternal and newborn morbidity and mortality rates called for innovations to increase access and utilization of PMTCT, HIV, and MNCH services.

In October 2010, with PEPFAR (Headquarters Operational Plan) funding, MCHIP began working closely with the Kenyan MOH to improve the quality and uptake of PMTCT services in a demonstration project in the Bondo district (now called Bondo Sub-County) of Siaya County in Kenya. An adaptation of the RED approach was used to identify communities with large numbers of pregnant women, mobilize CHVs (previously called Community Health Workers) to bring these women and their infants into care (after delivery), and actively monitor and take action to increase PMTCT and MNCH service coverage. Within the district, the approach was named the Reaching Every Pregnant Women approach. RED was originally developed by WHO, UNICEF, and other partners in the GAVI Alliance to improve immunization systems in areas with low coverage. This approach encourages the use of coverage data to make an analysis of the distribution of current services, and thereby prioritize regions with poor access and utilization of health services.

MCHIP also used the SBM-R approach to improve the quality of PMTCT services at the health facility level. SBM-R is a practical management approach for improving the quality of health services; its basis is providing operational, observable performance standards as a tool for on-site assessment by service providers.

Based on the successes of the demonstration project, in 2012 MCHIP received additional funding from USAID to continue the RED for the PMTCT approach project in Bondo and, in addition, to roll it out to two sub-counties, Igembe North and East Pokot.

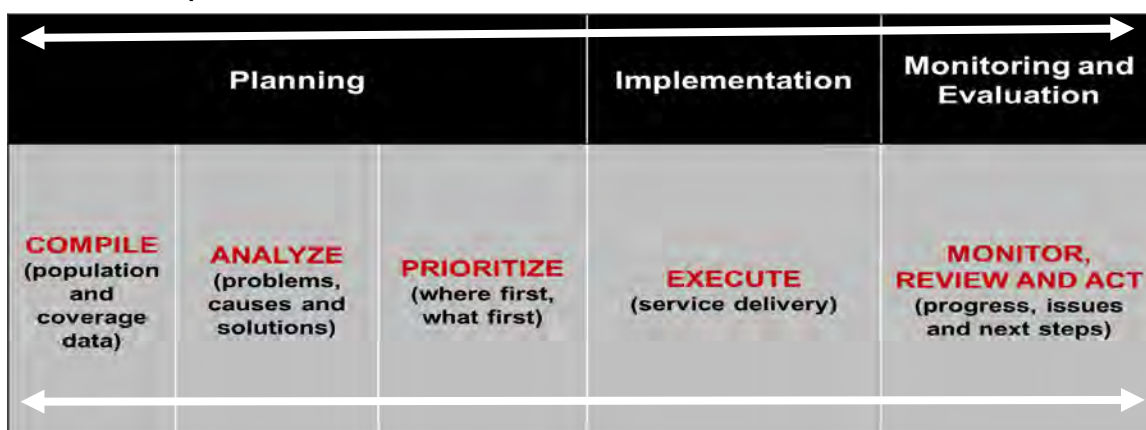
Accomplishments: 6.1: Increasing access, utilization, and quality of MNCH and PMTCT services using the adapted RED approach: According to the 2007 Kenya AIDS Indicator

Survey, Kenya had an HIV prevalence of 7.4% but there was a great variance within the country, with Nyanza Province (where Bondo was located) having one of the highest prevalence rates at 13.9% (16% in women and 11% in men). In 2010, Bondo district had a total population of 167,765, and an estimated 6,375 pregnant women. Although about 97% of the women accessed ANC at least once during their pregnancy, only 3% of them did so during the first trimester.

In preparation for the implementation of the RED for PMTCT approach, the MCHIP team adapted RED reference materials for use in PMTCT planning and management. The first ANC visit was used to determine access to health services, while the fourth ANC visit determined utilization of health services. A comprehensive package of care for PMTCT and MNCH was defined and summarized as a job aid for service providers. Health care providers were trained on the adapted approach and supported to determine a target population by the most appropriate strategy (fixed or outreach); determine whether the problems of under-served populations were access-related or utilization-related and adopt necessary action accordingly; determine the number of sessions per month for each strategy that was applicable; and consolidate this into a health facility RED micro-plan. All health facility micro-plans were aggregated into a district RED for PMTCT micro-plan. Villages with high numbers of unreached pregnant women were also mapped. MCHIP then supported the health management team to implement some of the prioritized interventions, which included:

- Engagement of CHVs
- Community outreaches for hard-to-reach areas
- Community dialogue and action days
- Trainings for health workers
- Infrastructure improvement and supportive supervision

Figure 13. RED Implementation Framework



Resources from various partners were leveraged (mainstreaming) to maximize benefit to the end users. The MCHIP activities in the district were harmonized with ICAP’s HIV activities. MCHIP’s role was implementation of the RED strategy, SBM-R standards, and community PMTCT activities, while ICAP concentrated on HIV care and treatment and health system strengthening.

Cross-sectional health data based on the MOH 711 monthly summary compared at two different time points—January to June 2010 (pre-intervention) and a similar period in 2012 (last six months of intervention)—showed the following results (Table 12).

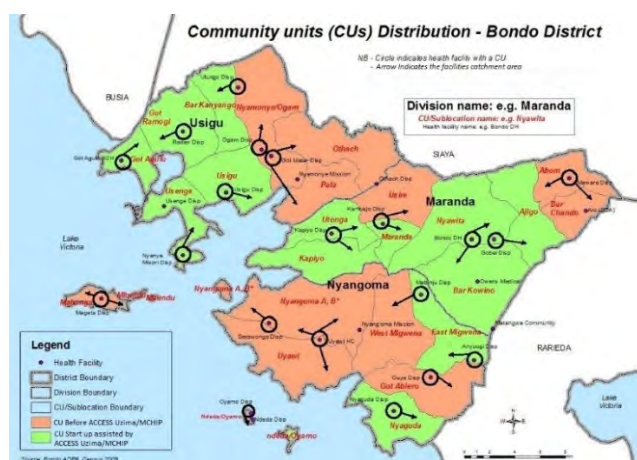
Table 12. Uptake of PMTCT Services between 2010 and 2012

INDICATOR	2010 (%)	2012 (%)	P-VALUE
Proportion of pregnant women completing four focused ANC visits (proxy indicator of early ANC attendance)	25	41	<0.001
Proportion of women delivering under the care of a skilled attendant	23	47	<0.001
Proportion of HIV-infected mothers	21	18	<0.002
Proportion of HIV-exposed infants (HEIs) tested at 6 weeks	27	78	<0.001
Proportion of HEIs who tested positive through PCR testing at 6 weeks between January and June 2012 (2010 data not available)		5	

6.2: Implementing Kenya's community strategy: In 2010, Kenya, through the Division of Community Health Services, passed new guidelines regarding the formation of CUs and transformation of the existing ones (see Figure 14). For Bondo district, where previously one CHV served 20 households, the new guidelines recommended that one CHV serve 100 households. MCHIP assisted the Bondo HMT to roll out this new community strategy. Existing CUs were made functional. (The definition of a functional CU is one that had active community health committees; had CHVs who had been recruited and trained according to MOH curricula; and held monthly outreaches and monthly dialogue and quarterly action days.) Additional CUs were established to cover the entire district as a way of enhancing linkages with the community; CHVs were recruited from all villages. The CHVs were trained on the community strategy, community-based health information systems, and the RED for PMTCT approach. MCHIP facilitated the availability of MOH tools and registers for use at community level that were hitherto unavailable at community level. Monthly integrated community outreaches to hard-to-reach areas prioritized in the micro-plans were conducted. Monthly dialogue days between health care providers and communities were held in prioritized villages. The focus of the dialogue days was for health workers and community members to discuss and identify solutions to barriers influencing uptake of MNCH and PMTCT health services.

Coverage of Bondo district by CHVs increased from 38% in June 2010 to 100% by June 2012. MCHIP supported all 363 CHVs in the district to conduct household visits, trace mothers lost to follow-up at their homes, provide a basic package of services, and assist them to return to the clinic by providing the government-recommended performance-based incentive.

Figure 14. Distribution of CUs in Bondo before and after MCHIP



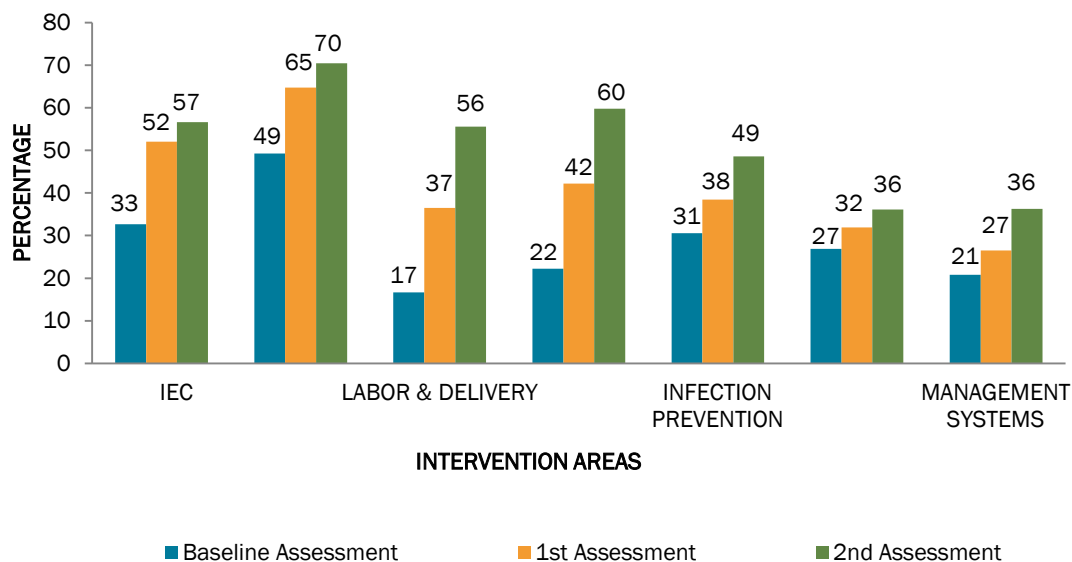
6.3: SBM-R: SBM-R consists of the systematic, consistent, and effective utilization of operational performance standards as the basis for the organization and functioning of these services, and the rewarding of compliance with standards through recognition mechanisms. SBM-R follows four basic steps (see Figure 15).

Figure 15. The Four Steps of SBM-R



Kenya adapted the SBM-R performance improvement approach in 2009 and set standards for the PMTCT program. MCHIP trained service providers and the health management team on the approach. Sites were facilitated to measure performance against the SBM-R standards. Poor-performing sites were facilitated to benchmark with best performing sites. Assessments in the seven PMTCT intervention areas showed improvement over time as seen in Figure 16.

Figure 16. Uptake of SBM-R Standards



6.4: Rollout of the RED for PMTCT approach in Igembe North and East Pokot: Based on the successes of the RED for PMTCT demonstration project, MCHIP received additional funding to roll out the strategy in two additional sub-counties, namely, Igembe North and East Pokot.

IGEMBE NORTH

In 2012, MCHIP conducted a baseline assessment of Igembe North Sub-County. Igembe North had a population of 226,793 with 9,072 estimated deliveries every year. However, only five out of the 11 government facilities offered maternity services. Although 91% of pregnant women accessed at least one ANC visit, only 6% completed the four focused ANC visit and 9% delivered with a skilled attendant. Four health facilities in the district offered PMTCT services. Eighty-three percent of those attending ANC were tested for HIV and 65% of those testing positive for HIV were initiated into care and treatment. It was also noted that only 4% of the health workers in the district had been updated on Kenya's new PMTCT and infant and young child feeding guidelines.

MCHIP built on the achievements and lessons learned in Bondo. Implementation was guided by the gaps identified during the baseline survey. The RED for PMTCT approach, which has strong roots in the community strategy, was employed. Facility and community health workers were trained on the RED approach. Micro-planning was done. Areas with large numbers of pregnant women were identified. CHVs and CHC members were recruited and trained on the community strategy, and 20 community units were formed and made functional.

Health workers' competencies were reinforced through training, mentorship, and supportive supervision. MCH and maternity service providers were trained on PMTCT and provision of adult ART using the national curriculum. This 10-day training was followed with mentorship, which resulted in an increase in the number of facilities providing PMTCT services from four to 20. The adult ART training was conducted using the Integrated Management of Adolescent and Adults Illnesses concept in preparation for rolling out ART for pregnant and lactating women. Mentorship for the rollout was taken up by the health management teams and is ongoing. Reproduced job aids and IEC materials were disseminated. Service providers were also oriented on the new HIV Testing Algorithm (Colloidal Gold as screening test; First Response as the confirmatory test; and Unigold as the tie breaker) recommended by NASCOP. Transportation of Dried Blood Spot results for EID of HEI from health facilities to the regional collection points for transportation to the reference labs was supported.

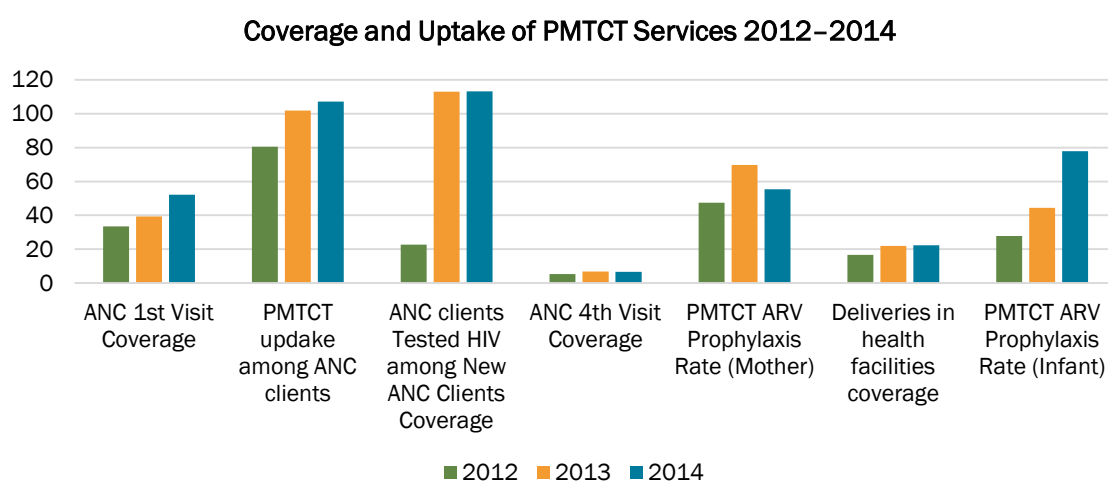
Working with the SCHMT, three facilities were identified where scale-up of quality basic emergency obstetric and newborn care (BEmONC) services was supported. BEmONC mentors were developed and supported with training models (MamaNatalie and NeoNatalies) to mentor the other service providers. MNH equipment including delivery beds, weighing scales, BP machines, fetoscopes, stethoscopes, sterilizers, autoclave, Doppler ultrasounds, Ambu bags, and radiant heaters was provided.

MCHIP also provided support to the HMT to conduct integrated supportive supervision, for monitoring, evaluating (M&E mentorship and provision of airtime to the District Health Records and Information Officers and facility in-charges) and coordination of activities with the sub-county by supporting the monthly in-charges' meetings. This was aimed at improving data collection, collation, analysis, use, and reporting. Review of DHIS data revealed the following:

Table 13. Uptake of PMTCT Services in Igembe North Sub-County between 2012 and 2014

SELECTED INDICATORS	% INCREASE IN CLIENT NUMBERS (2012 VS. 2014)
New ANC clients	21.0
Pregnant women attending four ANC visits	34
ANC clients counseled	86
ANC clients issued with preventive ARVs	58
Infants tested for HIV at 6 weeks	500
Infants tested for HIV after 3 months	300
ANC partners tested	500
Maternity women tested for HIV	12
Normal deliveries	13

Figure 17. Uptake of PMTCT Services in Igembe North Sub-County between 2012 and 2014



EAST POKOT

East Pokot is one of the sub-counties in Baringo County. It covers 4,516 km² with a total population of 153,429 and a population density of 34 people per km². The terrain is diverse, rough, characterized by harsh, semi-arid climatic conditions, remoteness, and poor road infrastructure. Entry into the sub-county is gained by crossing River Nginyang', a seasonal river that has no bridge and frequently overflows. East Pokot is isolated from most amenities. Generally, the people of East Pokot are pastoralists; their livelihoods depend predominantly on their livestock. The other economic activity is small-scale farming.





Crossing River Nginyang'



Terrain in the mountainous regions

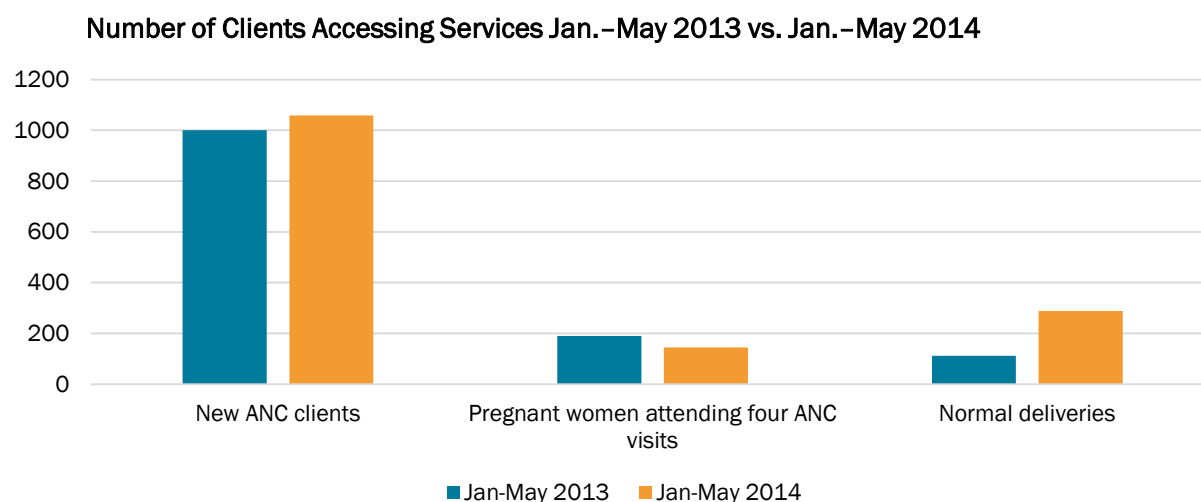
MCHIP held discussions with APHIAPlus Nuru ya Bondo (NYB), the other USAID partner in East Pokot. A Memorandum of Understanding was signed, stating that MCHIP's mandate was MNCH, nutrition, FP, IPC, and the community strategy, while APHIAPlus NYB's mandate was HIV and TB. MCHIP conducted a rapid assessment of the sub-county. There were 19 functioning health facilities, with only three providing maternity services. Eighteen percent of pregnant women completed four focused ANC visits but only 2% of the deliveries were conducted under skilled care. There was no newborn resuscitation equipment in the sub-county. Three facilities were identified where scale-up of quality BEmONC services would be supported. BEmONC mentors were developed and supported with training models (MamaNatalie and NeoNatalies) to mentor the other service providers. MNH equipment including delivery beds, weighing scales, BP machines, fetoscopes, stethoscopes, sterilizers, autoclave, Doppler ultrasounds, Ambu bags, and radiant heaters was provided.

MCHIP worked with the sub-county health management team to identify priority areas in need of community units. The other areas were predominantly inhabited. Twenty SCHMTs and CHEWs were trained over five days on the community strategy. After community sensitization and mobilization, 170 CHVs and 170 CHC members from seven new CUs were elected. They were trained according to the MOH curriculum, increasing the number of CUs in the sub-county from one to eight. The population served by CUs increased from 4,001 to 18,874.

Table 14. Number of Functional Community Units in East Pokot Sub-County in 2013 and 2014

	2013	2014
Number of functional community units	1	8
Community unit coverage	0.6%	13%
Population served by community units	4,001	18,874
Number of community health volunteers	33	203
Performance incentives per CHV	0	\$25 per CHW per month
Number of facilities providing maternity services	4	7

Figure 18. Uptake of ANC and Skilled Birth Attendance Services in East Pokot Sub-County between 2013 and 2014



6.5: Contribute to program learning: The RED for PMTCT approach and achievements were shared at the PMTCT and MNH technical working groups, at MCHIP’s program learning sessions with the APHIAs, and at several scientific conferences including the Conference on Retroviruses and Opportunistic Infections in 2013 and the Integration for Impact 2012 conference.

6.6: Support to the national effort in early infant diagnosis (EID) for HIV: In 2012, MCHIP took over management of the courier service with G4S for transport of the samples to the six reference labs (i.e., KEMRI Nairobi, KEMRI Alupe, Centers for Disease Control and Prevention (CDC) Kisumu, AMPATH Eldoret, Walter Reed in Kericho, and the Coast PGH). This system is a cascade from sample collection, handling and transport, lab reception, testing, and results dispatch. Data are generated at the various levels from the service delivery points through the districts onto the six national reference labs and vice-versa. The regional partners (i.e., the APHIAPlus Programs, AMPATH, and Walter Reed) ensure transport of samples from the service delivery points to the districts (courier centers).

In Year 5 and 6, MCHIP facilitated the payments to the courier service, ensuring prompt delivery of samples to the reference labs (within a week of sample collection) and timely feedback of results (two weeks after sample dispatch from facility). On average, about 2,300 samples were transported per month.

Challenges

- Inability to carry out longitudinal follow-up of cohorts of clients because Kenya uses cross-sectional registers
- Increased demand for services causing strain at the health infrastructure
- Sustainability questions (e.g., stipends for CHVs in Bondo Sub-County are approximately \$100,000 per year)
- Wide scope of work for CHVs. CHVs in Kenya do not belong to any one project. They are volunteers who support all health programs. Their scope of work includes MNCH, RH/FP, immunization, nutrition, malaria, HIV, TB, etc.

Lessons Learned

- The demonstration project provided further evidence of the benefits of using the RED approach to improve the uptake of and retention in PMTCT and MNCH services.
- Engaging CHWs is an excellent approach for advocating and increasing demand for PMTCT services.
- Local solutions are better than prescribed solutions. Community engagement is key in identifying and implementing health solutions and interventions.
- Interventions must be prioritized based on evidence.
- Partnership and leveraging of resources are critical to successful implementation.

SUB-OBJECTIVE 7: MALARIA IN PREGNANCY

MCHIP supported the Malaria Control Unit and Reproductive Maternal Health Services Units to plan, coordinate, monitor, and implement MIP interventions in three targeted regions of Coast, Nyanza, and Western Kenya.

MIP is associated with poor pregnancy outcomes including maternal anemia, miscarriage, intrauterine growth restriction, low birth weight, and neonatal mortality. Intermittent preventive treatment of malaria in pregnancy (IPTp) with sulfadoxine-pyrimethamine (SP) is a simple, cost-effective, and programmatically feasible way to reduce adverse effects of MIP. Kenya adopted the policy on intermittent preventive treatment using SP for prevention of malaria in pregnancy (IPTp-SP) in 1998. However, coverage rates have remained low, with IPTp2 at 13–25%. This coverage was reported as 13% in the Kenya Malaria Indicator Survey (KMIS) of 2007, 14% in the KDHS 2008/09, and 25% in KMIS 2010. The use of insecticide-treated nets (ITNs) has also been low, at 41% (KMIS 2010). According to the Kenya National M&E framework 2009–2017, the IPTp2 coverage target for 2013 is 50% and 80% for 2016. Factors influencing low uptake of IPTp include poor staff attitudes and inadequate knowledge on administration of IPTp-SP, poor and late ANC attendance, inadequate infrastructure, and sparsely distributed health facilities in many rural areas.

In an effort to increase the rate of IPTp2 coverage, the MOH adopted the community strategy to mobilize pregnant women to start early ANC attendance. The community strategy was designed to be implemented in two phases, one to prepare the service providers to provide IPTp as per national guidelines, the second to use CHWs to sensitize the pregnant women to start early ANC attendance. MCHIP and its predecessor ACCESS Uzima, in collaboration with KEMRI/CDC and other implementing partners, supported the MCU, RMHSU, and Community Health Strategy Unit to build capacity of 64 malaria-endemic districts to scale up provision of IPTp through the community strategy approach by:

- a. Developing simplified MIP guidelines (orientation package, job aids, posters, DVD) for service providers
- b. Using the simplified MIP guidelines to orient service providers in 64 malaria-endemic districts to clarify issues on IPTp-SP administration
- c. Developing MIP performance standards (SBM-R) to improve provision of quality IPTp services
- d. Using the MIP performance standards to develop mentors at facility level to ensure continuous orientation of staff in the facility

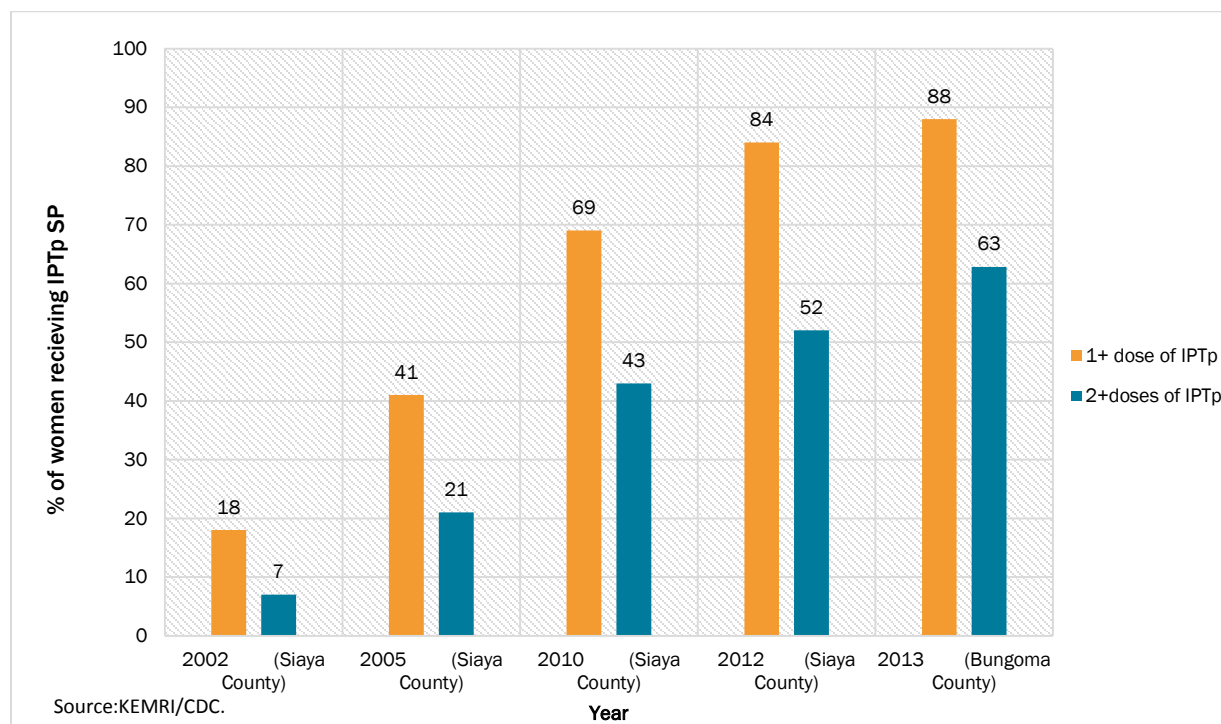
- e. Developing and translating simplified community malaria in pregnancy (cMIP) IEC materials (orientation package, job aids, brochure, and posters) into local dialects for use by community health workers
- f. Using the simplified cMIP guidelines to orient CHWs in 12 out of the 64 districts on the importance of IPTp as a basis for sensitization of pregnant women to start early ANC attendance and increase in IPTp uptake
- g. Providing supportive supervision to service providers in MIP interventions and data quality audits on information collected by CHWs

The activities were undertaken under the community strategy framework and implemented in partnership with MCU; RMHSU; CHSU; County Health Management Teams and SCHMTs; APHIAPlus Western and Nairobi/Coast; PSI; and local authorities; to result in the following:

7.1: Built capacity of service providers in 64 high malaria endemic sub-counties to provide IPTp-SP: Knowledge on provision of IPTp-SP was harmonized among 5,759 out of 4,940 service providers targeted (117%) because the facility-based orientation compared to a centralized approach reached more frontline service providers in ANC clinics and laboratory and outpatient departments than the estimated number of ANC staff only. MIP IEC materials were distributed and disseminated in 1,165 out of a targeted 1,235 facilities (94%), resulting in health facilities within the 64 districts having the simplified MIP guidelines as reference materials. To ensure sustainability of the same practices in provision of MIP services in the facilities, MIP SBM-R standards were developed and 1,200 facility in-charges and 100 supervisors oriented on the performance standards. They cascaded the orientation to 2,441 service providers. Facility in-charges conducted baseline assessments of the SBM-R practices and recorded an average score of 40%.

7.2: Increase in IPTp2 coverage: CHWs (1,452) in 12 out of the 64 malaria-endemic sub-counties were oriented on simplified cMIP, registered 3,212 pregnant women, referred 1,541 (47%) of the registered women for ANC, and followed them up monthly. This effort resulted in increased coverage of IPTp2 from 25% to 63% in Bungoma East Sub-County, where KEMRI/CDC conducted an independent evaluation of the intervention.

Figure 19. Utilization of IPTp in Siaya and Bungoma Counties between 2002 and 2013



7.3: Corrected ANC data: Following the capacity-building of service providers, IPTp-SP is now being provided as per national guidelines. However, a problem with IPTp2 data was identified in the District Health Information Software Version 2 (DHIS2), where IPTp2 was captured as IPTp2+ (IPTp 2, 3, 4, etc.). These data have been corrected for 2011–2013 using trained facility in-charges. The information in the database now reflects the correct IPTp2 coverage as recorded in the facility registers.

Challenges

- MCHIP has been supporting the MCU and RMHSU to convene at least two MIP TWG meetings per quarter to provide policy guidance and share experiences in implementation of MIP activities with partners' progress, but it has not been easy to convene the meetings during quarters when national health events like polio campaigns are held.
- Devolution of managing health services to county level without clear job descriptions and adequate funds has led to poor distribution of SP, and MCHIP had to distribute the commodity from the overstocked central level to needy rural facilities to avoid stock-outs.
- The quality of facilitation varied due to frequent change in MOH focal persons at the division level.
- Limited dissemination of data collection tools coupled with frequent rotation of staff results in poor capture of facility ANC data such as IPTp2.

Lessons Learned

- Use of innovative approaches like the facility-based orientation of service providers is not only preferred by DHMTs but also is cost-effective because many providers are reached, time to attend to patients is not lost, and training/orientation costs are reduced.
- A well-trained, facility-based resource person ensures continuous orientation of staff and provision of quality services, including data management.

- Use of CHWs to identify and sensitize women in their community units to start ANC visits early is an effective way of mobilizing and creating demand in communities for uptake of high-impact interventions.

SUB-OBJECTIVE 8: COMMUNITY PREVENTION WITH POSITIVES

Support the National AIDS and STI Control Program (NASCO) to roll out Community Prevention with Positives (CPwP) interventions in Kenya

The 2012 Kenya AIDS Indicator Survey indicates that 6.9% of Kenyans aged 15–64 are infected with HIV. This means that about 1.45 million adults are living with HIV. More women are infected with HIV (8.7%) compared to men (5.6%). Prevention with Positives (PwP) refers to prevention efforts that support HIV-infected persons to reduce the risk of HIV transmission and re-infection. PwP interventions focus on HIV-infected persons to reduce their risk of transmission. PwP cuts across two levels of intervention: clinical and community. Community prevention with positives (CPwP) is a packaged, integrated HIV community intervention comprising 13 messages around PMTCT, HIV counseling and testing, HIV status disclosure, sexually transmitted infections (STIs), FP, condom use, and tuberculosis. PwP is also provided as a service to the client; when a provider conveys a message and a requirement for that service, e.g., in family planning, a condom is provided. WHO and CDC recommend PwP as an effective intervention strategy for HIV prevention. These messages are passed through CHWs, trained PLWH, and HIV networks. PwP targets the family setting in recognition that, for every positive mother, there is likely to be a positive partner and the likelihood of transmission to a child during pregnancy, birth, or breastfeeding. PwP at the facility level has been integrated into MNCH, PMTCT, FP, and STI service points. At the community level, PwP is provided by trained CHWs and PLWH. Family testing identifies the positive members, and the CHWs then refer them to HIV comprehensive care centers for appropriate care. PwP empowers those who are positive with information and messages to reduce their chances of transmitting the infection to their family members and other sexual partners. The intervention is provided in the form of either information or a service to the client/patient.

MCHIP has supported and provided TA to NASCO and the National AIDS Coordinating Council (NACC) to achieve the following outcomes:

8.1: Linked NASCO and NACC to collaborate in HIV prevention activities at the national and regional levels:

With support from MCHIP, the two arms of HIV prevention and care started working together and held TWG meetings together. This collaboration is important because they had never worked on program activities together despite serving the same population. Through the collaborative efforts, 293 Constituency AIDS Coordinating Committees (regional NACC officers) were trained on PwP interventions by MCHIP.



Support group members with MCHIP staff and MOH during community visits to supervise CPwP services

8.2: Developed, produced, and disseminated national PwP learning resource package and M&E tools:

These materials were created with MCHIP technical support to about 30 TWG meetings, bringing together NASCO, NACC, and other implementing partners to discuss what would be included in the package and build consensus on package content (flip chart, orientation package, and IEC materials). These materials are now national materials that all HIV prevention partners are using to roll out HIV prevention intervention activities. The national M&E tools have been launched and are being used all over the country by implementing partners including support groups and HIV networks to capture their activities. The PwP indicators have also been refined and included in the national DHIS.

8.3: Built capacity of partners: MCHIP helped in building the capacity of 33 HIV prevention implementing partners. The implementing partners include AMREF, ICAP, AMPATH, FACES (Family Aids Care & Education Services), Mildmay International, International Medical Corps, Elizabeth Glaser Pediatric AIDS Foundation, SWOP (Sex Workers Outreach Programme), and the APHIAs, among others. This constitutes over 50% of all partners implementing HIV prevention interventions in Kenya. The materials developed in 8.2 above are being used nationally by all implementers.



National CPwP TWG deliberating in their monthly meetings at NASCOP

8.4: Supported national trainer of trainers (TOT) trainings for 256 national community PwP trainers selected from all the regions in the country. As a result of these trainings through the Constituency AIDS Coordinating Committees and District AIDS and STDs Control Officers (DASCOS), MCHIP has reached 16,000 PLWH directly and many more indirectly: The national TOTs further trained 320 district-specific TOTs (DASCOS, County AIDS and STI Coordinators, Home and Community-Based Care Coordinators, among others). The TOTs trained 2,050 HIV service providers at the community level (HIV networks, HIV support groups, and CHWs) in collaboration with Constituency AIDS Coordinating Committees. The TOTs were further linked to other implementing partners at the regional level to roll out PwP at the district and sub-district levels.

8.5: Promoted the integration of HIV prevention interventions with HIV-positives, men having sex with men, and commercial sex workers. MCHIP supported the training of 32 national peer educators on PwP and provision of PwP services at the community level: These PwP interventions have been embraced by implementing partners all over the country. The trained national peer educators have supported further rollout of CPwP interventions in all the regions in the country through other implementing partners, and close to 2,500 sex workers and 480 men having sex with men have been reached.

8.6: Tested client referral models in Bondo and Igembe North Sub-Counties: Weak linkages between health facilities and communities contribute to inadequate service provision to PLWH at the community level. MCHIP trained 40 HIV support groups (with over 1,500 PLWH) in Bondo and Igembe North on how to refer to various entry levels for HIV care and treatment. As a result, three major facilities in Bondo district (Bondo Sub-County Hospital, Usigu Health Centre, and Got Matara Health Centre) now have:

- An inventory of support groups for ease of referral
- Facility-affiliated support groups that facilitate graduation of stable patients for care and support at the community level
- PLWH trained to support effective referral of their members to facilities for care

Challenges

- Erratic and delayed funding (e.g., PEPFAR) results in delays in implementation of activities, which adversely affects the ability to meet targets within reporting periods.

- There are several confounding social factors that aggravate and hinder achievement of the sub-objective, such as poverty among PLWH, which hinders adherence to prevention messages. Patients on treatment need adequate nutrition for the drugs to work, but in most cases lack of food compromises patients' ability to take their medication on time.
- There is a tendency for parallel functioning of the clinical and community PwP interventions, which slows down implementation of sub-objective activities.
- Inadequate funds lead to slow buy-in to scale-up of the intervention by HIV implementing partners.
- Occasional condom shortages and inadequate availability of condom dispensers at facilities hinder adherence to prevention messages.
- There are not enough meeting venues for independent PLWH support groups.

Lessons Learned

- Effective client referral is better realized by a PwP-trained PLWH (peer educator) than by just an ordinary CHW.
- PwP can be integrated in other HIV program areas, e.g., PMTCT, HIV testing and counseling, and care and treatment.
- Involvement of PLWH as CHEWs and CHWs is essential for successful implementation of PwP.
- Peer counselors at comprehensive care centers and adherence counselors should be PLWH who have been successful adherents and have had successful outcomes.
- Linkage between NASCOP and NACC facilitates scale-up of interventions.

Field Quotes

- “There has been a threefold increase in enrolment into our HIV services in this health facility; we are seeing mothers referred by their partners to the PMTCT and MCH for HIV testing; we are also seeing index clients referring their sexual partners for testing and HIV care at our HIV comprehensive clinic.”
– HIV clinic nurse in-charge at Bondo District Hospital, Siaya County
- “Am more confident now than before discussing my HIV status to my family and other friends; I have reduced my bad sexual practices and reduced many sexual partners to one; this was after undergoing PwP training at the support group that I belong. I thank MCHIP for training our support group leader to impart this knowledge to us.”
– Support group member at Kwale district, Coast

SUB-OBJECTIVE 9: CERVICAL CANCER PREVENTION AND CONTROL

Support to the MOH in scaling up National Cervical Cancer Prevention and Control (CECAP) interventions

Cervical cancer is the leading cause of cancer-related deaths in women in Kenya. The annual number of cervical cancer deaths in Kenya currently stands at 2,451. Screening coverage is only at 3.2% of the eligible population (WHO, ICO 2011) and less than a third of sites providing screening have treatment facilities available. Despite the fact that this cancer is easily preventable through primary prevention strategies such as condom use, male circumcision, and HPV vaccination, indicators of early detection through screening and treatment of pre-cancer still remain low. In response to this situation, MCHIP has been working to provide technical

assistance to the DRH to build on work started under the ACCESS Uzima program to strengthen the policy and M&E environment for CECAP, and has continued to develop cervical cancer screening and treatment skills through the mentorship of trainers. Following the implementation of CECAP activities under MCHIP, the following results have been achieved:

9.1: Strengthened the Monitoring and Evaluation Environment for Cervical Cancer:

MCHIP Kenya provided TA to the MOH to develop, pilot-test, revise, and print a five-pack tool ensemble (screening form, daily activity register, monthly summary, client card, and referral form) to facilitate the collection of data. CECAP data are collected through the existing HMIS, which will ensure that programmatic decisions concerning cervical cancer are more evidence-based. In collaboration with Futures Group, MCHIP has been able to connect the facilities to the HMIS through an e-platform to facilitate reporting of data from the facilities to the national database.

9.2: Supported Introduction of Human Papillomavirus (HPV) Vaccine in the Country:

The World Health Organization recommends vaccination of girls aged nine to 13 years against HPV to reduce the risk of developing cervical cancer in adulthood. MCHIP provided technical support to the DRH to write a national proposal for a demonstration project in Kitui County to test the acceptability and feasibility of administration of HPV vaccine to girls in primary school. Following initiation of the demonstration project, MCHIP continues to provide technical support through participation in the Technical Advisory Group and the National HPV Vaccine Steering Committee. Upon completion in 2015, results of the demonstration project will inform the design of a National HPV Vaccination Program.

9.3: Strengthened the provision of second-line pre-cancer treatment through the procurement of LEEP:

To complement current treatment efforts through cryotherapy, the MOH received support from MCHIP Kenya to procure four sets of loop electrosurgical excision procedure (LEEP) equipment for second-line treatment of lesions that are not eligible for cryotherapy. The MOH selected Meru Level 5 Hospital, Kitale Sub-County Hospital, Busia Sub-County Hospital, and Machakos Level 5 Hospital to receive the LEEP units. Personnel received orientation to the care and use of the equipment as well as on-site treatment skills. Clients screened during the training were treated.

9.4: Supported awareness creation activities on cervical cancer: MCHIP Kenya was involved in supporting advocacy events through the MOH and APHIA*Plus* programs that served to intensify awareness among the public to access screening and treatment services. In addition, MCHIP Kenya is providing TA to the MOH to standardize IEC materials for national use.

Challenges

- A delay in PEPFAR funding hindered and delayed implementation of planned activities.
- Consensus-building on development of materials with the MOH and partners took longer than expected.
- The equipment procurement process is a protracted and laborious process. This delays timely intervention with the second-line treatment of cervical cancer.
- The funding provided by GAVI for the HPV demonstration project was not sufficient so the MOH put pressure on MCHIP for additional resources, especially for implementation.

Lessons Learned

- Partnerships provide excellent platforms to strengthen the scale-up of cervical cancer screening and treatment countrywide.

- Developing standardized documents goes hand in hand with dissemination and mentorship through follow-up to address challenges.
- Extensive advocacy with MOH stakeholders allows for a donor-supported program to transition to a country-supported program.
- Use of low-resource, existing structures and locally available materials, (e.g., simple visual screening methods with local supplies) facilitates adaptation, scale-up, and sustainability of interventions.

SUB-OBJECTIVE 10: INFECTION PREVENTION AND CONTROL AND WATER, SANITATION, AND HYGIENE

Support Igembe North Sub-County in Eastern Province and East Pokot in Rift Valley Province in promoting IPC best practices, including injection safety and medical waste management at both the health facilities and community levels

Background

Infection prevention is crucial to reducing hospital transmission of existing and emerging infectious agents; hence, implementing proper infection prevention practices is one of the prerequisites for ensuring safe health care delivery.

In 2010, the MOH developed, for the first time, a national policy and guidelines on infection prevention and control (IPC). The preparation of these resources was in response to a need to provide quality health care services in Kenya—ensuring safe health care delivery and protection of the population from outbreaks of infectious diseases. However, these IPC policies and guidelines were disseminated in only very few health facilities in the country, with Igembe North Sub-County and East Pokot Sub-County being among the sub-counties that never received them.

In 2012 when MCHIP moved to Igembe North to promote IPC activities in the regions, the first activity was a baseline assessment of IPC services. Also, in East Pokot, MCHIP started with a baseline assessment in 2013 on IPC services. In the two regions, findings were similar and they were as follows:

- Unavailability of IPC national policy and guidelines
- Lack of IPC induction and training programs
- Limited practice of IPC by health care workers
- Limited supportive system for implementation of IPC activities
- IPC Committees not present in all health care facilities
- IPC activities/supplies not planned for in all health care facilities

As a result of the baseline findings, MCHIP committed to strengthen IPC practices and to ensure proper implementation through capacity-building and dissemination of national IPC policy and guidelines to meet IPC requirements. Likewise, the combined efforts of every health care worker were paramount in ensuring improved quality of health care for all patients, clients, and health personnel.

MCHIP used different approaches to ensure that IPC practices improved in the two regions where the program was working. Some of these approaches included training and capacity-building. A total of 60 health care workers were selected from the two sub-counties (30 health care workers from each sub-county) and were taken through a five-day TOT training to qualify

them as core trainers. These 60 core trainers were thereafter supported to conduct two-day whole-site on-site orientations at their respective health facilities. Different training methodologies were applied during the orientations, including demonstrations and return demonstrations. It was during these two-day orientations that the IPC national policy and guidelines and other related job aids were disseminated to all in attendance.

Stoneware round pie pan by Pampered Chef in great condition. \$5 cash. You pick up. NO SPAM. The MCHIP team conducted frequent M&E visits to the two sub-counties on IPC services to ensure availability of the IPC national policy and guidelines and other related job aids at service delivery points. They also followed up to ensure that in every health facility, health care workers provided services to clients without transmitting or acquiring infections as per the policy and guidelines. They also worked with health workers after the IPC orientations to help them establish sustainable and safe health care waste management systems, and to increase health worker and patient safety.

Before the MCHIP interventions, nearly all health facilities in Igembe North and East Pokot did not have running water in clinical areas, and as such, they were using dry sinks to store used safety boxes and other waste materials as seen in the photo below.

Key Achievements at the Health Facility Level

After the IPC orientations, there were several notable positive changes in the health facilities and among health care workers with regard to IPC services. Some facilities where service providers were never washing their hands at all, because of lack of running water, managed to improvise handwashing facilities within the service areas. They bought these handwashing facilities without any monetary support from MCHIP.

Improved hand hygiene practices



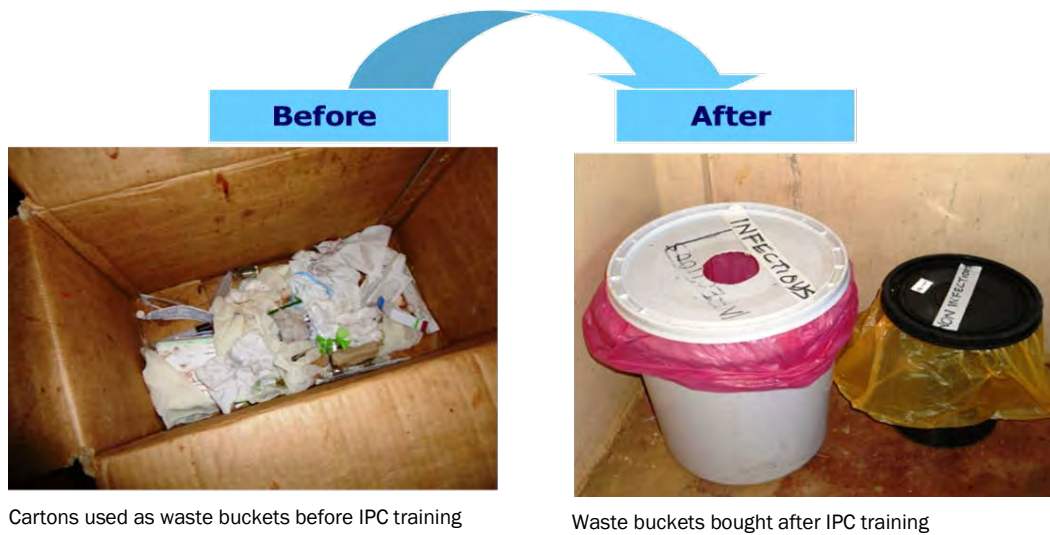
Dry sinks being used as waste storage before IPC training

Improvise handwashing facilities after IPC training

Medical waste management

On management of medical waste, none of the health facilities was using the ideal waste buckets with liners and lids before. Some facilities were using open cartons, while some were using old, torn buckets without lids.

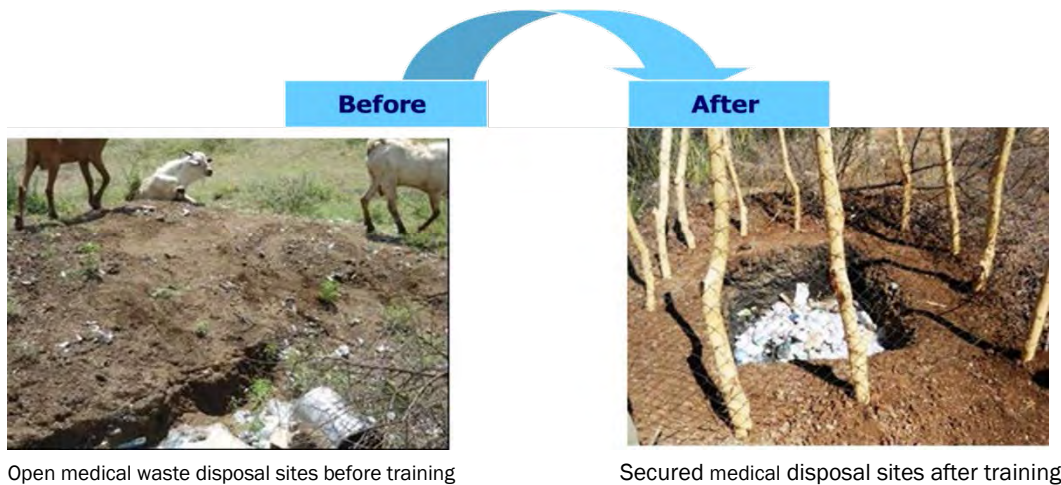
Improvement in health care waste management after IPC training



Waste disposal pits

At the time of the baseline assessment, most waste disposal pits were left open without fences and, as a result, scavengers and animals could be seen grazing around them. This situation improved tremendously, as shown in the photos below:

Improved waste disposal site



Decontamination of used instruments

Decontamination of medical instruments before the IPC trainings and orientations was being done in open basins, as shown here below. After the trainings and orientations, service providers saw the sense in using buckets with lids.

Provision of decontamination buckets



Working to Improve Community Environmental Health

MCHIP also worked with community health workers in Igembe North and East Pokot to promote community environmental health and personal hygiene.

MCHIP oriented 554 CHWs from Igembe North on community IPC, and an additional 210 CHWs from East Pokot. During the training, the CHWs were made to understand how their health is affected by the world around them and also how their activities affect the world around them. Participants shared during the training that most people in the community lack sanitation facilities, forcing them to defecate in the open, in rivers, or near areas where children play or food is prepared.

After the training, CHWs were able mobilize other community members and sensitize them on: cleanliness and hygiene; safe water; latrine use; waste disposal methods at household level; health as a basic human right, personal hygiene and safe environment; and their right to access health services.

As a result of these advocacies and health talks by the CHWs, including community dialogue and community health action days, the following improvements were achieved (see Table 15).

Table 15. Improvements in IPC after the Intervention

Parameter	Before 2013	%	After 2014	%	Increase
Number of functional community units formed	1	%	20	100%	99%
Number of CHWs oriented on community IPC	0	0%	554	100%	100%
Number of household registered	0	0%	44774	100%	100%
Number of pit latrines constructed and functional	32970	73.6	37857	85%	11.4%
Number of compost pits dug and being used	2850	6.2%	14319	33%	27%
Number of dish racks constructed and being used	1439	3.2%	11260	24%	20.8%



Latrines constructed after community IPC orientations



Dish rack as part of household hygiene



A community health worker washing hands



Dish rack as part of household hygiene

Challenges

- a. At the health facilities:
 - Short staffing and patient crowding
 - Negative attitudes of some staff

- Lack of IPC training for health care workers
 - Inadequate budgetary allocations at the health facilities for IPC supplies
 - Lack of local standards and specifications for bins and bin liners
 - Poor state and/or lack of final disposal facilities for health care waste (no functional incinerator in the whole sub-county)
- b. At the communities:
- Poverty and lack of resources, unemployment
 - Lack of people's voice in decisions affecting them; especially women in both sub-counties
 - Cultural beliefs, traditions, and attitudes
 - Illiteracy, lack of knowledge and skills

Lessons Learned

- Whole-site on-site orientation is cost-effective because large numbers of providers can be trained effectively.
- Echoing information is an effective way of reaching many providers.
- Community outreaches, advocacy activities, and stakeholders meetings were keys to success.
- Determination and patience re key in achieving change.
- Supportive supervision is a key to success.
- Strong partnerships are a key to success.

Cross-Cutting Themes

- Integration
- Community strategy
- Support for the DHMT for partner coordination and stakeholder meetings
- Data review meetings
- MNCH equipment
- Airtime to service providers and District Health Records and Information Officers for timely reporting
- Support for members to attend scientific conferences
- Monthly in-charges' meetings
- Supportive supervision
- Exchange and benchmarking visits
- Transportation of equipment and materials
- Airtime to service providers, CHEWs for timely reporting and defaulter tracing
- Stipend for CHVs

IMMUNIZATION

Integration: The launch of the pneumococcal vaccine in 2011 provided a platform for the implementation of the Kenya action plan for pneumonia prevention and control. The introduction of the vaccine rejuvenated the interest among both communities and stakeholders in child health to think about and take action in a comprehensive approach against one of the leading killers of children in Kenya.

Equity: The RED approach advocated by MCHIP targets children who are unreached not only by immunization services but also by other child health interventions. To bridge this gap, MCHIP supported integrated outreaches in areas with high numbers of unvaccinated children in the priority MCHIP sub-counties.

Community participation: The RED approach emphasizes the involvement of communities in planning, implementation, and monitoring of immunization services.

M-health: The growing penetration of/access to mobile phones in Kenya has made the use of information and communication technologies, such as sending reminders through short message services (SMS) and making phone calls, feasible. This technology can bring potential innovations to address high defaulter rates in immunization and barriers to treatment adherence.

- Following devolution, commodity security and quality assurance are not assured, especially for equipment and supplies not being procured by the national government.
- Continued payment of CHW stipends ensures that gains made during provision and documentation of services rendered at Level One are sustained.
- Data for decision-making. The HMIS needs to continue working with programs in-country to ensure that data focal points have been strengthened on-site to populate key indicators for the country. This will facilitate planning for scale-up of interventions in various technical areas.

Recommendations and Way Forward

- Counties should scale up proven approaches and best practices: community strategy (stipends, outreaches, dialogue days), RED, and SBM-R.
- Counties should institutionalize proven community innovations.
- Adequate preparation of service providers to meet high demand for services is needed to:
 - Avoid frustrations to caregivers who come for the newly introduced vaccines and other vaccines but are turned away due to stock-outs or miscommunication (e.g., child too old); and
 - Enable catch-up with other vaccines and thereby reduce missed opportunities.
- There is a need for appropriate and well-scripted communication on target ages for vaccination when introducing a new vaccine.
- To benefit more children, donors such as GAVI should consider funding vaccines for the entire under-one year-old catch-up cohort.
- To advance equity in vaccination, there is a need to deliberately target populations not normally reached by immunization services.
- The RED approach is practical and effective in reducing the numbers of unvaccinated children but continued advocacy for and implementation of the RED approach at district level is important for sustainability.
- Community engagement, such as the use of village elders to create demand and track defaulters, is essential for success of fully immunized child (FIC) coverage.
- Innovations such as the use of tickler files, immunization diaries, and cell phone contacts complement CHVs' responsibilities of creating demand and following up on defaulting children.
- There is a need to maintain adequate vaccine supplies in order for the RED approach to succeed.
- New vaccine introduction provides an excellent opportunity to refresh health worker knowledge on vaccine management and to reach populations previously underserved by immunization services.
- Initial external funds to jumpstart the RED approach and local funds to sustain it are essential for its success.
- Effective MOH leadership and management are key at all stages of the planning and implementation of immunization to encourage ownership and sustainability.
- Continued updates to health workers through job aids, on-the-job training, refresher courses, and supportive supervision are essential, especially when a new vaccine is introduced.

NATIONAL-LEVEL RECOMMENDATIONS

- The National iCCM task force's M&E team must spearhead the achievement of the M&E plan's objectives in order to have meaningful measurement of progress in iCCM moving forward.

- A proper iCCM policy landscape analysis, which incorporates existing and new initiatives/thinking, is important to inform current and future debates/programming in iCCM and to identify new opportunities for future engagements.
- It is important to convene a national learning symposium to share the outcomes of the various researches that were done to provide evidence and guide future scale-up of iCCM.
- A national and sub-national iCCM scale-up plan is one of the key ingredients for Kenya as it plans for scale-up.

SUB-NATIONAL RECOMMENDATIONS

- An environment where IMCI at facility level is strengthened among HCWs alongside community case management ensures that coverage of lifesaving interventions is improved.
- Mentorship for IMCI and iCCM are critical to skills and knowledge retention and hence quality of service delivery among the HCWs and CHWs.
- Kenya must embrace the community health strategy in order to make significant improvements in reducing serious morbidity.

Annex 1: Indicator Matrix

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Cross-Cutting Indicators			
Essential number of guidelines and policies developed/ revised/ finalized/ disseminated with USG funds	MIYCN/FP guidelines formulated, finalized, and disseminated at national and district levels	MIYCN/FP guidelines and tools disseminated at national level and to Bondo Sub-County	Done
	BFCI guidelines formulated, finalized, and disseminated at national and district levels	BFCI guidelines and tools disseminated at national level and to Bondo and Igembe Sub-Counties	Done
	Helping Babies Breathe manual finalized and disseminated	The manual for infant resuscitation developed, finalized, and disseminated at national level	Done
	DFH Data Quality assessment Plan	Agreed upon and passed	Not completed
	IMAAM guidelines	Finalize and disseminate	Piloted but not disseminated
	IFA supplementation plan of action	Finalize and disseminate	Done
	iCCM M&E plan	Finalize and disseminate	Done
	EmONC LRP	Finalize and disseminate	Done
	MNH service delivery standards	Develop, finalize, and disseminate	Done
	ENC care package	Revise, finalize, and disseminate	Revised, finalized, and disseminated
	Community MNH guidelines finalized	Finalize and disseminate to MCHIP focus districts	Done
Number of best practices disseminated to and integrated into the APHIAPlus programs	Best practices identified and piloted by MCHIP will be shared with APHIAPlus for scaling up	2	2
Number of people trained through USG-supported programs	Best practices in EmONC	28	28
	Supervising health care services	40	40
	International Computer Driving License training for DFH Program Managers	40	40
	Health care workers oriented on CHANIS and DHIS		
	HWs trained on RED/DQS	200	209
	Number of health workers oriented on PMTCT	50	76
	Number of health workers oriented on Integrated Management of Adolescent and Adults Illnesses	50	76
	Number of CHWs oriented on PMTCT	100	102
	PwP mentors using the national mentorship curriculum	4	4
	National/regional trainers for scale-up of PwP standards	4	4

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
	CECAP data tools	120	598
	Care and use of LEEP equipment	4	4
	M&E tools for PwP	50	64
	ENC package	10	10
Number of meetings supported using USG funds	Semi-annual meetings	One annually	Done
	ICC meeting	Three per quarter	Done
	DFH partners meeting	For Years 1, 2, and 3 only	Done
	Malezi Bora planning meetings	For Years 1, 2, and 3 only	Done
	M&E TWG	For Year 1, 2, and 3 only	
	MNCH partners meeting	One every year	Done
	Meetings with APHIAPlus to share best practices	2	2
Number of DFH staff supported to attend local and international conferences	DFH staff and health workers will be supported to attend workshops and give presentations at local and international conferences	12	12
Number of community support groups formed and/or supported	Community-level support for nutrition and malaria using support groups	12	12
Sub-Objective 1: Strengthen the technical and managerial capacity and the ability of the DFH to direct and monitor the implementation of national MNCH policy			
Number of DFH staff mentored in-house on computer skills (by topic)	Topics discussed include operating systems, Word, Excel, and PowerPoint Presentations; IT consultant will maintain detailed training plan and mentoring register	30	28 staff trained IT needs assessment done and equipment ordered
Number of M&E frameworks finalized (NCAHU and HNDU)	Draft M&E frameworks exist for each division and will be used to develop final frameworks	2	2 M&E frameworks developed and completed for DCAH and DON
Number of supervision and/or monitoring visits conducted using integrated supportive supervision methodology	Only visits using an integrated approach will be counted	3	4
Percentage of facilities in focus districts with correct geocodes and updated population figures	Only facilities in Bondo, Igembe, and East Pokot Sub-Counties will be counted	Bondo: 100% Igembe: 100% East Pokot: 25%	Bondo: 100% Igembe: 100% East Pokot: 25%
Sub-Objective 2: Support HNDU to improve maternal, infant, and young child nutrition (MIYCN) nationally and in high-priority counties and sub-counties			
Number of districts with nutritional surveillance initiated	Tools for nutritional surveillance will be adapted for use in Kenya; initiated means that the district managers have been trained and an action plan is under way	2	Study of nutritional surveillance completed

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Number of regionally developed complementary food recipes	MCHIP will work with the DON and Department of Agriculture to develop complementary food recommendations in the demonstration districts and disseminate the same in conjunction with the APHIAPlus programs	20	25
Number of service providers and CHWs oriented on FP/MIYCN	Only service providers and CHWs oriented on the FP/MIYCN will be counted		
Sub-Objective 3: Support the Unit of Vaccination and Immunization Services (UVIS) to increase immunization coverage in lower performing districts and successfully introduce rotavirus vaccine nationwide			
Number of target districts with AOP activities for addressing gaps in immunization services	Gaps in immunization to be identified by Vaccine Management and Cold Chain Assessment	6	6
Number of provincial and district managers provided with on-the-job training and orientation for improving immunization services and use of immunization data	Only those oriented with USG funds and supported by MCHIP will be counted	60	60
Number of districts where pentavalent was launched	Only those districts that receive MCHIP support will be counted	6	8
Number of districts receiving support for polio vaccine campaigns	Support for polio vaccine will be provided in the MCHIP supported districts	4	6
Number of districts in Kenya where rotavirus vaccine launched	Meetings to finalize IEC materials for introduction or rotavirus vaccine printed and health workers oriented on provision of the vaccine	IEC materials for introduction of rotavirus vaccine printed and health workers oriented on provision of the vaccine	To be launched in July 2014
Number of supervisory visits to low-performing districts conducted	MCHIP will cater for local cost for national-level staff to conduct EPI-specific supportive supervision	One every quarter	Done
Number of mid-level managers trained on comprehensive EPI management	Only mid-level managers trained using USAID funds will be counted	100	120
Number of children reached through outreach services	Only children reached through outreaches conducted using USAID funds will be counted	2,300	2,187
Number of managers trained	District/county level mid-level managers will be trained targeting the new districts and county managers	40	40
Sub-Objective 4: Support the NCAHU to address the primary causes of child death in Kenya—diarrhea and pneumonia			
Number of facilities provided with ORT corners equipment reflecting a budget for resupply in facility AWP2 in focus districts	Facilities will be supported with a package of ORT corner equipment	60	60
Proportion of HCW oriented on the revised IMCI chart booklet and ORT corner guidelines'	HCWs will be oriented on the following areas: Revised IMCI guidelines Implementation of ICCM guidelines	100	145

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Increased numbers of facilities supplied with functional ORT corners	Number of facilities without a complete package of equipment and supplies for a functional ORT corners supported	30	Igembe: 26 East Pokot: 10
Number of CHWs trained on ICCM in Bondo	CHWs implementing iCCM trained using the curriculum	50	58
Proportion of children with diarrhea treated with zinc (and ORS/T) in health facilities	Numerator: Number of sick children with diarrhea presenting in the facilities treated with zinc and ORT (ORS+/-home fluids) Denominator: Number of sick children with diarrhea presenting in the selected facilities	80	86%
Proportion of sick children with diarrhea treated by CHWs with ORS/T and zinc	Numerator: Number of sick children with diarrhea treated by CHWs in the catchment population Denominator: Total number of sick children in the catchment population	80	82%
Sub-Objective 5: Support the RMHSU and NCAHU to improve the quality of MNH and FP services			
Report of the survey on MNH Quality of Care (QoC) completed and disseminated	Report of the MNH QoC Survey findings disseminated to stakeholders completed	Special focus of survey is pre-eclampsia/eclampsia; however all aspects of BEmONC will be observed	Report finalized and disseminated; dissemination workshop held with key stakeholders at national level
Number of supportive supervision visits conducted	Only those supportive supervision visits held for MIYCN/FP will be counted	8	8
Number of TOTs developed nationally with revised EmONC training package and assisted vacuum delivery	Only those developed using the specified curriculum and developed using USG funds will be counted	8	8
Number of HCWs oriented on assisted vacuum delivery	Only those oriented using the specified curriculum will be counted	25	40
Baseline assessment conducted	To gauge community and provider knowledge of PPH and FP methods, a baseline assessment of the current status of MNH data will be conducted in 3 urban slums	Baseline assessment conducted	Done
Proportion of young mothers who intend to use FP after delivery	Numerator: Young mothers attending the selected young mothers clubs and intending to use FP after delivery Denominator: Total number of young mothers attending the selected young mothers clubs	80%	100%
Number of facilities showing improvement in data collection	Only those MNH surveillance facilities that have shown improvement in MNH data capturing and reporting – in terms of accuracy, timeliness, and completeness of the required MNH data tools – will be counted	4	4

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Number of facilities using data for decision-making	Only those MNH surveillance facilities that document and demonstrate use of collected MNH data for decision-making will be counted	4	3
Percentage of women receiving uterotonic immediately after birth	Numerator: number of facility deliveries receiving uterotonic immediately after birth Denominator: total number of facility deliveries	80%	89%
MNH surveillance standards developed	MNH surveillance standards will be developed with MCHIP funding	MNH standards developed disseminated at TWG	Done
Proportion of young mothers who intend to use FP after delivery	Numerator: Young mothers attending the selected young mothers clubs and intending to use FP after delivery Denominator: Total number of young mothers attending the selected young mothers clubs	80%	86%
Proportion of young mothers who intend to deliver their next child with a skilled provider	Numerator: Young mothers attending the selected young mothers clubs intending to deliver with a skilled provider Denominator: Total number of young mothers attending the selected young mothers clubs	90%	100%
Number of simplified job aids developed for Young Mothers	These are simplified job aids that give information on PPH/FP (Job aid for young mothers on PPH/FP)	Job aid developed	Done
Sub-Objective 6: Improve the quality and uptake of PMTCT by integrating along the MNCH continuum-of-care using an adaptation of the Reaching Every District (RED) approach			
Number of supportive supervision visits conducted	Only supportive supervisions visits facilitated by MCHIP program will be counted, i.e., mentorship visits to low-performing sites	8	12
Number of CHWs facilitated to conduct home visits	Only CHWs in the MCHIP focus districts who satisfactorily complete reports for home visits and submit them will be counted	1,000	1,110
Number of integrated community outreaches conducted	Only community outreaches within Bondo Sub-County that are integrated in nature will be counted	48	48
Number of facilities implementing the HIV/MNCH model	All health facilities supported by MCHIP to use the RED approach to provide HIV/MNCH service will be counted	40	46
Number of DHMTs facilitated to implement RED micro plans	All facilities supported by MCHIP to develop RED from PMTCT micro-plans will be counted	2	2
Number of sites facilitated to use phone calls/text messages to remind mothers of clinic days and to call those who default	All sites supported with airtime for defaulter tracing and SMS reminders will be counted	46	46

INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Number of community units formed	The community units formed by support from MCHIP program in Igembe North and East Pokot Sub-Counties will be counted	Igembe: 16 East Pokot:8	Igembe: 16 East Pokot: 8
Sub-Objective 7: Support MCU and RMHSU DRH to plan, coordinate, monitor, and implement MIP interventions in three targeted regions of Coast, Nyanza, and Western Kenya			
Number of pregnant women registered for follow-up	CHVs will register pregnant women and follow them monthly	Bungoma S. 2,400 (APHIAPlus supported est. no.) 12 malaria-endemic SC 20,000	Bungoma S. 4,000 12 malaria endemic SC
Number of cMIP data verification sessions between CHEWs and CHWs attended in focus districts	MCU/RMHSU/CHSU/MCHIP will attend selected CHW and CHEW data verification sessions	Quarterly	8
Number of cMIP supportive supervision visits conducted	Only those supportive supervision visits that are held to support and coordinate community and CHW activities to enhance linkages to the facility will be counted	Quarterly	8
Sub-Objective 8: Support NASCOP to roll out CPwP interventions in Kenya			
Number of supportive supervision visits conducted	These are visits conducted by Jhpiego and MOH staff to the sites where trainees are working to reinforce any existing gaps	8	8
Sub-Objective 9: Support selected sub-counties in Meru and Baringo Counties in promoting IPC, including injection safety and medical waste management in the community			
Number of rapid assessments for facility injection safety and infection prevention practices conducted and result disseminated	Whole-site rapid assessment will be conducted in selected facilities in Meru and Baringo Counties to establish current IPC and injection safety practices	1	Done
Number of health facilities demonstrating improved injection safety and IPC measures	Only facilities that meet the MCHIP developed standards on injection safety and infection prevention in Baringo and Igembe will be counted	20	15
Number of supportive supervision visits carried out	These are IPC- and injection safety-related health facility follow-up visits to established training providers initiating what they learned and bridging identified gaps; these will be disaggregated on district, facility, and individual service providers visited	Igembe: 4 East Pokot: 2	Igembe: 4 East Pokot: 2

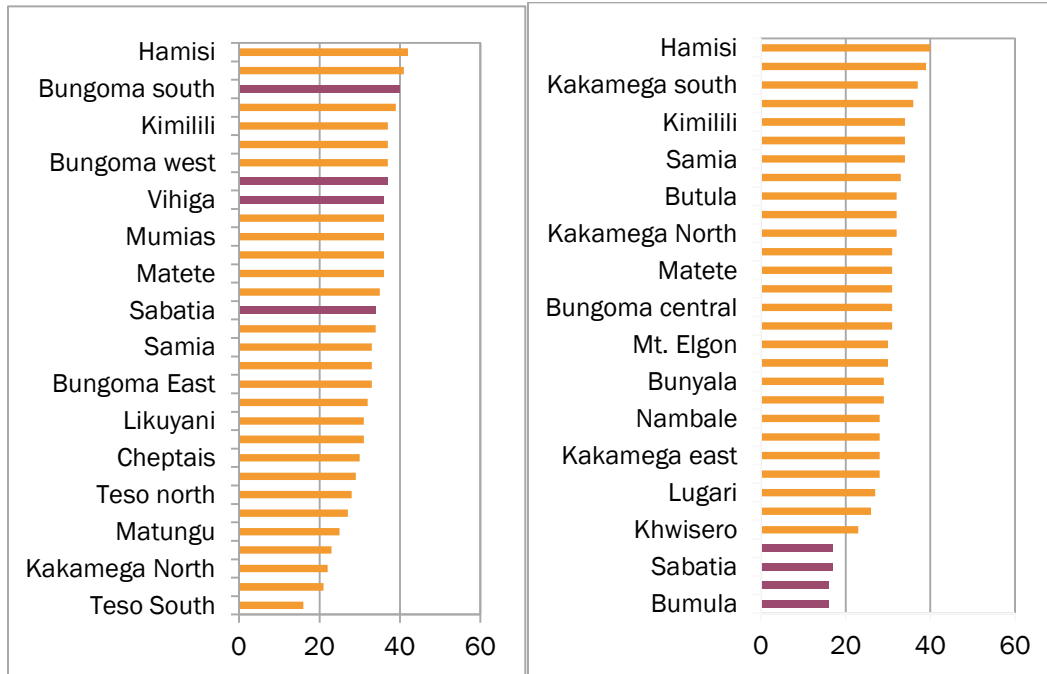
INDICATOR	DEFINITION	TARGET	ACHIEVEMENT
Sub-Objective 10: Support to RMHSU to scale up national cervical cancer prevention and control (CECAP) interventions			
Cervical cancer standards adapted	Using internationally developed standards, MCHIP will convene review workshops to adapt cervical cancer standards for use by service providers in Kenya	Cervical cancer standards adapted	Done
Number of colposcopes and LEEP equipment procured	Availability of colposcopes and LEEP units will also serve as an incentive for the three selected sites and those within the vicinity to intensify screening efforts; these units will also increase coverage for treatment options	4	4
CECAP standards reproduced and disseminated using USG funds	Key stakeholders in CECAP area will adapt cervical cancer standards for Kenya; following the completion of this process, MCHIP Kenya will facilitate the reproduction of the standards and support the DRH and APHIAs in the distribution of the standards to selected sites	Meetings held to reproduce and disseminate CECAP standards	Done

Annex 2: Success Stories

IMMUNIZATION

In 2010, Bungoma South District in the former Western Province had the highest numbers of unvaccinated children in Kenya. For that reason, the MOH requested that MCHIP support the scale-up of the RED approach for increasing immunization coverage in the district. Between 2010 and 2012, Bungoma South Sub-County recorded significant improvement in EPI performance. In 2010, the district was considered low-performing, with very high numbers of unvaccinated children.

Figure 20. Ranking of Districts Based on an EPI Composite Score, 2010 (left) and 2012 (right)



DHMT Bungoma South awarded as third best performing district childhood vaccination in Western Kenya in 2012

In two years of MCHIP/UNICEF/APHIA*Plus* support, Bungoma South made a significant leap from the bottom of the graph to being number three in the province, as seen in Figure 20. The district was awarded for the tremendous improvement. The same is true for the other three districts, i.e., Bumula, Vihiga, and Sabatia.

CHILD HEALTH

Zinc Success Story

Diarrhea accounts for 38,802 out of a total 189,928 annual child deaths in Kenya. In 2004, WHO and UNICEF made recommendations for use of low osmolarity ORS and zinc for treatment of diarrhea in sick children under five. However, in Kenya, the coverage of zinc in most facilities remained low, at <1% (KDHS 2008/2009). Community case management of diarrhea uses low osmolarity ORS and zinc for management of diarrhea at community level; however, in Kenya prior to October 2012, zinc had not been legalized for use as an over-the-counter drug and thus for use at community level. This situation acted as a bottleneck to increasing coverage of this low-cost, high-impact treatment intervention. MCHIP's task therefore was to advocate for legal variation of zinc from a prescription-only drug to an over-the-counter drug and thus its availability to CHWs in management of sick children with diarrhea.

MCHIP led the advocacy with the Pharmacy and Poisons Board and the MOH authorities at the Director of Medical Services office, and facilitated compilation of the evidence that made a case for zinc reclassification as an over-the-counter drug. Through MCHIP's efforts, zinc was reclassified as an over-the-counter drug and thus for use by CHWs for the management of diarrhea among children under five in Kenya.

In October 2012, the MOH accepted the recommendations of the Pharmacy and Poisons Board and made it official for zinc to be used by CHWs in Kenya. All trained and supervised CHWs in Kenya can now provide recommended treatment for sick children with diarrhea using zinc and ORS. Thanks to MCHIP's efforts, all under-five children with diarrhea are able to access this lifesaving treatment intervention (<http://www.mchip.net/node/1398>).

MNH

FP/MIYCN Integration in Bondo Sub-County

In Kenya, Mother and Baby Thrive Postpartum Thanks to Family Planning and Nutrition Counseling



Nancy and her daughter Noella

Siaya County, Kenya—"I gave birth at the hospital because some mistakes can occur. You can over-bleed, which can result in death," says Nancy Atieno. "You have to give birth in the health facility for the doctors to attend to you in a good manner." In Bondo Sub-County where Nancy lives, maternal and child health indicators are poor. Short birth intervals and high fertility rates increase the risk of perinatal adverse effects and maternal and young child malnutrition. To address this, USAID's flagship Maternal and Child Health Integrated Program (MCHIP) is working to enhance and strengthen the integration of nutrition and FP interventions. Ultimately, the aim is to improve maternal and child outcomes through pregnancy spacing and better nutrition practices. This integrated approach reinforces the importance of exclusive breastfeeding during the initial six months, continuation of breastfeeding when offering complementary food, and transition to another modern method of FP when the LAM criteria are no longer met.

For the first six months of her youngest child's life, Nancy exclusively breastfed: "It makes one not get pregnant because it is a method of FP, so long as one's menses have not returned, and the baby is less than six months," she says. "I breastfed my children is because it is affordable [and] the baby is strong and healthy and protected against various diseases." After her first two

children—sons Felix and Alphonse—were born, Nancy used oral contraceptives. However, when her youngest child, daughter Noella, was six months old, Nancy visited a health facility for FP services and chose Depo-Provera as her preferred method. She had experienced unwanted side effects with the pill, and feels “very good” about her decision to switch methods. Her husband, Pius Omondi, was also involved in these FP decisions. “He advises me to go for FP to space the children,” she says. “FP helps me gain strength after every delivery.”

Integration of FP and nutrition maximizes opportunities for provision of related services and messages, reducing the number and length of facility visits. And while CHWs are key to conveying these integrated messages to mothers in the community, the involvement of key influencers—grandmothers, mothers-in-law, and partners—is important in ensuring change in FP and nutrition practices in the home.

Nancy receives ongoing information about MIYCN and FP and general family health family through CHWs. “[They] do come to see us door-to-door,” she says. “They come to motivate us to breastfeed our babies and to sleep under the net [mosquito net] especially for babies under five years, as malaria is very dangerous to them.”

MNH SURVEILLANCE

Makindu District Hospital under the MNH Surveillance Project

Makindu District Hospital was known by the provincial teams as one of the facilities with very high maternal deaths from PPH and eclampsia and generally poor maternal care. There were also a number of deaths arising from poor handling of mothers on the operating table. The hospital was targeted by the MNH Surveillance as one of the facilities that would serve as an example of how better record-keeping practices would help mitigate maternal and neonatal deaths.

Through a perusal of their partographs, it was discovered that providers in the maternity had not been completing the partographs correctly. PPH is the main cause. The maternity staff were trained on active management of third stage of labor and shown how to develop emergency PPH kits, which come in handy, especially at this time of a serious staff shortage. The nurses were also trained on use of magnesium sulfate and were helped to develop emergency pre-eclampsia and eclampsia kits with all that they require during an emergency.

Since the on-site trainings on monitoring and evaluation and other clinical interventions, the facility has not recorded maternal deaths due to PPH or pre-eclampsia. These interventions included correct filling out of the partograph and taking action on time; active management of third stage of labor; use of magnesium sulfate by nurses; postpartum care; maternal and perinatal death surveillance and response; Helping Babies Breathe and Kangaroo Mother Care; use of magnesium sulfate by nurses; and data for decision-making. Although the nurses continued to receive mothers with PPH and eclampsia, they were able to use the skills they acquired and the pre-eclampsia/eclampsia and PPH kits to ensure efficient management. Since the inception of the MNH Surveillance project, partographs are correctly and completely filled out and data are interpreted and used correctly to manage the mother.

As a result of the training that she had received, Patricia, a nurse at Makindu Hospital, did not feel threatened with the announcement of the free maternity care for clients. She felt that with the focused training she had received, she was well-prepared for any eventuality. “*With pre-eclampsia and eclampsia kits, PPH kits and all the skills update, I am ready to deliver the mothers. Let them come; I will deliver all of them safely.*”

Another cause of maternal deaths was identified via data review as poor care in the operating theater. Three mothers died on the operating table during cesarean sections, and the maternity

staff insisted that the records from the surgery be examined. On perusal of the records, it was discovered that one of the staff attending the mothers was doing something wrong. The staff member responsible was therefore identified for mentoring by another more experienced clinician. The hospital has not experienced any preventable maternal deaths since then.

Maternal and Perinatal Death Surveillance and Response Forms were provided because the facilities did not have them. Staff were trained on how to fill them out properly and upload them in a timely manner, and take immediate action to address the causes of death so that they would not lose mothers due to the same causes in future. Referring facilities were called to attend maternal death review meetings.

In the words of Luisa Muteti, the Makueni county nurse in-charge; *“When I was in the province as the Provincial Nurse, I used to go to Makueni to scold the staff about the numbers of mothers and babies who were dying. The other day, I visited the facility and I was pleasantly surprised to find that this program has reduced maternal deaths to zero. All the partographs are up-to-date and the nurses are really motivated. How can I have this scaled up in the whole county!!!?”*(On phone)

PMTCT/MNCH INTEGRATION

A Supervision, a Surprise: A Tale of Two Wives

It was during supportive supervision of health volunteers in Bondo Sub-County by the USAID-funded MCHIP program that the team met Ruth* and Carol*.

Ruth*, 26 years old, found out she was HIV-positive after a bout of severe illness. After her diagnosis, she began to attend follow-up visits at the Matangwe Hospital, which got her involved in a support group. When she was in her darkest hour, angry and in denial, the group gave her a glimmer of hope when she discovered she could get pregnant and deliver a healthy baby!

When Carol* discovered she was pregnant, Jane, the CHW at the Barkowino Community Unit, advised her to start attending antenatal clinics as soon as possible. “When they conducted the recommended routine tests is when I discovered I was HIV-positive,” says Carol* sadly.

Ruth* and Carol* have a lot in common—they are not only both HIV-positive, they are also co-wives. Their story is one of helplessness turned to hope. They are now mothers to six-month-old Simon* and 10-month-old Janet* respectively. Ruth* and Carol* are both thankful that their children are HIV-negative, thanks to the PMTCT services and infant feeding advice they received.

Community Health Worker’s support

Jane, the CHW, was always at hand to visit Carol* and Ruth*, to advise them, encourage them, and ensure that they, and consequently their pregnancies, remained healthy. “Jane advised me to visit the facility where I was provided with multivitamins and Septrin, even before I became pregnant, to help ward off infections,” Ruth* remembers. “When Simon* was born, one thing that she advised me that I did not know, was that I should not use the same razor that I had used on myself to trim his nails in case I had cut myself. A contaminated razor can spread HIV infection,” said Ruth* as a matter of fact.

Carol* is grateful for the support that she has received from Jane, who is a volunteer: “After I delivered my baby, Jane advised me on how to take care of my child by exclusively breastfeeding for the first six months and to continue taking my medication. I request Jane to continue doing what she is doing so that she can help other mothers.”

Through the whole conversation, Jane has been listening quietly. When asked about her experience in working with Carol* and Ruth*, Jane smiles: “I like working with these two; they are very good at following advice. Both attended all their scheduled antenatal clinics and also adhered to their medication,” she says.

Stories of successful PMTCT, such as those of Ruth* and Carol*, showcase the impact of the community health workers and maternal and child health interventions!

*Names have been changed to protect the identity of the clients.

MALARIA IN PREGNANCY

Dedicated to Preventing Malaria in Pregnancy



Ruth Alaka providing ANC services

In 2006, when Ruth Alaka reported to Gobei Health Center (*then a Dispensary*) in Bondo district as the Nurse in-Charge, the facility was on the verge of collapse. There were no records kept for services offered or drugs dispensed, and patients were required to pay for the drugs they received. Maternal and child health and family planning services were offered only once a week, which meant that many women and children did not get the services they needed.

Ruth rolled up her sleeves and began the hard work of improving the system. Her first task was to introduce use of MOH registers to record the drugs administered and services offered. The monthly summaries would be submitted to the district health office, which would help in keeping track of drugs used and restocking.

Gobei Health Center is in Bondo Sub-County, in Kenya’s Nyanza Province. The district’s health indicators have improved greatly since the USAID-funded MCHIP program began working with communities and health systems to provide much-needed services in the area. MCHIP, in collaboration with Bondo’s District Health Management Team and Hospital Management Teams has improved, and continues to improve, the quality and utilization of maternal, neonatal, and child health including malaria and HIV services at all levels of health service provision, including the rollout of the community strategy to improve health in the district. Thanks to continuous capacity development by USAID-MCHIP, Gobei Health Centre is now one of the best-rated health facilities in Nyanza Province in terms of provision of quality health services to antenatal clinic clients and it is currently a site for clinical excellence.

Today, one of the services offered at the health center is preventive treatment of malaria in pregnancy. Before administering SP, Ruth discusses the possible side effects with her clients. The drug is administered by direct observation, which means expectant mothers take the drug while Ruth watches them. She advises them to come back to the health facility should they experience any side effects. Through her friendly approach, clients have accepted taking SP as part of the routine antenatal clinic services.

Despite the success in administering the medication, there are challenges that Ruth and her colleagues experience. Key among them is the limited space at the clinic. When consulting with her clients, she has to do so in low tones to protect her clients’ privacy; particularly the HIV-positive ones who would not want their status revealed. With the high number of antenatal clinic clients who visit the facility, Ruth, with support from her colleagues, has improvised processes to deliver services in a resource-constrained environment and provide quality data. A best practice that was innovated at the health center and has been adopted nationally is the use of clean, empty drug containers as water drinking cups. This was done to replace the cups used when administering SP during antenatal care, which would often be misplaced. Another

challenge Ruth experienced was a lack of clean drinking water, particularly during the dry spell. To cope with the situation, the clinic now buys water to ensure that clients receive the much-needed treatment. Moreover, since the ANC register has a limited number of columns, Ruth added more columns to capture the SP provision for her clients.



Equipment and supplies used to provide SP



All technical services are provided in one room

With these small innovations, Gobei Health Center has experienced big improvements and exciting results. The number of ANC patients receiving multiple doses of SP tripled between January 2011 and December 2012. Due to the improvement in the quality of services offered, the catchment area of the facility has expanded to include clients from far away regions—some clients are willing to spend over KES. 50/= one-way to reach the facility; they bypass facilities closer to their homes specifically to visit Gobei.

Ruth’s passion for her work is evident: “In a facility that is very busy, [the work] is tiresome. But seeing the client smile inspires me to keep working.” She knows most of her clients by name and is dedicated to bringing about much-needed change in her community. Her commitment is reflected in her hard work and the results achieved so far. Ruth’s motto as she serves her clients is that no provider should leave the facility until all clients have been attended to. She considers herself an MOH servant since she was called back from retirement to offer services to the community around Gobei Health Centre. “Keep on working hard—good work pays. If we do good work here we will be rewarded above, even if it is not in this world,” she advises her colleagues.

Fighting Malaria: Up Close and Personal

(<http://www.jhpiego.org/content/front-lines-battle-against-malaria-mchip-and-community-health-workers-transform-tragedy-triui>)

Bondo, Kenya – Beryline Okoth, 20 years old and very pregnant, is perched on a wooden stool outside of her tiny mud hut, scrubbing pots. Francisca Aluoch, a CHW, has been visiting this house every month since she discovered Beryline was expecting. On this early April day, after a brief exchange of pleasantries, Beryline invites Francisca into her tidy home to discuss her progress. During today’s visit, Francisca will talk to Beryline about malaria, the symptoms to look out for, and how to protect herself and her unborn baby from this disease that is especially dangerous for pregnant women. Francisca has been visiting families in her community every day for the last seven years. Her journey to become a community health worker began with a personal tragedy. “My last-born son died of malaria when he was only two months old,” Francisca remembers. “We lived too far from the hospital and my mother-in-law was against hospitals,” she recounts, her voice quivering. “My baby died



Francisca Aluoch, a trained CHV, conducting a health talk on prevention of malaria in Got Matar Health Center

in my arms. I was depressed for a very long time; if I only knew then what I know now, my baby would still be alive.”

Francisca is one of 363 CHWs trained under USAID’s flagship MCHIP project in Bondo to improve the health of women and their families. The project, which is led by Jhpiego, is building the capacity of CHWs in malaria in pregnancy interventions.

The community health workers learn about environmental control, malaria health education, and how to hang insecticide-treated mosquito nets to engage communities in caring for their own. “The skills I have received [from MCHIP] is what makes me most proud. I know what I am doing and I am confident. Even if a client challenges me, I know what to tell them,” Francisca says.

MCHIP also works to increase the knowledge of health care providers about malaria case management and how to administer lifesaving, anti-malarial drugs during pregnancy to ensure that mothers are well cared for.

“I don’t want what happened to me to happen to other mothers,” Francisca insists, “so I will always go out of my way to ensure that the expectant mothers in my community get the care they need.”

MCHIP’s partnership with government health officials extends the impact of preventing malaria in pregnancy in Bondo beyond this one dedicated health worker. Although malaria remains the leading cause of death among children and pregnant mothers in Bondo, district health officials have seen an increase in the numbers of women accessing potentially lifesaving health services.

Dr. Julius Oliech, the District Medical Health Officer, says that three years ago the health indicators in Bondo district were very poor; only 19% of pregnant women would access the minimum of four antenatal care visits. Today, 50% of women access antenatal care. Since mothers take lifesaving malaria drugs during these visits, it is an essential part of reducing the impact of malaria in Bondo. Oliech says that there has been a big reduction in the number of patients coming in for malaria treatment: “Previously our wards were filled with malaria patients, now we are seeing less malaria cases. This improvement in health indicators is a direct result of MCHIP’s interventions at facility and community level.”

The role of CHWs in Bondo has been very important because of challenges in understaffing, Oliech says. CHWs are able to sensitize the community and refer patients to health facilities where they can receive specialized treatment and help defeat malaria.

The Call of Duty

On the front lines of the battle against malaria, a community health worker and MCHIP transform tragedy into triumph:

Francisca Aluoch, a community health worker supported by USAID's MCHIP project in Bondo, Kenya, has learned from her supervisor at the Got Matar public health clinic that a woman from her community did not attend her antenatal clinic visit the previous day. Using her own cell phone, the concerned Francisca calls the patient a number of times but the mother does not respond. She suspects that the one-hour walk to the clinic is what deterred this mother from attending her antenatal visit. "She is quite advanced in her pregnancy and can no longer walk for long distances," Francisca says, trying to call yet again. Agitated, Francisca requests that a team from Jhpiego visiting the clinic for project supervision drive her to the patient's home. While getting into the car, she explains that if the patient does not receive lifesaving anti-malarial drugs, she may endanger her life and that of her unborn child.

Half an hour later, Francisca and the Jhpiego team arrive at the clinic with Catherine Akinyi, the pregnant mother, in tow. Catherine confirms to the nurse on duty that she was too tired to walk to the clinic. She is pregnant with her fourth child and this is the only pregnancy for which she has attended clinic. "I did not believe in attending antenatal clinic, due to my cultural beliefs I preferred to go to traditional birth attendants, this is what kept me away from hospitals," Catherine says. In the process she lost her two pregnancies because of malaria.

Antenatal clinic visits are critical in malaria prevention and control; during these visits, pregnant mothers receive intermittent preventive treatment (anti-malarial treatment) on the spot, commonly known as directly observed treatment (DOT). It is also during these visits that the mothers are given a mosquito net before and after delivery and attend health talks on malaria prevention and control for themselves and their families.

"With my second miscarriage, I bled so much that they had to hospitalize me for a week," Catherine confides. "That is why I decided to come for antenatal clinic with this pregnancy." Francisca can relate. Her own two-month-old son died of malaria in her arms. She has never forgotten the pain of the loss. Francisca has been visiting Catherine at her home since she was four months pregnant.

"My greatest joy is when I see a mother whom I have been monitoring throughout pregnancy safely deliver a healthy baby," Francisca says, proudly, "That is what keeps me going."

MIP Kenya County Brief

Despite availability of effective malaria control interventions, coverage rates of IPTp and net use have remained low in the country. MCHIP with support from the President's Malaria



Francisca escorting Catherine Akinyi to Got Matar Health Center to receive focused ANC services

Initiative is working with the MOH through the DOMC and DRH to scale up IPTp uptake in malaria-endemic areas. In line with the community strategy, CHWs are supported to register and follow up pregnant women, including disseminating targeted MIP messages for purposes of educating and sensitizing them to visit ANC clinics on a platform of focused antenatal care. At the start of the sensitization process, 52% of the registered pregnant women were not attending ANC clinics as scheduled and were referred for ANC. To ensure that pregnant women attending ANC receive quality MIP services, health workers were oriented

on simplified MIP guidelines and SBM-R standards. These approaches are anticipated to increase ANC attendances, provision of quality MIP services, and increase in ITN use.

Role of CHWs in identification and referral of pregnant women to ANC clinics

Malaria in pregnancy is associated with anemia, low birth weight, miscarriages, and death. Despite availability of effective MIP interventions, IPTp-SP and ITNs, coverage rates in Kenya have remained low, with IPTp2 uptake at 25% (KMIS 2010 survey), and facility coverage at approximately 60% (DHIS2). This indicates that many pregnant women are not accessing the interventions. To increase coverage rates, Kenya has adapted a community strategy approach sensitizing pregnant women to start ANC early to receive comprehensive care throughout pregnancy. This includes access to an ITN at first ANC visit and IPTp uptake beginning in the second trimester to increase coverage rates.

To improve MNCH outcomes in relation to MIP, MCHIP with support from the President's Malaria Initiative trained 345 CHEWs and 1,476 CHWs on the community Malaria in Pregnancy (cMIP), i.e., malaria in pregnancy interventions, messaging and use of Level One data collection tools MOH 513 and 514. The CHWs registered pregnant women in their community units for follow-up monthly.

CHWs conducted monthly follow-up of all 3,212 registered pregnant women to identify those not attending ANC, and IPTp defaulters as well as counseled those not using ITNs. The CHWs identified 1,541 pregnant women with late attendance or defaulting from ANC scheduled visits and referred 47% of them. This experience indicated the very important role of CHWs in identifying pregnant women, registering them, and referring them for ANC visits. It is anticipated that if this approach can be scaled up, the gap between facility-based and community-level coverage of IPTp2 can be reduced. Scaling up of this community-based approach would ensure early ANC attendance and access to the available effective MIP interventions including IPTp.

CERVICAL CANCER SCREENING

All in a Day's Work

The Single Visit Approach Transforms Worry to Wonder—in a Matter of Minutes

by Catherine Ndung'u

With her bright blouse and matching earrings, Josephine Awour stands out from the dozens of patients waiting in line at the Bondo district hospital. She has come in for a check-up after recently undergoing cancer screening and treatment. Josephine, who is HIV-positive and often visits the clinic, had never thought about cancer until she listened in on a health talk on cervical cancer screening and early treatment. "The nurse on duty started talking to us [the patients] about a cancer that was affecting women. What surprised me is that the symptoms she was describing were what I was experiencing," Josephine says with good humor, painting a graphic picture of her symptoms. "I knew after listening to the talk that it was important for me to get screened." Sure enough, Josephine's symptoms were caused by pre-cancerous lesions. She was immediately referred for cryotherapy treatment and within a matter of minutes left the hospital cancer-free.

In Kenya, cervical cancer is the leading cause of cancer deaths in women of reproductive age, affecting about 2,500 women each year. In spite of the fact that cervical cancer is 100% curable, 68% of patients in Kenya succumb to the disease. Despite the tragic magnitude of the problem, cervical cancer screening coverage in Kenya for all women is only 3.2%.

Jhpiego has been a leader in establishing and scaling up innovative, low-tech cervical cancer prevention programs using the award winning and cost-effective single visit approach (SVA) to

screening and treatment. In Bondo Sub-County, over 60 health care providers have been trained on SVA, which consists of a visual inspection of the cervix using vinegar to detect precancerous lesions, followed by the offer for treatment using a freezing technique (cryotherapy) in the same visit. Additionally, the providers are updated on the national strategy and country guidelines on cervical cancer prevention and management, patient counseling, community mobilization, and the human papillomavirus (HPV) vaccine.

Prisca Duro, the Nurse Services Manager at the Bondo Sub-County Hospital, is one of the six nurses in the hospital trained on the SVA. “Just two short years ago we never screened our patients for cervical cancer. If we suspected a case we had to send the patient over 65 kilometers away to the Kisumu District Hospital for screening and treatment,” Duro says. Thus, most cervical cancer cases were detected when it was too late for treatment. Today over 70% of women who visit the Bondo district hospital are screened for cervical cancer.

Duro is excited about the training that she and her staff have received from Jhpiego: “The skills we have received have made a major difference in the quality of care that we are giving our patients,” Duro says. “We have been taught more than screening; we have been coached and mentored on how to deliver compassionate, client-centered care.”

Annex 3: List of Presentations at International Conferences and Publications

SUB-OBJECTIVE 6: PMTCT/MNCH INTEGRATION

MCHIP Blog

<http://www.mchip.net/node/1166>

“Kenya: Using an Adaptation of RED Approach to Increase Uptake of PMTCT Services.”

Conference Presentations

- Poster presentation at the 2013 Conference on Retroviruses and Opportunistic Infections (CROI), Atlanta Georgia, USA. Title: “Adaptation of Immunization’s Reaching Every District (RED) Approach Improves Uptake of and Retention in PMTCT Services in Bondo District, Kenya.” Authors: Lynn Kanyuuru¹; Mark Kabue¹; Isaac Malonza¹; Linda Archer¹; Kelly Curran¹; Tigistu Adamu^{1,2} and Troy Jacobs³. Organizations: Jhpiego/Maternal and Child Health Integrated Program (MCHIP)¹, Johns Hopkins Bloomberg School of Public Health² and USAID/Washington.³
- Poster presentation at the 2012 Integration for Impact Conference, Nairobi. Title: “Integrating PMTCT into MNCH continuum of care to improve access, quality and coverage of services”. Authors: Malonza, IM¹; Kanyuuru LM¹; Kaimenyi P¹; Mokaya E¹; and Jacobs TA². Organizations: Maternal and Child Health Integrated Program (MCHIP), Kenya¹ and USAID/Washington.²

SUB-OBJECTIVE 3

MCHIP Blogs

<http://www.mchip.net/node/1057>

"Reaching the Unreached: New Challenges and Promising Approaches in Equitably Immunizing the World's Children"; Evans Mokaya, Lora Shimp.

Conference Presentations

Panel at the WFPHA conference in Addis last week. "Reaching the Unreached: New Challenges and Promising Approaches in Equitably Immunizing the World's Children"; Evans Mokaya, Lora Shimp.

SUB-OBJECTIVE 7: SUPPORTED MCU AND RMHSU TO PLAN, COORDINATE, MONITOR, AND IMPLEMENT MIP INTERVENTIONS IN THREE TARGETED REGIONS OF COAST, NYANZA, AND WESTERN KENYA

- “Improving Provision of Quality IPTp Services: Use of Rapid Results Initiative in Facility-Based Dissemination of Simplified Malaria in Pregnancy Guidelines in Kenya” 12th FIGO World Congress, Rome, Italy 7–12 October 2012.
- “Improving Better Pregnancy Outcomes: Use of Community Health Workers in Identification and Referral of Pregnant Women Not Accessing Intermittent Preventive Treatment (IPTp) in Kenya”; 6th MIM conference, Durban, South Africa, 6–11 October 2013.
- “Use of Community Health Workers (CHWs) in Increasing Access to ANC Services Including Quality MIP Interventions”; Jhpiego Mini University, Baltimore, 2013.

SUB-OBJECTIVE 4

Conferences Attended and Presentations

- Attended and facilitated at the 8th International Conference on the MCH Handbook in Nairobi Kenya, October 22–25 October 2012:
<http://www.afro.who.int/en/kenya/press-materials/item/5082-kenya-hosts-8th-international-conference-on-mch-handbook.html>
- Kenya iCCM Poster presentation at the iCCM Evidence Symposium in Accra, Ghana, 2–6 March 2014:
[http://ccmcentral.com/iccm-symposium/presentations/#prettyPhoto\[gallery1\]/29/](http://ccmcentral.com/iccm-symposium/presentations/#prettyPhoto[gallery1]/29/)

SUB-OBJECTIVE 5: FP/MIYCN

List of Presentations at Scientific Conferences

Women Deliver 27–30 May 2013

Title of Oral Presentation at the Postpartum Family Planning Technical Meeting: “Health Systems Strengthening on Family Planning Uptake in Bondo, Kenya.”

International Conference on Nutrition, Granada, Spain, 16–20 September 2013

Title of Poster Presentation: “Integrating Maternal, Infant and Young Child Nutrition (MIYCN) and Family Planning (FP) Services to Improve Health and Nutrition in Kenya.”

1st FIGO Africa Regional Conference, Addis, Ethiopia, 2–5 October 2013

Title of Poster Presentation: “Improving Maternal and Child Health through Integrating Family Planning and Maternal Infant Young Child Nutrition [FP/MIYCN] in Bondo, Kenya.”

MOH Staff Supported to Attend Scientific Conferences

Women Deliver 28–30 May 2013

Jullie Odongo MOH staff based in Bondo Sub-County presented on “Health Systems Strengthening on Family Planning Uptake in Bondo, Kenya.”

SUB-OBJECTIVE 5: NEWBORN HEALTH

List of Presentations at Scientific Conferences

Global Newborn Health Conference 2013: Accelerating the Scale-Up of Maternal and Newborn Health Interventions to Reduce Mortality. The conference was held at the Birchwood Hotel in Johannesburg, South Africa from April 15-18, 2013. MCHIP supported Allan Govoga and James Njiru to attend this conference.

The 54th NNAK Annual Scientific Conference 2012 and Annual General Meeting held on 10th to 12th October, 2012. The theme was “**Re-thinking MDGS in the constitution dispensation**”.

“Helping Babies Survive (HBS): Essential Care for Every Baby (ECEB)” workshop in Addis Ababa Ethiopia from May 26th to 29th, 2014. MCHIP supported Allan Govoga and Rachel Nyami to attend this conference.

MNH Surveillance

Jhpiego Global MER Conference May 2014

Title: “Capacity Building Maternity Service Providers on Monitoring and Evaluation (M&E) Improves Service Delivery and Helps Reduce Maternal and Neonatal Deaths.”

Poster Presentation to Kenya Best Practices Conference October 2013.

SUB-OBJECTIVE 8

Community Prevention with Positives (CPwP)

- “Improving Access to FP at HIV Clinics through Prevention with Positives in Kenya”; Poster presentation: International AIDS Conference, Austria.
- “Improving Enrolment into HIV Care and Treatment through Expanded Prevention with Positives (PwP) Services at the Community: The Kenyan Experience”; Oral Abstract, 2012, Addis Ababa.

Annex 4: List of Materials and Tools Developed or Adapted by the Program

SUB-OBJECTIVE 1

1. National Nutrition Monitoring and Evaluation Framework, 2013
2. National Child Health Monitoring and Evaluation Framework, 2013

SUB-OBJECTIVE 3

1. National Policy Guidelines on Immunization, 2012
2. Second Dose of Measles Vaccine Training Guidelines, 2013
3. Health Workers Guide on Pneumococcal Vaccine, 2011
4. Health Workers Guide on Rotavirus Vaccine, 2014
5. Immunization Manual for Health Workers, 2014
6. Immunization Manual for Medical and Nursing Students, 2014

SUB-OBJECTIVE 4: ICCM POLICY, TRAINING CURRICULUM AND M&E TOOLS

1. iCCM National Implementation Framework and Plan of Action
2. iCCM Monitoring & Evaluation Plan
3. iCCM CHW Training Curriculum (Facilitator and Participant Manuals)
4. CHW Treatment and Tracking Register
5. CHEW iCCM Monthly Summary Form
6. CHW Sick Child Recording Form
7. Community Referral Form
8. Newborn Danger Signs Checklist

ORT Corner Documents

1. National ORT Corner Operational Guidelines
2. ORT Corner Orientation Package for Health Care Workers
3. M&E Framework for Diarrheal Disease at Health Facilities
4. ORT Register
5. Diarrhea IEC Material/Job Aid for Healthcare Workers

WASH Documents

1. Diarrhea Disease Behaviour Change Communication Inventory
2. WASH Training Materials Inventory

SUB-OBJECTIVE 5.1: MATERNAL AND NEWBORN HEALTH

1. Emergency Obstetrics and Neonatal Care: A Harmonized Competency Based Training Curriculum for Kenya
2. MNH Service Delivery Standards
3. National Guidelines on Essential Newborn Care: Facilitator’s Manual
4. National Guidelines on Essential Newborn Care: Participant’s Manual
5. **Job aids:**
 - a. Assessment of The Newborn
 - b. Management and Treatment of jaundice based on serum bilirubin levels
 - c. Immediate Newborn Care
 - d. Kangaroo Mother Care
 - e. The ‘warm chain’

SUB-OBJECTIVE 5.6: FP SUPPORT TO THE DEMONSTRATION SUB-COUNTIES

1. Development of the CHV Daily Activity Register

SUB-OBJECTIVE 6: PMTCT/MNCH INTEGRATION

1. Reaching Every District (RED) Approach for PMTCT Services Resource Package
2. PMTCT/MNCH Integrated Services Job Aid

SUB-OBJECTIVE 7: MALARIA IN PREGNANCY

Supported the Malaria Control Unit and Reproductive Maternal Health Services Units to plan, coordinate, monitor, and implement malaria in pregnancy (MIP) interventions in three targeted Regions (Nyanza, Western, and Coast)

Materials and Tools Developed

1. Community MIP Orientation Package:
 - Orientation Package, translated into Kiswahili, Dholuo, 3 Luhya dialects—Bukusu, Marama, and Maragoli
 - Brochure, translated into Kiswahili, Dholuo, 3 Luhya dialects—Bukusu, Marama, and Maragoli
 - Poster, translated into Kiswahili, Dholuo, 3 Luhya dialects—Bukusu, Marama, and Maragoli
 - Job aid, translated into Kiswahili, Dholuo, 3 Luhya dialects—Bukusu, Marama, and Maragoli
2. Malaria in Pregnancy Standards-Based Management and Recognition(SBM-R) Tool

SUB-OBJECTIVE 8: COMMUNITY PREVENTION WITH POSITIVES (CPWP)

Materials Developed

- Community Prevention with Positives (CPwP) Flip charts for Community HIV Service Providers
- Community Prevention with Positives (CPwP) National TOT Orientation Package

- Community Prevention with Positives (CPwP) Flyers and Brochures

M&E Tools

- Community Prevention with Positives (CPwP) Monthly Summary Reporting Tool
- Community Prevention with Positives (CPwP) Support Group Registers
- Community Prevention with Positives (CPwP) Indicator Matrix Sheet

SUB-OBJECTIVE 10: CERVICAL CANCER PREVENTION (CECAP)

1. National CECAP screening form
2. National CECAP Daily Activity Register
3. National CECAP Monthly Summary
4. National CECAP Referral Form
5. National CECAP client card