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MCHIP Tanzania VMMC End-of-Project Report

September 30, 2008 - September 29, 2014



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Submitted by:

MCHIP/Tanzania

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.

MCHIP brings together a partnership of organizations with demonstrated success in reducing maternal, newborn and child mortality rates and malnutrition. Each partner will take the lead in developing programs around specific technical areas:

Jhpiego, as the Prime, will lead maternal health, family planning/reproductive health, and prevention of mother-to-child transmission of HIV (PMTCT);

JSI—child health, immunization, and pediatric AIDS;

Save the Children—newborn health, community interventions for MNCH, and community mobilization;

PATH—nutrition and health technology;

JHU/IIP—research and evaluation;

Broad Branch—health financing;

PSI—social marketing; and

ICF International—continues support for the Child Survival and Health Grants Program (CSHGP) and the Malaria Communities Program (MCP).

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

Country Summary: Tanzania



Selected Health and Demographic Data for Tanzania

GDP per capita (USD) ¹	609
Total population	46,218,486
VMMC prevalence	71%
Maternal mortality ratio (deaths/100,000 live births) ²	450
Skilled birth attendant coverage ²	49%
Antenatal care, 4+ visits ²	43%
Neonatal mortality rate (deaths/1,000 live births) ²	21
Infant mortality rate (deaths/1,000 live births) ²	38
Under-five mortality (deaths/1,000 live births) ²	54
Under-five children with ARI symptoms taken to a health facility ²	71%
Under-five children with diarrhea receiving ORS ²	44%
Diphtheria-pertussis-tetanus vaccine coverage (3 doses) ²	92
Modern contraceptive prevalence rate ²	34%
Total fertility rate ²	5.3
Total health expenditure per capita (USD) ¹	41

Sources: World Bank¹, UNICEF Statistics 2012², THMIS III

Major Activities

- **Voluntary Medical Male Circumcision (VMMC):**
 1. 28 static sites and 347 outreach sites reached in Iringa, Njombe, and Tabora
 2. To date, 323,650 adult male circumcisions have been performed
 3. Target is 125,000 VMMCs for FY14; 75,750 performed as of March 2014
 4. 539 health providers trained as VMMC “surgeons” or counselors
 5. Eight pilot sites launched in Iringa for early infant male circumcision (EIMC)
 6. Major research studies undertaken including PrePex safety and acceptability study. EIMC acceptability study



Program Dates	September 30, 2008–September 29, 2014					
Total Mission Funding to Date by Area	VMMC (implemented by Jhpiego) to date \$22,074,034					
Geographic Coverage	No. (%) of regions	3	No. of districts	15	No. of facilities	347
Country and HQ Contacts	Hally Mahler, HIV Director, hally.mahler@jhpigo.org; Natalie Hendler, Senior Program Officer, natalie.hendler@jhpigo.org; Brenda Rakama, brenda.rakama@jhpigo.org; Alice Christensen, alice.christensen@jhpigo.org; Tigistu Adamu, tigi.adamu@jhpigo.org ; and Kelly Curran, kelly.curran@jhpigo.org					

Acronyms and Abbreviations

AE	Adverse event
BCC	Behavior change communication
CCHP	Comprehensive Community Health Plan
CDC	Centers for Disease Control and Prevention
CHMT	Community Health Management Team
CTC	Care and treatment center
CSO	Civil Society Organization
DHIS	District Health Information System
DOD	Department of Defense
FBO	Faith-based organization
EIMC	Early infant male circumcision
EQA	External quality assurance
FY	Fiscal year
GIS and QGIS	Geographic Information System Quantum Geographic Information System
GOT	Government of Tanzania
HIV	Human Immunodeficiency Virus
HTC	HIV testing and counseling
ICAP	International Center for AIDS Programs
IPC	Infection prevention and control
IRB	Institutional Review Board
JHU-TCCP	Johns Hopkins University – Tanzania Capacity and Communication Project
M&E	Monitoring and Evaluation
MC	Male circumcision
MCHIP	Maternal and Child Health Integrated Program
MCTWG	Male Circumcision Technical Working Group
MWAJA	Community Mobilizer Network (in <i>Kiswahili</i>)
MOHSW	Ministry of Health and Social Welfare
NACP	National AIDS Control Program
NGO	Nongovernmental organization
NIMR	National Institute of Medical Research
PEPFAR	The United States President’s Emergency Plan for AIDS Relief
QA/QI	Quality assurance/Quality improvement
RCHS	Reproductive and Child Health Service
RHMT	Regional Health Management Team
SAE	Severe adverse event
SCMS	Supply Chain Management Systems
SOP	Standard operating procedure
STI	Sexually transmitted infection
SYMMACS	The systematic monitoring of the male circumcision scale-up in Eastern and Southern Africa
TACAIDS	Tanzania AIDS Control Commission
TCCP	Tanzania Capacity and Communication Program
TIMS	Training Information Management System

TOT	Training of Trainers
UHAI-CT	Universal HIV/AIDS Intervention–Counseling and Testing
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children’s Fund
UNHCR	UN High Commissioner for Refugees
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
USG	US Government
VMMC	Voluntary medical male circumcision
WHO	World Health Organization

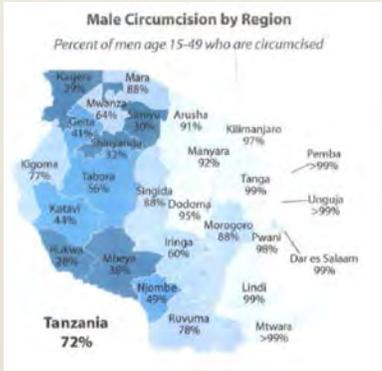
Executive Summary

In March 2007, WHO and UNAIDS issued guidance urging countries in eastern and southern Africa with high HIV prevalence and low MC rates to incorporate VMMC into their HIV prevention programs as part of a comprehensive package that includes abstinence, partner reduction, condom promotion, HIV counseling and testing, and sexually transmitted infection (STI) treatment.

Following the WHO recommendation, Tanzania convened its first Male Circumcision Technical Working Group (MCTWG) in 2007. The MCTWG recommended the implementation of two national situation assessments, one in circumcising communities and another in non-circumcising communities, and proposed the implementation of a VMMC pilot. In 2009 USAID asked the MCHIP program to collaborate with the Ministry of Health and Social Welfare (MOHSW) to pilot voluntary medical male circumcision (VMMC) in Tanzania, and in September 2009 the country's first VMMC site opened at Iringa Regional Hospital. The scope and field support funding level for VMMC have grown steadily, and during the past five years the MCHIP Tanzania VMMC program has been lauded as one of the highest quality and most efficient and innovative programs in the region. With the support of the Ministry of Health and Social Welfare (MOHSW), VMMC services have been established in three priority regions (Iringa, Njombe, and Tabora) and delivered as routine services at fixed sites, and in outreach and mobile settings through campaigns. As of March 2014, VMMC services had been provided in 347 unique health facilities across the three regions where a total of 323,650 clients were provided with services.

Each year moderately different MCHIP Tanzania program objectives were listed in the annual work plan. However, the objectives have remained largely the same each year. They are:

- 1) Scale up male circumcision services in Iringa, Njombe, and Tabora regions
- 2) Pilot early infant male circumcision (EIMC) services in Iringa region
- 3) Develop and/or adapt key tools, curricula, and materials, as necessary
- 4) Collaborate with US Government (USG) VMMC Partner Agencies in Tanzania
- 5) Provide technical assistance to the Government of Tanzania (GOT) health authorities
- 6) Collect and disseminate programmatic and research lessons learned within Tanzania and elsewhere



Statistics for Jhpiego Assigned Regions as of September 30, 2013

Iringa Region

- *HIV Prevalence: 9.1%*
- *MC Prevalence 60%*
- *Number of VMMCs done by program: 127,634*
- *Target VMMCs remaining for next five years: 87,076*

Njombe Region

- *HIV Prevalence: 14.8%*
- *MC Prevalence: 49%*
- *Number of VMMCs done by program: 92,125*
- *Target VMMCs remaining for next five years: 74,333*

Tabora Region

- *HIV Prevalence: 5.1%*
- *MC Prevalence: 56%*
- *Number of VMMCs done by program: 103,891*
- *Target VMMCs remaining for next five years: 212,752*

Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12 and the 2014 National VMMC Country Operational Plan (draft)

In 2009 it was impossible to foresee that the Tanzania VMMC program would reach more than 1 million VMMCs by 2014. At the launch of the program, MCHIP was part of a multi-agency partnership to pilot VMMC services, in collaboration with the United States Department of Defense (DOD) partner, Walter Reed Medical Center (through Mbeya Referral Hospital); and the Centers for Disease Control and Prevention (CDC) partner, the International Center for AIDS Programs (ICAP). MCHIP led the development of monitoring and evaluation (M&E) and counseling tools. Jhpiego experts traveled to Tanzania to facilitate the national adaptation of the WHO/UNAIDS/Jhpiego Manual for Medical Male Circumcision Under Local Anesthesia (WHO/UNAIDS/Jhpiego 2009). In September 2009, the first VMMC clinician training was held at Iringa Regional Hospital for providers from all partners, and services were officially established in October 2009. Since that date, Iringa Regional Hospital has remained as a center of excellence for the VMMC program, and a large majority of trained VMMC providers in Tanzania were either trained there, or trained by the Master Trainers who normally work there. In May 2010, the first VMMC campaign in Tanzania was held in Iringa region, providing evidence that there was high demand for services, and both high volume and high quality VMMC services were feasible. In early 2011, MCHIP opened an office in Njombe region to coordinate the expansion of the program there, and in 2012 MCHIP opened an office and initiated services in Tabora. Decentralization of the daily management of the VMMC program has facilitated the management and scale up of the growing program. It also facilitated the program's strategy of "bringing VMMC to the people," rather than expecting people to come to the VMMC service.

During the first five years of implementation, the MCHIP VMMC program played a significant role in the further development and expansion of VMMC through technical support in training providers and counselors, development of tools for quality assurance, supervision and counseling, contributions to demand creation, commodity logistics, national and local level advocacy efforts, and institutionalization of the national VMMC Monitoring and Evaluation systems and tools.

In 2013, MCHIP introduced Tanzania's first early infant male circumcision (EIMC) pilot project in the Iringa region. With funding from USAID and research institutions, research has been conducted to determine the acceptability and safety of the PrePex device in Tanzania, and the challenges of EIMC, to ensure that Tanzania can develop

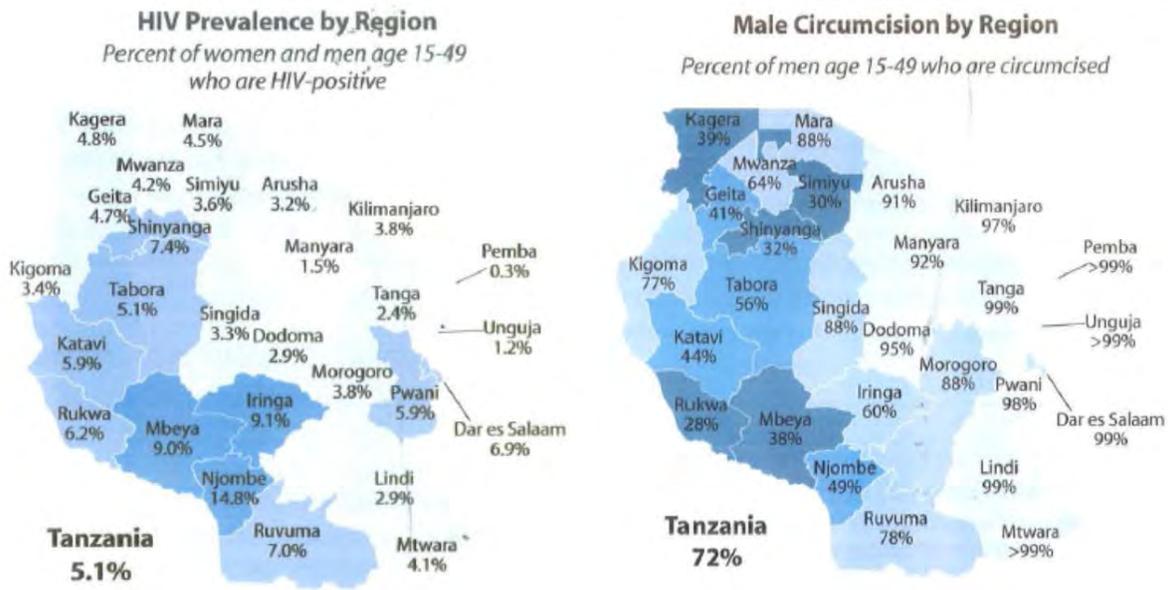
policies and tools for an EIMC scale up. MCHIP VMMC interventions served as an “innovation lab” for Tanzania, by constantly adapting the program based on implementation experience, M&E data, and research activities all designed to hasten the speed and quality of the VMMC scale up. This support was provided to partners and the National AIDS Control Program (NACP), but also by MCHIP staff to other countries including South Africa, Namibia, Zambia, Lesotho, Kenya, Malawi, and Botswana. More than 60 people from donors and partners in other countries, as well as health professionals in other regions of Tanzania, visited the MCHIP program on study tours of Iringa and Njombe during this period. As a result of this leadership, contributions to peer-reviewed publications, the development of case studies and participation in various international conferences, MCHIP has played an important role in advancing the global VMMC agenda.

Regional prevalence data are consistent with the M&E data collected by the program. During the past five years, all three MCHIP regions have experienced declines in HIV prevalence and significant increases in MC prevalence, as noted above. Although these improvements cannot be attributed solely to the MCHIP VMMC program, the program may have played some role in the decline in HIV prevalence and likely accounts for the majority of improvements in VMMC prevalence.

Three randomized clinical trials have determined unequivocally that male circumcision reduces female-to-male HIV transmission by approximately 60 percent; post-trial surveillance data suggest that risk compensation has not been a problem in the clinical trial sites. Modeling studies demonstrate that VMMC could prevent up to 5.7 million new HIV infections among men, women, and children over the next 20 years

In Tanzania, adult HIV and MC prevalence is 5.1 percent and 72 percent, respectively (Tanzania National HIV and Malaria Indicator Survey 2011/12). However, there is tremendous variability in both HIV and MC prevalence by region. The proportion of men aged 15–49 years who reported being circumcised in the most recent national survey ranged from a low of 28 percent in Rukwa region, to a high of more than 99 percent, in multiple regions along the Indian Ocean coastline (see Figure 1).

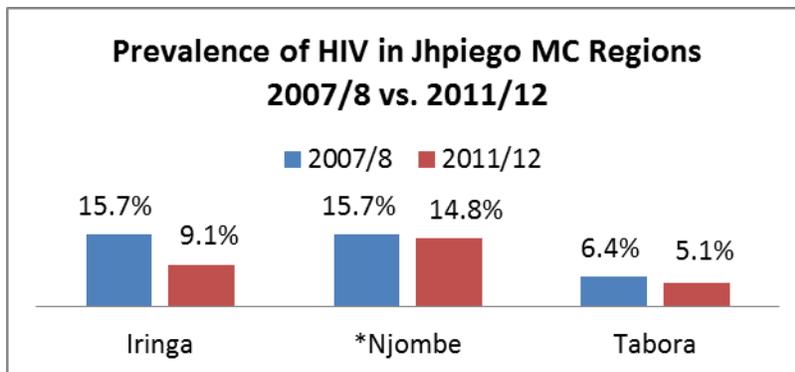
Figure 1: Maps of HIV Prevalence and Male Circumcision Prevalence by Region: 2011-12



Source: Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12

As noted in Figure 2, when the program began in 2009, an HIV indicator survey showed that HIV prevalence was 15.7 percent in Iringa and Njombe (which used to be a single region called “Iringa”) and 6.4 in Tabora in 2007/08. HIV prevalence rates have declined to 9.1 percent in Iringa, 14.8 percent in Njombe, and 5.1 percent in Tabora.

Figure 2: Prevalence of HIV in Jhpiego MC regions: iringa, Njombe, and Tabora, 2007/8 and 2011/12



*Njombe was part of Iringa region in 2007-8. Since disaggregated data do not exist for that time period, the same HIV prevalence has been cited for both regions. HIV prevalence pertains to all adults aged 15-49.

Sources: Tanzania HIV/AIDS and Malaria Indicator Survey 2007-8, specifically, Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and Macro International Inc. 2008. *Tanzania HIV/AIDS and Malaria Indicator Survey 2007-08*. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and Macro International Inc.

Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12, specifically, Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF International 2013. Tanzania HIV/AIDS and Malaria Indicator Survey 2011-12. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and ICF International.

Prior to the program launch in 2009, male circumcision (MC) prevalence was 29 percent among males aged 15-49 in Iringa and Njombe and 38 percent in Tabora. Subsequently MC increased to 60 percent in Iringa, 49 percent in Njombe, and 56 percent in Tabora by 2011/12, as noted in the Tanzania HIV/AIDS Malaria Indicator Surveys. In addition, 200,000 VMMC were performed between 2011-12 and March 2014 .

The National VMMC Strategy prioritizes VMMC for males aged 10–34 years, particularly in the 12 regions characterized by high HIV prevalence and low MC prevalence. Since 2009 323,650 VMMCs have been provided through 347 unique MCHIP-supported MOHSW sites. MCHIP has played a leadership role in Tanzania, working with the MOHSW, United States Government (USG) agencies, international partners, implementation partners, and local communities to bring high quality VMMC services to Iringa, Njombe and Tabora Regions. MCHIP has demonstrated, both within Tanzania and to other countries seeking to establish VMMC services, that it is possible to implement high-volume VMMC campaigns. Financial and human resources have been maximized through significant investments in community advocacy and mobilization, and the program has developed a model of balancing supply and demand, which has been replicated by other organizations.

Throughout its operation the program has faced challenges and found solutions, by reducing seasonality of demand, dispelling myths and misconceptions about VMMC, and efficiently managing human resources. The program has implemented research and analyzed program data to understand the ideal mix of services for older men, reasons why adverse event (AE) rates were dropping, and the potential barriers to the uptake of early infant male circumcision (EIMC) services. When solutions were not possible, the program advocated for change (e.g., USG-accepted age of VMMC clients). The MCHIP Tanzania VMMC program has embraced the use of technology to help enhance programmatic elements. For example, geographic information systems (GIS) identified gaps in the VMMC scale up and identified sites to ensure the success of VMMC campaigns. Text messaging increased accessibility to information on VMMC for clients and VMMC providers through Text to Change and *Tohara* Texts.

MCHIP improved the quality of VMMC services through refresher training for VMMC providers in Tanzania, training special AE ombudsmen to review AE rates and ensure accurate reporting, and incorporating robust supervision, mentoring, and quality assurance (QA) and external quality assurance (EQA) systems.

MCHIP also provided significant technical assistance to the MOHSW. MCHIP led the process of reviewing and finalizing the national VMMC training curriculum and developed training curricula for VMMC counselors, refresher training and peer promoters. From the outset of the program MCHIP worked with the NACP's M&E Unit to develop, test and finalize national VMMC M&E tools and assisted the MOHSW to incorporate VMMC into the national district health management system. MCHIP also provided the NACP with technical support for the development of VMMC costing and modeling.

By the end of five years, VMMC had progressively and rapidly expanded in MCHIP's implementation regions. As of mid-2014 more than one million VMMCs had been performed in the 12 priority regions. The new 2014 National VMMC Country Operational Plan estimates that there are an additional 2.1 million clients to serve in the 12 priority regions between 2014 and 2017, who stand to gain the epidemiological benefits of VMMC and be part of an AIDS-free generation.

Introduction

Given the scope of the program, the report discusses major accomplishments in the following areas:

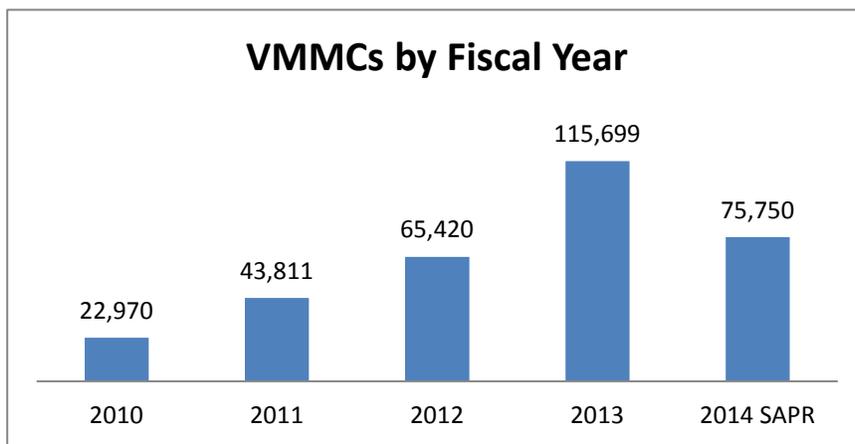
- 1) Statistics on the VMMC program and clients
- 2) Statistics on HIV counseling, testing, prevalence, and program referral among VMMC clients
- 3) Service delivery
- 4) Training of clinicians and human resource management
- 5) Commodities and equipment
- 6) Infection prevention and control and waste management
- 7) Quality assurance, supportive supervision, and mentorship
- 8) In-service communications
- 9) Demand creation and community communications
- 10) M&E
- 11) Research
- 12) Support to the NACP
- 13) Support to the regions and districts
- 14) Support to other PEPFAR programs
- 15) Early infant male circumcision
- 16) Future of VMMC/EIMC in Tanzania

Major Accomplishments

A. Statistics on the VMMC Program and Clients

As of March 2014 the MCHIP/Tanzania program supported the MOHSW to provide 323,650 VMMCs in Iringa, Njombe, and Tabora regions. This makes MCHIP/Tanzania the VMMC partner with the greatest number of circumcisions in Tanzania and one of the highest in sub-Saharan Africa. Each year, the VMMC program circumcised 30-50 percent more clients than in the previous year.

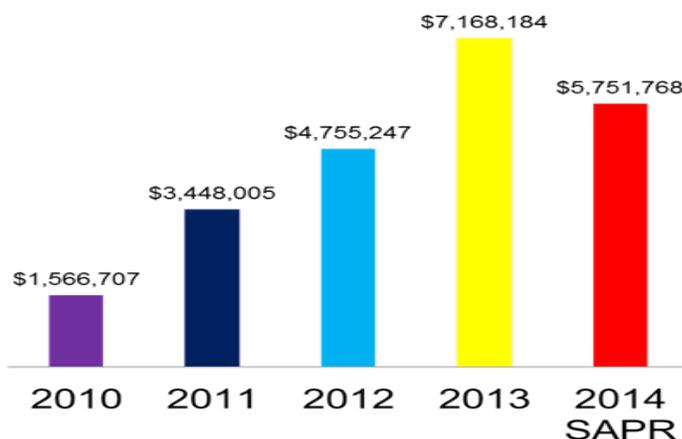
Figure 3: Number of VMMCs by region: Iringa, Njombe, and Tabora, FY 2010/14



SAPR = Semi-annual Program Report

Source: MCHIP/Tanzania VMMC Database

Figure 4: Annual VMMC program expenditures by region: iringa, Njombe, and Tabora, FY 2010/14



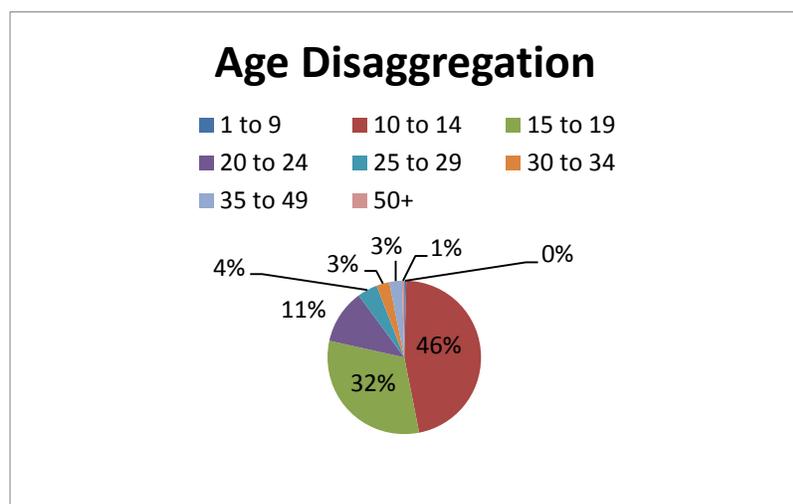
SAPR = Semi-annual Program Report

Source: Jhpiego Financial Management System, April 2014

The trend in the number of VMMCs performed was closely related to annual program expenditures by fiscal year (FY), as illustrated in Figure 4.

Slightly more than three-fourths (78%) of VMMC clients were aged 10-19, and 22 were aged 20 and above. New modeling conducted in 2013 showed that strongest long-term benefit of VMMC will be derived by focusing efforts on young people aged 10-19. However, the most immediate impact in reducing HIV will come from reaching those aged 20-29.¹ Efforts to increase the percentage of older men seeking VMMC services are addressed later in this report.

Figure 5: Percentage of VMMC clients by region and age group: Iringa, Njombe, and Tabora, FY 2010/14 combined



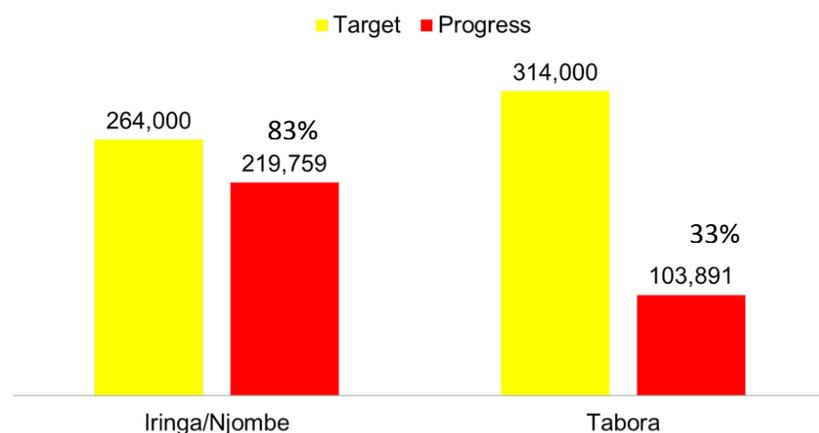
Source: MCHIP/Tanzania VMMC Database

Among the total number of VMMCs performed, 39 percent (n = 127,634) of program VMMCs were provided in Iringa, 28 percent (n = 92,125) in Njombe, and 33 percent (n = 103,891) in Tabora.

In 2010, the National VMMC Strategy set targets for VMMC. At the time, Iringa and Njombe were geographically united as a single region known as “Iringa.” As noted in Figure 6, the program has reached 83% of the target set for the former Iringa region. Since services began in Tabora in late- 2012, the program still has more to accomplish. New targets have been set for Iringa, Njombe, and Tabora in the 2014 VMMC Country Operational Plan and are discussed later in this report.

¹ USAID Health Policy Project VMMC modeling exercise 2014.

Figure 6: Targeted number and total number of VMMC performed by region: Iringa, Njombe, and Tabora, FY 2010/14



Sources: MCHIP/Tanzania VMMC Database and National VMMC Strategy 2010

VMMCs were performed through routine, campaign and outreach service delivery sites, and as an integral part of training activities. As reported in Table 1, the vast majority of all VMMCs (75%) performed in the three regions were provided during campaigns.

Table 1: Number of VMMCs performed by service delivery modality, region, and district: Iringa, Njombe, and Tabora: FY 2010/14

Region	District	Campaign	Outreach	Routine	Training	Total
Iringa Region	Iringa Municipal	13,017	219	7,869	170	21,275
	Iringa Rural District	25,099	7,657	5,729	0	38,485
	Kilolo District	10,735	8,482	1,499	0	20,716
	Mufindi District	31,041	11,085	4,965	67	47,158
Iringa Region Total		79,892	27,443	20,062	237	127,634
Region	District	Campaign	Outreach	Routine	Training	Total
Njombe Region	Ludewa District	19,769	3,175	606	0	23,550
	Makete District	10,670	2,268	802	225	13,965
	Njombe District Council	30,954	6,492	2,475	165	40,086
	Njombe District Council	11,499	2,345	679	0	14,523
Njombe Region Total		72,892	14,280	4,562	390	92,124
Region	District	Campaign	Outreach	Routine	Training	Total
Tabora Region	Igunga District	15,664	0	1,809	0	17,473

Council					
Kaliua District Council	16,536	0	0	0	16,536
Nzega District Council	21,523	4,027	2,466	154	28,170
Sikonge District Council	9,934	0	0	0	9,934
Tabora Municipa	2,130	1,748	3,575	0	7,453
Urambo District Council	13,520	0	279	0	13,799
Uyui District Council	10,524	0	0	0	10,524
Tabora Region Total	89,831	5,775	8,129	154	103,889

Source: MCHIP/Tanzania VMMC Database

The program has provided VMMC services in 347 different sites during the last five years, but the majority (80%) were performed in dispensaries (the lowest level health facility). This reflects the increasingly rural nature of VMMC service provision over the course of the program and the strategy of bringing VMMC services to where people live, rather than expecting them to travel to services.

Table 2: Number of VMMCs performed by region and site: Iringa, Njombe, and Tabora, FY 2010/14

REGION	# OF SITES EVER CIRCUMCISED IN			TOTAL
	Hospital	Health Centers	Dispensaries	
IRINGA	6	17	93	116
NJOMBE	9	16	105	130
TABORA	6	14	81	101
TOTAL	21	47	279	347

Source: MCHIP/Tanzania VMMC Database

The percentage of clients undergoing testing for HIV as part of VMMC services has varied over the years due to multiple instances of national HIV test kit stock outs and a change in the national HIV testing algorithm. However, during periods when test kit stocks were available, such as in the first half of Fiscal Year (FY) 2014, HIV testing uptake was nearly 99 percent.

B. Statistics on HIV Counseling, Testing, Prevalence, and Program Referral among VMMC Clients

Many of the clients (44%?) who tested positive as part of VMMC services already knew their status and were enrolled in care and treatment centers (CTCs) at the time of the circumcision. 56 percent of HIV-positive VMMC clients were newly diagnosed HIV infections and linked to care and treatment services.

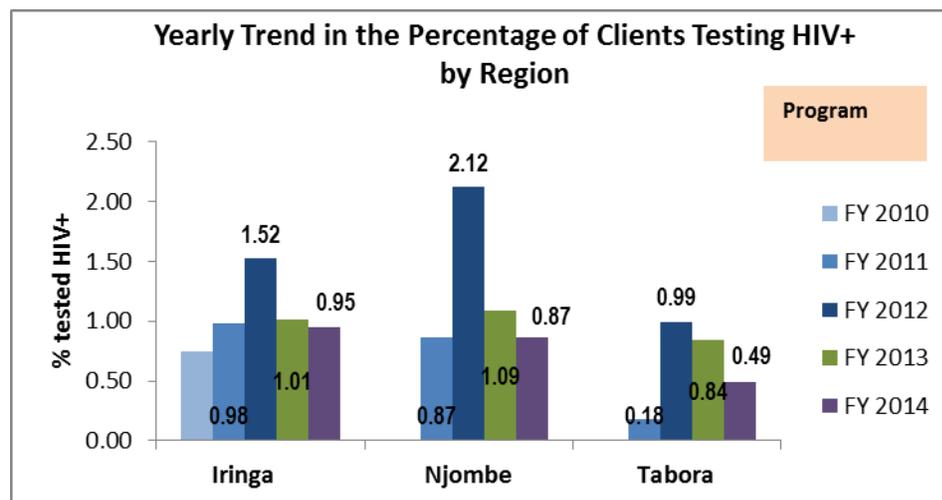
Table 3: Number of circumcised men who were counseled and tested for HIV and the number and percent testing positive by region and fiscal quarter: Iringa, Njombe, and Tabora, FY 2013 (Q1) and 2014 (Q2)

QUARTERS	Regions	HIV Testing Uptake and Seropositivity				
		# Counseled	# Tested	Testing uptake (%)	# Tested positive	% Tested positive
Q1 (Oct - Dec 2013)	Iringa	16606	16294	98.1	131	0.8
	Njombe	465	446	95.9	4	0.9
	Tabora	16919	16870	99.7	92	0.5
	Program Total	33990	33610	98.9	227	0.7
Q2 (Jan- March 2014)	Iringa	5174	4973	96.1	71	1.4
	Njombe	17522	17161	97.9	149	0.9
	Tabora	19064	18991	99.6	82	0.4
	Program Total	41760	41125	98.5	302	0.7
FY 14 Q1 & Q2		75750	74735	98.7	529	0.7

Source: MCHIP/Tanzania VMMC Database

Given the young age of the majority of VMMC clients, their HIV prevalence is low (0.7% among the clients tested in both quarters). However, as noted in Figure 7, the HIV prevalence rate peaked in FY 2012 for an unknown reason. In 2012 there were severe HIV test kit stock outs nationally, and providers may have prioritized HIV kits for use with older men or clients suspected to be HIV-positive.

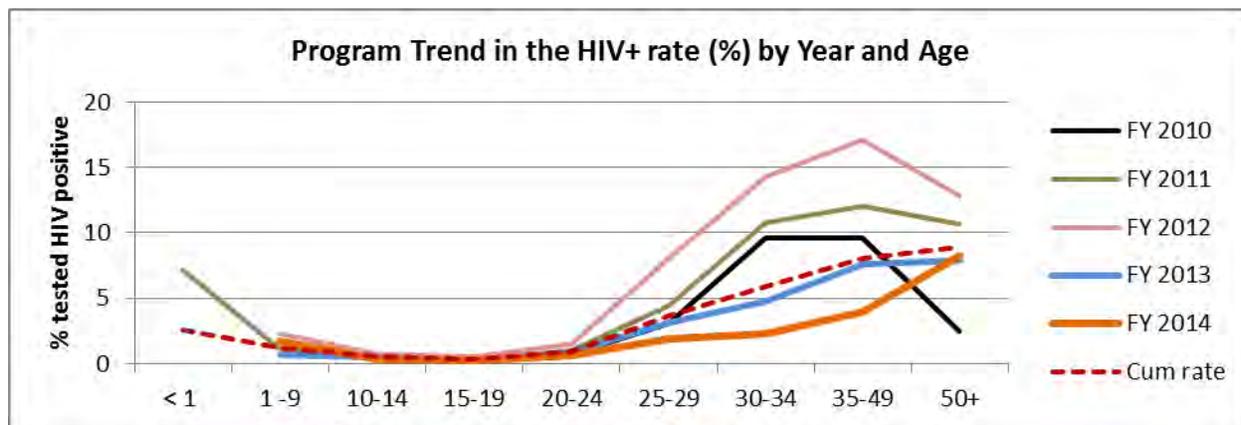
Figure 7: HIV prevalence rate of VMMC program clients by region: Iringa, Njombe, and Tabora, FY 2010/14



Source: MCHIP/Tanzania VMMC Database

As noted in Figure 8, HIV prevalence is related to age. There is a steep increase in the percentage of clients testing HIV-positive, starting from the mid-20s and peaking in the 35-49 age group.

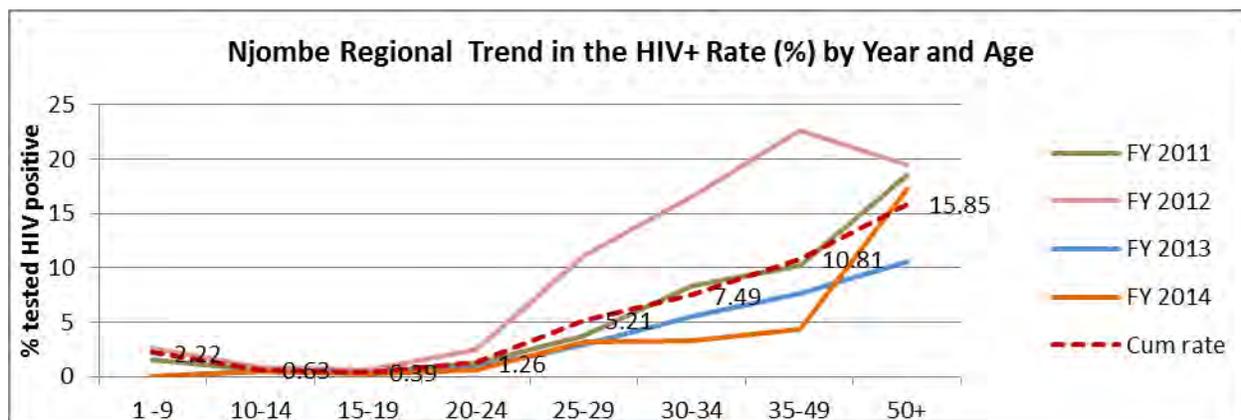
Figure 8: HIV prevalence rate of VMMC program clients by age group and region: Iringa, Njombe, and Tabor, FY 2010/14



Source: MCHIP/Tanzania VMMC Database

In Njombe, approximately 23 percent of all VMMC clients aged 35-49 who were tested were HIV positive in FY 2012. By 2014 the rate had declined to approximately 17 percent.

Figure 9: Regional HIV prevalence rate by age group: Njombe, FY 2010/14



Source: MCHIP/Tanzania VMMC Database

Table 4: Number and percentage of VMMC clients testing HIV positive and referred to CTCs by region: Iringa, Njombe, and Tabora, FY 2010/14

Region	Total number of VMMC clients testing HIV-positive	Number of newly diagnosed VMMC clients referred to CTCs	% of newly diagnosed VMMC clients referred to CTCs
Iringa	1,270	664	52
Njombe	1,014	555	55
Tabora	698	437	63
Total	2,982	1,656	56

Source: MCHIP/Tanzania VMMC Database

The vast majority of VMMC clients (98.9%) were not referred to any other services. Among those who were referred, 0.6 percent were referred to “other surgical” services, often signifying physiological issues needing to be addressed by a urologist. An additional 0.5 percent were referred to CTCs, and a tiny proportion of 0.05 percent were referred to STI services, although most STI cases were typically managed out of the VMMC service delivery site.

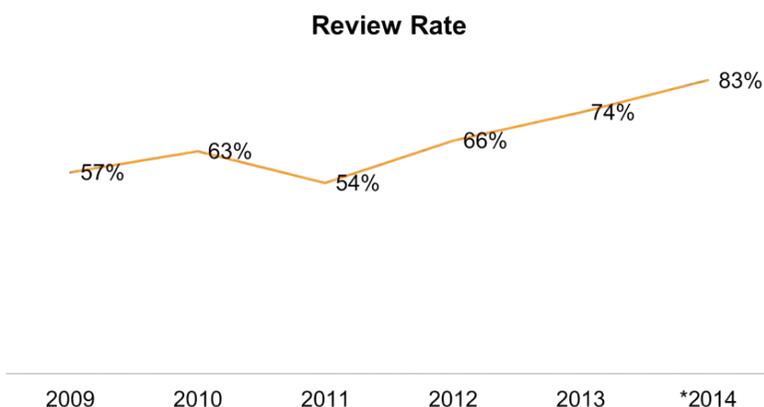
Table 5: Number and percentage of VMMC clients referred to medical services by region: Iringa, Njombe, and Tabora, FY 2010/14

Region	Number of VMMC clients referred to CTCs	Number of VMMC clients referred to other surgical services	Number of VMMC clients referred to STI services	Number of VMMC clients not referred to any other service	Total Number of VMMC clients
Iringa	664	1,838	113	125,019	127,634
Njombe	555	14	18	91,538	92,125
Tabara	437	13	20	103,421	103,891
Percent	0.5%	0.6%	0.05%	98.9%	
Total	1,656	1,865	151	319,978	323,650

Source: MCHIP/Tanzania VMMC Database

Figure 10 illustrates that the percentage of clients returning for at least one follow-up review visit has increased during the program period. However, these improvements may be due in part to better reporting, since efforts to improve counseling on the need to return for review visits have been emphasized.

Figure 10: Percentage of VMMC clients returning for a follow-up review visit by region: Iringa, Njombe, and Tabora, 2010-14

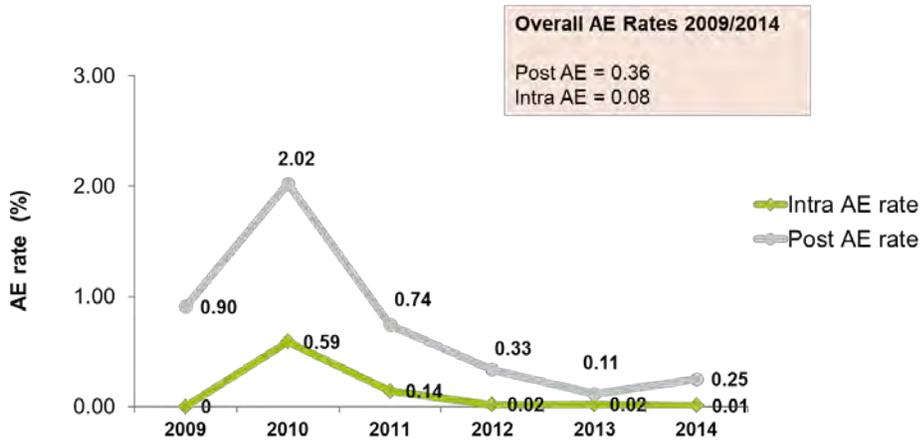


Note: This graph illustrates data based on the calendar year, rather than the fiscal year.

Source: MCHIP/Tanzania VMMC Database

Both intra-operative (occurring during the surgery) and post-operative (occurring after the surgery) adverse event (AE) rates have remained well below internationally accepted rates throughout the period of program implementation. In fact, in 2013 they were so low that underreporting was suspected. This issue was addressed in FY 2014 training, and a slight increase in the AE rates were noted that year, which is likely attributed to improved reporting.

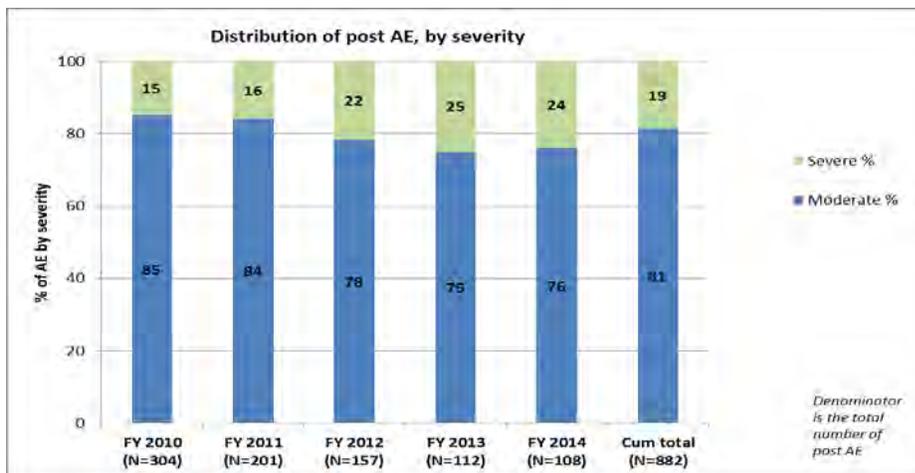
Figure 11: Overall intra-and post-operative adverse event (AE) rates by region: Iringa, Njombe, and Tabora, FY 2010/14



Source: MCHIP/Tanzania VMMC Database

The majority of these AEs were classified as moderate and were successfully resolved.

Figure 12: Distribution of post-operative AEs by severity and region: Iringa, Njombe, and Tabora, FY 2010/14



Source: MCHIP/Tanzania VMMC Database

During the last five years, 421 providers have been trained as VMMC “surgeons,” and 142 VMMC counselors and 50 Trainers-of Trainers (TOTs) have been trained. Among the 421 providers trained in VMMC under local anesthesia, 9 percent were medical doctors, 10 percent were associate medical officers, 21 percent were clinical officers, and 5 percent were classified as other providers. The majority trained in both groups have been nurses (54%). Similarly, the majority (82%) of VMMC trained counselors were nurses from FY 2010/14.

Several types of training have been offered through the program, including EIMC service provision, diathermy, refresher training in emergency management, and training of peer promoters and educators in the skills required to enter data into the national DHIS database. Table 6 shows that 82 peer promoters have been trained in demand creation for VMMC services.

Table 6: Number of individuals trained by type of training: Iringa, Njombe, Tabora, and other partner staff, FY 2010/14

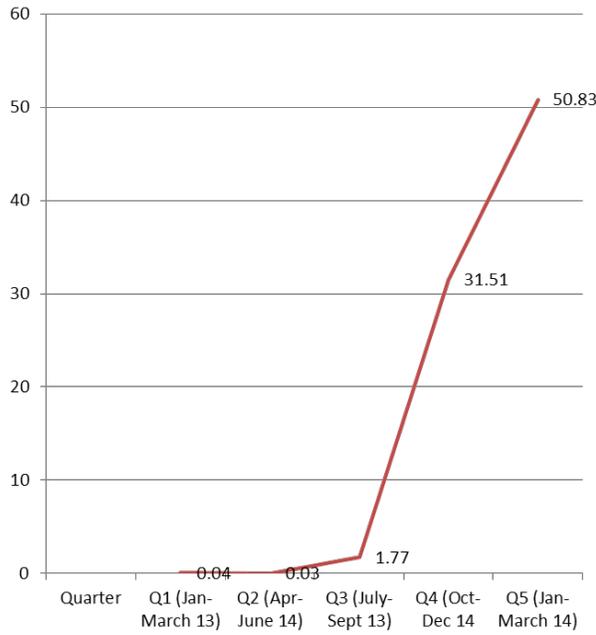
Type of training	By Region			Other Partners Staff	Program Total
	Iringa	Njombe	Tabora		
VMMC Under Local Anaesthesia	161	88	134	14	397
VMMC Counseling Training	43	39	60	0	142
VMM Clinical Training Skills (TOT)	12	6	6	26	50
Refresher trainings (emergency manage	92	44	37	5	178
VMMC Health Care Managers Training	11	13	0	0	24
AE Focal Persons Training	11	16	16	0	43
Diathermy Training	12	14	0	0	26
EIMC Providers Training	52			16	68
EIMC Clinical Training skills (TOT)	12			0	12
DHIS	2	0	2	22	26
Peer Promoters Training	38	26	18	0	82
Refresher Training for peer promoters and Advocacy CSOs	17	12	12	0	41
CSO's Peer Educators Training	77	26	35		138

Note: Providers trained in VMMC under local anesthesia include both those in the first line of the above table and VMMC Health Care Managers.

Sources: MCHIP/Tanzania VMMC Database and Training Database

As shown in Figure 13, since the introduction of the peer promoter program, there has been a large increase in the number of clients reporting that they have been referred to services by a peer promoter.

Figure 13: Percentage of VMMC clients referred to services by peer promoters and region: Iringa, Njombe, and Tabora, FY 2013/14



Source: MCHIP/Tanzania VMMC Database

Large differences also exist in the contributions of peer promoters across the regions, probably reflecting differences in program scale up. For example, in Njombe MCHIP is currently providing services in very isolated rural sites, where peer promoters play an important role in informing potential clients about services (71% in FY 2014, Q2). However, the program in Tabora is still located in larger less remote rural areas, where clients are more likely to receive VMMC information through radio and other mass media sources rather than peer promoters (21%). In Iringa, 54 percent of clients stated they were referred to services by a peer promoter in FY 2014, Q2.

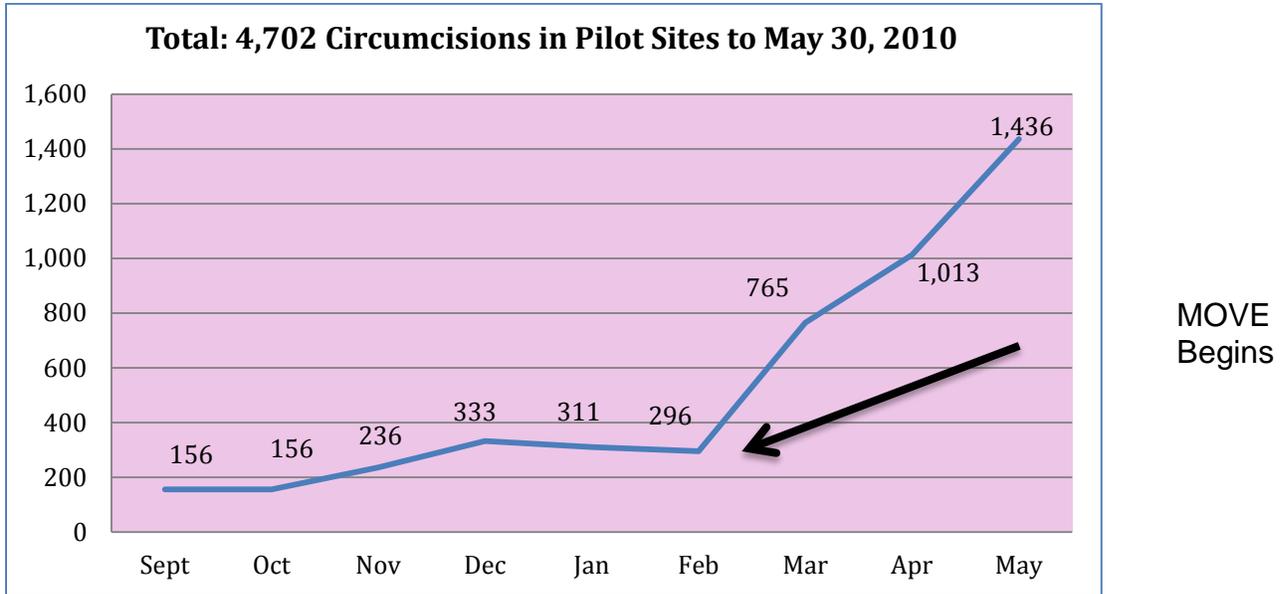
C. Service Delivery

Pilot Phase

When VMMC services were initiated at Iringa Regional Hospital during the pilot phase, the VMMC program took a traditional approach to service delivery, that is, one client per bed with two providers operating. A steady flow of VMMC clients came to the facility during the first six months of the program, but overall the volume was low. However, in March 2010, the MCHIP team began implementing strategies to improve the volume and efficiency of VMMC services (also known as MOVE), which included the use of multiple surgical bays in a single room, task shifting, task sharing, and pre-

packaged VMMC reusable kits. As a result of these changes, the number of clients served per month has grown exponentially.

Figure 14: Number of male circumcisions performed: Pilot sites combined, September 2009-May 2010



Source: MCHIP/Tanzania VMMC Database

Since nurses were trained as VMMC “surgeons” from the launch of the program, human resources were in ample supply. In fact, nurses continue to be the most enthusiastic and dedicated VMMC providers, perhaps reflecting their pride in being entrusted with the opportunity to receive appropriate training to perform minor surgery.

For six weeks in May and June 2010, the MCHIP team implemented Tanzania’s first VMMC campaign in five health facilities in Iringa region with a target of providing 6,000 VMMCs. The response of the clients stunned all who participated in that first event. By the end of the six weeks 10,352 clients had been served.

Table 7: Number of male circumcisions completed in facilities by district: Iringa, May-June 2010.

Site	District	MCs Completed
Iringa Regional Hospital	Iringa Municipal	1,784
Ngome Health Centre	Iringa Municipal	2,781
Lugoda Hospital	Mufindi	1,847
Mafinga District Hospital	Mufindi	1,896
Tosamaganga Hospital	Iringa Rural	2,044
Grand Total		10,352

Source: MCHIP/Tanzania VMMC Database

After the first campaign, the pilot phase of the VMMC program ended, and the catch-up phase (where the program reaches 80% of VMMC coverage) began. VMMC services have been delivered at fixed sites and in outreach sites with both routine and campaign levels of intensity. In an effort to continue to improve efficiency, diathermy (the use of high-frequency current to produce heat and stop bleeding quickly) was introduced in selected sites in all three regions in 2014.

VMMC in Fixed Sites

VMMC services are currently provided in 28 fixed sites across the three regions, as shown in Table 8. Depending on the facility, VMMC services in fixed sites were offered routinely between two to five days per week. Fixed sites are located primarily in hospitals and large health centers, in order to employ the large number of available providers, who can also be called upon to participate in outreach activities. Several additional fixed sites are still under negotiation in Tabora region and one site at a faith-based organization (FBO) facility had to be dropped because of management issues at the facility. A VMMC focal person at each fixed site coordinates VMMC service delivery and is responsible for reporting and commodity management. The focal person is usually the only facility staff member who dedicates a majority of his/her time to VMMC. Otherwise, trained VMMC providers rotate through the facilities on a schedule established by the Facility In-Charge. Historically, fixed sites have experienced high demand after being established, but that demand tapers off considerably after the first few months of service delivery.

Table 8: List of fixed VMMC sites by region: Iringa, Njombe, and Tabora, FY 2014

	Iringa Region
1	Iringa Regional Hospital
2	Ngome Health Center
3	Frelimo Hospital
4	Tosamaganga Hospital
5	Nzihi Health Center
6	Ilula Lutheran Hospital
7	Kidabaga Health Center
8	Mafinga District Hospital
9	Lugoda Hospital
10	Usokami Health Center
11	Kasanga Health Center
	Njombe Region
12	Kibena Hospital
13	Anglican Health Center
14	Lupembe Health Center
15	Makambako Health Center
16	Ilembula Lutheran Hospital
17	Wanging'ombe Health Center
18	Makete District Hospital
19	Matamba Health Center
20	Ipelele Health Center
21	Ludewa District Hospital
22	Mlangali Health Center
23	Manda Health Center
	TABORA
24	Kitete Regional Hospital
25	Nzega District Hospital
26	Igunga District Hospital
27	Urambo District Hospital
28	Kaliua Health Center
Source: MCHIP/Tanzania Program Data	

Maintaining client demand has been a struggle in the majority of facilities, and investments in interpersonal demand creation seem to be the only way in which to ensure that at least a minimum number of clients are present on service delivery days. During the low demand season, there can be as few as three to five VMMC clients on a typical service delivery day in a fixed site. MCHIP has worked with facilities to match the number of providers working with the client load.

Overall, fixed sites have performed less than 10 percent of all VMMCs throughout the program period, with Iringa having the highest percentage of VMMCs at fixed sites (16%) and Tabora and Njombe the lowest (8% and 5%, respectively). To some extent these data reflect the fact that Iringa is relatively more urban than Tabora and Njombe, and therefore there are more potential clients in the catchment areas surrounding fixed sites in Iringa. Nonetheless, fixed sites have played an important role in the program as training and referral facilities, and as the source of nearly all human resources and trained trainers. The “parent” facility, Iringa Regional Hospital, continues to be a center of excellence for all of Tanzania.

VMMC in Outreach Sites

As mentioned previously, as of March 2014, the program had provided services in 347 unique facilities, the vast majority being outreach sites. Usually outreach sites are lower level health facilities such as dispensaries and health centers, although occasionally the program will circumcise in a non-health mobile facility. Outreach services have been provided

as routine services, but typically outreach sites are established during campaigns. Outreach sites have been established in more remote areas over the course of the program, reflecting the program’s efforts to bring VMMC to the people. During service delivery at outreach sites, providers from fixed sites supplement the staffing of the outreach site. To the extent possible, providers at the outreach site are deputized and mentored to assist with registration, M&E tasks, instrument processing, and client postoperative reviews.

VMMC Campaigns

In the first few years of the program, campaigns were planned around the traditionally high demand winter season and other school holidays. At the regional and district levels, campaign task forces were convened, which included health and education authorities, as well as other key community stakeholders from religious organizations, women's groups, youth groups, and workplaces. These task forces helped to select service delivery sites and developed demand creation plans which were supported by MCHIP. MCHIP brought additional resources for demand creation, specifically experiential media, radio, print materials, t-shirts, and posters, to support the demand creation elements. Regional health authorities released providers from fixed sites to participate in the campaigns where MCHIP organized them in teams.

A Campaign Master Plan was created and adapted each time the program went into campaign season with specific job descriptions, commodity disbursements, quality assurance and supervision visits, and elaborated demand creation plans. MCHIP has invested in training campaign site managers from among the "star" providers to ensure that a small handful of providers have specialized campaign management skills. During campaigns MCHIP Technical Advisors are organized to ensure that each one is responsible for the sites in a district, and the campaign site managers report to them daily. The MCHIP Technical Advisor is responsible for overseeing the technical quality of the sites in their district, coordinating QA activities, and ensuring prompt reporting and management of adverse events.

Campaigns in the first several years of MCHIP were always successful with a greater number of clients reached during increasingly shorter implementation periods. However, as demand was met in the more populated areas, and as the targets for the program increased, MCHIP needed to make additional adaptations and investments in both campaign planning and implementation.

"Parent-Child" Clusters

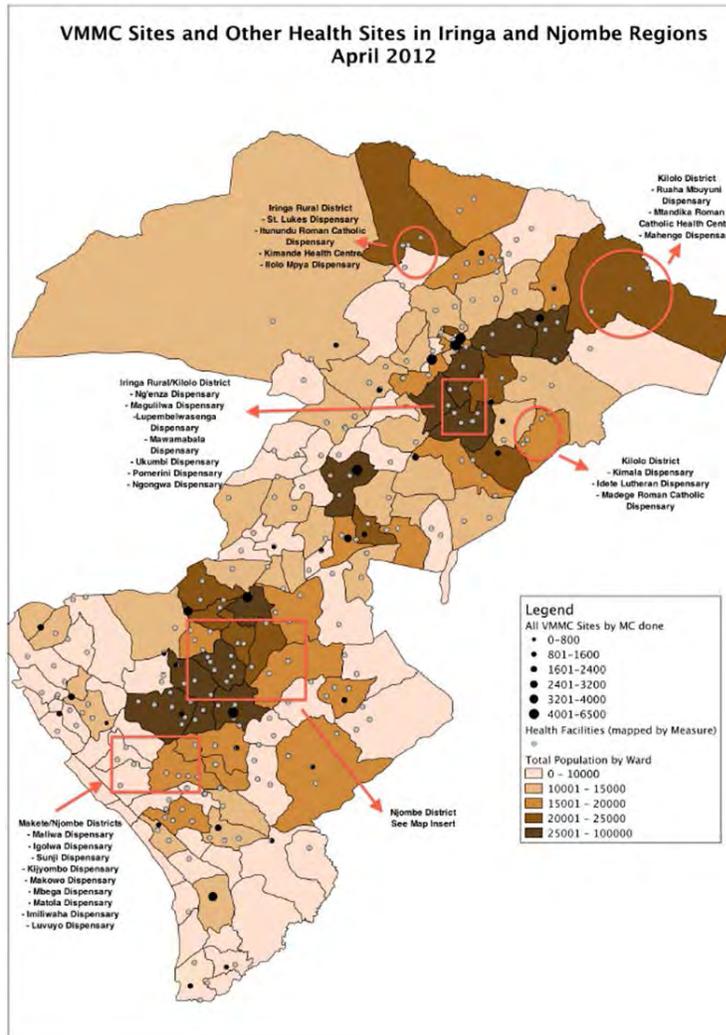
As the program has reached more and more rural places where there are fewer people, campaigns have changed. Rather than setting up at a site and expecting to stay there for four weeks, during site selection we plan for a single VMMC team (providers and peer promoters) to serve clusters of sites named "Parent" and "Child" sites. "Parent" sites anchor the team. The team initiates services at the "Parent" site, but as soon as the client load falls below 40 or 50 clients per day, half the team splits off and begins to serve one of the smaller "Child" sites, which is usually 10-15 km down the road. Autoclaving and commodities management continue at the "Parent" site, and providers usually lodge near the "Parent" site. In this way, a single cluster can maintain a client load of 70-100 clients a day even in isolated rural settings. As a result, whereas MCHIP used to work in 12 to 14 facilities during each campaign season, now it is typical for the team to provide services in 40 or more sites during the same period, particularly in Njombe and Iringa.

Geographic Information Systems (GIS)

MCHIP first invested in the use of GIS to assist with campaign site selection in 2012. At that time the MEASURE Evaluation Program had just completed a project to waypoint many of the health facilities in

Iringa region. MCHIP proposed using these data in an open source program called QGIS, overlaid with MCHIP VMMC service delivery information, to look for areas which had yet to be served. The first maps pictured below were used to select sites for the 2012 “winter” campaign and were successful in helping the team increase the number of VMMCs provided from approximately 16,000 to 26,000 during the successive years.

Figure 15: Map of facilities and potential campaign sites for the 2012 Winter Campaign

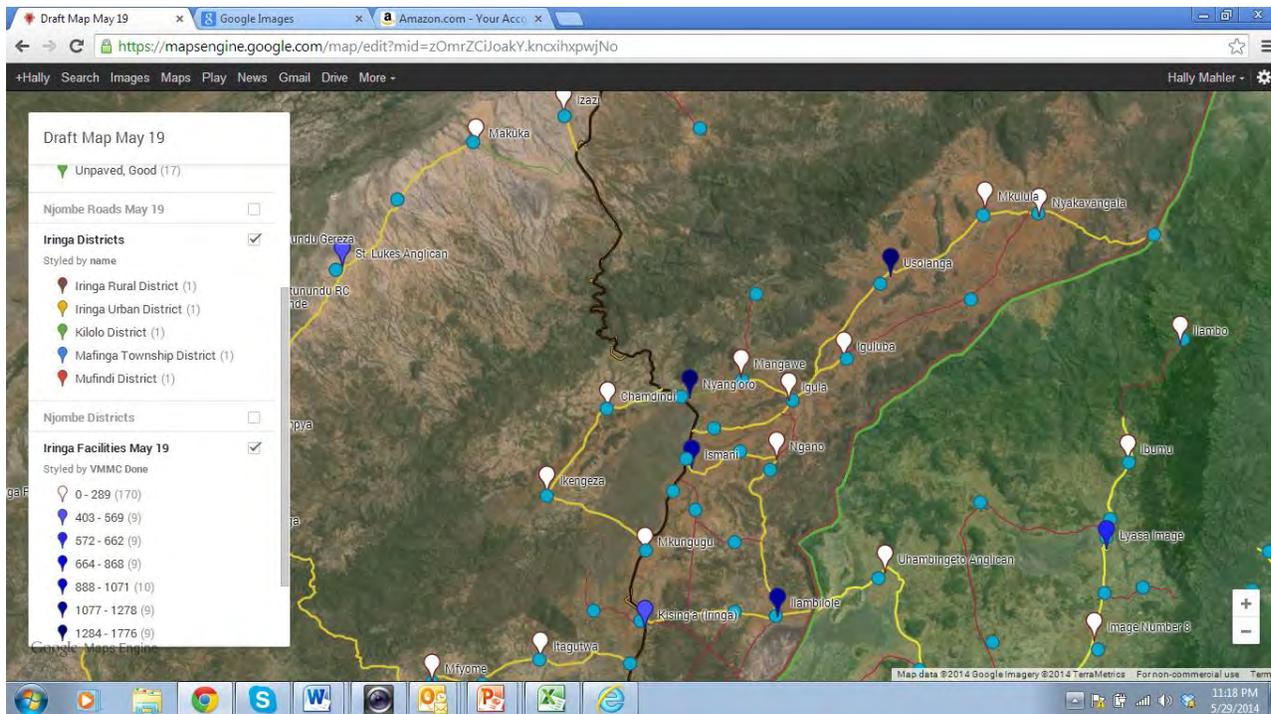


Source: MCHIP GIS exercise

From this experience, the MCHIP team was able to track scale up and progress towards VMMC targets and supplement data with the information necessary to direct appropriate resources to potential VMMC outreach sites. The team subsequently decided to use Google Maps to create continuously updated online maps linked to the MCHIP service delivery database and a database of key demographic and facility information.

This activity faced considerable challenges including outdated government maps, lack of information about roads and facilities, and no central database at the government level of contact and catchment area information for the facilities. Therefore, it was determined that each district and facility in Iringa and Njombe would need to be visited, in order to administer a short questionnaire to collect information on multiple parameters, such as political boundaries, population catchment size, road access, facility size, facility affiliation, contact information for facility in-charges, the availability of water and electricity, the number and age of clients already served, estimates of the uncircumcised population, and mobile phone service availability. These data were entered into a database that was accessed by the GIS software. Using these maps the team is able to identify potential service delivery sites and have access to information, such as the type of site and number of VMMC performed, the resources available, and an image of the site itself.

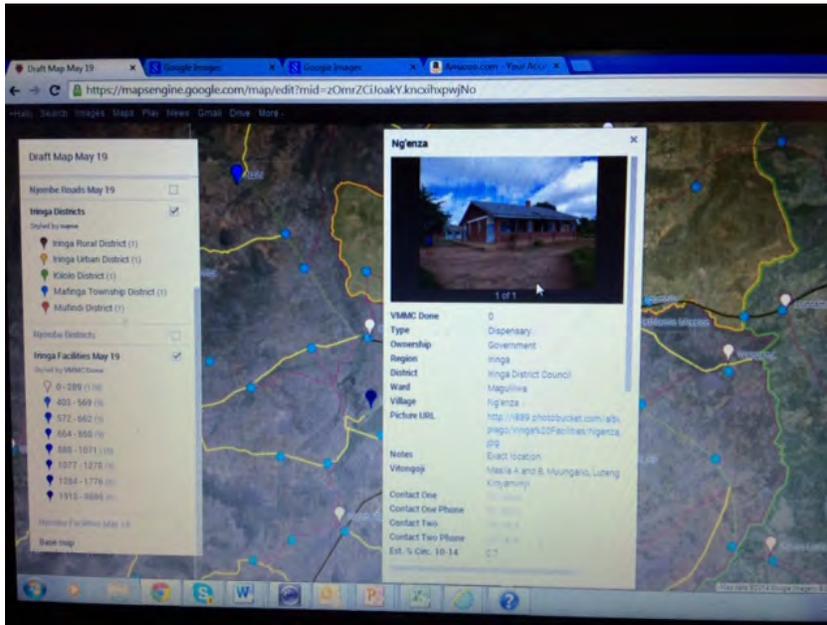
Figure 16: Map of health facilities in Iringa Rural District



Source: MCHIP/Tanzania GIS exercise

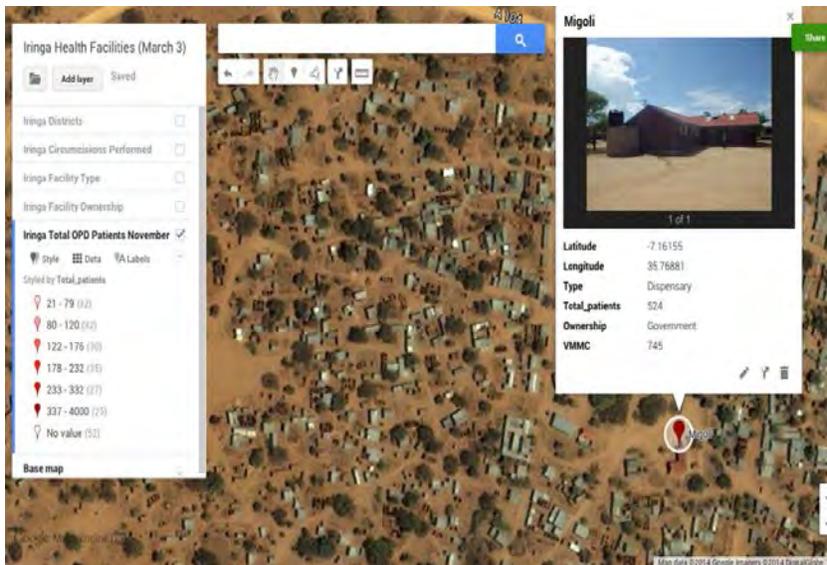
Google Maps allow us to zero in on the site using satellite maps. In this way we can view the community around the site and have a better understanding of the catchment area and potential venues for demand creation activities. Since initiating this system, the number of men serviced during campaigns has increased by approximately 30 percent, and coordination and preparation for campaign activities have been improved. The system is currently being considered by the NACP to assist in scale up at the national level. The GIS and facility data are being shared with regional authorities for use by other health programs.

Figure 17: Map and dropdown box for Ng'enza Dispensary



Source: MCHIP/Tanzania GIS exercise

Figure 18: Map of community and dropdown box for Migoli Dispensary



Source: MCHIP/Tanzania GIS exercise

Demand Creation during Campaigns

Although demand creation will be discussed in greater detail later in this report, it is important to note that campaign activities require heightened demand creation activities. MCHIP uses multiple approaches during campaign season including radio (advertisements and radio shows that allow the

team to respond to questions, concerns, and myths in the community), print materials (brochures, posters, and billboards), community advocacy activities conducted by Civil Society Organization (CSO) subgrantees, experiential media for large-scale community mobilization, Public Address (PA) cars in the facility catchment areas, so that potential clients know where services are being offered, and one-on-one discussion with peer promoters. The contributions of the regional and district campaign planning teams, such as education officials who “release” students to receive VMMC, is also important. The success of campaigns in terms of achieving targets, and the economic rationale for campaigns, relies on sufficient investments in demand creation to bring in large numbers of clients. Robust demand creation strategies have allowed the program to maintain and exceed targets.

Overcoming Seasonality

Historically it was believed in Tanzania that programs must wait for the “high demand” season (winter and school holidays) to implement campaigns. In the MCHIP regions this was true largely for the first three years of the program when up to 75 percent of the VMMCs for the year were conducted during the high demand season. However, MCHIP programs may have reached a tipping point where seasonality is no longer a limiting factor. Three factors have contributed to this development:

1) In the “off” season the program focuses on remote rural sites where potential clients know that they would not otherwise be able to easily access VMMC services, if they did not take advantage of services while the MCHIP-supported teams are present.

2) Collaboration with district and local school officials has enabled students in these rural areas to be released for a day or two during service delivery periods, so that they can receive the VMMC services that otherwise might not be available during school holidays.

3) At this point everyone in Iringa and Njombe and in many locales in Tabora knows one or more clients who have been circumcised in the “off” season and have healed completely from their circumcision.

These three factors, in conjunction with GIS for better targeting of campaign site placement, enhanced demand creation, especially peer promotion, and the use of “Parent” and “Child” clusters, have helped the program overcome the limitations of seasonality.

Attracting “Older” Clients to VMMC Services

Although the issue of attracting clients aged 20-34 will be addressed later in the report, it is important to note that the MCHIP team has determined that it is service delivery barriers, rather than communication barriers that seem to most strongly affect uptake by older men. Research, experience, and trial and error have shown that “older” men are hesitant to receive services in facilities where there are many children and mothers present (which is typical during the campaign season). They also prefer to have enhanced privacy, and, where possible, male providers. When services can be separated (adults-only) “older” men come in greater numbers. Whereas during normal service delivery they may represent somewhere between 18-27 percent of the client population, if a “Parent” and “Child” site is used to

provide age-segregated VMMC services with male-only providers, up to 50 percent of clients can be aged 20 and above.

M&E Data in Campaigns

Although M&E approaches will be discussed later in greater detail, it is important to note that the program has benefited tremendously from real-time campaign data. Data clerks are assigned to each campaign team, and data are updated daily, which allows MCHIP technical staff to decide when to spin off “child” sites and keep track of other possible issues, such as test kit shortages or an unexpected increase in adverse events.

D. Training of Clinicians and Human Resource Management

Many issues related to human resource management in both fixed and outreach/campaign sites were discussed previously. When the program was initially established, VMMC services were not considered to be a priority, and the MOHSW proposed that services be implemented during providers’ overtime hours, thereby entitling them to overtime pay. Since nurses and doctors would be doing similar work as VMMC surgeons, a decision was made to pay all VMMC providers the national doctors’ overtime pay rate of 10,000TSH (\$6.50) per day. This overtime pay arrangement has continued throughout the implementation of the MCHIP program and by all other VMMC partners. The MOHSW has proposed that this arrangement remain in place until programs complete the catch-up phase.

VMMC “Surgeons” and Counselor Training

As mentioned previously, MCHIP has worked in partnership with the MOHSW to train 421 VMMC “surgeons” and 142 VMMC counselors. All of them have received competency-based training in the MOHSW-approved 10-day package adapted from WHO for Tanzania in 2009 and revised in 2012. As mentioned previously, the majority of these providers come from larger fixed service delivery facilities such as hospitals and health centers. They are rotated through the VMMC clinic on a regular basis to maintain their skills.

It is MCHIP’s practice to train new batches of providers in the week leading up to VMMC campaigns and then mentor those new providers in the campaign setting immediately after training. Newly trained providers have an opportunity to perform large numbers of VMMCs in a mentored setting prior to returning to their own facility, where the volume will inevitably be much lower.

Trained Trainers (TOTs)

MCHIP has also trained 50 TOTs in Tanzania. Most of these TOTs went on to train providers from partner regions. TOTs receive a five-day training in Clinical Training Skills and then co-facilitate VMMC provider or counselor training with an experienced trainer. TOT-trained providers also play a role in mentoring and site supervision in both their own facilities and in other facilities, and are tapped to participate in QA activities.

Refresher Training and Diathermy Training

Due to the introduction of new guidelines (e.g., emergency management), the need to improve efficiency, and address issues that arise from quality assurance (QA) and external quality assurance (EQA) exercises, the MCHIP program has invested in refresher training for providers. Depending on the topic, refresher training can involve external or on-the-job training activities. The MCHIP team has developed a *Refresher Skills Training Manual*, which focuses on emergency management, AE management, and enhanced counseling skills, which has been used to train 178 providers. In 2014, MCHIP introduced diathermy on-the-job training for 26 providers from selected fixed sites.

Site Managers Training

In 2013 and 2014 MCHIP introduced specialized training for 24 facility or VMMC site In-Charges. These individuals were trained in the VMMC under local anesthesia package and then underwent additional training in VMMC fixed site and campaign site management, which focused on issues such as commodities management, AE reporting, use of data, and implementation of continuous quality improvement.

AE Ombudsmen Training

Steep declines in AE rates led MCHIP technical advisors to question whether or not AEs were being reported accurately. A rapid assessment revealed that indeed facilities were underreporting their AE data. This was due to provider or facility concerns that there might be negative consequences to reporting AEs, lack of organization in the filing systems of the sites (e.g., they weren't able to or didn't attempt to locate client files), and lack of time to complete the forms. Therefore MCHIP decided to take action to create a more positive culture regarding AE reporting. In 2014 health managers were trained and further educated in AE reporting (e.g., underreporting of AEs is an indication of poor performance), and 43 "star" performers were trained as AE Ombudsmen. The role of the AE Ombudsmen is to create a positive reporting culture in their sites and to ensure accurate classification, management, and reporting of AEs.

Tohara Texts – Communicating with VMMC Providers

Following the previously discussed refresher trainings of VMMC providers, MCHIP sought new and less expensive systems to regularly reinforce key service delivery concepts. Upon further reflection, the Tanzania VMMC team identified six cadres involved in the implementation of VMMC services that would benefit from enhanced communications: VMMC surgeons, VMMC counselors, VMMC site managers, VMMC AE ombudsmen, peer promoters, and data managers.

MCHIP staff developed a series of text messages reinforcing key messages about the quality of services and implementation to be delivered weekly to each of these cadres. Messages were individually targeted to each cadre based upon their job functions. Mobile phone numbers of individuals working in each of these cadres were collected and the messages delivered via an established contract between MCHIP and the NGO Text for Change. Additional messages were delivered as needed. For example,

VMMC site managers may receive notifications about campaign logistics during campaign service delivery.

These efforts have not yet been formally evaluated. However, improved communication with the various cadres participating in the program has facilitated the delivery and sharing of key points of information that may improve service delivery or the quality of reporting and management of activities. We believe that this enhanced communication has value, whether or not improvements in quality can be proven.

E. Commodities and Equipment

Supplying VMMC Services in the Regions

MCHIP has equipped all 27 VMMC fixed sites in the three regions with commodities and equipment (e.g., beds, Mayo tables, diathermy machines) necessary to implement the program. In addition, MCHIP maintains a supply of equipment (e.g., autoclaves, tents, and medical curtains) for use during outreach/campaign activities.

Warehousing of Commodities and Equipment

Jhpiego maintains a Dar es Salaam warehouse where newly purchased MCHIP equipment, commodities and pharmaceuticals are kept until they are moved upcountry. However, the majority of MCHIP-related VMMC commodities, equipment, and pharmaceuticals are warehoused at or near MCHIP's three regional offices. Warehouse and stock systems are in place in both Dar and upcountry sites.

Collaboration with SCMS

MCHIP has worked closely with SCMS to quantify and estimate national and MCHIP needs for VMMC commodities, including disposable and reusable kits and pharmaceuticals. Additionally, MCHIP has worked with SCMS to quantify EIMC commodities both in Tanzania and internationally.

Pharmaceuticals

Due to USG regulations, MCHIP is unable to directly purchase VMMC-related pharmaceuticals. Instead the program has relied entirely on the SCMS system for pharmaceuticals, although MCHIP has worked closely with SCMS on quantification. To help meet the needs of the VMMC program, in 2012 SCMS launched the Prime Vendor system in Tanzania and included VMMC pharmaceuticals in the order list. With this system, many VMMC-related pharmaceuticals can be locally sourced and quality tested, greatly reducing the waiting time for most VMMC pharmaceuticals.

It should be noted that the warehouse where MCHIP was storing pharmaceuticals in Dar es Salaam was destroyed by a fire in early 2013. USAID and SCMS rallied to procure all the pharmaceuticals necessary to keep the program running in the aftermath of the fire.

VMMC Kits

Throughout most of the past five years, MCHIP has used reusable VMMC kits, due to a desire on the part of the national program to use reusable kits in fixed service delivery settings and a lack of sufficient disposable kits to meet program targets. Consequently, the program had to purchase autoclaves and generators for use in outreach sites. Although it is not particularly convenient to use reusable kits in facilities lacking electricity, the program has proven that with proper planning it is possible to achieve high targets with reusable kits in high-volume settings.

HIV Test Kits

One of the biggest challenges around commodities has been the frequent and lengthy national stock-out of HIV test kits. At multiple times in 2012 and 2013 there were no test kits available for VMMC through the national system, and changes in the HIV testing and counseling (HTC) algorithm led to additional gaps in test kit availability. Therefore, in 2012 the program received a waiver from USAID to purchase test kits directly from Tanzanian suppliers of the nationally approved kits; and in 2013 HIV test kit purchasing for VMMC was taken over by SCMS. MCHIP HIV test kits are now delivered along with the pharmaceuticals.

Availability and Quality of VMMC-Related Equipment

The quality of VMMC-related equipment has been a continuous challenge throughout the program period. There are few medical suppliers capable of providing the type and volume of equipment and commodities purchased by the MCHIP program, and we have found that suppliers frequently lie about the availability and quality of the equipment they sell. Certain items are impossible to obtain in Tanzania (e.g., good quality tents, child restraint boards) and have been ordered from the United States or from other countries in the region.

F. Infection Prevention and Control and Waste Management

Excellent infection prevention and control (IPC) practices are a non-negotiable part of VMMC service delivery but have been a challenging area for the program to maintain. GOT health facilities frequently did not meet IPC standards prior to the implementation of the program and changing provider practices has been an integral part of the VMMC scale up. In many cases, the VMMC program had to completely equip health facilities in IPC-related equipment and supplies (e.g., color coded waste buckets, sharps boxes, bleach) Frequently IPC-related supplies were not available through the Medical Stores Department. As the program expanded to smaller facilities, these issues became more pronounced. However, capacity building in IPC was a major part of VMMC training and site improvement and has improved tremendously over time, as can be seen through quality assurance (QA) and external quality assurance (EQA) activities.

Since the program has relied heavily on reusable kits, autoclaves were purchased for many of the fixed sites (where there were insufficient autoclave services available) and for use in campaign activities. On-the-job capacity building in autoclave management and maintenance was provided to the sites, and the program funded maintenance service for all autoclaves two to three times per year. Throughout the

project, MCHIP has worked with the MOHSW Prevention Maintenance Unit and Quality Control Unit to ensure that IPC practices followed.

In 2014, Jhpiego began collaborating with the makers of the Eniware gas sterilizer – which requires no electricity or heat to operate and is highly portable. MCHIP facilitated site visits for Eniware staff who traveled to Tanzania for a situation assessment to share their innovation. Eniware sterilizes by using NO₂ gas. Instruments are wrapped and put into the Eniware sterilizer, which has the shape and size of a large men’s briefcase, and the NO₂ gas is released. After several hours of processing by the NO₂ gas, the instruments are ready to be reused. The Eniware equipment was introduced to the MOHSW, which requested that Jhpiego facilitate a pilot of the Eniware system in Tanzania as soon as possible.

Waste Management

VMMC services create a fair amount of waste, particularly when disposable kits are in use. Waste management systems are weak throughout Tanzania, and as the program has focused on increasingly rural health facilities, the challenge of effective waste management has increased. Prior to the use of disposable kits, the project was able to find solutions to waste management, however, the metal instruments of the disposable kits provided some challenges. MCHIP explored various ways to dispose of the metal instruments, including selling them to a scrap metal dealer and destroying them through crushing and fire. However, effective solutions to local disposal of the metal instruments eluded the program and for more than a year processed instruments were collected and stored in the Jhpiego warehouses.

In 2013 MCHIP was part of a team that worked with SCMS to find Tanzanian solutions to the waste management issue. Under the new system, program partners will bring metal waste to a central site in each region, and SCMS will collect the instruments to bring them to Dar es Salaam for smelting.

G. Quality Assurance, Supportive Supervision and Mentorship

Quality assurance has been an integral part of the VMMC work done by MCHIP. Each year since 2010, the program has received external quality assurance (EQA) from the United States President’s Fund for AIDS Relief (PEPFAR). The EQA visits helped to identify gaps in service provision and work with the regional/district health authorities to address them. In addition, the program has benefited from biannual internal quality assurance (QA) exercises conducted in partnership with the MOHSW in both fixed sites and in campaign settings.

Periodic supportive supervision visits by MCHIP staff and the regional/district management teams have helped to amicably address routine service provision hurdles and also create a sense of ownership of services to the local authorities

External Quality Assurance

EQA usually involves a PEPFAR-led team from the USG working together with MOHSW staff, visiting selected sites and services to perform an assessment of VMMC services offered to clients. The three

EQA exercises conducted on the MCHIP program in 2010, 2012, and 2013 showed noticeable improvements over time. In addition, gaps identified in service provision (both in internal QA and EQA exercises), which were related to provider performance, helped the program design an on-job training course for providers to refresh their knowledge and skills in areas that were consistently troublesome.

Internal Quality Assurance

Internal QA visits took place biannually and involved a team of Jhpiego staff and experienced GOT VMMC Trainers who had worked in the VMMC program for many years. The QA visits identified problems at the site level and, together with the team of resident VMMC providers, developed a plan of action to solve identified problems. This exercise has helped to instill a culture of self-assessment among providers and promote adherence to standard practices. MCHIP is also working with the National AIDS Control Program (NACP) to develop a unified internal QA process that will be applied across all VMMC programs in the country.

Supportive Supervision

Health management teams at both the regional and district levels have periodically visited both fixed and campaign VMMC services with support from MCHIP staff, to oversee the way services are provided and note any challenges experienced by providers in service provision. In addition to supporting the staff to improve their performance, supervision has provided an opportunity to share ideas, promote ownership, and initiate thinking about integration and sustainability of the program beyond the use of donor funds.

Standard Operating Procedures (SOPs) and Job Aids

As the program has progressed, MCHIP has worked with regional authorities and providers in facilities to highlight existing SOPs, for example, those in HTC, and develop new SOPs, as needed. Many of the newer SOPs have been developed around facility management, campaign management, M&E, and emergency management. These SOPs have also been turned into job aids, when advantageous to the program.

Mentorship

The MCHIP program has ensured appropriate mentorship for providers, from the moment they are trained throughout their service. Mentor providers are available in nearly all fixed sites, and the MCHIP team and Technical Staff with MOHSW collaboration periodically provide mentoring in management and implementation to specific sites as needed, for example, when there is an issue identified during QA, EQA, or the monthly data collection visits.

Start-up Support to Newly Trained Providers

Start-up support is directed to the new trainee in gaining competency, soon after the VMMC training course has been completed. An experienced trainer is attached to a team of new providers, usually in their site and/or in a campaign setting, and assists them to perform VMMC surgical and counseling

services, following standards based on the national training curriculum. This support not only builds confidence in the new provider as he or she struggles to learn a new skill, but also builds teamanship. Start-up support has sometimes been linked to high volume VMMC activities to help new providers quickly achieve competency.

H. In-service Communications

Over the course of the program, MCHIP has been very involved in the development of in-service communication tools for VMMC.

Counseling Tools

MCHIP led the original pilot partners in the development of a group education flip chart, individual counseling tool, and postoperative brochure. Five years later, the group education flip chart, which was slightly revised in 2011, is still used in nearly all VMMC sites funded through PEPFAR. The individual counseling tools/brochure and postoperative brochure were edited in 2012 and are also in widespread use.

Specialized Counselor Training

Early in the program managers realized that the National VMMC Under Local Anesthesia training alone was not sufficient to train top-notch VMMC counselors. Therefore, MCHIP decided to train counselors as a separate but complimentary training activity and developed a dedicated *Training Manual for VMMC Counseling*, which has trained 142 VMMC counselors to date. Currently this manual is under review at the national level to obtain the MOHSW official approval.

HTC/VMMC Improvement Efforts

MCHIP sites participated in a study of the quality of VMMC counseling funded by Project Search. Study results identified both the strengths and weaknesses in counseling. The strengths included high quality group education, with younger and older clients generally separated, and knowledgeable providers who were able to respond to most clients' questions. The weaknesses were rushed HIV testing (where counselors did not allow adequate time to read test kit results) and less than ideal counseling in the postoperative and review visit contacts. To address these issues, the program included a strong counseling element in the refresher training that began in 2012 and developed counseling job aids for the providers for use at various intervention points. HIV testing and counseling (HTC) procedures and counseling in the post-op and review visits were also part of on-the-job (OTJ) mentoring and quality improvement. Not surprisingly, the HTC in VMMC study showed that the number and dose of counseling contacts about abstinence and risk reduction affected clients' recall of those messages.

Adults and Pre-Sexually Active Adolescents

At the initiation of the VMMC program it was anticipated that the majority of clients would be sexually active adults or older teenagers. VMMC counseling tools and counselor skills were developed specifically to reach that group. However, it quickly became evident that accommodations needed to be

made to serve younger adolescents. These included training counselors in how to tailor their group education and individual counseling sessions to the clients' age (and the presence of mothers and other parents), segmenting age groups whenever possible, and addressing HIV testing and risk issues with clients who are presumed to have not yet initiated sexual activity. Further adaptations were made to the counseling tools to accommodate these younger age groups.

Baada (After)

To reinforce postoperative communication, MCHIP has a contract with the nongovernmental organization (NGO) Text to Change to deliver text messages through the use of a short code. In the postoperative recovery room, providers ask clients if they are interested in enrolling in the program. Clients enroll by dialing a toll-free short code, which triggers a series of eight messages timed over the course of six weeks. Messages remind clients to return for review visits, care for the surgical site, return in the case of adverse events, and remain abstinent for six weeks.

I. Demand Creation and Community Communications

Balancing the supply of VMMC services with demand has been a major concern for the MCHIP/VMMC program, and efforts have been directed to ensuring that clients are ready to be circumcised when services are established. Many of these efforts were described in the section on campaigns earlier in the report.

First Efforts at Demand Creation and Advocacy

When the program first began in Iringa, radio ads and posters were the only demand creation efforts required to bring in clients. A rapid assessment of clients told us that although VMMC was not a typical practice in Iringa, the community was not opposed to it. Rather, with the introduction of free VMMC services, parents were particularly eager to have their children circumcised. Meetings with community leaders, politicians, and health officials held during the first few months of program planning implementation hinted at the possibility of widespread support for the program.

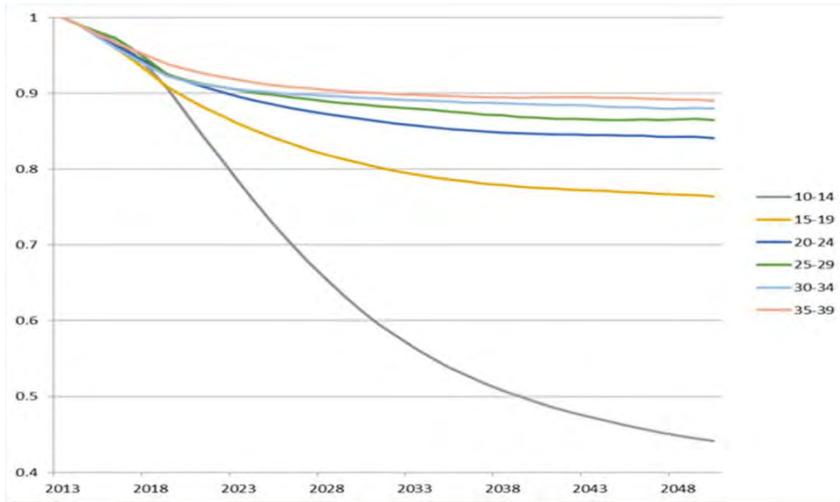
Reaching Older Clients

Although the GOT prioritized youth and adults aged 10-34 for VMMC services, PEPFAR prioritized adults aged 15-49, especially men in their 30s and 40s who were in the highest HIV prevalence group.

Most of the demand creation activities during the first four years of the program focused on creating demand for these older men by using community and family influencers to prompt them to seek services. These efforts resulted in a very small increase (2-3% depending on the region) in uptake by men aged 20 and above, although the majority were still 20-24 years old. At the international level, 10-14 year-olds were particularly undervalued as VMMC clients, although to the credit of USAID/Tanzania, the Mission continued to support the program, but also asked MCHIP to make all efforts possible to attract older men. Throughout this period, MCHIP Tanzania continued to defend VMMC services for 10-14 year olds and asked USAID and other international USG agencies to reconsider their perspectives. A

14 year-old in 2009 will be 19 in 2014. If society’s norms do not support VMMC in adults, the only way to ensure circumcised adults is to provide services when they are younger. This perspective was substantiated in 2013 when new modeling commissioned by USAID showed that in Tanzania 10-19 year-old VMMC clients will play a major role in reducing HIV in the not too distant future (see Figure 19).²

Figure 19: VMMC modeling–HIV incidence rate reductions by age group: Tanzania, 2013-2048



Data Source: Modeling conducted by the Futures IGroup

The Unpeeled Mango

The struggle to attract “older” clients led the team to conduct a formative assessment of potential (adult) clients and their partners’ attitudes towards circumcision. The *Unpeeled Mango* report showed that HIV prevention was a major motivator for clients to seek VMMC at all ages, but older men found it embarrassing that they had made it past their adolescence without having been circumcised.⁸ For this reason they were not keen to be seen publically accessing VMMC services. Older men also told the assessment team that since they already had spouses and were monogamous, there was no reason for them to be circumcised. Female partners, on the other hand, said that they preferred circumcised partners but worried about how to address the issue of circumcision without giving “free license” to sexual activity.

² USAID Health Policy Project modeling exercise 2013.

Dondosha Mkono Sweata Campaign

Around the same time as the Unpeeled Mango assessment was being conducted, MCHIP released its first RFP for advertising agency services. The winning agency conducted focus group discussions with potential adult VMMC clients in Iringa. From that exercise emerged the *Dondosha Mkono Sweata* (remove your sweater sleeve) campaign. *Dondosha Mkono Sweata* was a slang term used by young men in their 20s to refer to VMMC.

Vijana na Wanaume wa Mkoa wa Iringa

Dondosha mkonosweta!
Kitendo rahisi, sasa ni bure!

Tohara ya Mwanaume
inapunguza hatari ya maambukizi ya Virusi vya UKIMWI kwa 60%

Tunakwama Dondosha Mkonosweta kitendo rahisi, sasa ni bure!

Huduma maalum ya tohara kwa vijana na wanaume wa Mkoa wa Iringa: 18 Julai hadi 13 Agosti 2011.

Huduma zinapatikana BURE katika vituo vifuatavyo:

HOSPITALI YA MICOA Hospitali ya Micoa Iringa Kituo cha Aya Rigasa Kituo cha Aya Bagdo	HOSPITALI YA TUMBAKURU Hospitali ya Tumba Kururu Kituo cha Aya Kipotele Kituo cha Aya Masi	HOSPITALI YA MIBALI Hospitali ya Mibali Kituo cha Aya Kifito	HOSPITALI YA WILAYA MAFINGA Hospitali ya Wilaya Mafinga Kituo cha Aya Kifusa Kituo cha Aya Mwanani
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Tohara ya wanaume ina faida nyingi kijamii, kiatya na kwa usafi, inaweza kupunguza uwezekano wa mwanasume kuambukizwa VVU kwa hadi asilimia 60.

The print and media campaign with branding for the first experiential media activities was an instant hit among adolescents and young men in their 20s, and to this day potential clients or previously served clients refer to having *Dondosha Mkono Sweata*. However, the campaign failed to attract older clients in their 30s and 40s who were a PEPFAR priority at the time. Additionally, some elders in the community, particularly those belonging to more conservative institutions such as churches, were unhappy with the campaign, feeling that it trivialized VMMC services. After one year of implementation, the campaign slogan was dropped, but the mostly positive influence of that first VMMC campaign remains strong in Iringa and Njombe. Interestingly, partners in other regions have picked up the slogan and use it in their demand creation activities. However, it was decidedly less successful in other regions where people did not wear sweaters. The slogan was originally adopted for the southern highlands where there is a winter season.

Image Credit: Dondosha Mkonosweta Campaign, MCHIP/Tanzania and DJPA

Collaboration with JHU-Tanzania Communications Capacity Program (TCCP)

In 2012, USAID directed MCHIP to use TCCP for advertising and communication needs. MCHIP briefed TCCP on the research related to VMMC barriers and facilitators and provided samples of BCC materials to be rebranded. The new radio advertisements and brochures changed focus from HIV prevention to hygiene and “modernity” as the primary reasons to seek VMMC. The materials were specifically designed to attract “older” clients. This work undertaken by TCCP and MCHIP was later expanded to include other VMMC partners and was officially reviewed by the NACP. However, the materials originally developed by MCHIP were approved with few changes.

Since that time the collaboration between MCHIP and TCCP has expanded to produce the following small and mass media:

- Radio advertisements (for routine services and every campaign or outreach activity). MCHIP develops the content of the ads, and production and airtime is usually paid for by TCCP.
- Radio shows (usually paid for by TCCP with MCHIP and MOHSW experts) where experts discuss VMMC and answer audience questions. This format is ideal for addressing myths and misconceptions on air.
- Messages to use on public address systems mounted on vehicles.
- Three brochures for demand creation for men, women and adolescents, and their parents.
- Postoperative brochure.
- Posters advertising fixed sites and posters with blank spaces to advertise campaign sites
- Bumper stickers for informal advertising
- Other items to brand VMMC in the health facility and communities (t-shirts, silicone bands, wheel covers, bags, football shirts, etc.)
- EIMC materials (poster, brochure, counseling materials, *khangas*, t-shirts)
- PrePex materials (counseling tools, job aids, poster, postoperative brochure)



Photo Credit: Adolescent and Parent Brochure, MCHIP/Tanzania and JHU-TCCP

TCCP has also sent photographers and videographers to the field to document the program and build a catalogue of photos that can be used for demand creation materials. TCCP’s agreements with regional radios across the three MCHIP regions have proven tremendously valuable in targeting the population we are seeking to reach. Overall, the collaboration has been very productive, and we are grateful for and appreciate the work of TCCP on behalf of the VMMC program.

Demand Creation Approaches

As previously discussed, the VMMC program has used a variety of demand creation approaches to facilitate the process of changing Iringa, Njombe, and Tabora from non-circumcising to circumcising regions. The relative contributions of different approaches are summarized below.

Media

- **Radio Advertisements:** Radio provides the air coverage to support VMMC communication. The program has invested heavily in radio with ads designed to create demand for VMMC services and ads playing year-round in support of fixed sites. New ads listing service delivery sites on the radio stations in the catchment area play each time there is a campaign. For the past three years there have been three types of ads creating general demand for services, one directed at adult men, one directed at women, and a third directed at adolescents and their parents. Because of the multitude of regional radio stations in Iringa and Njombe, it is likely that nearly every person who listens to the radio in those regions has been reached with VMMC messages. In Tabora there are fewer radio stations, and therefore advertising has been more limited. The only way to advertise in most of Tabora is through national radio stations (which is more expensive and obviously less targeted). Therefore, rather than use radio advertisements, during some campaigns radio-type ads are produced by TCCP and then used on public address vehicles – an approach discussed in greater detail below.
- **Radio Shows:** TCCP has agreements with a number of regional radio stations to produce weekly shows that address health issues. Through their TCCP agreements VMMC-themed shows have been produced to introduce services in new areas, introduce EIMC, and address audience questions, myths, and misconceptions during campaigns. Addressing myths in real time can limit the potential damage caused when they are left unchecked. For example, during the 2013 winter campaign when rumors spread throughout Njombe region that a container of foreskins was seen leaving the Port of Dar es Salaam for the United States, the MCHIP team was able to talk directly to the population of Njombe, to assure them that this wasn't the case, and offer clients to leave the circumcision with their own foreskins if they had any concerns. The harm caused by this rumor was limited and has not reemerged in the same strength since that time.
- **Public Address Vehicles:** These vehicles have been indispensable in ensuring that the broad catchment areas around VMMC campaign sites know where and when VMMC services are being offered. Additionally they are especially helpful in areas lacking access to radio and are also used sometimes in the catchment areas around fixed sites when training or other activities require a temporary increase in clients to be served.
- **Print Materials:** The program has used a variety of print materials to assist in demand creation.
 - 1) Three different brochures for adolescents and their parents, adult men, and women that can be used by peer promoters and other demand creation agents to assist with promotion and distribute to potential clients and their partners or parents reading material to consider as they make their decision on whether to seek services.
 - 2) Posters that advertise fixed sites, and other posters with blank spaces that can be completed by demand-creation agents wishing to advertise outreach sites.
 - 3) Billboards that promote VMMC and advertise the short code that can be texted to obtain more information about VMMC and sites where it is offered.

4) A flip book that is used by peer promoters during their talks with potential clients or partners/parents of clients and referral cards used to refer clients to VMMC services/sites.
5) Give-aways such as bumper stickers, plastic bands, t-shirts, and wheel covers help to create an environment in which VMMC is normalized. They are used as part of demand creation activities to help attract a crowd or to brand providers, facilities, or community mobilizers.

- **Text to Change:** In 2011 MCHIP entered into a contract with the Dutch NGO Text to Change. The contract allows MCHIP to promote a short code through which clients can receive more information about VMMC services. If a client texts the word TOHARA to the short code he/she receives information about VMMC. If the client texts the word IRINGA or NJOMBE or TABORA then he/she will learn where services are currently offered in that region. The short code and key words are advertised in all print materials and on the radio ads. Additionally the word BADAA is used to help clients receive postoperative messages mentioned previously in the section on In-service Communication. A review of the services conducted in the 2012 holiday campaign showed that there was a statistically significant relationship between texting to inquire on the location of services offered in their region and coming in for services, suggesting that the texting service is facilitating access for potential clients.

Community

- **Experiential Media:** Since the early days of the program, MCHIP has contracted with experiential media companies to help create demand for VMMC services in the regions, primarily during campaign periods, or to generate additional demand at fixed sites during training activities. MCHIP works with the companies to produce a “show” that educates and addresses myths and misconceptions about VMMC while also entertaining audiences. The



companies then travel around the regions holding shows at football matches and other community events. MCHIP works with the companies to create a schedule and itinerary designed to support outreach sites during campaigns. Frequently there are two teams working in a region during a campaign period. One team adheres to the schedule and the other team is used as an “emergency” team that

Photo Credit: M&M Communications for MCHIP/Tanzania. Community mobilization activities

can be sent specifically to areas where additional demand creation efforts are necessary because of declining client load or persistent myths or rumors.

- Civil Society Organizations (CSOs):** In 2012 MCHIP issued an RFA for CSOs to conduct VMMC advocacy activities in the regions. Because the VMMC program had widespread acceptance from the day it was launched until that point, the program had not invested very much in advocacy activities. However, in 2012 it was evident that if the program was to attract older clients, additional advocacy efforts would be necessary. Additionally, as the program continued to become more rural, community leaders were less exposed to accurate information about VMMC services. Three CSOs were contracted, and since 2013 they have been holding community events, meeting with religious, education, business, and local leaders to discuss VMMC, and assisting with demand creation in secondary schools. They have also played a major role in creating demand for some of the more productive partnerships with the United Nations Children’s Fund (UNICEF), the United Nations Fund for Population (UNFPA), and other US partners.

Peer Promoters: In late 2013 the MCHIP team decided to assign peer promoters to fixed sites in each region. A training curriculum and communication tools were developed and the first cohort of peer promoters was trained. It was immediately clear that peer promoters offered tremendous benefits in helping the program better control client flow to the fixed sites. However, they were so popular that they were frequently pulled from the fixed sites to support outreach and campaign activities. As such, a decision was made to expand the use of peer promoters so that every fixed site has two dedicated promoters, and each region has a team of campaign promoters. Additionally, peer promoters dedicated to EIMC have been appointed to the EIMC pilot sites. Peer promoters are on short-term contracts and are paid a small salary for their work and for transportation. The peer promoters are approximately 50 percent male and 50 percent female. The peer promoters are natural networkers. They have developed their own network called MWAJA Tanzania, which is a *Kiswahili* acronym for Community Mobilizer Network



Photo Credit: Peer Promoter Talking About VMMC - Pijei Amusements for MCHIP/Tanzania

Tanzania. They use the existing platform of WhatsApp to communicate with one another and with MCHIP management. For example, when a promoter wanted to know more about the link between VMMC and cervical cancer, he used the network to contact the management team and a Senior Technical Advisor videotaped a short explanation of the relationship which was broadcast through the network of peer promoters. MWAJA Tanzania is in daily use by peer promoters.



Image Credit: WhatsApp Mwaja-Jhpiego Network - Maende Makokha, MCHIP/Tanzania

- District Demand Creation Committees and Other Activities with Community Stakeholders:** Since the first VMMC campaign, the MCHIP team has worked with district and local authorities to convene campaign and implementation planning committees that help direct and oversee the implementation of demand creation activities in the communities. Sometimes the program will support the implementation of demand creation activities by these committees. For example, when the Bishop of the Anglican Church of Njombe proposed holding a meeting for the leaders of various Christian denominations in Njombe to gain their support for VMMC, MCHIP funded the venue, travel, and food for the meeting and provided technical speakers to address the audience in the Bishop’s meeting.
- Collaboration with Other Demand Creation Partners:** Over the years the MCHIP program has proactively sought to collaborate with USG and other partners working in the three VMMC regions. The program has trained staff and volunteers and supported community and demand creation activities implemented by the Champion Project, Ujana Project, ROADS Project, *Angaza Zaidi*, and the Universal HIV/AIDS Intervention-Counseling and Testing (UHAI-CT) Project. We have also worked closely with the UN High Commissioner for Refugees (UNHCR) which created demand while MCHIP provided outreach VMMC services in communities in Tabora that house former refugees; and in Makete District of Njombe, UNICEF partners have created demand for VMMC services for young adults, while MCHIP provided outreach services. More recently, MCHIP has developed a Memorandum of Understanding with the national organization for the deaf, which will provide translation services and create demand for VMMC for hearing-impaired men wishing to access services.

Calibrating Messages, Changing Norms

During the past five years, there has been a complete transformation in social norms around VMMC in all three regions, and in particular in Iringa and Njombe regions. These regions have progressed from low VMMC prevalence to one approaching saturation. As a result, the program has used formative assessment to identify the right mix of messages and approaches to ensure success as the program evolved. Whereas radio was sufficient to attract the first acceptors in the program, more intensive interpersonal communication approaches are required five years later. Messaging has also evolved over the years. Initially the program focused primarily on HIV prevention, and then it shifted to emphasize hygiene and modernity,. More recently, messages have focused on calls for regional pride, for instance, “Iringa has gone from being uncircumcised to being circumcised. Have you joined the movement to protect your region?” There is no research that can show if initially promoting VMMC for HIV prevention has been a key to the program’s success or a deterrence. However, it is important to note that the MCHIP team (and indeed most of the implementers in Tanzania) feel that HIV prevention messages have been quite successful. Nevertheless, a major program lesson is that there is no “one message fits all,” and there is no messaging panacea.

J. M&E

M&E has been a key component of the MCHIP VMMC program in Tanzania. The MCHIP program has contributed substantially to national health systems with the development of national tools and indicators for VMMC and subsequently a national data management system, which is integrated into the DHIS2 and resides on the MOHSW’s server. The process, which required the full five years of the program, has resulted in MOHSW’s ability to track national accomplishments in VMMC, and standardized tools are being used for every VMMC performed in Tanzania. Over the five years, the process of developing and standardizing the tools are: extensive field testing; bringing together stakeholders to give feedback to the MOHSW; developing a DHIS2 module; training in regions and districts and implementing partners on how to enter data; and supporting data entry by these partners. These actions have resulted in MCHIP provision of technical support to the GOT and partners. The system has attracted significant interest in other countries: technical support has been provided to Uganda and Lesotho, consultative input to USAID South Africa, and the tools have been adapted in many other PEPFAR countries.

Early in its establishment, MCHIP invested in not only the national, aggregated data management system described above, but also a client database, which would allow us to conduct depth analysis on clients served in Iringa, Njombe, and Tabora. While the national system is essential for sustainability, the client-level data allow us to understand our program better, share program results, and make course corrections.

Currently, there are close to 330,000 records in the database. The client-level data have no personal identifiers in order to ensure confidentiality. The data have been incorporated in 13 presentations at international conferences and 13 publications in peer-reviewed journals produced to date by MCHIP

Tanzania. The dataset has been approved for secondary data analysis by the JHSPH Institutional Review Board (IRB) (see Annex 3).

MCHIP Tanzania contributed substantially to the development of the PEPFAR M&E Guide to VMMC and our work contributing to that PEPFAR guidance document is acknowledged in that guide. MCHIP Tanzania also piloted the concept of data summits. In an example from Iringa, MCHIP brought together District AIDS Coordinators and the Regional AIDS Coordinator and presented accomplishments on provider initiated testing and counseling (PITC) and VMMC, fostering a healthy sense of competition between the districts and examining data quality. The feedback was overwhelmingly positive, and data summits have been adopted more broadly as a strategy by USAID Tanzania.

Newer and still in progress, a recording and reporting system to track referrals into and from VMMC by community-based peer promoters has been developed and is being pilot tested.

K. Research

MCHIP Tanzania has invested heavily and has both led and implemented research projects. All of the research studies were approved by the Institutional Review Board (IRB) and are described below. The table in Annex 3 lists all of the publications reporting on the results.

The “Mango Study”

In 2010, a qualitative assessment was conducted of community views and attitudes about appropriate age for VMMC, seasonality, and key facilitators and barriers. The study resulted in the publication called “Man, what took you so long? Social and individual factors affecting adult attendance at voluntary medical male circumcision services in Tanzania” in the inaugural issue of *Global Health: Science and Practice*.

Early Infant Male Circumcision Acceptability Study

MCHIP is currently conducting a qualitative assessment of the views of users of EIMC, those of parents who did not choose to have their male baby circumcised after receiving counseling, and community attitudes. The results will fill a major research gap around community and parental acceptance of VMMC. This research was initiated under MCHIP, but the principal investigator is an official in the MOHSW. The research was transferred to the Jhpiego-implemented Accelovate Project, USAID’s global strategy to advance promising health solutions to large-scale use as quickly and efficiently as possible during the last year of the program.

Tanzania PrePex Safety and Acceptability Study

MCHIP Tanzania is conducting a safety and acceptability study of the PrePex device for VMMC. This study will look at adverse events as a key outcome measure for safety and will capture a wide spectrum of client views on circumcision using the device. The study is groundbreaking, since a nonsurgical method of adult male circumcision has never been incorporated into PEPFAR. This research was initiated under MCHIP but was transferred to Accelovate during the last year of the program.

There are also several additional IRB-approved studies, which were not implemented with MCHIP funds but build upon the MCHIP program.

Penis Size Study

In 2012, Jhpiego implemented a study on penis size among VMMC clients, to inform development of devices for VMMC and published results. From 2010 to 2012, Jhpiego Tanzania was the implementing agency for the Tanzanian component of the multi-country study entitled the systematic monitoring of the male circumcision scale-up in Eastern and Southern Africa (SYMMACS) Study, which reviewed monitoring VMMC service delivery quality and approaches in Tanzania, South Africa, Kenya, and Zimbabwe. This study, which was funded by Project Search, monitored the scale up in MCHIP-supported sites, and has resulted in multiple publications in PLOS One.

HIV Testing and Counseling in VMMC Study

In 2013, Jhpiego received funding from Project Search to conduct a study, which provided in-depth information on the quality and content of pre- and post-VMMC HIV counseling and testing among VMMC clients in MCHIP-supported sites in Iringa and Njombe. This study has resulted in two presentations at the annual meeting of the American Public Health Association.

Increasing Uptake of VMMC by Adult Clients

From 2012 to 2014, MCHIP joined the National Institute of Medical Research (NIMR/Mwanza) and the London School of Tropical Medicine and Hygiene in conducting a randomized controlled trial on an intervention to increase adult male attendance at VMMC services. The CDC-funded formative assessment stage has produced information needed to refine the field intervention and will be initiated in the near future.

Bwana Mkubwa Study

In 2013, MCHIP won an award from the International Initiative for Impact Evaluation (3ie) to conduct a study on using motivational incentives to attract men aged 20-34 to VMMC services. The study is currently under review by the JHSPH and the NIMR IRBs.

L. Support to the NACP

The MCHIP program has provided assistance and NACP, as described below.

Male Circumcision Technical Working Group (MCTWG)

MCHIP has served on the MCTWG since it was formed and has assisted the NACP in convening the group, providing secretarial support, and paying for the travel and per diem of participants from the MCHIP regions.

National M&E Database

As discussed above, MCHIP has played a major role in assisting the MOHSW through the NACP to develop M&E indicators, tools, and systems for the national program. MCHIP has supported multiple national-level meetings to develop and finalize the tools and provided technical and logistical support to develop the VMMC M&E database that was integrated into the DHIS system, and train district and regional authorities and partners to use the system. During the time the national system was being developed, at the request of PEPFAR and with the collaboration of the NACP, MCHIP developed and maintained the national VMMC database.

VMMC Curricula

As described in previous sections, MCHIP has been the primary technical support to the NACP in the adaptation and/or development of all VMMC-related curricula including the Tanzanian adaptation of the *Manual for Medical Male Circumcision Under Local Anesthesia*, the development of the *VMMC Counselor Training Manual*, the development of the *VMMC Refresher Training Manual*, and the development of the *Peer Promoter Training Manual*. Some of these materials have already undergone national review, and others are pending.

VMMC Training

Also as described previously, MCHIP was the initial training partner for the NACP for the pilot and early scale-up years. All National VMMC TOTs working in Tanzania were originally trained by MCHIP trainers on behalf of the MOHSW.

Modeling and Costing

MCHIP has worked closely with the NACP, USAID, and Futures Institute on modeling for VMMC, both during the original modeling in 2010 and the new modeling in 2013. Similarly, MCHIP has worked closely with the NACP, USAID, and Futures Institute on two costing exercises in 2010 and 2013-14. MCHIP has provided venues, transportation, and funds for per diem and travel for participants and has worked closely with the NACP and the Futures Institute to develop and analyze the data. MCHIP has also advocated with the MOHSW for the use of this modeling in making the case for VMMC nationally. MCHIP staff members have participated in the development of peer-reviewed articles on the modeling process and the costing process, along with NACP colleagues.

VMMC Country Operational Plan and National VMMC Strategy

In 2010 MCHIP played a key role in assisting the NACP in the development and dissemination of the National VMMC Strategy. In 2013-14, USAID requested that MCHIP support the consultants developing the VMMC Country Operational Plan, by paying their consulting fees, supporting their travel, and providing a venue and technical support to complete their task. As of the date of this report, this activity is still ongoing, and MCHIP anticipates that it will assist with the dissemination of the report once completed.

M. Support to the Regions and Districts

MCHIP has provided a significant amount of support to the three program regions and their districts, as described below.

Support and Systems Strengthening for Regional and District Health Authorities

All the activities listed above are implemented in partnership with the regional and district authorities and the local partners in the lead. MCHIP has invested heavily in building the capacity of local trainers, quality assurance officers, supervisors, and mentors. As mentioned previously, almost all VMMC providers also work in other units inside health facilities. The training that they have received in IPC, minor surgical skills, M&E, and instrument processing all benefit non-VMMC services as well.

Data Summits

Annually the MCHIP program collaborates with regional and district authorities to hold data summits. These summits review M&E systems, discuss improvements, and review and use the data from the prior year for decision-making purposes. Related to the data summits, each quarter MCHIP has provided program regions with a summary of their quarterly data results, so that they can make decisions and stay informed on their regional progress.

Advocacy with the CHMTs

MCHIP has worked with the Community (District) Health Management Teams (CHMTs) in all regions to help them develop and make the case for VMMC to be integrated into their Comprehensive Community Health Plan (CCHP) so that they can fund VMMC with national health funding. To date, nearly all CHMTs have included VMMC service delivery funding in their CCHP submissions, but the funding is routinely removed at the national level. Nevertheless, there are examples in at least four districts where the district used funds through the Tanzania AIDS Control Commission (TACAIDS) or other resources to hold VMMC outreach activities, with some support from MCHIP. Following the launch of the National Operational Plan, it is anticipated that funding through the CCHPs may become more stable.

N. Support to Other PEPFAR Programs

Study Tours

After the early success of the first campaign, more than 60 visitors have requested and visited Iringa and Njombe on study tours from Kenya, Rwanda, Ethiopia, Zambia, South Africa, Lesotho, Botswana, Malawi, Mozambique, and Swaziland. The visitors have come from USAID, CDC and DOD agencies, from partner agencies and from Jhpiego offices in other countries.

Technical Support to Partners Inside Tanzania

The MCHIP program has provided significant technical support to other VMMC service delivery and partners throughout the program. In the early days, MCHIP trained all partner providers and later

trained trainers from partners and collaborating regions. Frequently, MCHIP offers spaces to providers and trainers from partner agencies to participate in training activities. More recently MCHIP staff members have provided technical support to the Association of Private Health Facilities of Tanzania (APHFTA) through the SHOPS Project in Mara region. Moreover, since the initiation of the program, MCHIP staff members have worked closely with SCMS, JHU-TCCP, and Futures Group as advisors. MCHIP has collaborated with and provided training in VMMC demand creation for USAID sexual prevention partners, UNFPA, UNICEF, UHAI-CT CSO partners, and other local organizations.

Technical Support to USG Partners Outside of Tanzania

Since 2011 MCHIP staff members have been providing technical support to VMMC programs in other countries at the request of USG-funded programs. The countries visited include Zambia, Malawi, South Africa, Namibia, Botswana, and Lesotho. This technical support is provided at cost of the country being visited (and not the Tanzania program). However, there have been benefits to the Tanzania program through the information gained by the MCHIP staff traveling to other country programs and the resulting elevated profile of the Tanzania program. Technical assistance has been provided in the areas of provider training, campaign planning and implementation, quality assurance and development of quality assurance tools, demand creation, VMMC program management, M&E including informatics, formative research, and EIMC.

O. Early Infant Male Circumcision

EIMC for newborns ages 0 to 60 days is the exit strategy for VMMC. As countries (and or regions within countries) complete the catch-up phase, the introduction of EIMC will reduce the need for adult circumcision in the future and be the cornerstone of the sustainability phase. Given this strategy, the Ministry of Health and Social Welfare (MOHSW) Reproductive and Child Health Unit (RCH) and National AIDS Control Program (NACP) requested that MCHIP assist them to pilot EIMC services. In the past year, UNICEF/Tanzania has also joined the core team of organizations promoting and supporting a way forward for EIMC services.

EIMC Pilot Concept and Introduction

In October 2012, a consultative meeting was held with the MOHSW (both the NACP and the Reproductive and Child Health Service [RCHS]), the Tanzania Nursing Council, and representatives from the national hospital, and Iringa regional authorities to introduce the case for EIMC and begin the process of designing a pilot for EIMC in Iringa. In April 2013 EIMC services were initiated in four health facilities in Iringa Region with the service being integrated into current RCH services. The Tanzania model for EIMC is for services to be integrated seamlessly into existing RCH departments. Parents are introduced to the concept of EIMC during antenatal care, maternity and postpartum care; then they are referred to the service in the RCH department, where trained individuals can perform the procedure during regular well baby visits. Since EIMC is a complementary service, parents and clients can be referred to the service from a myriad of health encounters; infants (and their parents) coming in for

EIMC service can also be referred out, especially for cases of HIV-exposed infants and HIV-positive parents not yet in care and treatment.

After the pilot's initial success, the MOHSW with support from MCHIP, further expanded into four additional health facilities in April 2014. There were a total of eight pilot sites conducting EIMC services as of May 2014. Complementary to the EIMC pilot, data collection for an EIMC Acceptability Study was in progress as of May 2014 (see the M&E section of this report). The EIMC study's aim is to gather information on the users of EIMC services, their experience with EIMC service, and their decision making surrounding EIMC. Additionally, the study will assess the views of health care providers in facilities where EIMC is being integrated into service delivery. The study will inform current pilot EIMC services, as well as the eventual expansion of the program.

Site Selection and Site Strengthening

Prior to the implementation of services, various facilities were assessed as potential pilot sites and a series of site-strengthening activities occurred in preparation for the launch of services. In November 2012 an assessment team comprised of three members from MCHIP, the Iringa Regional Health Authority, and Facility In-Charges visited seven health facilities to assess various hospital and health center sites for the EIMC services pilot. The site assessments included a review of service statistics, including the number of births at the facility, human resources, space allocation, sterilization/instrument processing facilities, and staff willingness to initiate services. Furthermore, data on acceptability of EIMC from potential clients and service providers were collected using structured interviews. The following were key findings from the client interviews:

- A majority (86%) of facility attendees (84% were females and 42% were males) reported that they would be willing to have infant sons circumcised if the services were available
- A majority of respondents indicated that they would prefer to circumcise their infant sons at an age of one month or younger
- There was a strong expectation among both providers and facility attendees that the community will respond positively to EIMC. This view was more common among facility attendees than among providers.
- Potential barriers also existed to community adoption of EIMC, including fear of pain, lack of familiarity with the service, association of circumcision and the Muslim religion, and some myths, including the belief that circumcision will cause a smaller penis in adulthood, and EIMC can cause urinary tract infections

From the site assessments, four sites were selected for the pilot: Iringa Regional Hospital, Ipogolo Health Center, Ilula Hospital, and Tosamaganga Hospital.

Site-strengthening activities began in preparation for April services, including the purchase of specific EIMC commodities, some reorganization of the space in the RCH services, orientation of providers and

management at the facilities, and the purchase of EIMC equipment, such as Mogen Clamps and restraint boards.

Community Engagement

In December 2012 a one-day meeting was held with the Iringa regional leaders (District Medical Officers, Reproductive Child Health coordinators, and Regional Medical Officers) and with residents and religious leaders to advocate for the initiation of EIMC services in Iringa. Since then, periodic community meetings continue to be held in the catchment areas around the pilot facilities led by peer promoters.

Training

Since program inception there have been three phases of training of EIMC providers. All trainings used the Tanzanian adaptation of the *WHO/Jhpiego Early Infant Male Circumcision Package*, which has a blended learning approach with didactic and clinical components, including EIMC counseling skills.

EIMC providers are medical doctors, clinical officers, assistant medical officers, and nurses. With the April 2013 launch of EIMC services, a total of 22 Tanzanian EIMC providers were trained (the training also had other regional attendees). These new providers were mentored for two weeks after training, and follow-up supportive supervision was conducted in June 2013. Supportive supervision and quality assurance activities were based on a tool adapted from Jhpiego/Swaziland called *Performance Standards for EIMC in Tanzania*. In August 2013 an additional 11 providers were trained with linked mentorship and supportive supervision.

In March 2014, three separate trainings were conducted. A total of 12 TOTs were trained using the *Jhpiego Clinical Training Skills Course* (five days theory and five days co-training with a Jhpiego Expert Trainer to train new providers). Then an additional two EIMC provider trainings were conducted facilitated by newly trained TOTs, resulting in the training of 19 new providers. Mentorship and supervision components were implemented immediately post training. The program currently has 52 trained practicing providers among the eight pilot sites (four providers have moved to other facilities), with 12 TOTs (three at each of the original pilot sites).

Monitoring and Evaluation Tools

In April 2012, after a series of consultative meetings with NACP, MOHSW, and Regional and District authorities, M&E tools were developed for the pilot. These include client intake cards, referral cards, and registers. The M&E tools and data collection are currently being supported by Jhpiego but will eventually be transitioned into NACP and/or RCH departments.

Quality Assurance and Supportive Supervision Tools

The EIMC Quality Assurance Tool as well as the Supportive Supervision Tool have been adapted to the Tanzania context from the WHO standards and Jhpiego/Swaziland tools. These tools were still in draft form during the pilot and will need to be reviewed at the national level and finalized prior to national scale up.

Figure 20: EIMC individual client card

EIMC INDIVIDUAL CLIENT RECORD

Name of health facility _____ District _____

Name of Infant (BLOCK CAPITALS)			EIMC ID Number:
Date of EIMC service	Date of Birth	Date of 1 st attendance (if different from date of circumcision)	

General information

	Mother / female guardian	Father / male guardian
Names of parents/guardian present today		
Residence (village/ward)		
Phone number		
Place of delivery:	<input type="checkbox"/> This facility <input type="checkbox"/> Another facility	
Tribes:		
Religion:	<input type="checkbox"/> Christian <input type="checkbox"/> Muslim <input type="checkbox"/> Other	
Where did parent/guardian hear about EIMC?	<input type="checkbox"/> Radio <input type="checkbox"/> Friend/relative <input type="checkbox"/> RCH <input type="checkbox"/> OPD <input type="checkbox"/> Maternity <input type="checkbox"/> Other	
Primary reason for circumcising infant	<input type="checkbox"/> Hygiene <input type="checkbox"/> Medical <input type="checkbox"/> Religion <input type="checkbox"/> Cosmetic <input type="checkbox"/> Recommended by community member/relative	
Referred from	<input type="checkbox"/> Self-referral <input type="checkbox"/> Pediatric ward <input type="checkbox"/> RCH <input type="checkbox"/> Maternity <input type="checkbox"/> OPD	

Physical examination

Body weight:			
Body temperature:			
Pulse rate:			
BP:			
Birth weight <2.5 kg	<input type="checkbox"/> No <input type="checkbox"/> Yes	Normal cardiac examination:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Penile length <1CM	<input type="checkbox"/> No <input type="checkbox"/> Yes	Normal pulmonary examination:	<input type="checkbox"/> No <input type="checkbox"/> Yes

Specify abnormal penile findings:

Penile torsion	<input type="checkbox"/> No <input type="checkbox"/> Yes	Median raphe not midline	<input type="checkbox"/> No <input type="checkbox"/> Yes
Hypopadias	<input type="checkbox"/> No <input type="checkbox"/> Yes	Abnormal urethra	<input type="checkbox"/> No <input type="checkbox"/> Yes
Hydrocele	<input type="checkbox"/> No <input type="checkbox"/> Yes	Dorsal hood	<input type="checkbox"/> No <input type="checkbox"/> Yes
Buried penis	<input type="checkbox"/> No <input type="checkbox"/> Yes	Penile scrotal web	<input type="checkbox"/> No <input type="checkbox"/> Yes
Abnormal scrotal rugae	<input type="checkbox"/> No <input type="checkbox"/> Yes	Abnormal ventral foreskin	<input type="checkbox"/> No <input type="checkbox"/> Yes

1

Eligibility (All bolded must be checked yes for infant to be circumcised)

Premature delivery:	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes, is child still eligible today?	<input type="checkbox"/> No <input type="checkbox"/> Yes
Hospitalization:	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes, is child still eligible today?	<input type="checkbox"/> No <input type="checkbox"/> Yes
Bleeding disorder:	<input type="checkbox"/> No <input type="checkbox"/> Yes	Convulsions:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Fever today:	<input type="checkbox"/> No <input type="checkbox"/> Yes	Swelling of scrotum:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Other (specify):			
Is infant suitable for circumcision at this clinic?	<input type="checkbox"/> No <input type="checkbox"/> Yes		
Is infant in good general health?	<input type="checkbox"/> No <input type="checkbox"/> Yes		

HIV status / testing

	Mother	Father / other male guardian
What is HIV status?	<input type="checkbox"/> Reactive <input type="checkbox"/> Non-reactive <input type="checkbox"/> Not known	<input type="checkbox"/> Reactive <input type="checkbox"/> Non-reactive <input type="checkbox"/> Not known
Was a test performed today?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Referral:	<input type="checkbox"/> None <input type="checkbox"/> CTC	<input type="checkbox"/> None <input type="checkbox"/> CTC
Infant exposed to HIV	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not known
Referral for infant:	<input type="checkbox"/> None <input type="checkbox"/> CTC	

Ridhwa ya tohara kwa watoto wachanga

Jina la Mzazi/Mzazi: _____ Mimi ni Mzazi /Mzazi wa Mtoto _____

Ninofanama taarifa kuhusu: _____

Tohara ya watoto wachanga; Faida za tohara ya watoto wachanga; Tohara ya watoto wachanga inayifanawa; Mshahara madogo madogo yanayowaza kujitokeza wakati wa kufanywa tohara ya watoto wachanga; Nini cha kufanya kabla na baada ya tohara ya watoto wachanga; na Nambe za simu za dhanuru Yote niliyambiwa nimelewa na ninadhiha mtoto wangu atanyiwe tohara ya watoto wachanga.

Sahih/Dole gumba _____	Sahih/Dole gumba _____
Tarehe _____	Tarehe _____
(Mzazi /Mzazi 1)	(Mzazi/Mzazi 2)

Jina la Mzazi/ Mzazi anayefanya Tohara ya watoto wachanga _____ (HERUFI KUBWA)

Nimempa Mzazi/Mzazi ufahamu na fursa ya kuuliza maswali kuhusu tohara ya watoto wachanga. Nimemuliza Mzazi/Mzazi maswali ili kujidhiha kuwa amelewa taarifa zote zilizo mpa. Kwa upeo wa ufahamu wangu, Mzazi/Mzazi anauwoto wa kutofa ridhwa na ana taarifa za kutofa kufanya maswali sahihi juu ya kuendelea ama kutendelea na tohara ya watoto wachanga.

Sahih _____ (Mzee huduma) Tarehe _____

2

In-service Communication and Demand Creation Tools

The Tanzania Capacity and Communication Program (TCCP) develops BCC materials to support the EIMC pilot. These include an EIMC counseling flip chart, EIMC community brochures, an appointment card for follow-up visits that include postoperative instructions, an EIMC poster, and other promotional materials such as t-shirts and *khangas*, local cloth usually printed with messages and worn by women. Additionally, the peer-promoter training manual was revised to include promotion of EIMC services.

Figure 21: EIMC Poster



Image Credit: MCHIP/Tanzania and JHU/TCCP

Figure 22: Pages from the EIMC counseling flip chart



Image Credit: MCHIP/Tanzania and JHU-TCCP

Demand Creation Activities

Initially EIMC demand creation activities were integrated into VMMC demand creation by using VMMC peer promoters to promote EIMC services. The peer promoters worked with facility providers to provide EIMC education in the RCH waiting area, and they also provide education on EIMC services within the community.

At the end of the 2014 SAPR period, regional authorities requested that the program support peer promoters to be dedicated full-time to EIMC during this pilot phase, in order to maximize the opportunities to educate pregnant couples and new parents in the benefits of EIMC. Two peer promoters are now stationed at each of the pilot sites. They work closely with the facility in charge to attract clients. All peer promoters have been trained in EIMC demand creation and a new referral tracking system established as of May 2014 assesses the success of the EIMC peer-promoter activities. Since EIMC is a new behavior, greater investments in creating demand must be made.

In 2014, most of the EIMC activities begun under MCHIP were transferred to Accelovate funding, but the foundation laid by MCHIP continues to build the success of the program. For example, in May 2014, Accelovate supported a community training for Mothers-2-Mothers mentors, village leaders, community-based care workers, and home-based care workers to ensure the community is sensitized on EIMC with the goal of attracting more clients

Site Management

MCHIP worked very closely with each facility on site management, dedicating focal people at the facilities to take the lead on duty rosters, commodities, and M&E activities. Action plans were developed after each quality assurance visit, and technical advisors worked closely with each facility to address gaps. While the pilot sites are new, monthly supportive supervision is being conducted and quarterly quality assurance visits are conducted with national and local representatives.

One challenge that has been addressed during the life of the project is the issue of “extra duty allowance.” Since the inception of the VMMC program, providers working in VMMC services have received an extra-duty allowance at the direction of the MOHSW. However, for EIMC to be sustainable in the long run, it is important that services be integrated and no extra-duty allowance offered. EIMC providers have vocalized their concerns on not receiving an allowance for their service, and they have faced some challenges integrating EIMC services into their already busy schedules, resulting in long waits for some clients seeking EIMC and occasionally clients being turned away. MCHIP and now Accelovate have worked closely with regional and national authorities, and with the providers, to develop a “motivational ladder,” which aims to develop a team approach for program implementation. Teams work together to serve set targets, including a number of EIMCs (see below). When a team reaches the target they receive specific, non-monetary incentives. This system mirrors that of other motivational incentives implemented in health facilities in Tanzania, including RCH services.

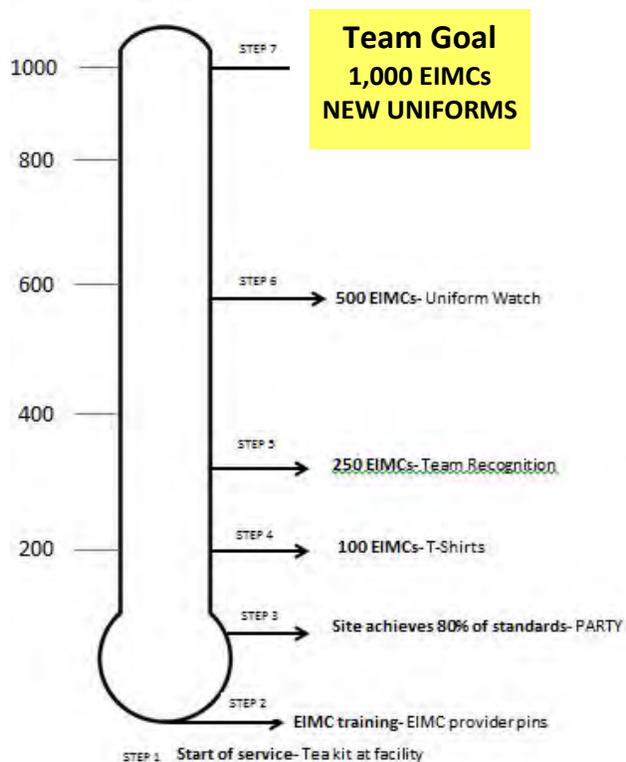


Image Credit: Alice Christensen, MCHIP/Tanzania

Collaboration with UNICEF

In 2013, UNICEF received a mandate to engage in national advocacy for EIMC in Tanzania and the other VMMC priority countries. Since that time, MCHIP has worked closely with UNICEF colleagues to consider long-term sustainability and advocacy issues. It is anticipated that they will play a major role in helping to bring together stakeholders to synthesize the pilot and study findings and support the MOHSO to develop the way forward for scale up. MCHIP staff participated in a UNICEF-sponsored international meeting to discuss the way forward on EIMC.

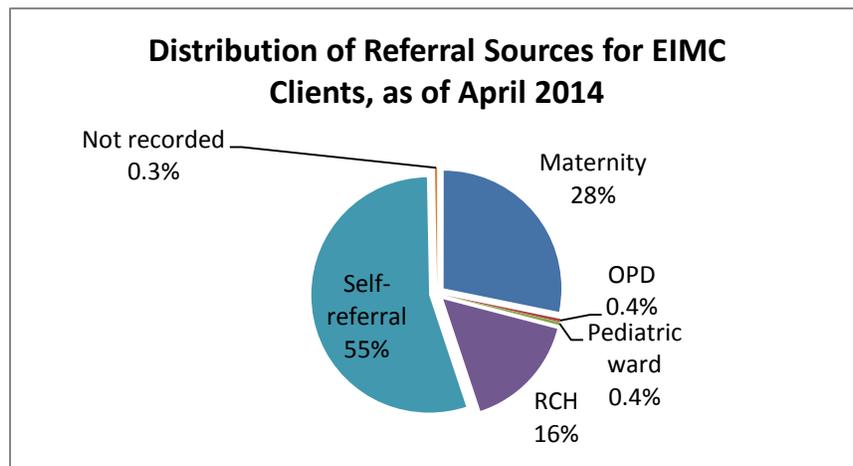
EIMC Results

As of April 2014, 971 infants were provided with EIMC at the 8 pilot sites. (Please note that only four of the pilot sites were open until March 2014.) The majority of EIMC clients (93%) returned for their 48-hour follow-up visit.

According to the MCHIP/Tanzania VMMC database, 72 percent of circumcised infants were delivered in the same facility where they received EIMC services; 20 percent of the circumcised infants received EIMC services in a different facility from where they were born; and 8 percent of EIMC clients were delivered at home.

The majority of clients reported that they were self-referred. However, for most of the implementation period, referral reporting systems were not sufficiently strong to capture where clients first heard about VMMC, which in many cases may have been RCH services.

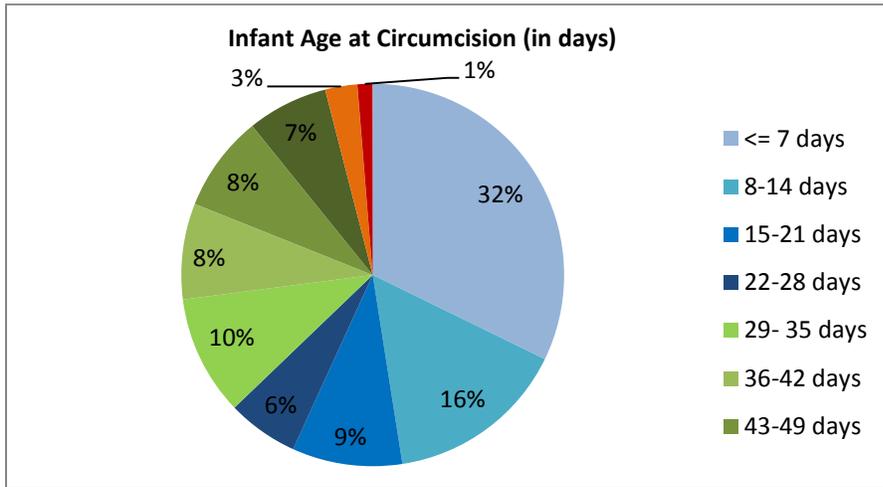
Figure 23: Distribution of referral sources of EIMC clients



Source: MCHIP/Tanzania VMMC Database

The pilot concluded that EIMC uptake is high when parents are reached directly by peer promoters and by providers at the facilities where they seek antenatal care or deliver. The largest proportion of clients are under seven days old, followed by those aged 8-14 days.

Figure 24: Infant age at circumcision



Source: MCHIP/Tanzania VMMC Database

Next Steps for the EIMC Pilot

MCHIP’s EIMC work, including support of the eight pilot sites and the EIMC research, has been transitioned to Accelovate. Furthermore, future meetings regarding national policy and strategic document and policy development will be Accelovate’s responsibility. The pilot and associated research will inform national scale up. MCHIP has strongly advocated for the EIMC to be well represented in the newly developed VMMC Country Operational Plan. MCHIP has also initiated contact with the Tanzania Nursing Midwifery Council to ensure that nurses who perform EIMC are working under a legal scope of practice so that when the program is scaled up, nurses based in maternity and RCH can be the primary EIMC providers, as they are the majority of workers in RCH services. All the tools developed during the pilot will need to be reviewed and approved at the national level before additional scale up begins.

Cross-Cutting Themes

The MCHIP/Tanzania VMMC Program contributed significantly to each of the MCHIP cross-cutting themes. Below are some selected examples.

THEME	CONTRIBUTIONS
Equity	<p>The VMMC program contributed significantly by removing barriers to access to health services to people who are disadvantaged, due to their economic situation or geographic location.</p> <p>Prior to the program, the National VMMC Situation Assessment revealed that the cost of circumcision was a major barrier to changing norms concerning circumcision in traditionally non-circumcising regions like Iringa, Njombe, and Tabora. By providing VMMC services free-of-charge, people of all socioeconomic statuses were able to access services equitably.</p> <p>Similarly, the availability of VMMC services in rural areas was almost non-existent prior to the program. However, the VMMC program endeavored to bring VMMC services to the people, rather than expecting people to come to services. In this way, barriers related to the cost of transportation and loss of income due to travel days were reduced.</p>
Scale Up	<p>The MCHIP VMMC program has been one of the most successful VMMC programs in Eastern and Southern Africa in scaling up VMMC services. During the project period, surgical VMMC services were delivered to XXX clients in more than XXX facilities. In all three regions national indicators show that VMMC prevalence has increased and in some areas has doubled just after the first 2.5 years of program implementation. The goal of reaching 80% of eligible boys and men aged 10-34 is very close to being achieved. Tracking of VMMC scale up is facilitated by the use of GIS and M&E data, which allows the team to track progress on a daily basis.</p>
Integration	<p>The EIMC program is working with the Reproductive and Child Health Unit and the Tanzania Nursing Council to integrate EIMC service provision within current maternal and child health service delivery frameworks. Additionally, the VMMC program has worked closely with both health and non-health partners in the three program regions to integrate VMMC demand creation within the mandates of other programs.</p>
Community	<p>VMMC demand creation has been successful through the efforts of peer promoters and advocacy CSOs working with their own communities to increase demand for and develop stronger linkages with the HIV-related services, including VMMC. Engagement of community gatekeepers from religious and business institutions, local politicians, and health providers has resulted in profound changes at the community level in the acceptability and demand for VMMC.</p>
mHealth	<p>The program has invested heavily in mobile health in the following ways: 1) The use and promotion of a toll-free short code (through Text to Change) to deliver information about VMMC, where VMMC is offered, and</p>

THEME	CONTRIBUTIONS
	<p>postoperative care instructions and reminders; 2) The Tohara Texts initiatives allow the program to send frequent text messages to various cadres of program providers (health providers, peer promoters, data clerks, etc.) with reminders pertaining to quality of care and more practical information, such as filling in duty rosters. By texting back, providers inform the MCHIP team of adverse events, and the team can share concerns with other sites that can be discussed in “ground rounds.” 3) The Mwanza Tanzania Community Mobilizer Network permits peer promoters to share ideas and opportunities through the WhatsApp platform and allows the management team to communicate with providers. 4) The use of geographic information systems to map scale up allows the team to use real-time data to track VMMC progress and make informed decisions on the location of outreach and demand creation services.</p>
Measurement	<p>The program has also invested heavily in the development of robust M&E systems that have been shared and utilized throughout Tanzania and other VMMC countries, and close collaboration with the MOHSW to ensure that the VMMC is included in the DHIS national data collection system. Training is provided to collaborating VMMC partners, donors, and district and regional authorities in how to enter and retrieve data. The program has also initiated the same process for EIMC. Additionally, the program has focused strongly on the use of data for decision making which has been enhanced through the GIS program. The program has invested in research that will help guide Tanzania and other countries in the selection of implementation approaches.</p>
Training	<p>The program has utilized a variety of blended training approaches to develop competent VMMC providers, peer promoters, data managers, and mentors, and has adapted or developed a large number of training manuals, which are listed in Annex 3.</p>
Quality	<p>Thanks to robust measurement tools (adapted from WHO for Tanzania) and a commitment to external and internal quality assurance, the MCHIP VMMC program has been able to track the quality of service provision and introduce frequent adjustments. Each year the program has organized refresher training to address quality issues seen in the field. In addition, the program uses technology like WhatsApp and the Tohara Texts program to communicate with health providers, peer promoters, and others on quality-related issues.</p>

Recommendations and Way Forward

The VMMC program in Tanzania has made significant progress over the past five years from a pilot into a catch-up phase and will soon enter the sustainability phase of VMMC. As the program progresses, however, there are a few persistent challenges that need to be addressed. These include:

- Documenting confirmed referrals to and from VMMC in a health system that lacks national tools to do so.
- Deciding how far to pursue those men who are not interested and have rejected VMMC for themselves, despite repeated appeals.
- Addressing some of the persistent rumors about foreskins (e.g., they are being exported to the US or being circumcised turns one into a “Freemason” or a Muslim).
- Ensuring that younger adolescents are receiving age-appropriate services and counseling.
- Addressing the motivation issue – both for VMMC providers receiving overtime pay and for EIMC providers who are not.

Opportunities to effectively utilize technology must be considered as part of the way forward.

Maintenance of the GIS system and its expansion to Tabora will allow the program to continue to benefit from an in-depth analysis when tracking scale up, and this technology should be transferred to the MOHSW. Additionally, the Tohara Texts and Mwanga Tanzania–Community Mobilizer Network should be built upon, perhaps by developing a Tohara App that can be used by clinicians, peer promoters, and program staff to communicate and make resources readily available.

Future programs must work with the GOT in the sustainability phase. There are diverse views on how the sustainability phase should be implemented and even at what point a program should progress from catch-up to sustainability. On one hand, there is a desire to have VMMC services offered in as many health facilities as possible. On the other hand, quality assurance has been difficult even with fewer sites, and the people of these regions are accustomed to seeking circumcisions during campaign events. It may be less expensive to implement the sustainability phase using campaigns rather than achieve universal access. These questions need to be answered through modeling, research, and pilot interventions.

Related to this are decisions regarding the establishment and scale up of EIMC services. Will EIMC be rolled out nationally or just in the program regions? Will the government make the financial investments necessary to scale up EIMC in the current budget environment?

Over the past several years, government support for the VMMC program has increased, but there are still opportunities for support at the highest levels. It is hoped that as the new Tanzania VMMC Country Operation Plan is launched that Presidential and Prime Ministerial political and financial support will be sustained. Finally, there are some differences in terms of partner implementation. Some regions have relatively weak support, a situation which needs to be addressed by the GOT

In the near future, the program should continue uninterrupted, if possible, so that the momentum continues that has allowed Iringa, Njombe, and Tabora to propel themselves up and over the “tipping

point,” and the maximum epidemiological and financial benefits from VMMC scale up can be delivered to the people of Tanzania.

Annex 1: Performance Management Plan (PMP)

The PMP for the MCHIP VMMC Program in Tanzania has changed on a yearly basis. The chart below is a compilation of the key indicators that have been gathered throughout the program years.

NO.	INDICATOR	INDICATOR DEFINITION	DATA SOURCES & COLLECTION METHOD	FREQUENCY OF DATA COLLECTION	LIFE OF PROJECT ACHIEVEMENTS OCT 09 to MAR 14
1. Scale up VMMC and pilot EIMC services in Iringa region					
1.1	Number of static sites established and providing VMMC services	A health facility with trained VMMC service providers working on a regular schedule to provide VMMC services	Clients cards/ theater register and monthly summary reports	Monthly	28
1.2	Number of sites where VMMC outreach activities have been conducted	These are sites where circumcisions are performed during outreach and campaign activities.	Outreach/campaign activity report	Monthly	347
1.3	Number of sites where EIMC pilot activities have been conducted	These are sites where EIMCs have been performed as part of the pilot.	Regional reports, client cards	Monthly	8
1.4	Number of VMMC outreach activities and campaigns conducted	These are high volume circumcisions performed during campaign activities	Campaign/outreach activity report	Upon completion of activity	30+
1.5	Number of adolescents and men circumcised during routine, outreach and campaign activities, disaggregated by age groups	These are clients who have been circumcised using the WHO recommended minimum package of VMMC services for HIV prevention	Individual VMMC client cards and VMMC theater registers	Monthly	323,650

NO.	INDICATOR	INDICATOR DEFINITION	DATA SOURCES & COLLECTION METHOD	FREQUENCY OF DATA COLLECTION	LIFE OF PROJECT ACHIEVEMENTS OCT 09 to MAR 14
1.6	Number of infants circumcised at EIMC pilot sites	These are clients who have been circumcised by trained EIMC providers	Individual EIMC client cards and registers	Monthly	971
1.7	Number of providers trained in adult VMMC service provision	Providers (surgeons and counselors) who have been trained in VMMC service provision using the WHO minimum package for VMMC for HIV prevention	Training Information Management System (TIMS) reports	Upon completion of activity	563
1.8	Number of providers trained in refresher or other specialty trainings	Providers who have received refresher or other specialty trainings	TIMS reports	Upon completion of activity	297
1.9	Number of providers trained in EIMC service provision	Providers who have been trained in EIMC service provision	TIMS reports	Upon completion of activities	52
1.10	Proportion of static facilities that have had a Quality Assurance/Quality Improvement (QA/ QI) visits twice per year	Numerator is the number of static facilities in Iringa whose providers have been visited for QA reasons and have received feedback on improvement areas. The denominator is the total number of static facilities in Iringa providing VMMC services, including those on EIMC	QA/QI and supervision reports	Quarterly	90%
1.11	Number of peer promoters (MCHIP and partners) trained in VMMC or EIMC	Peer promoters who have received training	TIMS reports	Upon completion of activity	220
2. Develop and/or Adapt Key Tools, Curricula, and Materials as Necessary					

NO.	INDICATOR	INDICATOR DEFINITION	DATA SOURCES & COLLECTION METHOD	FREQUENCY OF DATA COLLECTION	LIFE OF PROJECT ACHIEVEMENTS OCT 09 to MAR 14
2.1	Number of tools developed or adopted for use by the program	These are tools developed or adopted to be used in training/orientation supervision, community mobilization, job aids, etc.	Actual tools	Quarterly	
3. Collaborate with USG VMMC Partner Agencies in Tanzania					
3.1	Number of VMMC TOTs and VMMC and EIMC providers trained from other USG partners' implementation areas	TOTs are the trainers for VMMC providers who will provide VMMC services as per the WHO minimum package for VMMC for HIV prevention.	TIMS reports	Monthly	71
3.2	Number of MCHIP collaborative consultations provided in non-MCHIP regions	Collaborative activities involving the MCHIP team and VMMC partners in a variety of technical areas	Activity reports	Monthly	10
3.3	Number (types) of BCC materials developed with TCCP, by type of materials	These are print, promotional, and mass media materials to support the program, including the VMMC song	Activity reports	Quarterly	70+
3.4	Number of consultations with SCMS	MCHIP to collaborate with SCMS to place pharmaceutical orders and also to receive technical assistance on commodity logistics	Activity reports	Quarterly	Too many to count
4. Provide Technical Assistance to the GOT Health Authorities					
4.1	Number of MCHIP technical assistance consultations provided to GOT Health authorities	This is the technical assistance to be provided by the MCHIP team to the GOT in a variety of technical areas including M&E, QA/QI, supervision tools, and the country operational plan.	Activity reports	Quarterly	Too many to count
5. Disseminate Programmatic and Research Lessons Learned within Tanzania and Beyond					
5.1	Number of assessments and research studies implemented directly or in which MCHIP participates	These include pilot studies and other studies that aim to inform the implementation of the program and lessons learned for sharing	Study protocols	Quarterly	9

NO.	INDICATOR	INDICATOR DEFINITION	DATA SOURCES & COLLECTION METHOD	FREQUENCY OF DATA COLLECTION	LIFE OF PROJECT ACHIEVEMENTS OCT 09 to MAR 14
5.2	Number of guidance papers/docs, abstracts, and articles accepted for publication or presentation	Program documents, abstracts, and papers developed on lessons learned and success stories for sharing with partners and the international audience	Reports, abstracts,	As they occur	26

Annex 2: Success Stories

VMMC Services Provided to Remote Villages Along Lake Nyasa

Njombe/Iringa 2013 Winter Campaign, June to July 2013

During eight weeks in June and July 2013, the Ministry of Health and Social Welfare with technical and financial support from the Maternal and Child Health Integrated Program (MCHIP) provided 33,287 VMMCs in 40 remote rural health facilities in Iringa and Njombe regions during the annual winter campaign. This study describes the 2013 Winter Campaign held along Lake Nyasa in Njombe/Iringa, which was conducted in June and July 2013.

Car Leaving Njombe



It is 10 a.m. on the 17th day of the 2013 Winter Campaign, and the voluntary medical male circumcision (VMMC) team has just finished packing the car at the Jhpiego office in Tanzania's Southern Highlands town of Njombe. In order to arrive at Lupingu village before dusk, the team needs to leave within the next half hour. Flora Hezwa, the VMMC data manager, is happy as she boards the 4x4 Nissan Patrol, Flora conducts this same journey

each week of the Winter Campaign, ensuring that campaign results are properly documented for PEPFAR and the Government of Tanzania (GOT) and transporting fresh supplies to the sites.

Since 2009 the Maternal and Child Health Integrated Program (MCHIP), implemented by Jhpiego, an affiliate of Johns Hopkins University, has been providing technical, programmatic, and logistical support to the Ministry of Health and Social Welfare to scale up VMMC in Iringa and Njombe – Tanzania's most highly affected HIV regions. VMMC services are provided year-round in 12 fixed sites and through numerous outreach activities with more than 120 health facilities at all levels providing services. For the past four winter seasons (June-August) major VMMC campaigns with targets of 20,000-30,000 clients each have been implemented. As of September 2013, more than 240,000 clients (adolescents and men aged 10 and above) had received VMMC services which include HIV risk-reduction counseling and testing, sexually transmitted infections (STIs), and physical exams and surgical male circumcision services. From 2007-08 to 2011-12, HIV prevalence dropped from 15.7 percent in Iringa and Njombe combined, to 14.8 percent in Njombe, and 9.1 percent in Iringa. The male circumcision prevalence rose

from 29 percent in Iringa and Njombe combined in 2007-08 to 48 percent in Njombe and 60 percent in Iringa in 2011-12.

After only 3km on a freshly paved tarmac road, the car turns onto the muddy road that will eventually lead Flora and the Jhpiego VMMC team through the rift valley and down to Lupingu village. The journey begins with new breathtaking scenery, from tea plantations to pine forests, fresh water streams to dry parched earth. As the hours pass, the Nissan Patrol maneuvers down the mountains, and Flora and her colleagues take in the sights and engage in energetic debates on work, politics, and life. After approximately seven hours on the road, the team catches their first glimpse of Lake Nyasa in the distance.

View of car with distant scenery



As the sun begins to set, the VMMC team starts the treacherous descent to Lupingu village. The road, which appears to have never been repaired since it was built, soars 500 ft. above the lake shores. With a population of approximately 4,000, Lupingu is located on the northeastern shores of Lake Nyasa and is the Jhpiego VMMC team's access point to remote villages along the lake. In 2013 the annual winter campaign aims to reach 30 new health facilities and

communities, specifically, those that generally lack access to services. These sites are located many hours down dusty unpaved roads, over frigid mountain passes, and as in the case of Lifuma, along the shores of Lake Nyasa, which is only accessible by boat.

The VMMC team is welcomed at the White Beach Guesthouse by Mr. Romani Mwinuka, the manager, who discusses the agenda for the following day. In front of the guesthouse, the beach is bustling with activity: women washing clothes, men fixing their fishing nets, and children playing soccer with a ball made of plastic bags. The guesthouse will be the VMMC team's lodging for the night.

At 5:30 a.m. a small boat used to taxi villagers to nearby locations, is loaded with boxes of examination gloves, disposable circumcision kits, water, promotional fliers, banners, and other goods to be delivered to the VMMC teams working at health facilities in remote villages along the lake.

Captain anchoring boat



Life jackets are distributed to those unable to swim, who nervously slip on the neon orange vests.

Lifuma Village



After two hours, the sun begins to rise as the boat reaches the shores of Lifuma village. Young women bathe with their children on the lakeshore as the fishermen set off on small dugout canoes to carry out their daily tasks.

Flora, still bundled in her warm jacket, ensures that all the goods are removed from the boat and are ready to be transported to the local health dispensary before the first clients arrive that day.

The goods are hauled through the village, over the stream, and up the hill by members of the community to the local health dispensary. With a population of approximately 2,200, Lifuma is one of three villages on Lake Nyasa that Jhpiego is serving for the 2013 Winter VMMC Campaign.

Carrying boxes | Crossing a stream with boxes



Provider opening kit



Promotional fliers and posters are sorted through and organized, ready to be used within the health facilities, as well as being distributed to nearby villages to promote the VMMC project.

The Lifuma dispensary is stocked with new medical supplies to perform the circumcisions. Health providers from other facilities in the Njombe region, trained in delivering VMMC counseling and safe surgical services, have traveled to Lifuma to provide services. Local health providers have been trained to support them.

Team of Lifuma providers

More than 300 Government of Tanzania health providers in Iringa and Njombe have been trained to provide VMMC services, most of whom are nurses. During campaign season, health providers often provide their own mattresses and pillows and spend four to eight weeks providing VMMC services under difficult conditions.





Clients waiting

Clients, often accompanied by friends, parents, or partners, flock to VMMC services in the winter season.

Sites like Lifuma can serve 100 clients per day. Mathematical modeling prepared for Tanzania estimates that in Iringa and Njombe, one future HIV infection is averted for every six circumcisions performed. As a result, over 36,000 future HIV infections may be

averted as a result of this PEPFAR /GOT initiative.

Flora returning on the boat



By mid-afternoon, the Jhpiego team has reached two remote villages, stocking them with new supplies. The boat captain struggles to hurry the departure, anticipating rough weather to come. The team must leave quickly in order to make it back to Lupingu that day. The three-hour journey back to Lupingu is quiet, as everyone reflects on their day, bringing VMMC services to remote communities in need. Once they reach Lupingu, the Jhpiego team must tackle the long journey back to Njombe, where they will arrive shortly after sunset. Tomorrow will bring another day to ensure that those in the most remote corners of Njombe have access to VMMC services.

Annex 3: List of Presentations at International Conferences and Publications

Below is a list of the presentations and publications, which have resulted from the research studies discussed in this report and other work implemented by MCHIP in Tanzania.

Publications

Journal	Reference/Title	Authors
Journal of AIDS	Lessons Learned from Scale up of Voluntary Medical Male Circumcision Focusing on Adolescents: Benefits, Challenges and Potential Opportunities for Linkages with Adolescent HIV and Sexual Reproductive Health Services; July 1, 2014, (66, 2): S193-199.	Njeuhmeli E., K. Hatzold, E. Gold, H. Mahler, K. Kripke, K. Ahanda, D. Castor, W. Mavhu, O. Mugurungi, G. Ncube, S. Koshuma, S.K. Sgaier, S. Conly, and S. Kasedde
Journal of Urology	Penile Measurements in Tanzanian Males: Guiding Circumcision Device Design and Supply Forecasting; 2013, 190(1); 544-550.	Chrouser, Kristin, Eva Bazant, Linda Jin, Baldwin Kileo, Marya Plotkin, Tigistu Adamu, Kelly Curran, and Sifuni Koshuma
PLoS Medicine	Voluntary Medical Male Circumcision: Matching Demand and Supply with Quality and Efficiency in a High Volume Campaign in Iringa Region, Tanzania; 2011.	Mahler, Hally, Baldwin Kileo, Kelly Curran, Marya Plotkin, Tigistu Adamu, Sifuni Koshuma, and Emmanuel Enjeuhmeli
PLoS Medicine	Voluntary Medical Male Circumcision: A Qualitative Study Exploring the Challenges of Costing Demand Creation in Eastern and Southern Africa; 2011.	Bertrand J.T., E. Njeuhmeli, S. Forsythe, S.K. Mattison, S. Chideya, H.R. Mahler, et al.
PLoS Medicine	Voluntary Medical Male Circumcision: Strategies for Meeting the Human Resource Needs of Scale-Up in Southern and Eastern Africa. PLoS Med; 2011.	Curran K, E. Njeuhmeli, A. Mirelman, K. Dickson, T. Adamu, H.R. Mahler, et al.
Global Health: Science and Practice	“Man, what took you so long?” Social and Individual Factors Affecting Adult Attendance at Voluntary Medical Male Circumcision Services in Tanzania; 2013; 1(1): 1-9.	Plotkin, Marya, Castor Delivette, Hawa Mziray, Jan Kuver, Ezekiel Mpuya, Paul Luvanda, Augustino Hellar, Kelly Curran, Mainza Lukobo-Durell, Tigistu Adamu Ashengo, and Hally Mahler

Journal	Reference/Title	Authors
PLOS One	Surgical Efficiencies and Quality in the Performance of Voluntary Medical Male Circumcision Procedures in Kenya, South Africa, Tanzania, and Zimbabwe; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0083925	Rech, Dino, Jane Bertrand, Nicholas Thomas, Margaret Farrell, Jason Reed, Sasha Frade, Christopher Samkange, Walter Obiero, Kawango Agot, Hally Mahler, Delivette Castor, and Emmanuel Njeuhmeli
PLOS One	Voluntary Medical Male Circumcision (VMMC) in Tanzania and Zimbabwe: Service Delivery Intensity and Modality and Their Influence on the Age of Clients; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0083642	Hatzold, Karin, Hally Mahler, Amelia Rock, Natasha Kanagat, Sophia Magalona, Kelly Curran, Alice Christensen, Delivette Castor, Owen Mugurungi, Roy Dhlamini, Sinokuthmeba Xaba, and Emmanuel Njeuhmeli
PLOS One	Costs and Impacts of Scaling up Voluntary Medical Male Circumcision in Tanzania; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0083925	Menon, Veena, Elizabeth Gold, Ramona Godbole, Delivette Castor, Hally Mahler, Steven Forsythe, Mariam Ally, and Emmanuel Njeuhmeli
PLOS One	Surgical Efficiencies and Quality in the Performance of Voluntary Medical Male Circumcision Procedures in Kenya, South Africa, Tanzania, and Zimbabwe; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0084271	Rech, Dino, Jane T. Bertrand, Nicholas Thomas, Margaret Farrell, Jason Reed, Sasha Frade, Christopher Samkange, Walter Obiero, Kawango Agot, Hally Mahler, Delivette Castor, and Emmanuel Njeuhmeli
PLOS One	Systematic Monitoring of Voluntary Medical Male Circumcision Scale-Up: Adoption of Efficiency Elements in Kenya, South Africa, Tanzania, and Zimbabwe; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0082518	Bertrand, Jane T., Dino Rech, D. Omondi Aduda, Sasha Frade, M. Loopapit, Michael Machaku, M. Oyango, W. Mavhu, A. Spyrelis, and L. Perry

Journal	Reference/Title	Authors
PLOS One	Work Experience, Job-Fulfillment and Burnout among VMMC Providers in Kenya, South Africa, Tanzania and Zimbabwe; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0084215	Perry, L., D. Rech, W. Mavhu, S. Frade, M.D. Machaku, M. Onyango, D.S. Omondi, B Fimbo, P. Cherutich, D. Castor, E. Njeuhmeli, and J.T. Bertrand
PLOS One	Provider Attitudes toward the Voluntary Medical Male Circumcision Scale-Up in Kenya, South Africa, Tanzania and Zimbabwe; 2014; 9(5): http://www.ploscollections.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0082911	Mavhu, W., S. Frade, A. Yongh, M. Farrel, K. Hatzold, M. Machaku, M. Onyango, O. Mugurungi, B. Fimbo, P. Cherutich, D Rech, D. Castor, E. Njeuhmeli, and J.T. Bertrand.

Presentations at International Conferences

Conference	Title	Authors	Presentation type
2010 International AIDS Conference Vienna, Austria	Opt-Out HIV Testing Leads to Nearly Universal Uptake Among Male Circumcision Clients in Tanzania	Mahler, Hally, Baldwin Kileo, Augustino Hellar, Simeon Nyabenda, and Marya Plotkin	Oral Poster
6th IAS Conference on HIV Pathogenesis, Treatment and Prevention 2011 Rome, Italy	Delivering Highly Efficient Male Circumcision (MC) Services for HIV Prevention within the Public Sector in Campaign Mode in Iringa, Tanzania	Mahler, Hally, Baldwin Kileo, Augustino Hellar, Sifuni Koshuma, Marya Plotkin, Michael Machaku, Kelly Curran, Tigistu Adamu, and Emmanuel Njeuhmeli	Paper
6th IAS Conference on HIV Pathogenesis, Treatment and	Considerations to Improve Volume and Efficiency for Male Circumcision Programs: Matching Supply with Demand to Make the Best Use of	Mahler, Hally, Baldwin Kileo, Augustino Hellar, Sifuni Koshuma, Kelly Curran, Tigistu Adamu, and Emmanuel	Poster

Conference	Title	Authors	Presenta- tion type
Prevention 2011 Rome, Italy	Limited Resources and Achieve the Biggest Public Health Impact. The Case of Iringa, Tanzania	Njeuhmeli	
American Public Health Association November 2014	Role of Women in Voluntary Medical Male Circumcision (VMMC) Decision Making among Men in Tanzania	Glick, Jennifer Lauren, Katherine Andrinopoulos, Erin Peacock, Elizabeth Edouard, Hally Mahler, and Renatus Kisendi	Paper
American Public Health Association November 2014	Moving Men through the Decision-Making Process for Voluntary Medical Male Circumcision (VMMC): An Analysis of Early versus Late Adopters	Peacock, Erin, Hally Mahler, Jennifer L. Glick, Elizabeth Edouard, and Renatus Kisendi	Paper
Conference On Retroviruses and Opportunistic Infections (CROI) 2011 Boston, USA	Five Sites, 36 Days, 10,352 Circumcisions: An Efficient Campaign Rapidly Scales up Safe Male Circumcision Services in a High HIV Prevalence Region of Tanzania	Curran, Kelly, Hally Mahler, Baldwin Kileo, Augustino Hellar, Simeon Nyabenda, Marya Plotkin, Michael Machaku, Sifuni Koshuma, Mainza Lukobo-Durrell, and Tigistu Adamu	Poster
International Conference on AIDS and STIs in Africa (ICASA) 2011 Addis Ababa, Ethiopia	Male Circumcision for HIV Prevention Remains Quite Safe Even in a High Volume Setting	Hellar, Augustino, Hally Mahler, Baldwin Kileo, Tigistu Adamu, Kelly Curran, Hawa Mziray, Marya Plotkin, and Michael Machaku	Paper
International AIDS Conference 2012 Washington, DC, USA	Penile Measurement in Rural Tanzanian Males: Informing Male Circumcision Device Design	Chrouser, Kirsten, Eva Bazant, Linda Jin, Tigistu Adamu, Baldwin Kileo, Kelly Curran, Hally Mahler, Sifuni Koshuma, Marya Plotkin, and Harshad Sanghvi	Poster
Conference On Retroviruses and Opportunistic Infections (CROI) 2013	Outreach Voluntary Medical Male Circumcision (VMMC) Sites Attract a Significantly Younger Clientele than Fixed Sites in Tanzania	Mahler, Hally, Marya Plotkin, Flora Hezwa, Tigistu Adamu, Kelly Curran, Gissende Lija, Seth Greenberg, and	Poster

Conference	Title	Authors	Presenta- tion type
Atlanta, Georgia, USA		Emmanuel Njuehmeli	
Conference On Retroviruses and Opportunistic Infections (CROI) 2013 Atlanta, Georgia, USA	Voluntary Medical Male Circumcision (VMMC) Scale Up Expands Access to STI Screening and Management and HIV Testing in Tanzania	Hellar, Augustino, Dorica Boyee, Kelly Curran, Hally Mahler, Marya Plotkin, Tgistu Adamu, Michael Machaku, Flora Hezwa, Sifuni Koshuma, and Paul Luvanda	Poster
International AIDS Society (IAS) 2013 Kuala Lumpur, Malaysia	Task Shifting Works: Doctors, Clinical Officers and Nurses Perform Equally Well in VMMC Service Delivery in Iringa and Njombe Regions, Tanzania	Hellar, Augustino, Dorica Boyee, Marya Plotkin, Tigistu Adamu, Hally Mahler, Kelly Curran, Abdullah Maganga, Ramadhani Mbagani, Saidi Mkungume, Michael Machaku, Sifuni Koshuma, and Flora Hezwa	Poster
International Conference on AIDS and STIs in Africa (ICASA) 2013 Capetown, South Africa	Sexual Prevention and Adolescents Attending Voluntary Medical Male Circumcision (VMMC) Services in Tanzania: A Golden Opportunity to Offer Adolescent-Targeted Services	Hellar, Augustino, Dorica Boyee, Marya Plotkin, Hally Mahler, Yusuph Kulindwa, Tigistu Adamu Ashengo, Kelly Curran, Mbaraka Amuri, Seth Greenberg, and Paul Luvanda	Poster
International Conference on AIDS and STIs in Africa (ICASA) 2013 Capetown, South Africa	Seizing the Opportunity: Working with Adolescent Boys for an HIV-Free Generation	Hellar, Augustino, Hally Mahler, Kelly Curran, and Tigistu Adamu	Panel
International Conference on AIDS and STIs in Africa (ICASA) 2013 Capetown, South Africa	The Sustainability Plan: Early Lessons from the Integration of Early Infant Male Circumcision Services into Reproductive and Child Health Services in Iringa Region, Tanzania	Mziray, Hawa, Kanisiusy Ngonyani, Augustino Hellar, Mariam Mohammed, Sifuni Koshuma, Dorica Boyee, Jabbin Mulwanda, Tigistu Adamu, and Hally Mahler	Poster
International AIDS Conference	Postoperative Adverse Events among HIV-positive Clients	Boyee, Dorica, Marya Plotkin, Mbaraka Amuri,	Poster

Conference	Title	Authors	Presenta- tion type
2014 Melbourne, Australia	Undergoing Voluntary Medical Male Circumcision in Tanzania	Tigistu Adamu, Kelly Curran, Gissenge Lija, and Hally Mahler	
International AIDS Conference 2014 Melbourne, Australia	HIV Prevalence among Younger Adolescents Is Double that of Older Adolescents Attending VMMC Services in Tanzania	Hellar, Augustino, Dorica Boyee, Marya Plotkin, Hally Mahler, Yusuph Kulindwa, Tigistu Adamu, Kelly Curran, Sifuni Koshuma, and Paul Luvanda	Poster
International AIDS Conference 2014 Melbourne, Australia	Follow-up Rates and Adverse Events after Voluntary Medical Male Circumcision (VMMC): Data from Tanzania After Four Years of Program Implementation	Boyee, Dorica, Hally Mahler, Flora Hezwa, Marya Plotkin, Mbaraka Amuri, Touma Ngwanakilala, Tigistu Adamu, Kelly Curran, Sifuni Koshuma, and Paul Luvanda	Poster

Annex 4: List of Materials and Tools Developed or Adapted by MCHIP/Tanzania

The following tools and materials developed or adapted by MCHIP for the Tanzania VMMC program:

Training Tools

1. VMMC Under Local Anesthesia adapted for Tanzania
2. VMMC Counseling Training and Participant Manuals
3. VMMC Clinical Training Skills Manual adapted for Tanzania
4. VMMC Refresher Training Manual
5. VMMC Site Managers Training Package
6. AE Ombudsman Training Package
7. Diathermy Training Package
8. EIMC Providers Training Package adapted for Tanzania
9. EIMC Clinical Training Skills Manual adapted for Tanzania
10. Peer Promoters Training and Participant Manual
11. Peer Promoters Refresher Training Manual
12. EIMC Peer Promoters Supplementary Training Package

Job Aids, Coordination, and Quality Assurance Tools

1. Master Campaign Plan
2. VMMC Commodities Planning Tool
3. EIMC Commodities Planning Tool
4. VMMC Site Start Up Tool
5. EIMC Site Start Up Tool
6. EIMC Quality Assurance Tool
7. EIMC Supervision Tool
8. Various Job Aids for Counseling, Postoperative Care, etc.

Communication and Promotional Materials

1. Radio Advertisements/Public Address Announcements for VMMC and EIMC (40+)
2. VMMC Group Education Flip Chart
3. VMMC Adolescent and Parent Brochure
4. VMMC Adult Male Brochure
5. VMMC Woman Brochure
6. VMMC Postoperative Brochure
7. VMMC Posters for Fixed Sites
8. VMMC Posters for Campaign Sites
9. VMMC Billboards, by Region
10. Banners for Facility Advertising
11. Roll-up Banners for Facility Advertising
12. Branding for Experiential Media Vehicles
13. VMMC T-Shirts and Polo Shirts
14. VMMC Football Jerseys
15. VMMC Silicone Wrist Bands
16. VMMC Carry Bags
17. VMMC Bumper Stickers
18. PrePex VMMC Group Education Flip Chart Supplement
19. PrePex VMMC Individual Education Flip Chart
20. PrePex Post-Procedure Brochure
21. PrePex Recruitment Poster
22. PrePex Provider Job Aid (PrePex vs. Surgery)
23. EIMC Poster
24. EIMC Brochure
25. EIMC Counseling Flip Chart
26. EIMC Referral Cards
27. EIMC T-Shirt
28. EIMC Khanga