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In collaboration with the Maternal and Child Health Integrated Program (MCHIP)

Matching Supply with Demand

Scaling Up Voluntary Medical Male Circumcision in Tanzania and Zimbabwe

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VMMC clients in Iringa, Tanzania.

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Members of Zimbabwe's Parliament lead a march at a VMMC advocacy event in Unity Square Park in Harare, Zimbabwe.

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SETTING THE SCENE

Iringa, Tanzania: On a blustery cold winter morning in June 2012, as a driving sleet storm fell on the hills of Mufindi district, Christopher (age 36) and his son Iddi (age 17) became the 100,000th and 100,001st clients to receive voluntary medical male circumcision (VMMC) services in the Iringa and Njombe regions of Tanzania. Nylolo Health Centre, a Catholic health facility near the timber plantation where Christopher is a truck driver, is one of more than 80 outreach sites and 11 fixed sites where free VMMC services performed by specially trained health personnel have been offered over the past two years. The registered nurse who performed Christopher's surgery, Selina Mtweve, is one of nearly 200 health staff deployed to outreach sites during the annual Iringa and Njombe winter campaign to bring VMMC services to men in communities that would otherwise not have easy access to them. As a result of these activities, the program is halfway toward its goal of circumcising 264,990 males in the Iringa and Njombe regions by 2015 (Mahler et al. 2011).

Zimbabwe: Winky D, one of Zimbabwe's most popular performers, sang the now famous regional VMMC song, which was composed and launched by Oliver Mtukudzi and Botswana's rock star Vee, at the International Conference on HIV/AIDS and Sexually Transmitted Infections in Africa (ICASA) in Addis Ababa while the crowd roared its approval. This was the scene toward the closing of a VMMC advocacy event at Unity Square Park in Harare, Zimbabwe, spearheaded by the Zimbabwean Members of Parliament. To demonstrate their support for VMMC, 35 male Parliamentarians

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went for HIV testing and counseling together with their female partners and families, followed by VMMC, which was carried out at the small clinic set up in the Parliament House in Harare, the national capital. The event started with a march of the Parliamentarians, Ministry of Health and Child Welfare (MOHCW) and National AIDS Council (NAC) officials, members of civil society, and many other supporters in the streets of Harare, and ended in a ceremony with high-level political leaders speaking out about the importance of knowing one's HIV status and encouraging male Zimbabweans to follow the example of the Parliamentarians in getting circumcised.

Eric Gauss, PSI/Zimbabwe

Blessing Chebundo, chairperson of ZIPAH, speaking at a VMMC advocacy event in Harare, Zimbabwe, June 2012.

Blessing Chebundo, the chairperson of Zimbabwe Parliamentarians Against HIV and AIDS (ZIPAH) and the first Parliamentarian to be circumcised during the event, said his main objective was to inspire other citizens to follow suit. The event, which was covered by the local and international press, gained momentum and reportedly resulted in increasing numbers of men seeking VMMC services at centers throughout the country. For the Members of Parliament, this was the start of a longer campaign to educate communities in their constituencies about HIV prevention and the important role that VMMC plays in reducing HIV incidence in Zimbabwe.

BACKGROUND

VMMC FOR HIV PREVENTION

Research has indicated a strong correlation between low HIV prevalence and high male circumcision prevalence (Halperin and Bailey 1999). Randomized controlled trials in South Africa, Kenya, and Uganda demonstrated a nearly 60 percent reduction in the risk of HIV transmission among men from 15 to 49 years old who became circumcised (Bailey et al. 2007, Gray et al. 2007, Auvert et al. 2005). Based on evidence from these studies, the World Health Organization (WHO) and the Joint United Nations Programme on HIV and AIDS (UNAIDS) adopted VMMC as an additional intervention for HIV prevention in 2007, recommending that countries with high HIV prevalence and low levels of male circumcision prioritize VMMC within their HIV prevention portfolios (WHO and UNAIDS 2007). As a result, 14 countries in eastern and southern Africa initiated or accelerated their VMMC programs, with varying paces, scales, and client profiles (Ibid.).

METHODOLOGY

In June 2012, the AIDSTAR-One project, funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID), in collaboration with USAID's Maternal and Child Health Integrated Program (MCHIP), undertook a case study of VMMC programs in Zimbabwe and the Iringa region of Tanzania with the objectives of describing a) the age distribution of clients (e.g., adolescent males and young men aged 10-24 and adult males aged 25 years and above) accessing different VMMC services and b) the demand creation and supply side activities that country programs implemented to increase service uptake by target clients.[1]

AIDSTAR-One conducted key informant interviews with 13 respondents in Tanzania and 8 respondents in Zimbabwe. Respondents in Tanzania included Ministry of Health and Social Welfare (MOHSW) clinicians, medical officers, and program staff; MCHIP program staff; and a USAID HIV prevention advisor. In Zimbabwe, respondents comprised MOHCW and PSI VMMC program staff, University of Zimbabwe faculty, HIV counseling and testing program staff, service providers, and a Member of Parliament. Information from the interviews was triangulated with program monitoring data on the numbers of clients receiving VMMC services during campaigns and routine service delivery at fixed, outreach, and mobile sites. The program data reflects the period of October 2009 to September 2012 for Zimbabwe and June 2009 to September 2012 for Tanzania. Key informant interview transcripts were analyzed with NVivo qualitative software and program data were analyzed with Microsoft Excel. A review of literature and documentation relevant to VMMC programming in Tanzania and Zimbabwe was conducted (see Appendix A for a selection of additional resources identified).

IRINGA, TANZANIA

The first HIV case was reported in Tanzania in 1983, and since then the government has established the National AIDS Control Program and the Tanzania Commission for AIDS. The Joint United Nations Programme on HIV/AIDS (UNAIDS) 2011 estimate of HIV prevalence among adults aged 15 to 49 in Tanzania was 5.8 percent (UNAIDS 2012).

A national policy launched in 2011 promoted the scale-up of VMMC as a prevention intervention, per WHO recommendations, and embraced task shifting and task sharing. Task shifting is a process of delegation: tasks are moved, as appropriate, from specialized to less specialized health workers. By reorganizing the workforce in this way, task shifting presents a viable solution for improving health care coverage by more efficiently using the human

[1] PEPFAR/the USG does not provide monetary incentives to attract clients for VMMC.

resources already available and quickly increasing capacity while training and retention programs are expanded (WHO 2008).

In 2009, the MOHSW, with funding from PEPFAR through USAID, assigned the responsibility of technical and financial assistance for VMMC in the Iringa region to MCHIP. The five-year VMMC target between 2011 and 2015 for the Iringa region per the national HIV prevention plan is 264,990 circumcisions (Mahler et al. 2011). The primary and secondary targets are males from 10 to 24 and 25 to 34 years of age, respectively. The program began with the establishment of a pilot site at the Iringa Regional Hospital in October 2009. In May 2010, additional sites were added, and there are currently a total of 11 fixed VMMC sites in the Iringa region offering routine and outreach services. Approximately 180 service providers, including doctors, clinical officers, and nurses have been trained in VMMC. As of September 2012, 120,700 males had been circumcised.

ZIMBABWE

HIV was first reported in Zimbabwe in 1985. According to the 2010-11 *Zimbabwe Demographic and Health Survey*, HIV prevalence among adolescents and adults from 15 to 49 years old is 15.2 percent (ZIMSTAT and ICF International 2012). The national HIV response is coordinated by NAC through Zimbabwe's *National HIV and AIDS Strategic Plan*. National plans have stressed evidence and results-based strategies, with HIV prevention the cornerstone of the response. In a large stakeholders meeting in 2007, the Zimbabwean government adopted VMMC as a priority HIV prevention strategy and created a steering committee and three technical working groups to initiate a pilot program.

BOX 1. SITE OPTIONS AND SERVICE DELIVERY MODALITIES

PEPFAR's *Best Practices for Voluntary Medical Male Circumcision Site Operations provides the following definitions for site options and service delivery modalities for countries implementing VMMC programs:**

VMMC Site Options:

- Fixed sites are permanent structures—often located near or within existing health care facilities—that offer VMMC services on a continuous basis. Fixed sites may serve as a hub for multiple mobile units.
- Mobile sites are usually temporary structures, often tents and prefabricated structures, which can be used for HIV testing and counseling services at the VMMC site, performing follow-up visits, or group education.
- Outreach sites can be permanent structures (e.g., primary clinics or schools) modified for VMMC service purposes, or temporary structures to increase available space so more clients may receive VMMC services.

Service Delivery Modality:

- Routine service delivery ensures the availability of VMMC services at existing health care facilities year round. Although space may be dedicated solely to VMMC services within a facility, the services are integrated with overall facility services and offered consistently throughout the year.
- Campaign service delivery provides VMMC services in high volume for short periods of time. With campaign service delivery, commodities and human resources are dedicated for the duration of the campaigns. Demand creation and community sensitization are crucial components to ensure a high volume of demand for VMMC services during the campaign period.

*(PEPFAR, 2013. Available at http://www.malecircumcision.org/resources/PEPFAR_best_practices_guide_for_vmmc.html)

> ***"The benefit of an outreach is you can reach people who cannot come to a fixed site. Communities are very scattered, very far."***
>
> ***—Technical Advisor, MCHIP Campaign Manager***

In 2009, the MOHCW launched the *National Male Circumcision Policy for HIV Prevention* as part of an integrated response and the VMMC strategy, which aims to reach 80 percent of 13 to 29-year-old Zimbabwean males (approximately 1.3 million) between 2011 and 2015. Currently, the program has 20 fixed sites, multiple outreach sites, and mobile teams across all 10 provinces[2] and offers VMMC through routine and campaign service delivery models (Box 1).

SERVICE DELIVERY (SUPPLY SIDE)

IRINGA, TANZANIA

VMMC Site Options

VMMC services in Iringa are provided by regional and district health authorities through a mix of public, faith-based, and private facilities, with technical and financial support from MCHIP. Some additional support for demand creation is provided through the Tanzania Capacity and Communication Project implemented by Johns Hopkins University Center for Communication Programs (JHU·CCP). The majority of VMMCs in Iringa have been provided through fixed or outreach services, although mobile services have been used in cases where no nearby health facility was available. Since small health dispensaries and health centers often lack adequate space for service provision (e.g., group education, individual testing, and post-operative review), tents and other temporary structures are added during outreach activities.

During routine service delivery, fixed sites offer VMMC services on a weekly schedule. Outreach activities use providers from fixed sites to provide VMMC at lower-level health facilities and mobile sites. In the first two years of the program, fixed sites frequently participated in VMMC campaigns. During campaigns, a large number of providers from fixed sites are relocated to outreach sites, mostly in rural areas. VMMC-trained providers working at fixed sites are rotated through the VMMC service on a routine basis to maintain their skills. At the discretion of the program, providers are paid an overtime allowance for time spent providing VMMC services. During campaigns, fixed sites either continue to provide services according to the routine schedule or provide services as campaign sites. During campaigns, if a fixed site becomes an outreach site, it provides VMMC services using staff who are assigned to this role for 100 percent of their time.

The decision to offer services at fixed sites during a campaign on a routine or campaign schedule depends on whether the catchment area around the fixed sites has been adequately covered through previous campaigns and routine service delivery.

All Iringa VMMC sites function within the existing health services infrastructure and the service providers are employees of their facilities. VMMC services are provided free of charge to clients in Iringa.

Outreach activities can take place both during campaigns and as a supplement to routine

[2] Zimbabwe is divided into eight provinces and two cities with provincial status, Bulawayo and Harare.

service delivery. The duration of services offered in each outreach site ranges from one to three weeks depending on the size of the catchment area. During campaigns, there is an increase in the number of outreach sites and accompanying intensified demand creation activities.

Service Delivery Modality: Routine Service Delivery and Campaign Service Delivery

During routine service delivery, fixed sites offer VMMC services two or three days per week on a fixed schedule. When the VMMC clinic is not being used for circumcisions, other health services are offered in the same space.

> ***"We follow people to villages."***
> ***—Nurse Officer, Iringa Regional Hospital***

During campaigns, providers travel from the fixed facilities where they are employed to outreach and mobile sites and spend 100 percent of their time performing VMMCs. The MCHIP team works closely with the leadership of fixed health facilities to select providers to participate in the campaigns and aims to ensure that non-VMMC services at the fixed site face only minimal disruption.

Prior to campaigns, MCHIP works closely with regional and district officials to identify potential campaign outreach sites. The team visits these sites in the month before the campaign, orients leadership and staff, identifies areas for site strengthening, and moves commodities and equipment into place.

The program frequently trains new VMMC providers in the weeks preceding a campaign since the high volume service delivery of the campaign setting

Charles Wanga, Jhpiego/Tanzania

The service provider who performed the 100,000th VMMC operation in Iringa, Tanzania.

offers an opportunity to develop highly competent VMMC providers, while those with more experience serve as coaches and mentors.

During campaigns, sites are open six days a week; from 8 a.m. to 5 p.m. Monday through Friday and 8 a.m. to 1 p.m on Saturdays. When possible, special hours are added for clients who wish to have circumcisions later in the evening. During the first campaign in 2010, the program circumcised approximately 55 clients per day per site. Currently, the MCHIP teams regularly circumcise 100 clients per site daily during campaigns, with some facilities exceeding 120 circumcisions per day. Program staff report that each circumcision costs the program U.S.$45 at fixed sites and about U.S.$100 at outreach sites due to associated transport and logistics costs. The unit cost of a circumcision in Tanzania is U.S.$82.56 with a unit cost range of U.S.$66.04 to U.S.$99.07 (Njeuhmeli et al. 2011).

The region holds two campaigns each year: a winter campaign (also known as the "major campaign") during May, June, and July and a "mini campaign" in November and December. Both campaigns coincide with school breaks. The major campaign lasts from

six to eight weeks, and in 2012 services were offered at more than 40 sites. The team and site managers review VMMC data daily from across all campaign sites to determine whether they have saturated a catchment area. If they have circumcised fewer clients than expected, they work with the mobilization team to attract more clients. If after mobilization there is no increase in the number of clients, the team relocates to another mobile or outreach site—often just several kilometers down the road—to allow clients who are unable to access facilities due to the rural topography and transport challenges better access to services. The program strives to mitigate barriers to accessing VMMC services and experiments with various service delivery options to bring VMMC services closer to clients, which is a major challenge in a primarily largely rural region such as Iringa.

Service Utilization by Clients According to Age and Service Delivery Modality

As of September 2012, Iringa, Tanzania had completed 120,700 circumcisions across all age groups. The average estimated population of all males in Iringa between 2009 and 2012 was 879,393.

Figure 1 shows the age breakdown of the male population in Iringa. Boys from 0 to 9 years old comprise 29 percent of the population, followed by men aged 35 and above (19 percent) and adolescents between 10 to 14 years old (14.6 percent).[3]

Figure 2 shows the total number of men circumcised by the program each year between October 2009 to September 2012.

[4] The U.S. Census Bureau's 2000-2015 subnational estimates from the HIV Spatial Data Repository were used as denominator data for each age range (2012). The denominator for the 35+ age category in the graph represents the 35 – 80+ age range.

FIGURE 1. AVERAGE AGE DISTRIBUTION OF MALES IN IRINGA, 2009-12

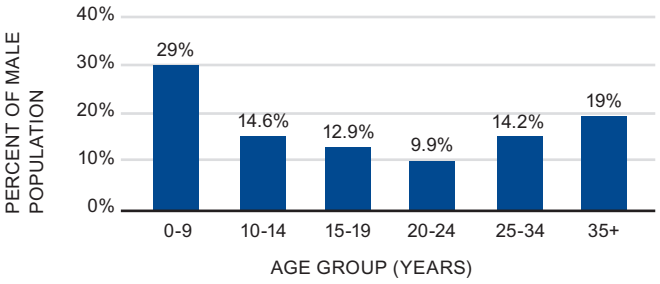


FIGURE 2. NUMBER OF MALES CIRCUMCISED IN IRINGA, TANZANIA, 2009-12

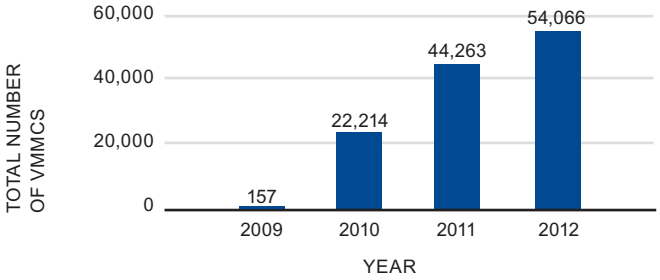


FIGURE 3. VMMCS BY SERVICE DELIVERY MODALITY, IRINGA, 2009-12

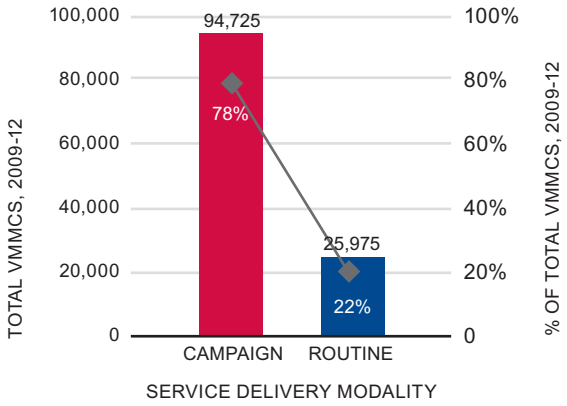


FIGURE 4. VMMCS BY CAMPAIGN AND ROUTINE SERVICE DELIVERY MODALITIES, IRINGA, 2009-12

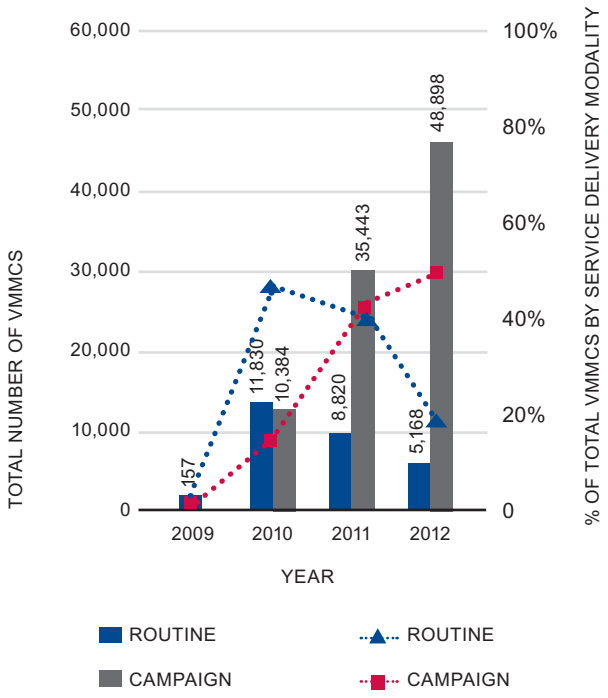
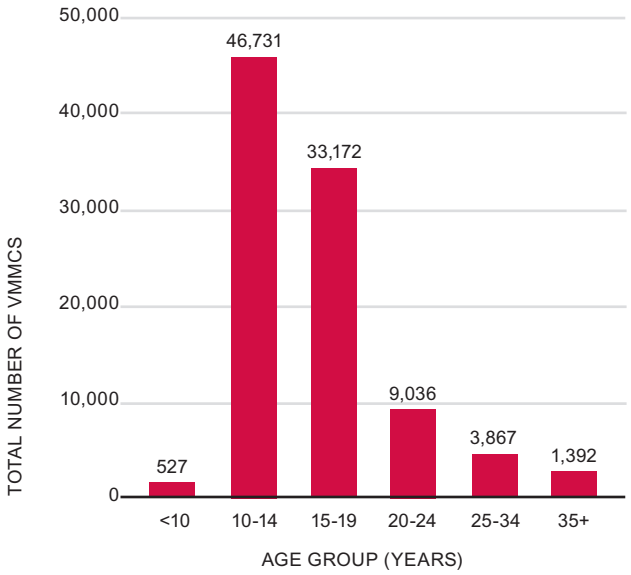


FIGURE 5. NUMBER OF VMMCS THROUGH CAMPAIGN SERVICE DELIVERY, IRINGA, 2009-12



Most clients (96.5 percent) were tested for HIV prior to the VMMC procedure.

Figure 3 shows the number and percentage of VMMCs done through either campaigns (78 percent) or routine service delivery (22 percent). The greater access to clients through outreach and mobile sites and intensified demand creation during campaigns likely contributes to this difference.

In 2009, more VMMCs were done through routine service delivery than through campaigns, as is evident in Figure 4.[3] In 2010, 1,446 more VMMCs were done through routine service delivery than through campaigns. In 2011, the trend reversed, with 26,623 more VMMCs done through campaigns than through routine service delivery. As of September 2012, 43,730 more VMMCs had been done through campaigns than routine service delivery. The Iringa VMMC program scaled up in 2011 and major and mini campaigns offered services through a combination of fixed and multiple outreach sites, which enabled them to reach a wider population. In 2011, all district hospitals and major health centers also began to offer routine services.

As seen in Figure 5, the highest numbers of VMMCs delivered through campaigns were among 10- to 14-year-olds, followed by 15 to 19 and 20- to 24-year-olds.

Figure 6 shows that all age groups with the exception of children under a year old were reached through a combination of campaign and outreach and routine services. A larger proportion of clients were reached through campaigns and outreach than routine services in all age groups, in accordance with the trends shown in Figure 3 and

[3] The number of VMMCs during the 2009 campaign is equal to zero because campaigns began in 2010.

FIGURE 6. VMMCS BY AGE GROUP AND SERVICE DELIVERY INTENSITY, IRINGA, 2009-12

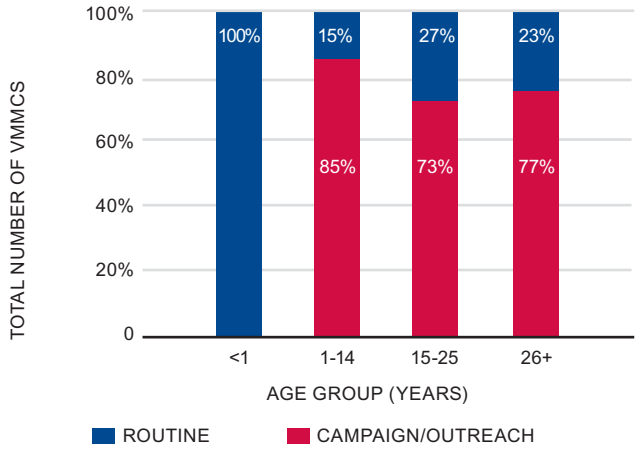


Figure 4 during 2011 and 2012.

To better understand and address the trend that indicated a strong preference for VMMC during preadolescence in the Iringa region, MCHIP conducted a qualitative assessment. The assessment focused on the views of adult men and women regarding VMMC and identified potential barriers and facilitating factors that influence uptake of VMMC services (Embe 2011). Key findings included consensus among participants that preadolescence and adolescence is the ideal time for circumcision, considering men's shame around being circumcised after that time.

In response to these findings, the program offered special clinic days designated for older clients during the 2011 November to December campaign so they would not have to wait in line with young boys. In some areas, younger clients visited facilities on the special days and providers chose not to turn them away. Despite this, program staff reported a gradual increase in the number of older clients at facilities where either campaigns have been held previously or where there were fixed sites. This increase in uptake by older clients might be because young people are the natural "early adaptors" for new behaviors, which creates an initial inequality in service uptake between age groups that decreases over time. The increase may also be a response to targeted demand creation, increasing awareness about VMMC, and reduced resistance to getting circumcised. Generally, older clients tend to seek routine service delivery, where the lines are shorter, while younger males are in school, affording them more privacy. Some VMMC service sites are creating separate adult circumcision sections within existing facilities.[5]

ZIMBABWE

VMMC Site Options

In Zimbabwe, VMMC services are coordinated by the national, provincial, and district MOHCW authorities. The MOHCW initiated and has scaled up the VMMC program in Zimbabwe with technical and financial support from PSI, through funding from USAID. Provincial VMMC implementation plans are developed on a quarterly basis and services are offered through a mix of public, mission, and uniformed services, and a few private sector and nongovernmental organization hospitals and clinics. Most services are provided by the existing VMMC-trained human resources from the government, who are enrolled in the program on rotation and are paid on a part-time/over-time basis for providing VMMC services. The national training program, which uses a team- and competency-based approach, has so far trained more than 800 health care providers from all provinces. A strong quality assurance system has been put in place to ensure adherence to service delivery protocols, which consists of regular site

[5] It was not possible for the authors to conduct an age-specific breakdown for routine services due to the discrepancy between age disaggregations of routine and campaign data.

visits by central- and provincial-level authorities as well as internal and external quality assurance audits.

VMMC services, which are offered free of charge to clients, are provided through fixed, mobile, and outreach sites. Fixed sites are located in areas with a high population density and offer VMMC services at least six days a week. Nearly all fixed sites are either integrated with or co-located at public health facilities. Teams of providers offer services at outreach sites on a fixed schedule and assess the demand in an area to determine the number of days (one to three per week or month) needed at each site depending on location, the catchment population that they are serving, and demand for VMMC services.

In urban areas, city council clinics often serve as outreach sites, which are visited by teams from the larger fixed urban VMMC centers. In rural areas, lower level health centers and rural hospitals serve as outreach sites. Outreach sites in rural settings are visited by district level outreach teams who provide VMMC services according to monthly schedules following intensive community mobilization in the catchment areas of the outreach sites prior to service delivery.

Outreach is the main mode of service delivery since the majority of the population lives in rural areas and cannot access fixed sites due to transportation limitations. To facilitate transport, the program offers transport vouchers and has contracts with commuter buses in urban and rural areas. Health providers prefer surgical procedures to be done in facilities for infection prevention and control; therefore, tents are mostly used for counseling, HIV testing, and group education when facilities are low on space.

During the winter months between July and August, the national VMMC program supports traditionally circumcising communities to offer VMMC services in traditional settings and initiation camps in rural areas outside of health care facilities. The program uses large tents for the surgical procedures and smaller tents for individual counseling and HIV testing. VMMC teams camp for several weeks to provide circumcision services in these settings. Over 4,000 males have been circumcised in two consecutive years at these mobile sites.

Service Delivery Modality: Routine Service Delivery and Campaign Service Delivery

Routine Service Delivery

Outside of campaigns, services are offered through a mix of fixed and outreach sites. Fixed sites are located centrally in high population density areas offering VMMC services at least six days a week to mainly walk-in clients. Outreach sites are either located in suburbs within urban areas, mostly at city health clinics serving a certain catchment area, or in rural areas where outreach sites constitute health clinics and rural hospitals. Mobile VMMC teams visit outreach sites on regular basis for one to three days per week or month, depending on the location and demand, and services are offered following intensive community mobilization in the catchment areas of the outreach sites prior to service delivery.

Campaign Service Delivery

Since 2011, “school holiday” campaigns that generally take place over four to six weeks have taken place at least three times a year, mainly during public holidays that coincide with school holidays in April, August, and December. Given the timing of these campaigns, clients tend to be school-aged children and on average younger than those seen outside of campaign periods. Campaigns are also geared to reach high numbers of adults, targeting

workplaces and men in the communities.

Prior to campaigns, the government and partners coordinate campaign outreach site identification, selection of dedicated VMMC teams, HIV counseling and testing, client referral community mobilization, and equipment and commodity supplies. Close collaboration between the MOHCW and the Ministry of Education with headmasters, teachers, youth VMMC champions, and parents allows for mobilization in schools and tertiary institutions.

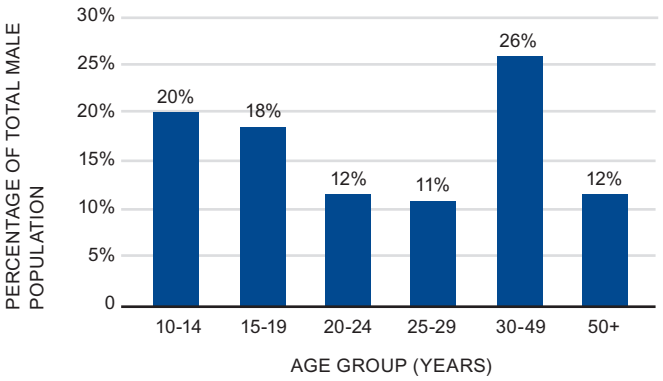
During campaigns, additional outreach sites are identified, such as clinics at workplaces and health care facilities serving commercial farming areas and educational institutions. The program team visits all additional outreach sites to ensure that space, equipment, and commodities are in place and that management and staff are oriented and actively participating in the campaign. Campaign sites start intensified community mobilization in their respective catchment areas within the month prior to the campaign start date and arrange booking lists for clients well in advance of the campaign.

Posters indicating opening times and services days are created prior to the campaign start and displayed in public places. To increase service delivery efficiency, voluntary HIV testing and counseling is offered during outreach activities and at the health care facility level in the communities prior to and during the campaign.

VMMC post-operation reviews and counseling are provided by lower health centers in rural areas and city council clinics in urban areas. The services are provided by trained staff at these sites coupled with VMMC outreach team staff visiting all outreach sites for specific review dates.

The number of dedicated and trained VMMC service providers is doubled or tripled during campaigns, drawing human resources from multiple fixed sites. During campaigns, fixed sites are open

FIGURE 7. AVERAGE AGE DISTRIBUTION OF MALES IN ZIMBABWE, 2009-12



from 8 a.m. and may extend to around 8 p.m. Monday through Friday, depending on the demand. Larger fixed sites circumcise 80 to 120 clients a day; smaller outreach sites circumcise 30 to 40 clients per day. The four- to six-week campaigns have reached up to 13,000 clients each.

Service Utilization by Clients According to Age and Service Delivery Modality

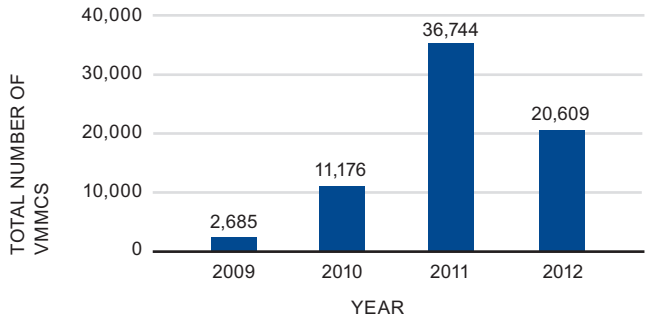
As of September 2012, Zimbabwe had completed 82,391 circumcisions across all age groups since the start of the program in 2009.

Per Figure 7, the estimated age distribution in Zimbabwe from 2009 to 2012 suggests that males between 10 to 14, 15 to 19 and 30- to 49-year-olds comprise 20 percent, 18 percent and 26 percent of the population, respectively.[6]

Virtually all (99.95 percent) clients were tested for HIV before VMMC.

[6] The U.S. Census Bureau's 2000-2015 subnational estimates from the HIV Spatial Data Repository were used as denominator data for each age range (2012). The denominator for the 50+ age category in the graph represents the 50 – 80+ age range.

FIGURE 8. TOTAL NUMBER OF VMMCS BY YEAR, ZIMBABWE, 2009-12



As shown in Figure 8, the number of VMMCs has been on an increasing trend since the start of the program in 2009. As data for 2012 only includes records until September, there is potential for the VMMC program to match or surpass the number of VMMCs completed in 2011.

As seen in Figure 9, the number of VMMCs for 10- to 14-year-old males increased between 2009 and 2011 from 17 to 8,771. Males aged 15-19 show a large increase in the number of VMMCs from 2010 to 2011; with 9,650 VMMCs in September 2012 alone, this age group is on track to continue its upward trend. A similar trend is visible for males aged 20-24, 25-29, 30-49, and 50 and above. About three out of four (76 percent) of males reached by the Zimbabwe VMMC program are between 15 and 49 years old.

More circumcisions were done during campaigns through fixed, outreach, and mobile site services (55 percent) than through routine services (45 percent) (see Figure 10). The greater access to clients through outreach during campaigns and the intensified demand creation during campaigns likely contributes to this difference.

As shown in Figure 11, 33 percent of 10- to 14-year-old males and 39 percent of 15- to 19-year-old males were reached through routine service delivery. Those aged 20-24, 25-29, 30-49, and 50

FIGURE 9. NUMBER OF VMMCS PER YEAR, BY AGE GROUP, ZIMBABWE, 2009-12

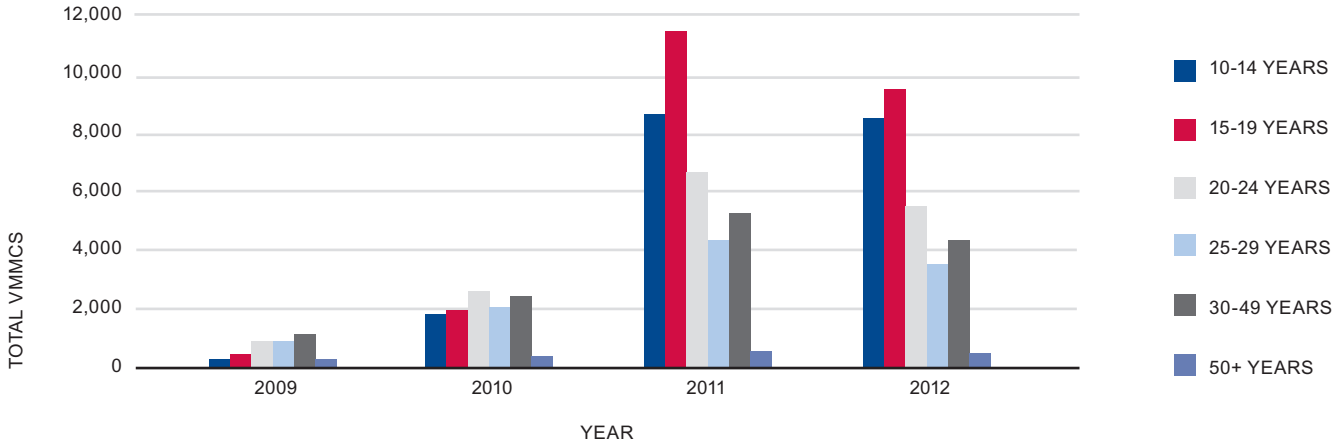
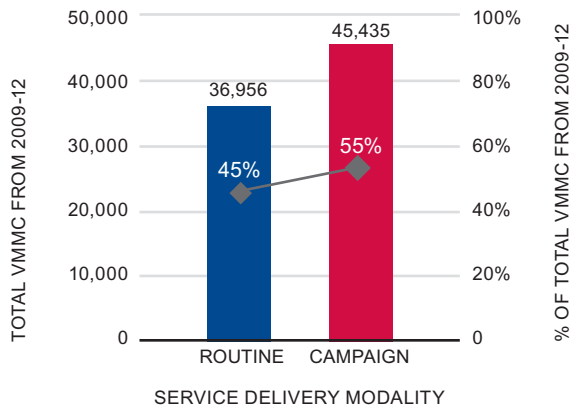
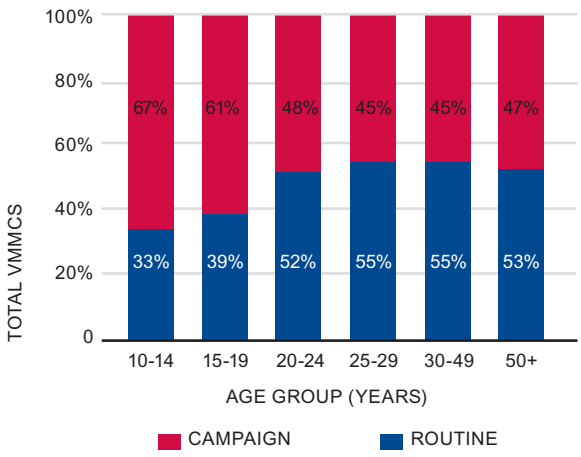


FIGURE 10. NUMBER OF VMMCS BY SERVICE DELIVERY MODALITY, ZIMBABWE, 2009-12



and above were reached almost evenly through campaign and routine service delivery. The

FIGURE 11. VMMCS BY AGE GROUP AND SERVICE DELIVERY INTENSITY, ZIMBABWE, JUNE 2009-SEPTEMBER 2012



difference in VMMCs by service delivery between 10 to 14 and 15- to 19-year-old males and other age groups is likely attributable to higher attendance from younger clients during school holidays, which coincide with campaigns.

DEMAND CREATION (DEMAND SIDE)

IRINGA, TANZANIA

Iringa's program uses interpersonal communication (IPC),[7] mass media, and print media during campaigns and non-campaigns to create awareness about VMMC services and to engage community members. A combination of stickers, posters, public address systems, peer educators, radio, billboards, face-to-face communication, wrist bands, t-shirts and bandanas are used to reach target populations at schools, local bars, clubs, bus stops, shops, market places, and football fields.

> ***"Radio is not a means in and of itself. It's the air war that supports the ground troops."***
>
> ***—Chief of Party, MCHIP***

The program liaises with district demand creation committees and subcommittees which include district officials, health facility staff, and international and community-based organizations who partner to create awareness about VMMC services. Committees submit proposals detailing their plans for VMMC demand creation within their communities, and the program provides them with some monetary support to conduct their stated activities.

[7] IPC is a behavior change strategy that is employed, often along with mass media, to provide information and increase awareness about a public health intervention. IPC is led by an individual who is trained in the subject matter, employs dialogue, and who facilitates discussion about the intervention during outreach activities. IPC can be a one-on-one or small group interaction.

Natasha Kanagat, JSI

Entertainers at a VMMC demand creation performance during a campaign in Njombe town, Iringa, Tanzania, June 2012.

Demand Creation during Campaigns

During campaigns, additional resources are put toward demand creation, which enables the team to increase the use of radio ads, experiential media,[8] brochures, and posters.

Experiential media companies use music, dance, drama, sports, and other approaches to attract crowds of women, men, and boys and promote VMMC. During events, peer educators walk around the crowds to address questions.

Radio advertisements are used extensively during campaigns to create awareness of service locations and timings. Radio is widespread in Iringa, but in areas with limited radio frequency, the VMMC team relies on peer educators and experiential media. The team uses four different radio stations in Iringa. Radio advertisements target women to encourage their partners to get circumcised and also include older client testimonials to reduce hesitancy within this age group. One campaign in June 2012 ran four concurrent advertisements on the air, each

[8] As defined by MCHIP (Iringa, Tanzania): Experiential media is a cross-media promotional activity which encourages two-way interaction and direct physical immersion into a service. Compared to mass media campaigns, experiential events tend to communicate on a much more personal level, generate a deeper level of emotional engagement, and result in better conversion rates—all at a relatively low cost.

featuring men speaking about VMMC, women presenting their views on it, service providers discussing their training, and an announcer listing all service provision sites in Iringa. Through the radio, the program also advertised a toll-free number that potential clients could dial to receive information about VMMC services and a list of service delivery sites. A similar system is used to sign up clients for a series of post-operative messages after circumcision.

Community mobilization teams engage with religious, village, and school leaders during site selection for VMMC services. After a catchment area is selected for VMMC campaign services, the mobilization team conducts orientation for the staff of the clinic and local leaders. The team also identifies local hosts who can provide logistical support to the providers in the form of meals and accommodations. Program staff recognize that community buy-in is a natural byproduct of the process of orienting community leaders and facility staff and identifying local hosts for the service providers. The mobilization team also works with community-based organizations and United States Government (USG) sexual prevention and care and treatment partners to create demand.[9]

Based on research, the program has modified demand creation strategies to reach older clients by focusing on hygiene instead of HIV prevention and communication materials have been adapted accordingly. An earlier slogan, "remove your sweater sleeve," tested well with older urban and younger men but was found to be inappropriate for older men in rural settings. A new slogan was developed that focuses on living life now, getting clean, and protecting oneself. The program is also

Hally Mahler, Jhpiego/Tanzania

Peer educators talk to clients in line outside the VMMC clinic in Iringa, Tanzania.

increasing advertisements on the radio between campaigns, airs more testimonials from older clients to attract older men, and has been working with district and regional authorities to get them to advocate for VMMC on the radio and television. The program has had a much greater reach in the past year; respondents stated their view that older men have started to respond to demand creation, especially in areas where the program has held campaigns or where it has fixed sites.

Demand Creation during Routine Service Delivery

During routine service delivery, the program relies heavily on radio advertisements, some print media such as brochures and posters, and community mobilizers who work with partner, community–based, and USG agencies to visit market places and communities around fixed sites to speak with people about the benefits of VMMC and to remind them of the service delivery hours at fixed sites. A Short

[9] Examples include the Yojana Project, the CHAMPION Project, PSI, and T-MARC Tanzania.

Message Service (SMS) system advertised through the radio also allows clients to text toll free numbers to receive information on VMMC services. A similar system is used to sign clients up for a series of post-operative messages after circumcision.

ZIMBABWE

The goal of demand creation in Zimbabwe is to address the knowledge gap about VMMC, dispel myths and misconceptions, and educate target audiences about the benefits of VMMC as an HIV prevention tool. The program conducted formative research to gain insight into the target audience and focus demand creation efforts. Based on the research findings, key demand creation objectives are to increase social support for VMMC from peers, partners, and local leadership, and to create positive attitudes towards VMMC. The program uses a multimedia mix of small group discussions, community dialogues, road shows with dance competitions, drama, radio spots and call in shows, in-store advertising, press, and static and electronic billboards. A hotline also provides potential clients with information.

The primary target audience is males aged 13-29. The program uses celebrities from the sports and music industries to attract their target population. Musician Winky D has a huge following among Zimbabwean youth and has developed songs about VMMC that he performs at shows that are aired on local radio and television stations. Winky D songs link VMMC with smartness, style, fashion, and confidence. Accompanying posters and CDs featuring Winky D are distributed in schools and colleges. Organizations like the Football Union and Grassroots Soccer have also trained their soccer players to conduct small group discussions on VMMC and create awareness. By using role models who have been circumcised, the MOHCW is positioning VMMC as a lifestyle choice for smart men and boys.

The program works with community-based youth groups and organizations and collaborates with local leaders such as chiefs, headmasters, pastors, and political councilors to create demand. The program sensitizes community leaders to build support for the program and provided with talking points for use during community mobilization activities in their areas. Youth groups attend an initial training workshop that is complemented by quarterly refresher trainings.

Clients who have been circumcised are encouraged to become “VMMC Champions” under the “Bring a Buddy” system. VMMC Champions are identified in each area and trained to encourage their friends to access the services. During the training sessions, brainstorming activities are conducted with the champions to generate ideas on attracting more clients.

The program also targets women since they, as mothers and partners, may encourage males to get circumcised. Messages for women focus on the protective effect of circumcision against cervical cancer and improved sexual performance for their partner. The program is actively targeting older men by engaging them at their workplaces, churches, and at home through conversations with their female partners.

The MOHCW collaborates with religious leaders, village chiefs, role models, VMMC Champions, and community-based organizations. They have also set up a hotline to answer all questions related to VMMC. The program uses a combination of brochures, posters, television, radio, IPC, and small group discussions to engage its audience.

The VMMC program recruits community-based volunteers called “mobilizers” who are registered with both national- and district-level AIDS councils to work with communities. Mobilizers track clients from demand creation to VMMC post-operation

reviews and counseling. Volunteers are not generally paid, but when possible are given promotional materials like t-shirts and receive token payments to demonstrate appreciation for their work.

Demand Creation during Campaigns

Demand creation efforts intensify during campaigns, and a combination of mass media and IPC activities is used. The program increases the number of youth groups and volunteers to create awareness and reach a larger number of communities with increased frequency. Two weeks before the campaign starts, sensitization meetings are conducted with community leaders to make them aware of outreach sites and to encourage them to mobilize their communities. During this period, the program collaborates with local chiefs and councilors to conduct community dialogues with villagers to discuss the benefits of VMMC and to address any individual fears. IPC gives potential clients an opportunity to discuss fears and beliefs. Sensitization with headmasters is also conducted, and school children are given leaflets and encouraged to talk about the service with their parents. Mobilizers go door to door and attend local soccer matches and church services to engage communities. They also move around with bullhorns informing people about the service. Community partnerships are crucial to program success.

> ***"Talk with and not to communities you want to circumcise."***
>
> ***—Professor, University of Zimbabwe***

Roving road shows featuring music and dance competitions around VMMC are implemented to create a "buzz" and attract large crowds of people. During the road shows, information booths are set up where the community mobilizers register

Eric Gauss, PSI/Zimbabwe

A community mobilization session during an August 2011 VMMC campaign in Bulawayo, Zimbabwe.

potential clients for follow up. Posters, banners, and leaflets highlighting the campaign dates and outreach sites are put up in grocery stores and at schools and clinics.

Mass media dissemination begins two to three weeks before other campaign activities, and includes the use of radio spots, radio talk shows with VMMC experts, posters, and press coverage. Message frequency on radio is increased through all four major radio stations. Radio spots featuring Winky D and female DJs to appeal to women are also aired in major supermarkets. Television talk shows discussing VMMC benefits and addressing myths are also increased to raise awareness and interest in the service.

Demand Creation during Routine Service Delivery

During routine service delivery, the program employs fewer mobilizers, and radio and television use is limited due to budgetary constraints. In Harare, demand creation is also done close to

New Start franchises, HIV testing and counseling mobile sites where clients are encouraged to get circumcised after testing. PSI has implemented the New Start program in Zimbabwe since 1999. The demand creation team uses a combination of information booths at marketplaces and visits to workplaces and churches to engage potential clients. In rural areas, the mobilizers access clients through conversations with and endorsements from village leaders. In urban areas, the mobilizers access clients by visiting marketplaces, bars, and schools.

In 2012, the demand creation team began to experiment with a new strategy called the "blitz." The goal of the blitz is to identify a geographic area near a fixed site using data on population density and HIV risk and saturate it with messages for one week. This concept is very new, and the team is in the process of reviewing its data to determine performance.

SUCCESSES TO DATE AS IDENTIFIED BY PROGRAM STAFF

IRINGA, TANZANIA

- During the June 2012 campaign, the program circumcised its 100,000th client. Respondents expressed optimism about the VMMC program achieving its goal of circumcising 264,990 males by 2015, provided there is sufficient funding.
- Strong collaboration between the regional medical officer, who led the program, and partners.
- Extensive demand creation during campaigns to reach more people.

Eric Gauss, PSI/Zimbabwe

A 2012 VMMC group education session at the Bulawayo, Zimbabwe VMMC site.

- Evidence-based decision making. The VMMC program reviews its data daily to determine if it is reaching its target numbers. If the numbers are low, the service delivery team works with the mobilization team to reach out to the community. and encourage use of VMMC services.
- Over 96 percent HIV testing and counseling uptake among VMMC clients.

ZIMBABWE

- Strong political will and buy-in at the national, provincial, and district levels. Zimbabwe's government actively promotes VMMC and works with PSI to create awareness about testing and counseling and male circumcision.
- Strong collaboration between the MOHCW authorities at the central, provincial, and district levels and PSI, the implementing partner.
- Strong demand creation strategy and a follow-up system that tracks behavior change.

- Strong collaboration on demand creation with traditional community and church leaders in support of the program.
- Successful partnerships with Tshangani traditional leaders and Muslim leaders around VMMC.
- Over 99 percent HIV testing and counseling uptake among VMMC clients.
- High uptake of post-operative review visits: 99 percent uptake at Day 2, 95 percent at Day 7, and 60 percent at Day 42.
- High uptake of services by older clients. Of the males reached with VMMC, 76 percent are in the 15- to 49-year-old age bracket, and a substantial proportion of these are over 25.
- Use of research findings on the target group to better understand their behaviors and develop appropriate messaging.
- Collaboration with local youth groups to reach out to other well-known and trusted youth and community-based organizations.

CHALLENGES TO DATE

IRINGA, TANZANIA

- High demand for VMMC among men aged 19 and younger relative to demand among older men. Despite efforts to address service delivery and communications barriers, older men remain reluctant to obtain VMMC services.
- VMMC service providers are full-time employees of the public, faith-based, and private facilities at which they work. Therefore, it can be challenging to get them released for VMMC activities on a frequent basis, and, due to human resource constraints, facilities cannot afford to have providers solely dedicated to VMMC service delivery.
- Insufficient funding to scale up the program and reach its goal of circumcising 264,000 males by 2015.
- Iringa's rural topography is logistically challenging during outreach and demand creation. The team travels long distances and many villages are difficult to reach even during the dry season. Infrastructure is also lacking at most outreach sites; the majority have no electricity or running water.
- More demand creation activities are required to dispel existing misconceptions about VMMC. Limited resources for IPC activities have restricted the program's ability to create site-specific demand, especially for fixed sites.

ZIMBABWE

- The program still needs to expand its coverage, especially in rural areas. Due to limitations in funding, services are concentrated around urban areas, and penetration into more rural settings through mobile service delivery has been limited.
- Human resource shortages impact the program's ability to go to scale. Zimbabwe does not have the required number of doctors and, due to a lack of task shifting, nurses are unable to share the work load.
- More demand creation activities are required to dispel existing misconceptions about VMMC. However, there are limited resources for demand creation outside of campaigns.

- Transport to VMMC sites for clients is a challenge in both urban and rural areas. despite program provision of transportation to clients, particularly younger males. Further decentralization of services through mobile teams and additional numbers of outreach sites is needed.

- Traditional mass media channels such as radio and television are expensive, and viewership of television is declining even in urban areas.

- Community mobilization is effective, but mobilizing teams are fatigued after campaigns.

- A pool of mobilizers who can travel to various parts of the country to raise awareness is required to create and sustain demand for VMMC services.

LESSONS LEARNED

- It is possible to implement a high-volume, high-efficiency VMMC program in populations with low levels of male circumcision and high HIV prevalence as long as key inputs and supply efficiency elements are in place.

- Effective demand creation, dedication of space and staff, training of service providers, and availability of commodities with an efficient supply chain management system are required inputs for a successful program.

- Programs that are flexible and responsive to the needs of the population by adapting service delivery based on catchment area volume and community access to sites can conduct a high number of circumcisions.

- Demand creation is vital when a new service is being introduced. It helps to build awareness, dispel myths, and change social norms to increase program uptake.

- Integrating services within the government program will require an investment of time and money in skill building, facility upgrades, and commodity supply systems, but is less expensive and more efficient than creating a parallel structure.

- Campaigns are effective in increasing demand for services, but efforts need to be made to maintain uptake of services outside of campaigns.

- Multimedia approaches are effective in creating rapid awareness of the service. Additionally, both longer formats and interactive programming (such as radio call-in talk shows) are effective in creating dialogue and dispelling myths about the service.

- Demand creation activities conducted by local communities are more effective than bringing in community mobilizing agents from other areas.

- Local leaders are effective in creating community buy-in to take up the service.

RECOMMENDATIONS FOR IMPROVING VMMC PROGRAMMING GLOBALLY

- Engage stakeholders at the national, regional, and district levels when introducing a new program into a country. Their buy-in will facilitate implementation through policy, logistics, and other program support.

- Design programs based on country capacity in program financing and human resources.

- Make every effort to understand the community for whom the services are being introduced. Research the target population, their families, and community structures to understand the social "ecosystem" within which they seek health services. It is important to study community perceptions of the intervention being introduced.
- Create demand through print media, mass media and IPC. It is important to create awareness about the intervention and provide avenues through which community members can interact with program representatives to discuss their concerns.
- Partner with CBOs; local leaders and volunteers; and local, regional, and national VMMC Champions.
- Ensure that the services offered are of the highest quality. One client's negative experience can significantly impact the uptake of the intervention.
- Review program monitoring data regularly to ensure services are reaching the target population, are of the highest possible quality, and are satisfying clients and their communities.

CONCLUSION

This study found that Iringa Region and Zimbabwe are steadily circumcising high volumes of clients. Both programs reach a higher percentage of males through campaigns than through routine services and this difference is more prominent in Iringa Region than Zimbabwe. Fixed, outreach, and mobile sites are used in combination to offer services during campaigns and routine service delivery. In Iringa Region and Zimbabwe, demand creation is more intense during campaigns than routine service delivery, but the programs have recognized the need to improve demand creation during routine service delivery and are developing new approaches to do so.

Iringa is faced with the challenge of reaching older males (over age 25) for VMMC. The program constantly reviews program data and revises its approach to reach males over 25 years through targeted demand creation strategies and routine service delivery options, including but not limited to special clinic days and tailored messages for older males.

Iringa is also a rural region where many people do not have access to a health facility, and access to VMMC services remains a challenge. The Iringa program regularly employs mobile and outreach service delivery to reach more people and plans to increase outreach activities in the future.

Zimbabwe is a non-circumcising country and local norms around VMMC, such as a strong preference for VMMC during preadolescence, are not a hindrance to reaching the target population. Over 76 percent of the VMMCs in Zimbabwe are performed on males aged 15-49. However, Zimbabwe is faced with the challenge of reaching a large rural population nationally. The program seeks to increase the number and frequency of outreach service delivery to reach more of the target population. Despite awareness-raising efforts, misconceptions about circumcision still exist and are a barrier to VMMC service utilization. Zimbabwe plans to dispel myths about circumcision through scaling up demand creation activities, particularly best practices such as partnerships with public figures and community organizations and leaders, and through engaging women as both partners and mothers.

Both programs are also faced with the challenges of insufficient human resources and are actively working with governments and donor groups to ensure sustained funding. The Iringa program reported that nurses performed 70 percent of circumcisions between October 2009 and September 2012. Since the number of nurses/midwives per 1,000 individuals is greater than the number of doctor per 1,000 individuals, the program is actively building capacity among nurses to enable more task shifting. Similarly, in Zimbabwe the number of nurses/midwives per 1,000 individuals is greater than the number of doctors per 1,000 individuals (Curran et al. 2011). However, unlike Tanzania, task shifting is not currently permitted in Zimbabwe and the VMMC program is advocating for a change in policy to mitigate the existing human resource challenge.

This case study provides insight into the multiple strategies employed by the Iringa regional and Zimbabwe national programs to reach their target populations for VMMC. Both programs have demonstrated the importance of consistently reviewing program data to understand target audience perceptions of and preferences for accessing and utilizing the health service being introduced. Country-specific contextual factors such as social norms have played a significant role in the experience of both countries and influenced service uptake. New programs should make concerted efforts to identify social and structural attributes of their own country contexts through thorough formative research and program monitoring, and tailor demand creation strategies and service delivery to respond to the needs of target populations. ■

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APPENDIX A: SELECTED ADDITIONAL RESOURCES FOR VMMC PROGRAMMING

Peer-Reviewed Journal Articles

Bertrand, J.T., E. Njeuhmeli, S. Forsythe, et al. 2011. "Voluntary Medical Male Circumcision: A Qualitative Study Exploring the Challenges of Costing Demand Creation in Eastern and Southern Africa." *PLOS ONE* 6(11): e27562.

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Strategic Plans and Operational Guidance

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ACRONYMS

ICASA	International Conference on HIV/AIDS and Sexually Transmitted Infections in Africa
IPC	interpersonal communication
JHU·CCP	Johns Hopkins University Center for Communication Programs
MCHIP	Maternal and Child Health Integrated Program
MOHCW	Ministry of Health and Child Welfare
MOHSW	Ministry of Health and Social Welfare
NAC	National AIDS Council
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PSI	Population Services International
SMS	Short Message Service
UNAIDS	Joint United Nations Programme on HIV and AIDS
USAID	U.S. Agency for International Development
USG	United States Government
VMMC	voluntary medical male circumcision
WHO	World Health Organization
ZIPAH	Zimbabwe Parliamentarians Against HIV and AIDS

ABOUT AIDSTAR-One

AIDS Support and Technical Assistance Resources, Sector I, Task Order 1 (AIDSTAR-One) provides rapid technical assistance to the U.S. Agency for International Development (USAID) and U.S. Government (USG) country teams to build effective, well-managed, and sustainable HIV and AIDS programs and to promote new leadership in the global campaign against HIV. Additional AIDSTAR-One case studies and other HIV- and AIDS-related resources can be found at www.AIDSTAR-one.com

ABOUT MCHIP

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal 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. Learn more at www.mchip.net.

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AIDSTAR-One
AIDS SUPPORT AND TECHNICAL ASSISTANCE RESOURCES

USAID
FROM THE AMERICAN PEOPLE

MCHIP
Maternal and Child Health Integrated Program

AIDSTAR-One's Case Studies provide insight into innovative HIV programs and approaches around the world. These engaging case studies are designed for HIV program planners and implementers, documenting the steps from idea to intervention and from research to practice.

Please sign up at www.AIDSTAR-One.com to receive notification of HIV-related resources, including additional case studies focused on emerging issues in HIV prevention, treatment, testing and counseling, care and support, gender integration and more.