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AIDSFree CASE STUDY SERIES

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Overcoming Seasonality in Scaling Up Voluntary Medical Male Circumcision

A Case Study from Tanzania

By late April 2014, only four months into the year, the Voluntary Medical Male Circumcision (VMMC) program in the Iringa and Njombe regions of Tanzania had already performed 80,000 medical male circumcisions, nearly four times the number done by April of previous years. What makes this number of circumcisions so remarkable is that the program had not even hit its "high season" yet—the colder months of June and July, which clients traditionally consider the preferable time to be circumcised in Tanzania.

Due to client beliefs, the agricultural calendar, and other factors, seasonality has posed a perennial challenge to those responsible for generating demand for VMMC services in Tanzania—as it has in South Africa, Zambia, and many other priority countries where VMMC is being scaled up. In the early years of Tanzania's VMMC program, 75 to 80 percent of circumcisions were performed in the high-demand "winter" months.

But can seasonality be overcome?

This case study examines the VMMC program launched in 2009 in Iringa and Njombe. Managers of this program believe that seasonality, once considered a key barrier to meeting ambitious targets and running efficient, productive programs, no longer limits the success of VMMC programs. The program was implemented by the Tanzanian Ministry of Health and Social Welfare (MOHSW) with technical and financial assistance from the Maternal and Child Health Integrated Program (MCHIP), led by Jhpiego, with support from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Agency for International Development (USAID).

A service day begins—A VMMC provider calls out the first names to undergo VMMC at Kibena Hospital in Njombe, Southern Tanzania. Over 400,000 boys and men have received free and safe VMMC services in the regions of Iringa, Njombe, and Tabora through the Jhpiego-led USAID-flagship Maternal and Child Health Integrated Program funded by PEPFAR. Photo by Elizabeth Edouard, for Jhpiego. July 2012.

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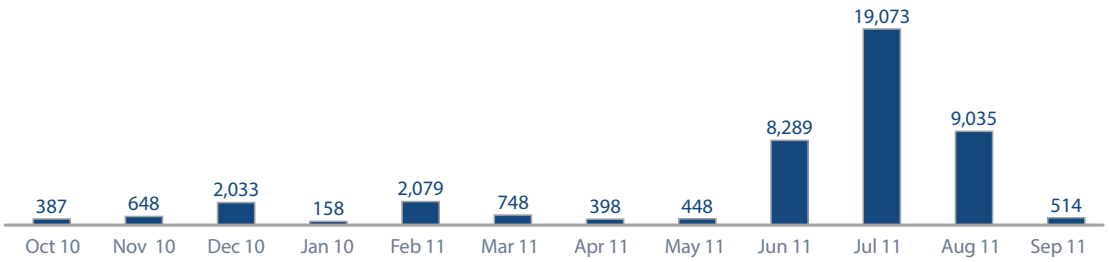
The VMMC program was launched as a strategy for adding to the mix of HIV prevention approaches in Iringa and Njombe regions, which had been hard hit by HIV. In fact, in qualitative research conducted in early 2014 with older men, the preference for circumcision in winter was not even mentioned, whereas in formative research conducted in 2011 seasonality emerged as a significant barrier to VMMC uptake by both men and women (Plotkin, Castor, Mziray, et al. 2013.)

Through a combination of structural and behavioral measures, the VMMC program in Iringa and Njombe saw a significant change between 2010 to 2014 in the distribution of VMMCs throughout the year. What caused this shift? How did Tanzania overcome the seasonality barrier? What can other country programs take away from this experience to help address this challenge in their countries?

Figure 1.
VMMC Monthly Performance in FY 2011

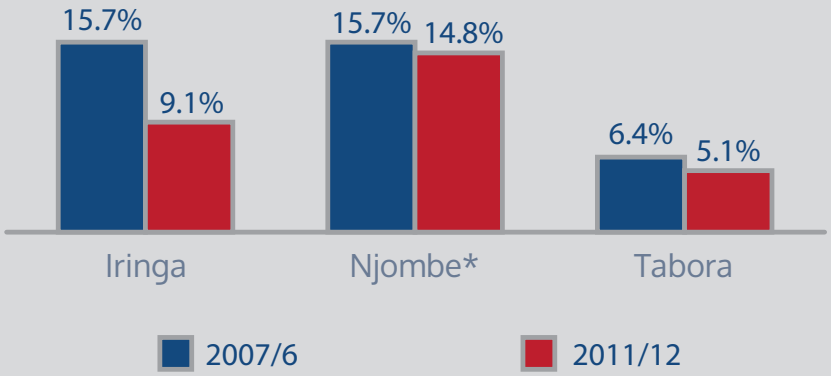


"One of the big myths of the VMMC community is that we can't overcome seasonality," says Hally Mahler, Director of HIV Programs in Tanzania for Jhpiego. "If we're going to meet the huge targets that are set before us, then we're going to have to prioritize overcoming seasonality."

This case study describes strategies used in Iringa and Njombe to reach a "tipping point" in VMMC awareness and uptake, so that seasonality was no longer a limiting factor.

Figure 2.

Prevalence of HIV in Iringa, Njombe, and Tabora regions, 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.

Source: Tanzania HIV/AIDS and Malaria Indicator Surveys 2007/8 and 2011/12

When the program began in 2009, an HIV indicator survey showed that HIV prevalence was 15.7 percent in Iringa and Njombe (which at that time comprised a single region, Iringa) (TACAIDS, ZAC, NBS, OCGS, and Macro International 2008). A 2011/12 HIV indicator survey (conducted after Iringa had been divided into Irina and Njombe) showed HIV prevalence rates of 9.1 percent in Iringa, and 14.8 percent in Njombe (Ibid.) Prior to the launch of the VMMC program, the prevalence of male circumcision was 29 percent among males aged 15–49 in Iringa and Njombe and 38 percent in Tabora.

Beliefs around Seasonality in Tanzania: The "Mango Study"

In 2009, when the VMMC program began, the Iringa region had the highest prevalence of HIV in Tanzania—three times the national average—and one of the lowest male circumcision (MC) rates, with only 29 percent of men between ages 15 and 49 undergoing circumcision. Unlike in other parts of the country, where rates of male circumcision are high and HIV prevalence is low, male circumcision was not a tradition in Iringa or in several other regions in the western half of Tanzania.

When asked, no participant was able to provide a detailed explanation as to why wounds heal better in the cold weather, but it was accepted as fact by all participants.

Boys line up to register for VMMC services at Ndala Hospital in Tabora, Western Tanzania. VMMC performed before the age of sexual debut has maximum long-term impact on reducing HIV risk at the individual level and consequently reduces the risk of transmission in the population. Photo by Charles Wanga, Jhpiego. April 2014.

In 2011, MCHIP undertook a qualitative study in Iringa region to gain a better understanding of the motivators and barriers for seeking VMMC services (Plotkin et al. 2011). The findings suggested that seasonal considerations were of major importance to people in Iringa when making a decision about seeking circumcision services. There was a clear and strong preference for circumcision to be done in June, July, and August (the local "cold season").

While some participants said that the cooler months are historically and traditionally associated with MC, the main reason cited for preferring the June to August period was that cooler weather promotes wound healing. When asked, no participant was able to provide a detailed explanation as to why wounds heal better in the cold weather, but it was accepted as fact by all participants. One participant said that while a wound would heal within two weeks in the cold season, it could take up to one month to heal in the hot season.

"In Southern and Eastern Africa, where a very limited number of skilled health care workers must address a large burden of disease, it is critical that human resources are managed efficiently."
Kelly Curran, Director of HIV/AIDS and Infectious Diseases at Jhpiego

The agricultural calendar also played a role in the preference for circumcising in June, July, and August, especially in rural areas where people are more tied to the agricultural cycle. Iringa is a very productive agricultural region that provides produce for all of Tanzania. The region relies on two closely-spaced rainy seasons: the short rains, which generally begin in December, and the long rains, which begin in March and continue until April. During this period, many people are absorbed into agricultural activities—even some people who live in town will close down their businesses and

go to their farms to work. After the harvest in May, agricultural activities slow down and people shift to more festive obligations. Marriage ceremonies and harvest festivities usually take place at this time and continue until warm weather returns in late August and September. At the end of the main cultivating season, people have more time and financial resources to seek VMMC services.

The school calendar also affects people's uptake of VMMC services. Male circumcision for children usually takes place in June and July, when there is a school holiday and students can be properly cared for at home during the recovery period.

Why is it Important to Overcome Seasonality?

In the early years of Tanzania's VMMC program, there was a tacit acceptance of seasonality. Programs planned and purchased accordingly, with campaigns ramping up in the preferred high-season months, when they performed 75 to 80 percent of their circumcisions. So why is it important to overcome seasonality?

First, targets for number of circumcisions needed to reach HIV prevention goals have increased constantly, and it has become ever more challenging to meet these targets within the limited timeframe of the cold season. All 12 months need to be productive. Secondly, if sites are equipped and providers trained, but few clients seek MC services for two-thirds of the year, then resources are not being used efficiently. Providers are extremely busy during the winter season, and some may be pulled away from other routine duties to help with VMMC; yet their VMMC client loads during the rest of the year are low.

"In Southern and Eastern Africa, where a very limited number of skilled healthcare workers must address a large burden of disease, it is critical that human resources are managed efficiently," says Kelly Curran, Director of HIV/AIDS and Infectious Diseases at Jhpiego.

In addition, cost analyses show that under-use of VMMC sites drives up the unit cost of VMMC (Njeuhmeli et al. 2014). In Njeuhmeli and Kripke, low service utilization was projected to result in the greatest increases in unit price among all factors examined, while increased utilization of site capacity led to decreases in unit costs. Breaking seasonality will cause the unit cost of VMMC to decrease, while program productivity will increase with the same level of resources. As resources for VMMC become more scarce, it is critical to use existing resources as efficiently as possible.

Poster translation: Youth and Men of Iringa Region, Remove Your Sweater Sleeves!
Dondosha Mkonosweta! Campaign Poster, 2012

Breaking myths about superior healing in the cool season can therefore help programs to operate more efficiently and achieve VMMC goals. This is not only true for Tanzania, but for other priority countries that also face the challenge of seasonality, such as Malawi, Lesotho, and South Africa.

How Was Seasonality Overcome?

During its first three years, the VMMC program in Iringa and Njombe was implemented in line with the historical view that circumcision programs must wait for the high-demand season. Initially, the program focused efforts around the cold season and school holidays, reinforcing the concept with the design and implementation of a demand creation campaign with the slogan, *Dondosha mkonosweta!* (Remove your sweater sleeves), which is a common local slang term for getting circumcised. This campaign, developed with the participation of program beneficiaries, was designed to attract older men to services. The use of a sweater in the local slang both elucidated and reinforced the local belief that male circumcision was a cold-weather activity.

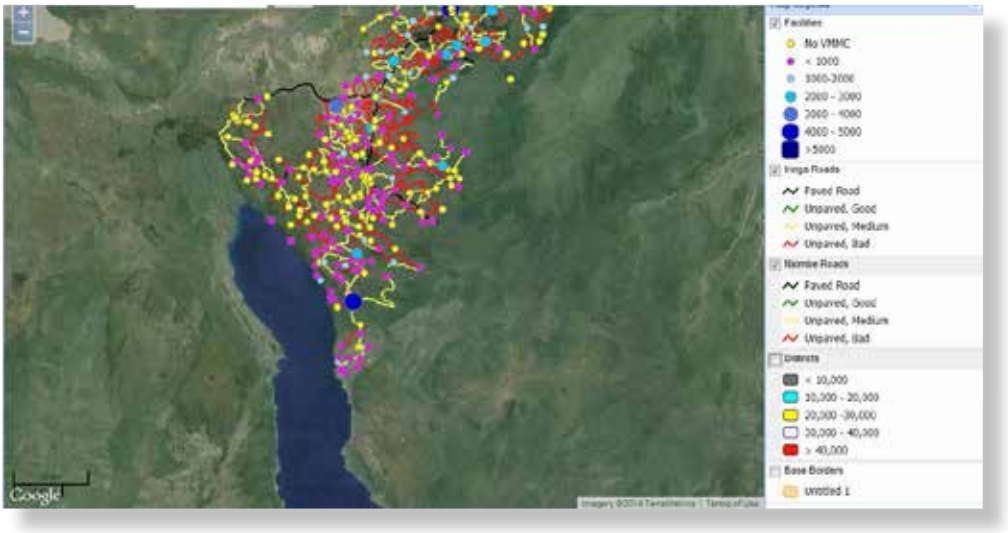
The *Dondosha Mkonosweata!* campaign ran for one year. The ending of that campaign coincided with the realization that the increase in the number of men targeted made it less feasible to reach program goals while focusing only on the cold season. The MOHSW, local authorities, and MCHIP then developed new strategies, designed to meet programmatic targets by expanding use of VMMC services throughout the year, including the "off" season in the warmer months. The strategy built upon five key factors:

- *Off-season rural outreach:* In the off-season, the program focuses on taking VMMC services to the most rural, remote sites. Potential

Table 1.
Number of VMMCs Performed by Region and Site, March 2014

Region	Circumcision Sites			Total
	Hospitals	Health Centers	Dispensaries	
Iringa	6	17	93	116
Njombe	9	16	105	130
Tabora	6	14	81	101
Total	**21**	**47**	**279**	**347**

clients know that if they fail to take advantage of services while the VMMC teams are present, they will have limited access to VMMC services at another time of the year. A "parent-child" approach, described on page 9, enables expanded access to services even in very isolated sites.



GIS-based map showing Iringa and Njombe characteristics

- *Site mapping:* Geographic information systems help to identify the best sites for outreach campaigns.
- *Collaboration with schools:* Collaboration with district and local school officials enabled students in these rural areas to be released for a day or two during service delivery periods, so that they can receive VMMC services that otherwise might not be available during school holidays.
- *Personal stories:* Those were circumcised during the off season share their experiences with their uncircumcised peers, especially via interpersonal communication. This is helping to change attitudes toward seasonality. By now, almost everyone in Iringa and Njombe knows one or more friends or relatives who were circumcised in the off season, have completely healed from their circumcision, and can tell their story.
- *Year-round outreach:* The VMMC outreach campaigning was conducted year-round, rather than only during the high season.

These key factors, in conjunction with enhanced demand creation, especially interpersonal communication, and the use of "Parent" and "Child" clusters, helped the program overcome the limitations of seasonality.

Taking Services to Remote Areas

The program has provided VMMC services in 488 unique sites during the last five years, but as Table 1 shows, as of March 2014 the majority (80

VMMC team members haul supplies over a stream and up a hill to the village health dispensary. The community of Lifuma (population 2,200) is one of three lake villages the team will visit this day. Photo by Sterling Riber, MFD. June 2013

percent) 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 the people live, rather than expecting the men to travel to services. Men with a choice will still go to fixed service locations, primarily in hospitals and large health centers, in the winter season. Therefore, in the off season, the program prioritized remote communities where people usually do not have access to services.

Over the past five years, there has been a significant change in the percentage of VMMCs performed in the cold months. In 2010, 88 percent of VMMCs were performed in the winter months of June, July, and August. By 2014, the proportion of high-season VMMC acceptors was down to 28 percent.

Using GIS for Better Targeting of Site Placement

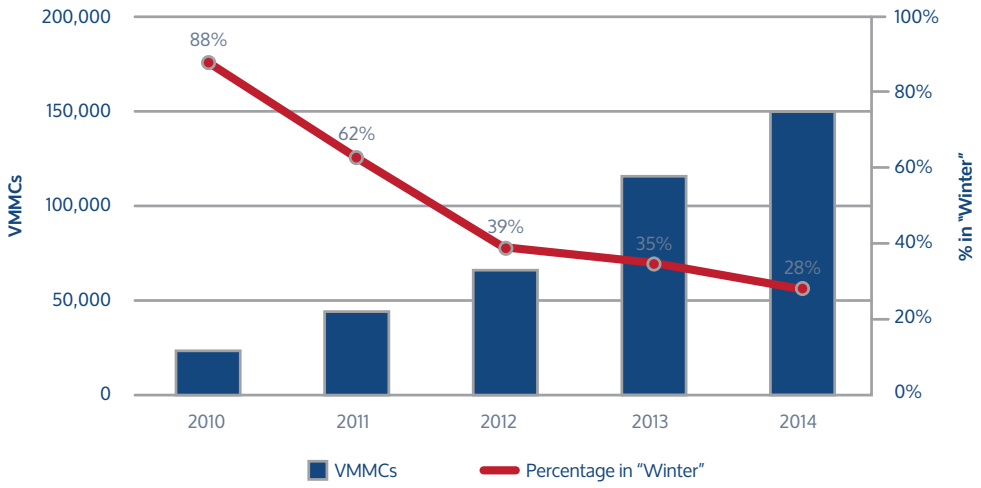
Prior to 2012, VMMC campaign sites were determined based on recommendations by district officials and site assessments. As the 2012 winter campaign approached, the program conducted an analysis of VMMC program data in the context of population and health facility demographics, using geographic information systems (GIS) to optimize site selection. For the 2012 campaign, population data at the ward level from the Tanzania 2002 census was projected for 2012, and overlaid with the coordinates of the majority of health facilities in Iringa and Njombe, along with VMMC facility-level data disaggregated by age. Using Quantum GIS (QGIS), these data were spatially analyzed to identify areas of both regions where there was a high concentration of potential clients for VMMC.

This experience enabled the team to track scale-up and progress toward VMMC targets, and to 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 service delivery database and a database of key demographic and facility information.

Currently, the GIS maps are used year-round to select sites for mobile teams, outreach activities, and campaigns. The maps contain key information about the facility itself (number of patients served per month), availability of water and electricity, the number and cadre of providers, and other information that helps to direct resources according to the needs of specific sites. Google Maps also allows users to see areas in the community that may be appropriate for demand creation activities.

Figure 3.
Percentage of VMMCs in "Winter"



Parent-Child Clusters

As the VMMC program has reached more and more rural areas 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 MCHIP plans for a single VMMC team (providers and peer promoters) to serve clusters of sites named "Parent" and "Child" sites. Parent sites anchor the team. Services are offered at the Parent site initially, 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 to 15 kilometers down the road. Autoclaving and commodities management continue at the Parent site, and providers usually lodge near this site. This approach enables a single cluster to maintain a client load of 70–100 clients a day even in very rural settings. As a result, whereas MCHIP originally worked 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.

"Personally, I don't believe in seasonality anymore. I learned that by following those principles of proper surgical techniques and good interpersonal counseling that wound healing is good and fast. My attitude toward seasonality and MC has changed totally."

Working with Schools

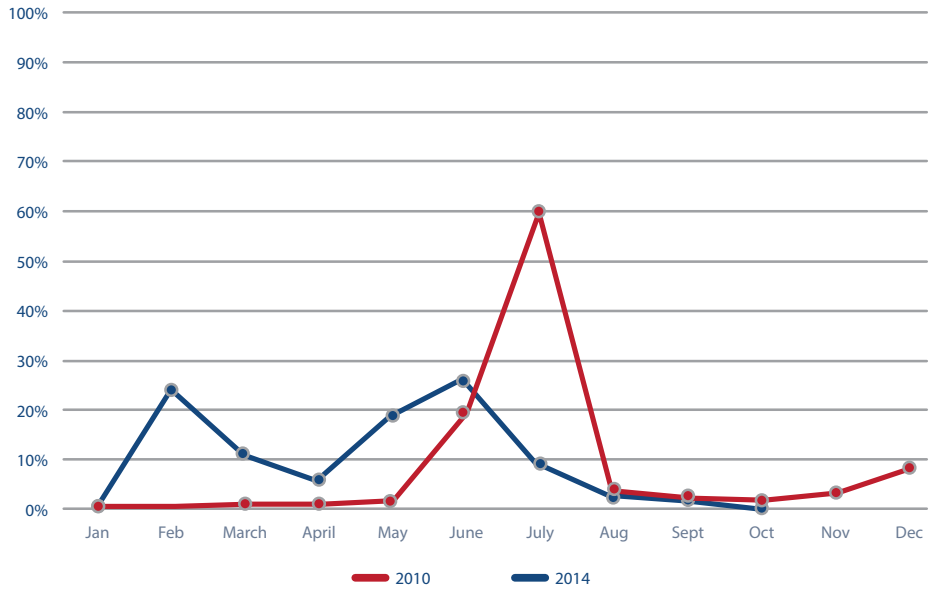
Education officers are important participants of regional and district demand creation teams. Relationships with education officers gives VMMC demand creation agents access to primary and secondary school students. When approaching the headmasters of the schools to seek access to campuses and students, the demand creation team also requests that small numbers of students who are interested in VMMC (and have parental consent) be allowed to attend VMMC services during school days. (Similar requests are made by the health system for immunization days and other special government health campaigns.) The team is careful to avoid campaigns during exam periods.

Peers who were Circumcised "Off Season" Share Their Stories

Testimonials from adolescents and men who have received VMMC services are powerful motivators for men and boys who are "on the fence" about VMMC. In an attempt to counteract the strong local belief that healing is better in the cold season, the program actively recruited peer promoters who were circumcised off-season to testify to their healing process. Additionally, during the off season, the program uses local radio talk shows to host satisfied clients who were circumcised in non-high season months, and to take calls from men and boys in the communities who were circumcised off season. These testimonies are supplemented by health care providers, who share medical information about seasonality and VMMC healing.

Figure 4.

Percentage of Men Circumcised by Month, 2010 versus 2014



Ladilius Ngeresa, a peer promoter with the USAID/MCHIP VMMC program led by Jhpiego in Tanzania discusses VMMC benefits with Kasyani Munyi when he visited his home in Ihimbo village in Iringa, Southern Tanzania. Peer promoters like Ngeresa have played a key role in boosting client numbers during VMMC campaigns and outreach services. Photo by Charles Wanga, Jhpiego. July 2014.

Campaigning Year-Round

The year-round campaign was essential to meeting the increased targets for VMMC. By providing rural service outreach and working with rural schools in the off season, the program was able to hold successful campaigns year-round.

Has Seasonality Been Overcome?

Over the past five years, there has been a significant change in the percentage of VMMCs performed in the cold months. In 2010, 88 percent of VMMCs were performed in the winter months of June, July, and August. By 2014, the proportion of high-season VMMC acceptors was down to 28 percent (see Figure 3).

Figure 4 shows the change in how VMMCs were distributed throughout the year—relying less on the winter season and other school holidays. While in 2014 there are still peak months, those months coincide with decisions to implement campaigns that are not linked to seasonality, but rather convenience and other opportunities (e.g., collaborations with partners such as the United Nations Children's Fund who have funding to assist with demand creation).

Together these graphs show a very clear shift in approach and demand. Rather than relying on the cold season and school holidays, VMMC programmers have developed greater independence in VMMC surge scheduling.

Have Attitudes Towards Seasonality Changed?

The data demonstrating a major shift in seasonality are supported by observations of health providers who have offered VMMC services for several years in the region. Interviews with VMMC providers in Iringa and Njombe point to changes in attitudes toward circumcision and seasonality among clients, and among the providers themselves. As one nurse from Iringa put it, "In the past clients preferred to come for services in the winter believing that wound healing was faster then, but now people seek our services at any season of the year."

Another nurse from Iringa had this to say: "In Iringa people believed that the proper period for circumcision was in May, June, and July, the winter months, but there is a great change among our community concerning this. Now clients are coming throughout the year and the difference in numbers between the seasons is not big."

How do providers explain their clients' change in attitude? Several mentioned that through education people have come to understand that proper wound healing has more to do with proper wound care than the season of the year. Some providers attribute the shift to men seeing other men who were circumcised in the hotter months, and still healed properly.

All of the VMMC providers who were interviewed said that their own attitudes toward seasonality had in fact changed over the years.

"Personally, I don't believe in seasonality anymore," said one nurse/surgeon. "I learned that by following those principles of proper surgical techniques and good interpersonal counseling that wound healing is good and fast. My attitude toward seasonality and MC has changed totally." These responses from a sample of providers reflect a widespread attitudinal shift in the regions where the program operates.

Recent qualitative research conducted in Njombe and Tabora regions with males (circumcised and uncircumcised) and female partners/mothers also point to a decrease in seasonality as a salient issue for beneficiaries. Whereas in 2011 seasonality was mentioned as a major barrier to VMMC uptake (Plotkin et al. 2013), it was not mentioned at all in similar research conducted in 2014.[1]

[1] FGD results, Increasing uptake of voluntary medical male circumcision among men aged 20 to 49 years of age in the Njombe and Tabora regions of Tanzania: A cluster randomized controlled trial, National Institute for Medical Research, Mwanza, Tanzania, 2014. (Study ongoing.)

Recommendations: What Other Country Programs Can Do to Overcome Seasonality

Tanzania is not alone in facing the challenge of seasonality as it scales up its VMMC program. Several other priority countries are also grappling with this barrier to their VMMC scale-up. While each country has its own unique sociocultural context, lessons can still be learned from the Tanzania experience.

The following factors led to the substantial improvements in VMMC uptake in Iringa and Njombe. Other countries should consider these approaches in their own attempts to overcome seasonality.

1. **VMMC service location:** In the hot or off season, take services to more remote areas of the country, providing access to people who normally would not have access to services. Use GIS to optimize site selection.
2. **Year-round availability of services:** Campaign year-round, not just in the cold season, and focus on those remote areas.
3. **Collaboration with schools:** Work with provincial or district school officials to allow students to be released for VMMC services during the school year, rather than only in the school holiday periods.
4. **Testimonials:** Through interpersonal communication and radio programs, allow potential clients to hear personal stories from men and boys who have been circumcised during the warm season and have healed well.
5. **Playing up the positive:** Find out what people dislike about VMMC during the high season, such as long waiting times at clinics and lack of sufficient privacy, and then play up the attributes of off-season (e.g., more privacy, easier appointment scheduling).
6. **Provider training:** Be sure to address the issue of healing and seasonality during training for health providers.
7. **Ongoing monitoring:** It is important to keep on trying, even if challenges arise. Conduct formative research to help you identify barriers and facilitators and continuously adapt your program with new approaches to see what may work.

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