



PEPFAR

U.S. President's Emergency Plan for AIDS Relief

CHAPTER FIVE.

VMMC SKILLS TRAINING & TRAINING OF SUPERVISORS

PEPFAR'S BEST PRACTICES FOR VOLUNTARY MEDICAL MALE CIRCUMCISION SITE OPERATIONS

A Service Guide for Site Operations

Acknowledgments

This publication is made possible by the generous support of the American people through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) with the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project, number AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, the International HIV/AIDS Alliance, Jhpiego Corporation, and PATH.

We are eternally grateful to Dr. Tigistu Adamu Ashengo of Jhpiego and Dr. Emmanuel Njeuhmeli of USAID, who developed the first edition of this manual.

The second edition was developed under the leadership of Dr. Valerian L. Kiggundu (USAID) and Mr. Jonathan Grund (CDC). Special thanks are given to the Male Circumcision Technical Working Group, who edited and contributed to the development of both the first and second editions.

Special appreciation is given to the AIDSFree staff members who coordinated with different authors, agencies and organizations to support the development of this document, including providing editing and graphic design support.

Finally, we are most grateful to the men who stepped forward to receive male circumcision for HIV prevention; the Ministries of Health from the 14 priority countries, and the implementing partners who generously shared the best practices that have been used throughout this document.

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CHAPTER 5.

VMMC Skills Training & Training of Supervisors

CHAPTER GOALS

To give voluntary medical male circumcision (VMMC) service providers the required competencies to provide a full package of VMMC services, according to national, World Health Organization/Joint United Nations Programme on HIV/AIDS (WHO/UNAIDS) and U.S. President's Emergency Plan for AIDS Relief (PEPFAR) standards. These competencies include the following:

- Group education and individual counseling on VMMC and human immunodeficiency virus (HIV) risk reduction
- Pre-procedure clinical eligibility screening.
- Pain control using appropriate weight-based dosing of local anesthetic agents
- Povidone iodine skin preparation with two-minute drying time before circumcision
- Immediate post-procedure clinical monitoring
- Clinical follow-up including diagnosis, management and referral of adverse events
- Training and use of emergency commodities to handle any potentially severe/life threatening adverse events, and/or having developed in advance and able to utilize a rapid referral plan for more advanced levels of medical care, as needed
- Referral and active linkage of VMMC clients identified as HIV-positive at VMMC sites to HIV care and treatment services as well as other services, such as STI treatment
- Use of safe injection techniques
- (For supervisors) Provide supportive supervision for other service providers.

WHAT USERS NEED TO KNOW

To maintain the highest level of quality and safety required of an elective surgical/clinical program, all those providing services at the site must have completed and been deemed competent by a recognized in-service training program in providing the full minimum package of VMMC services, including clinical circumcision services, as well as HIV testing, risks/benefits of circumcision, risks of complications, post-procedure hygiene, wound care, and

abstinence counseling. See .

Providers should be specifically trained in eligibility screening, including medical history, physical examination, screening for sexually transmitted infections (STIs), tetanus vaccination history, and tetanus risk. The actual circumcision procedure must be by a WHO-recognized method, including forceps-guided (for males older than 14 years), dorsal slit, sleeve resection, or a WHO-prequalified medical device for adolescent or adult VMMC. Programs using electrocautery for hemostasis must provide adequate training in both electrocautery and placement of ligating sutures (**Table 5.1**). Special attention during training is given to weight-based dosing of local anesthetic for pain control, with particular emphasis on the correct technique for injection of local anesthetic (aspiration before EVERY injection of anesthetic agent to ensure the needle is not in a blood vessel or the corpus cavernosum). Safe injection training also addresses the problem of “double-dipping” and reuse of anesthetic vials, needles, or syringes between patients [See Chapter 9.]

Providers are trained on clinical follow-up, including screening, documentation, diagnosis, management, and reporting of adverse events. While numerous VMMC for HIV prevention curricula exist throughout the sub-Saharan region, all must be based on core knowledge and skills outlined by WHO [See [WHO Manual for Male Circumcision Under Local Anaesthesia, 1st edition](#)]. Supplemental training information has also been developed that sites should use to ensure providers are up to date on the current standard of practice, such as identification and management of adverse events [See [COSECSA/PSI VMMC AE Action Guide](#)] and correct use of electrocautery [See [Manual for Use of Electrocautery in VMMC](#)]. Training material specific to VMMC counseling should also be used [See [VMMC Counseling Training Package](#)].

Site-level refresher training in best practices [See [VMMC Video: Implementing Best Practices](#)] and basic VMMC science [See [Global Health e-Learning Course—Male Circumcision: Policy and Programming](#)] may be useful for identifying opportunities for innovation and ensuring retention of basic knowledge. For sustainability of the program, existing supervision systems should also be strengthened; those responsible for supervising VMMC service providers may benefit from supportive supervision training [See [Supervising Healthcare Services: Improving the Performance of People](#)] and tools for assessing providers to ensure ongoing competency or to identify needs for refresher training [See [Quality Assessment Toolkit](#)].

FREQUENTLY REFERENCED INFORMATION

This section includes a table classifying appropriate circumcision methods according to the client’s age. While all three surgical methods are supported by PEPFAR, not all device-based methods are; providers using PEPFAR funding for device-based VMMC should understand the differences.

Table 5.1. VMMC Surgical and Device-Based Methods and Age Groups where Methods May be Used

CRITERIA	SURGICAL METHODS						VMMC DEVICES			
	Forceps-guided	Dorsal Slit	Sleeve Resection	Elastic collar compression (e.g. PrePex™)	Collar clamp (e.g. ShangRing)	Vice clamp (e.g. TaraKlamp™, Neo-alisklamp™)	Crush (e.g. Unicirc®)	Ligature compression (e.g. Circumplast®, Zhenxi Ring™)	CCSAC [Circular Cutter with Stapled Anastomosis for Circumcision (CCSAC)]	
VMMC Method										
Appropriate Age Group	15+	10+	10+	13+	13+	Children 2+; Men 16-42	Pending WHO pre-qualification (Undergoing phase IV field trial in South Africa)	18+	Expensive; not yet evaluated by WHO	
PEPFAR-supported for use	Yes	Yes	Yes	Yes	Yes	No	No	No	No	

FOR ADDITIONAL INFORMATION

TRAINING BASICS

VMMC service providers must be competent in the skills required to provide the full package of medical circumcision and HIV prevention services outlined by WHO and endorsed by PEPFAR. Training curricula for clinicians providing circumcisions must focus on the knowledge and skills required not only to perform safe and **high-quality** circumcisions, but also on counseling basics so that clinicians can reinforce appropriate messaging when interacting with VMMC clients [See [VMMC Video: Implementing Best Practices](#), [WHO Manual for Male Circumcision Under Local Anaesthesia, 1st edition](#), [VMMC Global Health e-Learning Course: Male Circumcision: Policy & Programming](#), and [VMMC Counseling Training Package](#)].

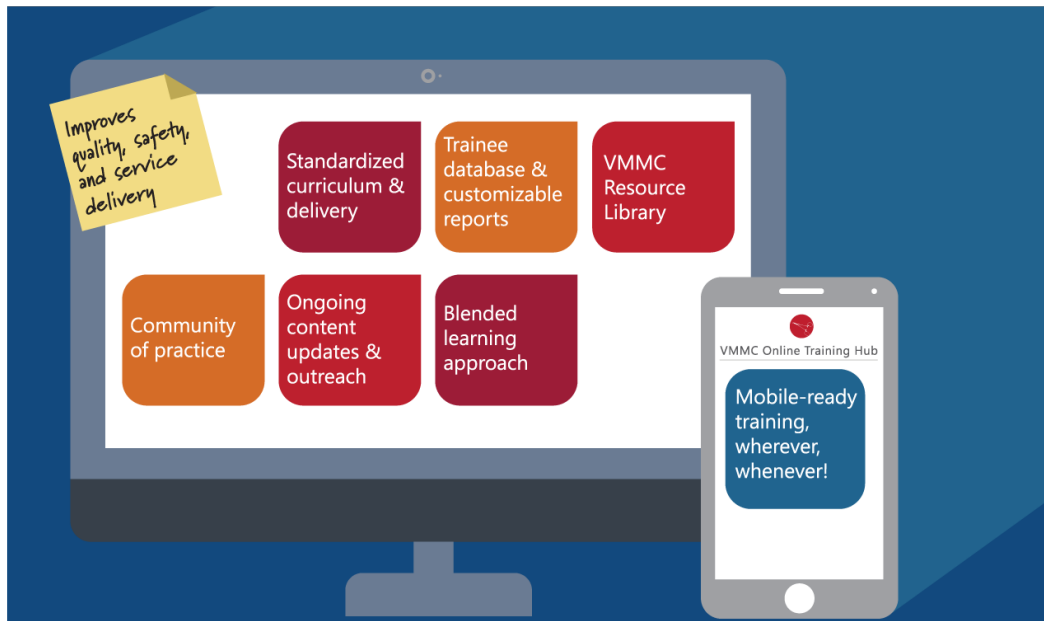
In-service training programs for clinicians who will perform circumcisions are designed for trainees who have previously completed preservice training in basic surgical techniques, including circumcision. The same holds true for curricula for clinical/surgical assistants and counselors (ideally). The Ministry of Health (MOH) and/or Ministry of Defense must endorse clear training guidelines and competencies for VMMC staff, and staff must complete training and be deemed technically competent by trainers before beginning to provide VMMC for HIV prevention services. Training and certification of competency by an in-service training program is important after a credentialed clinician has completed his or her preservice training because the services provided in the context of the HIV prevention program encompass knowledge and skills beyond just the clinical/surgical techniques of foreskin removal, e.g., HIV testing and counseling, HIV risk reduction counseling in relation to circumcision, syndromic screening of STIs, PEPFAR policies about circumcision technique and client age, device-based techniques likely to be introduced after preservice training, commodities that may be unique to the HIV prevention program supply chain, and special considerations for HIV-positive clients.

The VMMC Online Training Hub

The USAID and PEPFAR-funded Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project is in the process of developing an innovative training platform for VMMC providers. The VMMC Online Training Hub (OTH) standardizes curriculum content and ensures consistent delivery of course materials. The learning management system (LMS) will track providers' training dates, competency scores, strengths and weaknesses, and the time it takes them to complete the course. The LMS will also facilitate engagement with trainees to introduce new or updated information, confirm ongoing competencies, remediate weaknesses, and track post-training service delivery volumes. The OTH provides a blended learning approach with linkages to the clinical practicum, and will enable providers to train intermittently, repeatedly, and for durations that accommodate their schedules. It will allow trainers and program managers to customize training, so that personnel time is only directed to subjects relevant to an individual's current learning needs.

AIDSFree is working in collaboration with USAID, drawing on the technical knowledge of experts in the field to develop the OTH, and using PEPFAR and WHO guidelines and resources as source materials for curriculum development. The first eight modules of the curriculum are in progress. Usability testing of the OTH took place in South Africa in February 2017, and the project will apply lessons learned from these experiences as the modules are piloted in South Africa with in-country partners. To learn more about the OTH, please visit the AIDSFree website here: <https://aidsfree.usaid.gov/resources/vmmc-online-training-hub>.

Figure 5.1. Model of the VMMC Online Training Hub



Note: Clinicians participating in the VMMC for HIV prevention program should complete in-service training and be deemed competent by a government-recognized training partner, even if the clinician has previously completed preservice training.

TRAINING ON ELECTROCAUTERY

Use of electrocautery is becoming common in VMMC programs. Sites using this technology for hemostasis must ensure clinical staff are well trained in its use. While there are clear advantages to electrocautery, misuse may result in harm to clients. Site managers and providers should be well informed about all aspects of electrocautery detailed in the [Manual for Use of Electrocautery in VMMC](#). Key considerations are as follows:

- Channeling effect may occur if used on viscous tissue with narrow pedicle, e.g., penis, testes.
- Monopolar diathermy should not be used for infant circumcision because the point of maximal electrical resistance may be at the base of the penis, particularly if the penis is under any traction, with risk of coagulation and loss of the whole penis.
- Care has to be taken to ensure that the patient is not in contact with any metal or conducting material as there is a risk of earth leakage and burns at the point of contact with the conducting material. This risk is greatest with monopolar diathermy; but whenever diathermy is used, care must be taken in positioning patient on the operating table, the choice of operating tables, and clinic construction to prevent leakage of current to earth.
- The grounding plate should be placed so that there is a broad area of contact between the plate and the patient's skin. Sometimes it may be necessary to shave hairs to ensure good contact.

- If the machine fails to respond when the surgeon activates the current or there is no obvious and immediate visual evidence of coagulation, the surgeon should immediately stop applying the current and check all connections and the grounding plate. If the surgeon continues to apply current, burns may occur where resistance is greatest. This is most common where the grounding plate is in contact with the body or where the body is in contact with metal. In rare circumstances, the burn may occur elsewhere on the body.
- When using diathermy, the surgeon should apply the forceps as precisely as possible. The best results will be obtained if the blood vessel is between the diathermy prongs with minimal other tissue, and the current activated for the shortest time needed to ensure hemostasis. If too much tissue is grasped, diathermy will not stop the bleeding because the burn is too diffuse.
- Prolonged diathermy causing large black burns should be avoided as these may result in infection, increased postoperative pain, and scar tissue formation.
- Particular care must be taken near the frenulum because the urethra is near the surface, and there is a risk of creating a fistula by burning through to the urethra.
- Diathermy should also be used with caution close to the skin and mucosal edges as transmitted heat may cause burns to the skin or the wound edges, which may affect healing. Diathermy can be used to stop bleeding from small blood vessels, but for larger vessels, it is safer to apply an artery forceps and tie or under-run.

SUPPORTIVE SUPERVISION TRAINING

Supervisors of VMMC providers and staff at VMMC sites should also receive training. For sustainability and integration of a VMMC program within the health system, the existing supervision systems will be strengthened and supported by key clinical and managerial site staff members who are responsible for their respective geographic locations. Supportive supervision is “a process that promotes quality at all levels of the health system by strengthening relationships within the system, focusing on the identification and resolution of problems, and helping to optimize the allocation of resources—promoting high standards, teamwork, and better two-way communication” (Marquez and Kean 2002 p. 12). The [WHO Manual for Male Circumcision Under Local Anaesthesia, 1st edition](#) includes tools used to assess providers before, during, and after service provision. In addition, a variety of performance improvement and quality assessment (QA) materials have been developed that supervisors can use during their supportive supervision [See [Quality Assessment Toolkit](#)]. Supervisors who were previously trained in supportive supervision need only the VMMC technical training, whereas supervisors who have received VMMC technical training may need only supportive supervision training [See [Supervising Health Care Services: Improving the Performance of People](#)].

KEY CONSIDERATIONS FOR TRAINING

- In terms of timing and selection of trainees, it is important to schedule training immediately before selected staff will begin performing VMMC. This is critical to ensure that medical professionals retain the skills acquired in training and that training resources are used efficiently. Lapses of time between the completion of training and actual service delivery may compromise retention of knowledge and skills gained during training.
- Clinical staff on a rotation schedule may require refresher courses if they rotate out of VMMC service delivery for an extended period.

- When possible, staff should be trained using instruments that are similar to those they will use on-site (i.e., if they will be using single-use disposable kits, they should use similar commodities for training). However, even if staff are likely to be using diathermy for hemostasis control, they should also be trained in suture ligation.
- In cases where VMMC services are supported in a multipurpose health care facility with many staff members, such as a hospital, it is best to establish a memorandum of understanding (MOU) with the host facility regarding VMMC training standards to ensure that only those completing the government recognized in-service VMMC for HIV prevention training provide VMMC services.
- All VMMC training must include in its curriculum the use of emergency supplies to manage particularly severe complications. Every person working in a clinical role at the VMMC site should be adequately trained in emergency management, including resuscitation, and in the use of the supplies and equipment provided for this purpose.
- Concepts of voluntarism and informed consent should be explained to all staff trained in VMMC. It is a team responsibility to ensure voluntarism throughout all aspects of the program and to ensure that the proper informed consent procedure is conducted during clinical practice [See [Chapter 12](#)].
- It is important to keep an accurate record of the names of staff members who took the VMMC training and the date of the training. This information should be added to a database of trained providers and staff, and dates of refresher trainings should be maintained [See [Training Information Management System Form](#)].

CASE STUDIES

[Case Study 5.1. New VMMC Training Modality Reduces Training Time for Private Providers in Namibia](#)

[Case Study 5.2. Integration of Pre-Campaign Clinical Refresher Training to Ensure Service Quality in Malawi](#)

TOOLS, INSTRUMENTS & GUIDANCE DOCUMENTS

The following documents, which are available online and in the accompanying external media (included with the hard copy version of this Guide), provide the background information or procedural guidance used for development of this chapter.

1. [WHO Manual for Male Circumcision Under Local Anaesthesia, 1st edition](#)
2. [COSECSA/PSI VMMC AE Action Guide](#)
3. [Manual for Use of Electrocautery in VMMC](#)
4. [VMMC Counseling Training Package](#)
5. [VMMC Video: Implementing Best Practices](#)
6. [Global Health e-Learning Course—Male Circumcision: Policy & Programming](#)
7. [Supervising Healthcare Services: Improving the Performance of People](#)

8. [VMMC Standardized Job Descriptions](#)
9. [Training Information Management System Form](#)
10. [Quality Assessment Toolkit](#)

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ABBREVIATIONS

AE	adverse event
HIV	human immunodeficiency virus
M&E	monitoring and evaluation
MOH	Ministry of Health
MOU	memorandum of understanding
PEPFAR	U.S. President’s Emergency Plan for AIDS Relief
QA	quality assessment
STI	sexually transmitted infection
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
VMMC	voluntary medical male circumcision
WHO	World Health Organization



CASE STUDY 5.1.

New VMMC Training Modality Reduces Training Time for Private Providers in Namibia

Most private for-profit health care providers are running independent clinics that depend entirely on availability and effort of staff to generate income. Therefore it is a challenge to get the providers to attend trainings, as they are frequently working in their practices. Learning sessions targeting private providers are often run in the evening or on weekends to accommodate their schedules. Although short sessions of one to two hours, evenings or weekends, may be suitable, it poses a challenge when more time is required for longer trainings. The national VMMC training is conducted over two weeks, making it logistically impossible to get private providers to attend.

To overcome these challenges, a novel training modality was used, comprising a four-phase approach:

- All private providers in Namibia were medical doctors who were already practicing male circumcision. This process identified their training needs to help the trainers tailor the training accordingly.
- Online modules were provided so that clinicians could access content when convenient.
- One and a half days of in-person training was used to deliver key concepts and information on VMMC.
- An all-day supervised clinical skills orientation session was conducted.

Figure 5.1.1. Provider Trainee Conducting Clinical Skills Orientation Session Under Supervision of a Trainer



Starting in May 2015 more than 30 private providers who completed online modules have received the short one and half day trainings in three groups of 10–15 providers. This was followed by a one-day intensive clinical practice session and post-training evaluation.

Given that most of the providers had some level of familiarity with providing male circumcision, the overarching goal of the skills training was to standardize the way the procedure is performed. The all-day clinical session had an added bonus of physicians from different sites interacting, building on each other's confidence and exchanging ideas. The timing of the face-to-face and clinical practice was crucial: Health seeking habits vary significantly within a month, and aligning the trainings with the low volume of patients on weekends presented an attractive option for providers. This approach would work very well in both private and public settings.



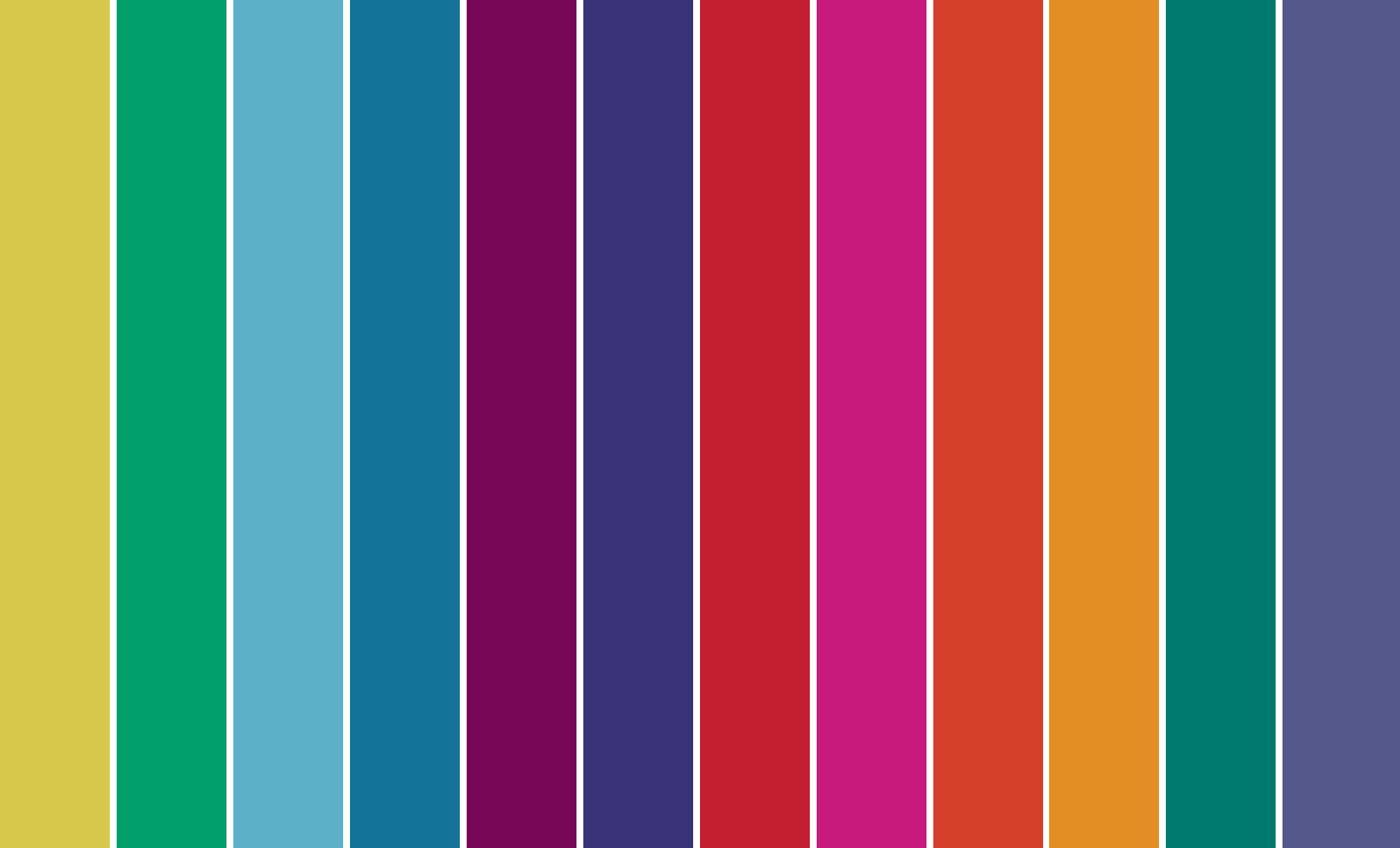
CASE STUDY 5.2.

Integration of Pre-Campaign Clinical Refresher Training to Ensure Service Quality in Malawi

To implement a six-week major campaign from July to September 2015 in the Thyolo, Chikwawa, and Zomba districts of Malawi, Jhpiego's USAID-funded Sankhani Moyenela Program and the District Health Offices needed a large number of additional staff (clinicians, monitoring and evaluation [M&E], drivers, counselors, etc.) to meet ambitious program targets. The Ministry of Health (MOH) at the national level and from various districts countrywide provided the additional staff. Although trained in VMMC, most of the 120 additional providers were not routinely providing VMMC in their home districts. To ensure quality service delivery, the Sankhani Moyenela Program arranged a two-day, pre-campaign orientation for all campaign staff. The first day was dedicated to general issues of quality, the campaign strategy, and logistics. The second day focused on job- and task-specific skills orientation and functions.

For clinicians, the refresher training included in-depth discussions about quality shortcomings, clinical simulation, and practice sessions focused on technical areas. While the orientation broadly focused on ensuring a thorough understanding of the minimum package of services, specific focal areas included the dorsal slit technique, injection of anesthesia, hemostasis, and infection prevention, among other aspects that had been identified as gaps during continuous quality assurance activities. During this orientation and refresher training, activity supervisors also facilitated a case-by-case audit of severe adverse events (AEs) from previous VMMC campaigns. The audit was designed to heighten team vigilance about prevention of AEs and to highlight critical gaps for detailed discussion and practice during the orientation.

The clinical skills refresher training was an essential aspect of the pre-campaign staff orientation. The tailored sessions allowed the trainers to identify and address quality gaps to ensure that the 24 clinical teams were sufficiently prepared to provide safe VMMC services to more than 17,500 clients over the six-week period. In total more than 100 clinical staff were trained, and the AE rate during the campaign was <0.5% (n = 48: 6 severe and 42 moderate), which was an improvement from previous campaigns. Furthermore, the refresher training helped clinical managers to distribute staff within teams to account for observed skills and experience. The exercise also allowed clinical managers to identify individuals who would need extra support, enabling them to more effectively target supportive supervision and mentoring visits during the course of the campaign.



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