



ROBUST MONITORING, MENTORING, AND TRAINING TO OPTIMIZE THE QUALITY OF VOLUNTARY MEDICAL MALE CIRCUMCISION SERVICES

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Johnson Joachim, Kija Nyalali, Paul Mwakipesile, Peter Sewa, Zaynab Lweno, Denis Flowin Fischer, Pastory Sekule, Lucy Mphuru, Shawn Aldridge, Anne Fitzgerald Vinluan

CONTEXT

Three recent global reports prioritize the importance of quality health services, the impact of not providing quality care to clients, and necessary measures to improve quality.^{1, 2, 3} Although poor quality of care has an impact across all dimensions of the health system, it is especially sensitive during the male circumcision procedure and within the 14-day post-circumcision period. A serious concern has been whether voluntary medical male circumcision (VMMC) can be provided safely to large numbers of adult men in developing countries.^{4, 5, 6, 7, 8} Evidence from published literature has reported severe and moderate adverse events (AEs) from diverse service delivery settings, ranging from 0.2 to 16.2 per 100 VMMCs, with an average of 0.3 per 100.⁴ An analysis of service delivery data in Tanzania showed that, among 741,146 VMMC clients circumcised from 2009 to 2017, 0.18% (1,307) experienced moderate

or severe AEs. The intraoperative AE rate was 2.02 per 100,000 clients, and postoperative rate 2.29 per 1,000 return clients. Therefore, the post-operative period is particularly critical for prevention of AEs among VMMC clients.⁵

To ensure quality and safety of VMMC services is being closely monitored, the World Health Organization (WHO) released quality and safety guidance in 2008, and further revised it in 2018.⁹ In addition, in 2016, PEPFAR released an AE action guide that was updated in December 2020 to provide guidance on safe and appropriate management of any complications associated with VMMC, standardized identification and grading of AEs, and monitoring of VMMC program safety and quality.

Prioritizing the need to improve access, utilization, and quality of VMMC services, the Government of Tanzania has undertaken multiple efforts toward



improving the quality of VMMC services. However, a real challenge is translating operational guidelines and plans to on-the-ground implementation.

OUR CONTINUOUS QUALITY IMPROVEMENT APPROACH

Through the CDC-funded Tohara Plus project, IntraHealth International and its local affiliate, *Afya Plus*, facilitated focused planning and implementation of a comprehensive VMMC model over five years, including a robust multicomponent, multistage continuous quality improvement (CQI) system. The project supported delivery of quality, safe VMMC services in Mara, Mwanza, Shinyanga, and Simiyu regions (adding Geita, Kagera, and Kigoma regions in Fiscal Year 2019). The CQI model was integrated across all six health system building blocks to ensure they collectively align with national, PERFAR, and WHO standards/guidelines and best clinical practices. The project supported regions to increase the number of service providers with knowledge and skills to provide quality VMMC services and promoted shared learning and cross-pollination across regions, subnational units (SNU), and at the facility level using regional-based national trainers to quickly scale-up best practices.

HOW IT WORKS

At national level: Tohara Plus supported the initial development and led the revision and updating of the current national VMMC training curricula, CQI curricula and CQI tool, national VMMC guidelines and standard operating procedures (SOPs) and waste management quick guide for VMMC services, as well as the national VMMC database and monitoring and evaluation (M&E) tools. Further, the project supported training of national trainers of trainers (TOTs), who in turn trained regional and council level TOTs in all supported regions. IntraHealth introduced the position of regional/district male circumcision focal person to facilitate smooth operation of VMMC services and enhance ownership and recognition of the program in the regions. In addition, the project worked hand-in-hand with the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) principal investigator and President's Office Regional Administration and Local Government (PORALG) co-investigators to conduct a pilot evaluation and active surveillance of the ShangRing device for adolescent and adult

male circumcision to complement the conventional surgical procedure in Tanzania. In the most recent launch of three state-of-the-art mobile clinic vans, the MOHCDGEC and PORALG took the leading role to assess the feasibility and safety of the vans before wide use for delivering mobile VMMC services for hard-to-reach and high-risk populations.

IntraHealth is an active member of the national VMMC technical working group and fully participates in informing the national VMMC program agenda and other important considerations in line with new WHO and PEPFAR updates as well as field experiences to ensure quality and safety of clients and providers is maintained. Additionally, IntraHealth has actively participated in development and dissemination of the national sustainability roadmap, sustainability operational manual, and national VMMC targets.

The national level teams are supported to conduct biannual internal quality assurance and data quality assurance and external quality assurance activities in the supported regions. The engagement of both MOHCDGEC and PORALG resulted in development of practical tools and guidance at the national level that are adapted and rolled out to the facility level for implementation.

At regional and SNU level: IntraHealth adopted a collaborative approach to implement the VMMC project. The Regional AIDS Control Coordinators (RACCs), regional VMMC focal persons and national VMMC TOTs took a leading role in implementing activities in their respective regions. With increased focus on competency-based training, IntraHealth supported training of health workers using classroom theoretical training sessions, on-site practical sessions, and on-the-job mentoring. To further enhance competency of providers, the regional and council health management teams (R/CHMTs) organized sessions moderated by the urologist from Bugando Medical Centre.

IntraHealth supported distribution of national guidelines, SOPs, data collection and reporting tools to all supported VMMC static facilities. Regions and districts were left with full mandates to plan and implement dissemination activities for all new updates on VMMC. IntraHealth in collaboration with R/CHMTs and national trainers established work improvement teams (WITs) in all supported static sites and conducts coaching and mentorship to all

WIT members to strengthen their performance in ensuring quality standards are adhered to at the facility and in supported communities.

The team in collaboration with R/CHMTs conducts targeted mentorship and routine supportive supervision for service providers and health facilities that are identified with specific challenges. For example, immediately after trainings the newly trained providers are followed up by the team of regional or district trainers to assess and fortify their practical skills. Those who require lengthy support are linked with competent service providers to help perfect their skills while subjected to further assessments. The mentorship team housed at IntraHealth held brief sessions on how to use Standard Evaluation System (SES) journals for monitoring improvement objectives in line with the national VMMC sustainability roadmap and plans.

At facility and community levels: Provision of VMMC services was integrated in 82 static sites, with all the necessary supplies, equipment, and tools for service delivery, recording and reporting. At least two VMMC providers were trained per site to ensure continuity of service delivery.

To enhance roll out of CQI activities IntraHealth established VMMC WITs at all supported static sites. The project conducted a five-day basic CQI training for all WIT members to build their capacity to oversee the day-to-day operationalization of CQI activities at static, satellite, and outreach campaign sites including the use of SES journals. WITs are composed of VMMC service providers from counseling, surgery, M&E, supply chain management, infection prevention and control, and a selected community representative from the catchment areas/communities surrounding the particular static health facility. WIT members are responsible for monitoring CQI indicators and leading the use of performance dashboards to implement the Plan-Do-Study-Act (PDSA) cycle at the supported sites including carrying out clinical audits for each AE and coming up with mitigation plans in relation to identified gaps; setting up site-level work plans, and targets; preparing health worker training plans; forecasting, quantifying, ordering, and tracking the use of commodities; supporting community mobilization and demand creation; and advocating for integration of VMMC as a routine service. On a weekly basis, the WIT members assess and oversee results of newly tested changes that need to be scaled-up.

As part of its CQI model, IntraHealth institutionalized timely use of data to influence decision-making. Data are reviewed to identify performance gaps followed by development of action plans for observed areas of improvement. The mentorship team held brief sessions on how to use SES journals for monitoring improvement objectives in line with the national VMMC sustainability roadmap and plans as well as preparing structured mentorship plans for each provider with knowledge or skills gaps, informed by assessment and performance reports. Data are used to find solutions and to improve on gaps that have been noted during reviews and supervision for better service delivery.

Additionally, with the emergence of the COVID-19 pandemic, IntraHealth in collaboration with R/CHMTs and national trainers quickly adapted to the use of virtual platforms such as WhatsApp groups, Microsoft Teams and Zoom meetings to conduct virtual mentorship and monitoring sessions. Virtual sessions are moderated by the national TOTs as well as the RHMT members who are part of the groups participating in discussions. Based on the gaps identified during supportive supervision, quality assessments and weekly reports, mentorship sessions are arranged where audio/video records, images, and slides as well as case study scenarios are shared with the participants to ignite the online discussion.

This approach helped to reach to more health workers in a cost-effective manner without the need to meet them physically for capacity-building. The organized sessions were intended to improve performance and reduce the incidence of AEs by providing guidance on safe and appropriate management, reporting, and monitoring of the quality and safety of VMMC services.

WHAT WORKED

- High quality VMMC services have been integrated as part of routine health services in 82 static sites with fully functioning WITs.
- All 26 SNUs have dedicated rooms/space for delivering services and pay for utilities and salaries for health workers who support delivery of VMMC services.
- Nine SNUs (9/26) set aside their own facility funds to support delivery of nearby satellite services.

Table 1: VMMC targets vs. performance (2016-2021)

Reporting period	Targets	Males circumcised		Adverse event rates	Follow up ≤14 days
		#	%		
COP 16 / Year 1	256,529	225,093	88%	0.02%	201,111 (89%)
COP 17 / Year 2	320,509	305,718	95%	0.17%	289,735 (95%)
COP 18 / Year 3	400,556	453,089	113%	0.11%	438,452 (97%)
COP 19 / Year 4	159,146	186,014	117%	0.07%	184,215 (99%)
COP 20 / Year 5	235,936	181,000 (Q1-Q3)	77%	0.02%	180,056 (99%)

- RHMTs spearheaded requests for additional VMMC providers from other regions to support outreach campaigns throughout the project lifetime. For example, in COP 2018 when the project had the highest performance (see Table 1), more than 100 VMMC providers were requested and authorized by the MOHCDGEC and PORALG from other non-supported regions (e.g., Dar es Salaam, Mbeya, Katavi, Tabora, and Morogoro) to support campaigns in Mwanza, Mara, Shinyanga, Kagera, Geita, Kigoma, and Simiyu regions.
- The project delivered services through 376 satellite sites and 2,553 outreach campaign sites.
- As of June 31, 2021, Tohara Plus had circumcised 1,350,914 men, contributing 40% of Tanzania's VMMC achievement and circumcising more men than any other partner in Tanzania. This work is estimated to have averted 16,887 new HIV infections.
- A total of 37 national and regional/district-based VMMC trainers (TOTs) and 996 health workers provide quality safe VMMC services.
- Through 12 national ShangRing circumcision TOTs, 23 service providers were trained on ShangRing to support pilot evaluation and active surveillance of ShangRing circumcision and the ShangRing device was registered for medical male circumcision in Tanzania.
- The project recorded very low AE rates at an average of 0.2%; more than 99% follow-up rates; more than 90% Site Improvement through Monitoring System (SIMS) scores; and a more than 95% enrollment rate throughout the project lifetime.

LESSONS LEARNED

Strong working relationships with the MOHCDGEC, PORALG and other stakeholders working in the supported communities fosters sustainability and creates space for the respective stakeholders to own and lead the implementation, not just to participate in the project.

Full engagement of stakeholders from national to community level guarantees support for a successful integration of project activities into routine interventions for sustainability.

Capacity-building and training of project implementors is a key milestone to ensure the right skills are imparted to the right implementors for attaining high quality of care.

Accelerated scale-up of VMMC services requires a larger number of trained competent providers to provide quality and safe VMMC services in rural areas and priority SNU. In cases of health worker shortage, projects that need immediate accelerated scale-up could borrow trained staff from other regions to hasten the scale-up through outreach campaigns.

As Tanzania's VMMC program moves toward sustainability, a higher level of skills in data quality, data analysis, and use will be essential at all levels of the health care delivery system.

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CONTACT

Dr. Lucy Mphuru
Country Director, Tanzania
Program Lead, VMMC Project
lmphuru@intrahealth.org