

STAR-EC Technical Brief

SCALING UP VOLUNTARY MEDICAL MALE CIRCUMCISION in East Central Uganda

Background

Voluntary medical male circumcision (VMMC) is a low-cost, minimally invasive procedure that offers several benefits to recipients, including reduced risk of the transmission of sexually transmitted infections (STIs). Following a multi-country, randomized controlled trial, VMMC was shown to reduce men's risk of acquiring HIV from female sex partners by 60 percent.¹ Based on these findings, in 2007 the World Health Organization (WHO) and the United Nations Program on AIDS (UNAIDS) added the procedure to their list of recommended HIV prevention strategies. In 2010, Uganda's Ministry of Health (MOH) set an ambitious target of reaching 80 percent of eligible men with VMMC services by 2016 to reduce HIV prevalence nationwide. At the time, the proportion of eligible men who were circumcised in the East Central Region was roughly 37 percent.

Following the national VMMC target setting in 2010, STAR-EC began a fast-moving initiative to integrate VMMC into existing health services, working within the MOH's decentralized health system. The project introduced and rapidly scaled up VMMC services both at health facilities and at the community level via outreach clinics to reach as many clients as possible in the nine

districts that comprise Uganda's East Central Region. STAR-EC's strategy included an aggressive community mobilization and education initiative to drive up demand for the procedure among sexually active men.

The project targeted populations at high risk for acquiring HIV through sexual contact, which include fishermen, *boda boda* (motorcycle taxi) drivers, and truck drivers. Among these highly mobile, often hard-to-reach groups, VMMC, a one-time procedure, is a particularly effective strategy for reducing overall HIV prevalence in the general population. When the STAR-EC project began in 2009, VMMC services were largely unavailable in the East Central Region of Uganda.

Interventions

When STAR-EC began rolling out VMMC services, the East Central Region had only four facilities that were able to offer the procedure. Working closely with district health offices and health sub-districts, STAR-EC conducted site assessments at 22 additional facilities to assess their readiness to offer VMMC. Based on the assessments, the project invested in the needed infrastructure improvements, surgical equipment, medication, logistical support, and training of personnel to ensure each facility was ready to integrate and rapidly scale up delivery of VMMC services.

STAR-EC regularly facilitated circumcision 'camps' in communities during which surgical tents were set up, equipped, and staffed with medical personnel to provide VMMC.



¹Auvert, B., et al. (2005) Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: The ANRS 1265 Trial. *PLoS Medicine*, 2:1112-1122. <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0020298>

The project employed the model for optimizing volume and efficiency for male circumcision services (MOVE)² to assist facilities to rapidly scale up their ability to perform circumcisions. The model promotes workforce efficiencies, including task shifting, where some medical responsibilities are transferred from doctors and nurses to lower-level, but fully capable, health workers.

STAR-EC rapidly trained 156 health workers as part of surgical teams to help tackle the unmet need for VMMC. The large pool of health workers trained by the project at each site allowed for workers to be continuously rotated to deliver VMMC at facilities and outreach clinics and receive ongoing training without disrupting the delivery of other health services. The project also fostered inter-site collaboration across VMMC delivery sites to mitigate shortages of drugs, supplies, personnel, and other logistical issues.

Outreach Clinics

STAR-EC's pioneering use of mobile surgical tents (often referred to as 'camps') to offer VMMC services to remote communities in the region was highly effective; 90 percent of the circumcisions performed through STAR-EC support took place during outreach clinics. To conduct these clinics, groups of doctors and trained health workers set up tents at lower-level health facilities or in community centers to further increase access to VMMC. Outreach clinics were scheduled on weekends and on district, regional, and national commemoration days.

Sixteen health facilities conducted weekend camps to community outposts and lower-level health facilities throughout East Central Uganda. During these events, HIV testing and counseling (HTC), condom promotion, referrals to HIV care and treatment, and sexual and reproductive health services for men, including STI treatment, were also delivered. On average, each site performed approximately 150 circumcisions per weekend.

VMMC was also included in the integrated services offered during STAR-EC's week-long quarterly outreach to the communities of the Sigulu Islands. In 2011, the project began chartering a boat to send technical teams comprising STAR-EC staff and district health workers drawn from Namayingo and Mayuge. More clients per day accessed services from the weekend VMMC outreach camps conducted on the islands compared to those conducted on the mainland.

Quality Assurance

A central focus of STAR-EC's intervention was to ensure that each client received high-quality VMMC services from pre-operation counseling through post-operation follow-up. The project collaborated with USAID Applying Science to Improve Systems (ASSIST) Project³ and the MOH's Quality Assurance Division to support quality improvement (QI) activities for VMMC; the support included site assessments and supportive supervision at all VMMC sites so that weaknesses in service delivery and follow-up are identified and addressed. STAR-EC also supported each site to conduct self-assessments to review service quality and make improvements where needed. QI indicators were tracked monthly and displayed in dashboards that were shared with all stakeholders to inform planning, provide targeted mentorship, and compare against centers of excellence.

Monitoring and Evaluation

STAR-EC developed targets for the number of clients reached with VMMC services by: i) district, ii) service delivery site (facilities and outreach clinics), iii) event, and iv) month, and tracked results against these targets. The estimated number of men circumcised in each district was also measured annually in the Lot Quality Assurance Sampling (LQAS) surveys conducted by STAR-EC. This continuous monitoring and evaluation informed results-driven programming. The project also routinely mapped areas with high HIV prevalence and low male circumcision rates. These data were used to inform

²WHO (2010). Considerations for implementing models for optimizing the volume and efficiency of male circumcision services: Field testing edition. https://www.malecircumcision.org/sites/default/files/document_library/Considerations%20models.pdf (accessed 16/7/2016).

³The objective of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project is to improve the quality and outcomes of health care and other services by enabling host country providers and managers to apply the science of improvement. More information on their work in Uganda can be found at: <https://www.usaidassist.org/countries/uganda> (accessed 16/7/2016).

VMMC strategy, allowing facility managers to identify where targeted VMMC outreach would likely have the greatest effect on reducing HIV infection rates.

Community Engagement

At the community level, STAR-EC engaged Village Health Teams (VHTs), peer educators, civil society organizations (CSOs), and 'satisfied clients' to promote VMMC through organized events and interpersonal communication. These community resources were relied on to raise awareness about the benefits of VMMC and provide advance marketing for outreach clinics. In addition to targeting single male clients, STAR-EC engaged couples and encouraged female involvement in their husbands' decision-making around circumcision. Raising awareness among women helped increase the cultural acceptability of and demand for circumcision in the region where the procedure was previously uncommon.

These efforts were complemented by information, education, and communication (IEC) materials about VMMC that were

distributed and displayed at 'hotspots' and by nationally aired pro-VMMC radio campaigns developed by the USAID Communication for Healthy Communities (CHC) Project⁴ and funded by the MOH and USAID.

Introduction of tetanus toxoid vaccines

In 2016, Following the detection of nine cases of tetanus linked to VMMC services throughout Uganda, MOH adopted a two-dose tetanus toxoid vaccine protocol for all VMMC clients, following WHO recommendations.⁷ The policy requires offering tetanus toxoid 28 days before circumcision and another dose on the day for circumcision. STAR-EC adopted the policy and facilitated the training of 322 health workers in the region involved in VMMC service provision in administering the vaccine, maintaining the cold chain for vaccine transport and storage, stock forecasting, and waste management.

Results

Between 2010 and 2016, more than 408,000 men were circumcised in the East Central Region through the support of the STAR-EC project, surpassing the target of 403,450. Circumcising this many men is predicted to have prevented more than 21,250 new HIV infections^{5,6}. Data from annual LQAS surveys show that the percentage of males who have been circumcised in this region increased from 37 percent (2009) to 57 percent (2015). The percentage of males circumcised less than twelve months prior to the survey showed an increasing trend from four percent (2009) to 20 percent (2015) and the percentage of males circumcised at government health facilities

STAR-EC trained health workers in VMMC and employed the MOVE model to improve workforce efficiency and extend services to more clients at facilities and during outreach clinics.



⁴The Communication for Healthy Communities (CHC) program, funded by USAID, is designed to help reduce high national rates of HIV infection, total fertility, maternal and child mortality, malnutrition, malaria and tuberculosis (TB). Further details on the project can be found at: <https://www.fhi360.org/projects/communication-healthy-communities-chc> (accessed 16/7/2016).

⁵Njeuhmeli, E., et al. (2011) Voluntary Medical Male Circumcision: Modeling the Impact and Cost of Expanding Male Circumcision for HIV Prevention in Eastern and Southern Africa, PLoS Medicine, <http://dx.doi.org/10.1371/journal.pmed.1001132> (accessed 16/7/2016).

⁶The number of HIV infections prevented is calculated by dividing the number of male circumcisions performed on HIV-negative men by the number of circumcisions needed to avert one new infection in Uganda. Further detail can be found in Njeuhmeli, E., et al. (2011) paper referenced above.

⁷Tetanus toxoid vaccination and voluntary medical male circumcision, World Health Organization, http://www.who.int/immunization/programmes_systems/interventions/TT_and_VMMC/en/

increased greatly from 10 percent (2009) to 85 percent (2015). The number of static sites offering VMMC services rose from four to 22.⁸

Conclusion

STAR-EC successfully scaled up VMMC services in the region, adapting and honing the intervention strategy along the way to reach high-risk populations. Community involvement and participation using VHTs and satisfied clients in planning for outreach and mobilisation of peers was integral to achieving high numbers of men accessing VMMC services. The focus on QI through site assessments, mentorship, and coaching helped sites register sustained progress, motivating them to make services better. Client satisfaction with high-quality services helped drive demand as increasing numbers of men received VMMC and reported positive experiences. By concentrating on supporting the VMMC outreach model every weekend (in which various linkage facilitators in facilities and communities worked closely with health workers), STAR-EC was able to achieve high numbers of circumcisions.

STAR-EC faced several key challenges to VMMC implementation over the course of the project. Medical waste generated at STAR-EC-supported VMMC sites required the development of effective off-site disposal strategies. STAR-EC addressed the issue by enlisting waste management services from Green Label Services, Ltd.⁹ Initially, the delivery of medical supplies (e.g. VMMC kits) and drugs from USAID's central procurement system did not consistently meet the monthly target that had been set. Stopgap measures were undertaken based on early feedback from the project to help prevent stock outs. Due to lower rates of health-seeking behavior among men, STAR-EC experienced low rates of follow up (60 percent for seventh-day visits). Human resource constraints at times affected the pool of available VMMC service providers in the region. The transfer and redeployment of health workers into and out of the East Central Region by the MOH sometimes disrupted trained and experienced teams.

Having rapidly scaled up adolescent and adult VMMC in East Central Uganda to almost reach the goal of 80 percent of the eligible population, moving forward, medical circumcision programming should be expanded to include early infant male circumcision (EIMC) and children under 15 years old.

⁸However, it should be noted that in 2016, only 3 sites currently offer these services (Bugiri Hospital, Nankoma HC IV and Bulesa HC III) in Bugiri District, following PEPFAR COP 2015 targets.

⁹Green Label Services, Ltd. (GLSL) is an environmental and public health consultancy firm incorporated in Uganda that carries out safe disposal of hazardous waste to high professional and ethical standards. More information on GLSL can be found here: <http://www.hostalite.com/portfolio/green-label-services-ltd/> (accessed 16/7/2016).

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