Republic of Kenya

Ministry of Public Health & Sanitation

Voluntary Medical Male Circumcision for HIV Prevention in Kenya

Report of the 2010 Rapid Results Initiative

December 2011

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List of Abbreviations

AE	Adverse Event
APHIA II	AIDS, Population, and Health Integrated Assistance II, Nyanza
BCC	Behavior Change Communication
CHW	Community Health Worker
CMMB	Catholic Medical Missions Board
DMCSC	District Male Circumcision Steering Committee
DQA	Data Quality Audit
EDARP	Eastern Deanery AIDS Relief Programme
FACES	Family AIDS Care and Education Services
FSW	Female Sex Worker
GoK	Government of Kenya
HTC	HIV Testing and Counseling
IEC	Information, Education, and Communication
IPC	Interpersonal Communication
IRDO	Impact Research and Development Organization
LTFU	Lost to Follow Up
MARP	Most at Risk Population
MC	Male Circumcision
MoH	Ministry of Health
M&E	Monitoring and Evaluation
NRHS	Nyanza Reproductive Health Society
PEPFAR	The President's Emergency Plan for AIDS Relief
PITC	Provider-Initiated Testing and Counseling
PSI	Population Services International
PwP	Prevention with Positives
QA	Quality Assurance
RRI	Rapid Results Initiative
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
UNAIDS	Joint United Nations Programme on HIV/AIDS
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

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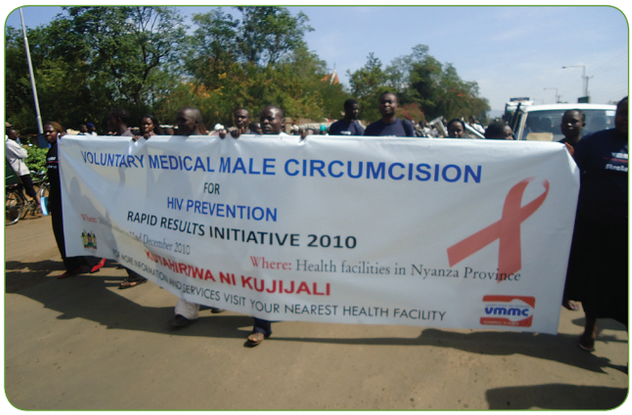
Executive Summary



Following three randomized clinical trials and the recommendation from the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) about the efficacy of male circumcision in preventing the heterosexual acquisition of HIV from women to men, the Government of Kenya (GoK) has embarked on an ambitious campaign to increase the proportion of 15–49 year old males who are circumcised from 84% to 94% by 2013. Kenya has a generalized HIV epidemic, with a national prevalence of 6.3%. In order to achieve this target of voluntary medical male circumcision (VMMC), the Nyanza Provincial Taskforce on Male Circumcision, in consultation with the Kenya National Taskforce on Male Circumcision and the United States President's Emergency Plan for AIDS Relief (PEPFAR), launched a short-term, intense Rapid Results Initiative (RRI) on VMMC in 2009. Over 36,000 males were circumcised during the 2009 RRI, and the success of this campaign led the Taskforces to conduct another VMMC RRI in 2010, with a target of 46,000 circumcisions in 30 working days.

The 2010 VMMC RRI was led by the Kenyan Ministry of Public Health and Sanitation (MoH) and Ministry of Medical Services, with support from PEPFAR. The implementing partners for this campaign were:

- AIDS, Population, and Health Integrated Assistance (APHIA) II Nyanza
- Catholic Medical Missions Board (CMMB)
- C-Change
- Eastern Deanery AIDS Relief Programme (EDARP)
- EngenderHealth
- Family AIDS Care and Education Services (FACES)
- FHI360
- Impact Research and Development Organization (IRDO)
- Nyanza Reproductive Health Society (NRHS)
- Population Services International (PSI)

Targets were established by district throughout Nyanza Province and in Nairobi for VMMC (46,000 total procedures) and for HIV testing and counseling (HTC) (80% of all VMMC clients). Standardized VMMC teams were established consisting of a surgeon, assistant surgeon, counselor, and a hygiene or infection control officer. Team composition was flexible to allow for changes in client volume and flow.

A monitoring and evaluation (M&E) template was developed to track data consistently across all of the VMMC sites. The template captured the total number of VMMCs conducted disaggregated by age (<15 years, 15–24 years, and 25+ years), HIV status among those tested for HIV, and adverse events (AEs) disaggregated by severity (moderate or severe). Data were sent daily to coordinators by text message for entry into a database, and paper-based copies were also maintained. Data quality checks were regularly performed by the M&E subcommittee to address any gaps.

Communications activities were developed to ensure adequate demand for VMMC services throughout the RRI campaign. Several behavior change communication (BCC) activities were implemented, and organizers also engaged the media and community members to ensure that VMMC within the comprehensive HIV prevention package was communicated appropriately.

A total of 55,376 males were circumcised during 30 working days in November-December 2010, with 4,756 surgeries conducted in Nairobi. A total of 84.2% of clients receiving VMMC were aged 15 and older, and 33.9% of clients returned for at least one follow-up visit. The AE rate during the campaign was low at 1.5%. A total of 79.8% of clients received HTC as part of the campaign.

Implementing partners tracked costs related to the RRI to determine the overall cost of the campaign. Although approximately one quarter of the entire VMMC program cost is allocated to the RRI, the cost per procedure dropped by 36%, from approximately $51 (USD) throughout the year to $32 (USD) during the RRI.

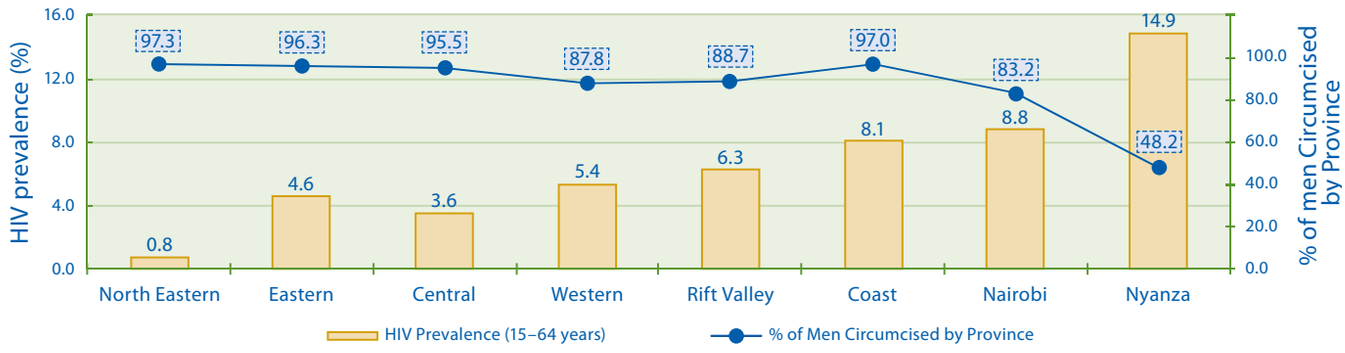
The 2010 RRI attained or surpassed its targets, while also reducing costs per VMMC procedure. Given the success of the RRI campaign at reaching its targets and contributing to the national target of 860,000 by 2013, the RRI concept has again proved that a high number of clients can receive safe, high-quality VMMC services through a coordinated effort.

Background

Following three randomized clinical trials, WHO and UNAIDS held a technical consultation in March 2007, where it was recommended that male circumcision be recognized as a new strategy for the prevention of heterosexually acquired HIV infection in men.[1,2,3,4] The WHO recommended that male circumcision scale-up should be targeted at settings with generalized HIV epidemics that are driven by heterosexual transmission and where the male circumcision prevalence is low. Scaling up male circumcision services rapidly in such communities would generate the greatest public health impact.[5]

Kenya has a generalized HIV epidemic, with a prevalence of 6.3%,[6] which is predominantly spread through heterosexual transmission.[7] Eighty-five percent of Kenyan males are circumcised,[6] though there are many regional and ethnic variations in circumcision prevalence. As Figure 1 below illustrates, HIV and circumcision prevalence rates vary greatly by province.

Figure 1: HIV and Male Circumcision Prevalence in Kenya*



*Source: Kenya AIDS Indicator Survey 2007, September 2009

In November 2008, the GoK launched the national VMMC program with an ambitious goal of increasing the proportion of 15–49 year old males who are circumcised from 84% to 94%,[8, 9] which translates to 860,000 men undergoing VMMC by 2013. Table 1 below further illustrates the VMMC targets by province. Nyanza was the first province to roll out male circumcision services, followed by Nairobi and Western Provinces. VMMC services are provided based on a minimum package that includes HTC, risk reduction counseling, VMMC counseling, screening and treatment of sexually transmitted infections (STIs), condom promotion and provision, and surgery under local anesthesia.[10]

Table 1: VMMC Targets for Eligible men 15 – 49 years from 2009 – 2013*

	2009–10	2010–11	2011–12	2012–13	4 Year Total
Nyanza	76,500	100,000	125,000	125,000	426,500
Rift Valley	28,500	40,000	60,000	60,000	188,500
Nairobi	19,500	30,000	40,000	40,000	129,500
Western	12,000	15,000	15,000	15,000	57,000
Others	13,500	15,000	15,000	15,000	58,500
	150,000	200,000	255,000	255,000	860,000

*Source: Kenya National Strategy for Voluntary Medical Male Circumcision 2009

In the first year of implementing the VMMC program, approximately 40,000 circumcisions were performed in Nyanza Province out of a goal of 76,500.[11] As a result, in September 2009, the Nyanza Provincial Taskforce on Male Circumcision, in consultation with the Kenya National Taskforce on Male Circumcision and PEPFAR representatives, reviewed the male circumcision scale-up strategy and determined that an RRI would be the most effective approach to help achieve the first year's target.

The RRI concept is an approach that focuses on intense, short-term activities that are designed to result in large-scale impact. Such campaigns are not uncommon in Kenya, as there have been several previous RRIs on different programs, such as expanding HTC services, increasing immunization coverage, and other, non-health promotions.

The 2009 VMMC RRI campaign's goal was to circumcise 30,000 adolescent and adult males in 30 days in Nyanza Province. November and December 2009 was determined to be the most appropriate time for the campaign, as the end of year holidays were thought to be a suitable time for men to access VMMC services. The 2009 VMMC RRI surpassed its target, with 36,077 circumcisions being performed in 30 working days.

Given the overwhelming success of the 2009 VMMC RRI, the taskforces decided to conduct another VMMC RRI campaign in November-December 2010[9] (for memberships of the taskforces, see Appendix 2). A target of 46,000 total circumcisions was set for Nyanza and Nairobi Provinces. Considering that 38% of the clients circumcised during the 2009 RRI were under the age of 15 years, the 2010 RRI focused on providing VMMC services to males aged 15 years and above, as older adolescents and adult males who currently are or will soon be sexually active would benefit sooner from the procedure.

The 2010 VMMC RRI was led by the Kenyan Ministry of Public Health and Sanitation (MoH) and Ministry of Medical Services, supported by PEPFAR and implemented by the following partners:

- AIDS, Population, and Health Integrated Assistance (APHIA) II Nyanza
- Catholic Medical Missions Board (CMMB)
- C-Change
- Eastern Deanery AIDS Relief Programme (EDARP)
- EngenderHealth
- Family AIDS Care and Education Services (FACES)
- FHI360
- Impact Research and Development Organization (IRDO)
- Nyanza Reproductive Health Society (NRHS)
- Population Services International (PSI)

1. Coordination of the 2010 VMMC RRI

The Kenyan National Taskforce on Male Circumcision was the overall coordinating body for the 2010 RRI. At the provincial level, the respective taskforces provided leadership for coordination of the campaign. These coordinating bodies addressed the following components:

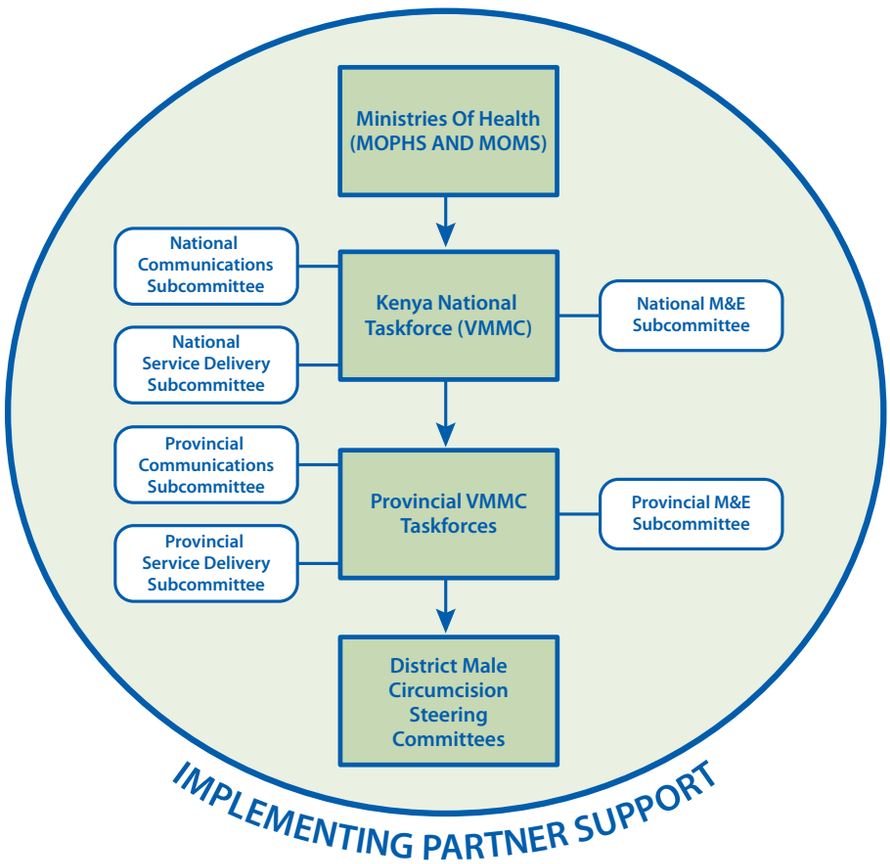
- Setting appropriate service delivery targets
- Assessing quality assurance practices for the service delivery sites
- Establishing guidelines for service providers and staff members
- Monitoring implementation including defining data collection and reporting procedures
- Establishing guidance for client referrals
- Designing effective communication strategies for generating demand for services

The provincial taskforces established three subcommittees for communications, monitoring and evaluation, and service delivery, which were responsible for ensuring that the above components were addressed at the provincial level. In addition, district level steering committees coordinated the following activities:

- Creating and sustaining demand for services
- Matching the district implementation plan with service delivery capacity
- Mobilizing district level support
- Determining budgetary needs
- Monitoring progress and anticipating necessary adjustments
- Assessing quality assurance standards

Figure 2 displays the relation between the coordinating bodies and the subcommittees at all levels.

Figure 2: Flowchart Describing Coordination of the VMMC Program



Though the RRI is conducted towards the end of the calendar year, the logistics and planning stages begin before the official campaign commences (see Table 2 below).

Table 2: Timeline for Logistics and Planning for the 2010 VMMC RRI

	2010					2011
	Aug	Sep	Oct	Nov	Dec	Jan
Convening Meetings with Stakeholders and Partners	✓	✓	✓	✓	✓	✓
Ordering Supplies and Equipment	✓	✓	✓			
Mobilizing VMMC Teams and other HR Tasks		✓	✓	✓	✓	
Planning and Designing Demand Creation Activities			✓	✓	✓	
Identifying and Preparing Facilities			✓	✓		
Conducting VMMC Services				✓	✓	
Entering, Cleaning, and Reporting of Data					✓	✓

2. Service Delivery Targets

The VMMC service delivery target for the 2010 RRI was 46,000 procedures in 30 working days during November and December. Building on the experience from the 2009 campaign and the network of available providers, it was possible to estimate the number of teams required to attain the 2010 RRI targets. A VMMC team refers to one trained surgeon (medical doctor, clinical officer, or nurse), one nurse assistant (clinical officer or nurse), one counselor (nurse or lay person), and a hygiene or infection prevention officer. The number of circumcisions to be performed by each team was set at an average of 12 per day. This was determined to be an adequate number for optimal team performance after taking into consideration team morale, quality of services, maintaining reasonable working hours for VMMC teams and limiting provider fatigue or burnout.

The target number of men to be circumcised during the RRI was determined by multiplying the number of service provision teams by 12 (the average number of clients per team per day) and then by 30 (the number of days for the RRI campaign). After adjusting for several variables including part-time engagement of some teams, the final target of 46,000 clients to be circumcised in 30 working days was set, representing an increase of 33% from the previous year's target. In addition to the target for VMMC procedures, a target was set to provide HTC to at least 80% of these clients. The 2010 service delivery targets by districts are summarized in Table 3 below.

Table 3: VMMC Targets per District

District	Target MCs	Proposed Number of Teams	80% HTC Target
Bondo	3,274	14	2,619
Homa Bay	4,841	20	3,873
Kisumu East	3,985	17	3,188
Kisumu West	1,992	9	1,594
Migori	8,354	34	6,683
Nyando	4,995	21	3,996
Rachuonyo	4,244	18	3,395
Siaya	5,808	25	4,646
Suba	2,514	11	2,011
Nairobi	6,000	—	4,800
Total	46,007	169	36,805

Note: Districts in Nairobi did not have proposed number of teams

3. Logistics and Management

a. Personnel

The District Male Circumcision Steering Committees (DMCSC) mobilized standard VMMC teams. All staff members working on VMMC service delivery teams during the 2010 RRI had successfully completed the MoH approved training on "Male Circumcision under Local Anesthesia." Individual VMMC team members came from implementing partners' full time staff, locum (temporary) staff, and MoH-employed staff that were temporarily released from their regular duties for the duration of the RRI.

In order to ensure high quality of services, teams were composed of experienced staff from implementing partners, as well as locum and MoH staff, who may not routinely provide VMMC services on a routine basis. The decision to combine these staff was designed to:

- Share skills among service providers
- Improve networking between MoH and implementing partner staff
- Foster further MoH engagement and ownership of the VMMC program
- Leverage available resources from several agencies

Occasionally the composition of the service delivery teams varied depending on staff availability or to address excess demand during peak service delivery periods. For example, extra nurses, counselors, or hygiene officers were temporarily engaged for teams in high volume sites to streamline pre-operative assessment, HTC, and post-surgical evaluations.

Full-time and more experienced staff members were appointed as team leaders to ensure quality services. Due to variability in client flow, the number of teams fluctuated accordingly to match demand and supply effectively. In high demand sites, additional staff would be temporarily added to teams that were experiencing heavy patient volume.

b. Commodity Management

Based on the disaggregated district targets, it was possible to estimate the required equipment and supplies. The implementing partners were responsible for purchasing and distributing consumables and equipment based on their respective procurement and distribution procedures. In addition to having reusable instrument packs, partners prepared disposable consumable packs that contained the precise quantity of items required to perform one circumcision.

The use of prepackaged instruments reduced the time of surgery, minimized consumable wastage, and enhanced accountability of supplies. In addition, cleaning supplies and sterilization consumables were also distributed to the districts in the approximate amount needed for the entire RRI campaign. Each team was allocated surgical instruments depending on the projected weekly demand at their sites. Some teams with access to an autoclave were issued fewer surgical packs since they were able to sterilize used packs daily without interrupting service delivery. Routine supply management tools were used to track partners' stocks and their consumption of commodities.

Careful attention and planning was required to ensure that current HIV test kits were available throughout the entire RRI campaign. Consultations were held with the national supply chain management team to quantify, forecast, procure, and distribute HIV rapid test kits based on the goal of having at least 80% of VMMC clients agree to undergo HIV testing. The procurement of test kits was based on the national serial testing algorithm: all clients were screened using Determine®, and positive test results were confirmed with Bioline®. Unigold® was used as the tie breaker test, if necessary.[12]

Other medical supplies and commodities were distributed to teams based on the target number of procedures. All teams were supplied with adequate drugs for treating AEs and STIs. These were estimated based on previous clinical experience indicating a range of 1–4 STI cases for every 100 VMMC clients screened and an anticipated AE rate of approximately 2%.

c. Waste Disposal

Waste management during RRI was performed in compliance with the *Kenya Clinical Manual for MC under Local Anesthesia*.[10] Medical waste generated by the service delivery sites was classified according to the level of hazard and disposed accordingly. For service outlets with no incineration facilities or placenta pits, infectious medical waste was transported for disposal at the nearest health facilities having such capabilities.

d. Transport

The coordination of transport was done by the implementing partner in each district, with support from the DMCSC. Partners relied on their own vehicles as well as hiring additional vehicles, as needed, in order to respond to excess demand for services. The GoK also supplied some vehicles in certain districts. Frequent adjustments were made throughout the campaign to reach targets and to account for other transportation needs, such as supervisory visits and provincial- and district-level support.

4. M&E Framework

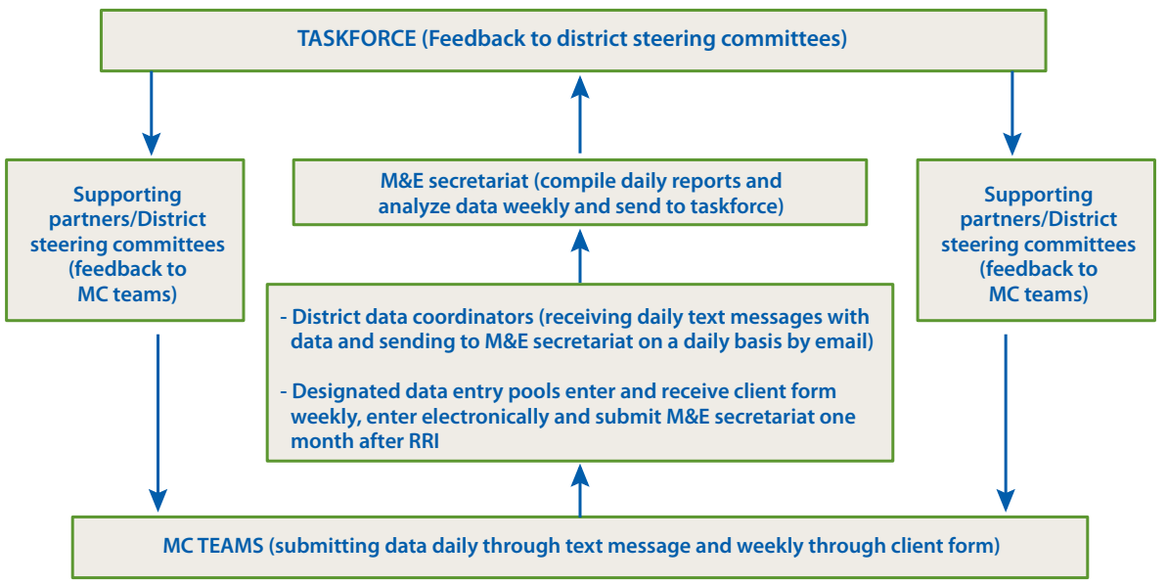
The M&E subcommittees provided guidance on the monitoring of VMMC indicators. A tracking template was developed that ensured uniformity and completeness of the data reporting from the districts. The template captured the following information: total number of VMMCs performed disaggregated by age (<15 years, 15–24 years, and 25+ years), HIV status among those tested for HIV and AEs disaggregated by severity (moderate or severe).

District data coordinators were appointed to train and support field teams in M&E throughout the RRI. These coordinators received daily text messages containing the above indicators from each team providing VMMC services in the district. Then they entered the information received by text message into a database, which was electronically sent to the M&E subcommittee on a daily basis. In addition to daily submission of data via text message, paper copies of client medical records were sent to designated data entry pools weekly. They were then entered into an electronic database.

Data quality was also monitored through data quality audit (DQA) visits. Members of the M&E subcommittee visited 22 high-volume health facilities in six randomly selected districts of Nyanza Province during the first two weeks of the RRI. The DQA team's purpose was three-fold: 1) to sample client medical records for completeness and legibility; 2) to monitor the presence and authenticity of the signed informed consent forms; and 3) to compare entries in the minor theatre register to the daily reports to ensure consistent recording of VMMC procedures.

While the overall quality of data was adequate, a few gaps were identified. These included underreporting of VMMC procedures performed, proportion of clients testing HIV-negative, and number of AEs. In addition, HIV-positive cases were found to be overreported, and certain entries in minor theatre registers were incomplete. Upon submission of the DQA report, the subcommittee recommended that the partners revisit all the sites participating in the RRI to reconcile the differences in the number of clients in the medical records and the reports sent via text messages. Figure 3 illustrates the process for data collection and reporting.

Figure 3: Data Collection and Reporting Flow Chart



5. Communications Strategy

The communications subcommittee was responsible for strategies to create and sustain demand for VMMC services for the 2010 RRI. The social mobilization activities were based on ongoing promotional activities for uptake of routine VMMC services, including, media engagement, and community advocacy. These activities were primarily an acceleration of continuous implementing partner-driven work with a focus on national, provincial, and district-level strategies. The Nyanza communications subcommittee developed a campaign slogan of "40 by 30" to represent Nyanza Province's targeted number of 40,000 VMMC procedures in 30 working days.

Groups engaged in the social mobilization efforts included local leaders, provincial administration, government ministries, community groups, community health workers (CHWs), peer educators, implementing partners, and local media houses. These groups sensitized the community on benefits of VMMC at public gatherings, churches, schools, hospitals, markets, and political meetings. RRI-specific social mobilization activities started six weeks before the campaign and intensified after the official launch of the campaign in Kisumu, on November 17, 2010.

a. Behavior Change Communication (BCC)

Specific BCC activities that were implemented during the campaign included distribution of targeted information, education, and communication (IEC) materials, and interpersonal communication (IPC) between community peer educators and the target audiences. Standardized IEC materials with clear messages on VMMC including fact sheets, posters, brochures, community dialogue tools, leaflets, banners, T-shirts, and caps were distributed through community outlets, including trained CHWs, satisfied VMMC clients, and peer educators.

b. Media Engagement

Building on the success of the media campaign during the 2009 VMMC RRI, engagement with different media outlets was amplified for the 2010 VMMC RRI. Media activities included a briefing for journalists, a breakfast briefing for opinion leaders held a week prior to the launch of the RRI, and a press conference to announce the preliminary results of the RRI just after its conclusion. The 2010 VMMC RRI utilized a multi-faceted media engagement strategy involving radio spots, expert interviews, presenter promotions, advertisements, and call-in sessions through regional and local radio stations.

c. Community Advocacy

Communications messages and advocacy throughout the campaign focused on several audiences. Considering that VMMC is a part of a comprehensive HIV prevention package, there were different prevention messages for various populations within the community.

Uncircumcised men over 20 years of age—Men in this age group were particularly targeted during the 2010 VMMC RRI, as this sub-group would experience the most measurable impact in the reduction of HIV incidence.

Previously circumcised men—These men were engaged to act as advocates for VMMC in the community. Several of these men were engaged as "satisfied VMMC clients," while others became peer educators or mobilizers to encourage and promote VMMC services.

Female sexual partners—Engagement of women in community was a particularly high priority for the 2010 VMMC RRI. Female sexual partners served two important functions during the campaign: 1) to support and encourage their recently circumcised partners to practice sexual abstinence during the six-week healing period, and 2) to provide accurate information about the procedure and the medical benefits for them as sexual partners, and to recommend that their uncircumcised partners pursue VMMC.

Parents—Mothers and fathers of uncircumcised male children were engaged so that they could discuss the procedure with their sons, and provide signed informed assent for their children if they were aged below 18 years.

Families and friends—Involving these groups was also an important target for the campaign, as families and friends can contribute greatly in the decision-making process for prospective VMMC clients.

"Road-shows" or temporary exhibitions in outdoor open spaces promoting VMMC, distributing materials and information, and providing referral coupons (see Appendix 1) for interested clients were also staged in strategic locations throughout Nyanza Province to engage community members. The road-shows were centrally located in relation to the nearby VMMC facilities. The VMMC facilities were first mapped in order to know where the road-shows should be staged to attract the most clients, and how to most easily connect prospective clients to facilities. The road-shows also featured "satisfied clients" that would speak publicly about their experiences undergoing the procedure, and their personal opinions helped ease some of the concerns of the prospective clients.

d. Community Outreach

Community outreach was conducted after carefully mapping the areas of the community with the greatest need for VMMC services. Outreach activities were conducted at neighboring beaches, chiefs' barazas (community meetings chaired by the local chief), and community sports events were held to create awareness about the 2010 VMMC RRI while sustaining demand for the services.

These efforts were complemented by information from satisfied VMMC clients who provided testimonials that were pivotal in addressing myths and misconceptions about the VMMC process and results. The messages from the satisfied clients were reinforced by public sensitization campaigns conducted by key community gate keepers including the local chiefs, assistant chiefs, village elders, teachers, beach unit officials, and CHWs.

In order to access greater numbers of uncircumcised and older men in the community, partners relied on their own strengths to conduct creative outreach activities. Partners conducted door-to-door campaigns to discuss the VMMC procedure with men in the privacy of their own homes. Partners also used the home-based polio campaign in Siaya district as an entry-point to access additional clients.

Other implementing partners used the network of individuals from their other HIV prevention programs including HTC, prevention with positives (PwP), programs with fishing communities, female sex workers (FSWs), and other most-at-risk populations (MARPs). FSWs, for example, were often engaged as mobilizers, and would provide coupons to their uncircumcised clients for referrals to nearby VMMC facilities. A number of women were trained on basic facts of VMMC, community mobilization and advocacy became "Female Champions," and advocated the benefits of getting circumcised. These innovations greatly contributed to the higher client volume during the 2010 RRI campaign.

e. Referrals and Linkages to VMMC Services

Partners relied on a variety of strategies to increase client demand. Mobilizers and peer educators were used throughout the campaign. The mobilizers engaged prospective clients in the community and discussed the benefits and risks of VMMC. If the men appeared interested in VMMC, the mobilizers would provide them with a referral coupon that indicated the name and address of a nearby VMMC facility. The coupon also indicated by whom the prospective client had been referred, which allowed for accurate tracking of how clients were directed to certain sites.

Tracking of referrals was simplified as the coupons were part of a triplicate carbon-copy, so the facility, implementing partner, and the mobilizer each had evidence of who was responsible for the referral. This coupon system informed the RRI organizers and the implementing partners of the mobilizers' success in referring clients to VMMC facilities. With this referral system in place, partners were able to determine specific targets for each of their mobilizers in the community.

HIV-negative males from other HIV-related programs (HTC, PwP, HIV-negative males in HIV discordant relationships, FSWs' clients, etc.) were also referred to VMMC services, as were other groups, including:

- Plantation workers (i.e., sugar-cane and rice)
- Public transport employees (i.e., bicycles, motor-bikes, drivers, touts, "tuk-tuk," car-washers, porters)
- Informal sector—"Jua-kali" sector
- Recovering addicts in counseling services
- Fishing and beach community members

f. Mobilizers' Incentives

Trained mobilizers provided prospective clients with information about the benefits and risks of the VMMC procedure, directions to available facilities, and referral coupons to a specific location for the procedure. Mobilizers received monetary and non-monetary incentives for recruiting potential clients to VMMC sites. If a mobilizer recruited a male aged 15-18 years (or 15-21 years for certain implementing partners), then they received 50 Kenyan Shillings. If a mobilizer recruited a male aged 18 or 21 years and above, they received 100 Kenyan Shillings. Some implementing partners offered non-monetary incentives for successful recruitment such as reflector jackets (for motorcycle/bicycle riders) and t-shirts that included messages about VMMC. Other partners also rewarded mobilizers if they referred multiple clients at the same time to a VMMC facility. Mobilizers were also reimbursed for their air time spent calling or sending text messages to potential clients during recruitment.

VMMC clients were not included in any incentive or payment system. Once a mobilizer recommended the procedure and provided a referral coupon, the prospective client decided for himself if he wanted to pursue the procedure.

6. Service Delivery

The service delivery subcommittee provided technical support and guidance to ensure that all aspects of VMMC service delivery were in compliance with national standards at all sites. Its primary function was to operationalize the provision of the VMMC package in a mass campaign context while ensuring conformity to the standards outlined in the *Kenya Clinical Manual for MC under Local Anesthesia*.[10] In order to achieve these objectives, the subcommittee provided various standardized protocols and standard operating procedures (SOPs) to be used during the RRI by the service delivery teams. These protocols governed all aspects of service provision including counseling, consenting, surgical technique, infection prevention, AE management, and follow-up appointments.

The subcommittee also worked with each district participating in the RRI to review its inventory of certified MC service providers and existing health facilities to help determine any potential service gaps, as well as the possibility of adding temporary outreach sites. The aim of these efforts was to give the largest possible number of eligible males an opportunity to access VMMC services within close proximity to their homes. Availability of trained service providers was one of the most important limitations in regards to the number of operational service delivery teams during the RRI campaign. After mapping the service delivery locations for each district, members of the DMCSC visited each site in advance to ensure that they met the minimum requirements for providing safe VMMC, as outlined in the national guidelines.[10]

a. Minimum Package

VMMC services during the 2010 RRI were delivered in full compliance with the *Kenya Clinical Manual for Male Circumcision under Local Anesthesia*.[10] This includes the provision of a minimum package of services, including MC counseling (risks, benefits, and partial protection), HTC, STI screening and treatment, age-appropriate condom promotion and provision, surgical excision of foreskin under local anesthesia, AE identification and management, infection prevention, and follow-up management. In order to promote compliance with the national guidelines, copies of the various SOPs were distributed to all teams at every site (See Appendices 3–10). The forceps-guided technique under local anesthesia was the standard surgical practice used throughout the campaign.

b. Service Delivery: Definitions and Approaches

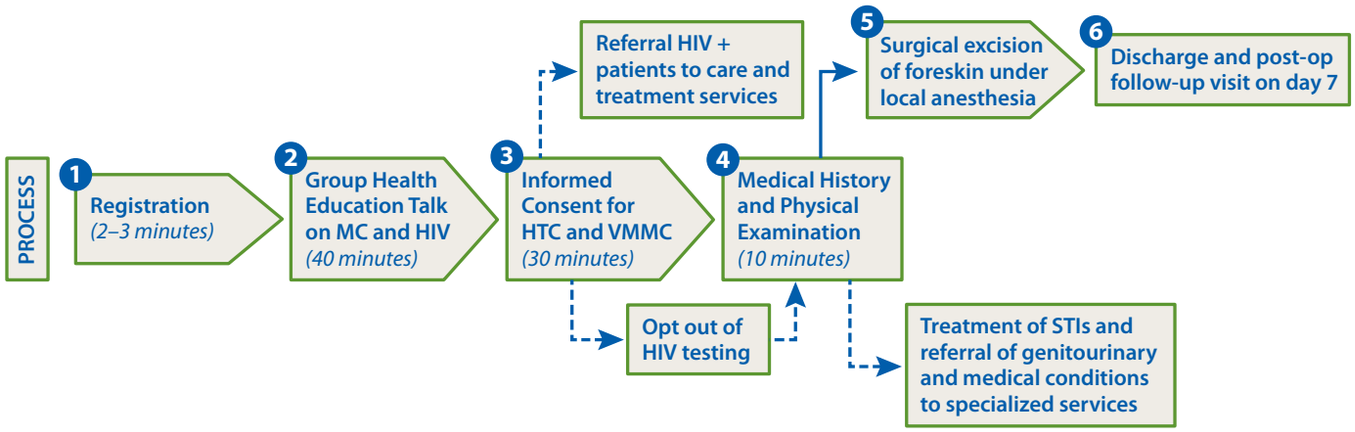
Different service delivery approaches were implemented to address client demand adequately. Services were provided at static, outreach, and mobile sites.

- Static sites are fixed and permanent health facilities that are equipped and staffed to provide services on a routine and continuous basis. These sites are capable of regularly offering the minimum package of VMMC services and are mostly hospitals and large health centers.
- Outreach sites provide services by mobile teams in response to increases in demand in areas that are unable to offer routine VMMC services due to human resource or infrastructural limitations. They generally consist of smaller health centers and dispensaries that typically offer VMMC services with the support of local implementing partners.
- Mobile services involve provision of VMMC services in non-clinical facilities like schools, churches, and community centers. Such facilities were assessed in advance to ensure that minimal infrastructural requirements for provision of safe VMMC services were possible before service provision was allowed to proceed. VMMC services were usually provided for a limited duration depending on client demand.

"Moonlight" services was a new approach to providing VMMC services in certain communities where men are not able to access services during normal working hours (e.g., along fishing beaches in Bondo, Rarieda, and Kisumu). As such, partners responded to the needs of these communities and offered services from 5pm–3am on specific days to make VMMC as accessible as possible for these men.

c. Sequence of Events at MC Sites

Figure 4: Sequence of Events for Patients at VMMC Service Delivery Facilities



Step 1: Registration

All clients seeking VMMC were registered by the counselor and given a card with a unique identification number. Age (confirmed by ID or parent/guardian) and other demographic information for each client were recorded at registration. If clients had a referral coupon from a mobilizer, they were asked to provide it to the counselor.

Step 2: Group Education for Clients Waiting for VMMC Services

Counselors conducted group education at the site with clients being segregated by age (12–17 years, 18–25 years, and above 25 years). The basic information included risk reduction counseling, condom promotion and demonstration, link between HIV and VMMC including partial protection, risks and benefits of the VMMC surgery, demonstration of the VMMC procedure and care of the wound after surgery. Age specific and appropriate discussions on male norms and gender issues that put men and their female partners at risk for STIs and HIV were also held during group counseling.

Step 3: Individual Counseling, HTC, and Informed Consent/Assent

Following group education, clients had individual counseling where they were given targeted information regarding safe sex and HIV, and they were recommended to undergo HTC and offered an HIV test according to the Provider Initiated Testing and Counseling (PITC) guidelines. HIV positive clients were referred for care and treatment services. Assessments were then done to determine the client's level of understanding and informed consent (parental consent and minor assent if the clients were under the age of 18 years) was obtained.

Step 4: Medical History and Physical Examination

A medical history and genital examination was performed by a trained nurse or clinical officer prior to circumcision. This was performed in order to detect any contraindications to the VMMC procedure and to identify any conditions that would need treatment or referral before VMMC surgery could be performed.

Step 5: Surgical Excision of Foreskin under Local Anesthesia

All circumcisions were done using local anesthesia and the forceps guided method. All surgical procedures were conducted following the *Kenya Clinical Manual for Male Circumcision under Local Anesthesia*.[10]

Step 6: Post-Operative Care and Follow-up Appointments

Client medical records were completed immediately after VMMC surgery and post-operative instructions given by a surgeon/assistant during a brief period of pre-discharge observation. While the client was recovering, he would receive soda (to raise his blood-sugar levels), new underwear if his was ill-fitting (to help support elevation of the penis during the healing process), and other minor provisions in accordance with WHO clinical guidance for VMMC follow-up care, as described in the *Kenya Clinical Manual for Male Circumcision under Local Anesthesia*.[10] In some settings, clients would be provided with transport if they came to a VMMC facility from a far distance or needed to return home at night.

All clients were instructed on how to remove the surgical dressing by themselves on the third day following surgery. Clients were also given written instructions on how to care for the wound including penile elevation for 14 days, post-operative sexual abstinence for six weeks and were given follow-up appointments seven days after the procedure.

All clients were given client appointment cards that listed the follow-up appointment date and an emergency phone number that they were instructed to call if they needed any post-operative assistance. The clients were informed to go to any nearby facility for attention in case they had a complication before their scheduled follow-up review date.

In order to adequately address the influx of clients returning to facilities for follow-up appointments seven days following surgery, the same service provision teams returned to the same VMMC facilities every seventh day to provide additional VMMC services and to perform follow-up reviews of the surgical wound. When this was not logistically possible, at least one clinician returned to the VMMC site on the seventh day to conduct post-operative reviews, while the team provided VMMC services at another location.

Each district had medically-trained personnel on-call 24 hours per day during the campaign period to respond to clients' calls for assistance. On-call teams were trained in reassuring clients, referring them to nearby health facilities for review, and occasionally attending to client needs at home.

d. Referrals and Linkages from VMMC Services to other Services

MC serves as an entry point to other health services to males. These include:

- Referral of HIV positive clients to care and treatment at the nearest patient support centre
- Treatment of STIs, including recommendations for partner tracing and testing
- Referral of clients with penile malformation/ foreskin pathologies to specialist care
- Referral to family planning services including vasectomy

e. Maintaining Provider Morale

The success of a campaign of this magnitude depends on the quality and dedication of the staff involved in its implementation. Locum staff were hired for specific periods of time, and they were remunerated for their time and given a lunch allowance. There was no extra incentive or payment given to full-time partner staff for their extra effort during the RRI.

Some partner service delivery staff were also given lunch allowance, which is common when teams conduct mobile services in the field. Apart from these minor financial allotments, there were no monetary incentives or payments. In short, targets were set for service delivery, mobilizer referrals, and HTC uptake, and service delivery teams were motivated to surpass these targets. Specifically, campaign organizers motivated surgical teams by the following means:

1. **Verbal encouragement—**Service delivery teams were motivated verbally for working extra hours, mobilizing well, and circumcising many clients
2. **Daily text messages to team leaders—**Team leaders on every service delivery team were sent daily text messages with updates on the most successful teams within their partner program. These messages created friendly competition and helped encourage teams to work more efficiently in hopes of becoming the day's most productive team.
3. **"Big Picture" reminders—**Teams were frequently reminded that their individual work on the 2010 VMMC RRI contributed to the greater good of the community, and with each VMMC surgery, they played a part in the process of averting HIV infections and saving lives. They were also reminded that they were part of a substantial public health campaign. The pride of taking part in the RRI appeared to be a motivating factor for the teams.
4. **Improving upon 2009 VMMC RRI—**The majority of the 2010 RRI service delivery teams also worked on the 2009 RRI, so they understood the rigors of working on such a campaign. The first VMMC RRI in 2009 was very successful and all targets were surpassed, so improving upon that level of success also motivated the teams working on the 2010 RRI.
5. **Balancing work schedules—**Partner organizations understood the stress involved in an RRI campaign, so partners encouraged their staff members to take leave time before the six-week RRI period so they would be refreshed for the busy campaign. This simple act of foresight helped staff members mentally and physically prepare for an intense VMMC campaign.

7. Quality Assurance (QA)

QA measures for the RRI were designed to complement the existing national QA standards for VMMC that were adapted from the WHO guidelines on Male Circumcision.[13] Client information and service statistics were collected and analyzed according to national protocols. Multidisciplinary supervision teams were constituted at provincial and district levels to monitor level of compliance with prescribed quality standards for all activities and services. The supervisory teams were specifically responsible for ensuring that:

1. Services were only provided by trained and certified personnel
2. All service outlets had the minimum infrastructural requirements, adequate supplies and equipment for provision of quality VMMC using appropriate infection prevention measures
3. All teams used approved standard tools for collecting client information and service statistics
4. All teams complied with SOPs for all components of VMMC and had available copies of all SOPs onsite

5. All VMMC service delivery teams provided a minimum package of VMMC services consistently
6. A functional referral mechanism for HIV-positive clients and clients requiring specialized medical care was in place in each target district

a. Surgical Efficiencies

Due to anticipated high client volume, it was necessary to adopt methods that would increase speed of service provision without compromising quality. A variety of strategies were adopted to increase the cumulative number of clients circumcised per hour.

1. Using the forceps-guided technique for all circumcisions
2. Assigning experienced clinical officers to work with teams with less experienced staff
3. Using of pre-packed surgical kits for each circumcision
4. Minimizing changeover time for clinical officers between procedures by using more than one operating table per team to maximize clinical officers' time performing surgeries
5. Providing counseling, screening, and informed consenting of clients on the day before the scheduled surgery in high volume areas
6. Addressing human resource shortages by having trained clinical officers and nurses provide VMMC services

b. Non-Surgical Efficiencies

Efficiencies can be implemented in the operating theaters of VMMC facilities, but the time saved from these efforts can be negated by suboptimal and unstable client flow. Additional efficiency enhancing measures related to non-surgical efforts included:

1. Group counseling in high volume sites
2. Surgical teams assisting in the counseling and consenting processes, under some circumstances
3. Extra counselors and hygiene officers to teams with high patient volume
4. Separate group education sessions for younger adolescents and older male clients to provide age-appropriate content about sexual activity
5. Highly efficient teams were moved to high-demand areas, as needed
6. Rapid entering of data and sharing feedback on daily targets reached, numbers of clients tested for HIV, and number of AEs
7. Flexible team composition and quantities of teams so additions could be made as demand increased and decreased
8. Cooperation and clearly defined roles for all partners allowed services to be delivered more efficiently across Nyanza Province

8. RRI Results

a. Overall Results/Data

A total of 55,376 men were circumcised during the campaign, which lasted 30 working days in November and December 2010. On average approximately 1,846 procedures were performed daily during the 30-working day period. The campaign surpassed its target of 46,000 surgeries by over 20%. Of the 55,376 procedures, 4,756 procedures were performed in in Nairobi Province. This was the first time that RRI services were expanded beyond Nyanza Province.

In the 2010 RRI, 84% of clients receiving circumcision were aged 15 and older. Of the 55,376 total clients receiving VMMC surgery, follow-up data is available for 53,559 clients (follow-up appointments were not recorded for 1,817 clients). Among the 53,559 clients, 34% returned for at least one follow-up appointment on or around seven days following the procedure. Table 4 below provides further information about the VMMC clients from the participating districts.

Table 4: Number of Circumcised Clients by District, Age and Follow-up

District	MCs done by age (years)					Follow Ups	Follow-up rate
	<1	1–14	15–24	25+	Total MCs		
Bondo	2	398	844	297	1,541	458	29.7%
Busia	0	8	61	4	73	11	15.1%
Gucha	0	411	272	8	691	90	13.0%
Homa Bay	0	269	1,844	527	2,640	480	20.6%
Kisumu East	0	1,299	2,819	793	4,911	2,627	53.5%
Kisumu West	0	1,106	1,898	106	3,110	1,368	44.0%
Langata	0	90	2,260	376	2,726	259	9.5%
Migori	1	673	2,758	496	3,928	685	17.4%
Nairobi East	0	26	695	60	781	357	45.7%
Nairobi North	0	132	1,015	102	1,249	639	51.2%
Ndhiwa	0	436	1,439	357	2,232	1,718	77.0%
Nyando	0	421	2,854	804	4,079	1,164	28.5%
Nyatike	0	473	2,037	387	2,897	942	32.5%
Rachuonyo	0	750	4,125	650	5,525	1,327	29.3%
Rarieda	0	55	669	143	867	364	42.0%
Rongo	0	803	4,480	815	6,098	2,572	46.0%
Siaya	0	1,305	8,198	940	10,443	2,836	27.2%
Suba	1	106	1,260	218	1,585	311	19.6%
TOTAL	4	8,761	39,528	7,083	55,376	18,208	33.9%

Note: Not all partners and VMMC sites tracked clients returning for follow-up visits. Out of the total 55,376 VMMC procedures, sites tracked adherence to follow-up appointments for 53,559 VMMC clients. With 18,208 clients returning for follow up, this results in a follow-up rate of 33.9%.

b. Adverse Events (AEs)

VMMC is a minor, elective surgical procedure that contains degrees of risk, and a small percentage of AEs is expected, even when the procedure is performed by trained medical professionals in an aseptic environment. Regular monitoring of AE rates is thus necessary to quickly identify problem areas related to VMMC and to ensure adequate AE management.

During the campaign, 279 AEs occurred among 18,208 clients who returned for the post-operative follow-up visit on or around the seventh day following surgery (1.5%). Of the 47 severe adverse events, VMMC clinical staff were able to manage all but 5 cases, which were transferred to nearby hospitals for further clinical management. All adverse events were managed according to the SOPs. The most common AEs reported were pain, bleeding, swelling, and haematoma. Table 5 below provides a breakdown of AEs by district.

Table 5: Adverse Events during the 2010 VMMC RRI Campaign

District	Adverse Events			AE Rate (over Follow-ups)
	Moderate	Severe	Total	
Bondo	20	4	24	5.2%
Busia	0	0	0	0.0%
Gucha	0	0	0	0.0%
Homa Bay	6	0	6	1.3%
Kisumu East	43	7	50	1.9%
Kisumu West	41	8	49	3.6%
Langata	4	1	5	1.9%
Migori	6	0	6	0.9%
Nairobi East	9	0	9	2.5%
Nairobi North	3	3	6	0.9%
Ndhiwa	—	—	—	—
Nyando	11	—	12	1.0%
Nyatike	1	—	2	0.2%
Rachuonyo	22	3	25	1.9%
Rarieda	9	0	9	2.5%
Rongo	5	—	6	0.2%
Siaya	40	16	56	2.0%
Suba	12	2	14	4.5%
TOTAL	232	47	279	1.5%

Note: CMMB did not record AE data at its sites in Ndhiwa Province.

c) HIV Testing and Counselling (HTC)

A total of 79.8% or 44,178 clients were provided with HTC. This achieved the target testing rate of 80% of all VMMC clients. For comparison, HTC uptake during the 2009 RRI was 10,794 (39%) of all VMMC clients. A total of 962 males (2.2%) tested HIV-positive during the 2010 RRI. These men were referred to HIV care and treatment services at patient support centers of their choice.

Tracking of referrals was made possible for some clients in areas where "Community Tracers" were mobilized to ensure successful linkage to HIV care and treatment services. With the client's permission, Community Tracers would facilitate linkage by making home visits to clients who had not accessed HIV care and treatment services as scheduled. HIV-positive clients are reminded that the primary benefits of VMMC are for HIV uninfected individuals but, following screening and further evaluation, these clients were given the opportunity for VMMC surgery if there was no clinical contraindication and if they were still interested in the procedure.

A total of 43 clients (.08%) were diagnosed with an STI syndrome during medical history and physical examination. These men were provided with STI treatment at the VMMC site and were given follow-up appointments. Once STIs were resolved, clients were provided with VMMC surgery. Table 6 provides further detail on STIs.

Table 6: HTC and STIs during the 2010 VMMC RRI Campaign

District	Total VMMC Clients	Clients Tested	Percent Tested	Testing HIV Positive	Percent Testing HIV Positive	Number of STI cases
Bondo	1,541	1,392	90.3%	47	3.4%	3
Busia	73	72	98.6%	3	4.2%	0
Gucha	691	520	75.3%	1	0.2%	0
Homa Bay	2,640	2,352	89.1%	102	4.3%	4
Kisumu East	4,911	4,294	87.4%	178	4.1%	14
Kisumu West	3,110	3,029	97.4%	15	0.5%	0
Langata	2,726	1,974	72.4%	48	2.4%	0
Migori	3,928	3,263	83.1%	121	3.7%	7
Nairobi East	781	755	96.7%	23	3.0%	0
Nairobi North	1,249	1,223	97.9%	27	2.2%	0
Ndhiwa	2,232	—	—	—	—	—
Nyando	4,079	2,194	53.8%	36	1.6%	0
Nyatike	2,897	2,149	74.2%	33	1.5%	0
Rachuonyo	5,525	4,999	90.5%	102	2.0%	0
Rarieda	867	847	97.7%	31	3.7%	6
Rongo	6,098	4,854	79.6%	67	1.4%	2
Siaya	10,443	9,314	89.2%	93	1.0%	3
Suba	1,585	947	59.7%	35	3.7%	4
TOTAL	55,376	44,178	79.8%	962	2.2%	43

Note: CMMB did not record HIV testing uptake at its sites in Ndhiwa Province.

d) Patients Lost-to-Follow-Up (LTFU)

The majority of clients did not return for a post-operative follow-up visit within seven days of surgery. The overall follow-up rate was 33.9%, as shown in Table 4. However, this varied by district from 9.5% in Langata to 77.0% in Ndhiwa. This low rate may be explained as follows:

- ✓ Clients who had no complaints may not have been motivated to revisit the clinic on day 7 for post-operative check-up. In addition, they had cell phone numbers for emergency response if they needed help. They were also given instructions to remove dressings on their own at home on the third post-operative day. This may have boosted their confidence and reduced motivation to return for follow-up if they did not perceive a problem.
- ✓ Clients may have preferred to go for post operative check-up at other more convenient service outlets within their communities and not necessarily the outreach points where they were circumcised. There was no mechanism of tracking clients who went for follow-up visits elsewhere.
- ✓ For mobile and outreach sites, some service providers returned on Day 7 only, while others returned two to three times per week. It is possible that some clients may not have been able to travel to the designated outlets during the days when service delivery teams were able to provide follow-up services.

9. RRI Costing

In order to conduct the 2010 VMMC RRI campaign, all of the implementing partners in Nyanza needed to plan for all logistical concerns (as shown in Table 2). Considering the accelerated nature of this campaign, partners needed to anticipate associated financial costs. Table 7 below shows the collective costs of conducting a short-term, intense VMMC campaign in Kenya. Almost 24% of the entire VMMC program's costs are dedicated to this six-week campaign, which emphasizes the necessary resources.

As Table 7 demonstrates, over 55,000 VMMC procedures were conducted during the RRI, which is more than three times the VMMC procedures that would typically be performed during any 30-working day period throughout the year. The RRI does require considerably more resources, but the result is also a high number of procedures in a short time. The overall cost per circumcision was reduced by 36% during the RRI, as the cost per procedure went from $51 during the year to $32 during the RRI campaign.

Table 7: MC Program Costs in 2010 and during the 2010 RRI Campaign (in USD)

Period of time	Number of weeks	Total program cost	Costs for 30 working days	VMMCs conducted in 30 working days	VMMCs conducted in 1 year	Cost per VMMC	Reduction in cost per VMMC
2010 VMMC program (Jan 1 – Dec 31, 2010)	52	$7,359,507	$849,174	16,898	145,364	$51	—
2010 RRI Campaign (Nov 22, 2010 – Jan 8, 2011)	6	$1,758,735	$1,758,735	54,306	—	$32	36.0%

Note: This table represents data from the implementing partners on the number of VMMC procedures conducted during the 2010 VMMC RRI and the total amount spent for the campaign. The partner organizations include: IRDO, NRHS, FACES, CMMB, EDARP, APHIA II (EngenderHealth), and PSI. Implementing partners provided information on the total cost of their MC programs for the entire 2010 calendar year, as well as the costs spent during the 2010 RRI campaign. We adopted a program perspective and a top-down cost assessment approach where implementing partners were advised to report the actual total amounts spent for the campaign; costs for other programs or activities were not included in the analysis. Table 7 presents the preliminary costs summarized for all of the partners. The main limitation of this method is that many of the shared costs across partners (e.g., shared vehicles, petrol, equipment, supplies, etc.) could not be included in the study. In addition, minor costs such as those incurred by a partner (C-Change) that was involved in the development of IEC materials, mass media, and community engagement were also not included in this analysis, as their cost data was unavailable. This exclusion should not substantially alter these findings.

10. Challenges

- **Increasing the proportion of clients returning for post-operative review following surgery:** The 2010 RRI follow-up rate was 33.9%, so additional steps need to be taken to understand and address the reasons for the low client follow-up rate.
- **Improving the transport plan for staff and clients:** Unpredictable client demand and volume at certain sites makes it difficult to accurately arrange transportation logistics.
- **Ensuring a uniform M&E system is in place at all VMMC sites:** All VMMC partners and sites need to use a standard M&E system that tracks all of the same information.
- **Ensuring linkage to care for clients testing HIV-positive:** All sites need to link VMMC clients testing HIV-positive during the RRI campaign to HIV care and treatment services.

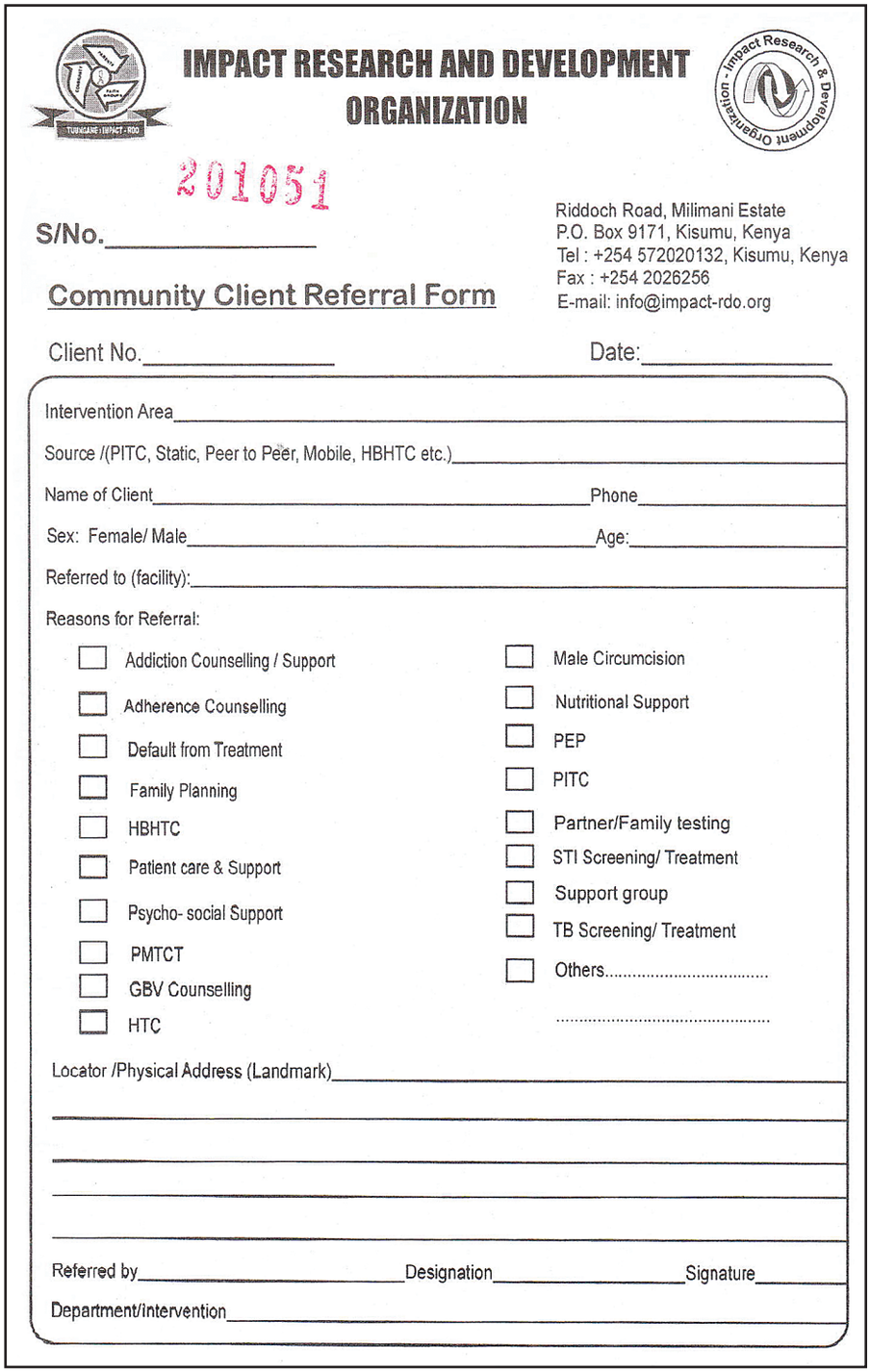
11. Lessons Learned

- Various demand creation strategies are needed to access different demographic groups of eligible men, especially older adolescents and adult males.
- More emphasis on HTC helped achieve such a high testing rate among VMMC clients (79.8%).
- The road shows and the use of Dholuo language radio station for communications activities in Nyanza are two successful approaches for engaging the community.
- Building upon the accomplishments in recruitment during the 2010 RRI should help attract clients for future VMMC RRI campaigns.
- Flexible VMMC teams that could be easily allocated to busier sites contributed to the success of matching client demand.
- The DQA visits confirmed the importance of regularly monitoring VMMC quality and data recording procedures during the RRI.
- A high volume of VMMC procedures can be accomplished using reusable equipment.

12. Recommendations

- A study should be conducted to identify the reasons for the low client follow-up rate.
- A comprehensive system that tracks linkage of all VMMC clients testing HIV-positive to HIV care and treatment services needs to be developed.
- Future RRI campaigns should consider expanding VMMC services in new districts and areas in Nyanza and Nairobi Provinces.

Appendix 1: Example of Client Referral Form



IMPACT RESEARCH AND DEVELOPMENT ORGANIZATION

201051

S/No._____

Riddoch Road, Milimani Estate
P.O. Box 9171, Kisumu, Kenya
Tel : +254 572020132, Kisumu, Kenya
Fax : +254 2026256
E-mail: info@impact-rdo.org

Community Client Referral Form

Client No._____ Date:_____

Intervention Area_____

Source /(PITC, Static, Peer to Peer, Mobile, HBHTC etc.)_____

Name of Client_____ Phone_____

Sex: Female/ Male_____ Age:_____

Referred to (facility):_____

Reasons for Referral:

- ☐ Addiction Counselling / Support
- ☐ Adherence Counselling
- ☐ Default from Treatment
- ☐ Family Planning
- ☐ HBHTC
- ☐ Patient care & Support
- ☐ Psycho- social Support
- ☐ PMTCT
- ☐ GBV Counselling
- ☐ HTC
- ☐ Male Circumcision
- ☐ Nutritional Support
- ☐ PEP
- ☐ PITC
- ☐ Partner/Family testing
- ☐ STI Screening/ Treatment
- ☐ Support group
- ☐ TB Screening/ Treatment
- ☐ Others.....

.....

Locator /Physical Address (Landmark)_____

Referred by_____ Designation_____ Signature_____

Department/intervention_____

Appendix 2: National and Provincial Taskforce Member List

VMMC National Taskforce Members

NAME	ORGANIZATION
Nadia Kist	AED
Catherine Lengewa	AED
Isaac Abuya	AED
Zebedee Mwandi	CDC
Kennedy Serem	CMMB
Salvador de la Torre	CMMB
John Motoku	EDARP
Regina Mbayaki	EngenderHealth
Mores Loolpapit	FHI360
Matthews Onyango	FHI360
Ida Jooste	Internews
Isaac Malonza	Jhpiego
Joel Rakwar	Jhpiego
Labano Kizito	KEMRI
Walter Odhiambo	Marie Stopes Kenya
Milka Kuloba	MOMS-Nursing
Calvin Abuya	MOPHS
Leah Rutto	MOPHS
Francis Ndwiga	NASCOP
Athanasius Ochieng	NASCOP
Peter Cherutich	NASCOP
Nicholas Muraguri	NASCOP
Helgar Musyoki	NASCOP
Catherine Njogu	NASCOP
Emma Llewellyn	NRHS
Walter Obiero	NRHS
Pauline Irungu	PATH
Lucy Maikweki	PSI Kenya
Ndungu Kiriro	PSI Kenya
Roselyn Mutemi	UNICEF
Kawango Agot	UNIM

VMMC National Taskforce Members

NAME	ORGANIZATION
Anne Murphy	USAID
Norah Talam	Walter Reed Program
Justice Bett	Walter Reed Program
Rex Mpazanje	WHO
Caroline Odada	WOFAK

VMMC Nyanza Province Taskforce Members

NAME	ORGANIZATION
Mathews O Onyango	FHI360
Charles Kirui	FACES
Benard O Ayieko	IRDO
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Appendix 3

FORCEPS GUIDED MC GUIDELINES

STEP 1 Skin preparation, draping and local anesthesia. (Lignocaine 1% or 2% without adrenaline at 11 and 1 o'clock dorsal nerve blocks and a ring block)

STEP 2 Retraction of the foreskin and separation of any adhesions.

STEP 3 Marking of intended incision line at 1cm proximal to the coronal sulcus on both the dorsal and ventral aspects of the penis.

STEP 4 Grasp the foreskin at the 3 and 9 O'clock positions with 2 Dunhill artery forceps on the natural apex of the foreskin in such away as to put equal tension on the inside and outside surfaces of the foreskin.

STEP 5 Taking care not to clamp the glans, apply a Kocher's clamp across the foreskin just proximal to the mark. Once the forceps is in position, feel the glans to check that it has not been accidentally caught in the forceps.

STEP 6 Using a surgical blade cut the foreskin flush with the outer aspect of the forceps. The forceps (Kocher's clamp) guards the glans from injury, but nevertheless proceed carefully.

STEP 7 Arrest all bleeders by either underunning or tying then irrigate with normal saline and check whether there are bleeders which have not been ligated and ligate them if any. You can use electrocautery if available.

STEP 8 Close the wound by giving a horizontal mattress stitch at 6 o'clock (frenulum region) and vertical mattress stitches at 12, 3 and 9 o'clock and tag the 4 stitches.

STEP 9 Give vertical mattress stitches in between the 4 tags, and then close the remaining spaces between the mattress stitches with simple stitches.

STEP 10 Check for bleeding and provided there is none, place 2 pieces of paraffin embedded gauze (or sofratulle) around the wound.

STEP 11 Apply sterile dry gauze over this sofratulle and secure it in position with adhesive tape, then give postoperative instructions to the client.

Appendix 4

IMMEDIATE POST OPERATIVE CARE PROTOCOL

1. Receive the client from theatre and review client record.

2. Monitor the client's vital signs; check the blood pressure, respirations and pulses twice at 15 minutes interval.

3. Check surgical dressing for oozing or bleeding

4. Ask about pain and treat if significant

5. Observe the general condition of the client

6. Administer postoperative treatment as prescribed

7. Provide bland carbohydrates and liquids to raise the blood sugar levels if available.

8. Handle the client gently when moving him

9. Make client comfortable as appropriate to the clients needs

10. Complete client record forms

11. Review post operative instructions and wound care with the client

12. Ensure the client carries home a copy of the wound care instructions and appointment/ review date card. Also provide the client with an emergency contact phone number.

Appendix 5

MALE CIRCUMCISION FOLLOW-UP DESCRIPTION, MANAGEMENT AND REPORT REFERENCE FORM

Adverse Event and Severity	Description	Management
Excessive pain		
Within normal range	Pain Scale of 0 to 5	Re-assure the client
Moderate	Pain Scale of 6 to 7	Increase paracetamol to 4 hourly or add bruffen; re-assure the client
Severe	Pain Scale of 8 and above	Give tramadol injections. Hospitalization likely
Excessive swelling		
Within normal range	Swelling limited to < 2cm around incision; minimal discomfort	Elevate; re-assure
Moderate	Swelling involving glans and part of the shaft	Elevate; give bruffen; re-assure the client; review in 2-3/7
Severe	Swelling involving glans and most of the shaft	Elevate; give bruffen, re-assure; see alternate days
Infection		
Within normal range	Erythema 1 cm beyond incision line or wetness with sero-sanguinous discharge	Clean with betadine
Moderate	Purulent discharge from the wound	Irrigate, clean with betadine; dress; antibiotics; review in 2-3/7
Severe	Cellulitis with wound necrosis	Irrigate, do surgical debridement; antibiotics; dress alt. days
Haematoma		
Within normal range	Swelling < 1cm in diameter; minimal discomfort	Reassure the client
Moderate	Substantial swelling but not more than 2cm in diameter	Allow to ooze with gentle pressure; clean and dress; review in 2-3/7
Severe	Massive swelling with diameter > 2cm	Re-exploration under Local Anesthesia
Bleeding		
Within normal range	No active bleeding; spotting on dressing	Re-assure the client; do exam and dress aseptically
Moderate	Bleeding requires return to clinic; active bleeding that is controlled by pressure or a few stitches	Dress with moderate pressure under aseptic conditions
Severe	Bleeding not controlled by dressing, requires re-exploration and bed rest	Needs re-exploration, admission or transfusion
Difficulty or pain when urinating		
Within normal range	Small pain on urination; pain scale of 0 to 5 when urinating	Increase paracetamol dose to 4 hourly
Moderate	Severe pain or partial obstruction; pain scale of 6 to 7	Add Bruffen for pain
Severe	Total obstruction or pain scale of 8 and above	Canulate with small catheter, give analgesics
Wound disruption		
Within normal range	1 to 2 adjacent stitches missing	Clean with betadine
Moderate	Re-stitching of at least 3 stitches required	Re-stitch if less than 72 hrs; clean with betadine;dress
Severe	Patient incapacitated – bed rest required	Re-stitch if less than 72 hrs; antibiotics;dress alternate days
Problem with appearance		
Within normal range	May be some concern by client but appearance within normal range	Reassure client
Moderate	Scarring; cosmetic problem but operation not required	Reassure client
Severe	Rotation or other problem; requires cosmetic correction	Corrective surgery needed, REFER
Injury to the glans		
Within normal range	Mild abrasion from bandaging; no active bleeding	No treatment needed, re-assure
Moderate	Laceration of the glans	Continuous stitch with a round body needle
Severe	Excision of all or part of glans	REFER

Appendix 6

MC Information and Consent Form

CIRCUMCISION INFORMATION AND CONSENT FORM

Information about circumcision

Circumcision is a minor surgical procedure to remove the fold of skin (the foreskin) that covers the front area of the penis. The circumcision will be done after injecting a local pain medicine at the base of your penis to lessen the amount of pain at the time of the procedure. You may feel pain or discomfort from the needle. In very rare cases, men can have an allergic reaction to the pain medicine. The procedure will take about 40 minutes. You will be able to rest at the clinic for as long as necessary, normally about 30 minutes after the procedure. You will be given Panadol to take home and directions on how to care for the wound. If you follow these directions, the chances of you having any problems are very small.

Follow-up visits

You will come back to the clinic about seven days after the circumcision. The doctor will check your penis to make sure there are no problems or bad effects from the circumcision. You will receive treatment necessary for any problems that are found. If you feel heavy pain, swelling, bleeding, or any signs of infection that you think are not normal at any time, you should not wait seven days; you should return to the clinic right away to be checked by the clinicians. Because it is important for the skin to heal properly after the procedure, you must not have sex for at six weeks after the circumcision.

Risks and discomforts

Like any surgical procedure, there are risks associated with circumcision. The risks include:

- Bleeding
- Swelling
- Pain
- Infection
- In very rare cases, permanent injury, numbness, loss of sensitivity, mutilation, or total loss of the penis
- There is also the risk of HIV or other infections if you have sex before the wound is fully healed (usually six weeks after the procedure).

You should be aware that circumcision does not fully protect you from HIV or other sexually transmitted infections. Whether circumcised or not, you should protect yourself from HIV by abstaining from sex or being faithful to one partner whom you are sure is HIV negative or by using a condom correctly every time you have sex.

Please feel free to ask any questions about the circumcision procedure or about the risks and benefits of circumcision before making your decision to be circumcised in this clinic. After weighing all the factors and you choose to be circumcised, please sign the following statement.

Ministry of Medical Services

Consent form for operation

I _____ of P.O. Box _____ hereby consent myself/child/ spouse/relative (name) _____ to undergo the operation of _____ _____.

The nature and possible complications of the operation and general/local anaesthesia has been explained to me fully by the clinician. I also consent to any further or alternative procedures to be performed, which the clinician may find necessary during the operation.

I am not in knowledge of which clinician will perform the operation.

Patient's sign: _____ Date: _____

Doctor's sign: _____ Date: _____

Witness' sign: _____ Date: _____

Wizara ya Afya

Kibali cha upasuaji

Mimi _____wa S.L.P. _____ natoa kibali changu/ kwa mtoto wangu/ bibi wangu _____ afanyiwe upasuaji wa _____ _____ ambao maana yake na matokeo yake nimeelezwa na Daktari _____ Tena natoa kibali ili kutumiwe dawa ya kupoteza fahamu au upasuaji wowote atakaopatikana wa manufaa wakati wa shughuli hiyo na Daktari. Sijafahamishwa ni daktari yupi atakayefanya upasuaji.

Sahihi ya mgonjwa: _____ Tarehe: _____

Sahihi ya daktari: _____ Tarehe: _____

Sahihi ya shahidi: _____ Tarehe: _____

Appendix 7

Consenting for MC

- All clients under the age of 15 years (i.e., 14 and below) MUST be accompanied to the health facility/site of MC delivery by the parent/guardian. The parent/guardian must sign the MoH consent form, which is also signed by the surgeon.
- Clients aged 15–17 may be consented at the household level by a trained MC counselor IF this service is available. The parent/guardian MUST be present and MUST sign the consent form. The counselor must also sign the consent form.
  - » The consent form is now a Clinical Record and must be handled as such.
  - » If consented at the household level, the counselor MUST carry the signed consent form to the health facility. The signed consent form CANNOT be carried to the health facility by the client.
  - » The counselor who consented the client hands the signed consent form over to the on-site MC counselor (if different).
  - » At the health facility/site of MC service delivery, the client must ASSENT for surgery and sign the MoH Clinical Consent form that must also be signed by the surgeon.
- Clients aged 15–17 who are not consented at the household level MUST be accompanied to the health facility/site of service delivery by the parent/guardian. The parent/guardian must consent to the surgery and the client assent, in the presence of the surgeon. The MoH consent form MUST be signed.
- Clients aged 18 years and above, can be consented at home, if the service is available but MUST sign the MoH consent form at the health facility that is also signed by the surgeon.

Appendix 8

MINORS COUNSELLING PROTOCOL (8–11yrs)

COMPONENT 1

- Welcome the client
- Introduce yourself and describe your role as MC counselor
- Give a session overview and timing
- Describe confidentiality

COMPONENT 2

- Explore the clients reasons for coming
- Explain to the client some RH services available; MC, VCT, FP, PSC & STIs clinics (counselor should assess the maturity and the understanding of the minor)

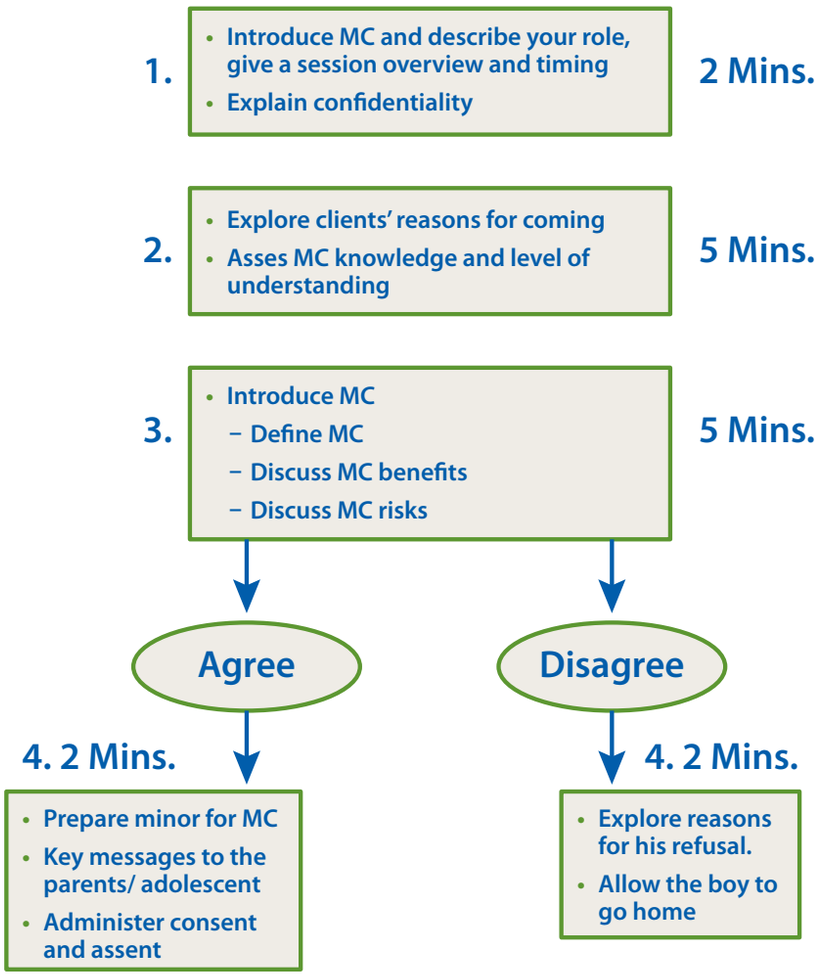
COMPONENT 3

- Explore the clients' knowledge on MC
  - » Define MC to the client
  - » Inform the client that MC does not affect the ability to pass urine normally.
  - » Safety issues during the procedures
  - » MC does not also affect the ability to father children in adult life
- Ask the client whether he is willing to continue with the circumcision procedure
- Discuss MC benefits:
  - » Prevents urinary tract infections
  - » Reduces the risk of acquiring HIV during sex by up to 60% for those who are sexually active.
  - » Reduces the risk of getting other STIs, e.g. syphilis, chancroid, and human papilloma virus
  - » Reduces the risk of getting penile cancer
  - » Reduces the risk of cervical cancer in female sex partners
  - » It is easier to keep the penis clean
- MC risks:
  - » Bleeding from the wound
  - » Swelling
  - » Pain
  - » Infection from the cut area
  - » Itching from where the skin was cut
  - » In rare cases, permanent injury, numbness, loss of penile sensitivity, mutilation or total loss of penis or even death
  - » Risk of HIV transmission if the penis is not fully healed
  - » Possible irritation of the glans
- Explain that circumcision does not provide complete protection against HIV infection

COMPONENT 4

- Prepare the client for MC:
  - » Inform the client that MC takes about 40 minutes and there is no need to stay overnight in hospital.
  - » Explain to the client that a local anesthesia is used to take away the pain of the procedure
  - » Reassure the client that in clinic we do everything possible to prevent surgical complications e.g. bleeding, pain, swelling
  - » Inform the client that it takes 4-6 weeks for the wound to heal partially and 3-4 months for the wound to heal completely
- Inform the client/parent to adhere to post operative instructions given
- Stress to the client to call the number printed on the clients' card if there are any complications or problems after circumcision
- Encourage the client or the parent to ask questions before they sign
- Administer consent and minor assent forms

MINOR MC COUNSELLING PROTOCOL DIAGRAM



NOTE:

- MC education and counseling for minors takes approximately 20 mins
- This protocol will be used for minors between the ages of 8–11yrs
- Both the parent and the minor will be together in the counseling room when the counselor is obtaining parental consent
- They will be separated when the counselor is obtaining minor assent to allow the minor to make an independent decision
- The parent should be given enough time to ask questions before leaving the counseling room
- In case the minor wants guardian to remain in the session then they shouldn't be denied that chance
- In the counseling protocol the component of HIV/AIDS, STIs and VCT is not included since the minors are not sexually active

Appendix 9

THEATRE CHECKLIST—MC CONSUMABLES

1.	NEEDLE (G23)	1
2.	NEEDLE (G21)	1
3.	SYRINGE (20/10ML)	1
4.	SUTURES 3/0 ROUND BODIED ABSORBABLE	1/2
5.	BETADINE (30 – 50MLS)	1
6.	0.9% NORMAL SALINE	1
7.	SURGICAL BLADE (NO. 10)	1
8.	SOFRATULLE (4X4)	2
9.	LIGNOCAINE 2% WITHOUT EPINEPHRINE	1
10.	STERILE GLOVES	4
11.	ADHESIVE TAPE (STRAPPING)	1
12.	COHESIVE BANDAGE	1

Appendix 10

MINISTRY OF MEDICAL SERVICES

Standard Operating Protocols for Consenting in VMMC

The Kenyan Ministry of Health has adopted the 10 W.H.O. standards for provision of the minimum package of VMMC services in Kenya. These standards guide the provision of VMMC services in the country and define essential components of the same. These standards address among other issues human resource constraints, client education and consenting, and the surgical procedure.

The Ministry of Health provides guidance on the cadres that may deliver VMMC; the basic medical training required of these cadres; the VMMC training and certification process; and the assessment of competence to provide VMMC. Based on these guidelines, the Ministry of Health requires that "…...providers be legally registered by the appropriate regulatory boards….." for them to provide VMMC services. Recognizing human resource constraints, well-trained and certified lay counsellors "…..may be required to address the counselling-related aspects of VMMC….."

The Ministry of Health has thus mandated that the following registered medical cadres can lead the consenting process. These are:

- Doctors
- Clinical Officers
- Nurses
- Counsellors trained and certified on the National Guidelines of VMMC under Local Anaesthesia
- All these cadres must be fully trained and certified as VMMC providers in their respective cadres, having been trained using the MOPHS Clinical Manual for Male Circumcision under Local Anaesthesia.

Other healthcare workers including physiotherapists, community health extension workers, peer educators, etc are not allowed to consent clients for VMMC. A consent form signed or witnessed by someone who is not legally mandated to do so is void.

Medical regulations and standards require that the surgical consenting process be an "informed" one. The individual leading the consenting process should have sufficient medical information to be in a position to address all concerns that may be raised during the consenting process. The care provider should also be in a position to verify the level of understanding of the procedure that the client and/or parent/guardian have, before providing the required service. In the context of VMMC, the consenting process can only take place in the presence of a legally mandated VMMC service provider.

Verification of guardianship/parenthood is crucial during the consenting of minors. This is to avert potential litigation and also to conform to the highest possible ethical standards. The parents/guardians should present their identity cards, the numbers of which will be recorded on the consent form. The consent form then becomes a legal document. In case of litigation, these individuals will be held responsible in case they were not the genuine parents/guardians. The clinicians will be required to verify the consent prior to client screening and circumcision.

"Only legally mandated personnel can lead the consenting process. This is limited to doctors, clinical officers, nurses and VMMC trained counsellors"

Emancipated minors

There are households which are headed by minors. These may include orphans or street kids. Unfortunately the law does not currently address this special category of minors as the AIDS Act has not been passed by parliament. These minors will as such be required to produce a letter from the area chief stating that they are emancipated minors before MC can be done.

Steps to follow during the consenting process

1. The client arrives at the facility. Minors must be accompanied by a parent/guardian, while adults may come alone. In case of unaccompanied minors, efforts should be made and documented about the attempts to contact their parents.
2. Client counselling is done. This may be done as a group (optional) followed by an individual (mandatory) counselling session. The clients should be grouped as per age group during the group counselling process.
3. The informed consent is obtained after the assessment of the client/parent/guardian understanding of the procedure. This is done immediately following the individual counselling session. The age of the clients in the case of adults should be ascertained by the counsellor.
4. In the case of minors, proof of parenthood or guardianship is required. The "parents/guardians" must also be informed of their legal responsibilities once they sign the form.
5. The surgical team is required to verify the adequacy of consenting prior to pre-operative client screening. The surgical team is to witness the signing of the consent form at the facility before surgery.
6. Following this, the client is screened, and if medically fit circumcised.

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UNITED STATES PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF


USAID
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DEPARTMENT OF HEALTH & HUMAN SERVICES · USA


CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION


MCC
MALE CIRCUMCISION
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CS226702