

Strategy and Implementation Plan for Scaling Up Safe Male Circumcision for HIV Prevention in Swaziland

2009 / 2013

**Swaziland's comprehensive 5-years strategy to
reduce HIV incidence through voluntary,
safe male circumcision services**

**SWAZILAND MALE
CIRCUMCISION
TASK FORCE**

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Acronyms and Abbreviations

ANC	Antenatal care
BCC	Behaviour change communication
DHS	Demographic health survey
HIV	Human immune deficiency virus
HMIS	Health Management Information Systems
IEC	Information, education and communication
M&E	Monitoring and evaluation
MC	Male circumcision
MoH	Ministry of Health
HTC	HIV Testing and Counseling
QA	Quality assurance
STI	Sexually transmitted infections
WHO	World Health Organization

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1.0 Introduction and Framework

In light of ecologic,¹ observational,² and conclusive scientific evidence from randomized-controlled clinical trials³⁻⁵ that male circumcision provides partial protection against HIV acquisition by men, WHO, in November 2007, recommended that MC be added to existing comprehensive HIV prevention programmes in 13 countries throughout sub-Saharan Africa: countries with high HIV prevalence, low MC prevalence, and predominantly heterosexual (generalized) epidemics.⁶ Swaziland has the highest HIV prevalence in the world, a generalized HIV epidemic, and almost all Swazi men are uncircumcised. Therefore, in November 2007, Swaziland drafted a formal MC policy, *Policy on Safe Male Circumcision for HIV Prevention* (hereafter, The MC Policy), as a first step to begin providing MC services to curb the spread of HIV throughout the country.

In February 2009, development of an MC strategy document, *Strategy and Implementation Plan for Scaling-up Safe Male Circumcision for HIV Prevention in Swaziland* (hereafter, The MC Strategy), began so that The Policy could be rapidly translated into definite activities. The MC Strategy has been developed carefully to ensure that safe MC for HIV prevention services may be provided to as many Swazi men in the highest risk age group as quickly as possible; implementation on a public health scale (reaching many men, quickly) has the best potential to maximally impact Swaziland's HIV epidemic.

As indicated in The Policy, MC as a means of preventing HIV transmission in Swaziland is not a stand-alone effort but complements existing HIV prevention strategies, including: HTC; treatment of sexually transmitted infections (STIs); abstinence, and reduced risk of infection through safer sexual practices (proper and consistent use of condoms in penetrative sex, faithfulness to partner(s), and avoidance of concurrent sexual partnerships). To this end, MC will be implemented in a way that guarantees clients and communities access to all other forms of HIV prevention. Specifically, MC for HIV prevention in Swaziland will be provided as part and parcel of a 'Minimum Package' of services that must always include the following: HTC; STI screening (and treatment, when indicated); risk reduction counseling, including condoms; and safe, quality surgical care.

Swaziland's 'Minimum Package' of MC for HIV Prevention Services

- Routine offer of **HIV testing and counseling** so that clients may know their HIV status and better understand the link between HIV and MC
- **Screening for STIs** (and treatment, when indicated) since STIs increase a person's risk of acquiring or transmitting HIV
- **Risk reduction counseling** to ensure that clients understand the need for abstinence from sexual activity during the 6 weeks of wounding healing, as well as the necessity for safer sexual practices indefinitely thereafter. Life-long risk reduction strategies are necessary because MC is not 100% protective against HIV infection
- **Promotion and provision of condoms** to reinforce the counseling message and empower sexually active males to adopt safer sexual practices
- **Surgical care** that is safe and of high quality, performed by trained competent staff in settings that are adequately equipped and environmentally suitable for minor surgical procedures

The MC Strategy is for the five year period 2009-2013. Similar to other HIV prevention and treatment interventions in Swaziland, MC for HIV preventions has a **Goal** of positively impacting the country's HIV epidemic by reducing HIV incidence in the population.

MC Strategy Goal:

- 1) To reduce HIV incidence in Swaziland

In order to achieve the **Goal**, a number of **Objectives** must be accomplished and work together. Objectives are broken down into **Main Objectives** and **Supporting Objectives**. Because all Objectives must work together in order to reach the Goal, none is less important than another. Achievement of all Objectives (Main and Supporting) is essential. The distinction between Main Objectives and Supporting Objectives is made for the purposes of prioritizing targets and measuring progress; measuring achievement of the Main Objectives answers priority monitoring and evaluation questions. Measurement of progress towards targets is covered in more detail in the Monitoring and Evaluation section of this document

(Section 5.0).

MC Strategy Main Objectives:

- 1) To provide MC for HIV prevention services to 144,688 males during the period 2009-2013 (111,688 HIV-negative males aged 15-24 (80%); 33,000 male neonates (33%))
- 2) To provide MC services that are safe
- 3) To maximize safer sexual practices following MC, among circumcised men as well as women and uncircumcised men throughout Swaziland
- 4) MC for HIV prevention must always be provided as part and parcel of the **'Minimum Package'** of services. Complementing surgical care with HTC, STI screening (and treatment), and risk reduction counseling with provision of condoms will help to maximize the impact of the HIV prevention intervention

It should be noted, males 1-14 and 25+ years of age, as well as those who are HIV-positive or of unknown HIV status will not be denied MC services, unless the surgery is medically contraindicated in the opinion of the doctor providing MC services. This is in line with The Policy which states, "HIV testing and counseling shall be routinely offered on to all men prior to circumcision, but refusal to take an HIV test is not grounds for denial of the service."

Males 15-24 years of age who are HIV-negative have been chosen as the primary target for MC for HIV prevention because those in this group may benefit the most from services, as they are collectively, currently at greatest risk of HIV infection based upon epidemiologic data (are either already sexually active or will become sexually active soon). The number of 111,688, represents approximately 80% of the total number of HIV-negative, uncircumcised boys and men in this age group. Modeling exercises conducted for Swaziland, based approximately 50% MC coverage of males 15-49 years of age through 2020, projected that 1 HIV infection could be averted for every 4 MCs performed.⁷ A more rapid scale-up targeted to the highest risk age group would further maximize the impact. Compared to the costs of HIV treatment, MC is a very cost-effective intervention and stands to save up to

several billion Emalangeni.

Targeting services to males in the highest risk age group (15-24) has the added benefit of reducing the most new infections. Neonatal MC will also commence in the 2009, so that an increasing proportion of newborn males will be circumcised over time. Once the approximately 144,688 males (newborns, boys, and men) have been reached with MC services by 2013, neonatal MC will be rapidly expanded to 80+% annually and, simultaneously, smaller groups of approximately 10,000 fifteen year old males will be offered MC services annually. Eventually (after approximately 15 years), almost all males in Swaziland will receive MC as newborns.

Because MC is not 100% protective against HIV infection, maximizing life-long safer sexual practices following MC (use of condoms during penetrative sex, faithfulness to partner(s), avoidance of concurrent sexual partnerships) is also a Main **Objective** of MC for HIV prevention in Swaziland. Delivery of all components of the Minimum Package of services will ensure delivery and reinforcement of risk reduction messages, as well as general safety.

In order to achieve the Main Objectives stated above, Supporting **Objectives** need to be met quickly.

There are two Supporting Objectives to the MC Strategy

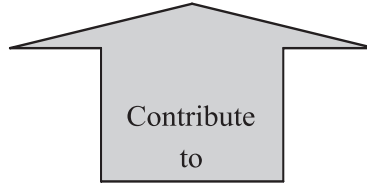
- 1) The **supply** of human and material resources must be increased, so that trained and competent health care workers are available and equipped with the necessary commodities to safely provide all components of the minimum package of services
- 2) The **demand** for MC for HIV prevention must be increased through public information and education campaigns that result in correct knowledge about the intervention and a positive intention to be circumcised (have sons circumcised)

Achieving the Supporting Objectives will contribute to the Main Objectives of safely circumcising 144,688 Swazi males by 2013, while also maximizing life-long safer sexual practices thereafter. Achievement of the Main Objectives, in turn, supports the Goal of reducing HIV incidence in the population.

MC for HIV Prevention Strategy Framework

Goal

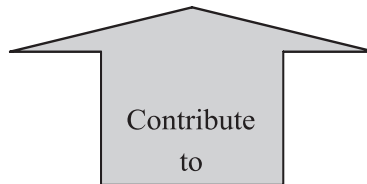
Reduce HIV incidence in the population



Objectives

Main Objectives

- (1) Circumcise 144,688 Swaziland males by 2013 (includes 33,000 neonates)*
- (2) Provide MC services that are safe*
- (3) Maximize safer sexual practices following MC*
- (4) Provide the Minimum Package of MC for HIV prevention services*



Supporting Objectives

- (5) Increase demand for MC for HIV prevention services*
- (6) Increase supply of material and human resources needed for safe MC services*

2.0 Demand for MC for HIV Prevention Services

In order to successfully provide safe MC to 144,688 males by 2013, an ambitious strategy of information and education about the protection against HIV afforded by MC will be required. An MC BCC Framework and MC Communications Strategy document is thus being developed to sensitize the population to MC and encourage MC services for HIV prevention. The MC BCC Communications Strategy is aligned with and will become a component of the National HIV BCC Strategy. The purpose of MC information and education is to promote individual consideration and community dialogue and debate on the issues of HIV and MC. Appropriate local messaging and effective mobilization of mass media will be essential. Misinformation about MC will also be addressed.

2.1 Messages/Content of MC Communications

MC communications being developed will outline the advantages and limitations of MC for HIV prevention, highlight the national plan for development of MC services, and indicate timeframes for launch of MC services. The MC Communications Strategy will help ensure that the people of Swaziland fully understand the benefits, limitations, and responsibilities involved. Media implementation will be phased-in over the project period; priority messages and audiences will be addressed first.

MC messages, at a minimum, include the following:

- MC reduces a man's chance of sexually acquiring HIV from a woman by over half but is not 100% effective at preventing infection. MC is thus an additional HIV prevention measure and is being promoted as part of a comprehensive HIV prevention package.
- Complete healing from MC surgery takes 6 weeks and resumption of sexual activity earlier than 6 weeks after surgery may increase a man's risk of acquiring HIV or result in medical complications, such as delayed wound healing. If a man who is already HIV-positive elects to be circumcised, resuming sexual activity early may even increase his likelihood of transmitting HIV to a sexual partner.

- MC does not provide 100% protection against HIV infection and the following safer sexual practices need to be continued indefinitely: correct and consistent use of condoms, faithfulness to partner(s), and avoidance of concurrent sexual partnerships.
- MC is entirely different than female circumcision, or female genital mutilation (FGM). FGM is a dangerous practice that has no known health benefits and should not be performed.
- Intergenerational communication barriers (parents/guardians and children) pertinent to MC decision making, as well as SRH parent-child communication issues in general, should be addressed. Garnering of parental support for MC is essential.
- Decisions about circumcision of a son(s), from both parents' perspective need to be discussed.
- Because MC is a culturally sensitive issue, a structured advocacy effort nationwide is essential. Messages will include education and dialogue on issues of concern to various stakeholders e.g., potential for stigma and discrimination of women, HIV-positive persons, and uncircumcised men.

2.2 Audiences/Targets for MC Communications

To provide 144,688 male circumcisions before 2013, many people throughout Swaziland will need to be informed of MC for HIV prevention. Effectively reaching key audiences will ensure that those most affected are empowered to make the best decisions possible, and that implementation of services translates into a sustained reduction in HIV incidence.

Audiences, at a minimum, include the following:

- Boys and men, so that they may be educated about the risks and benefits of MC for HIV prevention, with special emphasis on the difference between reduced risk and 100% prevention and how to best keep risk of HIV infection low following MC. Even boys and men who elect to remain uncircumcised should be educated that MC is only partially protective against HIV infection and that use of other HIV prevention methods is important. Because reduced HIV incidence in a community following MC implementation will gradually decrease the likelihood that women, and subsequently, uncircumcised men may encounter an HIV-

infected sexual partner, uncircumcised men may perceive a reduction in their own risk of HIV infection over time (even though they are uncircumcised). Any consequent increase in unsafe sexual behaviours must be avoided, as community-level risk disinhibition (also called risk compensation) has the potential to attenuate MC's protective effect against HIV. Communications messages for uncircumcised men should advise them against such risk disinhibition following implementation of MC in their communities.

- Women, so that they are informed about a number of issues regarding MC. Women should know that men who are already HIV-positive may still receive circumcision and that men who are already circumcised may still get infected with HIV. Women must be educated about the need for men to abstain from sexual activity following MC surgery; having sex with a man who has been circumcised for fewer than 6 weeks may place both the woman and man at greater health risks. Women should be aware that a condom should be used when having sex with a man even if he is circumcised, because circumcision does not directly protect women from HIV infection. Because reduced HIV incidence in a community will gradually decrease the likelihood that women may encounter an HIV-infected sexual partner, women may perceive a reduction in their own risk of HIV infection. Any consequent increase in unsafe sexual behaviours must be avoided, as community-level risk compensation has the potential to not only attenuate MC's protective effect against HIV. Communications messages for women should advise them against risk disinhibition following implementation of MC in their communities. Messages for women should include education about how female partners of circumcised men have been shown to experience lower rates of HPV infection and cervical cancer.⁽¹⁾
- Mothers and fathers, so that they may consider the benefits of electing MC for their newborn son(s)/encouraging MC for son(s) 15 years of age or older.
- HIV-positive men, so that they are informed that becoming circumcised neither cures HIV nor reduces the likelihood that they will transmit HIV to sex partners. Further, if they should elect to become circumcised for other reasons (e.g., to

improve hygiene or reduce the risk of acquiring other STIs), having sex before the wound is healed poses greater health risks to them and their sex partners, including an increased likelihood of transmitting HIV. Further, wound healing may be delayed if they are immunosuppressed.

- HIV-positive women, so that they are aware that they may still transmit HIV to male sexual partners, even if the men are circumcised.
- Civic, political, opinion, religious, and traditional leaders, to inform them of the promising, potential effects of programme implementation. Engaging parent associations about MC for children, women's NGOs on the benefits and risks of MC for women, and NGOs for persons living with HIV/AIDS on the potential for stigma and discrimination is important. All leaders should be aware of the intervention's potential to prevent tens of thousands of HIV infections at a cost savings of several billion Emalangeni. Key stakeholders may benefit from study tours to other southern and eastern African countries which may be confronting similar challenges and constraints to MC service delivery, to observe innovative programmes being implemented in such settings (e.g. Zambia University Teaching Hospital programme, Kenya MC mobile service delivery programme).
- Media, to inform journalists of the facts and myths about MC and encourage fair and accurate reporting of news-worthy information related to MC for HIV prevention.

In addition to providing information and education to all of the above audiences, targeting messages to HIV-negative males in the highest risk age group (15-24 years) has the potential to create the greatest demand among the group that stands to benefit the most from MC for HIV prevention now. This is in line with the Main Objectives set forth previously. Because circumcision of male neonates is part of the Main Objectives, parents will also be targeted with messages to encourage circumcision of newborn sons and sons 15 years of age and older.. Finally, as maximizing safer sexual behaviours long-term is also one of the Main Objectives, messages about the need for life-long reduction in sexual risk behaviours will be targeted to not only circumcised men, but women and uncircumcised men throughout the country.

2.3 Timing of MC Communications

It is important that communication activities be carefully timed so as not to create demand for services ahead of supply (availability of services). Therefore, early communications activities will only be implemented in areas where MC services are available. Simultaneously, communications intended to garner expanded stakeholder support in areas where services are not yet available will commence.

As services are expanded, long-term, sustained communication campaigns will be used to mobilize communities to ensure that those eligible continue to seek services and safer sexual practices are adopted following implementation of services, among circumcised men, women, and uncircumcised men. Long-term, sustained communications campaigns will have elements that include IEC, advocacy, and behaviour change communication (BCC) activities.

Target audiences will be reached with priority messages first, as guided by the MC Task Force BCC Subcommittee, with phasing in of additional messages/audiences over the five year project period. Intermittent assessments to determine if changes in strategy are needed will be conducted.

2.4 Anticipated Demand

Table 1 below further details the annual demand for services, in line with the Main Objectives stated above. Males that are aged 11-14 years in 2009 will enter the cohort of 15-24 years during the 2009-2013 MC project period.

Table 1: Population of males who will be a specific age in the period 2009-2013, HIV & MC prevalence, population size, target for MC, and number to be reached with services

Age group in yrs	Population 2009-2013	HIV prevalence %	MC prevalence %	HIV negative population target for MC	Target % coverage	Main Objective no. to reach
Neonates	100,000	N/A	0	100,000	33%*	33,000
11-14	68,000	~0	<10	61,200	80%	48,960
15-19	55,000	2	<10	47,510	80%	38,008
20-24	39,000	12	<10	30,900	80%	24,720
Total	162,000			239,610		144,688

* *20,000 males born annually; 33% = 5-year average: 12.5% in 2009; 25% in 2009; 35% in 2010; 42.5% in 2011; 50% in 2013.*

3.0 Supply

Meeting the demand for MC for HIV prevention will involve mobilization of substantial material and human resources, including: facilities; medical equipment; surgical supplies; office equipment and supplies; doctors; nurses; counselors; and management and support staff. A readiness assessment has been conducted, using guidance provided in WHO's Situational Assessment Toolkit. Preliminary results from the assessment suggest that considerable investments in the public hospitals will be required to provide an adequate supply of needed human and material resources.

3.1 Material Resources for MC

Utilization of specific medical equipment and surgical/clinical supplies in an environment appropriate for minor surgery and patient care is essential.

3.1.1 Facilities for MC

The MoH and Swaziland's MC Task Force intend to use up to six of the government (or "public" or "tertiary") hospitals in the country to perform the majority of the 144,688 MC surgeries. Private providers, such as Family Life Association of Swaziland (FLAS), Population Services International (PSI), Marie Stopes International (MSI), other NGOs, and doctors in private practice may also be eligible to provide MC for HIV prevention services. Table 2 depicts the distribution of MC services for those 15-24 years of age across the six public hospitals and private providers in the five-year period, 2009-2013. Compared to adolescent and adult MC, MC for neonates will start in two public hospitals in 2009 and expand to five public hospitals in 2010 and beyond. Table 3 depicts the distribution of neonatal MC services across the public hospitals in the five-year period, 2009-2013.

Table 2: Total, yearly, and weekly number of adolescent and adult MCs to reach 111,688 HIV negative males aged 15-24 years, by facility type, 2009-2013

Number of MCs in five-year period, 2009-2013	Average no. of MCs per year	Average no. of MCs per week (40 work weeks/year)	Average no. of MCs in public facilities/week	Average no. of MCs in private facilities/week
111,688	22,338	558	400	158

3.1.2 Commodities for MC

It is critical that medical equipment and surgical/clinical supplies required for scaling up implementation of MC are available in quantities that are able to meet the desired level of demand. There is, therefore, a need to have a reliable supply structure for these materials to be availed in a timely fashion to ensure smooth implementation of MC. To this end, a supply chain management system geared to meet the requirements of implementation on public health care will be strengthened during the early period of the MC project. This will entail a review of existing protocols, a distribution structure, and sources of funding to support such a system.

3.2 Human Resources for MC

It is projected that a single doctor dedicated to performing adolescent/adult MC can complete 10 MC surgeries per day (50 per week, 200 per month, 2000 in a 40 work-week year, 10,000 in the project period). Because neonatal MC is a less complex clinical procedures that may be performed more quickly and possibly by other health care cadre, it is not yet possible to forecast the number and type of staff needed to perform the 33,000 neonatal MCs. Regardless, it is accepted and recognized that current medical staff to run general health services cannot cope with the demands of the MC Strategy in the five year period, 2009-2013.

To address the inevitable short-term human resource shortage (2009-2013), each of the six tertiary facilities where MC will be carried out may request assistance (financial and otherwise) from donor agencies/implementing partners to augment existing staff with additional manpower (for MC as well as other clinical services). Thus, staffing for MC may be orchestrated in such a way as to not only avoid prejudicing the operations of the hospital but actually strengthen each hospital's clinical capacity. After 2013, the human resource requirements will shift, as the portfolio of annual MC services adjust to annually accommodate males turning 15 years of age and 16,000 male neonates, 2013-2028. Beyond 2028, staff will only be needed to provide MC to approximately 16,000 male neonates each year.

3.3 Improving access to MC supply

The six public hospitals are located in primarily urban areas that, according to the 2007 national census, account for only 22% of the target population. Although distances are not great in Swaziland, a portion of the 78% of the population that is rural may have difficulties accessing these six facilities. To address this challenge, other approaches to increase access to MC services for the rural population are suggested hereunder.

3.3.1 Mobile outreach services

As each of the six hospitals becomes equipped and staffed to provide MC services, mobile outreach service will be established to serve the surrounding area. Mobile services will be offered on a defined and regular basis at clinics that are in the catchment area of tertiary hospitals, and where no clinics are available, mobile services will be equipped to use tents or temporary locations as service delivery site. Mobile services will be structured such that appropriate community education and mobilization will precede the arrival of the outreach team. Staff in the peripheral clinics will be trained to review patients who have undergone MC in accordance with Swaziland's MC Clinical Protocol (in development) so that they are competent in management of MC complications and are able to make appropriate referrals to the tertiary centers. In addition to orientation and training on MC, staff in peripheral clinics will also have the opportunity to contribute to community mobilization for MC, as well as all other facets of HIV prevention.

3.3.2 Mass MC campaigns

In addition to the service delivery strategies noted above, gaps in access will be addressed through mass campaigns which have been successfully run in Swaziland in recent years - so called "MC Saturdays". These campaigns require well-planned preparations including advocacy and mass mobilization of communities. As with all models of service delivery, there is a need to ensure that all facets of the Minimum Package of MC for HIV prevention are met.

3.3.3 Task shifting

Other than mechanisms for improving access to MC services indicated above, additional efforts will be undertaken to assist the population in obtaining MC services and achieve the programme Objectives and Goal. As indicated in Section 3.1.1, neonatal MC will be introduced in two government hospitals in 2009 and to as many as six public hospitals in 2010. Possibilities for task shifting some or all components of neonatal MC to nurses and nurse midwives need to be explored, and where appropriate, policies and guidance developed. If deemed acceptable, qualified nurse midwives and other nursing cadres involved with neonatal care may be trained to carry out neonatal MC, particularly at peripheral health facilities such as rural clinics. This may assist with increasing the capacity and sustainability of neonatal MC services beyond 2009.

3.3.4 Private Sector MC Services

NGOs and private medical providers will be encouraged to offer safe, quality, affordable MC services to the population.

3.3.5 Expatriate Health Care Workers

Whether through the public hospitals, mobile units, mass MC campaigns, or private service sites, qualified doctors, and perhaps nurses, above the number of qualified doctors and nurses already in service in the country, may be needed in order to safely implement MC for HIV prevention on a public health scale. As described in the MC Policy, qualified doctors and nurses from other countries will be considered to help meet the human resource gap. Expatriate clinicians may be hired to work full-time within the country or provide temporary services as volunteers. The definition of contracts and processes (including registration, assurances of competency, and medical liability) that will be required will be handled by the MC Task Force Clinical Subcommittee, the Clinical MC Coordinator, the Swaziland Medical and Dental Association, and the Swaziland Nursing Council.

4.0 Quality Assurance (QA)

Since MC is a surgical procedure, a plan for QA is essential to ensure that MC services provided are of the highest quality and as safe as possible. WHO has developed a QA Guide and QA Toolkit to assist facility managers and staff establish safe services, assess the quality of their services, and improve upon services over time. The QA Guide sets forth 10 Standards and 36 Criteria for quality, safe services. The QA Toolkit provides a matrix to assist staff in assessing each Standard/Criteria by: 1) defining the assessment question; 2) explaining why the question is important; 3) suggesting how the question may best be assessed; 4) providing a scoring scheme to establish baseline performance and measure improvement over time; and 5) encouraging comments, so that staff may provide context for each assessment score.

The WHO QA Guide and QA Toolkit will be used by the MC Task Force Clinical Subcommittee and facility managers and quality improvement teams to perform self assessments and measure progress towards meeting the Standards over time. Additionally, the Toolkit may be used by an external assessor to more objectively document the provision of safe, quality services.

WHO's 10 Standards for MC QA:

Standard 1. An effective management system is established to oversee the provision of MC services.

Standard 2. A minimum package of male circumcision services is provided.

Standard 3. Facility has necessary medicines/supplies/equipment/environment for providing safe quality MC.

Standard 4. Providers are qualified and competent.

Standard 5. Clients are provided with information and education for HIV prevention and male circumcision.

Standard 6. Assessments are performed to determine the client's condition.

Standard 7. Male circumcision surgical care is delivered according to evidence-based guidelines.

Standard 8. Infection prevention and control measures are practiced.

Standard 9. Continuity of care is provided.

Standard 10. A System for monitoring and evaluation is established.

5.0 Monitoring and Evaluation (M&E)

M&E activities for Swaziland's MC for HIV prevention programme will enable the collection, analysis and dissemination of data for the purpose of setting, refining, and assessing Goal and Objectives targets. An M&E Framework is being developed by the Swaziland MC Task Force; the M&E Framework is closely tied to The Strategy Framework previously presented. M&E activities and Indicators for MC will be aligned with national HMIS processes and based upon the *Guide to MC Indicators* developed by WHO. A brief summary of the MC Indicators is presented in the tables below. It is recognized that Indicators and targets will likely need to be added, deleted, or refined over the project period.

Goal: *Reduce HIV incidence in the population*

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
HIV incidence (estimate)	Age, Gender, Circumcision Status of Males			Research

Note about the above indicator: Measuring 'impact' of MC (change in HIV incidence over time) will be a complex endeavor. First, the effect of MC on reducing HIV incidence may be attenuated or enhanced by potential behavioural/biological changes in communities (e.g., risk disinhibition, antiretroviral drug resistance) and/or other HIV interventions (expanded antiretroviral therapy, other HIV prevention programmes). Thus, attributing a fraction of any change in HIV incidence (positive or negative) solely to MC will be difficult. Further, incidence estimates for Swaziland are from modeling exercises of HIV prevalence data from DHS and ANC, thus actual changes in incidence from MC will likely take a prolonged period of time to observe in DHS/ANC-based estimates.

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Number of males circumcised in the reporting period	Age, Region	Monthly	2070 (1861;209)	HMIS

Objective 1: *Circumcise 144,688 males by 2013 (111,688 15-24 yrs; 33,000 ≤ 30 days)*

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Number of males circumcised in the reporting period	Age, Region	Monthly	2070 (1861;209)	HMIS

Note about the above indicator: The stated target is based upon the average monthly number of MC for neonates, adolescents/adults (15-24) in 2009, assuming a constant level of service provision throughout the year. Targets will escalate through 2013, as the percent of neonatal MCs increases from 12.5% (2009) to 50% (2013). It is expected that targets may need to be adjusted based upon actual numbers of MCs performed.

Objective 2: *Provide MC services that are safe*

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Number and proportion of males circumcised who experience moderate or severe adverse event in the reporting period	Severity, Type of averse events (AE), Timing of Complication, Facility			HMIS
Number and proportion of males circumcised who receive no post-operative follow-up care				Special Survey

Note about the above indicators: Adverse events, as symptoms or clinical signs of complications, are a good proxy for safety of the MC procedure. Frequent measurement is preferable, so that problems may be detected and addressed quickly. Loss to follow-up is also useful as follow-up rates help to interpret the completeness of AE data, and follow-up as an activity allows for reinforcement of counseling messages (a matter of safety).

Objective 3: *Maximize safer sex behaviours following MC programme implementation*

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Proportion reporting concurrent sexual partnerships in the prior 6 months	Gender, Circumcision Status of Males, Age			Special surveys
Proportion reporting penetrative sex without a condom at last sexual encounter	Gender, Circumcision Status of Males, Age			Special surveys

Note about the above indicators: The two behaviours stated above are provided only as examples of high risk behaviours; others may be chosen. Changes in sexual risk behaviour due to a perceived change in personal risk following MC surgery (or implementation of MC surgery in a community) may not be detected by routinely collected clinical data (since such data collection typically ends during the period of wound healing (and abstinence) and does not account for the sexual behaviours of women and uncircumcised men). Special surveys would be required to establish baseline levels of risk and evaluate for risk disinhibition.

Objective 4: *Provide the Minimum Package of MC for HIV prevention services*

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Number of males circumcised in the reporting period	HIV status			HMIS

Note about the above indicator: HIV testing is a good proxy for assessing provision of the Minimum Package of services (though HTC is but one component). It is acknowledged that though a facility may offer HTC to everyone, uptake may not be 100%. The target should be the percentage of clients with an unknown/refused HIV status (at or below a certain percentage). STI screening (and treatment) and risk reduction counseling, while also components of the Minimum Package are difficult to measure, particularly in highly integrated horizontal programmes.

Objective 5: Increase demand for MC

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Proportion demonstrating correct knowledge of MC for HIV prevention	Gender, Circumcision Status of Males			Special surveys
Proportion reporting intention to be circumcised or have newborn/teenage son circumcised	Gender (of parent)			Special surveys

Note about the above indicators: Changes in knowledge of MC as an HIV prevention intervention and intention to be circumcised (or have sons circumcised) may not be detected by routinely collected programme data. Special surveys will be required to evaluate for change.

Objective 6: Increase supply of material and human resources for MC

Indicator	Disaggregation	Frequency of Measurement	Target	Data source
Number of health care facilities providing MC surgery in the reporting period	Site Type			HMIS
Proportion of facilities experiencing stock-out of tracer commodity (definitions to be set)	Site Type			Facility Inventory Logs
Number of trained (or deemed competent) health care workers that performed MC surgery in the reporting period	Region			Facility Theatre Registers

Note about the above indicators: Numbers of providers and facilities providing care may be used as broad proxies for service supply; it is acknowledged that the ability to provide services does not always equate to actual service provision. Definitions for duration of stock-out and tracer commodities will be established.

Categories for disaggregation being considered include the following:

Age: <1; 1-9; 10-14; 15-19; 20-24; 25-29; 30-34; 35-49; 50+

HIV Status: Positive Result; Negative Result; Indeterminate Result; Refused Test/Unknown Status

(result may come from a test performed on site or be from an acceptable hard-copy result from a known HTC provider in the prior _ months[Recommended 3 months])

Site Type: Public Sector; Private Sector
AE Severity: Moderate; Severe
AE Timing: Day 0 before discharge; Day 0 after discharge; Days 1-6;
Days 7+
AE Type: Anesthesia reaction; Bleeding; Infection; Pain; Wound
disruption; Sexual dysfunction/undesirable sensory
changes; Disfigurement/excess skin removal/damage to
glans or penile shaft; Occupational exposure of staff; Other
(excess swelling, difficulty urinating, other)
Region: 1-4
Facility: Facility name

In addition to the HIV impact research study and special surveys outlined above, the MoH and the MC Task Force, in collaboration with funding agencies, will work closely with researchers to identify appropriate topics for study. Research protocols will be developed and necessary funding for their execution will be provided.

6.0 Programme Coordination

Swaziland's MC programme has adopted an inclusive process for planning and execution since its inception. The MC Task Force involves all stakeholders including public health ministries, private providers, UN agencies, donors, and representatives of the community. The coordination role of the MC task force is indicated in The MC Policy. In the MoH two new personnel will be appointed. The appointments will be those of the MC Clinical Coordinator and the MC Program Coordinator.

6.1 MC Clinical Coordinator

The Clinical Coordinator will be designated by the MC Task Force. He/she will help ensure that MC services are in line with the QA Standards for safety and quality summarized in Section 6.0.

The Clinical Coordinator may be a part-time or full-time position, and may or may not be an employee of the MoH. The Clinical Coordinator will undergo MC training to the level of trainer and will carry out orientation, training, and guide competency assessment of doctors currently in service, as well as expatriate health care workers who may provide temporary or long-term service. He/she will report to the MC Task Force in a manner that enables the MoH to regulate and improve MC service delivery. The Clinical Coordinator will develop clinical protocols and guidelines for MC service delivery.

6.2 MC Program Coordinator

The MC Program Coordinator will be the focal person in the MoH who will oversee planning, management and execution of MC effort on a day-to-day basis. He or she will also coordinate the activities of the various implementers and stakeholders to assure comprehensive coverage without duplication of efforts.

7.0 Phases of Implementation

There are two phases for scaling up of MC services in Swaziland – a preparatory phase and the actual implementation of MC services. The preparatory phase is meant to provide a sense of readiness to commence with actual implementation of MC services on a public health scale. The MC Program Coordinator may use the tables presented below as veritable work plans to guide and gauge the efforts of the MC Task Force.

Despite this phasing of MC implementation, it is quite possible (on a more practical note) that time and resource constraints may necessitate concurrent implementation of activities from both phases, such that the process of MC implementation is run on an incremental basis. In this scenario some critical aspects of MC implementation may precede relative preparatory activities; alternatively, other aspects of implementation could be delayed. This suggestion is made because, although perfectly timed implementation would be ideal, ensuring completion of all preparations prior to commencement could substantially delay or prohibit actual implementation.

Table 4 below indicates the preparatory phase. The main objective of this phase is that of creating an enabling environment for MC implementation.

Table 4: Preparatory phase of MC implementation

Activity	Specific Tasks	Timeframe	Partners	Begun	Finished
Finalize MC Policy	Finalize, ratify and disseminate the policy	Year 1 Timeline as agreed between MoH, task force and multi-agency MC mission	MoH, MC task force & multi-agency mission		
MC situation analysis: capacity assessment of facilities and manpower	Assessment of 5 major hospitals to first implement MC (including neonatal MC)	Year 1 Timeline for assessment	MoH, MC taskforce & multi-agency mission		
	Assessment of capacity to implement MC outreach services carry out	Year 1 Timeline for assessment	MoH, MC taskforce & MC multi-agency mission		
	Assessment of capacity to implement MC campaigns	Year 1 Timeline for assessment	MoH, MC taskforce & multiagency mission		
	Assessment of capacity to implement neonatal MC in maternity units of two major hospitals	Year 1 Timeline for assessment	MoH, MC taskforce and multi-agency mission		
Preparations for neonatal MC in two main hospitals	Capacity assessment of manpower for MC implementation in two main hospitals	Year 1 Timeline for assessment, and development of guidelines for neonatal MC and protocols for M&E and Q&A	MoH, MC task force, MC multi-agency mission		
	Development of guidelines for neonatal MC				
	Development of M&E and Q&A protocols for neonatal MC				
Ensure adequacy of MC management and coordination in MoH	MC Program Coordinator recruitment	Year 1 Timeline for recruitment	MoH, MC taskforce & funding agencies		
Ensure good MC clinical management, coordination and quality assurance	MC Clinical Coordinator recruitment	Year 1 Timeline for recruitment	MoH, MC taskforce & funding agencies		
Ensure availability of adequate doctors to implement MC	Recruit additional doctors (full-time, part-time, temporary; employed or volunteers) to increase capacity of facilities to ensure M&E targets are reached. Doctors may be from within Swaziland or expatriates.	Year Timeline for recruitment	MoH, MC taskforce and funding agencies		
Ensure MC clinical coordinator is adequately trained to carry out duties	Training of MC Clinical Coordinator in MC skills for training other doctors in surgical techniques and oversight of clinical QA	Year 1 Timeline for training	MoH, MC taskforce, WHO & funding agencies		
Ensure uniformity of procedures/practices relating to MC implementation	Development of clinical guidelines and protocols for MC implementation	Year 1 Timeline for development of protocols & guidelines	MoH, MC taskforce & multi-agency mission		

Ensure availability of adequate doctors to implement MC	Recruit additional doctors (full-time, part-time, temporary; employed or volunteers) to increase capacity of facilities to ensure M&E targets are reached. Doctors may be from within Swaziland or expatriates.	Year Timeline for recruitment	MoH, MC taskforce and funding agencies		
Ensure MC clinical coordinator is adequately trained to carry out duties	Training of MC Clinical Coordinator in MC skills for training other doctors in surgical techniques and oversight of clinical QA	Year 1 Timeline for training	MoH, MC taskforce, WHO & funding agencies		
Ensure uniformity of procedures/practices relating to MC implementation	Development of clinical guidelines and protocols for MC implementation	Year 1 Timeline for development of protocols & guidelines	MoH, MC taskforce & multi-agency mission		
Ensure competency of all doctors performing MC	Orienting, training, ensuring competency of all doctors performing MC (whether full-time, part-time, or temporarily, including expatriate health care workers)	Year 1 Timeline for training	MC clinical coordinator –MoH & MC taskforce		
Ensure all support staff involved in MC implementation are oriented and trained on MC Minimum Package	Training/orienting support staff (nurses, counselors, staff that treat STIs, health educators, staff that carryout HIV tests, and theatre staff are trained and oriented to the integrated Minimum Package for MC implementation	Year 1 Timeline for Training	MoH, MC taskforce & MC multi-agency mission		
Ensure stakeholder understanding of MC implementation campaigns	Visits by MoH & MC Task Force to other countries implementing MC for HIV prevention	Year 1 Timeline for visit	MoH, MC taskforce & funding agencies		
Ensure adequacy and timely supply of equipment & materials for MC implementation	Development of protocol and structure for MC supply chain management – and timely procurement of supplies prior to commencement of MC implementation	Year 1 Timeline for development protocol, structure & funding for MC supply chain management	MoH, MC taskforce, funding agencies & MC multi-agency mission		
Ensure preparations for phased –in implementation of neonatal MC	Capacity assessment of manpower & facilities for neonatal MC implementation in peripheral health facilities, development of protocol for neonatal implementation task shifting, referral and training of qualified nurses and nurse midwives to implement neonatal MC	Year 1 & 3 Timeline for carrying out assessment, development of protocol and training for task shifting	MoH, MC taskforce and MC multi-agency mission		
Ensure early sensitization/preparation of population to MC implementation	IEC/BCC/advocacy communication strategy and media development for priming population prior to commencement of MC implementation: electronic/print media; meetings with politicians, traditional/opinion leaders, parents, women's, and HIV-positive groups	Year 1 Timeline for activities	MoH and MC taskforce		
Ensure structures are	Development of protocols & structure for IEC, advocacy and BCC prior to	Year 1 Timeline for	MoH, MC taskforce & multi-agency MC		

Ensure structures are developed (prior to MC implementation) to sensitize population to embrace MC	Development of protocols & structure for IEC, advocacy and BCC prior to commencement of MC implementation	Year 1 Timeline for carrying out the activities	MoH, MC taskforce & multi-agency MC mission		
Ensure inclusion of appropriate stakeholder outside of MoH	Definition of roles, structures & assessment of capacity for involvement of NGOs and private health/medical sector in MC implementation	Year 1 Timeline for carrying out activities	MoH, MC taskforce, funding agencies & MC inter-agency mission		
Ensure that MC implementation is accompanied by/ supported by appropriate research activities	Guide the MC research agenda in Swaziland by identifying key research questions that need to be answered, preparation of research protocols relevant/ appropriate to MC implementation, establishing process for review and approval of research requests, coordination with/of appropriate research authorities, secure research funding, and develop structures for execution of research activities	Year 1 Timeline for carrying out activities	Researchers, MoH, MC taskforce & multi-agency MC mission		
Ensure adequate funding is available and secured for MC implementation	Secure reliable funding for MC implementation prior to implementation. Structures for accounting and monitoring expenditure are defined.	Year 1 Timeline for carrying out activity	MoH, MC taskforce and funding agencies		
Ensure MC implementation is adequately monitored and evaluated	Protocols and structures for M&E are defined prior to MC implementation	Year 1 Timeline for carrying out activity	MoH, MC taskforce & multi-agency MC mission		

Table 5 below indicates activities relating to the actual implementation of MC services. The main objective of this phase is ensuring that MC services meet established targets, so that efforts translate into achievement of the desired impact (reduced HIV incidence).

Table 5: Activities involved with implementation of scaled up MC

Activity	Specific Tasks	Timeframes	Partners
Ensure that identified audiences are reach with identified messages, and that target audience is effected	IEC, BCC & advocacy activities reach 80% of the population Activities are implemented as per protocol & structure in preparation plan Mid term process/performance and evaluation Evaluation after five years – impact	Years 1-5 Years 1-5 Year 3 Year 5	MoH, MC taskforce & multi-agency MC mission
Ensure MC implementation is adequately coordinated	Workings of the MC Task Force (and subcommittees), MC Program Coordinator, and MC Clinical Coordinator and field personnel are appropriately enmeshed – regular meetings/consultations and reports/reviews	Years 1-5	MoH & MC taskforce
Ensure MC implementation is supported by a QA effort	MC Clinical Coordinator (with necessary support) has: (a) a schedule of predetermined on site inspection of activities (b) Produces QA monitoring reports, action plans, and corrective action reports (c) Documented follow-up activities	Years 1-5	MoH, MC taskforce & multi-agency MC mission
Ensure MC implementation is adequately monitored and evaluated	M& E activities are carried out as protocol developed in the preparatory phase of the plan Evaluations: (a) Evaluation of performance indicators/targets (b) Baseline special surveys (c) Mid term/intermittent special surveys (d) Evaluations of performance and impact	Years 1-5 Years 1-5 Year 1 Year 3 or as appropriate Year 5	MoH, MC taskforce & multi-agency MC mission
Ensure neonatal MC is implemented on the basis of task shifting	Neonatal MC is implemented in peripheral health units/clinics on the basis of task shifting	Years 3	MoH, MC taskforce & multi-agency MC mission
Ensure MC implementation is supported by appropriate research	Pre-planned research is executed as per approved protocols and schedules	Years 1-5	Researchers, MoH, MC taskforce & multiagency MC mission

8.0 Costs

Given Swaziland's advanced progress with MC for HIV prevention, it is difficult to develop an accurate project budget, as we have no historical data. No country has managed to implement the intervention on a public health scale to date. Constella Future, Futures Institute, and the MoH, estimated the unit cost of MC to be E376, as part of USAID's Health Policy Initiative project.⁷ This may be a good starting estimate upon which to anticipate required financial resources. Careful cost accounting from inception of the project will be important so that the actual financial experience may be described and compared across countries and over time.

9.0 References

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