POLICY BRIEF

PREVENTING HIV THROUGH SAFE VOLUNTARY MEDICAL MALE CIRCUMCISION FOR ADOLESCENT BOYS AND MEN IN GENERALIZED EPIDEMICS: RECOMMENDATIONS AND KEY CONSIDERATIONS

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SUMMARY OF UPDATED RECOMMENDATIONS AND KEY CONSIDERATIONS

Reaching the 2030 HIV incidence goals in East and Southern Africa and then keeping HIV incidence at low levels will require the right combination of effective prevention interventions at high coverage levels. Voluntary medical male circumcision (VMMC) should be one of these interventions.

Updated recommendations on VMMC

1. VMMC should continue to be promoted as an additional efficacious HIV prevention option within combination prevention for adolescents age 15 years and older and adult men in settings with generalized epidemics to reduce the risk of heterosexually acquired HIV infection.
2. The use of WHO-prequalified male circumcision devices is recommended as additional methods of male circumcision in the context of HIV prevention for males ages 15 years and older; this recommendation may apply for younger adolescents, ages 10 through 14 years, depending on the decision whether to serve that age group.

Key considerations

1. Decisions on offering VMMC to younger adolescents, 10–14 years, must consider several factors based on new safety evidence, human rights guidance, public health burden and the delayed impact on HIV incidence, and the capacity of health care providers.
2. A range of service delivery approaches has been studied across diverse settings, such as health facilities, communities, homes and schools, to enhance uptake of VMMC, with some evidence of effectiveness. Countries and implementers can consider which evidence-based approaches are most suitable for their population and context.
3. The use of economic compensation to enhance uptake of VMMC may address access barriers by reducing transport costs and reducing opportunity costs from wages lost during and after the procedure; decisions on its use require community engagement and consideration of context.
4. To sustain high VMMC coverage levels and the resulting benefits in HIV prevention, VMMC services should focus on older adolescents and be embedded within routine health services that are high quality, people-centred and widely accessible.

[1] Male circumcision is the complete surgical removal of the penile foreskin. "Medical" male circumcision is used to differentiate male circumcision delivered by the formal health sector from male circumcision by traditional providers.

WHY VOLUNTARY MEDICAL MALE CIRCUMCISION

In 2007 the United Nations Joint Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) recommended VMMC to reduce the risk of men heterosexually acquiring HIV infection. The recommendation was based on strong evidence of a 59% (44%–70%) reduced risk (efficacy) in ideal research settings.

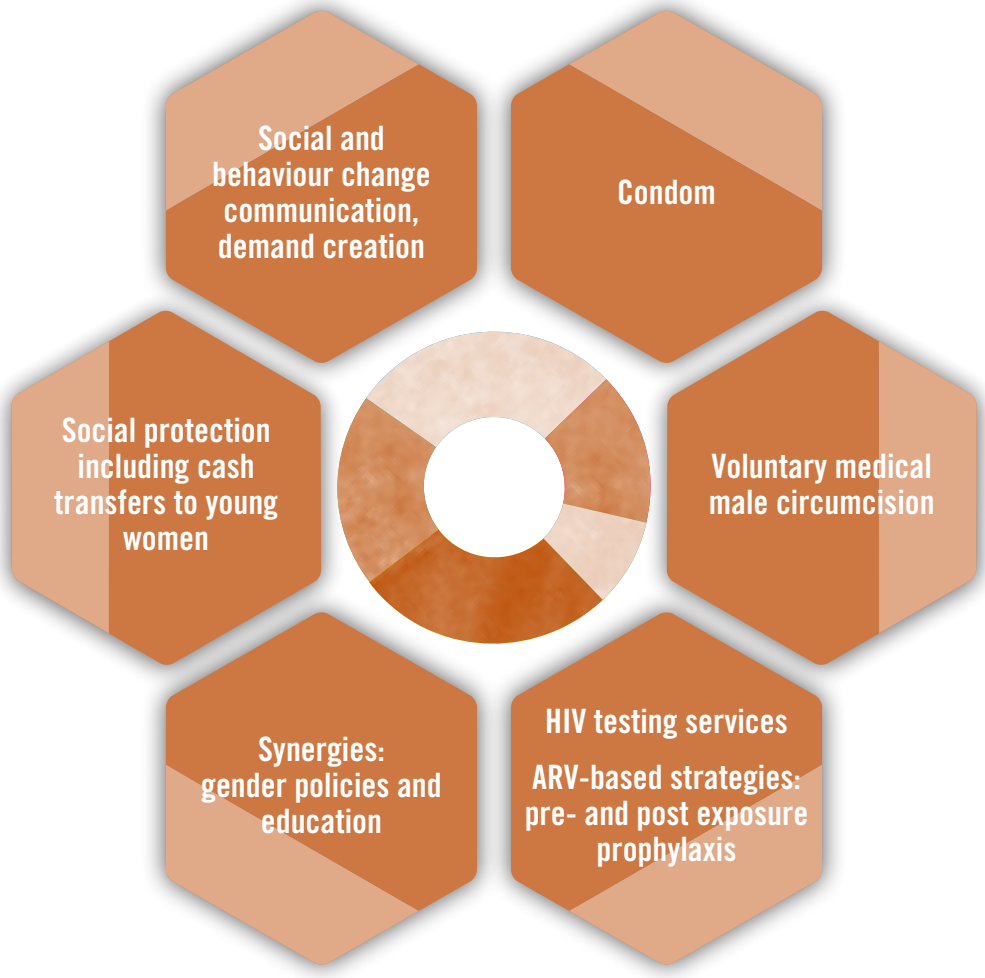
Since 2007, more than 23 million VMMC procedures have been performed in the 15 priority countries of East and Southern Africa, where in 2019 about half of all new HIV infections occurred. Through 2018 these procedures averted an estimated 250 000 HIV infections. Future benefits will be even larger, given VMMC's lifelong partial protection. The number of HIV infections averted by circumcisions through 2018 is projected to grow to 1.1 million by 2030.

In recent years other evidence-based HIV prevention options have been scaling up, including oral pre-exposure prophylaxis (PrEP) and HIV antiretroviral therapy (ART), with its secondary HIV prevention effect, along with already known interventions such as condom use and post-exposure prophylaxis. In the ongoing effort to end the AIDS epidemic, a re-examination of the role of VMMC in HIV prevention shows that the intervention remains important alongside other effective behavioural and biomedical HIV prevention interventions, as shown in Fig 1.

Evidence that medical male circumcision reduces a man's risk of heterosexual acquisition of HIV by 59% from three "gold standard" efficacy trials is supported by strong and consistent evidence of an overall 50% reduction in risk from 17 observational studies in diverse settings, including when implemented alongside ART, with its secondary prevention effect.

VMMC should remain an additional HIV prevention option within combination prevention for adolescents 15 years and older and for adult men in settings with generalized epidemics.

Fig. 1. Combination HIV prevention package in high HIV burden settings



VMMC remains an effective intervention in the combination HIV prevention package in high HIV burden settings and services offer men other interventions in the package.

EVIDENCE UPDATE ON VMMC FOR HIV PREVENTION

The high-quality evidence that medical male circumcision reduces men's risk of heterosexual acquisition of HIV by 59% (44%–70%) from three randomized controlled trials (RCTs) is supported by strong, consistent evidence of an overall 50% (44%–56%) reduction in risk from 17 observational studies conducted between 1986 and 2017. These studies included settings where VMMC services have been implemented in communities alongside other HIV prevention interventions and ART scale-up. Among men at higher HIV risk (for example, truck drivers, STI clinic patients, men with serodiscordant partners), combined results from five studies demonstrated a 71% reduction in the risk of heterosexually acquired HIV.

Other key points and programme considerations

- VMMC is a one-time, lifelong, partially protective intervention and, therefore, not affected by the realities of daily life that contribute to suboptimal adherence to ARV-based prevention or ART. However, VMMC should always be considered as part of combination HIV prevention.
- A minimum package of services, including safer sex education, condom promotion, the offer of HIV testing services and management of STIs, must be delivered along with the male circumcision procedure. Additional services, such as hypertension and/or tuberculosis screening, malaria management and tetanus toxoid-containing boosters, could be added to take full advantage of a man's contact with health services.
- Quality and safety remain top priorities for the provision of VMMC services and can be enhanced through consistent quality management, monitoring and reporting of adverse events (AEs) and promotion of a culture of learning for client safety.
- VMMC programmes are cost-effective and cost-saving in many countries of East and Southern Africa, when compared with lifetime costs of ART. In fact, the total cost of a VMMC procedure is similar to ART costs for a single year. Circumcising 15–29 year olds maximizes the cost-effectiveness of VMMC, requiring the fewest circumcisions to prevent one HIV infection of any age range. Focusing on men who have more than one sexual partner would further minimize the number of VMMCs—and, therefore, the cost—per HIV infection averted.
- As VMMC programmes expand and fewer men acquire HIV, women are benefitting indirectly from the lower risk of HIV infection in circumcised men. Women may also be less likely to acquire HIV infection from an HIV-positive man (who is not virally suppressed on ART but) who is circumcised than from one who is not, except when the man is recently circumcised and healing.
- Circumcised men and their female partners experience lower rates of several sexually transmitted infections, including human papillomavirus, herpes simplex virus-2, bacterial vaginosis and Trichomonas vaginalis, than uncircumcised men and their female partners.
- VMMC should be offered through the formal health sector, performed by competent trained health professionals. Evidence showed that procedures have been performed safely by several different cadres of health care workers (mostly clinical officers, nurses and physicians).
- Adverse events can occur during or after VMMC. Low rates of severe and moderate AEs were reported from diverse service delivery settings. Severe AEs were rare, including tetanus, urethral fistula and other penile injuries, and complications from unrecognized bleeding disorders