Voluntary Medical Male Circumcision Factsheet
2012

Key Facts

- Voluntary medical male circumcision (VMMC) reduces the risk of female-to-male sexual transmission of HIV by approximately 60%.\(^1\),\(^2\),\(^3\)
- In 2007, the World Health Organization (WHO) and UNAIDS recommended VMMC as an additional important strategy for HIV prevention, particularly in settings with high HIV prevalence and low levels of male circumcision, where the public health benefits would be maximized.\(^4\)
- A one-time medical procedure, VMMC provides life-long partial protection against HIV as well as other sexually transmitted infections. VMMC is voluntary and requires informed consent. It should always be considered as part of a comprehensive package of HIV prevention services and should be used in conjunction with other methods of prevention.
- VMMC is a highly effective HIV prevention intervention that offers excellent value in high-priority countries where HIV is prevalent and male circumcision is uncommon. It saves costs by averting new HIV infections and the consequent treatment and care costs.
- The priority countries that are striving to scale up VMMC are Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe.\(^5\)
- Mathematical models demonstrate that maximum public health benefits (reduced HIV incidence and cost savings) are achieved when scale-up of VMMC is rapid.\(^6\),\(^7\)
- A Joint Strategic Action Framework developed by WHO, UNAIDS, PEPFAR, the Bill & Melinda Gates Foundation and the World Bank calls for accelerating the expansion of VMMC services in these 14 priority countries. The goal is to reach 80% VMMC coverage among adult men (15–49 years old) in the 14 priority countries by 2016 and establish services for adolescents and infants.
- Scale-up of VMMC is aligned with the Political Declaration on HIV/AIDS adopted at the June 2011 High-Level Meeting on HIV/AIDS at the United Nations General Assembly. VMMC is contributing to the achievement of the global goal of reducing the number of new sexually transmitted HIV infections by 50% by 2015 and Millennium Development Goal 6, to halt and reverse the spread of HIV.\(^8\),\(^9\)

Overview

VMMC is the removal of the foreskin—the fold of tissue covering the head of the penis—by a surgical procedure performed by trained health professionals. The inner aspect of the foreskin is highly susceptible to HIV infection. To ensure that all VMMC clients fully understand the risks and benefits of VMMC, the procedure is only provided to clients who have given informed consent.

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Clear Scientific Evidence

Three randomized controlled trials undertaken in Kisumu, Kenya, Rakai District, Uganda, and Orange Farm, South Africa, determined scientifically and conclusively that medical male circumcision reduces the risk of sexual transmission of HIV from women to men by approximately 60%,11,12,13.

The most recent data from Uganda shows an even greater level of protection—a 73% reduction in risk among circumcised men compared to those who remained uncircumcised five years after the Uganda trial was completed.14 In addition, the follow-on study to the original trial in Kisuma, Kenya, showed that the efficacy of VMMC was sustained at 57% risk reduction 66 months after the original RCT trial.15

Community-level studies have also demonstrated that the rate of HIV infection is lower among circumcised men compared to uncircumcised men. Three years after the rollout of VMMC in Orange Farm, South Africa, with male circumcision coverage rising to 53.9% among men ages age 15–49, HIV prevalence decreased from 12.5% to 9.3% among participants ages 15–49 and from 6.2% to 4.2% among participants ages 15–29.16 Furthermore, the cohort study in Rakai, Uganda, found that when a voluntary medical male circumcision program was able to achieve 25.3% coverage, HIV acquisition was reduced by 37% among men who had received circumcision over four years.17 These community-level studies, in which the men received circumcision as part of routine health services rather than in an RCT, demonstrate that even outside of the RCT setting, men who are circumcised have less risk of HIV acquisition.

A Comprehensive Prevention Package of Services

WHO and UNAIDS recommend VMMC as part of a comprehensive HIV prevention package that includes:

- HIV testing and counseling,
- Providing and promoting correct and consistent use of male and female condoms,
- Screening and treatment for sexually transmitted infections, and
- Risk reduction counseling and promotion of safer sex practices.

In addition to this WHO minimum package of services, best practices for high-quality VMMC services include promptly referring all VMMC clients who test positive for HIV to care and treatment services.

11 Auvert et al., 2005.
12 Gray et al., 2007.
13 Bailey et al., 2007.
Maximizing Public Health Benefit

Public health benefits are maximized in areas where HIV prevalence is high, driven by heterosexual transmission, and the level of male circumcision is low. This is the case in the 14 priority countries in Eastern and Southern Africa.

VMMC is a high-impact intervention with excellent value. Impact and costing estimates from mathematical models suggest that scaling up VMMC to reach 80% coverage among males 15–49 years old in the 14 priority countries by 2015 and maintaining that level until 2025 would avert 3.4 million, or 22%, of new HIV infections in the 10-year period. While the scale-up would cost a total of US$1.5 billion by 2015, it would result in net savings (due to averted treatment and care costs) amounting to US$16.5 billion.18

Achieving this public health impact will require catch-up activities to reach adolescents and adults as well as the development of sustainable services for infants or successive annual cohorts of boys reaching adolescence.

Joint Partner Response

In consultation with national ministries of health, WHO, UNAIDS, PEPFAR, the Bill & Melinda Gates Foundation and the World Bank formulated a five-year Joint Strategic Action Framework (2012–2016) to accelerate the scale up of VMMC for HIV prevention.

Specifically, the framework seeks to increase male circumcision prevalence to 80% among 15–49 year old males by 2016 and establish a sustainable national program to circumcise newborn males (less than 2 months of age).

18 Njeuhmeli et al. 2011.