



Voluntary Medical Male Circumcision for HIV Prevention (VMMC)

For more basic fact sheets in this series on emerging HIV prevention strategies visit www.avac.org/intro.

This fact sheet provides basic information on voluntary medical male circumcision (VMMC), an HIV prevention strategy that has shown efficacy reducing risk of HIV infection in HIV-negative men. The intervention is currently being rolled out for HIV prevention in 13 sub-Saharan African countries with high HIV prevalence and low levels of adult male circumcision. For in-depth coverage of male circumcision for HIV prevention, please visit the Clearinghouse on Male Circumcision for HIV Prevention (www.malecircumcision.org), a collaborative effort among AVAC, FHI 360, the United Nations Joint Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO).

What is medical male circumcision?

Medical male circumcision is the removal of all or part of the foreskin of the penis by a trained health professional. The term voluntary medical male circumcision differentiates circumcision that is performed by a trained health professional from traditional circumcision, which is performed as part of a religious ritual or cultural rite of passage.

Why is VMMC a key part of combination prevention?

VMMC reduces men's risk of acquiring HIV from their female partners by up to 76 percent. It is not a user-dependent strategy—once a man is circumcised, it cannot be reversed. Epidemiologists studying the AIDS epidemic calculate that scaling up VMMC could have a major impact on rates of new HIV infections. For example, if 80 percent of males aged 15-49 in Zimbabwe undergo VMMC between now and 2015, 42 percent of new infections in both men and women will be averted by 2025. In many other countries, roughly 20 percent of new infections would be averted. Prevention is cost-saving: scaling up VMMC will result save approximately US\$20 billion in costs associated with treatment and care.

What are the data supporting VMMC for HIV prevention?

Male circumcision for HIV prevention was evaluated in three large-scale randomized controlled clinical trials that enrolled in total about 10,000 men in Kenya, Uganda, and South Africa. Each of these trials used surgical techniques that had proven safe and effective over years of use in other contexts. Participants in these trials have now been followed for several years. A follow-up study in Uganda showed effect of circumcision climbed over time to a 73 percent decrease in HIV risk at five years. In Kenya, protection persisted at 60 percent at 4.5 years. A program in South Africa found that VMMC had reduced the rate of new HIV infections among men by up to 76 percent outside of the controlled trial setting. Moreover, these follow-up studies did not identify increases in sexual risk behavior among men after VMMC. "Behavioral disinhibition"—in which men assume that they are completely protected and increase risk behaviors—has been one concern related to VMMC.

What types of research are still going on?

Even though VMMC is a proven strategy, there is still ongoing research. Programs need to be efficient, cost-effective and community-supported to reach the targeted number of circumcisions needed to have the greatest impact on the global epidemic. There is operational research ongoing to understand how to improve efficiencies of surgical VMMC. There is also progress in development of devices that would allow for non-surgical VMMC. Two devices currently being explored, PrePex and Shang Ring, have been developed to perform adult male circumcision without surgery. Both are single-use, disposable devices based on the principle that cutting off the blood supply to the foreskin causes the tissue to die or "necrotize." These new technologies could make VMMC simpler and faster to perform for health providers, versus the current surgical techniques used for the procedure. The devices also have the potential to allow for faster training and may influence countries to implement task-shifting (in which a specific procedure or service is shifted from a more highly-trained health worker to a health worker with a more limited skill set—such as from doctors to nurses, nurses to clinical

officers, or clinical officers to trained lay people). The new devices could reduce the total cost per procedure—and they might be more appealing or acceptable to some men and/or their partners.

Why does male circumcision work as an HIV prevention method?

There is no definite answer to why medical male circumcision reduces men's risk of HIV infection during vaginal sex, but there are several possible explanations. The foreskin of the penis has many cells of a type that are vulnerable to HIV infection. Removing the foreskin removes these “target cells” and makes the penile skin more durable, which might also reduce risk. Medical male circumcision also reduces the rate of genital ulcer disease. Genital ulcers can increase the risk of HIV infection.

What is the status of VMMC implementation countries?

Five years have elapsed since the launch of the WHO and UNAIDS VMMC guidance. Since then the pace of VMMC scale-up has been slow and the effort varied among the 13-targeted sub-Saharan countries.

What are the key considerations for “implementation advocacy”?

- **National strategy.** Countries are in varying stages of rolling out operational, communications and community engagement strategies to meet national circumcision targets for the next five years as well as a longer-term strategy that focuses on the provision of early infant and adolescent services.
- **Political and community leadership.** There is a need throughout the targeted countries for local, national and international champions to foster circumcision demand creation and political will.
- **Financial support to scale-up VMMC.** This is currently available from Global Fund, BMGF, PEPFAR, World Bank and UNITAID. Over time greater reliance on national and local resources will be needed, and planning for this should be initiated or strengthened.
- **Women.** They play a pivotal role in VMMC’s scale-up. Though circumcision reduces heterosexual men's risk of acquiring HIV from female partners, there may eventually be benefits to women if male circumcision coverage increases to where it reduces the number of HIV-positive men.
- **Gay men and MSM.** It remains unclear whether medical male circumcision could have an impact on HIV transmission among gay men and other men who have sex with men. A meta-analysis of available data found insufficient evidence of circumcision’s protective effect in MSM. However, recent findings show that circumcision might help reduce transmission in MSM who report a preference for the insertive sexual role.

VMMC is currently one of the most powerful biomedical HIV prevention tools at hand and success in ending countries’ epidemics depends on how well it is implemented. Therefore, AVAC is currently supporting civil society and high-level political advocacy for ambitious scale-up of VMMC in slow-implementing countries.

Priorities for 2012

AVAC’s *Playbook 2012* sets out top strategic goals and priorities in HIV prevention for ourselves—and for the world. Here’s what we have to say about microbicides. For more, visit www.avac.org/playbook.

Global Goals	AVAC Priorities
<ul style="list-style-type: none"> ▪ Roll out VMMC with strategic, long-term plans in countries that meet WHO-recommended criteria, with goal of 80 percent circumcision. 	<ul style="list-style-type: none"> ▪ Catalyze civil society advocacy for ambitious scale-up of VMMC in slow-implementing countries. ▪ Implement “Accelerated VMMC Scale-Up Advocacy” strategy.

For more resources on HIV prevention research and for information on AVAC programs, visit www.avac.org.