# Assessing Sexual Health Attitudes and Behaviors after Male Circumcision

enya is one of 14 countries in sub-Saharan Africa that moved to expand access to voluntary medical male circumcision (VMMC) after three randomized controlled trials showed conclusively that getting circumcised reduced men's chance of becoming infected with HIV by about 60 percent.

Nevertheless, concerns remain that knowledge of the procedure's protective effect could give circumcised men and their partners a false sense of security, leading to increases in risky sexual behavior after male circumcision. This potential effect, known as "risk compensation," could compromise the effectiveness of VMMC as a strategy for HIV prevention and put individuals at risk.

Do men engage in riskier sexual behavior after getting circumcised? With support from the Male Circumcision Consortium, the Sexual Health Attitudes and Behavior Study sought to answer this question by comparing changes in the sexual behavior of circumcised and uncircumcised men in the 24 months after circumcision or study enrollment.

Conducted in Kisumu East, Kisumu West and Nyando districts of Kenya's Nyanza region, the study was the first to examine HIV-related risk behavior over time in the context of a population-level VMMC program.



- Men did not engage in riskier sexual behavior after becoming circumcised.
- Concerns about risk compensation after male circumcision appear to be unfounded.
- Women need education about male circumcision and HIV risk reduction.

# Study Design

Nelli Westercamp and colleagues from the University of Illinois at Chicago and the Nyanza Reproductive Health Society conducted the study among 3,186 uncircumcised men from late November 2008 — when the VMMC program began in Nyanza — to January 2012.

Half of the men chose to get circumcised shortly after their baseline assessment, and half opted to remain uncircumcised. The men in both groups completed study questionnaires and had their circumcision status confirmed visually at baseline and every six months for 24 months.

The researchers also conducted one round of interviews with 171 female partners of recently circumcised study participants. Study questionnaires were administered through audio computer-assisted self-interview (ACASI) modules, developed in three languages (English, Dholuo and Kiswahili) or an equivalent paper-based questionnaire.



The Male Circumcision Consortium worked with the Government of Kenya and other partners — including the US President's Emergency Plan for AIDS Relief (PEPFAR), which supports service delivery — to prevent HIV and save lives by expanding access to safe and voluntary male circumcision services. FHI 360 received a grant from the Bill & Melinda Gates Foundation to collaborate on the consortium with EngenderHealth and the University of Illinois at Chicago, working with the Nyanza Reproductive Health Society.

## Results

Men who sought circumcision perceived themselves to be at higher risk of HIV compared to men who declined the procedure. At baseline, 32 percent of the circumcised men and 27 percent of the uncircumcised men reported their chances of becoming infected with HIV as moderate or great — a statistically significant difference.

Circumcised men often perceived that they had reduced their risk of HIV infection. The proportion of circumcised men who thought they were at moderate or great risk of HIV dropped from 32 percent to 14 percent over 24 months, compared to a decrease from 24 percent to 21 percent among the uncircumcised men.

Differences in perception of risk did not result in differences in sexual risk behavior. Sexual activity increased equally among the circumcised and uncircumcised men — primarily the 18- to 24-year-olds — but all other sexual risk behaviors declined in both groups.

Condom use rose, particularly among the circumcised men. The proportion of men reporting condom use at last sex increased over 24 months by 30 percent among circumcised men and by 6 percent among uncircumcised men.

**Risky behaviors declined among all study participants,** regardless of circumcision status. The most dramatic declines were observed in the proportion of men who reported engaging in sex in exchange for money or gifts, having sex with a casual partner or having multiple sex partners.

Circumcised men and their partners reported high levels of satisfaction (96 percent to 100 percent) with the procedure, the appearance of circumcised penises and sexual performance 24 months post-circumcision.

Women perceived themselves to be at lower risk of HIV infection after their partners got circumcised. Most women (84 percent) reported having no or a small chance of becoming infected with HIV, and 38 percent of them attributed this low risk to their partners' new circumcision status.

A higher proportion of women than men agreed to statements that could lead to riskier behaviors, such as "Now that male circumcision is available, condom use during sex is less necessary."

### References

Westercamp N, Agot K, Jaoko W, Bailey RC. Risk compensation following male circumcision: results from a two-year prospective cohort study of recently circumcised and uncircumcised men in Nyanza Province, Kenya. AIDS and Behavior 2014;18(9):1764-75. doi:10.1007/s10461-014-0846-4.

Westercamp N, Agot K, Jaoko W, Bailey RC. Findings from the Sexual Health Attitudes and Behaviors Study, September 2008 – January 2012. Kisumu, Kenya: University of Illinois at Chicago School of Public Health and Nyanza Reproductive Health Society, 2012.

#### RECOMMENDATIONS

- Concerns about risk compensation are not supported by the study results and should not slow the expansion of VMMC programs.
- Current counseling about male circumcision's partial protection against HIV and HIV risk reduction appears to be effective and should continue to be an important part of comprehensive VMMC services.
- There is an urgent need to target women with education on male circumcision. Women should be reached through mass media, partners of recently circumcised men, female VMMC mobilizers and education about VMMC during antenatal visits or HIV counseling.
- Increased emphasis should be placed on counseling men and their partners together as part of the VMMC process.

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