Circumcision, Information, and HIV Prevention in Malawi

Researchers:

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Sector(s): Gender, Health

Location: Malawi

Sample: 1,228 circumcised and uncircumcised men, ages 25-40

Target group: Men and boys Women and girls

Outcome of interest: HIV/AIDS Sexual and reproductive health

Intervention type: Information Preventive health

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Research Papers: What Do People Learn from Public Health Campaigns? Incorrect Inferences About M..., Respondng to Risk: Circumcision, Information, and HIV Prevention, Learning from Others' HIV Testing: Updating Beliefs and Responding to Risk

Partner organization(s): University of Michigan, University of Michigan Center on the Demography of Aging (MiCDA), University of Michigan Institute for Research on Women and Gender (IRWG)

Existing literature suggests that medical male circumcision provides partial protection for men against female-to-male HIV transmission, reducing the infection risk by up to 60 percent. However, less is known about how people respond to learning this information. In rural Malawi, providing information about voluntary medical male circumcision and HIV transmission risk reduced risky sexual behavior among uncircumcised men, but did not increase take-up of circumcision.

Policy issue

Seventy percent of the 2 million people newly infected with HIV in 2014 live in sub-Saharan Africa. In the 2000s, three medical trials found that male circumcision was up to 60 percent effective in reducing HIV transmission risk for heterosexual men.[1], Based on this evidence, the World Health Organization (WHO) made scaling up voluntary medical male circumcision (VMMC) a key component of its HIV prevention strategy in priority African countries with a high HIV prevalence.[2], Simulated projections in 2011 suggested that reaching 80 percent circumcision coverage in these countries by 2015 could result in net savings of more than US$16 billion over fifteen years.[3], In 2015, priority countries had reached approximately 44 percent VMMC coverage, compared to the targeted 80 percent, and Malawi had only reached 8 percent of its target.[4]

Two strategies for increasing VMMC are to provide men with information about its benefits and to subsidize its cost. However, little is known about the effectiveness of these interventions. One concern is that information could lead circumcised men to adopt riskier sexual behavior. Another important question is whether there is enough demand for circumcision to make high rates of coverage possible.

To address these questions, researchers examined the impact of a VMMC information campaign on beliefs and sexual behavior in rural Malawi. A follow-up study evaluated a program in urban Malawi that provided vouchers for subsidized VMMC to measure demand at different prices.

Context of the evaluation

In 2007, the WHO named Malawi a high priority country for the scale-up of VMMC because of its high HIV prevalence (10.6 percent of adults aged 15-49 in 2010), and because 81 percent of men were not circumcised as of 2011.[5], By 2015, the number of circumcisions performed in the country only reached 8 percent of the target set by the WHO in 2011.[6] As in many African countries, male circumcision has deep cultural and religious roots in Malawi. For example, some ethnic groups conduct circumcision as part of initiation into adulthood for adolescent boys, while others do not.



Surveyor talks to woman and child in Malawi.

Photo credit: Manuela Bucciarelli

Details of the intervention

Researchers evaluated an information campaign in the district of rural Zomba to examine the impact of providing information about VMMC on beliefs and sexual behavior. Prior to this campaign, information about circumcision had not been widely disseminated in the area. In seventy randomly selected villages, researchers conducted a baseline survey with 1,228 randomly selected men. The men were on average 31.6 years old with 5.9 years of schooling, earning an average of MWK 14,978 (US$105.51 in 2008) a month. Most were married and over half were farmers. At the time, the nearest VMMC provider was a private hospital about 15 kilometers away that offered adult circumcisions for MWK 900 (US$6.34).

The seventy villages were randomly divided into two groups to receive informational visits from surveyors, as described below:

Intervention	• Participant received an information session on the protective benefits of VMMC for men (approximately 10 minutes) • Participant was given opportunity to ask questions about VMMC • Participant received a general HIV prevention brochure
Comparison	• Participant received a general HIV prevention brochure

Consistent with most VMMC campaigns, no information was provided about the relationship between male circumcision and female HIV risk, as there is currently no conclusive evidence about how it affects women's risk. One year later, researchers revisited all survey participants, as well as a randomly selected sample of the men's spouses.

Results and policy lessons

The rural information campaign reduced risky sexual behavior among uncircumcised men and did not increase risky sexual behavior among circumcised men.

Uncircumcised men who participated in the rural information campaign in 2008 reported engaging in 2.0 fewer acts of sex in the past month relative to men in the comparison group (a 25.5 percent reduction); they also reported using 1.1 more condoms in the past month (a 65.2 percent increase). Importantly, circumcised men who received information did not report any difference in sexual behavior compared to circumcised men who did not receive information, suggesting that providing information can reduce risky sexual behavior among uncircumcised men without necessarily leading circumcised men to engage in riskier sex.

Yet as a result of the information campaign, men were more likely to incorrectly believe that VMMC protects against female HIV infection.

Relative to their peers in the comparison group, men who participated in the rural information campaign were 50 percent more likely to incorrectly believe that VMMC lowers a woman's risk of HIV infection. Female spouses held similar beliefs: 82 percent of the women who believed in the protective benefits of VMMC for men also believed it lowers a woman's risk of HIV infection. Given that the information campaign made no mention of male-to-female HIV infection risks, these results suggest that individuals incorrectly inferred this from a public health message that only applied to men.

Providing men with information about male circumcision and HIV risk can encourage safer sexual behavior among uncircumcised men, and fears that information will lead to riskier behavior among circumcised men may be overstated.

The information campaign led uncircumcised men to adopt safer sexual behavior one year after a short information session, suggesting that VMMC information can have longer-term effects on sexual behavior. Importantly, there was no evidence that circumcised men increased their risky sexual behavior after receiving this information.

However, the impact of information may vary depending on context. For example, the circumcised men in this study were circumcised at young ages for cultural reasons. Their sexual behavioral response to VMMC information may thus be different from the potential response of men who choose to get circumcised as adults for HIV prevention reasons.

VMMC information campaigns should state that there is no evidence that male circumcision reduces female risk of HIV transmission.

Men who participated in the 2008 information campaign were more likely to incorrectly believe that male circumcision reduces a woman's HIV infection risk, though the campaign did not provide any information about female risk. Their spouses also held similar beliefs. To mitigate this misconception, information campaigns should explicitly state that, at present, researchers have found no significant relationship between male circumcision and women's HIV risk. However, these messages need to be designed so that they do not reduce VMMC demand. More research is needed on how to effectively deliver information so that people gain an accurate understanding about VMMC's benefits.

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