

The impacts of a demand-side VMMC incentives program on the male circumcision rate in 2 districts in Malawi: a synthetic control approach

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Abstract

Background: The study aimed to evaluate the effect of incentives on improving the uptake of VMMC. The primary research question sought to find out whether provision of incentives can significantly increase VMMC uptake among in-school and out-of-school boys and young men aged 10 to 34 in Malawi. Uptake of VMMC among eligible 10-34 years old males has been slow and Malawi Government sought to identify evidence-based innovative solutions to increase VMMC uptake. In this light, the Malawi National AIDS Commission undertook a study of using incentives to create VMMC demand in Mchinji and Rumphi districts from October 2015 to April 2016. School heads and community-based mothers' groups offered vouchers to potential circumcision clients and their caretakers and a second set to hand out to their friends and caregivers that covered the cost of transport for them and their caregiver for the procedures and two follow-up visits. **Methods:** Synthetic control methods were used to estimate the causal effect of the program on the circumcision rate of males 10-34 years old. Information on VMMC rates for the two years before study onset, as well as district-level socio-demographic and health information, inform the synthetic counterfactual for each of the study districts. Permutation tests establish the robustness of the impact estimates. **Findings:** The program led to a substantial increase in circumcisions: an additional 16.05 male circumcisions per 1,000 adult males in Rumphi, and an additional 9.15 in Mchinji. Overall, an individual who received a voucher was seven times more likely to be circumcised than someone who had not received one. Complementary qualitative findings suggest that mothers' groups were more effective in motivating young men due to personal attention and that caregivers and informal networks play an important supportive function in the circumcision decision. **Conclusions:** Despite implementation challenges, the demand-side VMMC program is highly effective in increasing the circumcision rate from low baseline levels.

Linkage to HIV treatment is a vital step in the cascade of HIV services and is critical to slowing down HIV transmission in countries with high HIV prevalence. Equally, linkage to voluntary medical male circumcision (VMMC) has been shown to decrease HIV transmission by 60% and increasing numbers of men receiving VMMC has a substantial impact on HIV incidence. However, only 48% of newly diagnosed HIV positive people link to HIV treatment let alone access HIV prevention methods such as VMMC globally. A systematic review investigating the effect of demand-side financial incentives (DSFIs) on linkage into HIV treatment or VMMC for studies conducted in low- and middle-income countries. We searched the title, abstract and keywords in eight bibliographic databases: MEDLINE, EMBASE, Web of Science, Econlit, Cochrane, SCOPUS, IAS Conference database of abstracts, and CROI Conference database of abstracts. Searches were done in December 2016 with no time restriction. We fitted random effects (RE) models and used forest plots to display risk ratios (RR) and 95% CIs separately for the linkage to VMMC outcome. The RE model was also used to assess heterogeneity for the linkage to HIV treatment outcome.

This work is partly presented at [International Conference on STRUCTURAL BIOLOGY AND PROTEOMICS](#)