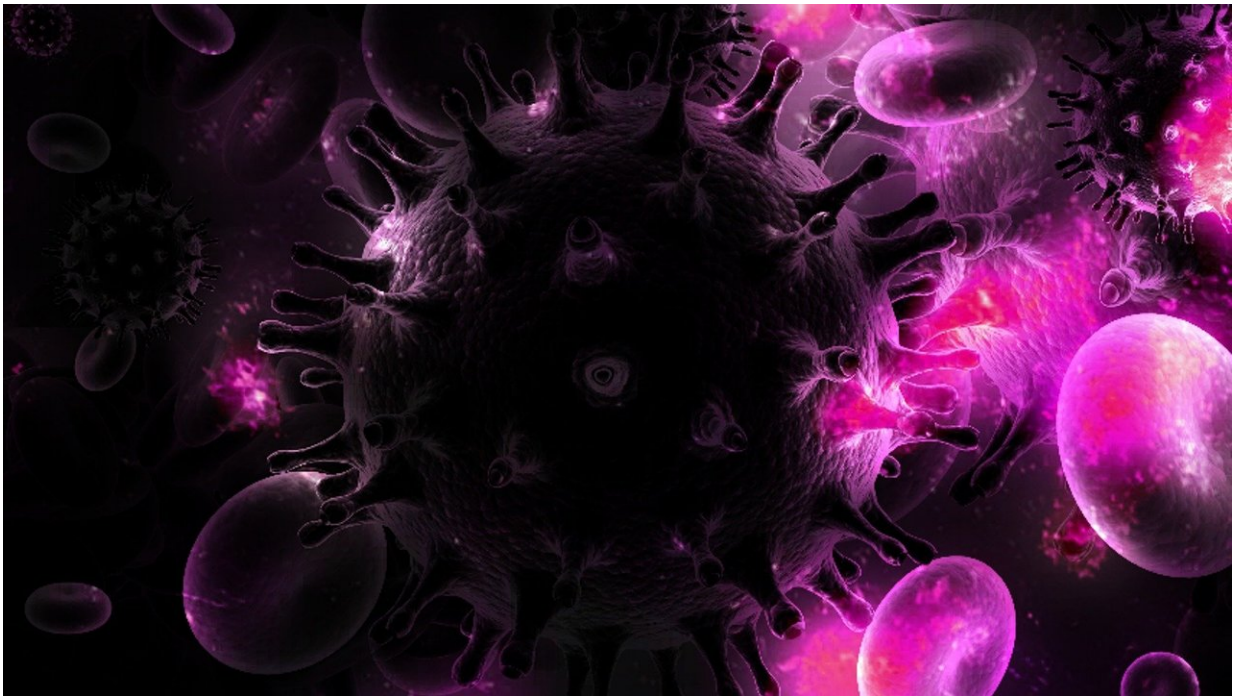


# Voluntary medical male circumcision may cost-effectively prevent HIV in Zimbabwe

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Voluntary medical male circumcision (VMMC) could impact Zimbabwe's HIV epidemic in the coming years, and this investment may save costs in the longer term. These findings were reported by Jessica McGillen of Imperial College London and colleagues on July 18th in the open-access journal *PLOS ONE*.

Zimbabwe adopted VMMC as a priority HIV prevention strategy in 2007 and began implementation in 2009. Clinical trials have shown that this approach reduces the risk of HIV transmission and provides lifelong protection. Alongside other measures to prevent HIV [infection](#), VMMC is recommended by the World Health Organization and the Joint United Nations Program on HIV/AIDS, UNAIDS. The Zimbabwe VMMC program has set 2021 target coverage levels of 80% of 15- to 29-year-old men and 30% of 10- to 14-year-olds. As the program strives to reach these targets in the context of limited resources and competing intervention options, McGillen and colleagues in three research groups used three mathematical models to evaluate its ongoing and future health impact and cost-effectiveness.

Their analysis suggests that the VMMC program in Zimbabwe has already had impact, and forecasts that its health and economic benefits will grow significantly in the future. The model estimates that the program may have averted between 2,600 and 12,200 infections by the end of 2016. If coverage targets are achieved by 2021 and maintained, it is predicted that it might prevent between 108,000 and 171,000 infections (10 to 13% of all new infections) by 2030. Moreover, the model suggests that annual savings from averted HIV treatment needs will outweigh VMMC maintenance costs once coverage targets are reached.

"In a wider context of concerns about plateauing global resources for HIV/AIDS and mounting long-term costs of antiretroviral therapy programs, these are important findings to underpin continued high-priority investment in this uniquely cost-effective prevention intervention in Zimbabwe," McGillen said.

**More information:** McGillen JB, Stover J, Klein DJ, Xaba S, Ncube G, Mhangara M, et al. (2018) The emerging health impact of voluntary medical male circumcision in Zimbabwe: An evaluation using three

epidemiological models. *PLoS ONE* 13(7): e0199453.  
[doi.org/10.1371/journal.pone.0199453](https://doi.org/10.1371/journal.pone.0199453)

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