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## Circumcision and HIV

**To the Editor:** Three articles in the October 2008 *SAMJ* make arguments against the use of male circumcision (MC) as a preventive measure to counter the HIV pandemic. There are, however, good arguments in favour of MC.

Approximately 40 observational studies were done in the 1990s. The majority of these showed a significant protective effect of MC against HIV acquisition in men.<sup>1</sup> This evidence, while compelling, was insufficient to promote circumcision programmes as health policy. Hence, three randomised controlled trials were undertaken in Africa to provide firm evidence supporting a protective effect. The study from Orange Farm (the largest informal settlement in Gauteng), which randomised over 3 000 men, showed a 60% reduction in the risk of HIV acquisition in the group circumcised at entry over the 2 years of the trial. The other two trials demonstrated similar protective effects.

The biological explanation for circumcision's protective effect is the foreskin's nine times greater absorption of HIV when compared with other genital mucosa.<sup>2</sup> Langerhans and other receptor cells mediate this susceptibility.

Modelling the impact of MC on HIV prevalence has been done for Gauteng province. Assuming full coverage of a circumcision intervention programme, with a 2005 adult male HIV prevalence of 25.6%, then 1 000 circumcisions would avert an estimated 308 infections over 20 years. The cost is \$181 per HIV infection thus averted and a net saving of \$2.4 million in treatment costs.<sup>3</sup>

In March 2007, following on from the Orange Farm trial, the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) produced a paper that concludes: '... promoting male circumcision should be recognized as an additional, important strategy for the prevention of heterosexually acquired HIV infection in men'.<sup>4</sup>

The above conclusions do not seem to be the last word on the matter, as the WHO has recently published a position paper less categorical in its endorsement of MC.<sup>5</sup> Chief among the concerns are questions of whether trial results can be extrapolated to the real world, and issues about the practicability of MC interventions in resource-poor settings. These debates are surely important and need to continue.

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