

## African mass circumcision programmes: A dangerous distraction

**To the Editor:** Evidence of the futility of mass circumcision campaigns to reduce HIV sexual transmission in sub-Saharan Africa (SSA) has been outlined in the *SAMJ* by former Editor-in-Chief, Prof. Ncayiyana.<sup>[1]</sup> The claim is based on three randomised controlled trials (RCTs) in South Africa, Uganda, and Kenya that circumcision reduces men's risk for HIV by ~60%.<sup>[2,3]</sup>

Numerous flaws in these RCTs included: inadequate equipoise; researcher and participant expectation bias; selection bias; inadequate blinding; problematic randomisation; lead-time bias; attrition bias/participants lost to follow-up; early termination; and failure to investigate non-sexual transmission – all of which exaggerated treatment effects.<sup>[4,5]</sup>

Overlooked data from at least one of these trials suggest that circumcision provided no protection at all. In the Ugandan female-to-male trial, HIV incidence among genitally intact men who waited 10 min after coitus to clean their penis (0.39/100 person years (PYs)) was less than that among all circumcised men (0.66/100 PYs).<sup>[6,7]</sup> When results from the other two trials are adjusted for the known sources of error bias, the estimated *relative* reduction in HIV risk in these trials is also considerably less than the reported 60% (and the *absolute* risk reduction falls commensurately) (personal communication – R S van Howe, 12 March 2011).<sup>[4,5]</sup>

The World Health Organization (WHO)/Joint United Nations Programme on HIV/AIDS (UNAIDS) accepted the claims of the three RCTs just weeks after publication of two RCTs in the *Lancet* in 2007.<sup>[8]</sup> These organisations continue to promote circumcision<sup>[9]</sup> despite evidence that intact men who wipe their penis following sex have a lower risk for HIV infection than circumcised men,<sup>[7]</sup> and the results of an Ugandan RCT,<sup>[10]</sup> which reported a 61% relative increase (6% *absolute* increase) in male-to-female HIV sexual transmission from circumcised men v. genitally intact men.<sup>[4]</sup> There are serious weaknesses in the management of the three RCTs – not asking, not reporting, not tracing and unethical practices.<sup>[11,12]</sup> Based on evidence reported by the study teams, up to half of the incident HIV infections observed in the three trials appear to be non-sexually transmitted, and may have been acquired through skin-piercing procedures (including healthcare procedures and cosmetic services).<sup>[11,12]</sup>

Moreover, epidemiological data reveal a higher prevalence of HIV infection among circumcised men than genitally intact men in at least seven SSA countries, including Cameroon, Rwanda, Lesotho, Malawi, Tanzania, Ghana, and Swaziland.<sup>[4,11]</sup>

To ascertain what is driving the HIV epidemic, infections must be traced to their sources. The RCTs' failure to trace infections is a common omission among many studies of HIV in Africa.<sup>[11,12]</sup> These persistent failures raise questions: why have experts not looked for and stopped nosocomial transmission; why do medical organisations not warn Africans about healthcare dangers, but seem willing to stigmatise Africans as a group, and HIV-positive African adults individually, for alleged sexual promiscuity?<sup>[11,12]</sup>

To date, no one can explain how sexual transmission could produce such horrible rates of HIV infection in SSA countries, where surveys find that heterosexual behaviour is similar to or even less risky than in Europe or the UK.<sup>[11]</sup> Decades ago we could have moved beyond speculation to explain Africa's HIV epidemics, if researchers had simply traced infections to their sources.<sup>[11,12]</sup>

Instead of reducing the sexual transmission of HIV, as claimed by WHO/UNAIDS, male circumcision programmes may actually risk increasing HIV infections owing to the use of inadequately sterilised skin-piercing instruments, premature resumption of sexual intercourse as early as 3 weeks following circumcision<sup>[13]</sup> ('... 30% of men

undergoing circumcision had sex within the healing period, then more new HIV infections in women would be generated than averted.<sup>[14]</sup>)

We concur with Prof. Ncayiyana's review of the evidence.<sup>[15]</sup> In our opinion, mass circumcision programmes in SSA are a dangerous distraction and WHO/UNAIDS should abandon their efforts to promote male circumcision.

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