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Male circumcision and HIV infection in Swaziland: is there an association?

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ABSTRACT

Background: HIV/AIDS is the leading cause of death among sexually active adults in SSA. In Swaziland, HIV prevalence is the highest in the world. An overwhelming body of literature has suggested that male circumcision has a protective effect against HIV infection (Auvert, 2005; Bailey, 2007; Gray et al, 2007).

Methods: A total of 2479 Swaziland men who ever had sex and voluntarily tested for HIV/AIDS as part of the 2006/7 Swaziland Demographic and Health Survey were used to examine the association between male circumcision and HIV infection. Three levels of analysis were done; Bivariate descriptive was used to estimate the prevalence of male circumcision and HIV infection. Bivariate analytical using binomial logistic regression was used to examine the association between male circumcision and HIV infection, and to examine the association between HIV infection and other socio-economic and demographic factors. Multivariate analysis using binomial logistic regression was used to identify factors associated with HIV infection.

Results: Bivariate descriptive analysis showed that out of 2479 respondents used for this analysis, 25.85% were circumcised and HIV positive. While 33.36% were uncircumcised and HIV positive. The overall HIV prevalence was estimated at 32.56%. Unadjusted results showed no statistical significance between male circumcision and HIV infection (UOR=0.69, 95% CI=0.47-1.03). However, after adjusting for socio-economic and demographic factors, results showed that male circumcision was protective against HIV infection (AOR=0.58, CI=0.36-0.88)

Conclusion: There was an association between male circumcision and HIV infection among men in Swaziland after adjusting for socio-economic and demographic factors. Circumcised men were protected against HIV infection compared to uncircumcised men. Although male circumcision is found to be protective against HIV infection, male circumcision alone is not sufficient to help reduce the number of new HIV infections in Swaziland. Other HIV intervention programs such as consistent condom use, one sexual partner and sex education should be continued and even expand.