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## Men's circumcision status and women's risk of HIV acquisition in Zimbabwe and Uganda.

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### Abstract

**OBJECTIVE:** To assess whether male circumcision of the primary sex partner is associated with women's risk of HIV.

**DESIGN:** Data were analyzed from 4417 Ugandan and Zimbabwean women participating in a prospective study of hormonal contraception and HIV acquisition. Most were recruited from family planning clinics; some in Uganda were referred from higher-risk settings such as sexually transmitted disease clinics.

**METHODS:** Using Cox proportional hazards models, time to HIV acquisition was compared for women with circumcised or uncircumcised primary partners. Possible misclassification of male circumcision was assessed using sensitivity analysis.

**RESULTS:** At baseline, 74% reported uncircumcised primary partners, 22% had circumcised partners and 4% had partners of unknown circumcision status. Median follow-up was 23 months, during which 210 women acquired HIV (167, 34, and 9 women whose primary partners were uncircumcised, circumcised, or of unknown circumcision status, respectively). Although unadjusted analyses indicated that women with circumcised partners had lower HIV risk than those with uncircumcised partners, the protective effect disappeared after adjustment for other risk factors [hazard ratio (HR), 1.03; 95% confidence interval (CI), 0.69-1.53]. Subgroup analyses suggested a non-significant protective effect of male circumcision on HIV acquisition among Ugandan women referred from higher-risk settings: adjusted HR 0.16 (95% CI, 0.02-1.25) but little effect in Ugandans (HR, 1.33; 95% CI, 0.72-2.47) or Zimbabweans (HR, 1.12; 95% CI, 0.65-1.91) from family planning clinics.

**CONCLUSIONS:** After adjustment, male circumcision was not significantly associated with women's HIV risk. The potential protection offered by male circumcision for women recruited from high-risk settings warrants further investigation.

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