

Partnerships and risk of HIV acquisition for HIV uninfected partners in African HIV serodiscordant partnerships.

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Abstract

BACKGROUND: As African countries scale-up couples HIV testing, little is known about sexual behaviors and HIV risk for HIV-uninfected partners in known HIV-serodiscordant relationships.

METHODS: We conducted a prospective study of 3380 HIV-serodiscordant partnerships from 7 African countries. Self-reported sexual behavior data were collected quarterly from HIV-uninfected partners.

RESULTS: The proportion of HIV-uninfected partners reporting sex with their known primary HIV-infected partner decreased during follow-up (from 93.5% in the prior month at baseline to 73.2% at 24 months, $P < 0.001$). Simultaneously, an increasing proportion reported sex with an outside partner (from 3.1% to 13.9%, $P < 0.001$). A small proportion ($< 5\%$, stable throughout follow-up) reported sex with the infected partner and an outside partner in the same month (concurrent). Unprotected sex was more common with outside partners than with their primary known HIV-infected partners (risk ratio 4.6; 95% confidence interval: 4.2 to 5.2). HIV incidence was similar for those reporting sex only with their primary HIV-infected partner compared with those who reported an outside partner (2.87 vs. 3.02 per 100 person-years, $P = 0.7$), although those who had outside partners were more likely to acquire HIV that was virologically distinct from that of their primary partner ($P < 0.001$).

CONCLUSION: For uninfected members of HIV-serodiscordant couples, sex with the infected partner declined as sex with outside partners increased, likely reflecting relationship dissolution and risk shifting from a known infected partner. Risk-reduction messages for HIV-uninfected partners in serodiscordant partnerships should include strategies to reduce HIV acquisition from outside partners.