

# Condom use prevents genital ulcers in women working as prostitutes. Influence of human immunodeficiency virus infection

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## Abstract:

Control of genital ulcer disease (GUD) is a proposed intervention to slow the dissemination of human immunodeficiency virus (HIV) infection. Programs for the control of sexually transmitted diseases (STD) should focus on groups of high-frequency transmitters, such as prostitutes and their clientele. This study illustrates the interaction between the prevalence of chancroid, use of barrier prophylaxis against STDs, and HIV infection in a population of female prostitutes in Nairobi. Four hundred and twenty three women were evaluated. Despite the increased use of condoms, the prevalence of genital ulcers remained constant between 1986-87 and 1987-88. Genital ulcer disease was simultaneously associated with HIV infection (adjusted odds ratio: 3.7, P less than .01) whereas it was independently and inversely associated with more consistent condom use (P less than .01). The authors conclude that genital ulcer disease can be controlled in these populations but concurrent HIV infection increases the difficulty of this intervention. PIP: Counselors at a Nairobi City Commission Maternal/Child Health Clinic interviewed prostitutes in a certain residential area every 6 months between 1986-1988 about sexual practices and condom use. In addition, every 6 months, health workers examined the women on a demand basis free of charge, promoted condom use, provided condoms, informed them about sexually transmitted diseases (STDs) and HIV infection, and took samples to test for STD and HIV status. Prostitutes were 3 times more likely to use condoms in 1987-1988 than 1986-1987, but the prevalence of genital ulcers remained basically the same (34% in 1986-1987 and 32% in 1987-1988). *Hemophilus ducreyi* was responsible for at least 80% of the genital ulcers. In 1987-1988, 35% of HIV-1 seropositive women had genital ulcers while only 14% of HIV-1 seronegative women did (p.01). In fact, genital ulcer prevalence increased significantly in HIV-1 seropositive women as the disease stage of HIV-1 advanced (27% of asymptomatic healthy women, 35% of women with generalized lymphadenopathy, and 46% of women with clinical HIV related disease; p.05). Thus this study suggested that the immunosuppressive traits of preexisting HIV infection negate any protective effect that condoms normally have against genital ulcers. Indeed the researchers proposed that a complex bidirectional epidemiologic and biologic interaction of HIV and *H. ducreyi* infection to be the basis of the HIV-1 epidemic in these women. In conclusion, strategies to curtail the transmission of HIV among heterosexuals should consist of programs which understand and change sexual behavior resulting in a decline in the contribution of prostitutes or other core groups to the HIV epidemic, condom use to prevent STD and HIV transmission, and control of genital ulcers in high frequency transmitters including prostitutes and clients.

