

ORIGINAL RESEARCH ARTICLE

HIV and Sexually Transmitted Infections among Women Presenting at Urban Primary Health Care Clinics in Two Cities of sub-Saharan Africa

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Abstract

In a cross-sectional study, 786 consenting women from two cities in Africa, Harare and Moshi, attending primary health care clinics were interviewed, examined and tested for HIV and other sexually transmitted infections (STIs). The aim of the study was to assess and compare differences in the characteristics that may affect the prevalence of HIV/STIs among women in the two cities. Multivariate analysis was used to generate odds ratio. STIs and behaviour characteristics among this low risk group of women could not fully explain the higher HIV prevalence in Zimbabwe, 29.3% compared to 11.5% in Tanzania ($p < 0.01$). Interventions should target identified risk factors with particular attention to youths. (*Afr J Reprod Health* 2005; 9[1]: 88-98)

Keywords: HIV/AIDS, STI, Zimbabwe, Tanzania, women

References

1. Joint United Nations Programme on HIV/AIDS/World Health Organization. *AIDS Epidemic Update* December 2002.
2. World Health Organization (WHO). Reducing risks, promoting healthy life. *World Health Report* 2002.
3. Buve A, Carael M, Hayes RJ, Auvert B, Ferry B, Robinson NJ, et al. Multicentre study on factors determining differences in rate of spread of HIV in sub-Saharan Africa: methods and prevalence of HIV infection. *AIDS* 2001; 15(Suppl.4): S5-S14.
4. Zijenah L, Mbizvo MT, Kasule J, et al. Mortality in the first 2 years among infants born to human immunodeficiency virus-infected women in Harare, Zimbabwe. *J Infect Dis* 1998; 178(1): 109-113.
5. Urassa M, Todd J, Boerma JT, Hayes R and Isingo R. Male circumcision and susceptibility to HIV infection among men in Tanzania. *AIDS* 1997; 11(3): 73-80.
6. Wasserheit JN. Epidemiological synergy: inter-relationships between HIV infection and other STDs. *Sex Trans Dis* 1992; 19: 61-77.
7. Laga M, Manoka A, Kivuvu M, Malele B, Tuliza M, Nzila N, et al. Non-ulcerative sexually transmitted diseases as risk factors for HIV-1 transmission in women: results from a cohort study. *AIDS* 1993; 7(1): 95-102.
8. Latif AS, Katzenstein DA, Bassett MT, Houston S, Emmanuel JC and Marowa E. Genital ulcers and transmission of HIV among couples in Zimbabwe. *AIDS* 1989; 3(8): 519-23.
9. Sewankambo N, Gray RH, Wawer MJ, Paxton L, McNaim D, Wabwire-Mangen F, et al. HIV infection associated with abnormal vaginal flora morphology and bacterial vaginosis. *Lancet* 1997; 350: 546-550.
10. Emmanuel JC, Bassett MT, Smith HJ and Jacobs JA. Pooling of sera for human immunodeficiency virus (HIV) testing: an economical method for use in developing countries. *J Clin Pathol* 1988; 41(5): 582-585.
11. Mhalu F, Bredberg-Raden U, Mbena E, Pallangyo K, Kiango J, Mbise R, Nyamuryekunge K, et al. Prevalence of HIV infection in healthy subjects and groups of patients in Tanzania. *AIDS* 1987; 1(4): 217-221.
12. UNAIDS/WHO. *Zimbabwe: Epidemiological Fact Sheet on HIV/AIDS and Sexually Transmitted Diseases 2000*.
13. Zimbabwe Demographic and Health Survey 1994.
14. UNAIDS/WHO. *Tanzania: Epidemiological Fact Sheet on HIV/AIDS and Sexually Transmitted Diseases 2000*.
15. Ministry of Health. National Health Policy, United Republic of Tanzania 1990.

16. International Federation of Women Lawyers (Kenya Chapter) FIDAK. *Women of the World: Laws affecting their Reproductive Lives*. 1st edition. Nairobi: Center for Reproductive Health Law and Policy, 1997.
17. Ministry of Health. Report on Maternal and Child Health Services in Moshi Urban District, Tanzania. January -June 1999.
18. Mbizvo EM, Msuya SE, Stray-Pedersen B, Sundby J, Chirenje ZM and Hussain A. Determinants of reproductive tract infections among asymptomatic women in Harare, Zimbabwe. *C Afr J Med* 2001; 47(3): 57-64.
19. Msuya SE, Mbizvo E, Stray-Pedersen B, Sundby J, Sam NE and Hussain A. Reproductive tract infections among women attending primary health care facilities in Mosh, Tanzania. *E Afr Med J* 2002; 79(1): 16-21.
20. Amsel R, Totten PA, Spiegel CA, Chen KCS, Eschenbach DA and Holmes KK. Non-specific vaginitis: diagnostic criteria and microbial and epidemiologic associations. *Am J Med* 1983; 74: 14-22.
21. Mbizvo EM, Msuya SE, Stray-Pedersen B, Sundby J, Chirenje MZ and Hussain A. HIV seroprevalence and its association with other reproductive tract infections in asymptomatic women in Harare, Zimbabwe. *Int J STD AIDS* 2001; 12: 524-531.
22. Mbizvo EM, Msuya SE, Stray-Pedersen B, Chirenje MZ, Munjoma M and Hussain A. Association of herpes simplex virus type 2 with the human immunodeficiency virus among urban women in Zimbabwe. *Int J STD AIDS* 2002; 13: 343-348.
23. Msuya SE, Mbizvo EM, Stray-Pedersen B, Sundby J, Sam N and Hussain. Reproductive tract infections and the risk of HIV among women in Moshi Tanzania. *Acta Obstet Gynecol Scand* 2002; 81(9): 886-893.
24. Bouvet JP, Gresenguet G and Belec L. Vaginal neutralization by semen as a cofactor of HIV transmission. *Clin Microbiol Inf* 1997; 3(1): 19-23.
25. van de Wijgert J, Chirenje Z, Illiff V, Mbizvo MT, Mason PR, Gwanzura L, et al. The effect of intravaginal practices on the vaginal and cervical mucosa of Zimbabwean women. *J Acquir Imm Def Synd Hum Retrovirol* 2000; 24: 62-67.
26. Brewer DD, Brody S, Drucker E, Gisselquist D, Minkin SF, Potterat JJ, Rothernburg RB, et al. Mounting anomalies in the epidemiology of HIV in Africa: cry the beloved paradigm. *Int J STD AIDS* 2003; 14: 144-147.
27. Thomas JC and Tucker MJ. The development and use of the concept of a sexually transmitted disease care. *J Infect Dis* 1996; 176(Suppl 2): S134-143.
28. Msuya SE, Mbizvo E, Hussain A, Sundby J, Sam NE and Stray-Pedersen. Female genital cutting in Kilimanjaro, Tanzania: changing attitudes? *Trop Med Int Health* 2002; 7(2): 159-165.
29. Auvert B, Buve A, Lagarde E, Kahunda M, Chege J, Rutenburg N, et al. Male circumcision and HIV infection in four cities in sub-saharan Africa. *AIDS* 2001; 15(suppl 4): S31-S40.
30. Heng MC, Heng SY and Allen SG. Coinfection and synergy of human immuno deficiency virus -1 and herpes simplex-1. *Lancet* 1994; 343: 255-258.
31. Schopper D, Doussantousse S and Orav J. Sexual behaviours relevant to HIV transmission in a rural African population: how much can a KAP survey tell us? *Soc Sci Med* 1993; 37: 401-412.