

Although the HIV epidemic was male-led in sub-Saharan Africa, it now has predominantly woman's face. In several countries, the prevalence of HIV among women is 10-50 percentage points higher than among men. Among younger women, the differential is even greater. Various hypotheses exist on the explanation for the male-female gap in infection, particularly among younger women. They include physiological susceptibility, sex initiation, and mixed age/cross-generational sex. Those who propose the physiological explanation suggest that younger women are biologically more susceptible to HIV infection than men because of immaturity of the membranes around the vagina. The sex initiation hypothesis blames the higher prevalence on sexual violence and young age at initiation: that most of the first sexual encounters were non consensual. The hypergamy explanation puts the blame on mixed age and cross-generational sex, particularly older men having sexual relations with younger women.

In the explanations for the perceived male-female differentials in HIV infection, there are some lacunae in our knowledge. First, use of population-based estimates is rare; most of the differentials are based on model-adjusted estimates from women-only or clinic-based samples. Very few studies have information on age-specific differentials by sex. Rural-urban differentials are usually not known or are not reported. The higher prevalence among women tended to be blamed on the male –either as husbands bringing infection home to their wives or as sugar daddies. Several behavioral responses that are within the control of women are downplayed in favor of macro social, economic and cultural explanations.

In this paper, a solid analysis is presented to address some of the gaps in knowledge. The data are from five sub-Saharan African countries that have participated in population-based HIV sero-survey under the Demographic and Health Surveys (DHS) program since 2001: Mali, Zambia, Kenya, Ghana, and Burkina Faso. In analyzing these data, we focused on the extent of the male-female differentials in infection, examine the age patterns of the differentials between male and female, and then go on to explore the data for explanation for the gender gap in HIV infection. In doing so, we examine differentials in knowledge of HIV prevention, adoption of prophylactic and self-protection from risk including condom use in high risk sexual encounters. The limitations and strengths of these post-facto examinations are discussed in the light of counter-intuitive findings from the literature.

Preliminary results show that the overall HIV prevalence rate for Kenya was 6.7%, 1.7% in Mali and 15.6% in Zambia. The prevalence was higher among women in each of these countries: by 54% in Mali, by 40% in Zambia, and by 90% in Kenya. The sex distribution of HIV prevalence is skewed by age. For example in Mali, the female to male ratio was about 4:1 in ages 15-19, 5:1 in ages 20-24 and about 5:1 in ages 25-29. In Zambia, women age 15-19 were 4 times as likely to be HIV+ as men. In Kenya, the female-male ratio was 7:1. Women aged 20-24 had 4-5 times the HIV infection rate of men. Beyond age 30, men had slightly higher prevalence rates than women. Similarly, older men and women had higher prevalence rates than adolescents and young adults. For example, women age 30-39 were thrice as likely to be HIV positive as adolescents. The ratio was 8:1 among men.

We examined the data to see what behavioral and socioeconomic variables correlate with this age-sex HIV infection pattern. Variables to be examined include age- and sex-specific knowledge of HIV prevention, use of condoms in risky sex, and mixed-age sexual relations. One of the conclusions from the study is that women now carry a heavier burden of HIV infection than men and young women carry a much heavier HIV infection burdens than young men. We discuss the social and economic implications of the increasing feminization of the HIV problem in Africa as well as its possible effects on the epidemiology of HIV/AIDS and other health problems in the region. We also present a review of the literature on a sample of self-protective and prophylactic behaviors and women engage in to reduce their risk of infection. They include refusal to take gifts from men who are not relations, especially older men, rejection of sexual advances, and maintenance of no-condoms-no-sex position. The male role and male involvement arguments are presented. The paper concludes with some policy and programmatic recommendations to address the negative implications of our findings.