

## **Feminization of HIV/AIDS and Men's Sexual Behavior<sup>1</sup>**

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I will use a question and answer format and available evidence to argue that the current prevention efforts are not sufficient to halt the feminization of the HIV epidemic. We need to go beyond behavioral change interventions targeted at high risk groups. While interventions to educate and empower women are necessary, additional programmatic efforts are required at the societal, the community, and the individual levels to focus on changing men's risky sexual behavior.

### 1. What is meant by Feminization of HIV?

Feminization of HIV probably refers to the spread of HIV infection among females who are not commercial sex workers.

According to the data assembled by UNAIDS, the percent of adults living with HIV who are females has stabilized at about 50% globally since the mid 1990s (see Figure 1). It has stabilized at about 60% in sub-Saharan Africa; at a little over 30% in Asia and Latin America; and at around 30% in Eastern Europe and central Asia. It is only in the Caribbean that this percent is still growing. In other words, in most regions of the world, feminization of the epidemic has already taken place and has now stabilized albeit at a very high level in sub-Saharan Africa.

Another aspect of this phenomenon is that in many countries the HIV epidemic among younger females is spreading faster than among younger males. For example, HIV prevalence among 15-24 years old girls in Swaziland and South Africa is about four times higher than among boys of similar ages (see Figure 2).

### 2. Why have females been infected by HIV to such an extent? Is it a physiological phenomenon or behavioral and cultural phenomenon?

While the routes of HIV transmission include transfusion of infected blood; sharing of needles among injecting drug users; and infection from mother to child during birth and through breast milk; sexual transmission is estimated to be the most common mode of HIV transmission in developing countries. HIV could be transmitted sexually from an infected male to an uninfected male or female, and from an infected female to uninfected male. Except through blood transfusion or sharing needles, an uninfected female cannot be infected or infect others unless she has unprotected sex with an infected male.

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2a. Why would an uninfected female have unprotected sex with an infected male?

Certainly not by choice.

Many uninfected females, even those living in monogamous relationships, do not know the HIV status of their partners. Many do not have power to choose their sexual partner nor to choose the timing of sexual encounters nor to negotiate the use of male condoms. Moreover, neither do they have access to female condoms nor to another technology which is under their control and which they can use to protect themselves. Many of them have little or no education and are relatively poor. Many others are the victims of gender-based violence or are forced to engage in transactional sex or are coerced into commercial sex work.

Evidently, spread of HIV among females is less of a physiological phenomenon but it is more of a behavioral and cultural phenomenon.

3. Does it mean then, that HIV/AIDS is a disease of the poor? Are poor people at a greater risk of infection?

There is no clear evidence.

The burden of disease in sub-Saharan Africa, a relatively poor region of the world, is disproportionately higher than the developed regions of the world. However, the prevalence of HIV is highest in South Africa and Botswana, the two countries in sub-Saharan Africa with highest education and per capita income. Moreover, the HIV prevalence in a poorer country like Bangladesh is practically nonexistent. Within many countries, the prevalence of HIV is highest in the relatively better-off communities. For example, HIV in India is concentrated in four better-off states of Maharashtra, Andhra Pradesh, Tamil Nadu, and Karnataka.

At the household level, HIV prevalence among wealthier households is higher than among the poorer households in countries with the concentrated as well as generalized epidemic. For example, HIV prevalence in India increased from 0.18 percent among women with the lowest wealth index to 0.20, 0.24, and 0.34 percent among women in the second, third and fourth wealth index categories, respectively. It was 0.12 percent among women with the highest wealth index. Similar relationship between HIV prevalence and wealth index is observed in eight countries of sub-Saharan Africa.

However, there is growing evidence to indicate that HIV prevalence decreases with an increase in the education level of women. This is true in countries with matured epidemic e.g. in Kenya, as well as in countries with concentrated epidemic e.g. in India. For example, according to the Kenya AIDS indicator survey of 2007, Kenyan women aged 15 to 64 years with primary education had a prevalence of 10 percent compared to 7 percent with secondary education and 4 percent with tertiary education. Prevalence among Kenyan women who have never attended school was 7 percent. Similarly, according to the National Family Health Survey of 2005-06,

Indian women aged 15 to 49 years with 1 to 5 years of schooling had a prevalence of 0.49 percent in comparison to 0.20 percent among women with 5 to 7 years of schooling; 0.11 percent with 8 to 9 years of schooling; 0.14 percent with 10-11 years of schooling; and 0.07 percent with 12 or more years of schooling. Prevalence among Indian women who had no education was 0.27 percent.

Based on this kind of evidence, the UNAIDS report noted that “HIV has no socioeconomic boundaries.”

4. Does this mean that we don't have to worry about improving education, economic conditions, or empowering women as a component of strategies to prevent further spread of HIV/AIDS among women?

No.

Interventions that would improve women's social, economic, and political capital are necessary in general to improve their living conditions, and specifically to empower them to make decisions about sexual partners, timing of sex, and negotiations about condom use. However, specific interventions will have to be context specific.

In many countries with high enrollment rates but lower completion rates of primary and secondary schools, interventions to improve girls education need to focus on decreasing dropout rates from primary and secondary schools by, for example, constructing separate latrines for girls or by adding mid-day meals for them to stay in schools. In other countries with low enrollment rates in primary schools, these interventions need to focus on the neglected age group of 5 to 9 years old who may have benefitted by child survival programs but have yet to be picked up by new programs focusing on adolescents. Children in this 5-9 years age group may have been neglected by public policies in these countries. These are the formative years and neglect by public policies results in uneducated and less educated citizens in a country. Moreover, a substantial progress in the educational achievements of tomorrow's adolescents would require a renewed and focused attention on children in this neglected 5-9 years age group now.

While educational interventions will improve educational achievements of tomorrow's adolescents, these interventions may not be sufficient to empower them to have a say in sexual encounters because girls as well as boys going through a formal education system in many countries are not educated on their sexual and reproductive rights. In many settings, going to school does not provide protection to girls from sexual violence—they could be raped on their way to school or they may be exploited by teachers in schools.

In yet other countries, livelihood and micro-credit programs are required to empower women to negotiate and have a say in sexual encounters. The empirical evidence of such programs on preventing HIV infection is limited. However, the IMAGE study in South Africa showed that a

microfinance intervention integrated with a curriculum of gender awareness and HIV education reduced experience of gender violence by almost half.

5. How about interventions targeted at specific high risk behavioral groups, such as injecting drug users, migrant workers, truck drivers, men who have sex with men, and commercial sex workers?

These interventions would not be sufficient to halt the spread of HIV among females.

These interventions would prevent transmission of HIV infection to females to the extent that it prevents uninfected males from acquiring HIV infections themselves. This would be true for interventions targeted to injecting drug users, migrant workers, truck drivers, and men who sex with men, because by preventing new HIV infections among the bridging population of men in these high risk behavioral groups it would also reduce new HIV infections among their female partners.

However, the situation about interventions targeted towards female sex workers is a bit more complex. First, these interventions mainly focus on the use of male condoms and rarely on the use of female condoms. Second, the burden for negotiating the use of male condoms in most interventions is placed entirely on already marginalized and vulnerable group of female sex workers because these interventions rarely target male clients of these sex workers. Second, these interventions focus mainly on individual sex workers and sometimes on communities of sex workers; but rarely on the entire industry. Consequently, these interventions provide inadequate protection to both sex workers and their male clients.

Emerging data from studies of sex workers in India, for example, indicate that self reported consistent condom use is extremely low among so-called regular nonpaying clients. Even if consistent condom use among paying clients is as high as reported by sex workers in these studies, the fact that it is low among nonpaying regular clients would indicate that these sex workers are not completely protected from acquiring HIV infection from their nonpaying regular clients.

Unfortunately, interventions targeted at sex workers have not learnt much from the most successful experience of interventions among sex workers in Thailand. The most effective condom use program among sex workers in Thailand went through the existing power structure. Brothel owners were told that sex workers would be regularly tested for STDs and if discovered they would be shut down. The Government provided adequate services for STD testing and implemented the testing and monitoring program without exception to safeguard its tourist industry. Thus everyone's economic incentives were aligned. If the owner and sex workers wanted to earn money – they had to stay disease free. Win – Win for the government, the brothel owners, and the sex workers.

## 6. What else can be done?

My colleagues on this panel have argued for integrating HIV prevention and treatment programs with sexual and reproductive health services and programs; development of microbicides; and communication about intimate partnerships and face-to-face discussions within them. While these are all laudable efforts and must continue, there is an urgent need to focus on men because of the following reasons:

First, as mentioned earlier, men play an integral role in the spread of HIV through sexual encounters. A man has to acquire the infection first before transmitting it to his partner(s). An uninfected woman cannot be infected without first having sex with an infected man, and women do not have sex with infected men by choice. Second, men, in contrast to women and children, do have the power in sexual encounters, do have the choice not to engage in risky sexual behavior, have access to means (e.g. male condoms and now male circumcision) to safeguard themselves from infection. Once infected, they also have the choice, the power, and the means to protect their partners and, therefore, their children.

While it is in the self interest of uninfected man to remain uninfected, the global spread of HIV and especially the spread of HIV among women imply that a sufficient number of men are not appropriately exercising their choice and power to even protect themselves. Culturally appropriate interventions are needed to reach and motivate uninfected men to remain uninfected for their own sake and to motivate infected men not to infect their partners.

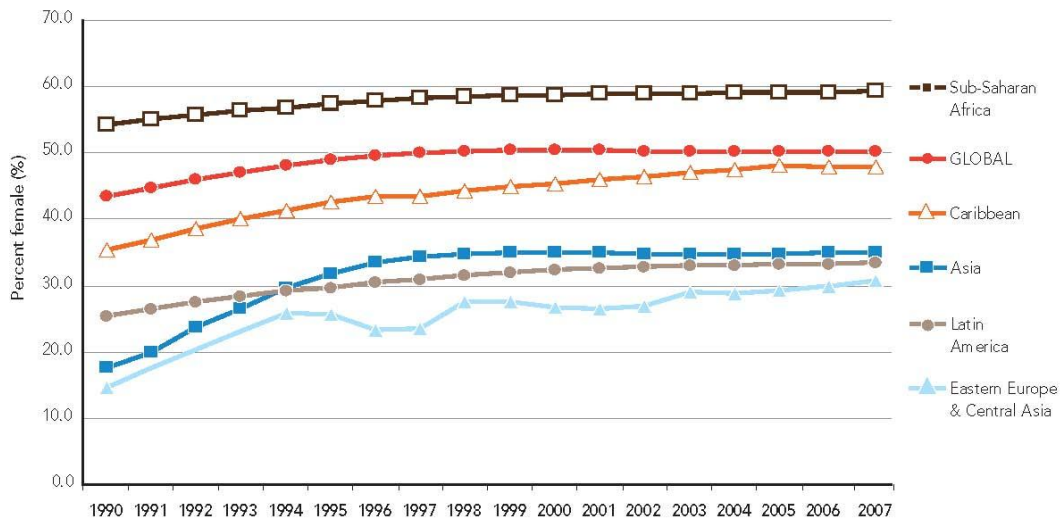
One may argue that it is a tall order to induce changes in men's risky sexual behavior. It certainly would not be easy. Complimentary interventions will be required at the societal, community, and individual levels because the objective would be to bring about a normative change in the most intimate behavior of individuals. We could draw some lessons from other types of behaviors such as changes in smoking, which required interventions at all levels. In the HIV field we could draw lessons from the two successful experiences in Thailand and Uganda. Once again the actual combination of interventions will be context specific but would have elements at all the three levels.

At the societal level, interventions may be needed to understand and accept the nature of the disease—neither to deny its existence nor to deny the sexual mode of its transmission; and to decrease stigma and discrimination associated with HIV. At the community level, interventions may be needed to make the home, the community, and the school systems safe for girls. These could include community sanctions against (older) men and teachers who exploit young girls, training of both boys and girls in schools on gender sensitivity and sexual and reproductive rights, community level interventions to provide safe spaces for girls, and interventions to better socialize young boys through gender training.

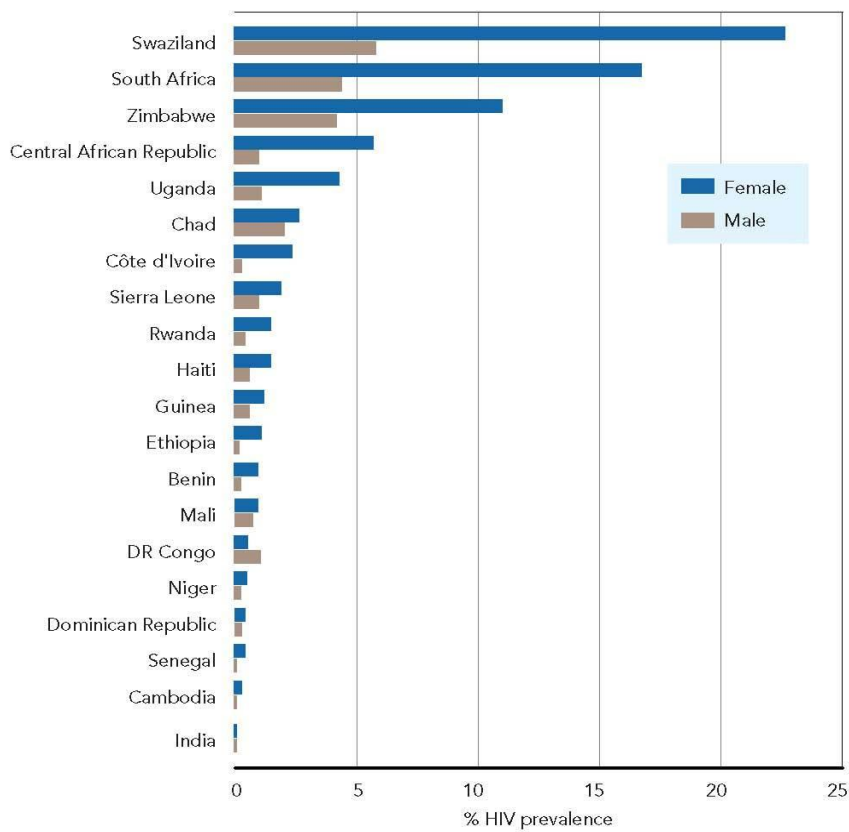
Uninfected men may have erroneous perceptions about the degree of risk involved in becoming infected through various types of sexual encounters. While the overall probability of acquiring

HIV infection per sexual act may be low, it is not the same for every type of sexual encounter. It also depends upon the number of concurrent partners. Moreover, the disease outcome—morbidity and mortality—for the individual is extremely serious. Thus, the perception of risk must reinforce both the varying degree of risk as well as the seriousness of the outcome for the individual. The individual level interventions may include simple tools for men to assess their own risk of acquiring HIV infection and how to reduce this risk; and what to do to determine one's HIV status. The individual level interventions could also focus on the societal expectations of what it means to be a man. While treatment services are being made available at a little or no cost to the individuals, it may be pertinent to consider ethical issues if HIV positive men are asked to agree not to infect others in exchange for free treatment received from the public sources.

**Figure 1. Percent of adults (15+) living with HIV who are female, 1990–2007**



**Figure 2. HIV prevalence (%) among 15–24 years old, by sex, selected countries, 2005–2007**



Source: 2008 UNAIDS Report on the global AIDS epidemic (Fig 1. Pg 36 & Fig 2. Pg 42)