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POLICY FORUM
Social Determinants of HIV Risk in Women
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Twenty years ago, it was said that the AIDS epidemic "moves along the fault lines of our society and becomes a metaphor for understanding that society" [1]. The feminization of this disease is a compelling example of how the AIDS epidemic has grown along the "fault line" created by the unequal status of women. As pointed out by the World Health Organization's Commission on Social Determinants of Health, "the catastrophic AIDS epidemic in southern Africa is a clear demonstration of the lack of power of women to enjoy fundamental social freedoms" [2]. What was once known in the U.S. as a gay man's disease, AIDS now claims the lives of an increasing number of women, both in the United States and around the globe.

In the U.S., the percentage of HIV patients who are women has risen from 8 in 1985 to 27 in 2005 [3]. Hispanic and African American women are at disproportionately high risk [4], as are women with low incomes [5]. On a global scale, the statistics are even more striking, with women now representing more than half of the 33 million HIV/AIDS patients in developing countries [6]. In sub-Saharan Africa, women comprise 60 percent of adults living with HIV, and 3 of 4 people aged 15-24 years who live in that region and have HIV are women [7].

With heterosexual transmission the chief cause of continued spread of global HIV, those without the power to select sexual partners, choose the timing of sexual encounters, or insist on safer sex practices (such as the use of condoms) are unable to protect themselves from infection. Given the gender-based inequities that characterize society [8], it was tragically predictable that women would face higher risk.

Social determinants of HIV risk for women include:

- Societal values, such as restriction of sex education in the U.S. and the belief that education is not necessary or appropriate for girls and women in other countries.
- Cultural norms, which dictate lower status roles for women and result in subordination to their partners and lack of control over life decisions.
- Poverty, which has propelled the global epidemic in developing countries—Africa, Asia, and parts of South America—and in the U.S. among people of color and those residing in parts of the rural South.

These social determinants, often interrelated and overlapping, can be mitigated through educational, cultural, and medical interventions to decrease the risk of HIV acquisition among women and provide appropriate care for those who are living with it.

Empowerment through Education

Both general and sexual health education are central to the economic, social, and personal empowerment of women, and can play important roles in reducing transmission of HIV.

In the U.S., only 35 states require education about sexually transmitted diseases and HIV, and many of these programs impose limits on course content [9]. Public health advocacy groups have called for national, comprehensive approaches to sexual health education [10], which have been shown to correlate with reduced HIV infection in adolescents of both sexes [11, 12]. As part of this approach, abstinence-only programs are being increasingly scrutinized, with calls by many experts to abandon these approaches due to their ineffectiveness in curbing both sexual activity and transmission of STDs [13]. Expansion of access to sex education that emphasizes prevention of risky behaviors will be critical to protecting the youth of our country from HIV.

Globally, the problem is broader, with girls and young women in many cultures having no—or very restricted—access to primary or secondary education. In sub-Saharan Africa, for example, only 17 percent of girls are enrolled in secondary school [7]. Overall, only 59 countries have achieved parity between boys and girls in primary and secondary education [14].

Without general education, young women lack the skills to gain employment and compete economically, which leaves them dependent upon their fathers, and, later, their husbands. Economic dependency, in turn, creates social dependency, and, when husbands die or choose not to support them, these women are left with few options and often find themselves in poverty. To survive, many women have no choice but to become sex workers or to trade sex for necessities such as food and housing for themselves or their children. It is not surprising, then, that HIV/AIDS infection rates are estimated to be about twice as high among young people who do not finish primary school than among those who do [7].

Without sex education, which is even less available in developing countries, girls lack basic information about sexual health and HIV transmission. A recent multinational study of adolescents in Africa reported that at least half had not had any sex education and that existing education efforts were often too late, not comprehensive, and sometimes inaccurate. As a result, less than 40 percent of 15- to 19-year-olds could correctly identify preventive methods and myths about HIV [15].

Global health policy leaders and advocacy organizations propose eliminating school fees in developing countries and accelerating mobilization of global aid for

childhood education worldwide as fundamental first steps in empowering women to reduce their risk of HIV [16]. International aid and local commitments to sex education in communities around the world are critically important.

Redefinition of Traditional Gender Roles and Social and Economic Empowerment

Traditional gender paradigms lead to inequities in economic, social, and personal power. As a result of these male-dominated power imbalances, women are at higher risk of HIV. For example, a recent study of African American females in the U.S. showed that power imbalances with a male partner and fear of negotiating about condom use were significant in determining whether young women engaged in unprotected vaginal sex [17].

Globally, gender-based role definition often leads to an acceptance that men are "driven" or thought to "naturally need" multiple sexual partners—a practice that is condoned and even celebrated in some cultures. In some developing nations, the AIDS epidemic among women has been fueled by promiscuous behavior of married men who return home and infect their wives. In some countries, such as Nigeria, being married is a risk factor for HIV acquisition in women [18].

Traditional gender roles dictate values such as virginity and motherhood that paradoxically contribute to the epidemic in many cultures. The emphasis on virginity, for instance, discourages access to sexual health information while reinforcing the role of the woman as the passive partner [19]. This status precludes her denying or setting conditions for sex, even if she suspects that her partner has been engaged in high-risk activities. In some cultures, men presume that younger women are less likely to be HIV-seropositive. This results in acquisition of HIV at younger ages in girls and young women than in men [20]. Similarly, emphasis on the importance of motherhood in some cultures dissuades women from engaging in safer sex negotiations that involve birth control (i.e., condoms) [19]. Finally, entrenched gender roles are associated with high levels of violence and sexual abuse toward women, which is correlated with HIV risk [21]. Women may be discouraged from independently accessing health information, services, and safer sex tools by their own acceptance of these values or due to fear of reprisal or abandonment by their partners.

Innovative approaches are urgently needed for the difficult task of redefining these traditional roles. Approaches must be culturally appropriate and sensitive, with careful attention to local history and expectations. Nevertheless, cultural relativity should not be used as an excuse to condone behaviors that place women at risk for dying of AIDS. Providing girls and women with the education and support they need to acquire economic power and social skills will enable them to take a more active role in defining sexual relationships and gender roles. At the same time, boys and men should be enrolled in efforts to break with traditional masculine norms and promote sexual health. While this approach has been underexplored, some male-centered programs show promise, such as those involving organized group activities,

role modeling, and more [19]. Men (and women) should be encouraged to replace risk-taking with responsibility.

Overall, more research is needed into culturally sensitive ways to empower women and to shift traditional views of masculinity. Only then will we be able to accomplish a deep social transformation of relationships between women and men, so that women will be able to take greater control of their lives—physically, economically, and socially.

Women-Controlled Prevention Tools

Advancements in sex-specific HIV prevention tools provide a way for women to protect themselves from HIV. The female condom, approved by the FDA in 2003, substantially reduces the risk of HIV transmission. Notably, research has shown that the resulting feeling of empowerment for women who use these condoms has helped them initiate more effective dialogue with their partners regarding risk and protection [22]. A recent study in Zimbabwe showed that female condoms could be a viable option if paired with outreach and education [23]. Unfortunately, use of the female condom is limited, partly because it is more expensive, less widely available, and more difficult to use than the male condom. Similarly, a recent study shows that the diaphragm is not a desirable option unless it evolves both in product design and disease prevention capability [24].

Vaginal microbicide gels were a highly anticipated woman-controlled prevention tool, but their use has been fraught with disappointment. Currently available gels have not been shown to be consistently effective in clinical trials, and some have even increased risk of HIV transmission [25]. Recently published research also shows that men's cooperation must continue to be investigated as a strategy in future microbicide trials [26]. Efforts and policies aimed at supporting further research of and better access to prevention tools that neutralize gender-based power imbalances should be a top priority.

Women-Centered and Culturally Competent HIV/AIDS Care

Besides reducing the numbers of women who are contracting HIV, we have a pressing ethical mandate to redirect the emphasis of HIV/AIDS clinics, treatments, and programs so that they accommodate the needs of women. In the U.S., disparities between the sexes in quality of care at HIV clinics continue to exist [27]. Antiretroviral therapy was diffused more slowly to women in the late 1990s, and women with HIV continue to be less likely to have access to care and to receive antiretroviral therapies [28, 29]. We have a duty to create and design clinical environments where all women with HIV feel comfortable and welcome—both in the U.S. and abroad.

In particular, U.S. physicians must reach out to minority women who are already affected by gaping disparities in health care. Poor African American women in the South are particularly at risk [30]. We must also make a special effort to care for immigrant women, including Latinas, who are at a greater risk for HIV infection and

who, upon infection, exhibit higher levels of stress, depression, and substance abuse [31].

Our Responsibilities as Medical Professionals in Addressing this Crisis

First and foremost, we must educate ourselves. Our professional duty to improve the health of our patients requires that we understand the complex social determinants that currently fuel HIV/AIDS risks among women.

Second, we must move beyond a traditional "medical" approach to embrace a broader "social" model for HIV prevention and care [2, 32]. As stewards for local and global health, we have an ethical responsibility to lead a call for attacking the social determinants that place women at greater risk for HIV. Physicians should work to improve educational opportunities for girls, expand sex education programs, and advocate for and support programs that reduce economic and social gender-based inequities around the world.

Third, we must ensure that HIV/AIDS care in our clinics is sensitive to the differences—physical, psychological, and social, between men and women. Not only must we provide more options for and access to women-controlled protection against HIV transmission, but women with HIV/AIDS should be able to find friendly and culturally sensitive health care environments in our offices, clinics, and hospitals.

Finally, physicians should both call for and participate in research to better define the social determinants of HIV risk among women and to delineate innovative interventions that can address the social inequities which sustain the AIDS epidemic.

In sum, physicians should understand that social inequalities have led to a sex- and gender-based "fault line" in power and social status, resulting in disparities in HIV/AIDS infection and treatment among women. As HIV/AIDS continues to affect increasing numbers of women, gender-specific strategies aimed at redefining social norms have the potential to empower women, leading to better health for them and their families. As world-renowned AIDS advocate Dr. Jonathan Mann once said, we must place ourselves "squarely on the side of those who intervene in the present, [so that] the future can be different" [33].

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