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An early warning sign: sexually transmissible infections among young African American women and the need for preemptive, combination HIV prevention

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In the USA, an estimated one-in-two adolescent African American women have a sexually transmissible infection (STI).[1] In addition, African American women have the second highest rates of HIV infection of any race/ethnic and gender group, and 13–29-year-old women have the highest proportion of new HIV infections compared with all other age groups.[2] These findings represent a 'syndemic' for young African American women, where the STI and HIV epidemics are 'interacting synergistically to contribute to excess burden of disease'.[3]

For young African American women, the disproportionately high STI prevalence along with behavioural, biological and social circumstances signals the potential for the HIV epidemic to become more entrenched by creating an effective and efficient pathway for sexual transmission of HIV. First, due to higher STI prevalence rates within African American sexual networks, young African American women are at increased risk for STIs and HIV.[4] Second, the presence of certain STIs can increase the likelihood of HIV transmission by two- to five-fold.[5,6] Third, adolescent women often have older male sexual partners,[7] which can set up a link from a higher HIV prevalence network of older men to a relatively low prevalence network of adolescent women.[8] Fourth, the increased biological efficiency of HIV transmission from male to female in heterosexual intercourse[9] and the increased physiological susceptibility to HIV infection of young women because their cervical cells are more easily traumatised compared with older women[10] further intensify these high-to-low-prevalence transmission dynamics. When these factors are embedded in a larger context of high HIV prevalence, a move from a concentrated to a generalised HIV epidemic becomes possible. As seen in Washington D.C., high rates of incident HIV cases among women coincided with heterosexual sex as the primary transmission mode.[11]

We need to heed the early warning signs of this 'canary in the coal mine'. The STI rates among young African American women represent a window into where the HIV epidemic may be moving. We have an opportunity to intervene early in the epidemic trajectory; however, it is important that we develop, implement, and fund new and existing prevention for young African American women and their sexual partners that is proactive, integrated and comprehensive.

Many have called for 'combination HIV/AIDS prevention' that integrates biomedical, behavioural and structural elements of prevention.[12] Combination prevention should also include prevention efforts at each stage in the risk behaviour trajectory: pre-risk, initiation of risk and on-going high risk. Current HIV prevention efforts overwhelmingly target the high-risk phase with people who are already HIV-positive or, if uninfected, already engaged in high-risk behaviours.[13] To complement these efforts, we should include prevention that targets the pre-risk phase – before risk behaviours begin, rather than waiting until risk behaviours become entrenched and difficult to change.[14]

What might a comprehensive approach to sexual health look like for young African American women? First, young women are primarily infected with HIV through heterosexual contact.[2] We must work at both sides of the transmission equation and include men in prevention efforts, for their own prevention and as partners in reducing young women's risk. We need to better tailor prevention and clinical services to the needs of young men, particularly young African American men, in order to draw in this often hard-to-reach population. In addition, we need to address the sometimes power-based heterosexual relationships that can put both young women and men at risk.[15] We need to improve efforts to unite young African American men and women as partners in each other's sexual health, while also continuing to learn from and empower women who are not able to successfully engage their male partners, particularly those with older partners.

Second, with a pre-risk approach, we have the potential to raise an HIV-free generation – to stop the evolution of new cohorts at risk for and infected with HIV. We can help youth develop skills they need to avoid sexual risk over the course of their lives. Parents, guardians and families are key partners in this endeavour. They are in a unique position to provide children with early, continuous sexual health guidance throughout their sexual development, and parenting programs can support these efforts.[16]

At this formative life stage, we can work with community leaders, parents, and teachers to promote attitudes about gender, race and sexuality that support positive, healthy sexuality. For instance, we can help support models of dating relationships that are based on mutual respect and responsibility rather than

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stereotypes such as the sexual double standard. Such gendered ideologies cannot only reduce female sexual autonomy, they can stigmatise gay youth and promote sexual risk among young men.[15,17] Furthermore, sexual health screenings for both male and female youth can be encouraged, so screenings become a normal part of healthy sexuality rather than stigmatising and shameful.[18] There is also an opportunity for public health to reverse the breaches of trust in African American communities[19,20] and for youth around sexual health services. This will require that African American youth and their families have access to respectful, ethical, quality sexual health services.[18]

Third, there is a movement in HIV prevention to address the social determinants of sexual risk.[21,22] For young African American women and their partners, the gender, racial and often economic disadvantage frame, in part, the social context for heterosexual behaviours. We need to identify how larger social systems of inequality enter into the dynamics of heterosexual interactions. For example, theories from sociology that explain the effects of broader social power on personal interactions can be used to explore how gender inequality affects sexual interactions.[23] It is at these points of intersection between social structure and individual behaviour where we may have promising opportunities to significantly reduce HIV transmission.

Although there are several effective programs designed to raise women's risk awareness, condom empowerment and condom negotiation skills,[13] the field lags in strategies to reduce structural barriers to safe and healthy sexuality. Sexual risk reduction programs can be combined with interventions that support youth with a general sense of social empowerment outside the realm of sexuality through career planning, job training and future life orientation.[24] By embracing the strength of the intergenerational African American culture, social empowerment programs can use mentoring to help build community structures that support risk reduction. In addition, microfinance strategies have been underutilised in the USA and pose a potential new direction for HIV prevention research.[25] Such programs can support networks between African American women and nourish the creativity, faith, strength and resiliency that have helped sustain African American women in the face of social inequalities.

Fourth, to combat the synergistic effects of HIV and STIs, we need to integrate prevention programs with medical screenings and services, across diseases.[26] Currently, efforts often reflect the disease-specific, silo structure of funding and public health institutions, and either/or tension between biomedical and social science prevention strategies. This limits our ability to address the interdependent relationships between the biological, emotional, social and structural aspects of sexuality and disease. This is particularly important for the most high-risk populations and individuals. For instance, there is an opportunity for medical providers to engage clients in discussion about overall sexual health at the time of an STI test – moments when the potential unintended outcomes of unprotected sex are particularly salient. Through collaborations with health departments and community-based-organisations, clinicians can provide clients with seamless linkages to intensive social and behavioural prevention strategies at multiple social levels. For example, as an enhancement to patient-delivered partner treatment and partner referral treatment strategies, such prevention efforts would attempt to involve both partners, either as a couple or separately. It would also include a needs assessment and follow-up prevention efforts to identify and address social factors that may impact sexual behaviour, such as housing, employment, child care, drug addiction, mental health and domestic violence.

In sum, the challenges in mounting a combination prevention campaign against the 'perfect storm' of STIs and HIV/AIDS among young African American women are difficult, but we are more likely to be successful if we take comprehensive, proactive action now. Efforts should include male and female African American youth, at the biomedical, individual, interpersonal and social levels, and should include pre-risk prevention and prevention for higher-risk phases in the sexual trajectory. To meet this challenge, as public health researchers, providers and agencies we need to train and collaborate across diseases and disciplines and continue to open up public health to the vast knowledge from social science fields. It will then be necessary to translate this interdisciplinary, holistic approach into practice to create effective and efficient interagency, family and community networks that can link multiple social and medical services. We need to include prevention approaches that tackle the negative effects of economic, racial and gender inequality on basic rights such as housing, safety, education, health, and justice. In short, the STI and HIV/AIDS syndemic among young African American women reflects the interdependent complexities of their biological and social lives, and efforts to reverse this tide require an equal and opposite synergistic response.

Conflicts of interest

None declared.

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