The Next Tsunami? HIV Spread in Asian Men Who Have Sex With Men

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(See the Major Article by Yang et al on pages 1753–9.)

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Over the past few years, human immunodeficiency virus (HIV) incidence has appreciably decreased in several countries [1]. However, in many parts of the world, HIV is spreading increasing rapidly among men who have sex with men (MSM) [2]. This trend of the epidemic becoming increasingly concentrated among MSM has been particularly marked in several urban epicenters throughout Asia in recent years, and in the current issue of Clinical Infectious Diseases, Yang et al describe a worsening epidemic of HIV and syphilis among MSM in 2 cities in Jiangsu Province in eastern China [3]. The authors found that HIV prevalence initially ranged between 13.6% and 16%, with syphilis prevalence ranging between 14.9% and 29.9%, but subsequent annualized HIV incidence was > 12.5%. These rates are extremely high, and portend a worsening HIV/AIDS epidemic among Chinese MSM. Similar findings have been noted in several other recent studies from China [4–9] and nearby countries [10, 11], and contribute to a growing worrisome body of literature suggesting that AIDS in Asia is disproportionately becoming an MSM epidemic. The rapid spread of HIV among Asian MSM is particularly concerning because the majority of the world’s population lives in Asia, with an increasing number of individuals living in urban epicenters. Some MSM have female, as well as male partners, and/or inject drugs, so transmission outside their core group is highly likely. The potential for amplified transmission in these densely populated megacities can greatly erode the encouraging trends seen in the other parts of the world.

Why is this happening? Recent work has suggested that the HIV epidemic in MSM has multifactorial causes [12, 13]. Individual behavior remains relevant, as the more partners that an individual has over time, the increased likelihood of HIV acquisition; but other factors are also involved. Specific biological factors that potentiate HIV spread are unique among MSM, particularly anal intercourse, which increases susceptibility to HIV and other sexually transmitted infections, and role versatility—that is, an anal-receptive partner who becomes readily infected with HIV can subsequently be the insertive partner and be more efficient in transmitting HIV to new partners who are receptive. In addition, MSM may be part of specific sexual networks that can potentiate HIV spread. As the prevalence of HIV increases in a specific population, it is much easier to become infected with any new partner. This is particularly true in socially marginalized populations such as MSM and those who are poorer, given decreased social mobility and increased likelihood of choosing partners from an area with a high-HIV-prevalence pool. MSM may also frequent unique sexualized venues that may contribute to HIV transmission, such as bathhouses and saunas, as well as the increasing array of opportunities on social media to meet new partners rapidly [14–16]. Sexualized venues may increase the likelihood that individuals are exposed to partners with acute HIV infection, who may be particularly infectious, and this may potentiate the further spread of epidemics. Recently there also has been attention paid to the fact that societal rejection of homosexuality may result in internalized homophobia, a negative affective state that may be self-medicated with recreational drugs [17, 18]. Data suggest that bullying and other adverse experiences with heterosexuals may lead to early developmental stress, depression, lack of self-efficacy, and subsequent risk-taking behaviors [19]. In many settings around the world, criminalization and discrimination in healthcare settings also impede HIV
disclosure and timely utilization of health services [20].

The factors that potentiate HIV spread among MSM may have particular import for the densely populated cities in Asia, where millions live in close proximity. For example, in a recent study from an HIV/STD clinic in downtown Bangkok, HIV prevalence between 2005 and 2011 increased from 24.6% to 29.4%, with HIV incidence increasing from 2.4% to 7.9% per year. At the same time, syphilis prevalence increased from 5.0% to 12.5%, and incidence increased from 0 to 7.1% per year [21]. Sexually transmitted infections may potentiate HIV transmission by increasing mucosal susceptibility in at-risk persons and increasing genital tract HIV RNA among HIV-infected persons, and also serve as markers for highly tract HIV RNA among HIV-infected per-at-risk persons and increasing genital prevalence increased from 5.0% to 12.5%, with HIV prevalence between 2005 and 2011 HIV/STD clinic in downtown Bangkok, For example, in a recent study from an where millions live in close proximity. approaches by public health and clinical ex-


Notes

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References


