



Published in final edited form as:

Sex Transm Dis. 2010 April ; 37(4): 214–216. doi:10.1097/OLQ.0b013e3181d13d2b.

HIV and Syphilis Among Men Who Have Sex With Men in China: The Time to Act is Now

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Since the first case of human immunodeficiency virus (HIV) among Chinese men who have sex with men (MSM) was discovered in 1989 in Beijing,¹ a growing body of research has documented substantial and expanding epidemics of sexually transmitted diseases (STDs) and HIV within this group. In this issue of the journal, Xu et al report a disturbingly high incidence of HIV and syphilis infections among a 12-month MSM cohort in northern China.² Their results are consistent with findings observed from other urban Chinese studies of MSM.^{3,4}

Estimates of the total number of MSM in China vary widely, ranging from 2 to 10 million.⁵⁻⁶ While MSM account for 2% to 4% of the Chinese adult male population,⁷ they comprise an estimated 12.2% of all new HIV cases in 2007.⁸ Fewer than 15% of all Chinese MSM are covered by current health surveillance and education outreach efforts.⁴ Although disease monitoring has improved in the last 10 years, routine surveillance of MSM remains incomplete. A large population with high incidence of syphilis and HIV in the setting of limited clinic-based health services may fuel continued disease transmission within and beyond China's MSM population.

As Xu et al demonstrate using a prospective cohort study design (current issue),² HIV and other sexually transmitted infections, especially syphilis, are spreading quickly among Chinese MSM. Coinfection with HIV and other STDs has also been documented in this population. In a Beijing study of 753 MSM recruited from a voluntary counseling and testing clinic, 94% of those with HIV infection also had one or more STD.⁹ Syphilis has been shown to increase the risk of HIV acquisition¹⁰ and transmission.¹¹ This lethal synergy was also found in the study by Xu et al in which MSM with syphilis infection were 11.4 times more likely to HIV seroconvert during the 12-month study period.² Although several other Chinese studies have measured syphilis and HIV prevalence among MSM, a recent meta-analysis suggests that coinfection studies are limited.¹² This is a missed opportunity to gather critical information to improve efficiency of screening and prevention.

Sexual risk behaviors and dense sexual networks coupled with low condom use are driving these high transmission rates among MSM. A 2006 review of published HIV/STD studies

among MSM in China (1990–2004) showed a low self-perceived risk for HIV/AIDS despite high prevalence of risk behaviors such as unprotected vaginal, anal and oral sex with men and women, casual sex, and commercial sex.⁶ The extent of injection drug use has not been assessed among the Chinese MSM community, however, small studies suggest that some MSM sell sex for drugs^{13,14} and other MSM increasingly use club drugs.¹⁵

Numerous studies from diverse geographic locations report high numbers of sex partners among some MSM and associations between number of partners and HIV/STD status.^{16–19} For example, in a Beijing study of 753 MSM, those who had 10 or more lifetime sex partners were significantly more likely to be HIV-positive.⁹ Similar to other Asian and Southeast Asian MSM groups, MSM in China often have both male and female sex partners.^{9–18} MSM also face considerable pressure from their families and society to marry and have a child.^{20–23} Because of the one-child policy enacted in 1979, many MSM are only-children and thus responsible for continuing the family line. A review of HIV/STD risk behaviors among MSM found that approximately one-third of all MSM reported being married,⁶ but this likely underestimates the true extent of married MSM in China since there is underreporting of MSM behaviors among married individuals. Wives are often unaware of their husbands' same-sex behaviors.^{22,23} Hence, HIV among MSM may spread not only to homosexual partners, but also to their wives and girlfriends. This phenomenon could play an important role in the heterosexual transmission of HIV infection in China.

Furthermore, Western categories for defining sexual identity may not appropriately or sufficiently fit the Chinese context. For example, although a man participates in same-sex behaviors, he may not necessarily self-identify as “gay,” “bisexual,” or “MSM,” complicating community and clinic-based interventions that target these groups. In addition, the commercial sex industry for MSM is comprised of numerous subgroups of men who sell sex to men, (called “money boys” or “MB”), and men who cross-dress or undergo various levels of gender reassignment surgery (unpublished data). As in other Asian and Southeast Asian contexts, these subgroups have their own range of self-identities and varying HIV/STD risk behaviors (UNAIDS, 2009).²⁴

Access to HIV/STD testing among MSM is a significant issue, especially since many MSM do not consider themselves at risk for HIV infection. HIV test uptake among MSM remains low.⁶ A Sichuan study of 576 MSM found that 93% of men believed that there was no or little possibility that they could get HIV.²⁵ Inquiring about anal sex and other MSM behaviors remains an uncommon practice in many Chinese STD clinics (unpublished data), increasing the need for improved sexual health services for MSM. In addition to the current HIV surveillance system's inefficiency in capturing data on the MSM population, the division of the HIV and STD surveillance systems in China presents an additional barrier, and missed opportunities for comprehensive screening.⁵

Some of the reported increases in prevalence may be an artifact of improved case-finding or the result of venue-based testing that leads to overrepresentation of disease (e.g., recruitment through STD clinics, bars, bathhouses, saunas). However, incidence studies such as Xu et al still show a high level of transmission in a closed cohort happening over a short period of time.² In addition, cross-sectional studies with consistent sampling strategies show annual increases in HIV/STD prevalence,^{26–28} and a growing number of well-designed, respondent-driven sampling studies control for venue-based sampling biases.^{26–27,29} Furthermore, even if current studies are overrepresenting high-risk subgroups within the MSM population, frequent partner changing and concurrent partners could connect “high” and “low” risk partners within the broader Chinese MSM network. Several small sexual network studies have been done in China already,^{30,31} but further empirical work is needed to better understand the social and sexual relationships of MSM in China.

In recent years, the MSM population has become a priority population for HIV prevention and control for the Chinese government. Increases in national and international funding and a strong government commitment to focus on MSM are promising,^{5,24} but the efforts seem insufficient to stop the high incidence of HIV and syphilis as shown in the Xu et al study² and similar studies³ in other areas in China. MSM peer networks and social ties are powerful, and may be utilized in HIV/STD programs. Internet sites, hotlines, and MSM-interest magazines link individuals across the country and MSM-focused NGOs make up a large portion of all existing NGOs. Programs should consider how to use existing MSM social networks in smart and sensitive ways. The internet is an entry point into the gay community for many Chinese MSM, a regular tool for finding commercial and noncommercial partners, and a resource for information (of varying quality) about sexuality and health. The continued incorporation of internet and cell phone technology is essential for MSM-focused programs. Since China's civil society is still emergent, the same NGO-focused community empowerment model that has been successful in other regions³² may be limited in the Chinese context. Although Chinese MSM nongovernmental organizations have been crucial in helping to organize HIV and syphilis studies,⁵ disappointingly few NGOs have focused on HIV/STD prevention as their primary goal.

Analysis of syphilis and HIV among MSM in China by Xu et al² highlights the need for comprehensive MSM programs in China. Especially in light of the social factors related to stigma and sexual identity, creative ways to overcome these challenges are needed. Interventions and high quality sexual health services will be essential for responding to China's growing sexual HIV epidemic. STD services should be integrated with the planning and implementation of ongoing HIV programs for MSM in China in terms of testing, counseling, and interventions. STD clinics for MSM may be an entry point to encourage their clients to accept HIV counseling and testing, and interventions.

Acknowledgments

Supported by the Mega Project of China National Science Research for the 11th Five-Year Plan, 2008ZX10001-005 (to B.X.W.); NIH/NRSA predoctoral training grant (to K.E.M.), NIH Fogarty Institute the Harvard Initiative for Global Health, and the American Society for Tropical Medicine and Hygiene (to J.D.T.).

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