Control of HIV for Men Who Have Sex With Men in China: A Role for the Internet?

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With the advent of antiretroviral therapy for human immunodeficiency virus (HIV)/AIDS, a dramatic decrease in mortality has occurred worldwide. In China and much of Southeast Asia, however, the HIV infection rate has not been reduced for men who have sex with men (MSM) and, in fact, may be increasing. Established cultural barriers and stigma attached to HIV/AIDS have hampered evidence-based studies for prevention and effective interventions for MSM. Shen et al showed that at the time of HIV diagnosis, a large proportion of HIV-infected patients in China had an initial CD4 cell count that was consistent with relatively advanced disease [1]. Late diagnosis of HIV was associated with male sex, younger age, route of HIV transmission, and geographical area.

In this issue of Clinical Infectious Diseases, 2 studies supported by both the Chinese and US governments document that use of the Internet may be one of many approaches for compiling data that could be applied for developing prevention and interventions for HIV among MSM [2, 3]. These 2 studies provide an evidence-based approach for evaluating individual interventions among MSM, especially those who are relatively young.

The study by Mi et al shows that the MSM population is migrating to the most populous Chinese cities, a phenomenon previously seen in the United States and Europe. Of the MSM population, 34.5% were migrants, and most of them originated from southwestern China. Compared to eastern China, southwestern China is relatively underdeveloped as defined by economic parameters. It is also the most populous origin of migrating individuals. In essence, people in the west of China, especially in the countryside, prefer to work in eastern China, which has a higher level of educational attainment and a more robust economy. A notable number of rural Chinese residents, including MSM, are migrating to coastal cities. The basis for this migration of MSM is likely anonymity, with concomitantly lower levels of stigma and possibly superior care from more experienced clinicians in eastern China.

These findings have implications for the spread of the HIV epidemic as well as HIV care in China. Comprehensive health education should include discouraging stigma and discrimination against HIV-infected individuals. One limitation of the Mi et al study is that MSM and HIV-infected individuals often work in one city but receive their HIV testing in another. Other limitations include the fact that the results were compiled from only 1 website. Individuals from different educational and economic backgrounds will have markedly different access to the Internet, so the conclusions may not be generalizable. Finally, self-reporting responses may contain inaccurate and biased information.

Tang and colleagues showed that a crowdsourcing approach could improve HIV-testing messaging campaigns and increase community engagement in health campaigns. The basis for this approach is a “Wisdom of Crowds” approach [4]. A noninferiority randomized controlled trial compared first-time HIV testing rates among MSM and transgender individuals using crowdsourcing vs a health marketing HIV-testing promotion video. Crowdsourcing could promote HIV testing for difficult-to-reach populations. This can be a cost-saving approach for HIV-testing promotion campaigns targeted at MSM. Given the vast population of China and a disease that is contagious and potentially lethal, any innovative idea should be considered.

Major limitations of the Tang et al study exist. The prespecified noninferiority criteria were not met in this study, so the findings should be interpreted with caution. The authors selected 1 MSM Web portal each from the northern, southern, and eastern regions of China. These 3 portals may not be representative of the usage for the larger MSM population in China. The use of the Internet was likely variable among different individuals, possibly resulting in bias.

In summary, HIV is a major public health threat in China and Southeast Asia. The dominant MSM migration in China...
from the west (with high HIV prevalence) to the east (with low HIV prevalence) is a challenge for HIV control and prevention in China. Crowdsourcing may be an effective tool for expanding HIV testing in high-risk individuals, especially MSM, and could increase community engagement in health campaigns. Testing for individuals at risk for HIV among the Chinese population would be beneficial for all of Southeast Asia. Performing Web-based randomized controlled trials assessing HIV control among the MSM population appears to be a particularly useful and pragmatic approach.

Note

Potential conflicts of interest. All authors: No reported conflicts. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

References