

Survey investigating homosexual behaviour among adult males used to estimate the prevalence of HIV and AIDS among men who have sex with men in Japan

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Abstract. *Background:* This study investigated the prevalence of male homosexual behaviour among adult men and of HIV and AIDS among men who have sex with men (MSM) and non-MSM in Japan. *Methods:* An anonymous self-administered postal questionnaire, and national HIV and AIDS notifications. *Results:* Same-sex sexual experience was reported by 2.0% of respondents. The prevalence of HIV and AIDS was 0.8818% among MSM and 0.0130% among non-MSM, indicating that HIV and AIDS are 68 times more prevalent among MSM. *Conclusion:* Our findings underestimate homosexual and HIV prevalence due to several methodological limitations. The high prevalence of HIV and AIDS among MSM in comparison with non-MSM indicates the urgent need to prioritise funding and programs targeting MSM in Japan.

Additional keywords: Asia, questionnaire, same-sex attraction.

Introduction

This study estimated the prevalence of homosexual activity among a general population sample of adult men in Japan to calculate the prevalence of HIV and AIDS among men who have sex with men (MSM) and non-MSM.

Methods

To estimate the prevalence of male homosexual behaviour, a two-stage stratified sample household survey investigating same-sex sexual experience was conducted among Japanese men aged 20 to 59 in February and March 2009. Surveys were sent to 3700 national census participants (sampling rate: 1.19%) in a master sample held by Central Research Services. Ethical approval was obtained from the Nagoya City University School of Nursing Research Ethics Committee. The anonymous self-administered questionnaire asked demographic characteristics, heterosexual and homosexual sexual attraction, and sexual experience. Follow-up reminder postcards were sent to non-responders, with responses received from 1659 respondents, indicating a response rate of 44.8%.

Results

The average age of respondents was 45.7 years (mean 45.9 years). An average of 2.0% (95% confidence interval (CI): 1.32–2.66%) of respondents reported homosexual or

bisexual sexual experience, with minor regional variations observed (1.1% to 3.0%).

Applying the 2.0% homosexual experience to Japanese HIV and AIDS surveillance data, we calculated the prevalence of HIV and AIDS among MSM and non-MSM (Table 1). The national HIV prevalence (excluding AIDS) among adult Japanese MSM was calculated to be 0.6929% and 0.0072% among non-MSM. The national AIDS prevalence (excluding HIV) among adult Japanese MSM was calculated to be 0.1889% and 0.0058% among non-MSM. Thus, the prevalence of HIV and AIDS among adult Japanese MSM is calculated to be 0.8818% and 0.013% among non-MSM, indicating that HIV and AIDS infection among adult Japanese MSM is 68 times that of non-MSM in Japan.

Discussion

This study's finding that 2.0% of adult men have had lifetime homosexual sexual experience is higher than a national representative survey conducted in 1999, which found that 1.2% of males aged 18 to 59 years old had experienced same-sex sexual contact or sexual intercourse.¹ Our findings are lower than Asian representative sample reports of 2.2% and 4.6% in China and Hong Kong respectively.^{2,3}

Several factors may account for why the Japanese male homosexual experience rate is relatively low when compared with international data. We believe that the disproportionately low number of younger men in the master sample and the low

Table 1. Male homosexual prevalence used to calculate the prevalence of HIV and AIDS among men who have sex with men (MSM) and non-MSM in Japan

	MSM ^A		Non-MSM ^B		Ratio
	Population/ Reports/ Prevalence	95% confidence interval	Population/ Reports/ Prevalence	95% confidence interval	
Male population aged 20–59	682 801	450 648–908 125	33 457 236	33 231 912–33 689 389	
HIV infection reports to 2008 (excluding AIDS) males aged 20–59 ^C (<i>n</i>)	4731		2416		
AIDS reports to 2008 (excluding AIDS) males aged 20–59 ^C (<i>n</i>)	1290		1930		
HIV prevalence estimate (%)	0.6929	0.5210–1.0498	0.0072	0.0072–0.0073	96.24
AIDS prevalence estimate (%)	0.1889	0.1421–0.2863	0.0058	0.0057–0.0058	32.57
HIV and AIDS prevalence estimate (%)	0.8818	0.6630–1.3361	0.0130	0.0129–0.0131	67.83

^ACalculated using this study's finding of 2% homosexual sexual behaviour applied to 2005 census data.

^BCalculated from 2005 census data minus MSM.

^C2008 AIDS Surveillance Committee data.

rate of responses from men in their 20s (response rate 6.8%) are methodological issues that have contributed to the low rate of homosexual experience findings.

The MSM reports in national AIDS surveillance data are also affected by low rates of HIV testing rates among MSM in Japan,⁴ and hesitancy in reporting homosexual transmission to medical staff, and thus the actual prevalence among MSM could be higher than the results reported here due to the lack of adjustment between the survey's findings and surveillance data. We also acknowledge the under-reporting of MSM concentrated in urban areas. Homosexual population studies indicate higher concentrations of men reporting homosexuality in specific metropolitan, suburban and rural areas,^{5–7} and this survey was not able to adjust for these regional proportional differences.

Conclusion

Methodological factors may partially account for why Japanese homosexual experience reports are low by international standards. Although crude, the HIV prevalence estimations show there is a disproportionate burden of HIV infections among MSM. Increasing HIV infection rates and high HIV prevalence among MSM indicate there is an urgent need to prioritise funding and programs targeting MSM in Japan.

Conflicts of interest

None declared.

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