

## ASSOCIATIONS WITH HEPATITIS C VIRUS INFECTION AMONG MEN WHO HAVE SEX WITH MEN IN VIETNAM

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**Background:** Our aim was to determine the prevalence of hepatitis B virus (HBV) and hepatitis C virus (HCV) and factors associated with HCV among men who have sex with men (MSM) in southern Vietnam.

**Methods:** Data and stored serum specimens were used from a representative, cross-sectional, community-based, multi-province survey of 2,778 MSM in southern Vietnam during 2010-2012. Participant data included demographics, sexual and injecting drug use (IDU) risk behaviours, and access to health promotion programs. Specimens were tested for HIV, HBsAg, anti-HBc, and anti-HCV using enzyme-linked immunosorbent assay. Random-effects logistic regression models accounting for the intra-cluster correlation within a study province was used to examine correlates of anti-HCV.

**Results:** Serologic results were available for 1,718 (62.2%) participants in four provinces. Median age was 22 years; 76.4% reported their sexual identity as gay. The prevalence of HIV, anti-HCV, HBsAg, and anti-HBc detection among MSM were 1.9% (32/1,717), 8.1% (136/1,678), 12.5% (211/1,682), and 47.9% (807/1,686), respectively. In multivariate analysis, HIV infection (adjusted odds ratio [aOR]=23.25; 95% confidence interval [CI]: 9.88–54.72), ever injecting drug use (aOR=15.58; 95% CI: 6.84–35.51), gonorrhoea infection (aOR=2.72; 95% CI: 1.14–6.48), increasing age (aOR=1.03; 95% CI: 1.01–1.06), and being employed (aOR=3.49; 95% CI: 1.58–7.71) were independently associated with anti-HCV detection among MSM. MSM who used the internet to solicit homosexual partners had significantly lower odds of reactive anti-HCV than otherwise (aOR=0.27; 95% CI: 0.08–0.94).

**Conclusion:** Anti-HCV prevalence is substantially higher among MSM than among the general population in Vietnam and is strongly associated with HIV infection and IDU. Existing harm reduction interventions should be expanded for injecting MSM and all HIV-infected MSM presenting for HIV clinical services should be provided with routine HCV testing and prevention messages. The survey also suggests a need to improve HBV vaccination in this at-risk group.

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