

PREDICTORS OF HIV SEROCONVERSION AMONG YOUNG MEN WHO HAVE SEX WITH MEN

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Objective: To identify demographic and behavioural characteristics associated with HIV seroconversion.

Methods: Men aged 15 to 35 years were enrolled in a cohort study of MSM in the Greater Vancouver region. Eligible men completed a baseline and at least one follow-up questionnaire between May 1995 and September 2001. Men who were HIV-negative at baseline were followed prospectively to calculate the HIV incidence in the cohort. Time-dependent Cox proportional hazards regression was used to determine predictors of seroconversion.

Results: Thirty-six incident HIV cases were identified over the course of the study period, (HIV incidence 1.9/100 person-years). Men with at least a high school education (Risk Ratio (RR): 0.2), lived in stable housing (RR: 0.1) or were employed (RR: 0.2) were less likely to seroconvert. Men who were of Aboriginal ethnicity (RR: 2.7), had ever been in at psychiatric ward (RR: 6.9), a group home (RR: 6.7) or in prison (RR: 7.9) were at increased risk of seroconversion. Involvement in the sex trade was associated with a five-fold increase in the risk of seroconversion. Unprotected insertive (RR: 3.5) and receptive (RR: 5.1) anal sex with an HIV positive partner was associated with seroconversion. Injection drug use was associated with seroconversion (RR: 7.0). The use of marijuana (RR: 2.9), crystal methamphetamine (RR: 3.1), cocaine (RR:4.1), poppers (RR: 2.2), crack (RR: 6.5) and heroin (RR: 4.6) were all associated with seroconversion. Multivariate analysis revealed unprotected receptive anal intercourse with HIV-positive partners (Adjusted Risk Ratio (ARR): 6.5 and with casual partners regardless of serostatus (ARR: 4.9) to be independently associated with seroconversion. Further predictors of seroconversion were having ever been in prison (ARR: 6.0) or in a psychiatric ward (ARR: 3.8).

Conclusions: These data provide evidence that HIV prevention efforts should address issues related to mental and social stability in addition to serodiscordant relationships and unprotected sex in order to reduce the risk of seroconversion among young MSM.