

## SUBSTANCE USE TRENDS AMONG YOUNG MEN WHO HAVE SEX WITH MEN (MSM) IN VANCOUVER AND RELATION TO HIGH-RISK ANAL INTERCOURSE, 1997-2002

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**Background:** The Vanguard Project is an ongoing prospective study of HIV-1 seroincidence and risk behaviors among young MSM in Vancouver, British Columbia. Between 1997-2002, we observed an increase (11% to 16%,  $P=0.01$ ) in reported unprotected receptive anal intercourse (URAI) during the previous year with casual partners. Qualitative interviews linked recreational drug use with HIV-1 seroconversion.

**Objectives:** Assess recent trends in substance use among young MSM. Relate substance use and URAI with casual partners.

**Method:** Fixed cohort of HIV-negative MSM under age 35 followed annually and seen at least once in each of 1997-8, 1999-2000, and 2001-2. Odds ratios (OR) and calendar year trend tests were computed using generalized estimating equations to adjust for intra-subject correlation.

**Results:** Among 288 eligible participants having mean age  $29 \pm 3$  years, 87% were employed full-time, 76% were white, 8% Aboriginal; and 89% completed high school. During 1,394 study visits over an average 4.4 years follow-up between 1997-2002, significant overall increases were observed in the percentage of men reporting recent use of crystal methamphetamine (10% to 20%,  $P=0.0001$ ), ecstasy (17% to 28%,  $P<0.001$ ), and marijuana (53% to 59%,  $P=0.02$ ). Increased use of poppers was non-significant (26% to 31%,  $P=0.09$ ). No significant increase/decrease from 1997 levels of use of cocaine (22%), crack (4%), non-meth speed (6%), or heroin (4%) were observed. Use of acid decreased significantly (12% to 5%,  $P<0.001$ ). Controlling for calendar year of study visit, substances associated with URAI with casual partners included poppers (OR,2.3), acid (OR,2.4), crystal meth (OR,1.8), and marijuana (OR,1.6) (all  $P<0.01$ ); a borderline association with ecstasy was also observed (OR,1.5, $P=0.05$ ).

**Conclusions:** Temporal increases in use of crystal methamphetamine, ecstasy, and marijuana were reported by these young MSM; use of each substance was positively associated with URAI with casual partners.