

TRENDS IN AMPHETAMINE INJECTION AND PREDICTORS OF INITIATION AMONG PEOPLE WHO INJECT DRUGS IN MONTREAL, CANADA, 2011-2019

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Background:

Amphetamine injection is associated with syringe sharing and may increase HCV risk among people who inject drugs (PWID). In Canada, amphetamine use is expanding and injection in the context of sex between men ('chemsex') has garnered attention. Applying subcultural evolution theory, we estimated annual prevalence trends and gender-specific incidence of amphetamine injection among PWID in Montreal and assessed sexual identity as a risk factor for initiation.

Methods:

Data were from the HEPCO cohort (Montreal, Canada). Enrolment requires age ≥ 18 and past six-month drug injection. Participation involves three-monthly (HCV RNA-) or yearly (HCV RNA+) questionnaires. Self-identified gender, sexual identity (heterosexual vs. gay/bisexual), and amphetamine injection history were recorded at enrolment. Follow-up questionnaires captured past three-month amphetamine injection and covariates (other drug use; stability indicators, e.g. housing, incarceration, opioid agonist treatment).

Annual prevalence of amphetamine injection was estimated from the first questionnaire completed each year, and linear trends assessed via age-adjusted GEE analysis. Incidence was calculated among participants reporting no amphetamine injection for six months preceding enrolment, using the person-time method. Gender-stratified associations with sexual identity were estimated using Cox regression adjusted for age, lifetime amphetamine injection, and covariates with bivariate significance ($p < 0.10$).

Results:

807 participants (145 female; 106 gay/bisexual; median age 41) were enrolled between 2011-2019. Prevalence of amphetamine injection increased from 5.41% to 7.53% (mean linear increase: 0.48% per year, $p = 0.022$). Incidence was 3.80 per 100 person-years [95% CI: 3.04-4.68] among males ($n = 501$) and 3.00 [1.63-5.11] among females ($n = 100$). Gay/bisexual identity was associated with initiation in both genders, but estimates for females were imprecise (Adjusted Hazard Ratio, males: 2.20 [1.17-4.14], females: 2.33 [0.55-9.85]).

Conclusion:

Prevalence of amphetamine injection among PWID increased 0.48% annually from 2011-2019. Initiation was associated with gay/bisexual identity in both males and females. Future investigations might compare behavioral versus identity factors contributing to expanding amphetamine injection.

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