

# NOT IF, BUT WHERE: SOCIO-SPATIAL INJECTION CONTEXTS AND BINGE DRUG INJECTION IN A PROSPECTIVE COHORT OF PEOPLE WHO INJECT DRUGS IN MONTREAL, CANADA

Minoyan N<sup>1,2</sup>, Hoj S<sup>1</sup>, Artenie AA<sup>1,2</sup>, Jacka B<sup>1</sup>, Jutras-Aswad D<sup>1,3</sup>, Bruneau J<sup>1,4</sup>

<sup>1</sup>CHUM Research Centre, Montreal, Canada, <sup>2</sup>School of Public Health, Université de Montréal, Montreal, Canada; <sup>3</sup>Département of Psychiatry, Université de Montréal, Montreal, Canada; <sup>4</sup>Department of Family and Emergency Medicine, Université de Montréal, Montreal, Canada

## Background:

Micro-elimination of Hepatitis C virus requires halting transmission among key populations, including people who inject drugs (PWID). The marginalized nature of drug use may lead to concentration of high-risk behaviours, such as binge drug injecting, within certain social and geographic settings. We sought to examine the relationship between socio-spatial injection contexts and binge drug injection.

## Approach:

Data were drawn from a longitudinal cohort of PWID in Montreal (2011-2017). At tri-monthly follow-up visits, eligible participants provided sociodemographic and behavioural data, including detailed information regarding their latest injection episode with other people present (if applicable). Postcodes denoting past-month dwelling and injection episode locations were recorded. Socio-spatial injecting context was categorized as: 1) latest injection episode with others at dwelling; 2) latest injection episode with others elsewhere; 3) only injecting alone in the past month. Binge episodes were defined as having injected large quantities of drugs for a sustained period until no longer able to continue, in the past 3 months. Associations between socio-spatial context and binge injection were estimated using generalized estimating equations adjusted for age, gender, unstable housing, and recent incarceration.

## Outcomes:

670 individuals contributed 3976 visits. PWID who had last injected with others outside their dwelling were younger, more likely to be unstably housed, and to inject in public. 407 binge episodes were observed throughout follow-up. Traveling to inject with others was associated with 42% (aOR=1.42, 95%CI 1.04-1.93) and 67% (aOR=1.67, 95%CI 1.29-2.17) greater odds of binge, compared to injecting with others at home and injecting alone, respectively.

## Conclusion:

PWID who inject with others exhibit heightened risk of binge injection, with those traveling outside their dwellings at greatest risk. This suggests peer group norms and geographic spaces may shape drug use behaviors. Intervention strategies addressing upstream determinants of risk may complement largely individual micro-elimination strategies.

## Disclosure of interest statement

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