

## Correlations between injecting frequency and housing stability trajectories evolving concomitantly over one year: results from a cohort study of PWID in Montréal, Canada

Fortier E<sup>1,2</sup>, Sylvestre MP<sup>1,2</sup>, Artenie AA<sup>1,2</sup>, Jutras-Aswad D<sup>1,2</sup>, Roy É<sup>3,4</sup>, Grebely J<sup>5</sup>, Bruneau J<sup>1,2</sup>

<sup>1</sup>CHUM Research Centre, <sup>2</sup>Université de Montréal, <sup>3</sup>Université de Sherbrooke, <sup>4</sup>INSPQ, <sup>5</sup>Kirby Institute



### Disclosures

- This work was supported by the Canadian Institutes of Health Research (CIHR) and the Fonds de recherche du Québec – Santé (FRQS).
- None of the authors has commercial relationships that might pose a conflict of interest in connection with this work.



## Background / objectives

- Compared to stably housed PWID, unstably housed PWID are at higher risks of negative outcomes, including unsafe injecting and HCV.
- Unstable housing favours drug injecting initiation/relapse, while injecting hampers attainment of stable housing. The correlation between injecting frequency and housing stability over time remains poorly understood.
- Objectives: (1) to identify trajectories of injecting frequency and housing stability over 12 months among HCV-uninfected PWID; (2) to determine population estimates for all trajectories; (3) to evaluate how injecting frequency and housing stability trajectories correlate over time.

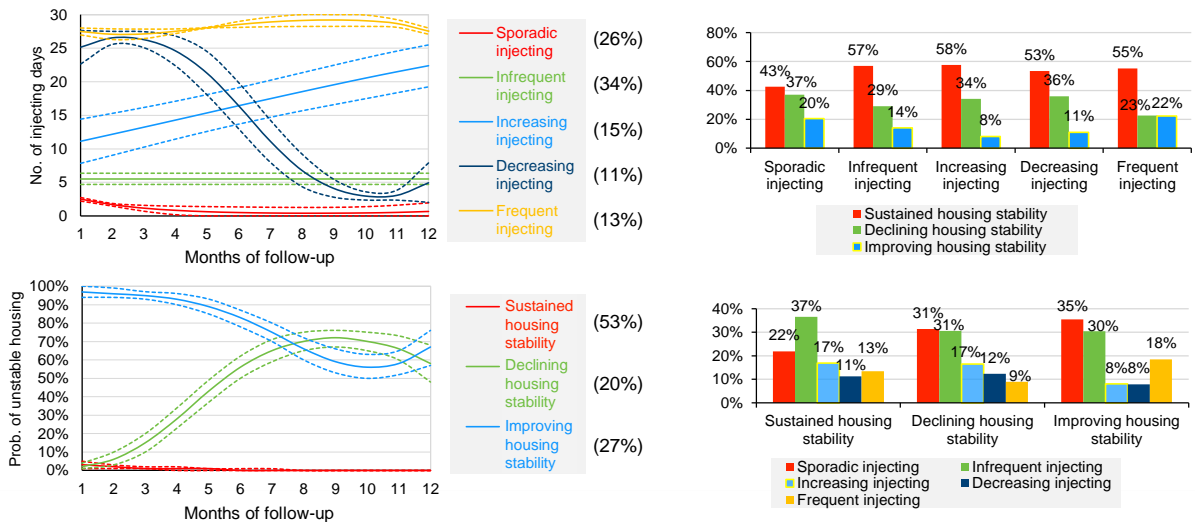
Neaigus et al. *AIDS Behav* 2014. Wagner et al. *AIDS Behav* 2013. Topp et al. *J Urban Health* 2013. Bruneau et al. *Am J Epi* 2012. Kim et al. *BMC Pub Health* 2009. Roy et al. *J Urban Health* 2003. Abelson et al. *Addiction* 2006. Neaigus et al. *J Acquir Immune Defic Syndr* 2006. Feng et al. *J Adolesc Health* 2013. Shah et al. *Drug Alcohol Depend* 2006. Mehta et al. *Addiction* 2012. Linton et al. *Drug Alcohol Depend* 2013. *Havinga Harm Reduct J* 2014. Roy et al. *BMC Pub Health* 2016.

## Methods

- Study design and participants:
  - HEPCO cohort: active PWID, follow-up x3 months
  - Inclusion criteria: enrolled from 2011-2016, HCV RNA– at ≥1 visit, observations gathered for ≥6 out of 12 months
- Variables of interest:
  - Injecting frequency: number of injecting days in each of the past 3 months (0-30 injecting days per month)
  - Housing stability: type of accommodation lived in the longest in each of the past 3 months (unstable / stable)
- Statistical analysis: group-based *dual* trajectory modelling (PROC TRAJ in SAS, developed by Nagin, Jones, et al.)

Nagin D. *Group-based modeling of development*, 2005: Harvard University Press.  
Jones et al. *Sociological Methods & Research* 2001 & 2007.

## Results (trajectories / conditional probabilities)



## Conclusions / implications

- PWID with stable injecting frequencies (*sporadic, infrequent, frequent injecting*) were more likely to improve housing stability compared to those with varying injecting frequencies (*increasing, decreasing injecting*).
- The association between frequent injecting and improving housing is novel, yet a better understanding of underlying mechanisms is needed.
- Findings are consistent with the evidence of a protective effect of stable housing on drug injecting frequency, and support interventions to improve housing stability among drug using populations.

# Acknowledgements

- **Julie Bruneau**  
**Jason Grebely**  
 Marie-Pierre Sylvestre  
 Andreea Adelina Artenie  
 Geng Zang  
 Didier Jutras-Aswad  
 Élise Roy  
 Nanor Minoyan  
 Brendan Jacka  
 Stine Høj  
 Iuliia Makarenko
- Scholarships / Awards  
 CIHR  
 Université de Montréal  
 INHSU 2018
- Financial support (HEPCO)  
 CIHR & FRQS
- HEPCO cohort study  
 Staff members  
**Participants**



*Email: [emmanuel.fortier@umontreal.ca](mailto:emmanuel.fortier@umontreal.ca)*