

High Prevalence of Assisted Injection Among Street-Involved Youth in a Canadian Setting

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Background

- Assisted injecting has been recognized as a social-structural risk factor for human immunodeficiency virus (HIV) transmission among adults who inject drugs.
- Vancouver’s supervised injection site is prohibited from allowing nurses or peers to administer drug injections to others. Consequently, those who are unable to inject themselves must seek assistance in other places.
- Previous research on assisted injection has focused almost exclusively on adults who inject drugs.
- We sought to identify the prevalence of assisted injection among street-involved youth in Vancouver and factors associated with this practice.

Methods

- Street-involved youth between the ages of 14 and 26 years were recruited into the At-Risk Youth Study through peer-based outreach and word-of-mouth.
- An interviewer-administered questionnaire elicited a range of demographic, behavioural, and health-related data.
- Youth who reported using injection drugs between June 2008 and November 2012 were included in the analysis.
- Assisted injecting was measured based on responses to the question “in the last 6 months, did someone help you inject?”
- Bivariate and multivariate generalized estimating equations were used to identify risk factors associated with receiving help injecting.

Results

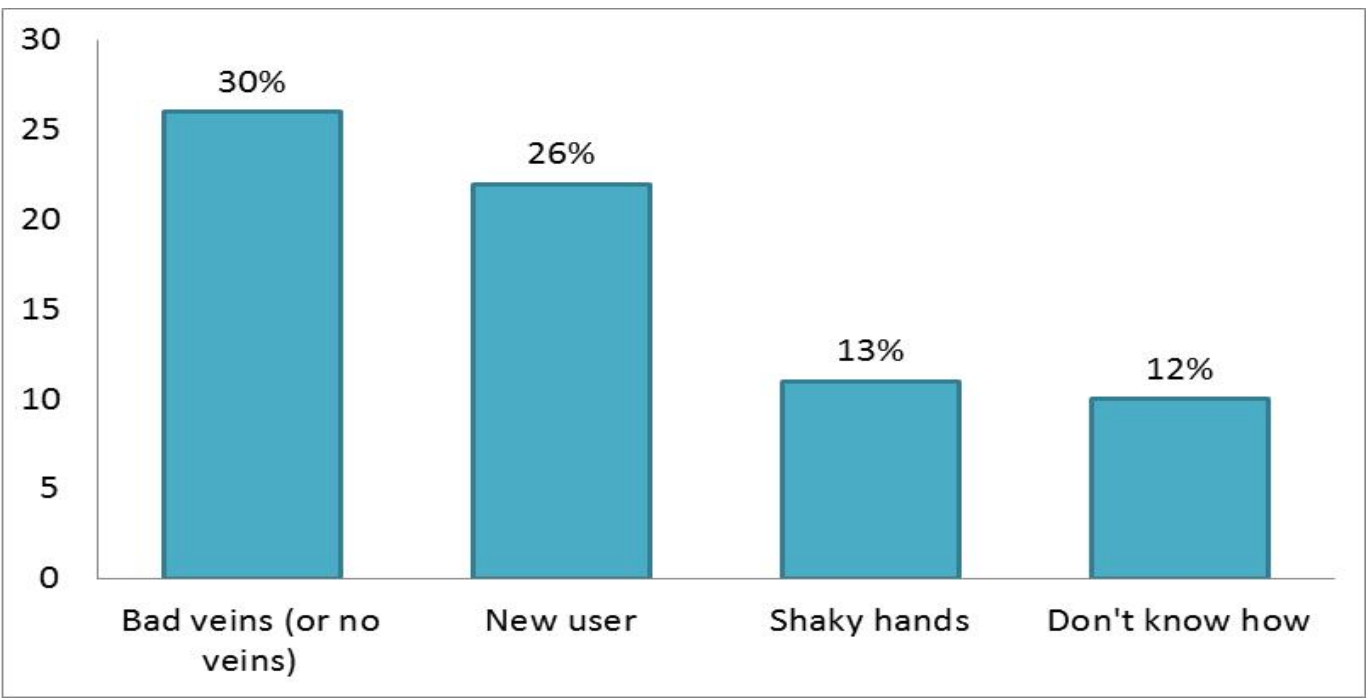
- In total, 253 youth who inject drugs participated in this study: 93 (37%) were female, and the median age was 23 years.
- A total of 125 (49%) youth reported receiving assistance injecting in the past 6 months.
- The study sample contributed 932 observations, of which 182 (20%) included a report of assisted injecting.
- The following variables were significant in the multivariate analysis: older age, female gender, binge drug use, heroin use, cocaine use, crystal meth use, and syringe sharing (Table 1).
- Results from the sub-analyses are presented in Figures 1 – 3.

Table 1: Bivariate and multivariate GEE analyses of factors associated with receiving assistance injecting (n = 253).

Characteristic	Unadjusted		Adjusted	
	Odds Ratio (95% CI)	p - value	Odds Ratio (95% CI)	p - value
Older age (yes vs. no)	0.88 (0.83 – 0.94)	<0.001	0.88 (0.82 – 0.96)	0.002
Female gender (yes vs. no)	1.64 (1.13 – 2.39)	0.010	2.26 (1.44 – 3.55)	<0.001
Caucasian ethnicity (yes vs. no)	1.03 (0.69 – 1.55)	0.871		
Homeless* (yes vs. no)	1.72 (1.22 – 2.44)	0.002		
Stable relationship† (yes vs. no)	1.23 (0.88 – 1.70)	0.221		
Binge drug use‡ (yes vs. no)	2.78 (2.02 – 3.84)	<0.001	2.05 (1.39 – 3.02)	<0.001
Any heroin use‡ (yes vs. no)	3.62 (2.45 – 5.37)	<0.001	2.13 (1.36 – 3.31)	0.001
Any cocaine use‡ (yes vs. no)	3.84 (2.55 – 5.79)	<0.001	2.18 (1.32 – 3.61)	0.002
Any crystal meth use‡ (yes vs. no)	3.21 (2.21 – 4.67)	<0.001	3.06 (1.96 – 4.75)	<0.001
Any crack cocaine use‡ (yes vs. no)	1.95 (1.40 – 2.72)	<0.001	1.51 (0.99 – 2.29)	0.055
Drug overdose* (yes vs. no)	1.60 (1.04 – 2.45)	0.031		
Syringe sharing* (yes vs. no)	3.39 (2.39 – 4.79)	<0.001	1.63 (1.06 – 2.52)	0.026
Incarceration* (yes vs. no)	1.26 (0.84 – 1.88)	0.258		
Sex trade* (yes vs. no)	2.45 (1.52 – 3.96)	<0.001		
Drug dealing* (yes vs. no)	1.88 (1.31 – 2.68)	0.001		

* Refers to activities, behaviours, and diagnoses in the past six months
† Refers to current relationship status
‡ Injection or non-injection use

Figure 1: Sub-analysis of reasons why youth receive help injecting (n = 86).



Discussion

- Assisted injecting is common among youth in our sample (49%), and much higher than rates of assisted injecting among adults who use drugs (23%).¹
- Consistent with studies of assisted injection among adult drug-using populations, youth who received help to inject in our study were more likely to female, report high intensity drug use and report syringe sharing.
- Given the established increased risks of HIV infection and other negative health outcomes including drug overdose with assisted injection, these findings highlight the urgent need for targeted interventions. Injection education, street-based outreach programs and injection support teams may help prevent assisted injection among this vulnerable group.

Figure 2: Sub-analysis of how often youth receive help injecting (n = 125).

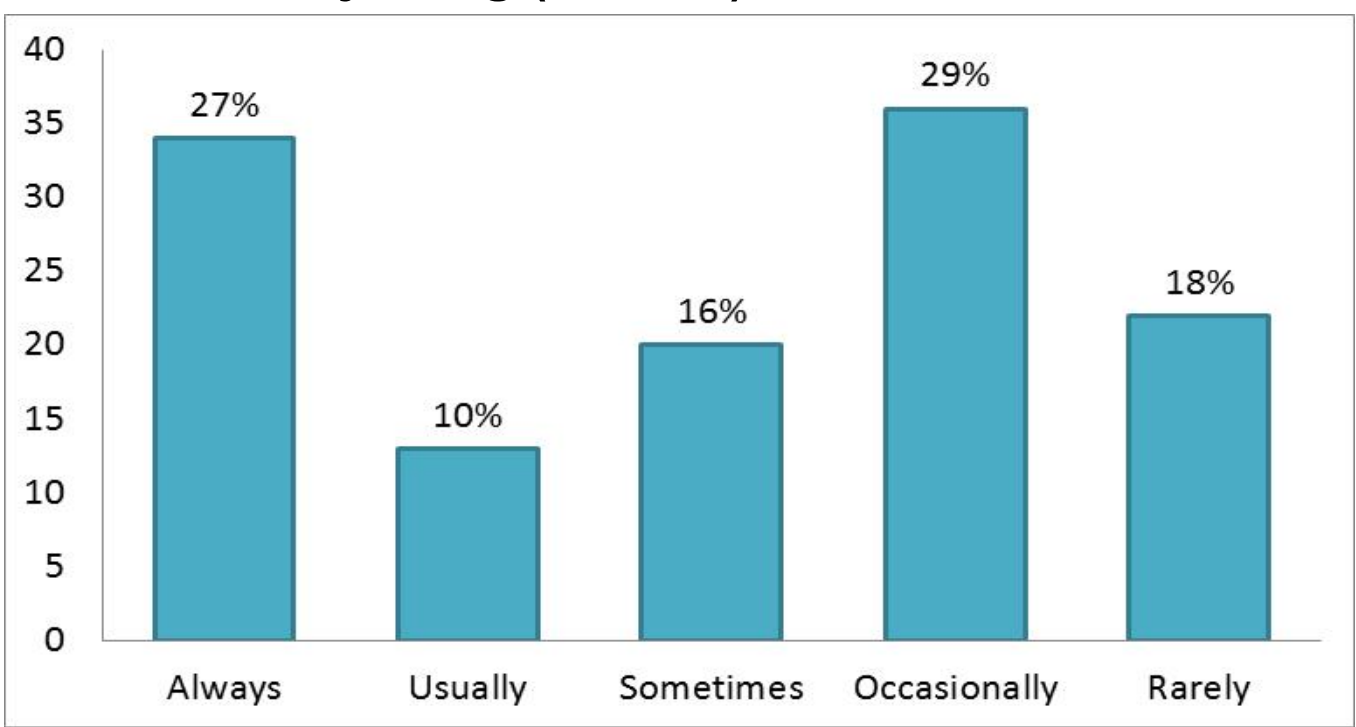
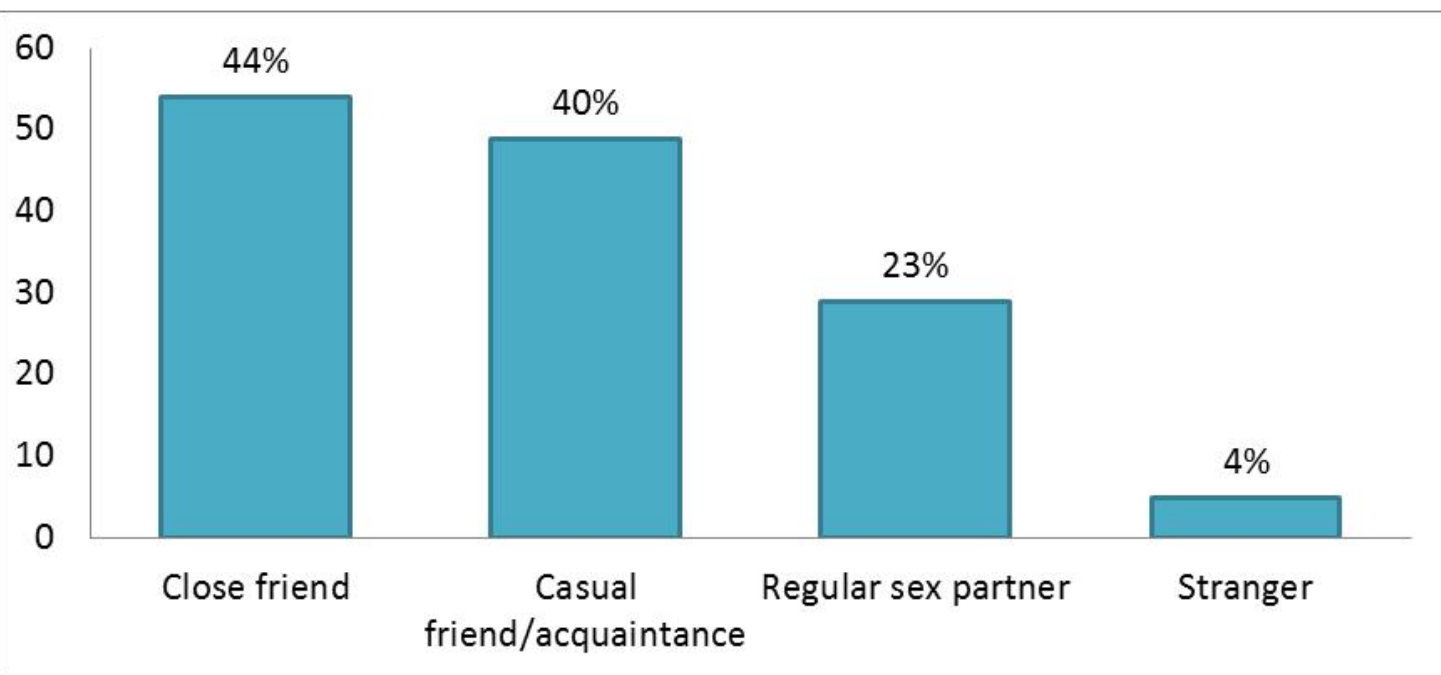


Figure 3: Sub-analysis of who assists youth with injections (n = 124).



Reference: ¹ Wood, Evan, et al. "Requiring help injecting as a risk factor for HIV infection in the Vancouver epidemic: implications for HIV prevention." *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique* (2003): 355-359.
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