



Burden of HIV Infection among Aboriginal People Who Inject Drugs in Ottawa's Central Core: Results from the PROUD Study



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BACKGROUND

Disproportionately high levels of HIV infection and injection drug use among Aboriginal people in Canada are distressing for many Aboriginal communities and AIDS service providers, yet factors that explain these elevated rates are poorly understood. Therefore, we sought to examine the rate of HIV infection and related vulnerabilities among Aboriginal and non-Aboriginal people who inject drugs (PWID) in downtown Ottawa.

STUDY DESCRIPTION

Grounded in a community-based participatory research (CBPR) framework, the PROUD Study is an on-going prospective cohort that aims to better understand the HIV risk environment among people who use drugs in Ottawa, Ontario.

This initiative incorporates CBPR principles to actively engage a Community Advisory Committee (CAC) consisting of current and former drug users and their allies in all phases of the cohort study, including the development of a quantitative survey tool.

Eligibility criteria for the PROUD cohort stipulates that participants must be 16 years or older, have injected or smoked drugs other than marijuana in the past 12 months, and have lived in Ottawa or surrounding communities for at least three months at time of enrolment.

Between March and October 2013, 597 people were recruited from the ByWard Market area of Ottawa through a targeted, street-based recruitment strategy. Trained peer or medical student researchers administered an iPad-based demographic and behavioural survey and offered Point-of-Care HIV testing to those who had not previously tested HIV positive.

METHODS

A comparative analysis of HIV prevalence rates, based on self-report at the time of recruitment, and related vulnerabilities among Aboriginal and non-Aboriginal participants was conducted.

In this study, participants who self-identify as Aboriginal people are the descendants of the First Peoples of Canada and include First Nations, Inuit, Métis, and status and non-status Indians.

A sub-sample of 272 participants who indicated injection drug use in the preceding 12 months were included in the analysis.

Point estimates of HIV prevalence and corresponding 95% confidence intervals were calculated among Aboriginal versus non-Aboriginal participants.

Logistic regression was used to analyze factors independently associated with HIV infection among our specified population of interest.

RESULTS

Of the 272 participants who reported injecting drugs in the past year, 47 (17.3%) self-identified as Aboriginal

Baseline HIV prevalence was 12.1%, with a significantly higher rate observed among Aboriginal participants than among non-Aboriginal participants (21.3% vs. 10.2%; $P=0.034$)

In bivariate comparisons, Aboriginal participants compared to non-Aboriginal participants were more likely to be women, to inject opiates daily, and to inject cocaine daily

In unadjusted logistic regression analyses, the odds ratio (OR) of HIV infection for Aboriginal versus non-Aboriginal persons was 2.37 (95% CI: 1.04, 5.39)

After adjusting for variables thought to be associated with HIV, the adjusted OR of HIV infection was 1.94 (95% CI: 1.79, 5.48) for Aboriginal versus non-Aboriginal persons

Table 1: Prevalence of HIV Infection among Aboriginal and Non-Aboriginal Participants in the PROUD Study who Reported Injecting Drugs in the Previous 12 Months (N=272)

All Participants Prevalence Estimate (%) [95% CI] (# Infected/Total N)		
12.1 [9.4-18.3] (33/272)		
Aboriginal Participants Prevalence Estimate (%) [95% CI] (# Infected/Total N)	Non-Aboriginal Participants Prevalence Estimate (%) [95% CI] (# Infected/Total N)	p value
21.3 [11.5-37.8] (10/47)	10.2 [7.3-16.5] (23/225)	0.034

Table 2: Baseline Demographic and Behavioural Characteristics of PROUD Study Participants who Reported Injecting Drugs in the Previous 12 Months, by Ethnicity (N=272)

Characteristic	Non-Aboriginal (n=225), No. (%)	Aboriginal (n=47), No. (%)	p value
Female	47 (20.9)	17 (36.2)	0.027
Age, median (range)	42 (19-61)	41 (23-70)	0.196
LGBTQ sexual identity	30 (13.3)	7 (14.9)	0.776
Unstable housing	132 (58.7)	25 (53.2)	0.490
ByWard Market neighborhood residence ^a	93 (41.3)	20 (42.6)	0.877
Currently on methadone	75 (33.3)	15 (31.9)	0.851
Access addiction treatment services ^a	91 (40.4)	16 (34.0)	0.414
Involved in sex trade ^a	40 (17.8)	4 (8.5)	0.132
Daily opiate injection ^a	53 (23.6)	19 (40.4)	0.017
Daily cocaine injection ^a	11 (4.9)	6 (12.8)	0.042
Syringe sharing ^a	41 (18.2)	4 (8.5)	0.131
Require help injecting ^a	41 (18.2)	5 (10.6)	0.285
Overdosed ^a	41 (18.2)	8 (17.0)	0.846
Unsafe sexual intercourse ^a	119 (52.9)	26 (55.3)	0.761

^aBehaviour during the 12-month period prior to the baseline interview

Table 3: Univariate and Multivariate Logistic Regression Analyses of HIV Infection among 272 Injection Drug Users from the PROUD Study

Characteristic	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Aboriginal Ethnicity	2.37 (1.04, 5.39)	1.94 (1.79-5.48)
Female sex	3.59 (1.68, 7.66)	2.16 (0.82-5.71)
LGBTQ sexual identity	3.56 (1.52, 8.30)	1.62 (0.49-5.33)
Access addiction treatment services	0.35 (0.14, 0.89)	0.20 (0.05-0.74)
Daily opiate injection	1.76 (1.06, 4.07)	1.24 (0.49-3.17)
Overdosed	2.22 (0.98, 5.05)	1.21 (0.42-3.49)

Notes: OR = odds ratio; CI = confidence interval

^aBehaviour during the 12-month period prior to the baseline interview



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CONCLUSION

HIV prevalence is elevated among Aboriginal people who inject drugs residing in Ottawa and is disproportionately high compared to their non-Aboriginal counterparts.

Culturally appropriate and evidence-based harm reduction responses tailored to address high frequency drug use among Aboriginal people and developed with the meaningful involvement of Aboriginal people is urgently required.

Conflict of Interest Disclosure: We have no conflicts of interest