

TITLE: Drug use and injection practices during incarceration and in the community among people incarcerated in a Quebec provincial prison

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Background: Incarceration can alter drug use patterns and harms through changes in drug availability and reduced access to harm reduction services, including opioid agonist therapy and sterile injecting equipment. Potential risks of these changes include increased risk of blood-borne virus transmission, overdose, and withdrawal, with drug use in prison shaped by substance use history, sociodemographic factors, and incarceration-related conditions. We aimed to compare drug use patterns in the community and in prison, and to identify factors associated with in-prison drug use to inform within-prison harm reduction services and continuity-of-care strategies.

Methods: We used data from the quasi-experimental “Beyond Prison Walls” study (2019-2024), where adult (≥ 18 years) males at l’Établissement de détention de Montréal were recruited. Participants who were sentenced for <12 weeks and had a prior history of incarceration were included. Participants completed a baseline questionnaire including sociodemographics, incarceration history, types of drugs used, and drug-related behaviors inside and outside prison. We summarized participant characteristics, drug use patterns, injection behaviors, and needle or equipment sharing using descriptive statistics. Generalized estimating equations were used to assess the association between the transition into prison and characteristics of drug use (adjusting for duration of incarceration) and logistic regression was used to assess factors associated with in-prison drug use among participants.

Results: Overall, 834 participants with a history of prior incarceration were included (mean age: 39.5 years). Approximately one in five ($n=176$; 21.1%) reported drug use in prison with benzodiazepines (23.3%), cocaine (23.3%), heroin (21.0%), and morphine (19.9%) being the most common drugs used. The most common routes of administration in prison were snorting (65.9%) and swallowing (29.0%), with injecting drugs relatively rare (5.7%). Participants were significantly less likely to report use of most drugs in prison compared to outside, except use of suboxone/methadone (aOR: 2.64, 95% CI: 1.46-4.79). While the transition to prison was associated with a significant decrease in injection drug use (aOR: 0.04, 95% CI: 0.02-0.08), sharing needles and/or equipment increased (aOR: 1.53, 95% CI: 0.38-6.19). Among participants who had used drugs outside prison ($n=709$; 85.0%), daily or more frequent drug use outside prison (aOR: 2.29, 95% CI: 1.45-3.66) and injecting drugs outside prison (aOR: 1.90, 95% CI: 1.26-2.86) were associated with continued in-prison drug use.

Conclusions: Drug use and needle/equipment sharing were substantially less common inside than outside prison, although in-prison drug use was more common among participants with more frequent drug use and injection drug use outside prison. These findings support strengthening targeted harm reduction and continuity-of-care interventions (e.g., opioid agonist therapy, naloxone) for incarcerated individuals at highest risk.

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