

Substance use-related overdose among incarceration-exposed individuals: A recent literature compilation and review (with primary focus on North America)

Greater understanding of risk factors and effective interventions for drug overdoses among correctional populations is needed in order to decrease the prevalence of fatal and non-fatal drug overdoses among offenders.

Why we did this study

Although information on drug overdoses (ODs) during incarceration is limited, recent North American data suggest increasing trends for (both non-fatal and fatal) ODs, with large proportions associated with opioids. More specific evidence indicates that over the past decade there have been marked increases in the numbers/rates of opioid-related ODs involving synthetic opioids (i.e., fentanyl/fentanyl-analogues) in correctional populations.

What we did

This exploratory literature review aimed to identify, structure and summarize key recent literature focusing on substance use and specifically drug-related overdoses (including related risk-factors/co-variates, with particular attention to synthetic opioids) and related interventions in correctional populations with a main focus on North America. The review primarily focused on recent literature (e.g., 2016 onward), identified by targeted searches, with a focus on reviews, and/or good quality individual studies and complementary other (e.g., grey literature) data.

What we found

Various studies indicate that the proliferation of fentanyl has profoundly impacted non-medical drug use ecologies in Canadian correctional settings. In the federal correctional system, the majority of recent fatal ODs has been opioid- (e.g., fentanyl-) related, with similar trends for US-based settings.

Substance use-related factors, and specifically, OD fatalities that increasingly involve synthetic opioids, are identified as the leading, specific risk factor for death among populations recently released into the community. Contributing factors for substance-related mortality post-release also vary inconsistently, with some studies indicating age, race/ethnicity, substance use histories or patterns, mental health/trauma, care-engagement and/or criminal justice-related factors as possible co-variates. Valuable recent conceptual/integrative work on OD-risk and outcome dynamics in incarcerated populations suggest that isolated individual factors alone are not sufficient to explain OD-risk, but rather emerges from a complex interplay of systemic/structural/setting-, individual-

and other factors within correctional environments. Some of these factors are distinctly amplified by fentanyl's particular pharmac-behavioral dynamics (e.g., high potency and rapid OD onset, common un-known/-intentional exposure, challenges for OD reversal).

There is a diverse body of evidence regarding available interventions towards reduced OD incidence and outcomes in correctional populations, such as the use of medication-assisted treatment for opioid use disorder (MOUD), naloxone distribution, and Overdose Prevention Sites (OPS). Other interventions to reduce OD-related risks and outcomes available in general community settings (e.g., 'drug checking', 'safer opioid supply' programming) are currently not implemented in correctional settings but may be worth considering for adaptation and experimental assessment towards improved intervention responses.

What it means

There is evidence that suggests that the OD fatality burden in correctional populations is even higher than in the general community, underscoring the need for both improved understanding of OD-related risks and dynamics as well as improved, evidence-based interventions to reduce the odds for, and burden of ODs in this vulnerable population within the distinct risk environment of corrections. Understanding and providing effective interventions for the phenomenon of drug-related ODs among correctional populations is a distinctly complex challenge for multiple reasons, which includes systemic/environmental, behavioural and individual factors and which extends to both correctional and post-release contexts.

For more information

Fischer, B., Moghimi, E., Robinson, T., & Johnson, S. (2025). *Substance use-related overdose among incarceration-exposed individuals: A recent literature compilation and review (with primary focus on North America)* (Research Report R-486). Ottawa, Ontario: Correctional Service of Canada.

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