DAY-TO-DAY IMPACT OF COVID-19 ASSOCIATED WITH RISK OF OVERDOSE: C3PNO COHORT FINDINGS

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BACKGROUND

- PWUD in Canada and the US are contending with the intersection of two simultaneous health crises: the COVID-19 pandemic and the longstanding drug poisoning crisis.
- Settings across the span of the drug poisoning crisis have documented surges in overdose-related fatalities with the onset of the pandemic but little is known about specific COVID-19-related factors to these increases in overdoses.
- Our primary study objectives were to assess the prevalence of non-fatal overdose and identify COVID-related factors associated with overdose among participants in nine prospective cohorts of PWUD in Canada (Vancouver, BC) and the US (Baltimore, MD; Miami, FL; Chicago, IL; Los Angeles, CA) during the COVID-19 pandemic.
- We further sought to examine the prevalence and identify factors associated with those who reported being highly impacted day-to-day by COVID-19.

METHODS

- PWUD in nine urban centers in Canada and the US completed semi-structured interviews between May, 2020 and April, 2021.
- Two multivariable models were constructed using an a priori-defined backward model selection procedure based on examination of Akaike Information Criterion (AIC) and p-values
- Multivariable logistic regression was used to identify factors associated with nonfatal overdose and highly impacted day-to-day by the pandemic among participants who used unregulated drugs in the past month

Among people who use unregulated drugs (PWUD), being highly impacted day-to-day by the COVID-19 pandemic was significantly associated with greater risk of non-fatal overdose

Table 1. Bivariable and multivariable logistic regression of factors associated with nonfatal overdose (primary model) and being highly impacted day-to-day by the pandemic (secondary model) among 885 participants in five cities in the United States and Canada, May 2020 to April, 2021.

	Primary Model		Secondary Model	
Characteristics:	Adjusted Odds Ratio (95% CI)	P value	Adjusted Odds Ratio (95% CI)	P value
Age (per year)	1.00 (0.98 - 1.03)	0.792	0.98 (0.97 - 0.99)	0.001
White (vs non-white)	—	—	1.55 (1.10 - 2.18)	0.012
Female (vs male)	2.18 (1.10 - 4.30)	0.024	0.78 (0.55 - 1.09)	0.139
Unstably housed/homeless (vs. house/apartment)	2.16 (1.11 - 4.26)	0.024	1.37 (1.00 - 1.89)	0.055
Sexual partners (per partner)	1.06 (0.99 - 1.12)	0.054	—	—
In MOUD	2.45 (1.19 - 4.97)	0.013	0.64 (0.44 - 0.92)	0.015
Nonfatal overdose	—	—	2.60 (1.25 - 5.71)	0.013
Daily drug use:				
Alcohol	—	—	—	—
Opioid	—	—	—	—
Stimulants	—	—	—	—
Injection drug use	—	—	—	—
COVID-19 related factors:				
Tested for COVID-19	2.00 (0.98 - 4.28)	0.063	1.52 (1.08 - 2.14)	0.015
COVID-19 worry (mean)	—	—	1.30 (1.23 - 1.37)	<0.001
Highly impacted day-to-day	2.42 (1.22 - 5.10)	0.015	—	—
Avoided needle distribution sites	2.00 (0.75 - 4.72)	0.135	—	—
Avoided picking up MOUD	—	—	0.51 (0.24 - 1.11)	0.088
Stocked up on drugs	—	—	1.59 (1.09 - 2.32)	0.016

RESULTS

- Among 889 participants, the median age was 40 (Interquartile Range [IQR]: 29 – 54) years, 253 (28.6%) reported being female, 304 (34.2%) reported being white and 428 (48.2%) participants resided in Vancouver, BC; 211 (24.4%) in Los Angeles, CA; 132 (14.9%) in Baltimore, MD; 70 (7.9%) in Miami, FL; and 44 (5.2%) in Chicago, IL.
- Overall, 41 (4.6%) participants reported experiencing a non-fatal overdose in the past month and 453 (51.2%) reported being highly impacted day-to-day by the pandemic
- Primary model (Table 1): Individuals who had experienced nonfatal overdose were more likely to report: female sex, being unstably housed or homeless, engaged in MOUD and highly impacted day-to-day by COVID-19.
- Secondary model (Table 1): Individuals who reported being highly impacted day-to-day by the pandemic were more likely to report: younger age, being tested for COVID-19, higher levels of COVID-19 worry, and stocking up on drugs. Individuals who reported being engaged in MOUD were less likely to report being highly impacted by the pandemic.

CONCLUSIONS

- Our findings may reflect characteristics of participants who experienced a compounding of vulnerabilities during the pandemic and thus vulnerable to overdose.
- Multi-level interventions are needed to remediate vulnerabilities and address the main driver of poisoning crisis, including providing safe supplies of drugs to PWUD at risk of overdose and scaling up overdose prevention measures.

ADDITIONAL KEY INFORMATION

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