



Evidence on Safer Supply

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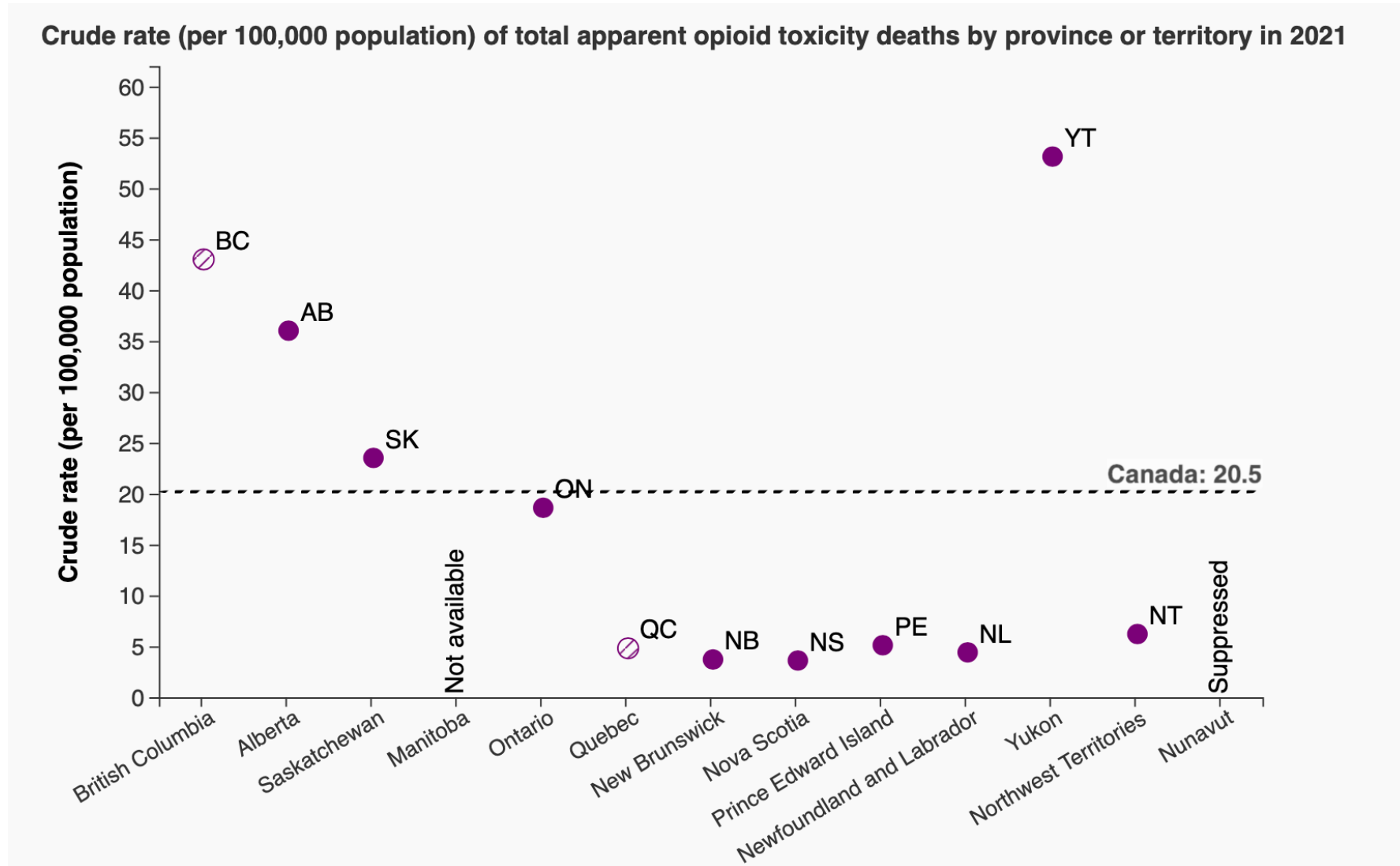


Overdose deaths in Canada

| Year | Canada: opioid-related deaths |
|------|-------------------------------------|
| 2016 | 3,024 |
| 2017 | 4,133 |
| 2018 | 4,614 |
| 2019 | 3,830 |
| 2020 | 6,214 |
| 2021 | 7,560 |

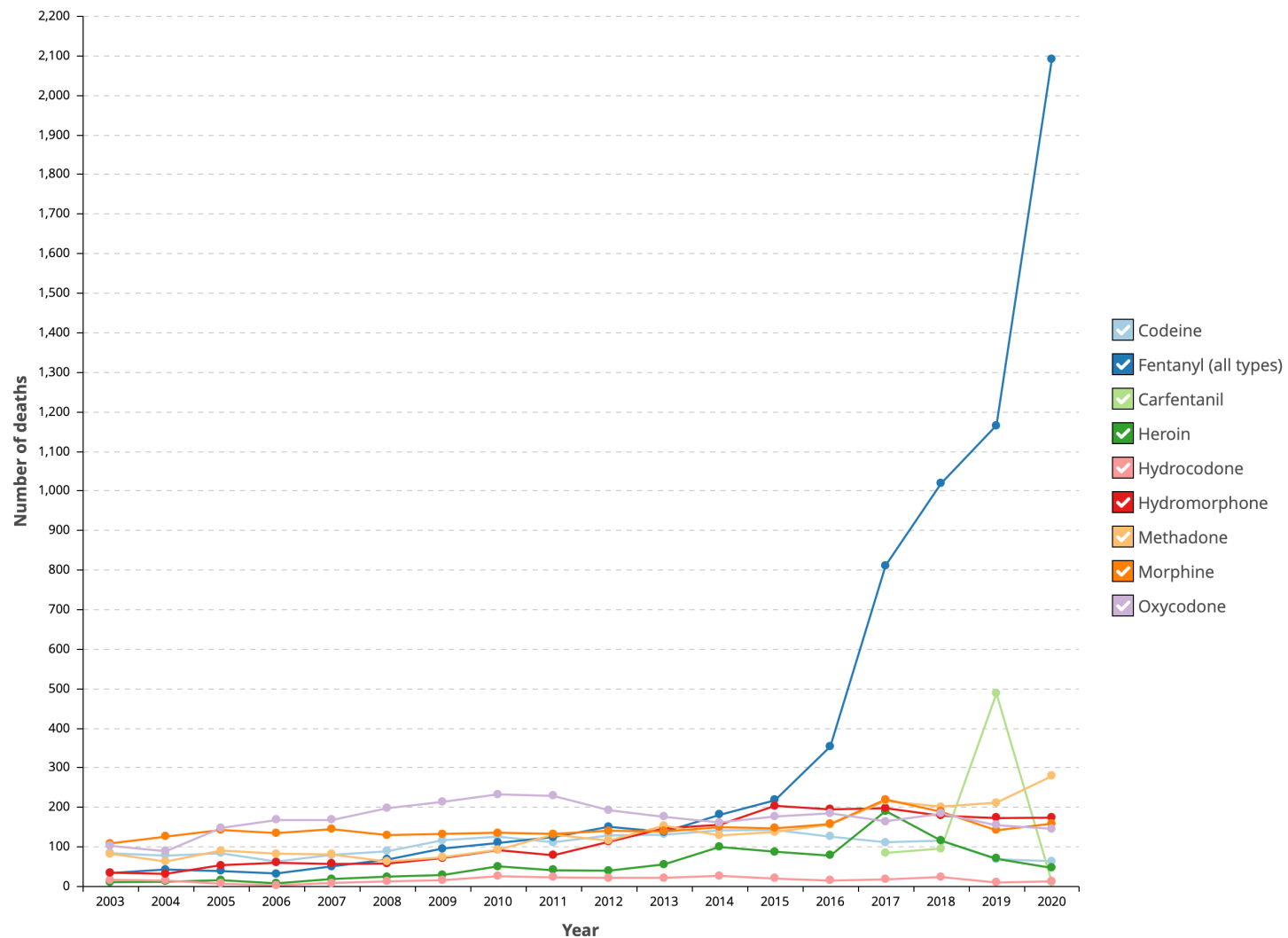
Over **29,000** opioid-related overdose deaths in Canada from January 2016-December 2021

Canadian rates of opioid-related toxicity death - 2021



What happens when fentanyl enters the drug supply

Type of opioid present at death, Ontario, 2003 - 2020



Measuring Uptake/Access across Ontario

- Population-based study using pharmacy claims data
- From 2016 – March 2020
- Looking at prescribers and characteristics of prescriptions

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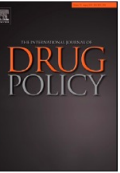


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Research Paper

Characterizing safer supply prescribing of immediate release hydromorphone for individuals with opioid use disorder across Ontario, Canada

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ARTICLE INFO

Keywords:
Opioid-related disorders
Opioid agonist therapy
Hydromorphone
Harm reduction

ABSTRACT

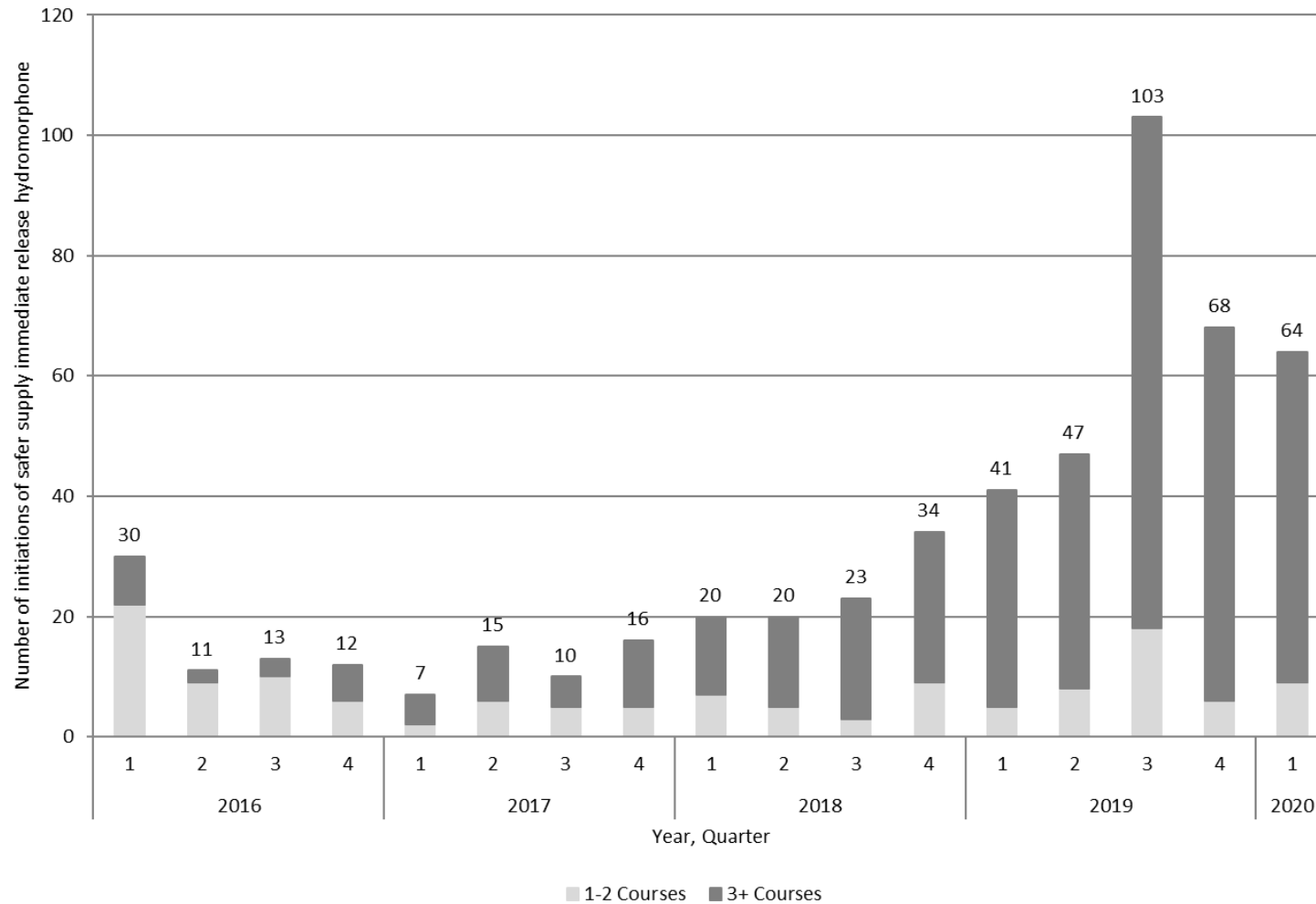
Background: In response to the ongoing overdose crisis, some clinicians in Canada have started prescribing immediate release hydromorphone (IRH) as an alternative to the toxic unregulated drug supply. This practice is often referred to as safer supply. We aimed to identify and characterize patients receiving safer supply IRH and their prescribers in Ontario.

Methods: Using provincial administrative health data, we identified individuals with opioid use disorder prescribed safer supply IRH from January 2016 to March 2020 and reported the number of initiations over time. We summarized demographic, health, and medication use characteristics among patients who received safer supply IRH, and examined select clinical outcomes including retention and death. Finally, we characterized prescribers of safer supply IRH and compared frequent and infrequent prescribers.

Results: We identified 534 initiations of safer supply IRH (447 distinct individuals) from 155 prescribers. Initiations increased over time with a peak in the third quarter of 2019 (103 initiations). Patients' median age was 42 (interquartile range [IQR] 34–50), and most were male (60.2%), urban residents, (96.2%), and in the lowest neighborhood income quintile (55.7%), with 13.9% having overdosed in the previous one year. The prevalence of HIV was 13.9%. The median duration on IRH was 272 days (IQR 30–1,244) and OAT was co-prescribed in 62.9% of courses. Death while receiving IRH or within 7 days of discontinuation was rare (≤ 5 courses; ≤ 0.94 per person-year for each).

Conclusions: Clinicians are increasingly prescribing safer supply IRH in Ontario. Patients prescribed safer supply IRH had demographic and clinical characteristics associated with high risk of death from opioid-related overdose. Short-term deaths among people receiving safer supply IRH were rare.

People Newly Starting Safer Opioid Supply in Ontario



- 447 unique people
- 534 new courses
- Peak in Q3 of 2019



Prescriber Characteristics

- 132 prescribers
 - 106 INFREQUENT prescribers
 - 26 FREQUENT prescribers
 - **26 prescribers (20%) responsible for 72% of initiations**
- Practice Specialty - 81% Family Medicine
- In practice more than 10 years – 80%
- 78% also prescribed OAT medications during study period

Demographic & Clinical Characteristics of Clients

| Characteristic | All Individuals n (%) n=447 | People Initiated by Infrequent Prescribers n (%) n=124 | People Initiated by Frequent Prescribers n (%) n=323 | P Value |
|--|-----------------------------------|--|--|---------|
| <i>Sociodemographic Characteristics</i> | | | | |
| Age (in years) | | | | |
| Median (IQR) | 42 (34-50) | 46 (38-54) | 41 (33-49) | <0.001 |
| Male Sex | 269 (60.2) | 76 (61.3) | 193 (59.8) | 0.766 |
| Urban Residence | 430 (96.2) | 117 (94.4) | 313 (96.9) | 0.053 |
| <i>Health-related characteristics</i> | | | | |
| Has a family physician | 157 (35.1) | 66 (53.2) | 91 (28.2) | <0.001 |
| Infective complication in prior 1 year | 186 (41.6) | 44 (35.5) | 142 (44.0) | 0.103 |
| Opioid-related overdose in prior 1 year | 62 (13.9) | 14 (11.3) | 48 (14.9) | 0.328 |
| <i>Medication characteristics</i> | | | | |
| Benzodiazepines in prior 30 days | 77 (17.2) | 41 (33.1) | 36 (11.1) | <0.001 |
| Any OAT (1 year) | 309 (69.1) | 65 (52.4) | 244 (75.5) | <0.001 |

Outcomes of SOS Prescribing

| Outcomes | All Individuals n (%) n=534 | People Initiated by Infrequent Prescribers n (%) n=135 | People Initiated by Frequent Prescribers n (%) n=399 | P Value |
|---|-----------------------------------|--|--|---------|
| Median time to discontinuation (days) | 272 | 147 | 289 | 0.011 |
| Maximum dose (in mg/day) of IRH (Median, IQR) | 88 (48-144) | 48 (32-72) | 96 (64-160) | <0.001 |
| Multi-day dispensing | | | | |
| Received any dispensation \geq 1 day | 306 (57.3) | 86 (63.7) | 220 (55.1) | 0.082 |
| Maximum consecutive days dispensed, median (IQR) | 2 (1-7) | 3 (1-8) | 2 (1-4) | <0.001 |
| Co-prescribed medications[‡] | | | | |
| Any opioid agonist therapy | 336 (62.9) | 59 (43.7) | 277 (69.4) | <0.001 |
| Methadone | 162 (30.3) | 49 (36.3) | 113 (28.3) | 0.081 |
| Buprenorphine | 75 (14.0) | 10 (7.4) | 65 (16.3) | 0.01 |
| SROM | 175 (32.8) | 7 (5.2) | 168 (42.1) | <0.001 |
| Number of emergency department visits | | | | |
| 0 | 268 (50.2) | 66 (48.9) | 202 (50.6) | 0.366 |
| 1 | 87 (16.3) | 18 (13.3) | 69 (17.3) | |
| 2 or more | 179 (33.5) | 51 (37.8) | 128 (32.1) | |
| Death within 7 days of discontinuation[§] | \leq 5 (\leq 0.9) | \leq 5 (\leq 3.7) | \leq 5 (\leq 1.3) | - |



Mortality from overdose and safer supply?

- Data from coroners in BC and Ontario
- Lack of concerning signals on association between safer supply and opioid-related death
- Ontario – proportion of opioid-related deaths where hydromorphone directly contributed to death **dropped** from 10.1% in the pre-pandemic period to 4.9% during the pandemic period

Gomes T, Murray R, Kolla G, Leece P, Kitchen S, et al., (2022) *Patterns of medication and healthcare use among people who died of an opioid-related toxicity during the COVID-19 pandemic in Ontario*. Ontario Drug Policy Research Network.
<https://odprn.ca/research/publications/opioid-related-deaths-and-healthcare-use/>

Lack of association in BC between RMG and drug toxicity deaths



BC Centre for Disease Control
Provincial Health Services Authority

KNOWLEDGE UPDATE

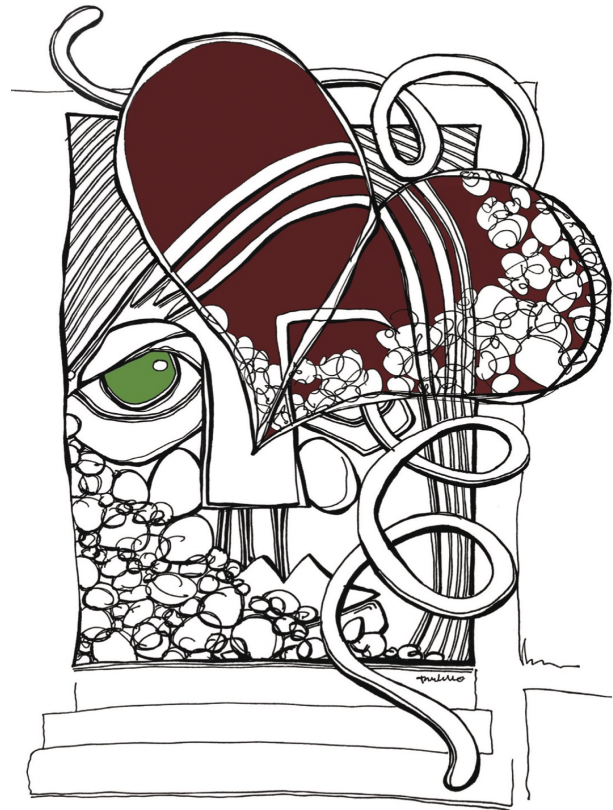
Topic: *Post-mortem detection of hydromorphone among persons identified as having an illicit drug toxicity death since the introduction of Risk Mitigation Guidance prescribing*

Date: September 15, 2021 **Data Source:** BC Coroners Service, BC COVID-19 Cohort

Key Findings:

1. From March 27, 2020 – May 31, 2021, 4,537 people were dispensed Risk Mitigation Guidance hydromorphone.
2. Hydromorphone without fentanyl or fentanyl analogues was identified in less than 2% (N= 41) of illicit drug toxicity deaths between March 1, 2020 and May 31, 2021.
3. Risk Mitigation Guidance hydromorphone prescribing is not a direct contributor to the rising rates of illicit drug toxicity death in BC.
4. Fentanyl and fentanyl analogues remain the major contributors to illicit drug toxicity deaths in BC.

Evaluating the Impact on Patient Outcomes



Safer Opioid Supply Program

- Internal program evaluation of the LIHC SOS program found:
 - High retention (94%)
 - Reductions in fentanyl use (particularly by injection)
 - Improvements in health status
 - Reductions in overdose
 - Reductions in involvement in criminal activities
 - Reductions in emergency department visits and in hospitalizations



Recommendations

Systems-level recommendations

Expand coverage for high-dose injectable opioid formulations on the Ontario Formulary: The lack of high-dose opioid formulations covered by the Ontario formulary is a major challenge in meeting the needs of SOS program clients.

Expand access to diacetylmorphine: Clients highlighted that heroin (diacetylmorphine) would be the most useful opioid medication to have available, and an additional benefit is that diacetylmorphine holds potential as a safer supply option for people who smoke fentanyl.

Address stigma and discrimination within the health-care system: Stigma and discrimination towards people who use drugs and people on the SOS program were commonly reported and are impeding access to care.

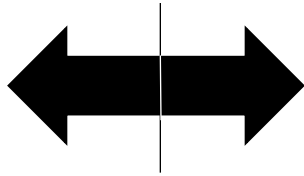
Provide continuity of care and improve pain and withdrawal management for hospitalized SOS clients: Inadequate and often stigmatizing treatment in hospitals led to disruptions in continuity of care for SOS clients when hospitalized. Greater understanding of withdrawal management and pain control for people who use drugs is essential.



Clinical outcomes and healthcare costs among SOS clients in Ontario: a population-based cohort study



Matched cohort of SOS clients and other London residents with OUD not in SOS.



Pre-Post comparison of outcomes over time



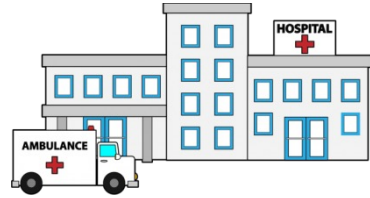
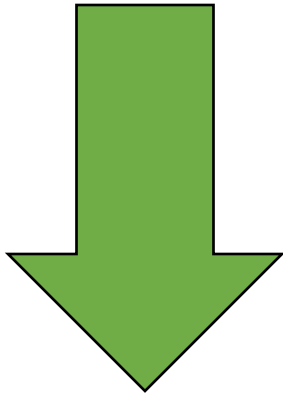
Main outcomes: ED visits, hospitalizations, hospitalizations for infections, healthcare costs



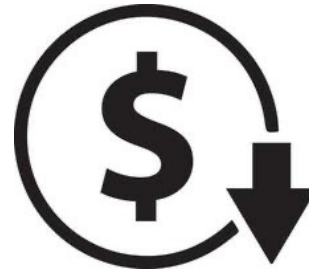
Clinical characteristics: HIV, HCV, hospitalizations for serious infections (IE, skin, soft tissue, bone)

Summary of Key Findings

SOS Clients



ED Visits/Inpatient
Hospitalizations

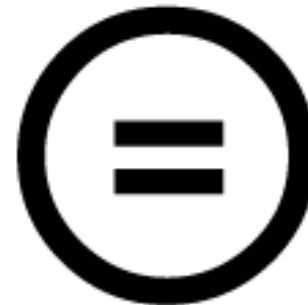


Healthcare Costs (excl.
Primary Care and Drugs)



Incident Infections

Matched Controls





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Research Paper

“COVID just kind of opened a can of whoop-ass”: The rapid growth of safer supply prescribing during the pandemic documented through an environmental scan of addiction and harm reduction services in Canada



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ARTICLE INFO

Keywords:

Safer supply
Substance use
Addiction
Harm reduction
Injectable opioid agonist treatment
Service delivery models
COVID-19 pandemic
Canada

ABSTRACT

Objectives: In the context of the ongoing overdose crisis, a stark increase in toxic drug deaths from the unregulated street supply accompanied the onset of the COVID-19 pandemic. Injectable opioid agonist treatment (iOAT – hydromorphone or medical-grade heroin), tablet-based iOAT (TiOAT), and safer supply prescribing are emerging interventions used to address this crisis in Canada. Given rapid clinical guidance and policy change to enable their local adoption, our objectives were to describe the state of these interventions before the pandemic, and to document and explain changes in implementation during the early pandemic response (March–May 2020).

Methods: Surveys and interviews with healthcare providers comprised this mixed methods national environmental scan of iOAT, TiOAT, and safer supply across Canada at two time points. Quantitative data were summarized using descriptive statistics; interview data were coded and analyzed thematically.

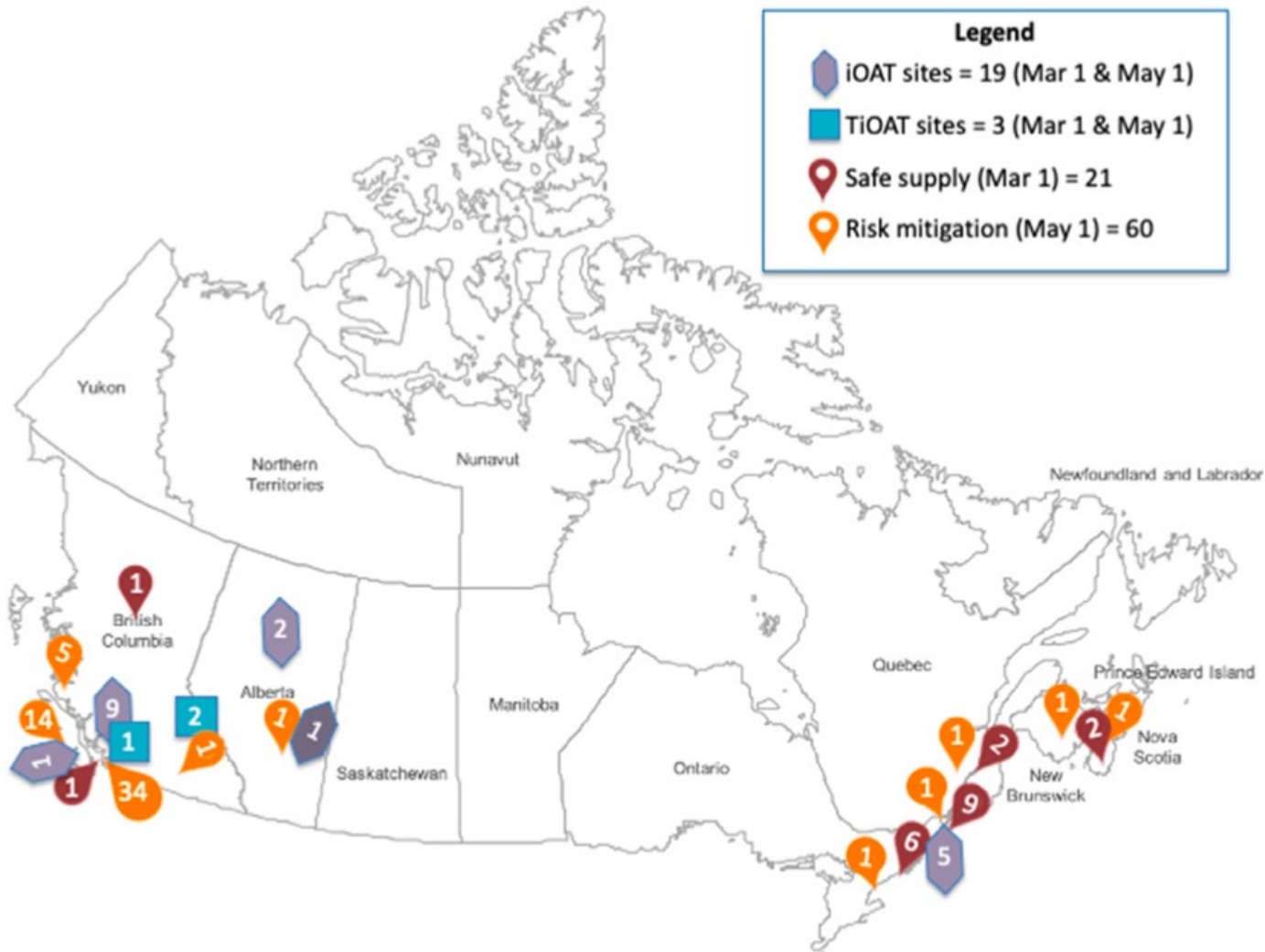
Results: 103 sites in 6 Canadian provinces included 19 iOAT, 3 TiOAT and 21 safer supply sites on March 1, 2020; 60 new safer supply sites by May 1 represented a 285% increase. Most common substances were opioids, available at all sites; most common settings were addiction treatment programs and primary care clinics, and onsite pharmacies models. 79% of safer supply services were unfunded. Diversity in service delivery models demonstrated broad adaptability. Qualitative data reinforced the COVID-19 pandemic as the driving force behind scale-up.

Discussion: Data confirmed the capacity for rapid scale-up of flexible, community-based safer supply prescribing during dual public health emergencies. Geographical, client demographic, and funding gaps highlight the need to target barriers to implementation, service delivery and sustainability.

Environmental scan of safer supply programs across Canada

- iOAT = injectable OAT (heroin or hydromorphone)
- TiOAT = supervised tablet injection (mainly hydromorphone)
- Safer Supply = take-home medications
- Quick pivot due to COVID
- Documenting rapid scale up of safer supply, primarily in BC

Safer Supply distribution across Canada



From March 1st --> May 1st
there was a
258% increase
in sites offering Safer Supply

Qualitative research on risk mitigation prescribing

RESEARCH ARTICLE **AJPH**

Implementation of Safe Supply Alternatives During Intersecting COVID-19 and Overdose Health Emergencies in British Columbia, Canada, 2021

Ryan McNeil, PhD, Taylor Fleming, MPH, Samara Mayer, MPH, Allison Barker, BMA, Manal Mansoor, BA, Alex Betsos, MA, Tamar Austin, MA, Sylvia Parusel, PhD, Andrew Ivsins, PhD, and Jade Boyd, PhD

Objectives. To explore the implementation and effectiveness of the British Columbia, Canada, risk mitigation guidelines among people who use drugs, focusing on how experiences with the illicit drug supply shaped motivations to seek prescription alternatives and the subsequent impacts on overdose vulnerability.

Methods. From February to July 2021, we conducted qualitative interviews with 40 people who use drugs in British Columbia, Canada, and who accessed prescription opioids or stimulants under the risk mitigation guidelines.

Results. COVID-19 disrupted British Columbia's illicit drug market. Concerns about overdose because of drug supply changes, and deepening socioeconomic marginalization, motivated participants to access no-cost prescription alternatives. Reliable access to prescription alternatives addressed overdose vulnerability by reducing engagement with the illicit drug market while allowing greater agency over drug use. Because prescriptions were primarily intended to manage withdrawal, participants supplemented with illicit drugs to experience enjoyment and manage pain.

Conclusions. Providing prescription alternatives to illicit drugs is a critical harm reduction approach that reduces exposure to an increasingly toxic drug supply, yet further optimizations are needed. (*Am J Public Health*. Published online ahead of print March 8, 2022:e1–e8. <https://doi.org/10.2105/AJPH.2021.306692>)

AJPH
Published online ahead of print March 8, 2022

- High volatility in unregulated drug market in the early pandemic period
- Participants receiving RMG prescriptions reported:
 - Reduction of cravings and withdrawal due to access to pharmaceuticals
 - More stability in their lives and drug use
 - Reduced overdose risk (due to known dose)
- Issues reported:
 - Low doses did not meet people's needs
 - Led to people needing to supplement with fentanyl from street market
 - Need for a larger variety of drugs that correspond to what people are using from street market

Risk mitigation prescribing in early pandemic period



Research Paper

Factors associated with 60-day adherence to “safer supply” opioids prescribed under British Columbia’s interim clinical guidance for health care providers to support people who use drugs during COVID-19 and the ongoing overdose emergency

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ARTICLE INFO

Keywords:
Safe supply
People who use drugs
Opioid agonist therapy
COVID-19
Risk mitigation

ABSTRACT

Aims: In March 2020, British Columbia issued Risk Mitigation Guidance (RMG) to support prescribing of pharmaceutical alternatives to illicit drugs, in order to reduce risk for COVID-19, overdose, and withdrawal among people who use drugs. This study evaluated factors associated with 60-day adherence to novel opioid alternatives prescribed at an inner-city health centre in Victoria, Canada.

Methods: A chart review was conducted to collect data on sociodemographic information, medical histories, and follow-up services among all clients prescribed novel opioid alternatives from March 2020-August 2020 (n = 286). Bivariable and multivariable regression were used to identify independent and adjusted factors associated with 60-day adherence.

Results: Overall, 77% of 286 clients were still receiving opioids after 60 days of follow-up. Medications included hydromorphone (n = 274), sustained-release oral morphine (n = 2), and oxycodone (n = 9). The adjusted odds of 60-day adherence to novel opioid alternatives were significantly higher for those receiving a mental health medication (aOR = 3.49, 95%CI = 1.26, 11.00), a higher maximum daily dosage of RMG prescriptions (aOR = 1.03 per mg increase, 95%CI = 1.01, 1.04), and those with continuous receipt of OAT (aOR = 6.25, 95%CI = 2.67, 15.90).

Conclusions: Higher dosages and co-prescription of mental health medications and OAT may help support better adherence to this form of prescriber-based “safer supply”. Further work is needed to identify optimal prescribing practices and the longer term impacts of differing implementation scenarios.

- High rates of concurrent health conditions and homelessness
- High rates of polysubstance use (65% reporting methamphetamine use)
- High retention: 77% receiving safer supply at 60 days
- Better retention for those:
 - Receiving mental health medication
 - Receiving a higher daily dose of RMG medications
 - Receiving OAT prior to receiving RMG prescription



Main take-aways so far:

- Safer supply/RMG reaching people with:
 - Multiple medical conditions
 - High levels of previous or current OAT prescriptions
- People receiving safer supply/RMG report:
 - Fewer overdoses
 - Better health
 - More stability in their lives
- Issues identified:
 - Need more medication options
 - Low doses (particularly in BC)
- Lack of association between safer supply/RMG prescribing and overdose death



Thank you!

Questions? Comments?

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