

Presentation of Evidence on Prescribed Safer Supply

June 9, 2023

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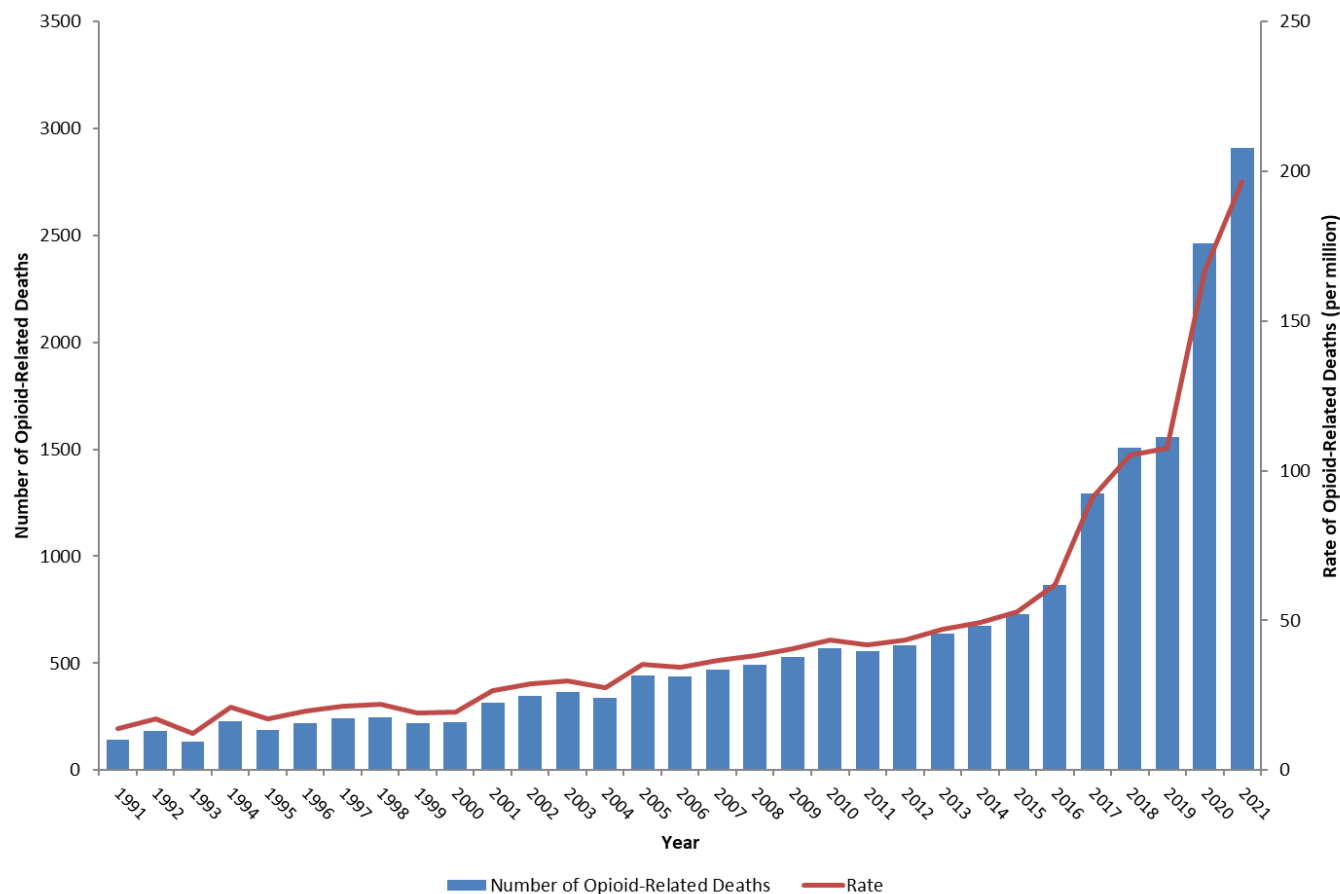
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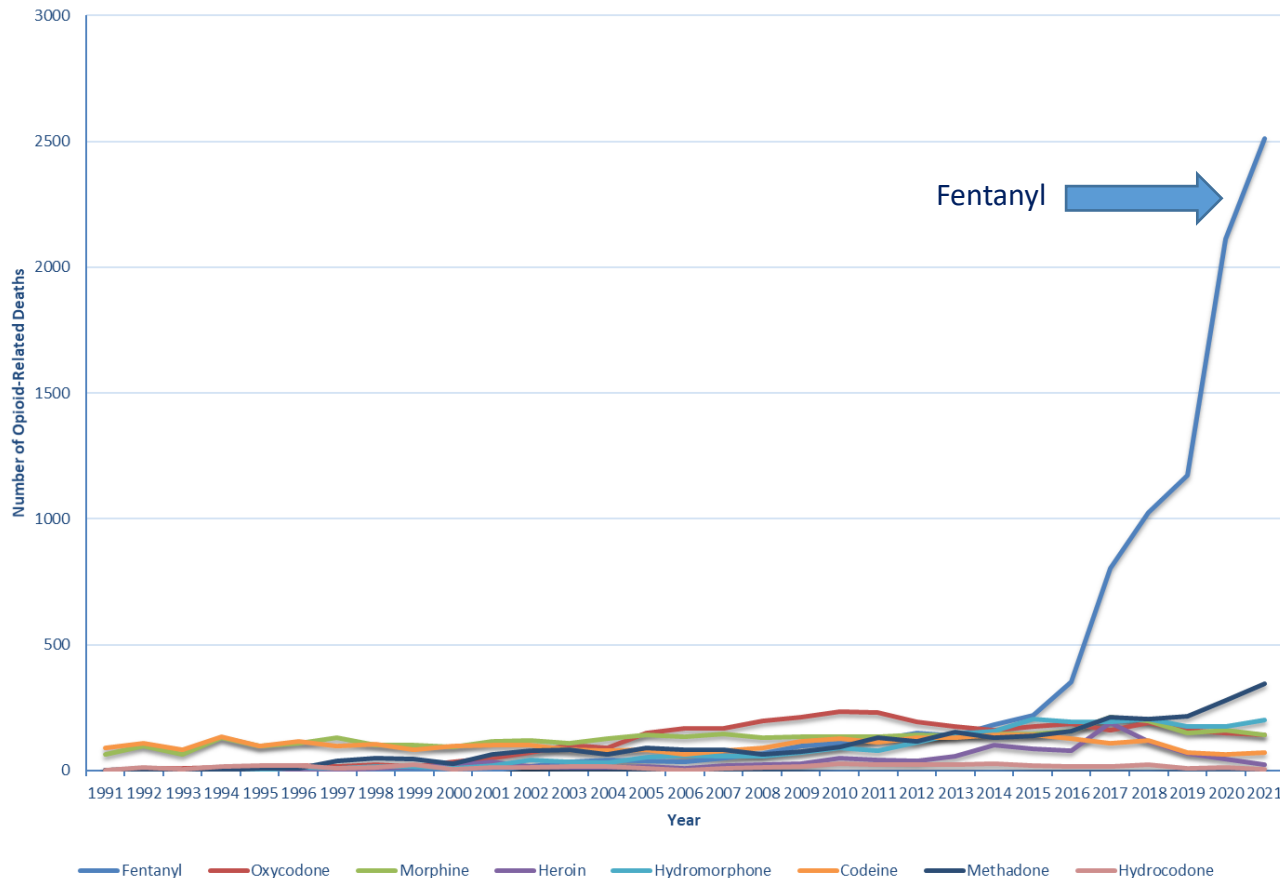


Evolution of the Opioid Toxicity Crisis



There was a **79% increase** in monthly opioid-related deaths in 2020, from **139 deaths in February 2020** to **249 deaths in December 2020**.

Evolution of the Opioid Toxicity Crisis



2020, Ontario

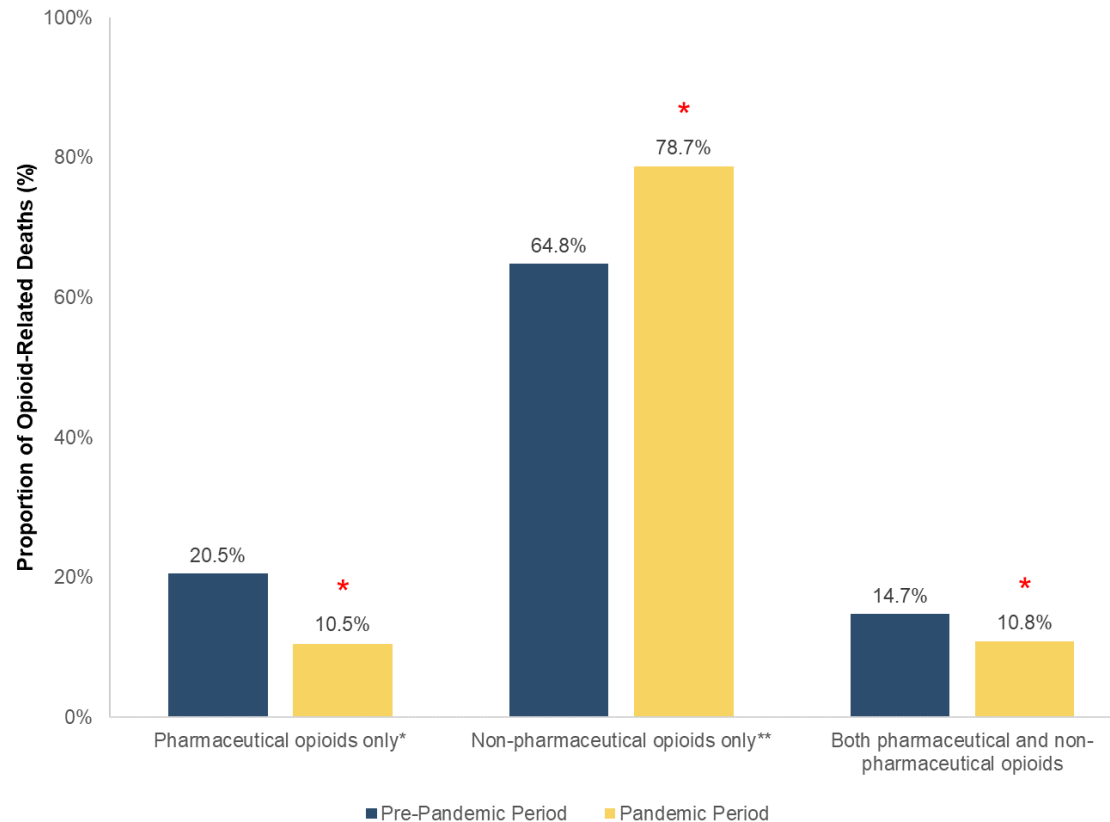
1 in 30 Deaths are Opioid-Related

Among Age 30-39,
1 in 3 Deaths are Opioid-Related



In three out of four deaths during the pandemic, **no one was present to intervene.**

~80% of opioid-related deaths involving only non-pharmaceutical opioids

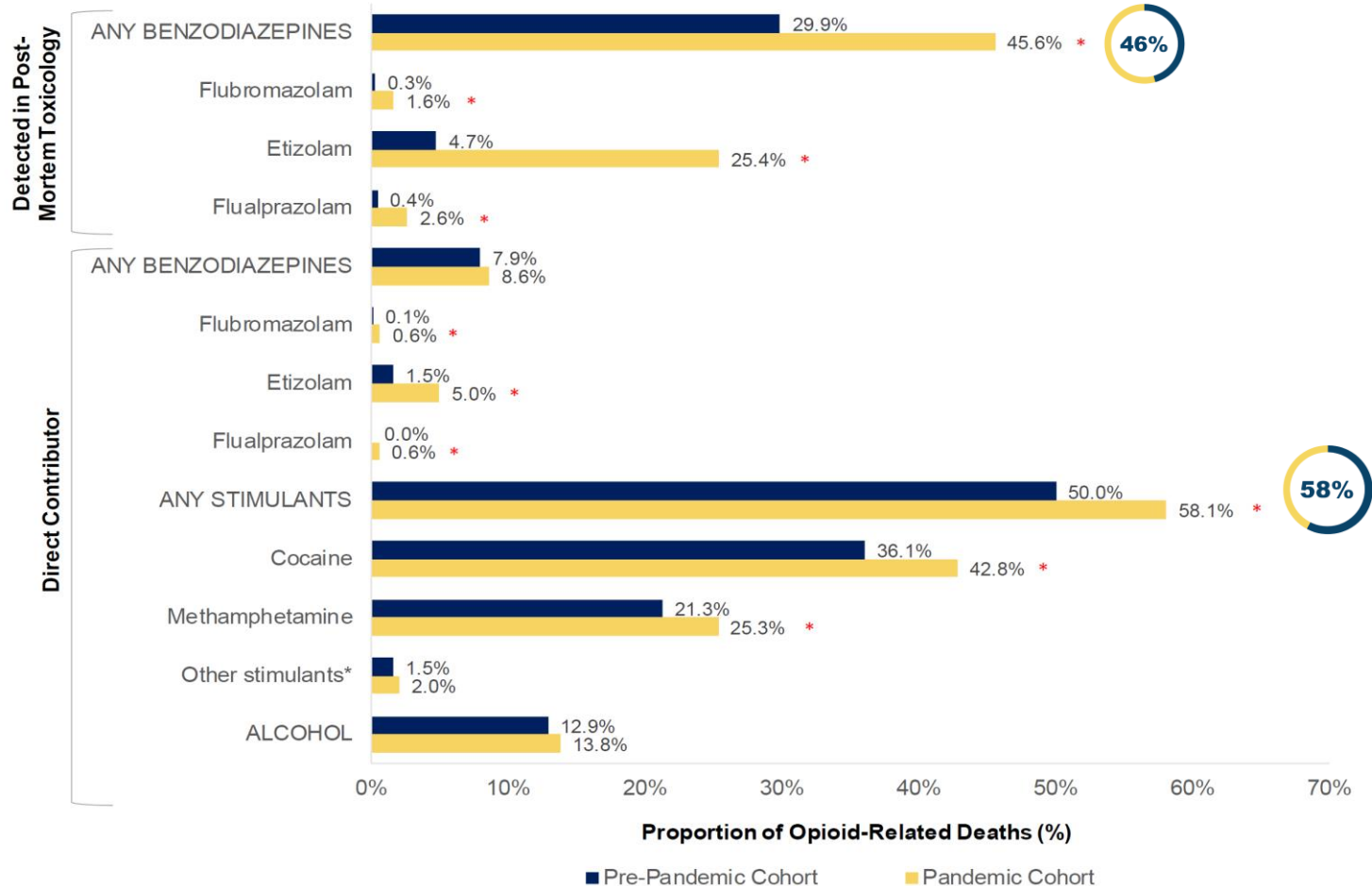


* Red asterisk indicates statistically significant difference between pre-pandemic and pandemic periods ($p < 0.05$).

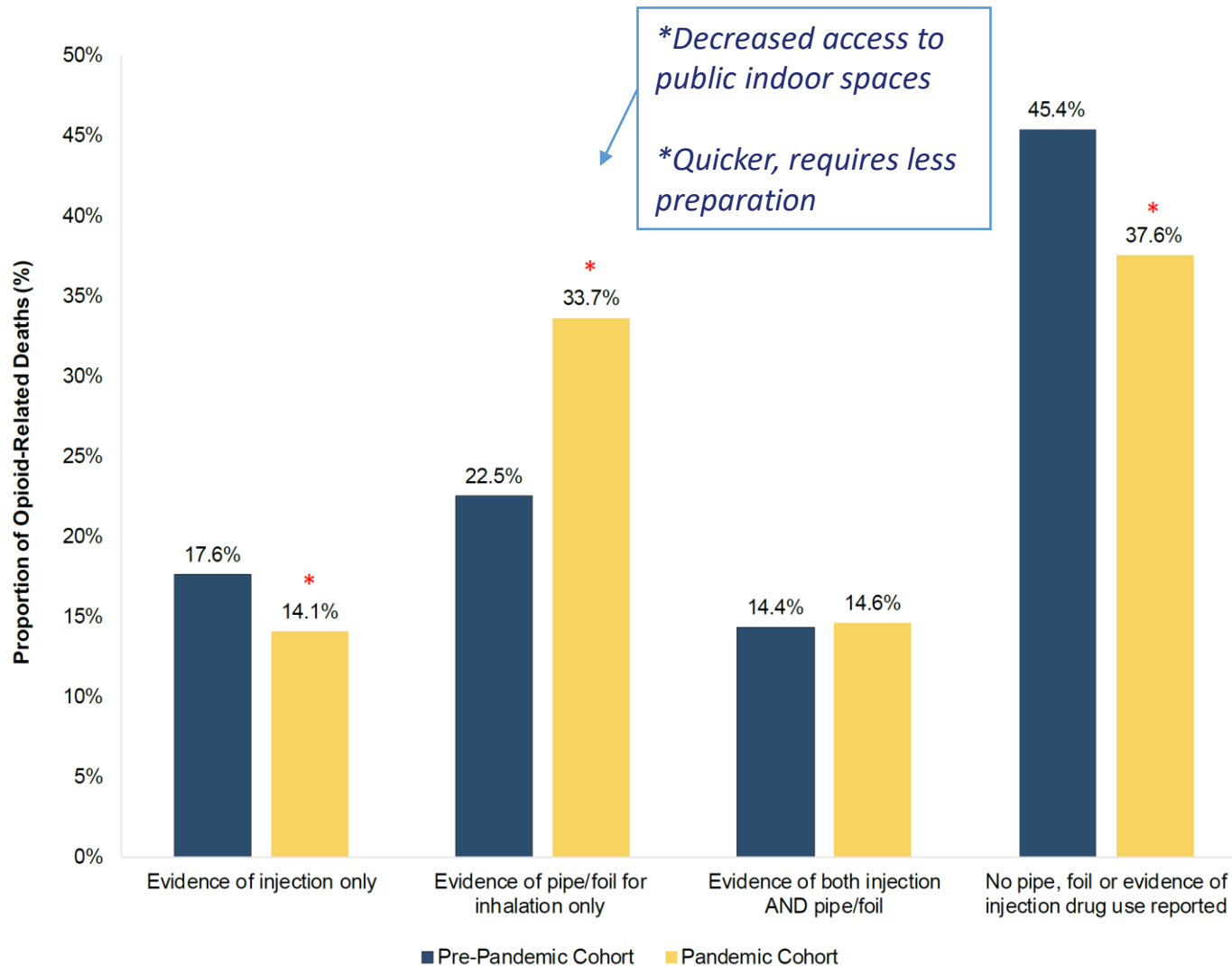


Fentanyl as
Direct
Contributor

Not a crisis of opioids alone...



Patterns are shifting towards more inhalation



Treatment as a response

2 in 3

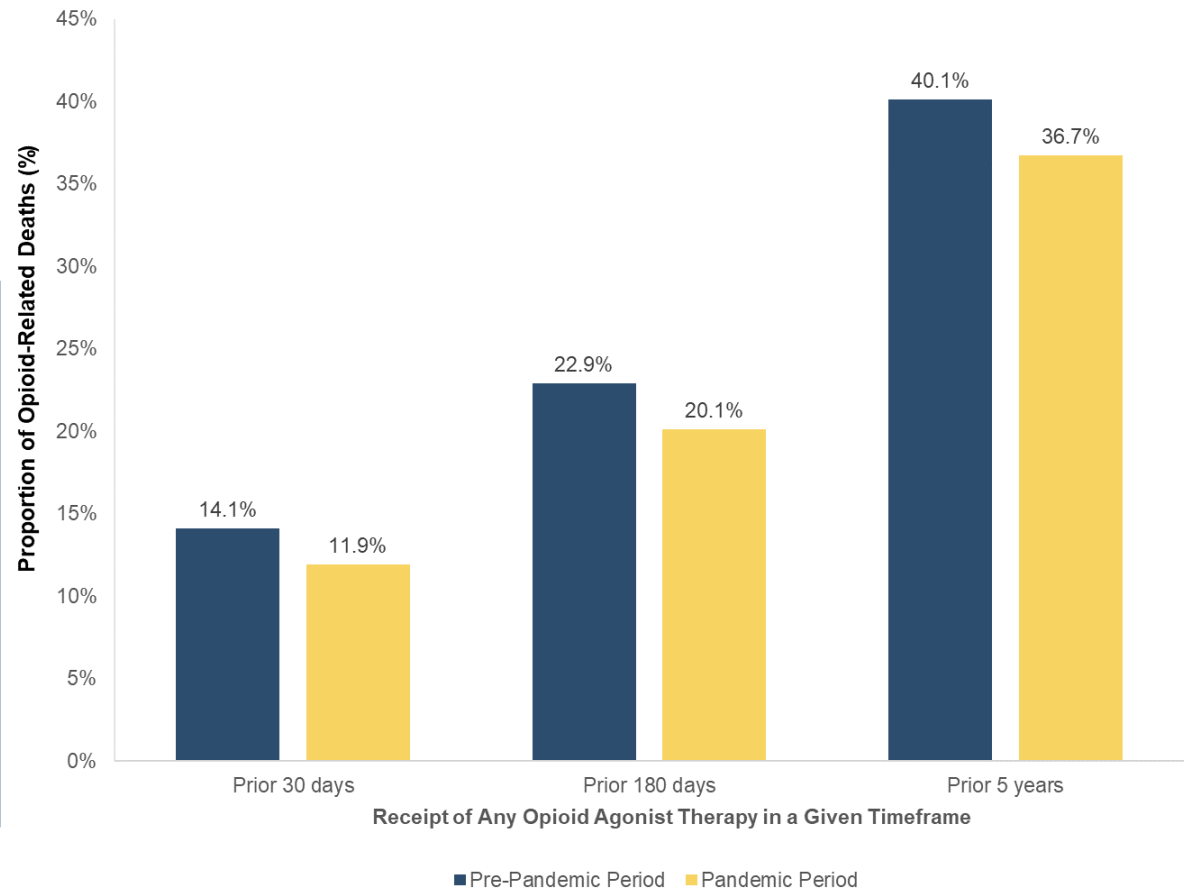
deaths occurred among people with a prior healthcare encounter related to opioid use disorder (OUD)

Median Time to Discontinuation of OAT:

181 days (22-854 days)

Methadone: 263 days
Bup/Nal: 114 days

Recent Receipt of OAT prior to death



Impact among People Experiencing Homelessness

Deaths among People Experiencing Homelessness

Almost 1 in 6

opioid-related deaths during the pandemic occurred among people experiencing homelessness.

Opioid-related deaths among people experiencing homelessness increased by **139%** during the pandemic:



135 deaths
pre-pandemic



323 deaths
during the pandemic



Nearly **1 in 10** of these deaths occurred within shelters or supportive housing.



1 in 7 of these deaths occurred within hotels providing emergency shelter services.

59% of deaths among people experiencing homelessness in Toronto were attributed to drug toxicity (2021)

Evidence to Inform Action

1. Significant **rise** during COVID-19 pandemic
2. Increased **benzodiazepine** and **stimulant** involvement
3. **Inhalation** now more common than injection
4. Deaths occur primarily when **people use substances alone**
5. Disproportionate impact among **people vulnerably housed**



The need for options:

Supervised Consumption
Services

Low-Barrier Access to
Treatment

Safer Supply Programs

Prescribed safer opioid supply programs

- Safer opioid supply (SOS) = Prescription of pharmaceutical opioids to people using street-acquired unregulated fentanyl
- Medication is dispensed daily at pharmacy
 - Short acting opioids (e.g. hydromorphone) as take-home doses for unsupervised use
 - Long acting opioid (e.g. slow-release oral morphine) taken once daily at pharmacy
- **Goal:** Reduce overdose risk through provision of known dose of pharmaceutical opioids
- Harm reduction philosophy within a medicalized model - no requirement of abstinence from drug use



PQWCHC & SRCHC Inclusion Criteria

Inclusion criteria:

- Daily or near-daily (minimum 5 days/week) use of unregulated fentanyl
- Resident of Toronto

AND priority to individuals who fit the following criteria:

- Recent overdose (and history of overdose)
- Indigenous, racialized
- Women, trans people
- 2SLGBQIA+
- Homeless or precariously housed
- Medical conditions linked to drug use (hep C, HIV, infections)

Rigorous Intake Process

- Initial **2 hour assessment** includes comprehensive medical and social assessment
- POC **Urine Screen** to assess presence and recent use of opioids including Fentanyl
- **Care plan** includes social determinants of health
- Safer supply may be initiated immediately post intake
- SOS Rx **begins with low doses** of both long and short acting opioids with **frequent assessments** (every 24-48 hours) until appropriate dose is established
- Services are rigorously matched to client/community need.

Program enrollment selection

Onboarding process:

1. Referral – screening questions and other context
2. Referral review by full SOS team with prioritization and exclusion due to ineligibility
3. For accepted individuals: contact and consent for Connecting Ontario search
4. Case management assessment/intake
5. RN assessment/intake
6. NP assessment/ intake and final decision based on medical eligibility → initial prescription

Do any of the following apply to the referred individual? (select all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Indigenous | <input type="checkbox"/> Woman/gender fluid/ trans/ non-binary |
| <input type="checkbox"/> Black | <input type="checkbox"/> LGBTQ2S+ |
| <input type="checkbox"/> Person of Colour | <input type="checkbox"/> Youth (24 years old and younger) |

Please ask the referred individual:

Use, Overdose, and Care Information	Yes	No	Additional Information
Do you currently use fentanyl (any method)?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, how often?
Have you overdosed in the last 90 days?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, how many times?
Do you have a history of overdose?	<input type="checkbox"/>	<input type="checkbox"/>	If yes, how many times?
Are you currently receiving Opiate Agonist Therapy (OAT)? (e.g., methadone, suboxone)	<input type="checkbox"/>	<input type="checkbox"/>	OAT Provider Name, Contact Information:
Have you received OAT in the past?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have a family doctor/nurse practitioner?	<input type="checkbox"/>	<input type="checkbox"/>	Primary Care Provider Name, Contact Information:
Are you currently accessing services at Parkdale Queen West CHC? (e.g., family doctor/nurse practitioner, SCS, Four Winds etc.)	<input type="checkbox"/>	<input type="checkbox"/>	Which program(s) do you access? Location: <input type="checkbox"/> Parkdale (Dufferin/Queen) <input type="checkbox"/> Queen West

Health Issues (select all that apply)

- | | |
|--|--|
| <input type="checkbox"/> HIV | <input type="checkbox"/> History of sepsis (blood infection) |
| <input type="checkbox"/> Hep C: Current <input type="checkbox"/> Past infection <input type="checkbox"/> Unknown | <input type="checkbox"/> History of osteomyelitis (bone infection) |
| <input type="checkbox"/> History of endocarditis (heart infection) | <input type="checkbox"/> Seizures |
| <input type="checkbox"/> History of spinal abscesses | |

Other medical issues:

Referral form: Screening ahead of program selection

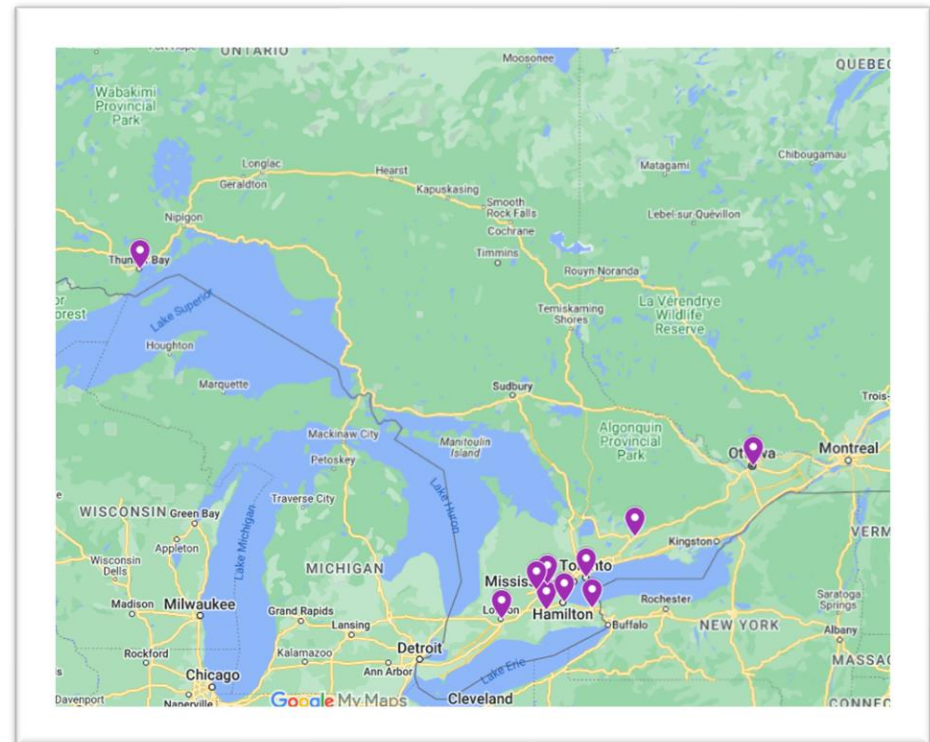
Expansion of SOS Across Canada: Ontario Context

14 SUAP-funded safer supply programs in **10** cities:

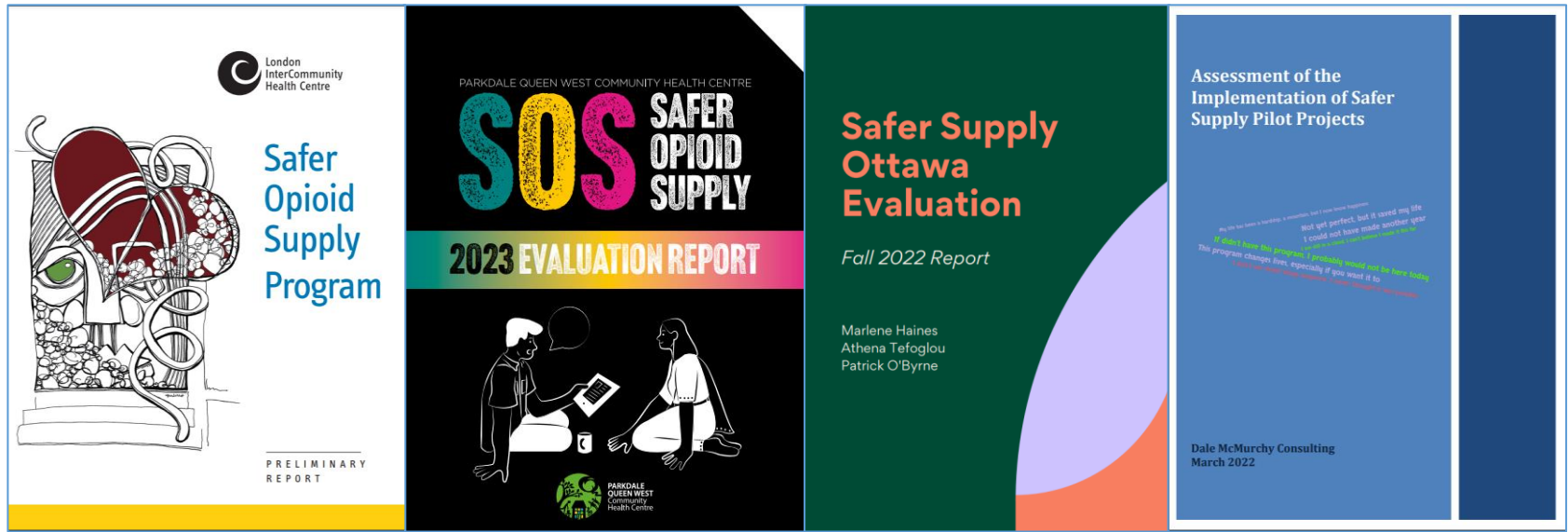
- Toronto (4 programs)
- Hamilton (2 programs)
- Brantford (1 program)
- Guelph (1 program)
- Kitchener (1 program)
- London (1 program)
- Ottawa (1 program)
- Peterborough (1 program)
- St. Catharines (1 program)
- Thunder Bay (1 program)
- Plus: National Safer Supply Community of Practice (London)

Approximately 1,500 enrolled clients

Annual Funding of \$16.69M (minus costs for 2 new sites added this year)



Evidence Base for SOS



- Program evaluations of Health Canada-Funded SOS programs:
 - High retention
 - Reductions in fentanyl use
 - Improvements in health status
 - Reductions in overdose
 - Reductions in involvement in criminal activities

PQWCHC Evaluation Results (2023)



Decreased use of fentanyl

- 52% stopped using fentanyl; 26% decreased the amount they use



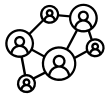
Decreased overdose

- 50% reported a recent overdose at intake
- 15% reported a recent overdose after being on safer supply for at least 6 months



Increased access to health care

- 73% were able to address a health issue for the first time



High access to social care

- 89% recently met with a case manager, housing worker, outreach worker, or counsellor



Quality of life improvements

- Greater sense of safety (88%)
- More money (77%)
- More time (81%)
- More connected to health care (85%)
- Other things have improved (85%)
- No improvement = 0%

How has receiving SOS Prescription changed things for you?

“It has changed my life dramatically. I have more money for food. I don’t have to chase down drug dealers. I’m not putting unknown stuff in my body. It’s safer.”

“Less sex work”

“I’ve stopped using fentanyl, got an apartment, reconnected with son and grandchildren”

“It’s allowed me to regain control over my life and I’ve been able to pick up old hobbies and stuff like that that I didn’t have the focus for for a long time, I didn’t have the patience or time for previously. I was too focused on getting and staying well to do things like sketch for 2 hours.”

SRCHC Evaluation Data

SUCCESSES & PARTICIPANT FEEDBACK

Clients report:

- 88% of clients reported a reduction in fentanyl use
- Significant reduction in injection drug use. Many clients transition to taking dilaudid orally.
- Significant reduction in illegal activities. More choice in type of work
- Better relationships with non-judgemental care providers.
- Fewer barriers to accessing appropriate care.
- "I feel more stabilized medically and mentally, instead of constantly having to be sick and having to run out boost things or get money because I am in withdrawal. My withdrawal is managed and I always have a buffer. I really appreciate it because it helps with my mental and lifestyle stability"
- "Safer supply has saved me from going back to street supply and has preventing me from going under (overdosing) and I am still able to work. Has not used any fent or heroin in the last 3 months"
- "Daily stress levels have gone way down because of SOS. Not committing crimes so risk of incarceration is gone. Eating properly now"

Evidence from Ontario: Evaluation of LIHC SOS Program

Research ■ Vulnerable populations

Clinical outcomes and health care costs among people entering a safer opioid supply program in Ontario

Tara Gomes PhD, Gillian Kolla PhD, Daniel McCormack MSc, Andrea Sereda MD, Sophie Kitchen MSc, Tony Antoniou PhD

■ Cite as: CMAJ 2022 September 19;194:E1233-42. doi: 10.1503/cmaj.220892

Abstract

Background: London InterCommunity Health Centre (LIHC) launched a safer opioid supply (SOS) program in 2016, where clients are prescribed pharmaceutical opioids and provided with comprehensive health and social supports. We sought to evaluate the impact of this program on health services utilization and health care costs.

Methods: We conducted an interrupted time series analysis of London, Ontario, residents who received a diagnosis of opioid use disorder (OUD) and who entered the SOS program between January 2016 and March 2019, and a comparison group of individuals matched on demographic and clinical characteristics who were not exposed to the program. Primary outcomes were emergency department (ED) visits, hospital admissions, admissions

for infections and health care costs. We used autoregressive integrated moving average (ARIMA) models to evaluate the impact of SOS initiation and compared outcome rates in the year before and after cohort entry.

Results: In the time series analysis, rates of ED visits (-14 visits/100, 95% confidence interval [CI] -26 to -2; $p = 0.02$), hospital admissions (-5 admissions/100, 95% CI -9 to -2; $p = 0.005$) and health care costs not related to primary care or outpatient medications (-\$922/person, 95% CI -\$1577 to -\$268; $p = 0.008$) declined significantly after entry into the SOS program ($n = 52$), with no significant change in rates of infections (-1.6 infections/100, 95% CI -4.0 to 0.8; $p = 0.2$). In the year after cohort entry, the rate of ED visits (rate ratio [RR] 0.69, 95% CI 0.53

to 0.90), hospital admissions (RR 0.46, 95% CI 0.29 to 0.74), admissions for incident infections (RR 0.51, 95% CI 0.27 to 0.96) and total health care costs not related to primary care or outpatient medications (\$15 435 v. \$7310/person-year; $p = 0.002$) declined significantly among SOS clients compared with the year before. We observed no significant change in any of the primary outcomes among unexposed individuals ($n = 303$).

Interpretation: Although additional research is needed, this preliminary evidence indicates that SOS programs can play an important role in the expansion of treatment and harm-reduction options available to assist people who use drugs and who are at high risk of drug poisoning.

The opioid overdose crisis is a major, continuing public health issue, with more than 29 000 opioid-related toxicity deaths occurring in Canada between January 2016 and December 2021.¹ This crisis is driven primarily by contamination of the unregulated drug supply with illicitly derived fentanyl and fentanyl analogues, which directly contributed to 87% of opioid-related deaths in Ontario in 2020.² In response, several interventions have been adapted or scaled up, including the distribution of naloxone to reverse opioid overdose,³ supervised consumption services and overdose prevention sites,^{4,5} opioid agonist therapy (OAT) and injectable OAT programs (iOAT).⁶⁻⁸ Evidence suggests that the expansion of these harm-reduction interventions across

Canada since 2016 has averted some overdose-related deaths;⁹ however, slow scale-up and inequitable access to interventions across the country^{10,11} remain major impediments to a comprehensive response to the overdose crisis, which has worsened during the COVID-19 pandemic.²

Safer opioid supply (SOS) programs, in which individuals at high risk of overdose are prescribed pharmaceutical opioids as an alternative to a fentanyl-adulterated drug supply, have been integrated into the harm-reduction arsenal of several jurisdictions.¹²⁻¹⁴ In these programs, the off-label prescription of pharmaceutical opioids – generally daily-dispensed, immediate-release hydromorphone provided as take-home doses – is



Cohorts:

LIHC Clients: 82 clients of the LIHC SOS program

Comparator: London residents with OUD, with similar demographics/clinical characteristics, who were not part of the program



Primary outcomes: ED visits, hospital admissions, admissions for infections, healthcare costs [using ICES data]



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

Evidence from Ontario: Population-Based Analysis

- Ontarians with OUD dispensed IR hydromorphone tablets for SOS
- Uses ICES data to capture SOS *within* and *outside* of larger programs
- **534** initiations among **447** individuals from Jan '16 – March '20.



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Introduction

The opioid-related overdose crisis is one of the most pressing public health concerns in Canada and the United States, and the number of overdose-related deaths continues to increase (Ahmad, Rosen, &

Key Findings:

Who is accessing SOS?

- **LIHC SOS Program:**

- 87% eligible for public drug benefits
- HIV: 34%; Hepatitis C: 70%
- Recent hospitalization for an infection: 28%
- Recent hospital-treated overdose: 9%
- Dispensed OAT: 61%

- **All Ontario SOS Recipients**

- HIV: 14%
- Recent hospitalization for an infection: 42%
- Recent hospital-treated overdose: 14%
- Prior OAT [1yr]: 69%

Complex
comorbidities,
high rates of
prior health
services
utilization, and
recent
treatment
(OAT)

Clinical Impacts

Ontario SOS Recipients (N=534 courses)

Duration of SOS: median 272 days
(309d from 2018-2020)

Opioid-Related Death: ≤ 5 Courses

Any-Cause Death: ≤ 5 Courses

Qualitative Research

Decreased frequency of illicit drug use

Increased stability in patterns of drug use

Reduced opioid toxicities reported by clients and providers

Clinical & Health System Impacts

LIHC SOS Program:



ED Visits:	from 3.09 to 2.12 per person-year
Hospital Admissions:	from 0.91 to 0.42 per person-year
New Infections:	from 0.32 to 0.16 per person-year
Healthcare Costs*:	from \$15k to \$7k per person



Opioid-related Toxicity:	≤5 in 1 year follow-up
Opioid-related deaths:	0 in 1 year follow-up
All-cause deaths:	≤5 in 1 year follow-up

NO CHANGE in any outcomes above for matched London residents with OUD

Key Findings

- **SOS is reaching people with:**
 - Multiple medical conditions and social complexities
 - High levels of previous/current OAT
- **People receiving SOS report:**
 - Fewer overdoses
 - Fewer new infections
 - Better health status
 - Low hospital-related healthcare costs
 - Increased stability in their lives
- **Issues identified:**
 - Need more medication options
 - Insufficient doses

Ongoing Questions & Discourse

Does SOS lead to increased risks of infectious complications?

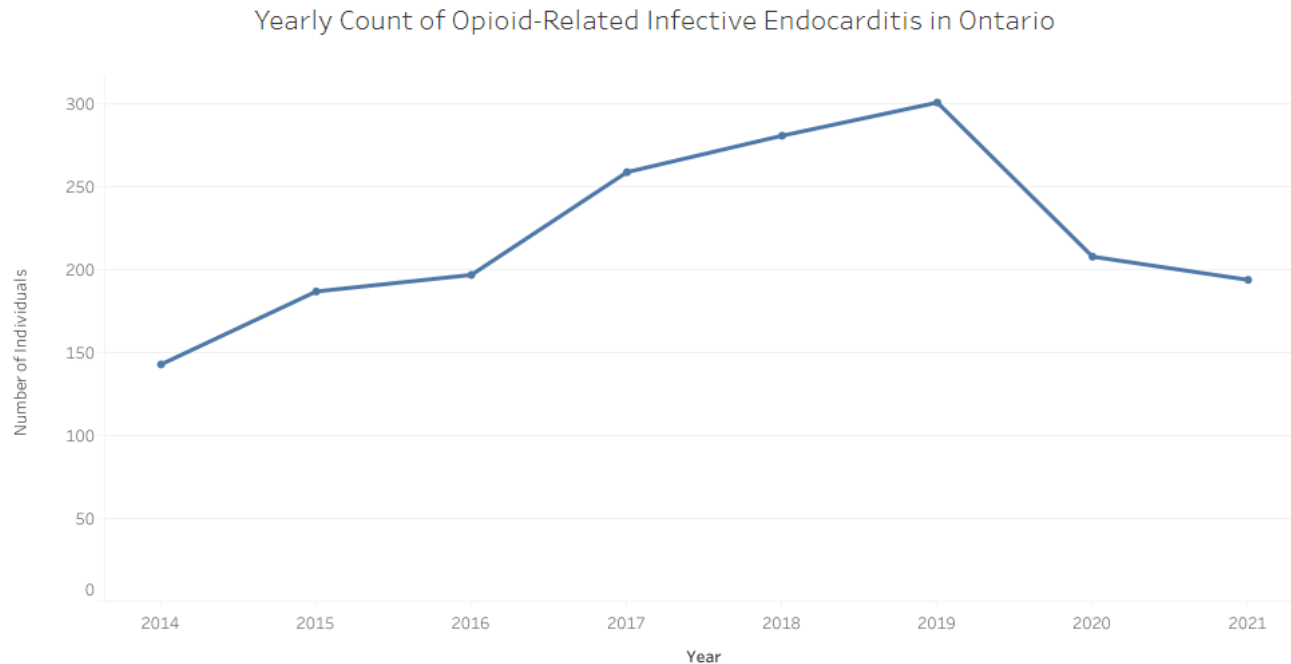
How is diversion addressed? Is it leading to harm?

Is SOS pushing people away from accessing OAT?

Does SOS lead to increased risk of infectious complications?

- ***2023 Review: low quality evidence, no strong evidence of association between HM and infections***
- Ontario study (60k admissions among PWID; 2006-2015):
 - No association between IR HM and infective endocarditis
 - Significant association between CR HM and IE (OR: 3.3)
- Other studies have not reported significant associations for CR or IR hydromorphone

Does SOS lead to increased risk of infectious complications?



30-40%
of SOS Clients in
Ontario have
PRIOR infections
(IE, skin/soft
tissue infections,
bone infections)

TABLE 1. Trends in Rates of Serious Infections, and Prior Opioid Use Among People With Opioid Use Disorder. 2013 to 2019

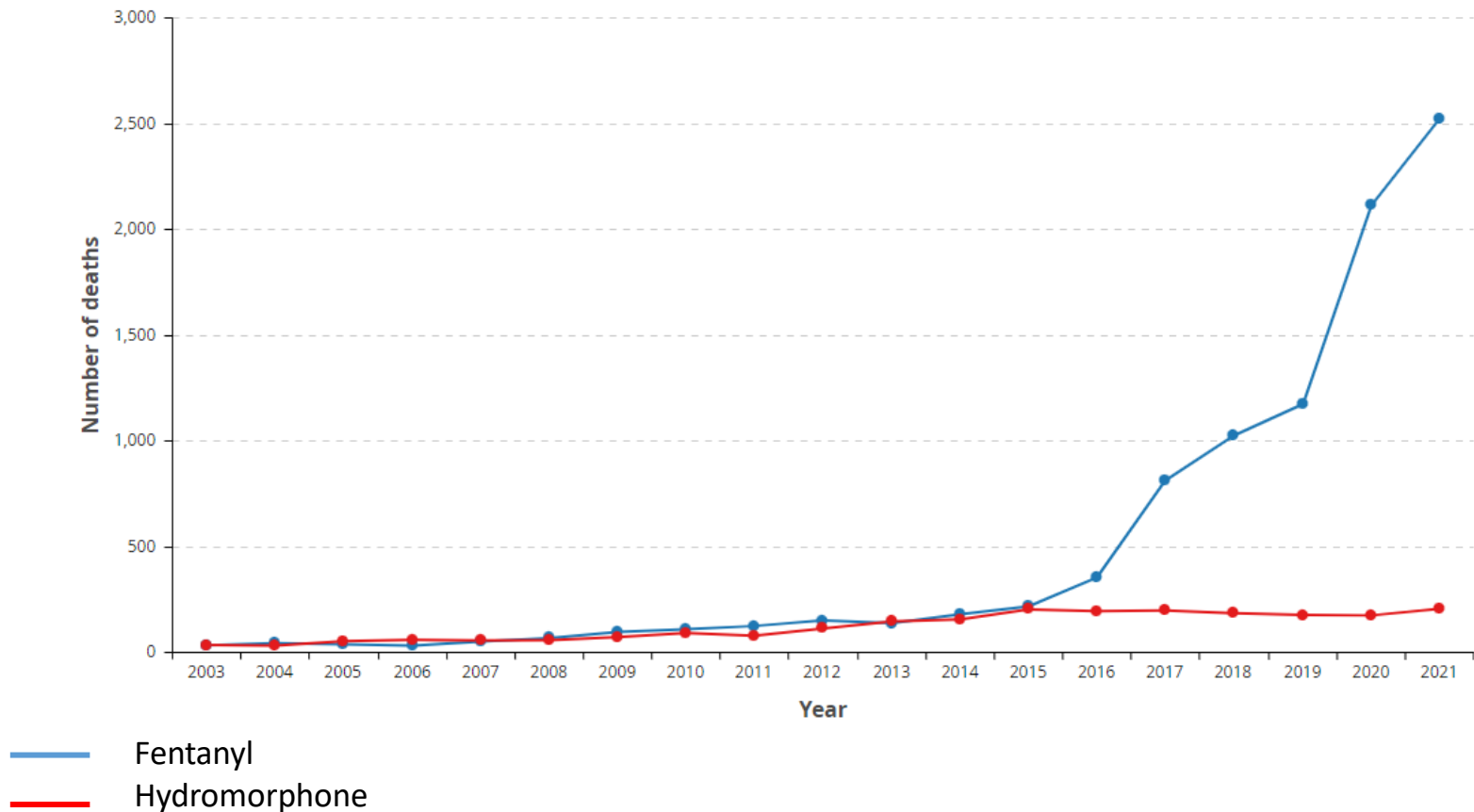
	2013	2014	2015	2016	2017	2018	2019
Infective endocarditis							
Hospital visits (N, rate per million)	104 (7.70)	132 (9.69)	174 (12.69)	187 (13.48)	249 (17.70)	282 (19.71)	299 (20.56)
Controlled Release hydromorphone (prior 30 days)	≤5	11 (8.3%)	13 (7.5%)	14 (7.5%)	12 (4.8%)	15 (5.3%)	12 (4.0%)
Daily Dispensed IR hydromorphone (prior 30 days)	≤5	≤5	≤5	≤5	≤5	7 (2.5%)	13 (4.3%)
Opioid agonist therapy in prior 90 days	49 (47.1%)	76 (57.6%)	93 (53.4%)	102 (54.5%)	137 (55.0%)	147 (52.1%)	184 (61.5%)

How SOS Programs Respond to Infections

- Prevention of infection through harm reduction education, access to clean injection equipment on site, frequent screening for infectious symptoms
- Access to on site CTS programs services for review of injection technique
- Clients frequently shifting towards oral use of SOS, further decreasing infectious risks
- Soft tissue infections treated in office with incision and drainage, antibiotics and/or referral for urgent care if needed

Is Diversion leading to harm?

Type of opioid present at death, Ontario, 2003 – 2021



Is Diversion leading to harm?

Is there evidence of harm among Adolescents and Youth (15-24yo)?

	Aged 15 to 24		Aged 25 to 44
	Pre-Pandemic Period N=115	Pandemic Period (ref) N=169	Pandemic Period N=1,290
Non-Pharmaceutical opioids			
Any	99 (86.1%)*	159 (94.1%)	1,202 (93.2%)
Fentanyl	97 (84.3%)*	158 (93.5%)	1,199 (92.9%)
Heroin	10 (8.7%)*	N≤5	20 (1.6%)
Opioids indicated for pain			
Any	23 (20.0%)*	12 (7.1%)	115 (8.9%)
Hydromorphone	11 (9.6%)*	N≤5	41 (3.2%)
Oxycodone	6 (5.2%)	N≤5	33 (2.6%)
Codeine	0	N≤5	9 (0.7%)
Morphine	9 (7.8%)*	N≤5	46 (3.6%)
Opioid agonist therapy			
Methadone	6 (5.2%)	7 (4.1%)	106 (8.2%)
Buprenorphine	0	0	N≤5

Addressing Diversion in SOS Programs

- PQWCHC has a publicly available [Diversion and Lost & Stolen Doses](#) protocol, which covers:
 - Evidence of diversion
 - Strategies to address stolen doses
 - Urine drug screen guidelines to verify diversion
- Strategies include regular urine drug screening to ensure adherence, use of lock boxes for carried doses, and use of observed dosing at pharmacy should there be concerns for potential diversion
- If diversion/loss persists, clients are discharged with connection to primary care supports

Diversion and Lost & Stolen Doses

Date of Issue: 2022-03-31

Date of Last Review: 2022-04-08

Background

The Parkdale Queen West Safer Opioid Supply (SOS) Program is a harm reduction program created in response to the drug poisoning crisis. Similar to any prescribed medications and the prescription of opioids for other medical conditions, there are potential risks associated with SOS prescribing. These risks and the strategies used to mitigate them are described in this protocol.

The College of Physicians of Ontario (2012) requires that physicians prescribing controlled substances “develop a comprehensive treatment plan that includes... a plan for minimizing risks and unintended consequences (e.g., diversion)” (para. 32d). Similarly, the College of Nurses of Ontario (2019) states “safe, effective and ethical prescribing [of controlled medications] includes practitioners being able to assess and identify potential and actual medication misuse, addiction and diversion” (Isn’t Prescribing Controlled section, para. 2).

When developing strategies to manage potential risks, including the risk that medications may be taken by those to whom they have not been directly prescribed (often referred to as ‘diversion’), prescriber obligations must be balanced with existing and emerging evidence regarding diversion. Preoccupation with preventing diversion has been found to “create distrust, damage patient-doctor relationships and result in disengagement from healthcare services” (Duke & Trebilcock, 2022, Results section). Protocols to mitigate diversion must be implemented with care to avoid punitive practices which reproduce stigma, and which may introduce excessive barriers to care, potentially resulting in disengagement, increased reliance on the toxic unregulated drug supply, overdose and death.

Is SOS pushing people away from OAT?



High Prevalence of Recent OAT: 60-70% of SOS clients were treated with OAT in past 1 year



Integration of OAT into SOS is common: the majority of Ontario SOS recipients concurrently treated with OAT



SOS Prescribers are also OAT Prescribers:
96.2% of frequent SOS prescribers also prescribe OAT

Is SOS pushing people away from OAT?

On average, people stay in treatment with OAT for 6 months

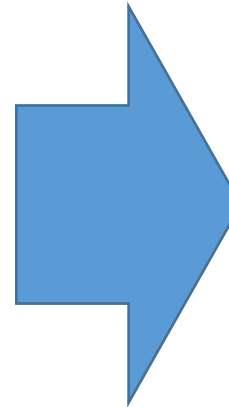
Methadone: 263 days

Suboxone: 114 days

**Note: based on Ontario data up to 2019; prior to expansion of SOS in province*

- Predictors of OAT discontinuation include:

- HIV Diagnosis
- Recent opioid-related toxicity
- Recent hospital visit for SUD



**Priority
populations for
SOS Programs**

Program Perspective: SOS as a Safety Net for Highly Vulnerable Clients

- Although most referrals to our SOS programs come from harm reduction programs and self referrals we also receive referrals from local RAAM clinics, OAT and iOAT program for clients who are not successful in those models of care.
- SOS as currently offered in Ontario should be seen as part of a continuum of harm reduction and treatment options for people who use drugs and with SUD.
- Safer supply is a safety net for highly vulnerable clients who frequently fail OAT

Questions

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