



ZERO

PREVENTABLE HARM
FROM MEDICATIONS

Opioid Stewardship in Critical Care *Dynamics 2020*

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Institute for Safe Medication Practices Canada





Learning Objectives

- Understand the impact and complexity of the Opioid Crisis in Canada
- Define Opioid Stewardship and the major components of this strategy to help address the crisis
- Learn about resources available to advance opioid stewardship
- Describe a change in recommended opioid prescribing practices
- Describe emerging advice in the use of opioids in critical care
- Describe the impact of the COVID-19 pandemic on the number of opioid-related deaths and possible reasons why



ISMP Canada is an independent not-for-profit organization dedicated to reducing preventable harm from medications

Our Vision: Zero preventable harm from medications

Our Mission: to identify risks in medication use systems, recommend optimal system safeguards, and advocate for safe medication practices





Canadian Medication Incident Reporting and Prevention System (CMIRPS)

ISMP Canada, a key partner in the
CMIRPS program together with
Health Canada,

Canadian Institute for Health
Information,

Canadian Patient Safety Institute,
and Patients for Patient Safety
Canada

CMIRPS SCDPIM
Canadian Medication Incident Reporting and Prevention System
Système canadien de déclaration et de prévention des incidents médicamenteux

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Canadian Medication Incident Reporting and Prevention System

Roles of the CMIRPS Collaborating Organizations

What is CMIRPS and How Does it work?

Benefits of CMIRPS

The Canadian Medication Incident Reporting and Prevention System

The Canadian Medication Incident Reporting and Prevention System (CMIRPS) is a collaborative pan-Canadian program of Health Canada, the Canadian Institute for Health Information (CIHI), the Institute for Safe Medication Practices Canada (ISMP Canada) and the Canadian Patient Safety Institute (CPSI). The goal of CMIRPS is to reduce and prevent harmful medication incidents in Canada.

- Roles of the CMIRPS Collaborating Organizations
- What is CMIRPS and How Does it Work?
- Benefits of CMIRPS

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Contact Us: info@cmirps-scdpim.ca

ISMP Canada receives funding from Health Canada to support our role in CMIRPS



We encourage you to report medication incidents

Practitioner Reporting



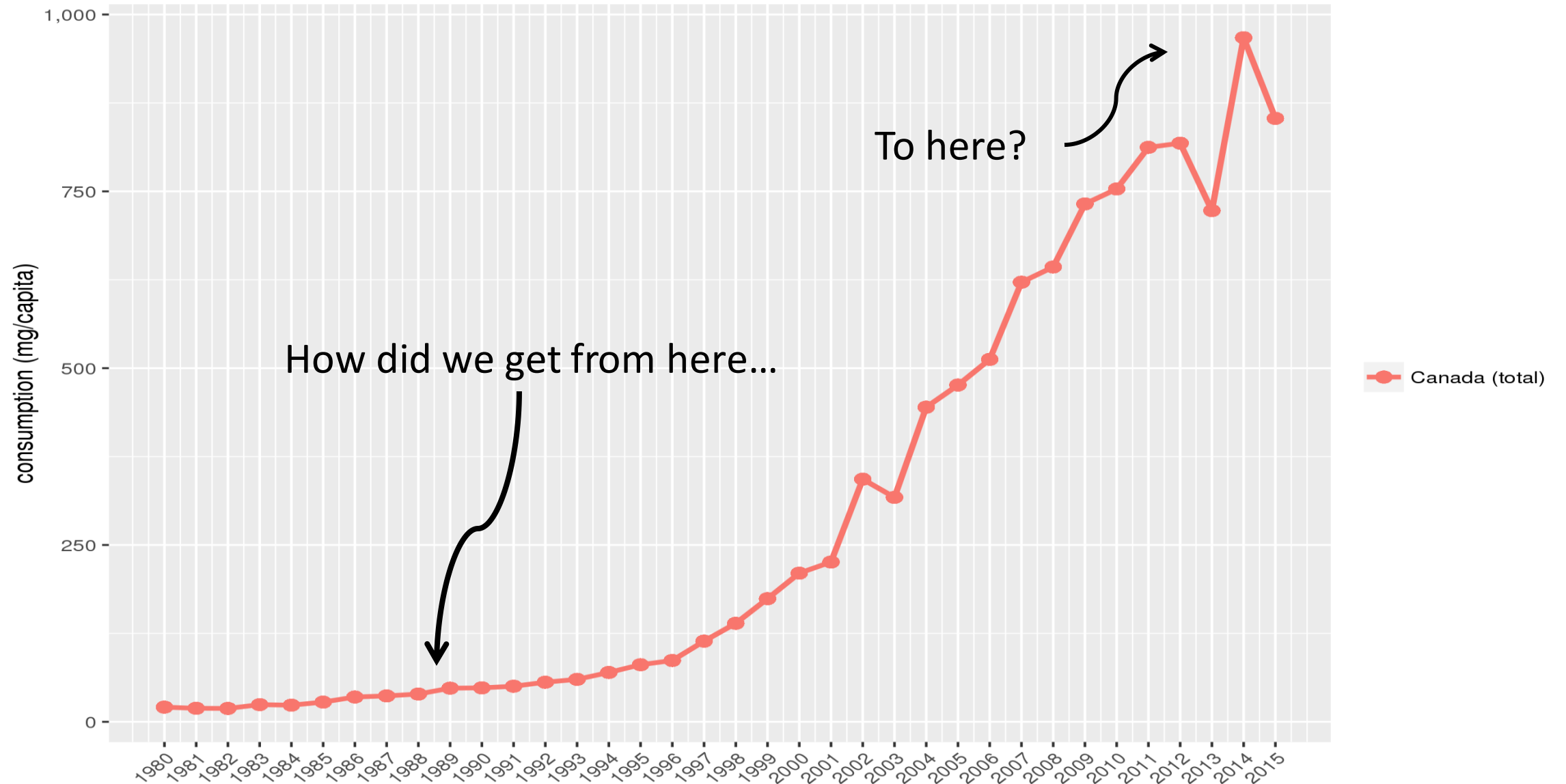
www.ismp-canada.org/err_report.htm

Consumer Reporting



www.safemedicationuse.ca/

Canada total opioid consumption (morphine equivalence mg/capita) 1980-2015





Opioid Crisis in Canada

What is the opioid crisis?

The opioid crisis is a complex public health issue. There are many factors that led us to the significant increase in opioid-related overdoses today. Some of these factors include:

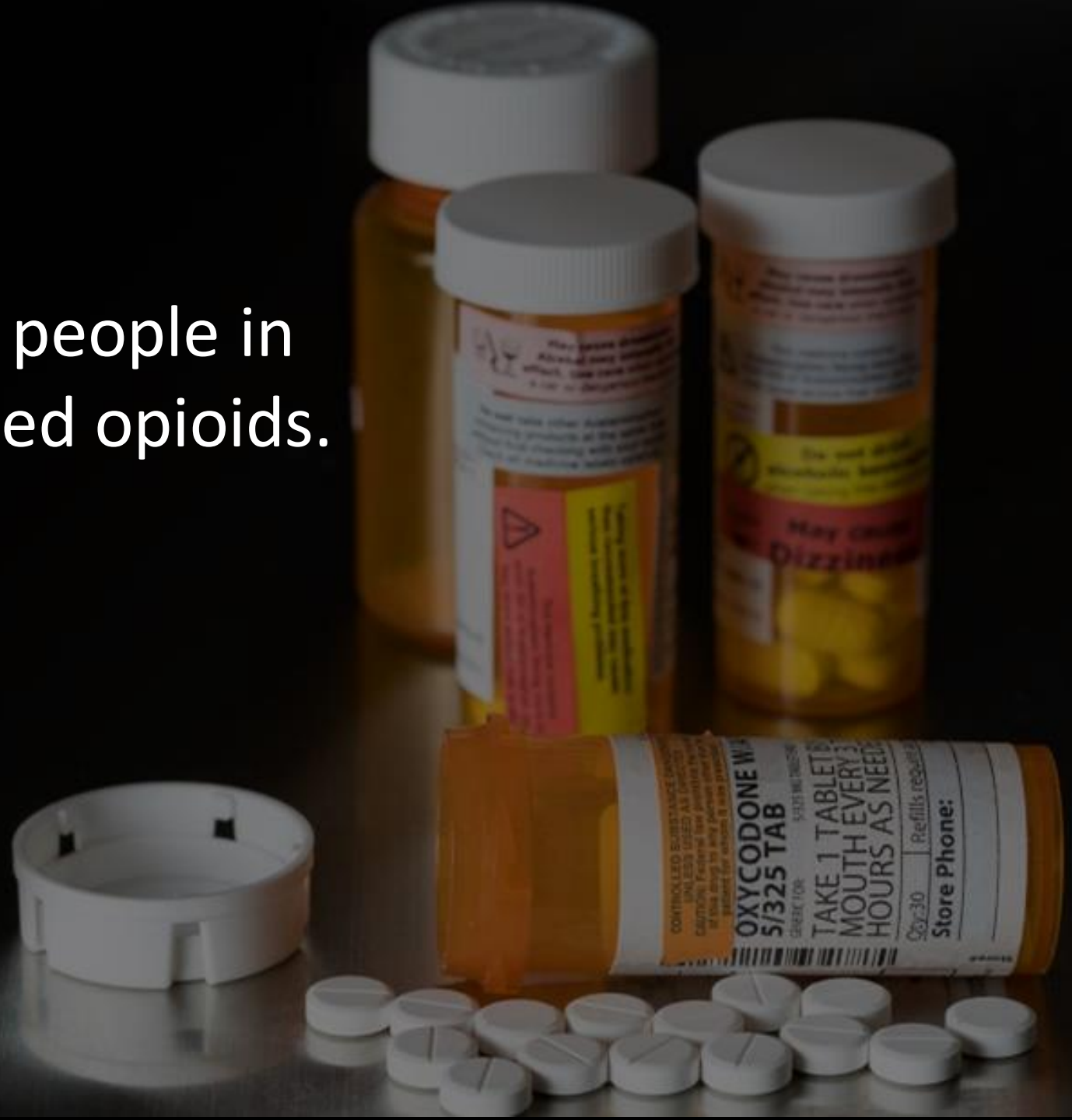
- high rates of opioid prescribing
- the emergence of strong synthetic opioids in the illegal drug supply – such as fentanyl and carfentanil

Health Canada:

<https://www.canada.ca/en/health-canada/services/substance-use/problematic-prescription-drug-use/opioids/get-the-facts.html>

In 2018, almost 1 in 8 people in Canada were prescribed opioids.

Canadian Institute for Health Information.
*Opioid Prescribing in Canada: How Are
Practices Changing?*. Ottawa, ON: CIHI; 2019.





Opioid Crisis in Canada



Between January 2016 and March 2020, **20,523** opioid-related poisoning hospitalizations occurred in Canada (excluding Quebec).

In 2020, between January and March, there were **1,067** hospitalizations due to opioid-related poisoning, of which **64%** were accidental (unintentional).



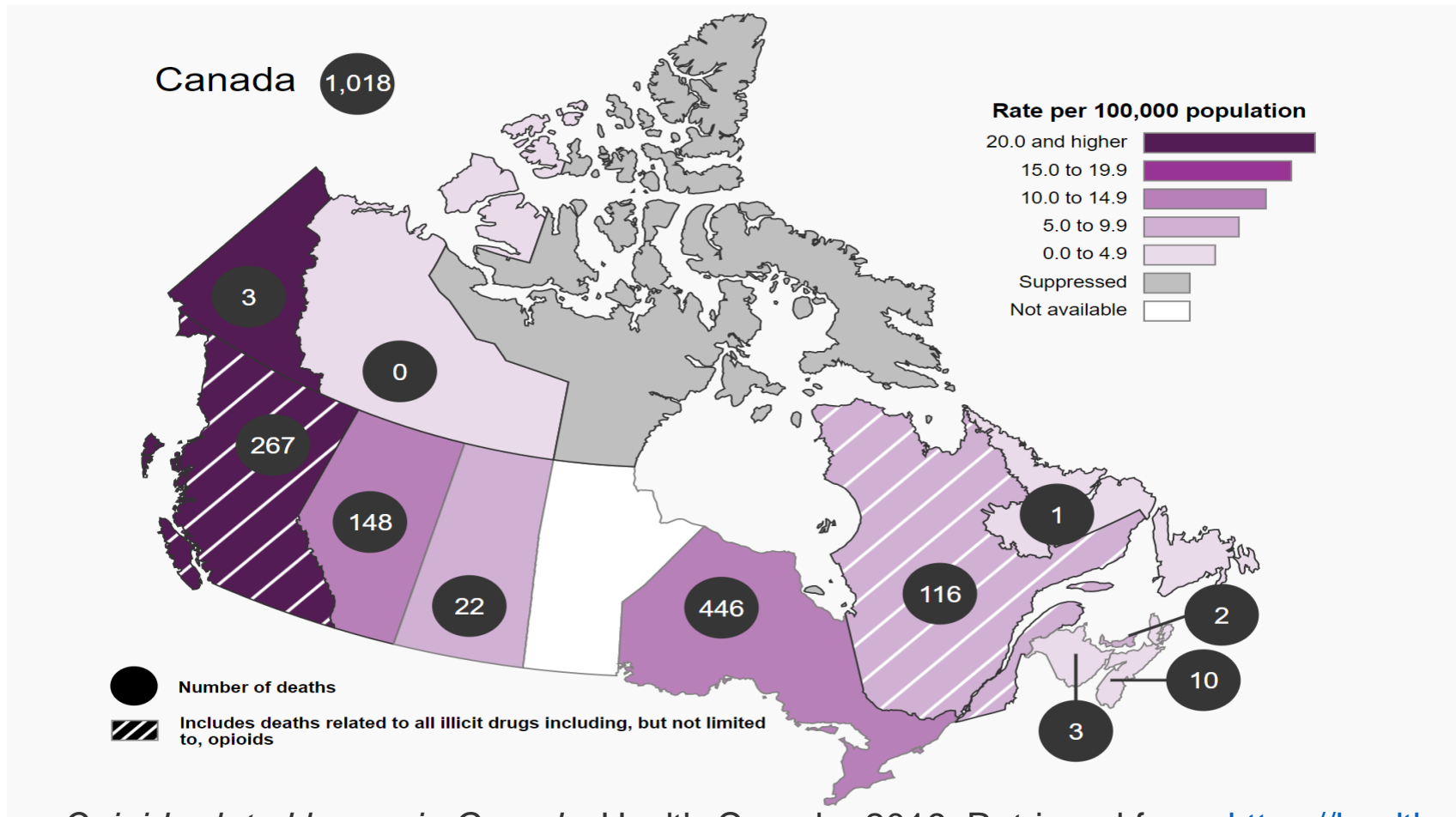
16,364 apparent opioid-related deaths occurred between January 2016 and March 2020.

In 2020, between January and March, **1,018** deaths occurred, of which **96%** were accidental (unintentional).

Special Advisory Committee on the Epidemic of Opioid Overdoses. Opioid-related Harms in Canada. Ottawa: Public Health Agency of Canada; September 2020. <https://health-infobase.canada.ca/substance-related-harms/opioids>



Opioid Crisis in Canada



Opioid-related harms in Canada. Health Canada. 2019. Retrieved from: <https://health-infobase.canada.ca/substance-related-harms/opioids/maps?index=15>



A complex crisis...

Pain

- Legal / Illegal drugs
- Prescribing practices
- Pharmaceutical industry
- Interprofessional collaboration
- Diversion of opioids in healthcare settings


Health

- Housing/education
- cultural safety
- equity
- Opioid-related stigma
- public health infrastructure

Mental Health

- Mental health supports
- Substance use disorder
- Community health supports

One strategy...
Opioid
Stewardship

The background features a dark grey field with several large, overlapping circles. A large grey circle is on the left, partially containing the text. To its right is a blue circle, and below that is a yellow circle. The circles have thin white outlines and overlap each other and the grey background.



Opioid Stewardship may be described as coordinated interventions designed to improve, monitor, and evaluate the use of opioids in order to support and protect human health.

https://www.ismp-canada.org/opioid_stewardship/



Resources



Institute for Safe Medication Practices Canada

A Key Partner in the Canadian Medication Incident Reporting and Prevention System (CMIRPS)

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Opioid Stewardship

Opioid medications are used to treat pain. Opioids are also known as narcotics. In recent years more and more Canadians are using opioids, and research indicates that we are now the world's second largest consumer of opioids. Along with this increased use of opioids there has also been a corresponding and alarming increase in the harm from opioids.

Through our ongoing analysis of medication safety incidents, we have found that opioids are frequently associated with harmful consequences-including death-when they are prescribed, used or administered incorrectly or in error.

Opioid Stewardship may be described as coordinated interventions designed to improve, monitor, and evaluate the use of opioids in order to support and protect human health. This web page has been developed to help the public and health care practitioners become better informed about opioids and to help reduce and prevent harm.



Patients and Families



Prescribing

https://www.ismp-canada.org/opioid_stewardship/



Patients & Families



Opioids for pain after surgery: Your questions answered



1. Changes?

You have been prescribed an opioid.

Opioids reduce pain but will not take away all your pain. Ask your prescriber about other methods of reducing pain including using ice, stretching, physiotherapy, or non-opioid drugs like acetaminophen or ibuprofen. Know your pain control plan and work closely with your prescriber if your pain does not improve.



2. Continue?

Opioids are usually required for less than 1 week after surgery.

As you continue to recover from your surgery, your pain should get better day by day. As you get better, you will need less opioids. Consult your healthcare provider about how and when to reduce your dose.



3. Proper Use?

Use the lowest possible dose for the shortest possible time.

Overdose and addiction can occur with opioids. Avoid alcohol and sleeping pills (e.g. benzodiazepines like lorazepam) while taking opioids. Do not drive while taking opioids.



4. Monitor?

Side effects include: sedation, constipation, nausea and dizziness.

Contact your healthcare provider if you have severe dizziness or inability to stay awake.



5. Follow-Up?

Ask your prescriber when your pain should get better.

If your pain is not improving as expected, talk to your healthcare provider.

To find out more, visit: OpioidStewardship.ca and DeprescribingNetwork.ca

It is important to:



Never share your opioid medication with anyone else.



Store your opioid medication in a secure place; out of reach and out of sight of children, teens and pets.



Ask about other options available to treat pain.



Take unused medications back to a pharmacy for safe disposal. Talk with your pharmacist if you have questions. For locations that accept returns: ☎ 1-844-535-8889 🔗 healthsteward.ca

Did you know?



About 16 Canadians are hospitalized each day with opioid poisoning.
— Canadian Institute for Health Information, 2017

Examples of opioids used for pain after surgery:

hydromorphone

morphine

codeine

oxycodone

tramadol

Notes:

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CADTH



Canadian Society of Hospital Pharmacists



Société canadienne des pharmaciens d'hôpitaux



CANADIAN NURSES ASSOCIATION



ASSOCIATION MÉDICALE CANADIENNE



Healthcare Providers

Opioid-Related Deaths Associated with Medication Incidents

Findings of a Multi-Incident Analysis

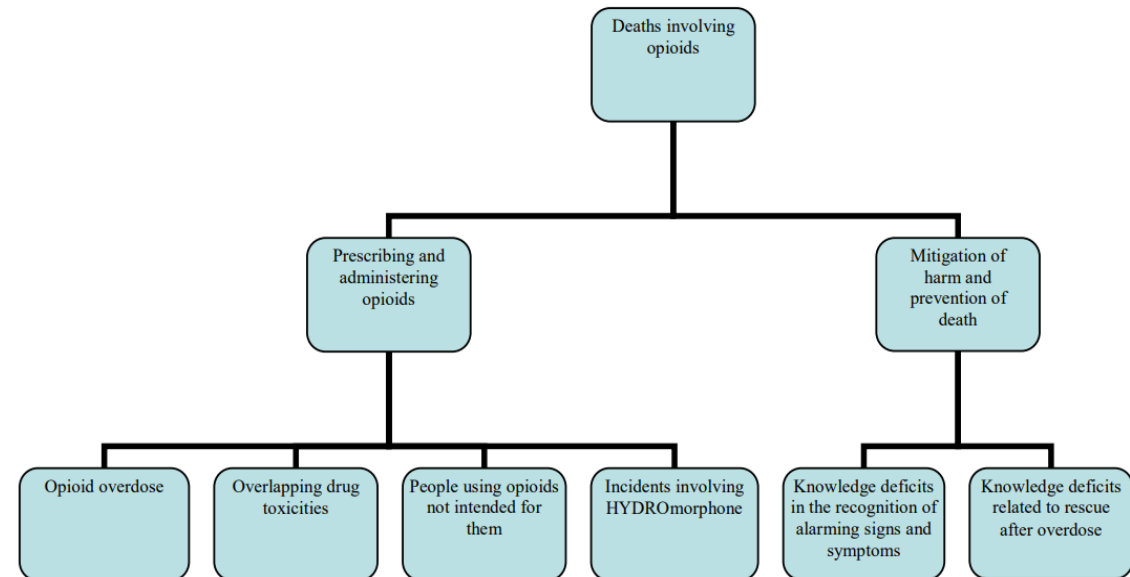
November 2014

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Figure 1: Main themes and subthemes from a multi-incident analysis of deaths involving one or more opioids



https://www.ismp-canada.org/opioid_stewardship/



Healthcare Providers



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https://www.ismp-canada.org/opioid_stewardship/



Safe Storage & Disposal

PREVENT MEDICATION ACCIDENTS

1. Store medications out of sight and reach of:

Children and teens



Visitors



Pets



2. Place unused medications in a bag and bring to a pharmacy.



3. For locations that accept returns:



1-844-535-8889



healthsteward.ca

Ask a healthcare provider if you have questions.



Download from <https://www.ismp-canada.org/download/OpioidStewardship/storage-disposal-information.pdf>

https://www.ismp-canada.org/opioid_stewardship/



Diversion



Institute for Safe Medication Practices Canada
REPORT MEDICATION INCIDENTS
Online: www.ismp-canada.org/err_index.htm
Phone: 1-866-544-7672

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ISMP Canada Safety Bulletin

Volume 20 • Issue 8 • August 20, 2020

Opioid Diversion in Hospitals – A Safety Concern

- Opioid diversion is both a patient and health care provider safety concern that is not well recognized, researched, or addressed.
- Diversion is a system-level problem, enabled by gaps in medication-use systems and a lack of robust health and wellness support for health care providers.
- To tackle opioid diversion, hospitals need to continue the shift towards a culture of safety and ensure appropriate guidance, resources, and supports for health care providers.

substances, mostly opioids.⁴ Loss of controlled medications (including by an act of diversion) is an event reportable to Health Canada's Office of Controlled Substances.⁵ Although break-and-enter, thefts, and employee pilferage are significant sources of loss, more than three-quarters of reporters listed the cause of loss as "unexplained",⁴ which may reflect hospitals' inability to trace the root causes of such losses.¹ Hospital staff are often the focus of diversion, however, patients and visitors have also been able to divert medications without immediate detection because of vulnerabilities in hospital

- Diversion of controlled medications from hospitals is increasing
 - From 2015 – 2019, hospital pharmacies in Canada reported more than 3000 incidents of lost or stolen controlled substances, mostly opioids (the majority are unexplained cause of loss)
 - A provincial survey (2015) of 4,000 RNs found that 3% of respondents self-identified as having a substance use disorder
 - A systematic approach, including advancing a just and trusting safety culture needed to address diversion



Prescribing

The 2017 Canadian Guideline for Opioids for **Chronic Non-Cancer Pain** provided 10 recommendations for the safe prescribing of opioids.

Recommendations include:

- Beginning with non-opioid pharmacotherapy, such as nonsteroidal anti-inflammatory drugs (NSAIDs), and non-pharmacological therapy
- If pain persists after these therapies have been optimized, recommendations are made to prescribe opioids with short durations of use and a maximum dose
- Steps to safely tapering patients who have been using long-term opioid therapy from high doses.

https://nationalpaincentre.mcmaster.ca/documents/Opioid%20GL%20for%20CMAJ_01may2017.pdf

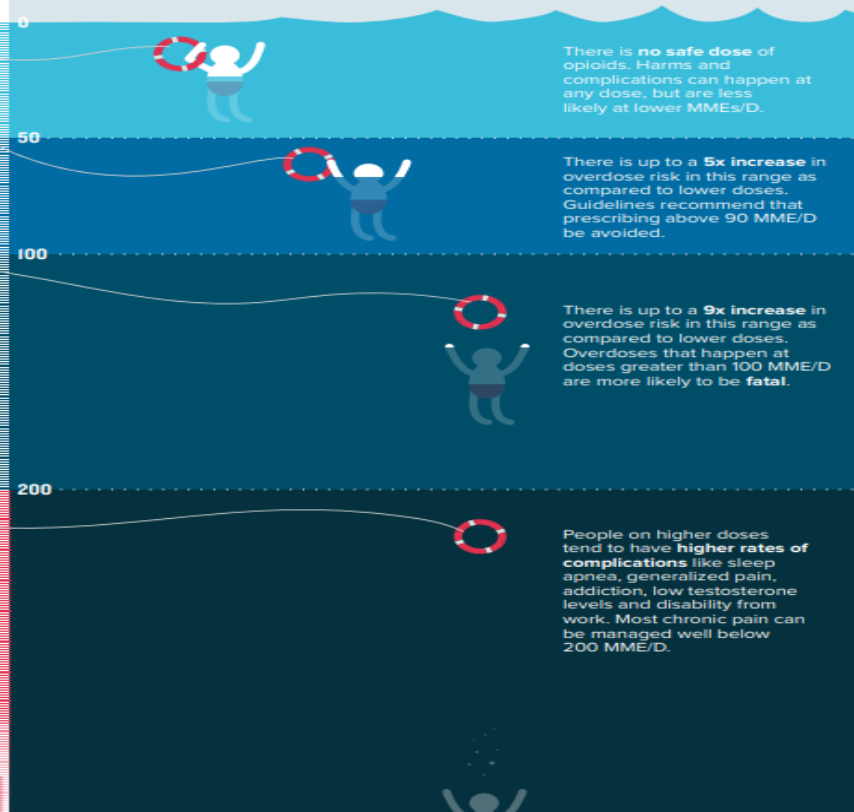
NAVIGATING OPIOIDS FOR CHRONIC PAIN

Sometimes the best of intentions lead to devastating consequences. Canada and the U.S. are the two highest consumers of prescription opioids even though we don't have good evidence that they are effective for chronic pain. Since there are many different opioids used for the same purpose, we use **morphine equivalence** to compare how strong they are.

AS THE NUMBER OF MORPHINE MILLIGRAM EQUIVALENTS PER DAY (MME/D) INCREASES, THE HARMS ASSOCIATED WITH OPIOID THERAPY ALSO INCREASE.

0-50 MME/D		
Codeine Contin 100mg	2 tabs/day	30 MME
Tylenol #3	8 tabs/day	36 MME
50-100 MME/D		
MS Contin 30mg	2 tabs/day	60 MME
Percocet	10 tabs/day	75 MME
Hydromorphone 4mg	4 tabs/day	80 MME
100-200 MME/D		
Hydromorphone SR 12mg	2 caps/day	120 MME
OxyNEO 40mg	3 tabs/day	180 MME
Fentanyl 50mcg Patch		200 MME
>200 MME/D		
Oxycodone CR 80mg	2 tabs/day	240 MME
Hydromorph Contin 30mg	2 caps/day	300 MME
Fentanyl 100mcg Patch		400 MME

IS HIGH DOSE PRESCRIBING SAVING OR SINKING YOU?



<https://www.ismp-canada.org/download/OpioidStewardship/navigating-opioids-11x17-canada.pdf>



How are prescribing patterns changing?

From 2016 to 2017, the total quantity of opioids dispensed in Canada declined by more than 10% and the number of prescriptions for opioids declined by over 400,000 — the first decline in prescriptions since 2012.



Canadian Institute for Health Information. *Opioid Prescribing in Canada: How Are Practices Changing?*. Ottawa, ON: CIHI; 2019.



How are prescribing patterns changing?

How many people are starting opioids?

Fewer people are starting new prescribed opioid therapy*



Note

* Reflects people who filled prescriptions at community pharmacies in Ontario, Saskatchewan and British Columbia.


The proportion of the study population starting opioids decreased from 9.5% in 2013 to 8.1% in 2018. This represents a 9.6% decrease in the number of people who started on opioids during the study period. Consistent decreases in the proportion of people starting opioids were observed in all study provinces (Figure 2).

Canadian Institute for Health Information. *Opioid Prescribing in Canada: How Are Practices Changing?*. Ottawa, ON: CIHI; 2019.



How are prescribing patterns changing?

In 2018, **1** out of **4*** **people** had a previous non-opioid prescription for pain relief prior to starting opioid therapy



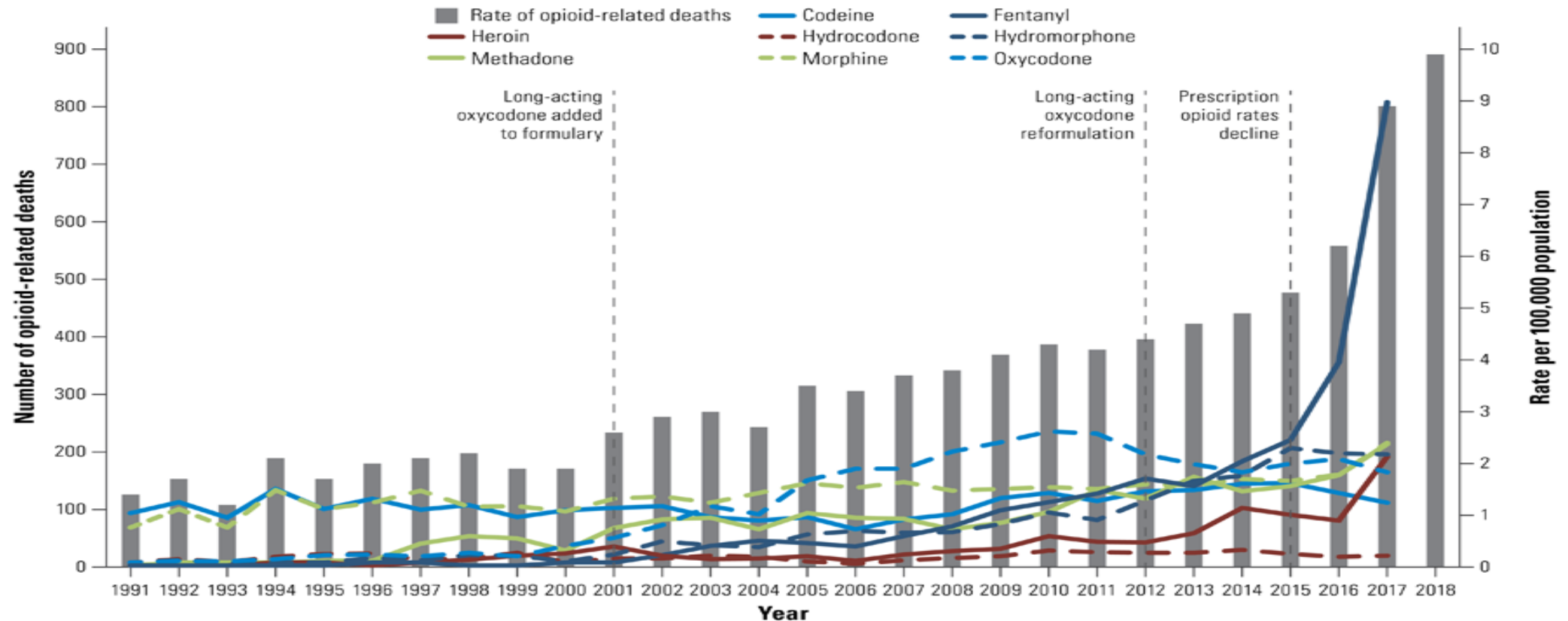
Note

* Reflects people who filled prescriptions at community pharmacies in Manitoba, Saskatchewan and British Columbia. This excludes Ontario because the Narcotics Monitoring System data does not include all non-opioid pain medications.

Canadian Institute for Health Information. *Opioid Prescribing in Canada: How Are Practices Changing?*. Ottawa, ON: CIHI; 2019.




Opioid-related deaths – key changes



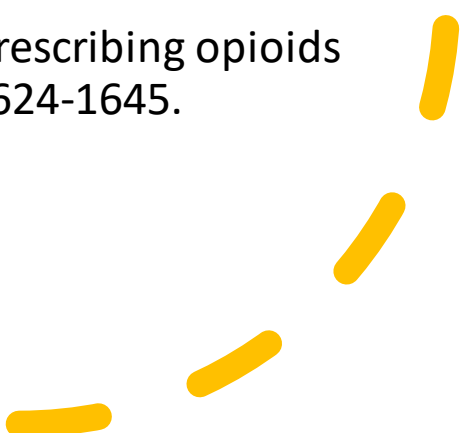
Understanding the implications of a shifting opioid landscape in Ontario. Healthcare Quarterly. 22(3). Oct. 2019.

[Understanding the Implications of a Shifting Opioid Landscape in Ontar \(longwoods.com\)](https://longwoods.com/understanding-the-implications-of-a-shifting-opioid-landscape-in-ontar)



Although opioid stewardship in the setting of chronic pain is of paramount importance in curbing the ongoing epidemic, long-term prescription opioid use often begins with treatment of acute pain.

Dowell D, Haegerich TM, Chou R. CDC Guideline for prescribing opioids for chronic pain-United States. JAMA. 2016;315(15):1624-1645.





Opioids In Critical Care

- ✓ Progression from acute to chronic pain is well-documented in surgical and trauma patients
- ✓ Appropriate analgesia in the perioperative period has been shown to decrease the progression to chronic pain states

Implications of the opioid epidemic for critical care practice. Erstad, Brian L.
Journal of the American College of Clinical Pharmacy. 2019;2:161-166.



Opioids In Critical Care

- ✓ Approximately 50% of patients report moderate to severe pain during their ICU stay on surveys given after ICU discharge
- ✓ In another study, more than one-third of ICU patients required no opioids during their ICU stay.

Implications of the opioid epidemic for critical care practice. Erstad, Brian L.
Journal of the American College of Clinical Pharmacy. 2019;2:161-166.



Opioids In Critical Care

- ✓ Structured approach to pain assessment (self-report, if not, BPS, CPOT, etc.) and management essential (see also PADIS Guidelines, 2018 – <https://www.sccm.org/ICULiberation/News/Hot-off-the-Press-New-PADIS-Guideline>)
- ✓ Opioids play a key role in treating acute, severe pain states
- ✓ Non-steroidal anti-inflammatory drugs (NSAIDs), acetaminophen, and ketamine as primary therapy or adjuncts (concerns with complications in some patients)

Implications of the opioid epidemic for critical care practice. Erstad, Brian L. *Journal of the American College of Clinical Pharmacy*. 2019;2:161-166.



Opioids In Critical Care

- ✓ Gabapentin, pregabalin, or carbamazepine for neuropathic pain (multimodal regimen)
- ✓ Standardized pain management protocols and real-time decision supports are key – consider non-pharmacological interventions such as massage/touch, relaxation/distraction, music therapy, cold, etc.
- ✓ Specific strategies for pain control in the critical care setting emerging but limited evidence base at this time

Implications of the opioid epidemic for critical care practice. Erstad, Brian L.
Journal of the American College of Clinical Pharmacy. 2019;2:161-166.



Opioids In Critical Care

- ✓ Opioids used as a weaning strategy may lead to increased prescribing at hospital discharge and possible chronic opioid use
- ✓ With prolonged opioid use in the ICU, consider possible iatrogenic opioid withdrawal

Implications of the opioid epidemic for critical care practice. Erstad, Brian L.
Journal of the American College of Clinical Pharmacy. 2019;2:161-166.

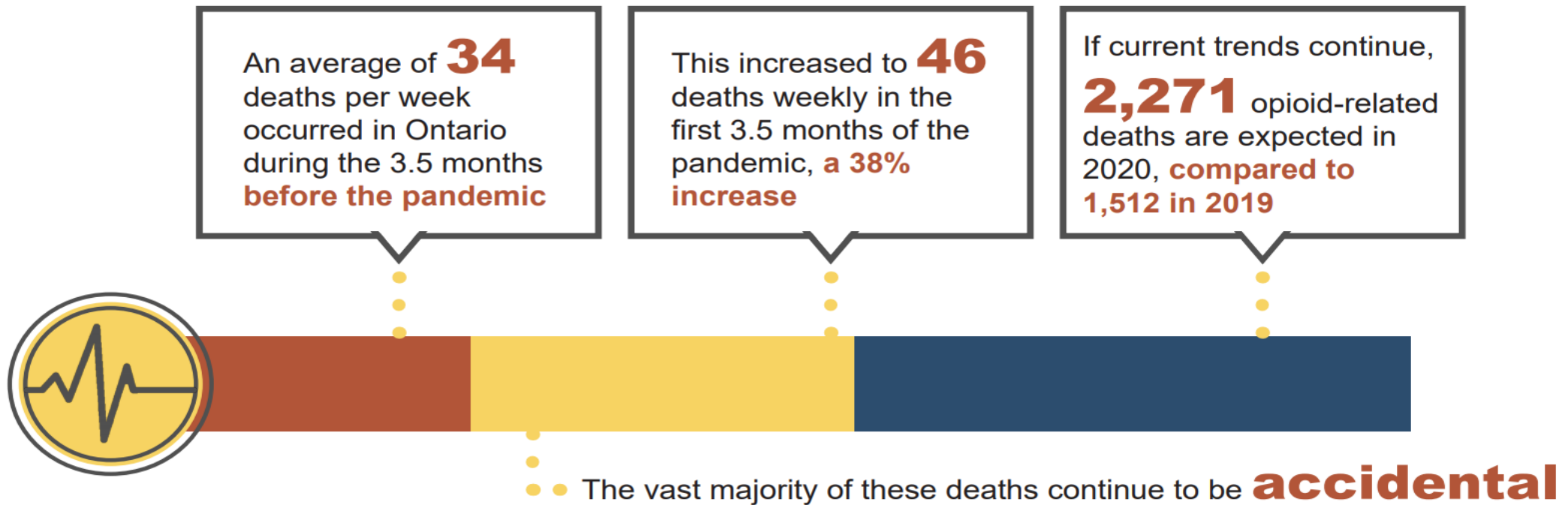


Opioids In-hospital

- ☐ No multiple range orders
Avoid: Hydromorphone 1-2mg IV/SQ q1-2 hours prn
- ☐ No multiple opioid orders (unless clinically required)
Avoid: Hydromorphone 1-2mg PO q4hrs prn and morphine PO 2.5-5mg q4hrs prn
- ☐ Fentanyl patch (other topicals too) requires some other type of PO opioid for breakthrough
- ☐ No multiple routes of the same drug/dose
Avoid: Hydromorphone 1-2mg IV/SQ/PO q1-2 hours prn
- ☐ Develop standardized pain management protocols and real-time decision supports are key



Ontario Opioid-Related Deaths During COVID-19



Preliminary Patterns in Circumstances Surrounding Opioid-Related Deaths in Ontario during the COVID-19 Pandemic. Toronto, ON: Ontario Drug Policy Research Network; 2020. https://odprn.ca/wp-content/uploads/2020/11/Opioid-Death-Infographic_FINAL.pdf



Ontario Opioid-Related Deaths During COVID-19

Drugs Involved

Compared to before the pandemic:

Fentanyl

was more commonly a **direct contributor** to opioid-related deaths

This may be due to:



Increased reliance on

Unregulated drug supplies



Decreased access to

prescription opioids

Etizolam

was more commonly **detected in a post-mortem toxicology**

Cocaine

directly contributed to significantly more opioid-related deaths

A l o n e

In 3/4 of opioid-related deaths during the pandemic, **no one** was present to intervene

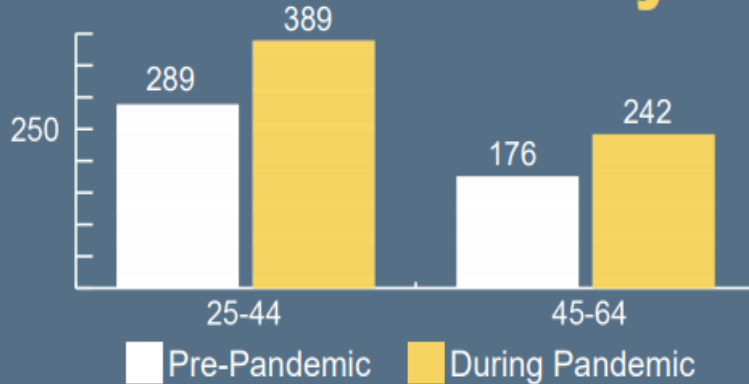
Preliminary Patterns in Circumstances Surrounding Opioid-Related Deaths in Ontario during the COVID-19 Pandemic. Toronto, ON: Ontario Drug Policy Research Network; 2020. https://odprn.ca/wp-content/uploads/2020/11/Opioid-Death-Infographic_FINAL.pdf



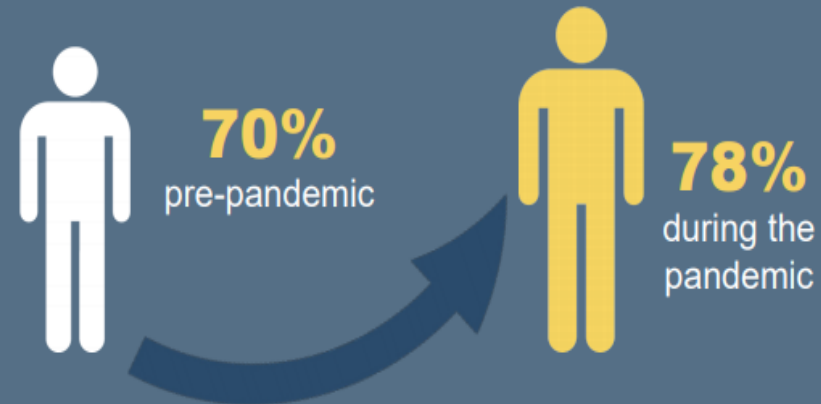
Ontario Opioid-Related Deaths During COVID-19

Demographics

The largest increases in deaths occurred among people aged **25 - 44 and 45 - 64 years**



The proportion of opioid-related deaths among men increased from



Preliminary Patterns in Circumstances Surrounding Opioid-Related Deaths in Ontario during the COVID-19 Pandemic. Toronto, ON: Ontario Drug Policy Research Network; 2020. https://odprn.ca/wp-content/uploads/2020/11/Opioid-Death-Infographic_FINAL.pdf



ISMP Canada Safety Bulletin

Volume 20 • Issue 6 • June 9, 2020

Delivery of Opioid Agonist Treatment during a Pandemic

The provision of uninterrupted opioid agonist treatment (OAT) is an important patient care service that pharmacies offer to treat opioid use disorder. OAT, particularly when provided as directly observed therapy, is challenging during the COVID-19 pandemic because of the need for physical distancing and because patients may be quarantined or self-isolating. To support continuity of care to patients during this time, Health Canada has issued temporary regulatory exemptions for providing OAT to allow prescribers to order OAT verbally and pharmacists to extend, renew, or transfer OAT prescriptions. Regula-

delivery was overlooked one day because of a particularly high volume of deliveries (attributable to the pandemic). As a result, the patient missed that day's dose.

BACKGROUND

Medications used for OAT include buprenorphine-naloxone, methadone, and extended-release morphine, all of which are taken once daily. Directly observed therapy is typically reserved for patients who are in the stabilization or early maintenance phases of opioid use disorder treatment and those

Methadone for Opioid Use Disorder: Your Questions Answered

METHADONE

Seeking help for your opioid dependence is a wise and important step in your road to recovery. There are people who can help you to develop goals and who can support you along the way. Talk to your health care provider about your support options.

Methadone is an opioid used to treat opioid use disorder. Unlike most opioids, methadone lasts a long time in your body to help prevent cravings and feelings of withdrawal. Once you've taken this medication for a while, you should feel more energetic and clear-headed. This will let you focus on things like work, school, and family.



1. Changes?

You've been prescribed methadone for opioid use disorder (opioid dependence). You'll take the first dose of methadone in the presence of a health care provider. The first dose will be small to see how you tolerate it. The dose can be increased based on how you feel. It may take weeks to get to the dose that is right for you.



2. Continue?

You and your health care provider will decide how long you'll take methadone. Usually, long-term treatment is most effective (e.g., months to years). You may decide to try stopping this medication at some point. It's important to do this together with your health care provider so the dose can be lowered very slowly.



3. Proper Use?

Methadone is a liquid medication. It's mixed with juice by a pharmacist and given to you to drink at the pharmacy. When starting methadone, you will have to go to the pharmacy every day to take your dose. Over time many people can take doses at home – these are called "carries". Talk with your health care provider about how to manage missed doses, as changes to your medication may be needed. Overdose can happen with methadone when it's not taken properly. Do not take other opioids, alcohol, or sleeping pills (e.g., benzodiazepines like lorazepam [Ativan]) while on this medication, as they increase the risk of an overdose. It may not be safe to drive a car or operate machinery when you first start taking this medication.



4. Monitor?

You may experience side effects, especially when you start methadone or increase the dose. You may feel light-headed, dizzy, drowsy, and sweaty. You may be constipated. You might also feel sick to your stomach and vomit. These side effects may go away as your body gets used to the medication but if they do not, talk with your health care provider. Contact a health care provider right away if you have a hard time breathing or staying awake, are experiencing severe dizziness or chest pain, or if you feel a rapid or irregular heartbeat.



5. Follow-up?

When you start methadone, you'll have extra visits with your health care provider will want to see how you're feeling and may change your dose if need to provide urine samples when asked by your health care provider.

CADTH Evidence
Driver's



Canadian Society of
Hospital Pharmacists

Société canadienne des
pharmaciens hospitaliers



THE COLLEGE OF
PHARMACY
OF CANADA

ASSOCIATION
DES PHARMACIENS
DU CANADA

Canadian Centre
on Substance Use
and Addiction

Centre canadien sur
les dépendances et
l'usage de substances

To access this handout visit: www.opioidstewardship.ca



ZERO
PREVENTABLE HARM
FROM MEDICATIONS

Questions / Discussion

A Key Partner in the Canadian Medication Incident Reporting and Prevention System

