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## Summary Report

# Trends in Opioid Prescribing in Canada, 2018 to 2022

### Report Authors

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## Executive Summary

Canada is experiencing a severe opioid toxicity crisis, mainly driven by unregulated substances like fentanyl. Policy-makers need updated information on patterns of opioid prescribing and treatment for opioid use disorder (OUD) to address the ongoing drug toxicity crisis.

The objectives of this drug utilization study were to describe trends in prescription opioid use for pain and opioid agonist therapy (OAT) from January 2018 to December 2022, and to describe patterns of prescription opioid exposure at the time of opioid toxicity inpatient hospitalizations and emergency department (ED) visits. Researchers used pharmacy dispensing data in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Quebec, as well as hospitalization and ED visit records in provinces where data were available.

From 2018 to 2022, the use of prescription opioids for pain in Canada declined in all provinces. The number of patients starting on high doses also declined. This suggests a trend toward improved alignment with the current guidelines and measures aimed at promoting appropriate opioid prescribing. The use of OAT varied by province, which may suggest different underlying rates of OUD and/or variable access to treatment in each province. Buprenorphine dispensing increased across all provinces over the study period, which is in line with guidelines recommending it as the preferred treatment for OUD. The proportion of opioid toxicity hospitalizations and ED visits with active exposure to prescribed opioids declined, highlighting the increasing dangers of the unregulated drug supply across Canada. Policy responses designed to address the ongoing drug toxicity crisis must focus on the harm caused by the unpredictable and potent unregulated drug supply.

## Background

Canada is facing a severe opioid toxicity crisis, with more than 47,000 opioid-related deaths reported between January 2016 and March 2024, primarily driven by unregulated substances like fentanyl. While there are national statistics on opioid-related toxicity, data on prescription opioid dispensing for pain and treatment of OUD are limited and outdated, with little information on trends throughout the COVID-19 pandemic.

## Policy Issue

Policy-makers want to know more about trends in opioid prescribing, access to treatment, and how common active exposure to prescription opioids is at the time of an opioid-related toxicity to better understand the role of prescription opioids in opioid-related harms across Canada. Policy-makers will use the findings to inform policy and programming decisions around pain management, opioid use, and OUD across Canada, and to inform the government's response to opioid-related harms.

## Policy Questions

- 1 How have trends in opioid prescriptions dispensed for pain and OAT changed across Canada, and do these trends vary geographically or across sociodemographic groups?
- 2 What is the prevalence of recent pharmaceutical opioid dispensing prior to opioid-related toxicity events in Canada, and how has this changed over time?

## Objectives

The objectives of this drug utilization study were to describe trends in prescription opioid use for pain and OAT from January 2018 to December 2022, and to describe patterns in prescription opioid use prior to opioid toxicity inpatient hospitalizations and ED visits during the same time period.

## Findings

This study used pharmacy dispensing data from 6 Canadian provinces: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Quebec. Data availability varied by province, and included pharmacy dispensing data, hospitalization records, and ED visit records (except for Manitoba).

**Dispensing** is the process of preparing and providing a prescription drug to a patient. Dispensing data from community pharmacies were used to estimate opioid use. However, we could not determine whether people used their prescribed medications as intended, which may skew the understanding of actual opioid use.

## Trends in Prescription Opioid Use for Pain

Monthly rates of new and overall users of prescription opioids for pain declined across all provinces. Rates of new use were similar across provinces, while rates of overall use were highest in Manitoba and lowest in British Columbia.

New use of opioids for pain was generally higher among females, individuals aged 75 years and older, residents of lower income neighbourhoods, and people living in rural locations. More than 80% of new opioid prescriptions for pain started at doses below 50 milligram morphine equivalents (MME). This trend has either remained stable or increased over time.

Types of opioids dispensed varied across provinces, with a notable increase in hydromorphone use and a decrease in oxycodone use. Codeine was the most commonly dispensed in most provinces, while hydromorphone was the most commonly dispensed in Quebec and Saskatchewan.

## Trends in Prescription Opioid Use for OAT

**OAT** is used to treat OUD by helping to prevent withdrawal symptoms, reduce cravings, and lower harms. We examined trends in methadone and buprenorphine use only.

Monthly rates of new and overall users of OAT varied by province, with increasing rates in Alberta, Saskatchewan, and Manitoba, while remaining relatively stable in British Columbia, Ontario, and Quebec.

New use of OAT was higher among males, individuals aged 25 to 44 years, and people living in lower income neighbourhoods. Rates of new use of OAT varied between rural and urban areas depending on the province.

Types of OAT dispensed varied by province, with a notable increase in buprenorphine use across all provinces.

## Trends in Prescription Opioid Use Prior to Opioid Toxicity Hospitalizations

Annual rates of opioid toxicity inpatient hospitalizations varied by province, with growth in British Columbia and roughly stable trends over time in the other provinces. In 2022, rates were highest in British Columbia and lowest in Manitoba and Quebec. Most toxicities were accidental and involved individuals aged 25 to 64 years.

Active prescription opioid exposure at the time of opioid toxicity hospitalization was relatively uncommon – ranging from 20% in British Columbia to 37% in Quebec in 2022 – and has declined over time, except in British Columbia where it has remained stable.

Generally, people aged 65 years and older and females were more likely to have active opioid exposure. Active exposure to prescription opioids for pain was more common than OAT, although this has declined over time, while active exposure to OAT has increased across most provinces.

## Prescription Opioid Use Prior to Opioid Toxicity ED Visits

The total number of opioid toxicity ED visits increased over time across all provinces. Rates increased in Ontario, while remaining stable in Alberta and Quebec (where reportable). Most ED visits were among individuals aged 25 to 44 years.

The percentage of opioid toxicity ED visits with active prescription opioid exposure has generally decreased over time, except in British Columbia, where it has increased, although it remained among the lowest rates from 2018 to 2022.

In 2022, the highest percentage of ED visits with active opioid exposure was in Quebec at 26%, and the lowest was in Alberta at 15%. People aged 65 years and older and females were most likely to be exposed to prescription opioids at the time of an ED visit.

In 2022, active use of opioids was more common for OAT than for pain management in British Columbia, Ontario, and Saskatchewan. Between 2018 and 2022, active use of OAT before an ED visit increased, while use of opioids for pain fell.

## Limitations

This study has several limitations, including gaps in opioid dispensing data across Canada, especially in the Atlantic provinces and territories. Certain provinces, like Quebec and Manitoba, had data restrictions that affected the analysis. The analysis also could not adjust for differing rates of OUD across provinces, making the findings harder to interpret. Finally, we were not able to determine whether an opioid toxicity event was directly caused by pharmaceutical opioids, and we did not look at concurrent use of other substances that might increase the risk of toxicity.

## Implications for Policy-Making

Lower rates of use and reduced initiation of opioids for pain at high doses likely reflect efforts to promote appropriate prescription opioid use in Canada.

While a rise in buprenorphine dispensing across provinces aligns with clinical guidelines applicable during the study period (which recommended buprenorphine-naloxone as first-line treatment for OUD), recent guidance indicates that methadone may be more effective for those exposed to fentanyl from the unregulated supply. Continuous monitoring will be necessary as the landscape of opioid access and prescribing evolves based on the 2024 updated clinical guidelines for the management of OUD.

Policy responses designed to address the ongoing drug toxicity crisis must focus on the harm caused by the unpredictable and potent unregulated drug supply.

## Considerations

Post-Market Drug Evaluation (PMDE) projects aim to produce health policy issue evidence and are not linked to a recommendation.

This work was intended to inform health policy. Clinical questions regarding the use of opioids should be directed to a health care professional.

For more information on CoLab and its work, visit the [CoLab website](#).

For the full scientific report, visit:

[Trends in Opioid Prescribing in Canada, 2018 to 2022](#)



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