



# Prescription Opioid Trends in Canada

*An independent IQVIA report on measuring and understanding the use of prescription opioids dispensed from 2019 to 2023*

# Introduction

Opioids are a group of psychoactive medications commonly used for the treatment of moderate to severe pain associated with acute and chronic medical conditions or as treatments for opioid dependence. The medication, used as a single product or in combination with others, has an important role to play in drug treatment, but only if consumed in a way that is both safe and effective. In addition to their analgesic properties, opioids have the potential to cause physical and psychological dependence and are recognized as drugs used by drug addicts.

All those who study and deliver health care and set the policy and standards of care that inform the treatment for opioid overuse are challenged to strike the right balance between reducing human suffering and minimizing the equally painful sequelae of opioid dependence. There is no easy way to determine this balance, but the available data could inform the way forward for practitioners, researchers, educators, and policymakers, ultimately for the betterment of the patient's health.

Our focus at IQVIA is to help optimize health by considering evidence-based data and insights to better inform decision-makers in this critical area with the utmost respect for privacy and information security. This report compares changes in Canada-wide trends in opioid prescriptions dispensed in community pharmacies (excluding hospitals) over five years between 2019 and 2023, thus covering the effects of the coronavirus pandemic on this class of drugs. In addition, demographic indicators by province or region illustrate the progress made and the ongoing concerns. Refer to page 14 for the limitations associated with using IQVIA data.

The statistics and analysis presented in this report derive from the IQVIA Dashboard, developed in collaboration with the IQVIA Advisory Board for the Advancement of Health. The Board, made up of influential stakeholders in health care and data management from the province of Quebec, serves to promote responsible access and use of health data to shed light on some of the most challenging health issues facing Canadians.

The Board's driving belief is the concept of a connected health care system—one that leverages efficient and ethical data sharing from all available sources—to help stakeholders make informed decisions. One of the Board's main goals is to make the Health Insights Dashboard accessible to key stakeholders (governments, politicians, professional orders, physicians, organizations) to demonstrate the added value of using health data by regularly providing them with relevant information and drawing their attention to certain facts.

*This report was produced independently by IQVIA Canada as a public service, without industry or government funding. IQVIA complies with all legislation relating to the protection of personal health information, and IQVIA does not collect any data on prescription drugs that can identify a patient or that can be used for this purpose.*

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# Table of contents

<b>National Opioid Utilization Highlights</b>	<b>4</b>
<b>Provincial Prevalence Trends</b>	<b>5</b>
<b>Demographic Analysis</b>	<b>6</b>
<b>Opioid Dependence Treatments</b>	<b>9</b>
<b>Prescriber Analysis</b>	<b>11</b>
<b>Prescriber Analysis – Dependence</b>	<b>11</b>
<b>Recommendations for Health Stakeholders</b>	<b>12</b>
<b>Methodology and IQVIA Databases</b>	<b>13</b>
<b>About IQVIA</b>	<b>15</b>

# National Opioid Utilization Highlights

The opioid abuse epidemic has troubled the country for more than a decade. The March 2024 report from the Public Health Agency of Canada (PHAC)\* lists 42,495 deaths apparently linked to opioid poisoning between January 2016 and September 2023. Between January and September 2023, PHAC recorded 5,975 deaths linked to opioid poisoning, an average of 22 deaths per day, most of which (88%) occurred in British Columbia, Alberta, and Ontario. In the pre-COVID-19 pandemic year of 2019, the number of deaths per day was 10.

While the human toll of the opioid epidemic is being addressed differently across the country, efforts to manage the prescribing of opioids and supporting medication regimes are showing measurable results in many provinces, even if some hot spots remain.

For Canada as a whole, we observed a prevalence rate which decreased from 12.8% to 11.7% between 2019 and 2023, corresponding to 1 in 9 people having received at least one opioid prescription in 2023.

This is IQVIA's third report on prescription opioid trends in Canada, covering 2019, 2020, 2021, 2022 and 2023.

## General statistics on opioid use in Canada

	PREVALENCE	INDIVIDUALS WHO HAVE USED OPIOIDS	OPIOID PRESCRIPTIONS DISPENSED	AVE. RX/INDIVIDUAL
<b>2019</b>	12.8%	4,814,467	38,863,313	8
<b>2020</b>	11.6%	4,411,883	37,514,593	9
<b>2021</b>	12.1%	4,635,573	38,369,525	8
<b>2022</b>	11.9%	4,704,342	37,841,870	8
<b>2023</b>	<b>11.7%</b>	<b>4,766,051</b>	<b>38,101,348</b>	<b>8</b>

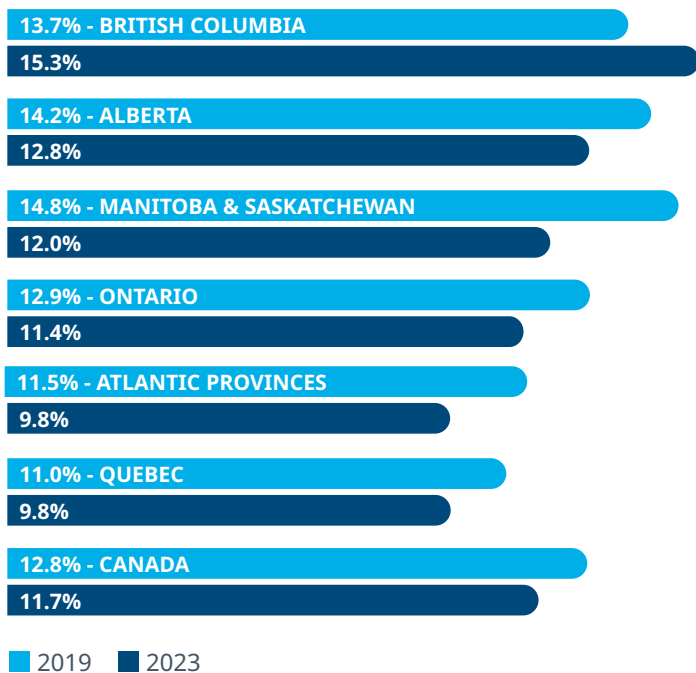
\*Federal, provincial and territorial special advisory committee on the opioid overdose epidemic. Harms associated with opioids and stimulants in Canada. Ottawa: Public Health Agency of Canada, March 2024. <https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/>

# Provincial Prevalence Trends

## Prevalence rates between 2019 and 2023

A decrease in prevalence is observed between 2019 and 2023 at the national level and in all Canadian provinces except British Columbia with an increase to 15.3% in 2023. Quebec had the lowest prevalence rate in 2023 at 9.8%.

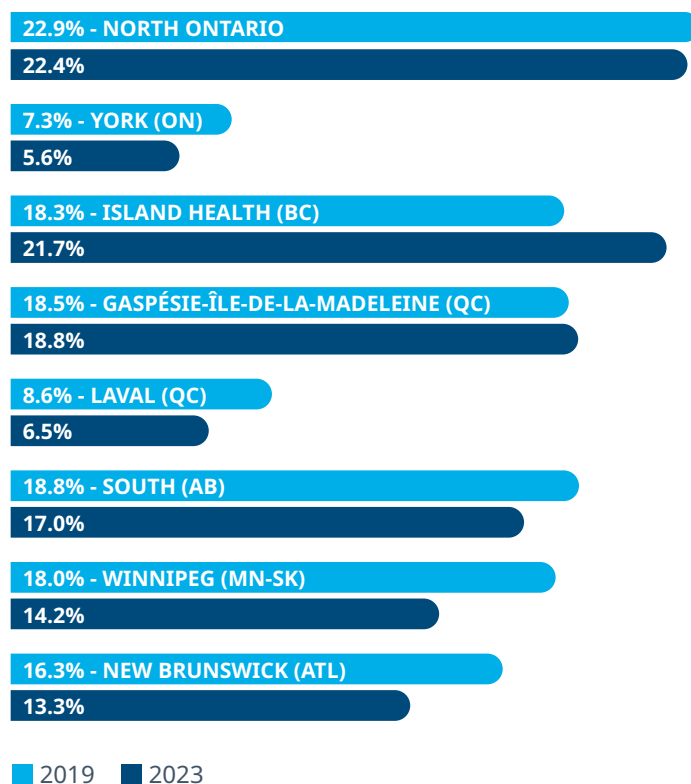
### Prevalence of opioid dispensing by province



## Prevalence of opioid dispensing by selected provincial health regions

IQVIA recently developed new indicators to further enhance the reports, by integrating data on the socio-health regions of certain Canadian provinces, notably Ontario with 26 regions and Quebec with 15 regions. Below are some examples. For further information, please contact us.

### Prevalence of opioid dispensing in selected provincial health regions

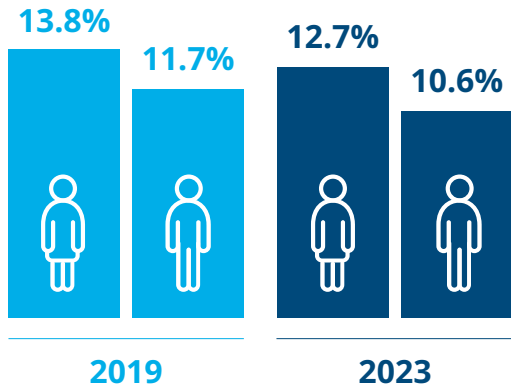


# Demographic Analysis



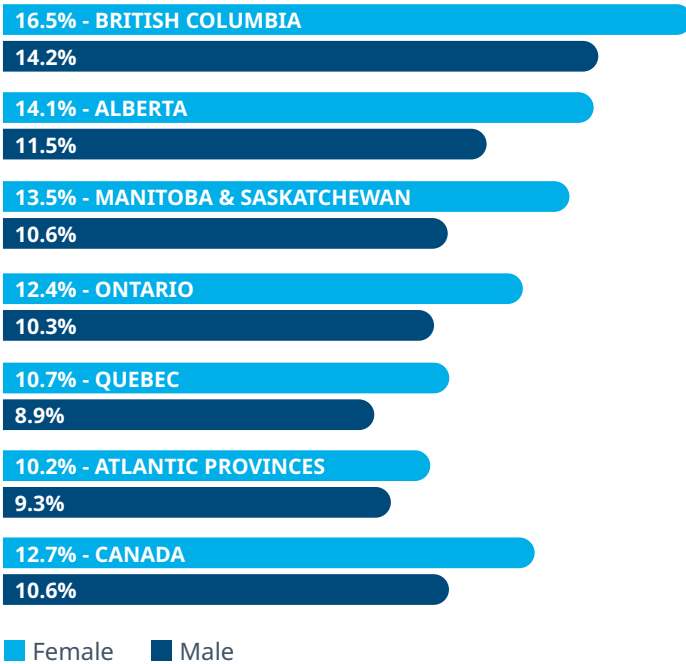
**In 2023, about 1 person in 9 in Canada received at least one prescription for opioids in a community pharmacy — a number estimated at more than 4.7 million Canadians.**

Prevalence of opioid dispensing by gender - Canada



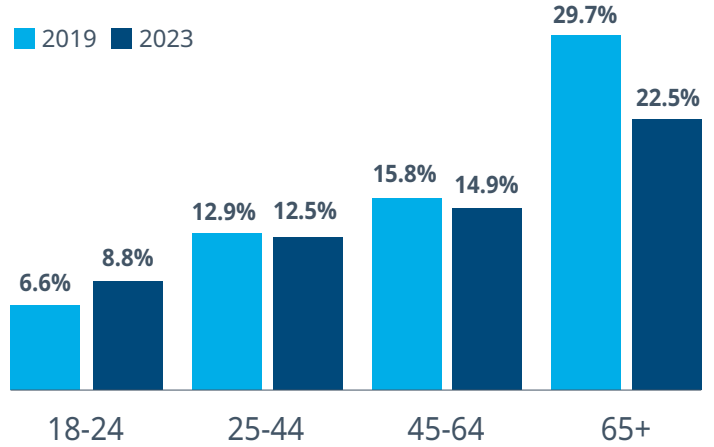
In Canada, the prevalence rate between 2019 and 2023 went from 13.8% to 12.7% for women and from 11.7% to 10.6% for men.

Prevalence of opioid dispensing by gender and province - 2023

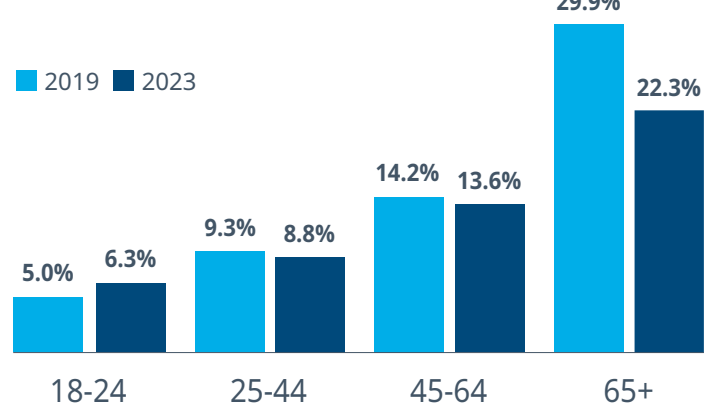


In 2023, the prevalence among women in all Canadian provinces was consistently higher than that of men reaching a peak of 16.5% in British Columbia.

Prevalence of opioid dispensing in females, by age group - Canada



Prevalence of opioid dispensing in males, by age group - Canada



For the years analyzed, the prevalence by age group remained relatively stable for women and men, with the exception of people aged 65 and over. In 2023, compared to 2019, we observe a decrease in the prevalence for this age group which came to 22.5% among women and 22.3% among men.

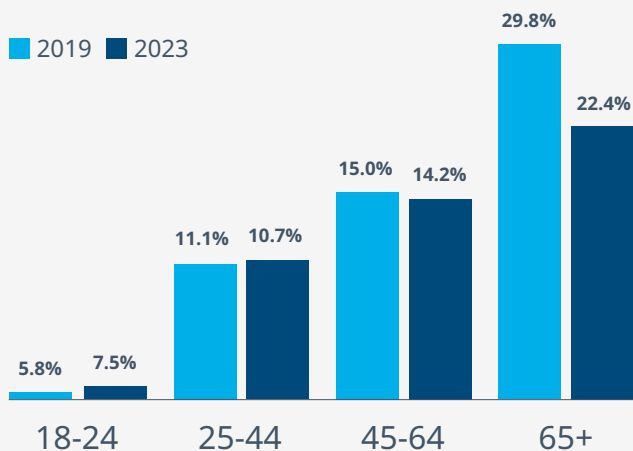
## Prevalence of opioid dispensing by gender, by province, and by age group, 2023

PROV	WOMEN				MEN			
	18-24	25-44	45-64	65+	18-24	25-44	45-64	65+
BC	11.3%	16.1%	18.7%	<b>28.0%</b>	8.1%	12.0%	17.7%	27.7%
AB	10.6%	14.4%	18.4%	27.0%	7.5%	10.1%	16.3%	26.3%
ON	8.1%	11.4%	14.2%	23.7%	5.9%	7.9%	13.0%	23.4%
MB/SK	9.5%	15.0%	17.5%	23.2%	6.0%	9.9%	15.2%	22.2%
ATL. P.	6.4%	9.4%	11.5%	17.2%	4.4%	8.0%	11.1%	17.2%
QC	8.1%	11.2%	12.3%	17.3%	5.7%	7.5%	10.9%	17.4%
CAN	8.8%	12.5%	14.9%	22.5%	6.3%	8.8%	13.6%	22.3%

In 2023, those aged 65 and over had the highest prevalence rates in all provinces with British Columbia peaking at 28% among women.

### Prevalence of opioid dispensing by age group in Canada

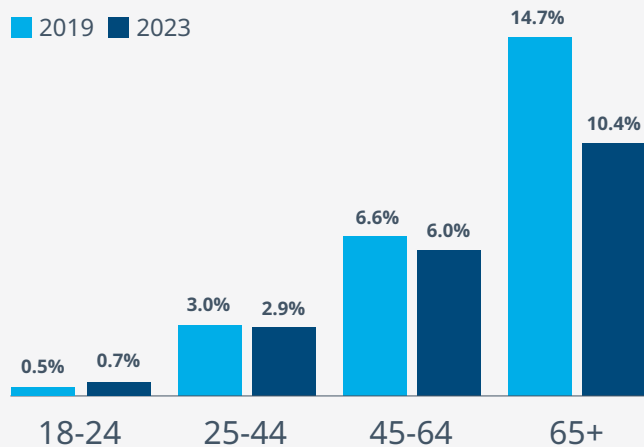
■ 2019 ■ 2023



In Canada, the prevalence rate by age group remained relatively stable between 2019 and 2023 with the exception of those aged 65+ where there was a decrease of 7.4%.

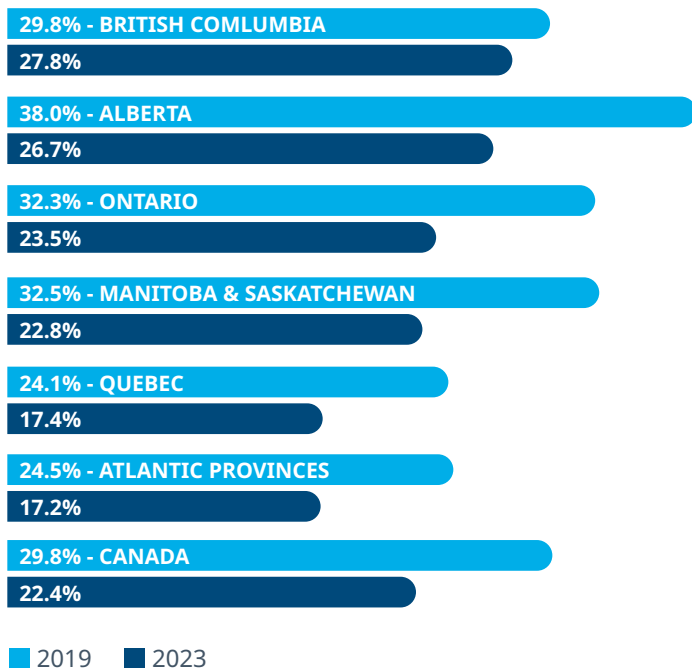
### Prevalence of opioid dispensing by age group for a treatment period greater than 6 months in Canada

■ 2019 ■ 2023



In Canada, for a treatment duration of more than 6 months, the 65+ age group had the highest prevalence rate. For this group, we observed a decrease in prevalence between 2019 and 2023 from 14.7% to 10.4%.

**Prevalence of opioid dispensing by province, 65+ years, 2019 - 2023**



The prevalence rate among those aged 65+ decreased significantly in all Canadian provinces, except British Columbia which recorded the highest rate in 2023, at 27.8%. In Alberta, there was a drop of 11.3% between 2019 and 2023, reaching 26.7%, while the Atlantic provinces showed the lowest rate in Canada, at 17.2%.

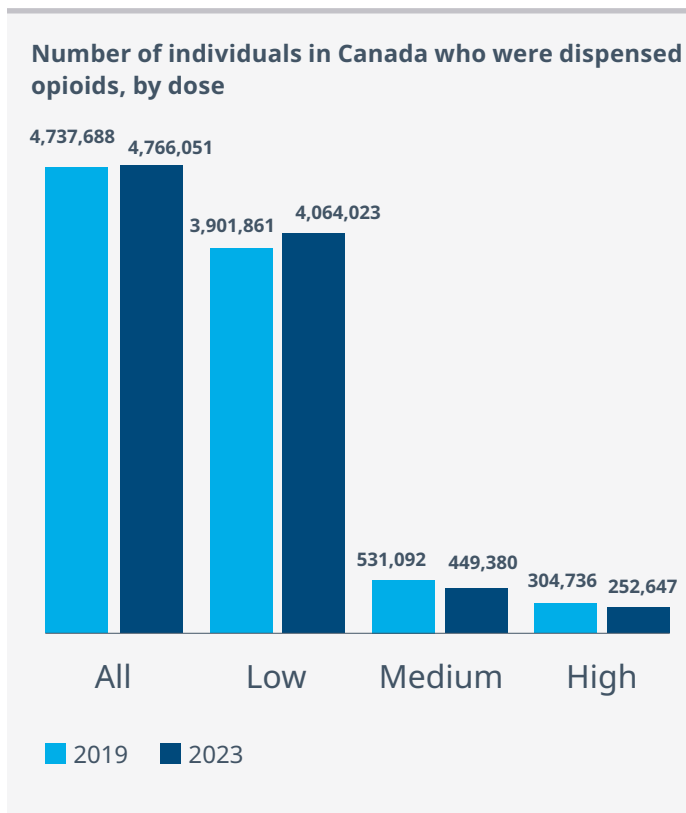
**Opioid use by dosage**

Morphine milligram equivalent (MME)<sup>1</sup> is a standardized method for measuring opioid doses. It reflects the strength of an opioid.

- Low: Average MME daily dose per patient > 50**
- Medium: Average MME daily dose per patient 50 <= 90**
- High: Average MME daily dose per patient > 90**

Opioid users across Canada and in all provinces overwhelmingly obtained their opioids at low doses, i.e., less than 50 MME per day, in all years observed.

For all doses (low, medium, and high), the number of individuals dispensed opioids in Canada remained relatively stable between 2019 and 2023.



1. <https://www.cihi.ca/sites/default/files/document/measuring-prescription-opioid-use-dec2018-fr.pdf>



# Opioid Dependence Treatments

Frequently dispensed daily, methadone and buprenorphine/naloxone are the medications most often used to treat opioid dependence, although methadone is also used to treat pain in a small proportion of the prescriptions analyzed. Nationally, the number of individuals who accessed opioids to treat addiction between 2019 and 2023 is estimated to have increased by 21%. There are notable fluctuations in the number of users with an increase of 80% in Manitoba/Saskatchewan and 51% in Alberta.

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## Number of individuals dispensed opioids for dependence treatment between 2019 and 2023\*

### ONTARIO



### BRITISH COMLUMBIA



### ALBERTA



### ATLANTIC PROVINCES



### MANITOBA & SASKATCHEWAN



### QUEBEC



### CANADA

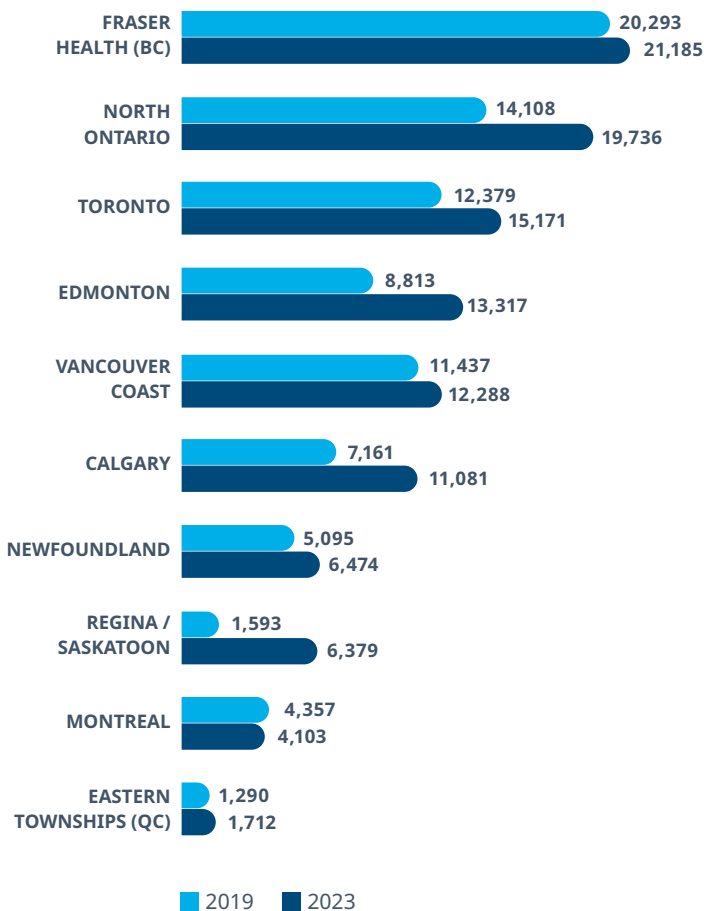


■ 2019 ■ 2023

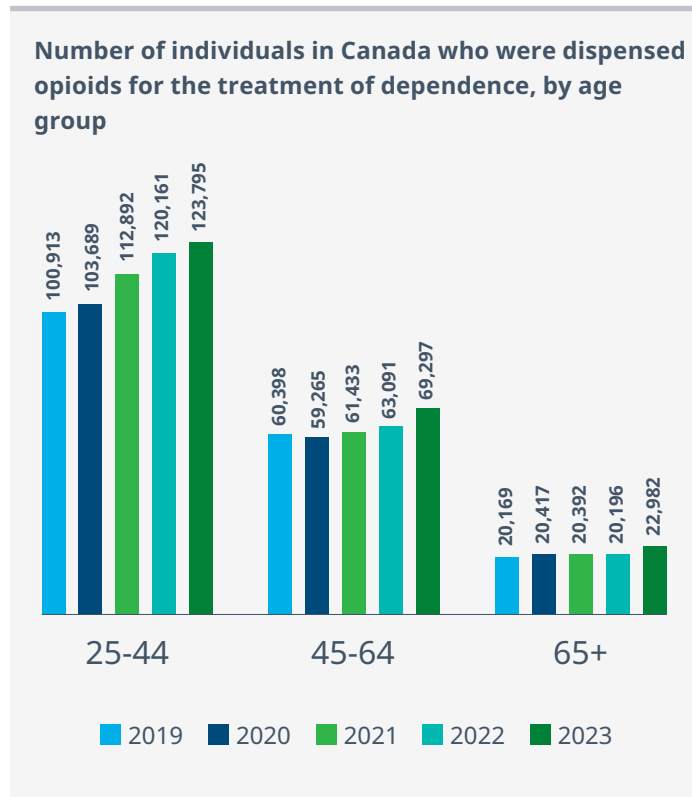
\*Corresponds to the number of methadone and buprenorphine/naloxone users. Methadone is also used for pain relief to a lesser extent.

Due to the new indicators developed by IQVIA to enhance the reports, it was possible to estimate the number of individuals who received opioids to treat addiction in 2019 and 2023 in various provincial health regions. The table below shows some examples of these regions, including Fraser Health in British Columbia and Northern Ontario, where respectively 21,185 and 19,736 individuals were recorded in 2023.

**Number of individuals dispensed opioids for addiction treatment by selected provincial health regions**



For Canada as a whole, we observed that the number of individuals who received opioids for the treatment of addiction was mainly in the 25 to 44 age group with 123,795 individuals in 2023, an increase of 23% compared to 2019.

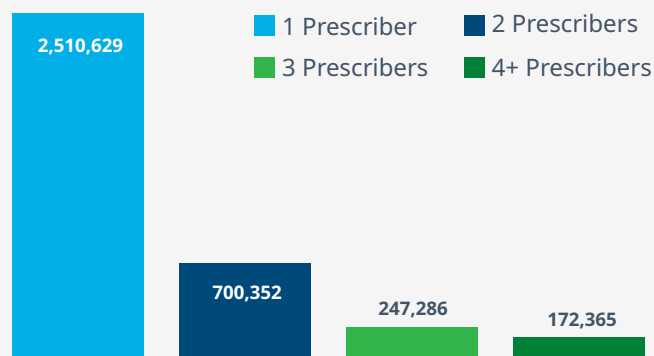


\* Corresponds to the number of methadone and buprenorphine/naloxone users. Methadone is also used for pain relief to a lesser extent.

# Prescriber Analysis\*

In 2023, more than 2.5 million individuals received their opioid prescriptions from a single prescriber\* for an average of 5 prescriptions or 178 units per user. As for the 172,365 users who received their opioid prescriptions from 4 or more prescribers, they received an average of 36 prescriptions or 1,139 units (1 unit = 1 tablet or 1 oral solution).

**Individuals who obtained their opioid prescriptions from 1, 2, 3 or 4+ prescribers\* - 2023**



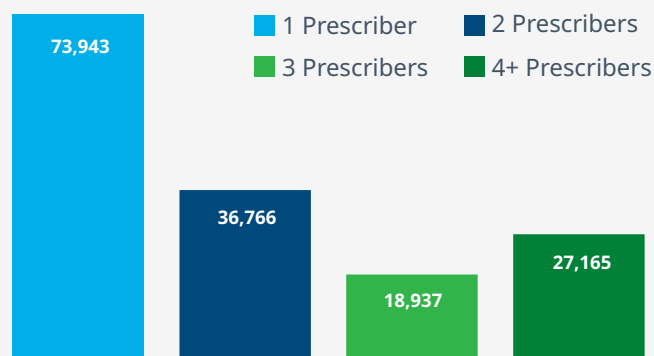
**Average number of prescriptions and units per opioid user by number of prescribers\* - 2023**

Individual prescribers	Average number of Rx / user	Average units / user
1 Prescriber	5	178
2 Prescribers	11	417
3 Prescribers	18	650
4+ Prescribers	36	1,139

## Prescriber Analysis\* – Dependence

In 2023, nearly 75,000 individuals received their opioid prescriptions to treat dependence from a single prescriber\* for an average of 62 prescriptions or 1,521 units per user. As for the 27,165 users who received their opioid prescriptions from 4 or more prescribers, they received an average of 146 prescriptions or 3,417 units (1 unit = 1 tablet or 1 oral solution).

**Individuals who received their opioids to treat dependence through 1, 2, 3 or 4+ prescribers\* - 2023**



**Average number of prescriptions and units per opioid user by number of prescribers\* - 2023**

Individual prescribers	Average number of Rx / user	Average units / user
1 Prescriber	62	1,521
2 Prescribers	85	2,219
3 Prescribers	108	2,727
4+ Prescribers	146	3,417

\* Prescribers' prescription data is not available for Newfoundland and Labrador, Prince Edward Island, Manitoba, and British Columbia, and are therefore not included in the calculations.

# Recommendations for Health Stakeholders

All who study and deliver health care and set the policies and standards of care that guide treatment for opioid overuse must persist in finding solutions. At IQVIA, our goal is to help improve care by providing decision-makers, researchers, and educators working in this field with essential, current, and evidence-based data.

Using this information, stakeholders could:

- systematically review national and provincial data from all sources on prescriptions for opioids and other drugs with high potential for overuse, to determine current and emerging trends that may impact care providers, patients, governments, or regulatory authorities;
- monitor and assess prescribing trends, which may vary considerably between provinces, and evaluate the impact of programs put in place;
- pay particular attention to provinces or regions where opioid consumption is increasing the most, and develop an awareness-raising and training strategy for the professionals concerned;
- evaluate prescribing trends for other pain medication.

Risk management interventions to consider could include post-market surveillance, education programs for health care professionals and patients, restrictions on who can prescribe and dispense drugs, refill limitations, and informed patient consent agreements. To treat pain, pharmaceutical companies are researching non-opioid therapies and digital therapeutic devices that are effective and less addictive.

In the battle against opioid overuse, it is important to remember that improving human health and well-being applies equally to those with severe and intractable pain. Through the intelligent, individualized application of improved standards of care and the development of alternative pain management approaches, it would be possible to alleviate the public health crisis while addressing the individual crisis of those suffering with pain.

Further research is needed to understand the drivers of these findings, and to evaluate the impact of the release of Canadian and provincial guidelines and programs on future opioid treatment patterns. IQVIA is well positioned to assist federal and provincial governments, policy-makers, health care professionals, researchers, and educators by informing them of prescribing trends for drugs that are currently under scrutiny.

# Methodology and IQVIA Databases Consulted

The statistics and analysis presented in this report were drawn from the IQVIA Dashboard on opioid prescriptions dispensed to the Canadian population. Trends for the years 2019, 2020, 2021, 2022 and 2023 were compared.

The dashboard is designed to answer three basic questions: how many prescriptions, for how many users, and by which prescriber specialty. Other types of information are accessible under the various dashboard tabs, including prevalence rates, number of users by region, gender, age group, and reason for use (pain and dependence). Population data from Statistics Canada<sup>3</sup> was used to calculate proportions and rates.

The data collected for this dashboard is fully anonymized, comes exclusively from opioid prescriptions dispensed by a panel of community pharmacies and represents approximately 80% of all opioid prescriptions dispensed in Canada (new Rx and refills). Estimation algorithms were used to assess the missing 20%, thus obtaining a complete picture of opioid dispensing and allowing a representative analysis. Consistent application of the same estimation algorithms provides a reliable representation of trends and changes in opioid use over time. All forms and strengths were considered, except for injections, suppositories, and intranasal.

## List of molecules included in the analysis

CLASS	MOLECULE
Opioid agonists	Codeine
	Hydromorphone
	Morphine
	Oxycodone
	Fentanyl
	Meperidine
	Methadone (pain)
Opioid partial/ mixed agonists	Methadone (dependence)
	Tramadol
	Pentazocine
	Buprenorphine (pain)
	Buprenorphine (dependence)

The key indicators presented in this report in graphic form correspond to the 12 months of 2019, 2020, 2021, 2022 and 2023.

The geographic territories include:

- Canada
- Alberta
- British Columbia
- Manitoba and Saskatchewan combined
- Ontario
- Atlantic provinces combined (4)
- Quebec
- Total population: The number of individuals estimated by Statistics Canada that serves as the denominator for the calculation of prevalence.
- Users: number of individuals dispensed at least one opioid prescription.
- Prevalence: Number of users divided by the total population.
- Prescriptions: number of opioid prescriptions dispensed by community pharmacies.
- Prescribers: Number of prescribers who prescribed at least one opioid prescription dispensed in a community pharmacy.
- Prescription data from prescribers in Newfoundland and Labrador, Prince Edward Island, Manitoba, and British Columbia was not considered since it was not available.

3. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/dt-td/Index-eng.cfm?LANG=E&SUB=98P1001&SR=0&RPP=10&SORT=date>

## Limitations

There are limitations to the use of IQVIA data, which does not include information on:

- Prescriptions written but never dispensed
- Prescriptions dispensed in hospitals and prisons
- Medications not taken by patients
- Diagnoses for which prescriptions were dispensed
- Clinical indication or morbidity

This report does not take into account the use of illicit opioids, nor the effects of possible disruptions from the COVID-19 pandemic.

## This report is based on the following IQVIA data services:

### **IQVIA geographic prescription monitoring (GPM)**

GPM provides the most comprehensive and reliable source of retail prescription activity in Canada. This tool measures the volume of prescription medications dispensed to patients by community pharmacies. It provides geographic data on the total number of prescriptions, units dispensed, and prescription costs for different therapeutic classes.

### **IQVIA longitudinal prescription data**

IQVIA Longitudinal Prescription Data (LRx) is a patient prescription data set based on data collected from community pharmacies. It enables the longitudinal tracking of patient prescription activity.

### **IQVIA prescriber-level data**

IQVIA prescriber-level data provides an estimate of aggregate prescription and market share data. A statistical process (projection methodology) estimates prescription volumes for all prescribers from pharmacies in six provinces: Alberta, Saskatchewan, Ontario, Quebec, New Brunswick, and Nova Scotia. To comply with the most stringent requirements for the disclosure of prescriber-level data, the estimated data is aggregated in such a way as to mask the actual prescribing statistics of each individual prescriber.

## About IQVIA

IQVIA is a leading global provider of advanced analytics, technology solutions, and clinical research services to the life sciences industry. IQVIA creates intelligent connections across all aspects of healthcare through its analytics, transformative technology, metadata resources and extensive domain expertise. IQVIA Connected Intelligence™ delivers relevant insights with speed and agility—enabling its customers to accelerate the clinical development and commercialization of innovative medication treatments that improve healthcare outcomes for patients. With approximately 87,000 employees, IQVIA conducts operations in more than 100 countries.

Established in Canada since the 1960s with over 1,600 employees, IQVIA is a leading provider of evidence-based health information services to the Canadian medical and pharmaceutical industry. Its excellent reputation is based on its ability to forge partnerships with various stakeholders in the public and private sectors who share the same goal: to constantly improve the quality of health care in a more connected ecosystem.

Offering the world's largest source of healthcare data, IQVIA provides Canada-wide data for both the public and private sectors. IQVIA's insights and execution capabilities help biotech, medical device, and pharmaceutical companies, medical researchers, government agencies, payers, and other healthcare stakeholders tap into a deeper understanding of disease, human behaviour, and scientific advances to improve patient health.



**CONTACT US**

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