



Medication Treatments for Mental Health Disorders in Canada

*An independent IQVIA report on drug utilization data,
2019–2022*

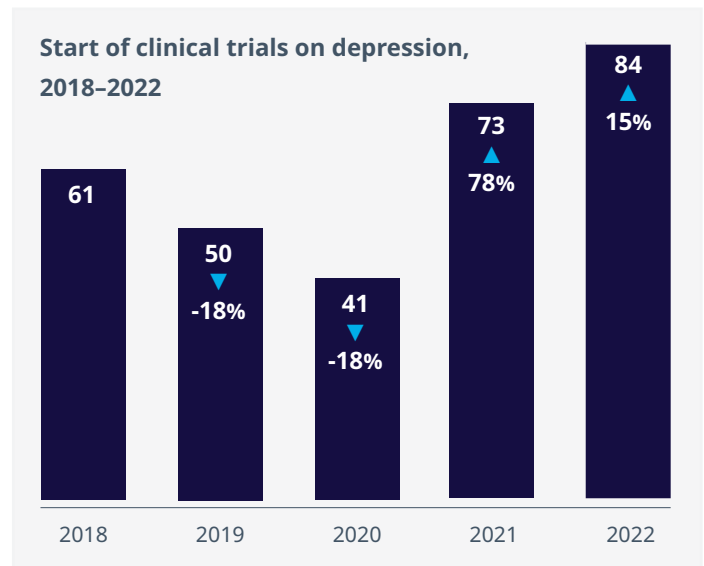
Introduction

According to Health Canada, mental illness is characterized by changes in an individual's thinking, mood, or behaviour, and is usually associated with significant distress or impaired functioning in social, occupational, or other activities. By all accounts, mental illnesses have a significant impact on the health of Canadians, as well as on the Canadian economy, including our health and social services systems.

Mental illness indirectly affects all Canadians at some point in their lives, either through their own experience, or that of a family member, friend, or colleague. In any given year, 1 in 5 Canadians suffers from a mental illness, and by the time Canadians reach the age of 40, 1 in 2 suffers—or has suffered—from a mental illness.¹ The annual economic cost of mental illness in Canada is estimated at over \$50 billion per year. This includes health care costs, lost productivity, and reductions in health-related quality of life.²

The CIHI report, *“Repeat Hospital Stays for Mental Health and Substance Use”*³ reveals that in Canada, 1 in 8 patients with a mental illness requires repeated hospitalization. Depending on the availability of mental health care in the various health regions, this is at best 1 in 15 patients, and at worst 1 in 5.

Although the use of medication was prioritized in the preparation of this report, other effective treatments and services are also available, including psychotherapy as well as crisis lines, virtual services/telemedicine, community supports, alternative medicine, prevention and promotion interventions and workplace support. However, the increased demand for these services in the post-pandemic era and the shortage of specialized professionals have meant that psychotropic medications are often used to achieve positive clinical outcomes from psychosis to depression. Notably, the number of depression trials worldwide increased by 68% in 2022 compared with the pre-pandemic period, and psychedelics were tested in almost 25% of these initiated trials.



Our focus at IQVIA is to help optimize health by bringing data and fact-based insights forward to better inform decision-makers in this critical area, with the utmost respect for privacy and data security. The statistics and analysis featured in this report were sourced from the IQVIA Health Insights Dashboard, part of a collaboration with the IQVIA Advisory Board for the Advancement of Health, a group of thought leaders from various healthcare sectors in Quebec and Ontario. A true public-utility analysis tool, based on fully anonymized data, the dashboard is used to analyze drug usage in selected treatment classes, and is designed to answer three basic questions: how many prescriptions, for how many users, and by which prescriber medical specialties. See page 6 for limitations to using IQVIA data.

1. https://www.mentalhealthcommission.ca/wp-content/uploads/drupal/MHCC_Report_Base_Case_FINAL_ENG_0_0.pdf

2. <https://www.phac-aspc.gc.ca/publicat/hpcdp-pspmc/28-3/pdf/cdic28-3-2eng.pdf>

3. <https://yourhealthsystem.cihi.ca/hsp/inbrief?lang=en#/indicators/007/repeat-hospital-stays-for-mental-illness;/mapC1;mapLevel2;provinceC5001;/>

4. <https://www.iqvia.com/-/media/iqvia/pdfs/institute-reports/global-trends-in-r-and-d-2023/iqvia-institute-global-trends-in-rd-2023-forweb.pdf>

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This report provides an overview of trends in drug treatments for mental health disorders, dispensed in community pharmacies across Canada over a four-year period (2019 and the pandemic years of 2020, 2021, and 2022), and how these vary by province. There are four subcategories included in our definition of the therapeutic class of drug treatments for mental health. Detailed data insights for each of these categories will be featured in separate IQVIA publications.

- **Antidepressants:** Medications mainly used to treat major depression and anxiety disorders.
- **Anxiolytics/hypnotics:** Anxiolytics (tranquillizers) are used to treat anxiety disorders and insomnia.
- **Antipsychotics:** Also known as neuroleptic medications, antipsychotics are generally indicated for controlling the symptoms of schizophrenia and bipolar disorder.
- **Psychostimulants:** Medications used to treat Attention Deficit Hyperactivity Disorder (ADHD).

The majority of molecules in these therapeutic classes are generic and their prescriptions are reimbursed by public and private payers.



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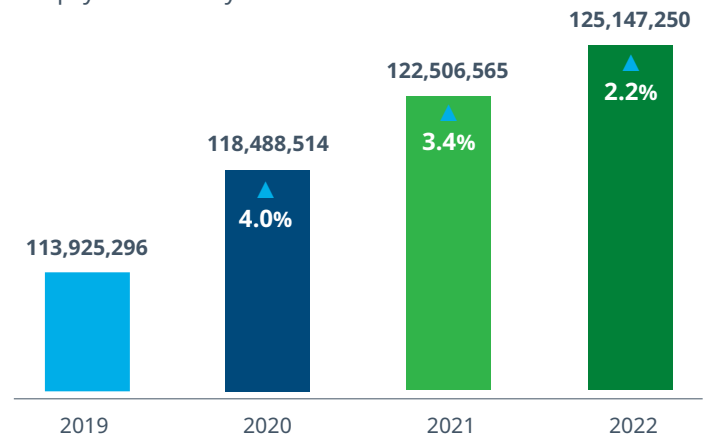
National Drug Utilization Highlights

The number of prescriptions dispensed continues to grow

What does the overall drug utilization data for Canada tell us? The number of prescriptions dispensed in Canada for psychotherapeutic drug categories used to treat mental health disorders increased by 4% in 2020, 3.4% in 2021, and 2.2% in 2022, for a total of more than 125 million prescriptions dispensed in Canadian community pharmacies.

A similar trend is seen in the U.S. where more and more Americans are seeking treatment for mental health disorders, with 567 million prescriptions in 2022 compared to 479 million in 2019, an increase of 18% or 88 million prescriptions.⁵

Total number of prescriptions dispensed in Canada, 2019–2022. Four categories: Antidepressants – Anxiolytics – Antipsychotics – Psychostimulants



5. <https://www.iqvia.com/-/media/iqvia/pdfs/institute-reports/the-use-of-medicines-in-the-us-2023/the-use-of-medicines-in-the-us-2023.pdf>

Number of prescriptions dispensed in Canada 2019–2022

	2019	2020	2021	2022
Antidepressants	57,887,625	61,613,142 ▲ 6.4%	63,984,188 ▲ 3.8%	65,837,133 ▲ 2.9%
Anxiolytics	25,880,432	25,631,644 ▼ 1%	25,045,074 ▼ 2.3%	24,524,921 ▼ 2.1%
Antipsychotics	21,804,343	22,388,752 ▲ 2.7%	23,525,041 ▲ 5.1%	23,701,129 ▲ 0.7%
Psychostimulants	8,352,896	8,854,976 ▲ 6%	9,952,262 ▲ 12.4%	11,084,067 ▲ 11.4%

Antidepressants had the highest prescription volume in Canada among the four different drug categories, with almost 66 million prescriptions, an increase of 6.4% in 2020, 3.8% in 2021 and 2.9% in 2022.

Anxiolytics, also known as anti-anxiety drugs, saw a steady decline ranging from 1% to 2.3% over the years studied.

Antipsychotics increased by 2.7% in 2020, 5.1% in 2021, and 0.7% in 2022.

The psychostimulant category, which consists of drugs commonly used to treat attention deficit disorder with or without hyperactivity (ADHD), increased by 6% in 2020, 12.4% in 2021, and 11.4% in 2022 to over 11 million prescriptions. This category of drugs has seen the biggest increase in Canada over the years 2021 and 2022.

Number of units* dispensed in Canada 2019–2022 (in thousands)

	2019	2020	2021	2022
Total Canada	3,813,762	3,984,333 ▲ 4.5%	4,188,353 ▲ 5.1%	4,335,134 ▲ 3.5%
Antidepressants	2,104,830	2,243,264 ▲ 6.6%	2,404,953 ▲ 7.2%	2,515,994 ▲ 4.6%
Anxiolytics	855,092	842,235 ▲ 1.5%	814,599 ▲ 3.3%	793,120 ▼ 2.6%
Antipsychotics	561,671	594,687 ▲ 5.9%	623,646 ▲ 4.9%	633,798 ▲ 1.6%
Psychostimulants	292,168	304,148 ▲ 4.1%	345,153 ▲ 13.5%	392,222 ▲ 13.6%

In 2022, more than 4.3 billion units (single standardized doses) were dispensed in Canada for the four drug categories combined, with increases of 4.5% in 2020, 5.1% in 2021, and 3.5% in 2022.

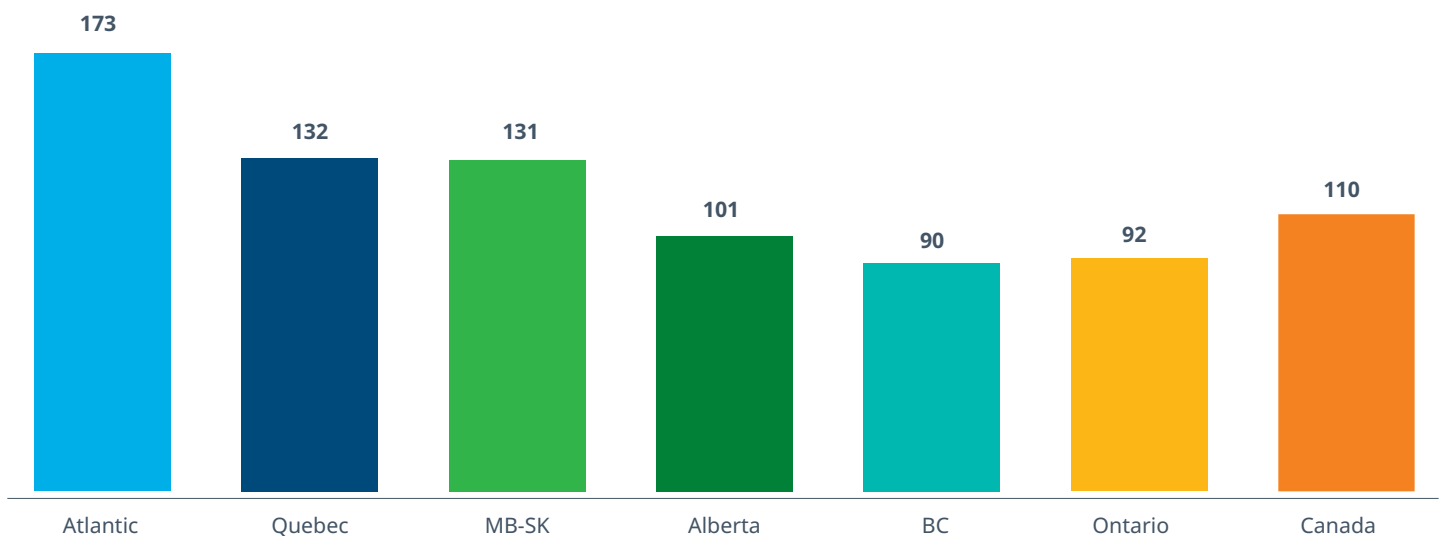
- **Antidepressants:** The number of units dispensed in Canada over the four years under review increased by 6.6% in 2020, 7.2% in 2021, and 4.6% in 2022.
- **Anxiolytics:** The number of units dispensed in Canada over the past 4 years decreased by -1.5% in 2020, -3.3% in 2021, and -2.6% in 2022.
- **Antipsychotics:** The number of units dispensed in Canada over the past four years ranges from 562 to 634 million units, with annual growth of 5.9% in 2020, 4.9% in 2021, and 1.6% in 2022.
- **Psychostimulants:** Among the four drug categories, psychostimulants showed the highest increases in the number of units dispensed in Canada, with growth of 13.5% in 2021 and 13.6% in 2022.

Number of units* dispensed by province, 2019–2022
(in thousands). Antidepressants, anxiolytics, antipsychotics, psychostimulants

	2019	2020	2021	2022
Alberta	395,125	422,102 ▲ 6.8%	450,435 ▲ 6.7%	471,014 ▲ 4.6%
Atlantic	380,530	400,074 ▲ 5.1%	425,586 ▲ 6.4%	444,848 ▲ 4.5%
British Columbia	415,286	443,868 ▲ 6.9%	468,828 ▲ 5.6%	488,446 ▲ 4.2%
MB-SK	312,084	321,058 ▲ 2.9%	331,277 ▲ 3.2%	349,353 ▲ 5.5%
Ontario	1,273,354	1,313,804 ▲ 3.2%	1,375,493 ▲ 4.7%	1,412,616 ▲ 2.7%
Quebec	1,038,384	1,085,426 ▲ 4.5%	1,139,733 ▲ 5.0%	1,168,857 ▲ 2.6%
Canada	3,814,763	3,986,332 ▲ 4.5%	4,191,352 ▲ 5.1%	4,335,134 ▲ 3.4%

In 2022, the total number of units dispensed for the four drug categories increased in all Canadian provinces, ranging from 2.6% to 5.5%. However, all provinces experienced slower growth in 2022, with the exception of Manitoba-Saskatchewan, which saw an increase of 5.5%. Ontario and Quebec had the highest number of units dispensed in 2022, with 1.4 and 1.2 billion units respectively.

Number of units dispensed per capita by province, 2022. Antidepressants, anxiolytics, antipsychotics, psychostimulants



For the year 2022, the highest number of units dispensed per capita for the four drug categories was in the Atlantic Provinces, with 173 units, followed by Quebec and Manitoba-Saskatchewan, with 132 and 131 units per capita respectively. British Columbia had the lowest number of units dispensed per capita, at 90.

*Given that prescription durations vary across provinces (e.g., 30 or 90 days), units are a meaningful comparative indicator.

Recommendations for Health Stakeholders

All who study and deliver health care—and set the policies and standards of care that guide treatment for mental health disorders—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.

According to a 2021 study by the *Institute for Advancements in Mental Health* (IAM) in collaboration with OCAD University, “The COVID-19 pandemic has highlighted what was already known about the mental health care system in Canada: it is inadequately resourced, organizationally fragmented and siloed, and faces consistently increasing demand across all sectors.”⁶

At a time when the pandemic had driven rapid changes in unmet needs in mental health, there is an urgent need for objective and evidence-based data to drive effective decision-making and the proper allocation of resources. These data can support the development of mental health services, programs, and policies in the various Canadian provinces.

Using this information, stakeholders could:

- Systematically review national and provincial prescription data, from all sources, 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 consumption of psychotherapeutic medications is increasing the most, and develop an awareness-raising and training strategy for the professionals concerned.

As we move into the post-pandemic period, numerous studies have been conducted on the short-term effects of the COVID-19 pandemic and their possible future impacts on mental health disorders. According to a survey conducted by Statistics Canada in 2022⁷, self-rated mental health declined from late 2020 to late 2021/early 2022 for almost all age groups and all provinces.

Some studies point out that the COVID-19 pandemic has had a significant impact on the well-being of people with severe mental illness. Other studies conclude that the pandemic has not increased symptom severity compared with pre-pandemic levels. Thus, the long-term consequences of COVID-19 on mental health conditions remain to be seen, and a consensus on the likely impact has yet to emerge.

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

6. <https://campusmentalhealth.ca/wp-content/uploads/2021/06/The-Future-of-Mental-Health-Report-2021.pdf>

7. Self-rated mental health decreases after another year of the COVID-19 pandemic; <https://www150.statcan.gc.ca/n1/daily-quotidien/220607/dq220607e-eng.htm>

Data Sources and Methodology

The statistics are generated from [fully anonymized] prescriptions for psychotherapeutic medications dispensed by a panel of community pharmacies during 2019, 2020, 2021, and 2022, and correspond to approximately 80% of all prescriptions dispensed in Canada (new Rx and refills). Estimation algorithms were used to assess the missing 20%, thus obtaining a complete picture of the dispensing of these drugs and allowing a representative analysis. Population data from Statistics Canada⁸ was used to calculate proportions and per capita rates.

This report is based on the following IQVIA data services: IQVIA Geographic Prescription Monitoring (GPM), IQVIA Longitudinal Prescription data, and IQVIA Prescriber-level data.

List of molecules included in each category of psychotherapeutic drug:

ANTIDEPRESSANTS	
1 st generation	2 nd generation
Amitriptyline	Bupropion
Amoxapine	Citalopram
Clomipramine	Duloxetine
Desipramine	Desvenlafaxine
Doxepin	Esketamine
Imipramine	Escitalopram
Moclobemide	Fluoxetine
Nortriptyline	Fluvoxamine
Phenelzine	Levomilnacipran
Tranlycypromine	Mirtazapine
Trimipramine	Paroxetine
	Sertraline
	Trazodone
	Venlafaxine
	Vilazodone
	Vortioxetine

ANXIOLYTICS/HYPNOTICS		
Benzodiazepines	DORA	Z-drugs
Alprazolam	Lemborexant	Eszopiclone
Bromazepam	Suvorexant	Zaleplon
Chlordiazepoxide		Zopiclone
Clobazam		Zolpidem
Clonazepam		
Clorazepate		
Diazepam		
Flurazepam		
Lorazepam		
Midazolam		
Nitrazepam		
Oxazepam		
Temazepam		
Triazolam		

ANTIPSYCHOTICS	
1 st generation	2 nd generation
Chlorpromazine	Aripiprazole
Droperidol	Asenapine
Flupentixol	Brexpiprazole
Fluphenazine	Clozapine
Haloperidol	Lurasidone
Loxapine	Olanzapine
Mesoridazine	Paliperidone
Methotrimeprazine	Quetiapine
Periciazine	Risperidone
Perphenazine	Ziprasidone
Pimozide	Injectable - Depot
Pipotiazine	Aripiprazole
Promethazine	Paliperidone
Thioridazine	Risperidone
Thiothixene	
Trifluoperazine	
Zuclopenthixol	

PSYCHOSTIMULANTS
Benzodiazepines
Amphetamine
Atomoxetine
Dextroamphetamine
Guanfacine
Lisdexamfetamine
Methylphenidate (Ritalin)

8. <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>

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 medical treatments that improve healthcare outcomes for patients. With approximately 87,000 employees, IQVIA conducts operations in more than 100 countries.

Established in Canada in the 1960s, IQVIA is a leading provider of evidence-based health insights serving the Canadian medical-pharmaceutical sector. Its excellent reputation is based on its ability to forge partnerships with various public and private sector stakeholders who share the same goal: to constantly improve the quality of healthcare 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.

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