



# Medication Treatments for Mental Health Disorders in Canada

*An independent IQVIA report on drug utilization data,  
2019-2021*

# 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 the Canadian economy, including our health and social care systems.

Mental illness indirectly affects all Canadians at some time either through their own experience, or that of a family member, friend or colleague. In any given year, 1 in 5 Canadians experiences a mental illness<sup>1</sup> and by the time Canadians reach 40 years of age, 1 in 2 have – or have had – a mental illness.<sup>2</sup> 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.<sup>3</sup>

Despite a diverse and ever-evolving menu of treatment options, it is with the use of psychotropic medications that positive treatment results are hoped to be achieved for everything from psychosis to depression. Psychiatric pharmacological research and development is also following some leads of agents, such as hydroxynorketamine and psilocybin, that may hold promise. While clinical care and medication for mental illnesses has been prioritized for the preparation of this report, there are complementary therapies and alternatives to explore further, including psychotherapy, crisis lines, virtual services / telemedicine, community supports, alternative medicine, prevention and promotion interventions, and workplace benefits and support.

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 of 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 Advancement in Health, a group of thought leaders from Quebec and Ontario from various healthcare sectors: patients, health professionals, researchers, health system managers and health data specialists. A true public utility analysis tool, based on fully de-identified data, the dashboard is used to analyze drug use in selected therapeutic areas and is designed to answer three basic questions: how many prescriptions, for how many users, and by which medical specialties of prescribers. See page 6 for limitations to using IQVIA data.

This report provides a timely view of trends in drug treatments for mental health disorders, dispensed in community pharmacies in Canada over a three-year period (2019 and pandemic years of 2020 and 2021), and how those vary by province. There are four sub-categories 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:** These medications are mainly used for the treatment of major depression and anxiety disorders.
- **Anxiolytics/ hypnotics:** Antianxiety drugs (tranquillizers) are used for the treatment of anxiety disorders and insomnia.
- **Antipsychotics:** Also known as neuroleptic medications, antipsychotics are generally indicated for the control of symptoms of schizophrenia and bipolar disorder.
- **Psychostimulants:** Medications commonly used to treat Attention Deficit Hyperactivity Disorder (ADHD).

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

*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. 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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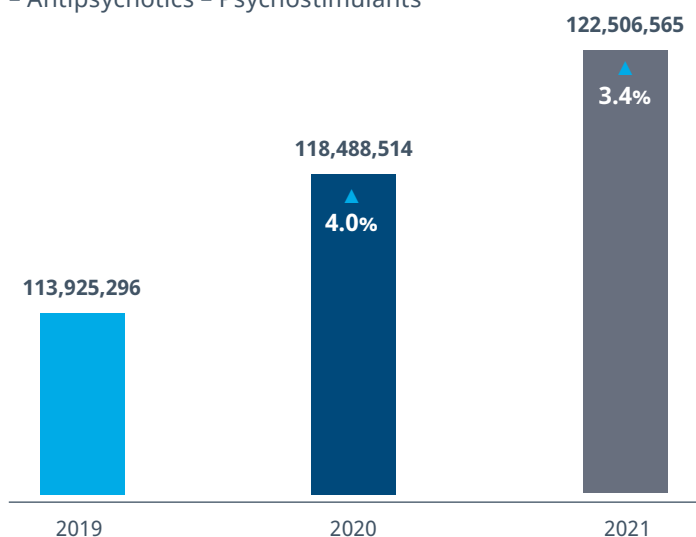
1. Smetanin et al. (2011). The life and economic impact of major mental illnesses in Canada: 2011-2041. Prepared for the Mental Health Commission of Canada. Toronto: RiskAnalytica.  
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# National Drug Utilization Highlights

## 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 the categories of psychotherapeutic drugs used to treat mental health disorders increased by 4% between 2019 and 2020, and by 3.4% in 2021 for a total of 123 million prescriptions dispensed in Canadian community pharmacies in 2021. A similar trend is seen in the U.S. where prescriptions for mental health disorders grew 7.6% in 2020 and 5.5% in 2021, an increase of more than 64 million prescriptions in two years, reflecting the growing number of people seeking care for mental health disorders.<sup>4</sup>

**Total number of prescriptions dispensed in Canada, 2019 - 2021.** Four categories: Antidepressants – Anxiolytics – Antipsychotics – Psychostimulants



Number of prescriptions dispensed in Canada, 2019 - 2021			
	2019	2020	2021
<b>Antidepressants</b>	57,887,625	61,613,142 ▲ 6.4%	63,984,188 ▲ 3.8%
<b>Anxiolytics</b>	25,880,432	25,631,644 ▼ 1%	25,045,074 ▼ 2.3%
<b>Antipsychotics</b>	21,804,343	22,388,752 ▲ 2.7%	23,525,041 ▲ 5.1%
<b>Psychostimulants</b>	8,352,896	8,854,976 ▲ 6%	9,952,262 ▲ 12.4%

Antidepressant drugs represent the largest drug category by prescription volume in Canada, at 64 million prescriptions, with an increase of 6.4% between 2019 and 2020 and 3.8% in 2021.

Anxiolytics, also known as anti-anxiety drugs, saw a decrease of -1% in 2020 and -2.3% in 2021 with a total of 25 million prescriptions.

Antipsychotics increased by 2.7% in 2020 and 5.1% in 2021 with a total of 24 million prescriptions.

The Psychostimulants category of drugs commonly used to treat Attention Deficit Hyperactivity Disorder (ADHD) increased by 6% in 2020 and 12.4% in 2021 at 10 million prescriptions, posting the highest year-over-year increase within the four categories.

4. The Use of Medicines in the U.S. 2022, IQVIA National Prescription Audit, Dec 2021; IQVIA Institute, March 2022

### Number of units\* dispensed in Canada 2019 - 2021 (in thousands)

	2019	2020	2021
<b>Total Canada</b>	3,813,762	3,984,333 ▲ 4.5%	4,188,353 ▲ 5.1%
<b>Antidepressants</b>	2,104,830	2,243,264 ▲ 6.6%	2,404,953 ▲ 7.2%
<b>Anxiolytics</b>	855,092	842,235 ▼ 1.5%	814,599 ▼ 3.2%
<b>Antipsychotics</b>	561,671	594,687 ▲ 5.9%	623,646 ▲ 4.9%
<b>Psychostimulants</b>	292,168	304,148 ▲ 4.1%	345,153 ▲ 13.5%

Similarly, looking at the number of units (single standardized doses) dispensed in Canada from 2019 to 2021, for all four categories, close to 4.2 billion of units were dispensed in Canada in 2021, an increase of 5.1% compared to 2020.

- **Antidepressants:** Units dispensed in Canada have been growing steadily over the past 3 years, with an increase of 6.6% in 2020 and 7.2% in 2021.
- **Anxiolytics:** Units dispensed in Canada over the past 3 years decreased at -1.5% in 2020 and -3.2% in 2021 for a total of 815 million units.
- **Antipsychotics:** The number of units dispensed in Canada over the past 3 years ranged from 562 to 624 million of units, with an annual growth of 4.9% in 2021.
- **Psychostimulants:** The number of units dispensed in Canada, increased by 4.1% in 2020 and 13.5% in 2021, the highest year-over-year increase within the four categories.

### Number of units\* dispensed by province, 2019 - 2021 (in thousands), antidepressants, anxiolytics, antipsychotics, psychostimulants

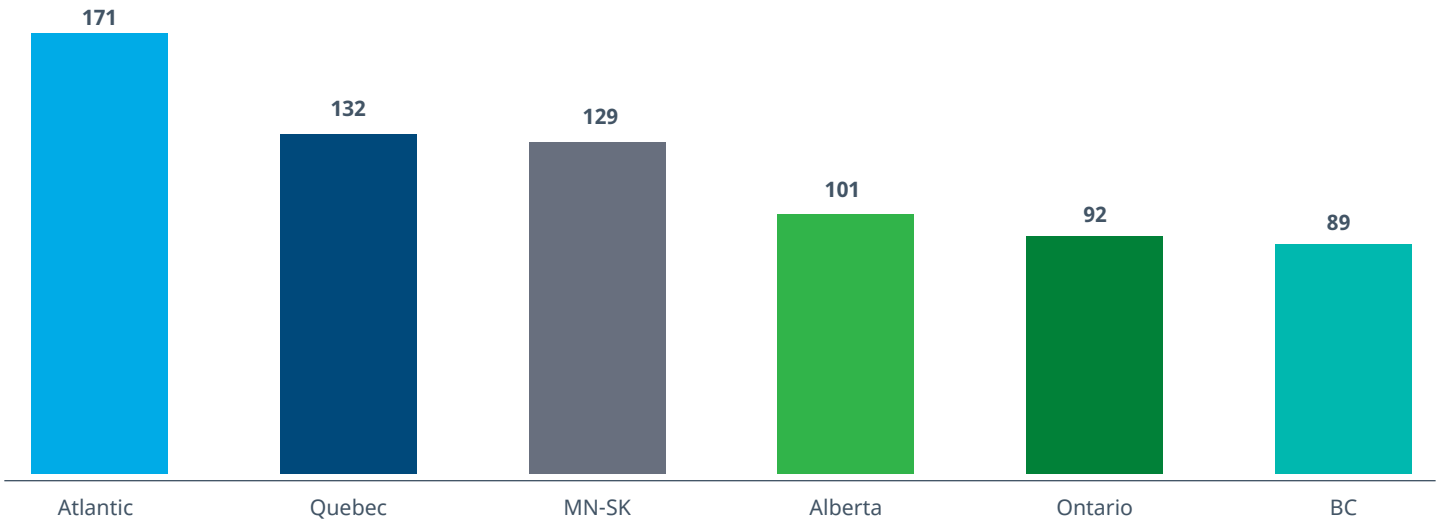
	2019	2020	2021
<b>Alberta</b>	395,125	422,102 ▲ 6.8%	450,435 ▲ 6.7%
<b>Atlantic</b>	380,530	400,074 ▲ 5.1%	425,586 ▲ 6.4%
<b>British Columbia</b>	415,286	443,868 ▲ 6.9%	468,828 ▲ 5.6%
<b>MN-SK</b>	312,084	321,058 ▲ 2.9%	331,277 ▲ 3.2%
<b>Ontario</b>	1,273,354	1,313,804 ▲ 3.2%	1,375,493 ▲ 4.7%
<b>Quebec</b>	1,038,384	1,085,426 ▲ 4.5%	1,139,733 ▲ 5.0%

When comparing total units by province for the years 2019 to 2021, the increase of units dispensed by province for the four mental illness categories ranged from 3.2% and 6.7% for 2021. For the year 2021, Ontario had close to 1.4 billion total units dispensed, however Alberta posted the highest increase at 6.7% in 2021.

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

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**Total number of units dispensed per capita by province, 2021, antidepressants, anxiolytics, antipsychotics, psychostimulants**



Comparing these numbers at the provincial level, the Atlantic Provinces had the highest number of total units dispensed per capita in 2021 at 171 units, followed by the province of Quebec with 132 units dispensed per capita.

# 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 essential data and evidence that supports decision makers, researchers, and educators in improving funding and access to the right therapeutic treatments.

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.”<sup>5</sup>

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

Using this information, healthcare 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 vary considerably between provinces and evaluate the impact of mental health programs put in place.
- Pay particular attention to the provinces or regions where the consumption of psychostimulants is increasing the most and develop an awareness and training strategy for the professionals concerned.

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

Similarly, according to a brief from the Mental Health Commission of Canada<sup>6</sup>, COVID-19 has had a significant impact on the well-being of people living with serious mental illnesses. On the other hand, another study concludes that the pandemic has not increased symptom severity compared with pre-pandemic levels. Therefore, the long-term consequences of the coronavirus pandemic on mental health conditions remains to be seen and a consensus on the likely impact is yet to emerge.

## LIMITATIONS

There are limitations using IQVIA data, which does not include information about:

- Prescriptions that were written but never dispensed
- Prescriptions dispensed in hospital or in prisons
- Off-label indications are part of the figures but are not distinguished
- Medication that was not consumed by patients
- Diagnoses for which prescriptions were dispensed
- Clinical indication or morbidity

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<sup>5</sup> The Future of Mental Health, A Strategic Foresight Study, 2021, <https://www.iamentalhealth.ca/Innovation/Future-of-Mental-Health-v2>

<sup>6</sup> 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

Statistics are generated from [fully anonymized] prescriptions for psychotherapeutic medications dispensed by a panel of community pharmacies during 2019, 2020, and 2021 and correspond to approximately 80% of all prescriptions dispensed in Canada (new Rx and refills). Estimation algorithms were used to estimate the missing 20% to obtain a comprehensive overview of dispensing of these medications that allows for representative analysis. Population data from Statistics Canada was used to calculate per capita proportions and rates.

The analysis provided in this report used the following IQVIA data services: Canadian Compuscript Audit, Geographic Prescription Monitoring, Longitudinal Prescription data, and Prescriber-level data.

## List of molecules included in each category of psychotherapeutic drugs:

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

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

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

PSYCHOSTIMULANTS
Benzodiazepines
Amphetamine
Atomoxetine
Destroamphetamine
Guanfacine
Lisdexamfetamine
Methylphenidate (Ritalin)

## 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, big data resources and extensive domain expertise. IQVIA Connected Intelligence™ delivers powerful insights with speed and agility — enabling customers to accelerate the clinical development and commercialization of innovative medical treatments that improve healthcare outcomes for patients. With approximately 79,000 employees, IQVIA conducts operations in more than 100 countries.

Established in Canada in 1960, IQVIA is one of the leading providers of real-world health insights serving the Canadian medical-pharmaceutical sector. Its excellent reputation is based on its ability to forge partnerships with different stakeholders in the public and private sectors who share the same objective: continuous improvement of the quality of healthcare within a more connected healthcare ecosystem.

Offering the world's largest source of curated healthcare data, IQVIA provides pan-Canadian data that covers both the public and private sector. 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 diseases, human behaviours, and scientific advances in an effort to advance their path toward cures.

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