



Medication Treatments for Diabetes and Obesity in Canada

*An independent IQVIA report on drug utilization data,
2019–2023*

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This report is based on statistics and analysis from the IQVIA Health Insights dashboard, developed in collaboration with the IQVIA Advisory Council for Health Advancement, a group of Quebec experts from various health sectors. It provides an overview of drug treatment trends for diabetes and obesity in community pharmacies in Canada over a five-year period (2019 to 2023), highlighting variations at the demographic level. A key objective of the Council is to make the dashboard accessible to various health stakeholders (governments, public health, researchers) to demonstrate the added value of using anonymized, evidence-based health data. Refer to page 11 for the limitations associated with using IQVIA data.

Note to the reader

To correctly interpret the data in this report, it is important to consider the following:

- Prevalence is calculated from individuals who received at least one prescription for medication to treat diabetes or obesity;
- The obesity prevalence calculation considers only individuals who used medication to treat obesity, including those who received a GLP-1 class antidiabetic medication who do not have diabetes;
- Individuals with both obesity and diabetes are included in the diabetes prevalence calculation.

Introduction

Diabetes is a chronic disease that occurs when the body does not produce enough insulin or cannot use it properly, leading to high blood glucose levels. The health consequences for people with diabetes are numerous¹. It can cause vascular damage in the heart, eyes, kidneys and nerves. The two main types of diabetes are:

- Type 1 diabetes: an autoimmune disease requiring lifelong treatment with insulin. It accounts for between 5% and 10% of cases and cannot be prevented;
- Type 2 diabetes: accounts for 90% to 95% of cases and is generally associated with lifestyle habits, although genetic predispositions may also play a role.

Prediabetes is characterized by a blood glucose level higher than normal, but insufficient to be classified as type 2 diabetes. It represents a major public health issue that can be mitigated by preventive measures and early interventions.

Obesity is characterized by excessive accumulation of body fat and represents a significant risk factor for the development of type 2 diabetes, creating a vicious cycle that worsens health complications and increases the burden on healthcare systems.

Globally, more than **500 million people** have diabetes. By 2033, 100 million new cases are expected, and this number could reach 1.3 billion by 2050².

Between 2021 and 2023, **one in three people** in the United States and **one in seven people** in Canada were prediabetic. Meanwhile, **two in five people** in the United States and **one in three people** in Canada were considered obese.

Diabetics, prediabetics and obese (2021-2023)		
	United States ³	Canada ⁴
Diabetics	1 person on 9	1 person on 9
Prediabetics	1 person on 3	1 person on 7
Obese	2 persons on 5	1 person on 3

Diabetes and obesity have become public health issues of unprecedented magnitude in North America. These two conditions, often interconnected, affect millions of people and represent a major cause of morbidity and mortality. In the United States, the annual direct healthcare costs for treating diagnosed diabetes are estimated at \$307 billion⁵, while in Canada, they are \$30 billion⁶.

1 <https://www.who.int/news-room/fact-sheets/detail/diabetes>

2 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)01301-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)01301-6/fulltext)

3 <https://www.cdc.gov/diabetes/php/data-research/index.html> <https://www.cdc.gov/obesity/php/data-research/adult-obesity-facts.html>

4 https://www.diabetes.ca/DiabetesCanadaWebsite/media/Advocacy-and-Policy/Backgrounder/2023_Backgrounder_Canada_English.pdf <https://www.healthing.ca/diseases-and-conditions/obesity/obesity-rate-in-canada>

5 <https://www.cdc.gov/diabetes/php/data-research/index.html>

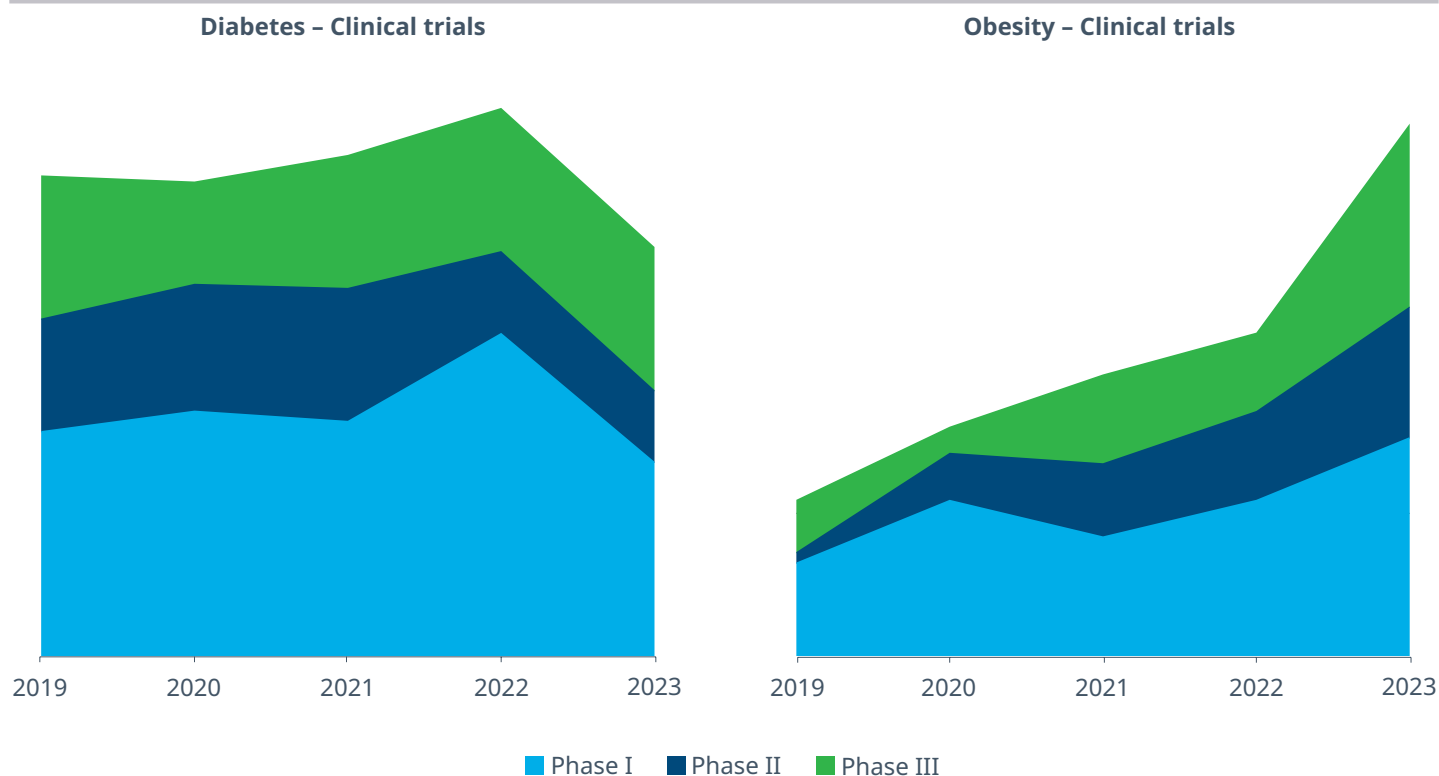
6 <https://www.diabetes.ca/media-room/press-releases/diabetes-rates-continue-to-climb-in-canada>

Treatments for diabetes and obesity

Some risk factors for type 2 diabetes and prediabetes cannot be changed, such as genetics and age. However, adopting a healthy lifestyle (i.e., regular physical activity, healthy eating, weight management, and not smoking) can help prevent or delay the development of diabetes and its complications. Populations that face systemic social and economic disadvantages are more likely to develop type 2 diabetes. Addressing the social, economic, and physical conditions that influence health equity can help improve health for all⁷.

However, for many people, lifestyle interventions alone are not enough, and therefore drug treatments for diabetes and obesity are being used. With nearly 100 new clinical trials in 2023, diabetes is emerging as the predominant area of metabolic and endocrinology research⁸.

The number of new clinical trials for weight loss drugs increased by 68% in 2023 compared to 2022 and has nearly doubled in five years. To date, 124 drugs are in development to treat obesity, of which 40% are GIP/GLP glucagon receptor agonists, and 46% are being formulated for oral versions.



7 https://publications.gc.ca/collections/collection_2024/aspc-phac/HP35-180-2023-eng.pdf

8 <https://www.iqvia.com/insights/the-iqvia-institute/reports-and-publications/reports/global-trends-in-r-and-d-2024-activity-productivity-and-enablers>

Highlights of national drug use for diabetes and obesity

The number of cases of diabetes and obesity continues to increase rapidly in Canada, to the point of often being considered a true epidemic. Although this increase is partly linked to lifestyle habits and the aging of the population, the diabetes prevention programs⁹ put in place could have contributed to the increase in prevalence by facilitating diagnosis and access to treatments¹⁰. Furthermore, advances in pharmaceutical research in the field of obesity have expanded the supply of effective medications, which could also explain the increase in prevalence.

In 2023, the prevalence of diabetes (type 1 and 2) in Canada reached **9.4%**, or **more than 3.8 million people**, marking a **35%** increase compared to 2019. The use of medications to treat obesity also increased significantly, from **72,228** individuals in 2019 to **521,739** in 2023.

General statistics on diabetes and obesity in Canada						
	Prevalence		Individuals		Prescriptions	
	Diabetes	Obesity	Diabetes	Obesity	Diabetes	Obesity
2019	7.6%	0.2%	2,852,761	72,228	40,879,154	250,186
2020	8.0%	0.3%	3,045,798	96,195	44,333,866	372,478
2021	8.7%	0.4%	3,351,167	160,971	45,332,536	625,671
2022	8.9%	0.8%	3,503,602	298,218	48,123,536	1,303,571
2023	9.4%	1.3%	3,838,036	521,739	51,559,790	2,724,108

Drugs used to treat diabetes and obesity

Metformin is typically the first-line treatment for type 2 diabetes, although other options may be added or substituted based on individual needs and disease progression. This medication was the most prescribed and had the highest number of users and prescriptions in both 2019 and 2023. SGLT2 inhibitors, which lower blood sugar by increasing the excretion of glucose in the urine, saw notable increases as shown in the table. Finally, GLP-1 receptor agonists showed the greatest growth in terms of users and prescriptions between 2019 and 2023.

Type 2 Diabetes: Number of individuals and prescriptions dispensed in Canada, 2023				
	Individuals		Prescriptions	
	2019	2023	2019	2023
Metformin	1,903,864	2,108,773	14,778,180	16,705,939
Sodium-glucose transport protein 2 (SGLT2)	569,781	1,196,418	4,240,221	10,199,755
Dipeptidyl peptidase-4 (DPP-4)	856,806	746,186	8,254,683	7,449,314
Sulfonylureas	715,425	745,250	6,484,256	6,753,583
Glucagon-like peptide-1 (GLP-1)	161,170	685,110	869,857	4,647,742
Postprandial glucose regulators (PPG)	37,536	29,044	458,633	327,244
Thiazolidinediones	16,758	9,979	126,502	68,548
Acarbose	12,811	9,022	79,771	65,148

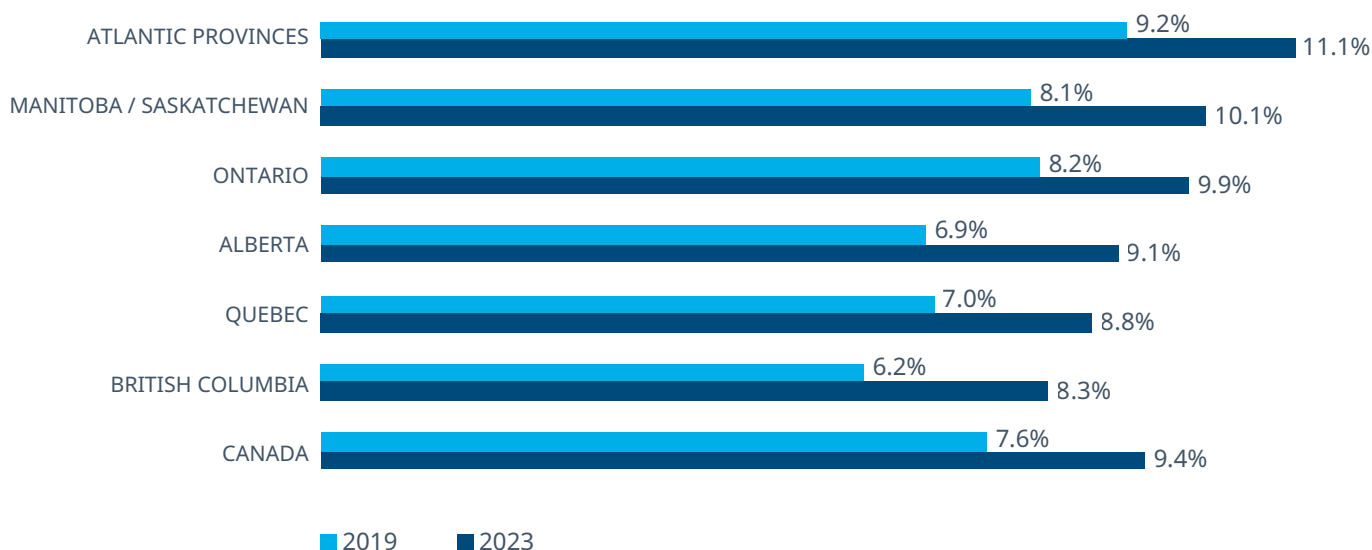
⁹ <https://news.ok.ubc.ca/2024/04/10/diabetes-prevention-program-rolls-out-across-canada/>

¹⁰ <https://www.canada.ca/fr/sante-canada/nouvelles/2024/02/acces-universel-aux-medicaments-contre-le-diabete-et-fonds-pour-les-dispositifs-et-les-fournitures-pour-le-traitement-du-diabete.html>

Provincial prevalence highlights

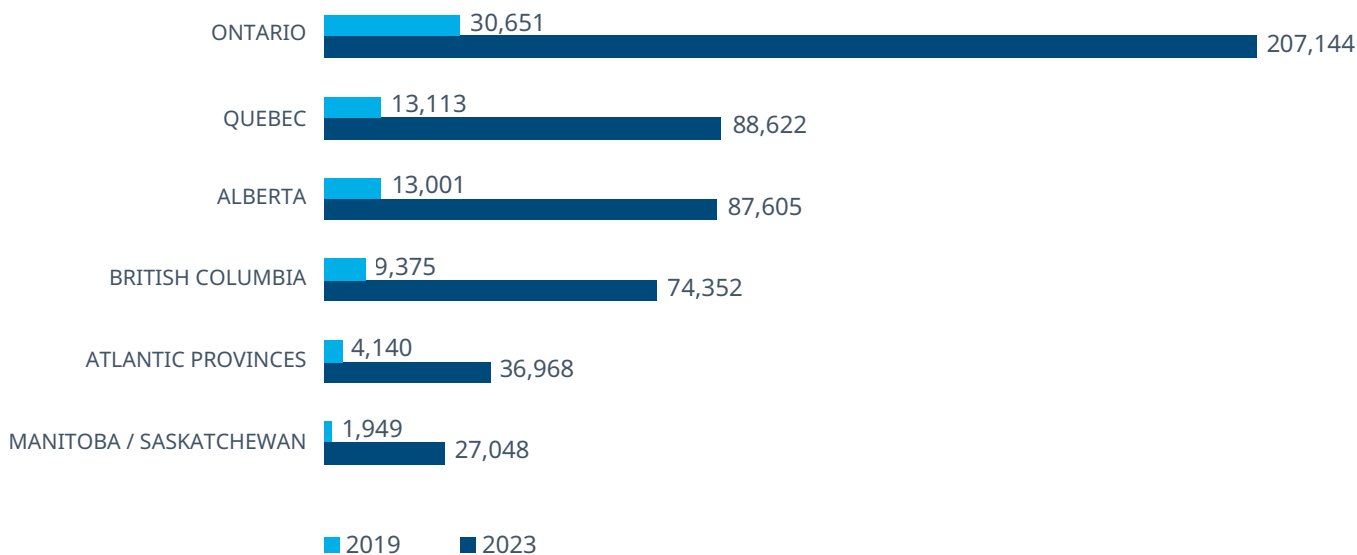
In 2023, the highest prevalence was observed in the Atlantic provinces, reaching 11.1%. Between 2019 and 2023, all provinces experienced an increase of more than 20% in prevalence, with increases of more than 30% in British Columbia and Alberta.

Diabetes prevalence by province



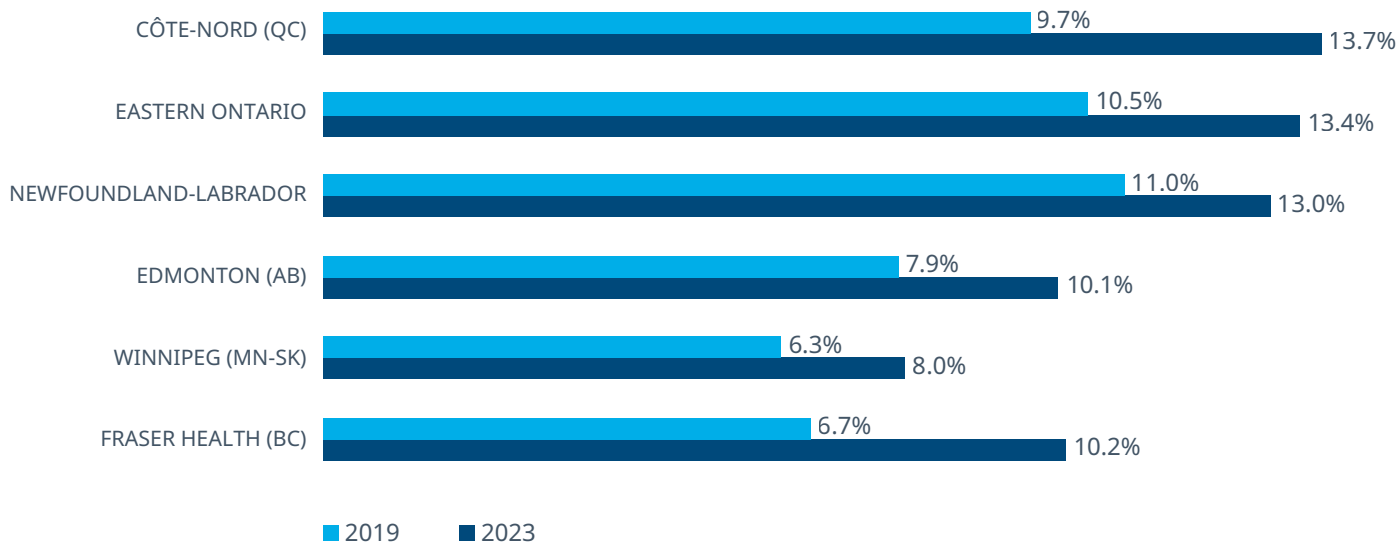
Between 2019 and 2023, the number of people using medications to treat obesity increased significantly in all provinces, peaking at 207,144 in Ontario in 2023, compared to 30,651 in 2019. This increase can be explained in part by a more diversified treatment offering in 2023 compared to 2019.

Number of individuals who used medications to treat obesity by province



IQVIA has recently developed new indicators to enrich the analysis, by integrating data on health regions from various Canadian provinces. Among these, Ontario is subdivided into 26 regions and Quebec into 15. The following table presents some examples. For more information, do not hesitate to contact IQVIA.

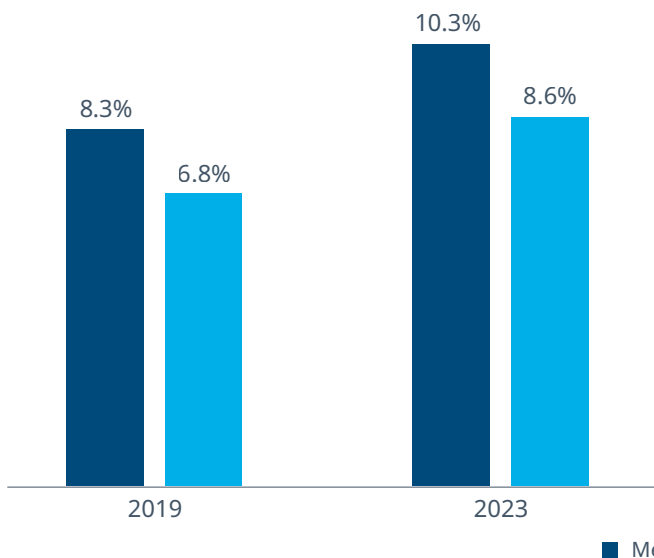
Prevalence of diabetes by selected health region



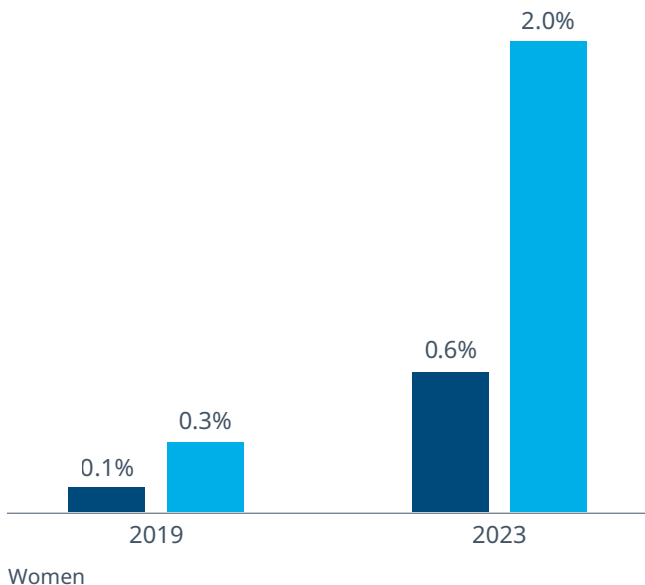
Demographic analysis

The prevalence of diabetes in Canada was higher for men than for women over the five years analyzed, reaching 10.3% and 8.6% respectively in 2023. In contrast, the use of medications to treat obesity among women reached 2% in 2023 compared to 0.6% among men, increasing steadily in each of the five years studied.

Diabetes prevalence by gender - Canada

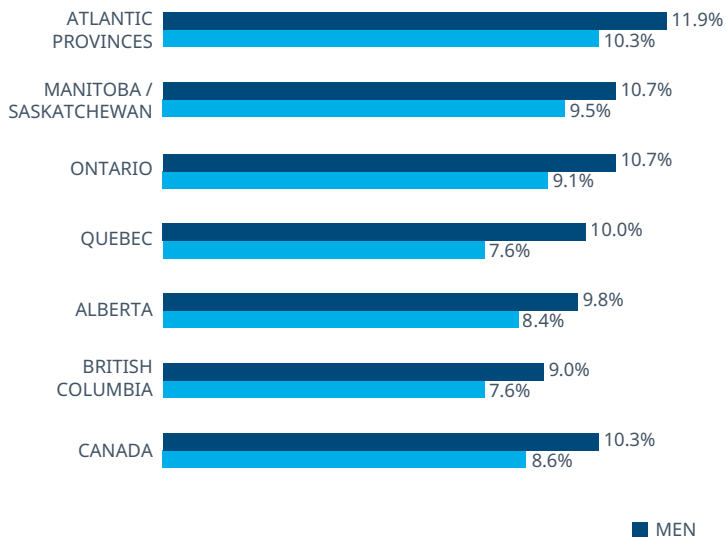


Prevalence of medication used to treat obesity by gender, Canada

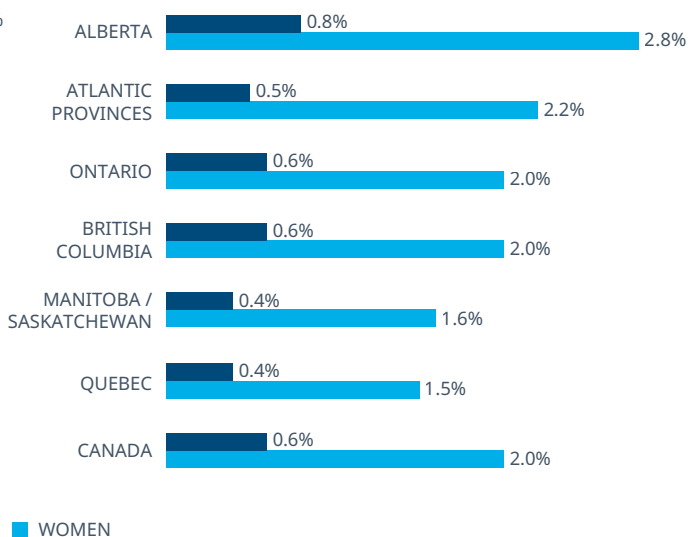


Diabetes affects more men than women in all provinces, with a peak prevalence of 11.9% in men and 10.3% in women in 2023 in the Atlantic provinces. Conversely, women were more likely to use medications to treat obesity in all provinces, with a peak of 2.8% in Alberta. Although not shown, the prevalence of obesity among women consistently increased in each of the five years analyzed across all provinces.

Diabetes prevalence by gender and province - 2023

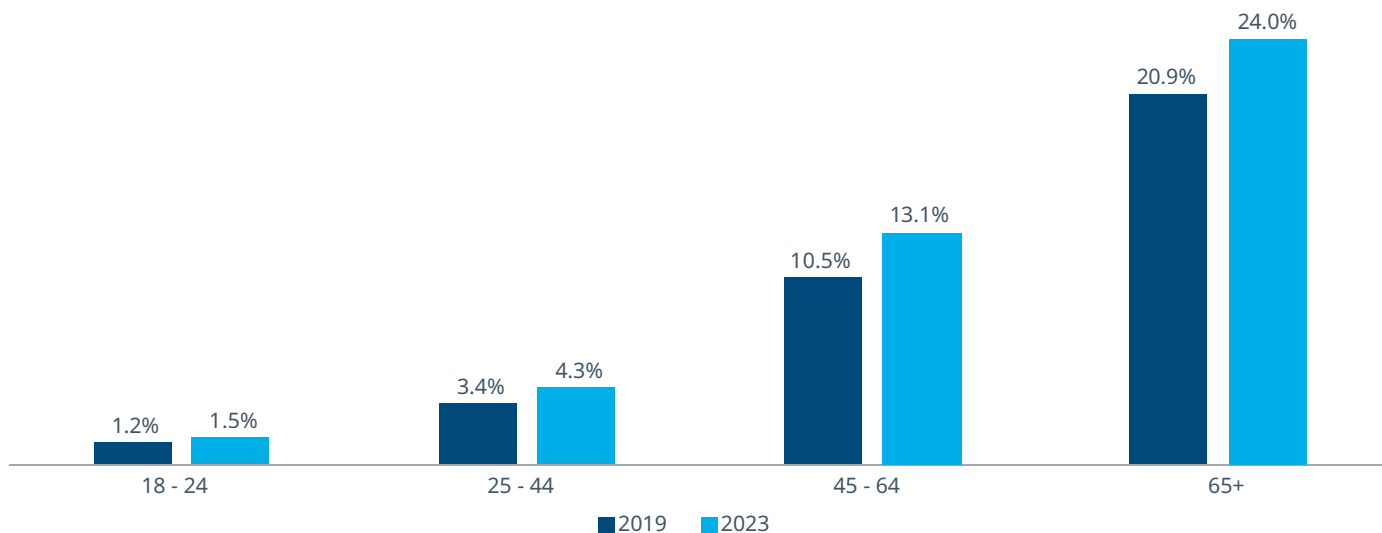


Prevalence of medication used to treat obesity by gender and province, Canada - 2023



In Canada, from 2019 to 2023, the prevalence of diabetes increased in all age groups, particularly among people aged 45 to 64 and those aged 65 and over.

Diabetes prevalence by age group - Canada



In 2023, men aged 65 and older had the highest prevalence rates of diabetes in all provinces, with rates exceeding 30% or one in three men in Ontario, Alberta and Manitoba/Saskatchewan. It is also notable that in all provinces, the prevalence of diabetes among women, both in the 25-44 age groups and those aged 65 and older, is several percentage points lower than that of men.

Diabetes prevalence by province, gender, and age group*, 2023				
PROVINCES	GENDER	25 - 44	45 - 64	65+
ONTARIO	M	3.6%	15.5%	31.6%
	W	4.9%	11.6%	22.0%
ALBERTA	M	4.1%	16.1%	31.1%
	W	5.6%	12.2%	21.6%
MANITOBA / SASKATCHEWAN	M	4.8%	17.9%	30.4%
	W	6.7%	14.5%	21.0%
ATLANTIC PROVINCES	M	4.1%	15.9%	28.8%
	W	5.3%	12.9%	21.1%
QUEBEC	M	3.0%	13.9%	27.6%
	W	4.0%	9.5%	17.4%
BRITISH COLUMBIA	M	3.5%	13.4%	22.4%
	W	4.8%	10.0%	15.7%
CANADA	M	3.6%	15.1%	28.9%
	W	4.9%	11.2%	19.8%

*Only age groups with significant prevalence are presented

In 2023, women aged 25 to 44 and 45 to 64 used medications to treat obesity the most across Canada, with a peak in Alberta for those aged 45 to 64 at 5.2%.

Prevalence of medication used to treat obesity by province, gender, and age group*, 2023			
PROVINCES	GENDER	25 - 44	45 - 64
ALBERTA	W	4.1%	5.2%
	M	0.9%	1.6%
ATLANTIC PROVINCES	W	3.6%	3.9%
	M	0.7%	1.0%
ONTARIO	W	2.7%	3.4%
	M	0.6%	1.1%
BRITISH COLUMBIA	W	2.9%	3.4%
	M	0.7%	1.1%
MANITOBA / SASKATCHEWAN	W	2.6%	2.9%
	M	0.5%	0.8%
QUEBEC	W	2.4%	2.8%
	M	0.6%	0.9%
CANADA	W	2.9%	3.5%
	M	0.7%	1.1%

*Only age groups with significant prevalence are presented

Prescribers by specialty

For both diabetes and obesity, the majority of prescriptions were issued by general practitioners. Prescriber-level data is collected from six Canadian provinces.

Proportion of prescriptions to treat diabetes by medical specialty, 2023				
PROVINCES	General medicine	Endocrinology	Internal medicine	Other specialties
ATLANTIC PROVINCES	92%	2%	2%	4%
MANITOBA / SASKATCHEWAN	91%	2%	3%	4%
ALBERTA	88%	2%	5%	5%
QUEBEC	81%	2%	7%	10%
ONTARIO	78%	13%	4%	5%
CANADA	81%	9%	5%	5%

Proportion of prescriptions to treat obesity by medical specialty, 2023				
PROVINCES	General medicine	Endocrinology	Internal medicine	Other specialties
MANITOBA / SASKATCHEWAN	95%	3%	1%	1%
ATLANTIC PROVINCES	95%	1%	2%	2%
ALBERTA	93%	2%	3%	2%
QUEBEC	88%	5%	4%	3%
ONTARIO	81%	8%	8%	3%
CANADA	86%	5%	5%	4%

Recommendations for health interest groups

Many programs have been implemented in Canada to reduce the incidence of type 2 diabetes, such as the Public Health Agency of Canada's "Type 2 Diabetes Prevention Challenge"¹¹ and the "Diabetes Framework"¹². These initiatives focus primarily on prevention, promoting healthy lifestyles, and the various service and treatment options available for diabetes and obesity. However, there is also a need to coordinate efforts across governments, health care organizations, and communities to detect and manage this disease early. Access to front-line clinicians, specialists when needed, and timely test results are essential to meeting the challenge of reducing the negative impacts of this chronic disease.

At IQVIA, our goal is to drive improved care by providing healthcare stakeholders with reliable, regularly updated data, including:

- Systematically and dynamically review national, provincial and regional prescription data to identify current and emerging trends that may impact providers, patients, governments and regulators;
- Track regional variations in prevalence and prescribing to assess the effectiveness of programs;
- Focus efforts on provinces and regions where diabetes prevalence is increasing the most and develop targeted strategies to raise awareness and educate professionals.

11 <https://impact.canada.ca/en/challenges/type-2-diabetes-prevention-challenge/applicant-guide>

12 <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/framework-diabetes-canada/cadre-diabete-canada.pdf>

Finally, we believe that integrating prescription data with government databases and electronic medical records (EMRs) would be extremely beneficial for patients and healthcare professionals. This comprehensive approach would improve the quality of care by strengthening epidemiological surveillance, trend analysis, treatment effectiveness assessment and interdisciplinary collaboration, all within a scalable, efficient, and secure framework. The launch of regional pilot projects in certain provinces could represent an excellent opportunity to develop expertise in the integration of diabetes and obesity data.

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 that were not consumed by patients
- Diagnoses for which prescriptions were dispensed
- Clinical indication or morbidity

Data sources and methodology

The statistics are generated from [fully anonymized] prescriptions for antidiabetic drugs and to treat obesity dispensed by a panel of community pharmacies for the years 2019 to 2023 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 Canada¹³ was used to calculate prevalence.

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 this analysis:

Diabetes	Obesity
Insulin	Naltrexone SR/bupropion SR
Basal	Liraglutide
Bolus	Orlistat
Premix	Semaglutide
Non-insulin	Tirzepatide
Biguanide (metformin)	
Sodium-glucose transport protein 2 (SGLT2)	
Dipeptidyl peptidase-4 (DPP-4)	
Sulfonylureas	
Glucagon-like peptide-1 (GLP-1)	
Postprandial glucose regulators (PPG)	
Thiazolidinediones	
Acarbose	

13 <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E>

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.

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