

DIABETES IN CANADA IN REVIEW, 2021



2021 MARKS THE **100TH ANNIVERSARY** OF THE DISCOVERY OF INSULIN by Canadian researchers.

✓ Insulin has **saved the lives** of millions of people living with diabetes.

✗ Insulin is **not a cure**, but rather a treatment to help manage diabetes.

WHAT IS DIABETES?

Diabetes is a chronic condition that occurs when the body does not produce enough insulin or when it cannot use it effectively. Insulin is a hormone that helps regulate blood sugar levels (glycemia). If left untreated, blood sugar can rise to health-threatening levels. Treatments vary based on the individual and on the type of diabetes. Despite advances in treatment and care, diabetes remains a complex condition to manage.

Optimal control of blood sugar is essential to reduce the risk of short and long-term health complications.¹

DIABETES TYPES	MODIFIABLE RISK FACTORS (TYPE 2)	TREATMENTS	POTENTIAL COMPLICATIONS
<ul style="list-style-type: none"> ▶ Type 1 ▶ Type 2 ▶ Gestational ▶ Other types 	<ul style="list-style-type: none"> ▶ Obesity and overweight ▶ Pre-diabetes ▶ Physical inactivity ▶ Unhealthy eating ▶ High blood pressure or high cholesterol 	<ul style="list-style-type: none"> ▶ Oral medication ▶ Insulin therapy ▶ Lifestyle management ▶ Combination of treatments 	<ul style="list-style-type: none"> ▶ Hypoglycemia and hyperglycemia ▶ Heart disease ▶ Stroke ▶ Kidney disease ▶ Nerve damage ▶ Eye damage ▶ Lower-limb damage and amputations ▶ Periodontal disease ▶ Poor mental health outcomes ▶ Complications during pregnancy ▶ Diabetic coma ▶ Premature death ▶ Severe COVID-19 related illness and death²

ACCORDING TO NATIONAL DATA:

3.4 MILLION CANADIANS were living with diabetes in 2017-2018, compared to **1.3 MILLION** in 2000-2001*.³



3.3% average annual increase in prevalence**

2000-2001
4.7% of the population
(1.3 million)



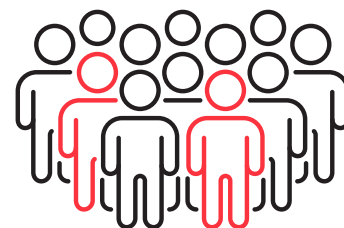
2017-2018
8.1% of the population
(3.4 million)

* Type 1 and type 2 diabetes combined, excluding gestational diabetes. Aged 1+ years.

** Prevalence estimates are age-standardized to the 2011 Canadian population using five-year age groups and are based on non-rounded counts.

WHO IS AT RISK?

Type 2 diabetes and its **risk factors** are more prevalent among Canadians experiencing marginalization, including First Nations and Métis, people of African and South Asian ethnicity, and people with lower income and education levels.⁴



CHRONIC DISEASE SURVEILLANCE is important to monitor changes in diabetes patterns over time to inform programs and policies to improve the lives of Canadians with diabetes. Canada has one of the most comprehensive chronic disease surveillance systems in the world.⁵

CANADIAN CHRONIC DISEASE SURVEILLANCE SYSTEM (CCDSS)

The **Canadian Chronic Disease Surveillance System (CCDSS)** is a collaborative network of provincial and territorial chronic disease surveillance systems, supported by the Public Health Agency of Canada since 1999⁶⁻⁷ that:

- 1** Includes data on all Canadians with a valid health card number;
- 2** Provides statistics on more than 20 chronic diseases and conditions, including diabetes;
- 3** Represents the only population-based source for diabetes incidence data (number of new cases) in Canada;
- 4** Captures diagnosed diseases/conditions/health events using administrative databases such as health insurance registries, physician billing claims and hospital discharge databases; and
- 5** Uses validated methods to identify cases of diagnosed chronic diseases and conditions.



The CCDSS continues to expand and evolve: enhancing the surveillance of chronic diseases, including diabetes; and providing reliable data and information to researchers, policymakers, health care professionals and the public.

LEARN MORE ABOUT DIABETES:

TO LEARN MORE ABOUT DIABETES, VISIT: [Diabetes in Canada](#)

EXPLORE THE LATEST DATA [Canadian Chronic Disease Surveillance System—Public Health Infobase](#)

ARE YOU AT RISK? [CANRISK](#)

Sources:

- American Diabetes Association. Diagnosis and classification of diabetes mellitus. *Diabetes care*. 2014 Jan 1;37 Suppl 1:S81-90. doi: 10.2337/dc14-S081.
- Public Health Agency of Canada. Recommendations on the use of COVID-19 vaccines [Internet]. Ottawa (ON): Public Health Agency of Canada; 2021 [cited 2021 Oct 14]. Available from: www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html
- Public Health Agency of Canada, using Canadian Chronic Disease Surveillance System data files contributed by provinces and territories, as of February 2021 (data up to 2017–2018). Data from Nova Scotia among individuals age 1–19 are excluded. Data from Nunavut and the Northwest Territories were not available for 2017–2018.
- Public Health Agency of Canada. Key Health Inequalities in Canada: A National Portrait. Ottawa (ON): Public Health Agency of Canada; 2018 [cited 2021 Oct 14]. Available from: www.canada.ca/en/public-health/services/publications/science-research-data/understanding-report-key-health-inequalities-canada.html
- Magliano DJ, Chen L, Islam RM, Carstensen B, Gregg EW, Parkov ME, et al. Trends in the incidence of diagnosed diabetes: a multicountry analysis of aggregate data from 22 million diagnoses in high-income and middle-income settings. *Lancet Diabetes Endocrinol*. 2021 Apr;9(4):203–211. doi: 10.1016/S2213-8587(20)30402-2. Epub 2021 Feb 23.
- LeBlanc AG, Jun Gao Y, McRae L, et Pelletier C. At-a-glance—Twenty years of diabetes surveillance using the Canadian Chronic Disease Surveillance System. *Health Promot Chronic Dis Prev Can*. 2019;39(11):306–309. doi:10.24095/hpcdp.39.11.03.
- Public Health Agency of Canada. Twenty Years of Diabetes surveillance using the Canadian Chronic Disease Surveillance System [Internet]. Ottawa (ON): Public Health Agency of Canada; 2019 [cited 2021 July 13]. Available from: www.canada.ca/en/public-health/services/publications/diseases-conditions/20-years-diabetes-surveillance.html