

Diabetes in Nova Scotia

Backgrounder

Summary: This backgrounder provides key statistics about diabetes in Nova Scotia, the impact of diabetes on the population of Nova Scotia, and Diabetes Canada's recommendations to the Government of Nova Scotia to address diabetes prevention and management.

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About Diabetes Canada: Diabetes Canada is a national health charity representing close to 11.5 million Canadians living with diabetes or prediabetes. Diabetes Canada leads the fight against diabetes by helping those affected by diabetes live healthy lives, preventing the onset and consequences of diabetes, and discovering a cure. It has a heritage of excellence and leadership, and its co-founder, Dr. Charles Best, along with Dr. Frederick Banting, is credited with the co-discovery of insulin. Diabetes Canada is supported in its efforts by a community-based network of volunteers, employees, health care professionals, researchers, and partners. By providing education and services, advocating on behalf of people living with diabetes, supporting research, and translating research into practical applications, Diabetes Canada is delivering on its mission. Diabetes Canada will continue to change the world for those affected by diabetes through healthier communities, exceptional care, and high-impact research.

For more information, please visit: www.diabetes.ca

Contact: advocacy@diabetes.ca with inquiries about this Diabetes Canada report.

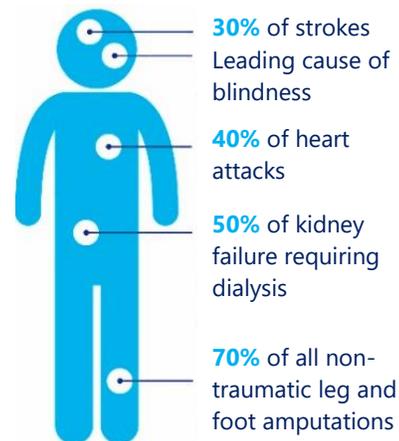
Estimated Prevalence and Cost of Diabetes

Prevalence (1)	2021	2031
Diabetes (type 1 and type 2 diagnosed)	119,000 / 12%	140,000 / 14%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	331,000 / 33%	365,000 / 36%
Increase in diabetes (type 1 and type 2 diagnosed), 2021-2031	18%	
Direct cost to the health care system	\$112 Million	\$129 Million
Out-of-pocket cost per year (2)		
Type 1 diabetes on multiple daily insulin injections	\$1,100–\$3,100	
Type 1 diabetes on insulin pump therapy	\$1,100–\$6,200	
Type 2 diabetes on oral medication	\$800–\$2,100	

Impact of Diabetes

- Among Nova Scotians (1):
 - **33%** live with diabetes or prediabetes, and
 - **12%** live with diagnosed diabetes.
- Diabetes complications are associated with premature death (3). Diabetes can reduce lifespan by **five to 15 years** (3). It is estimated that the all-cause mortality rate among Canadians living with diabetes is **twice** as high as the all-cause mortality rate for those without diabetes (4).
- People with diabetes are over **three times** more likely to be hospitalized with cardiovascular disease, **12 times** more likely to be hospitalized with end-stage renal disease, and almost **20 times** more likely to be hospitalized for a non-traumatic lower limb amputation compared to the general population (3).

- Diabetes contributes to (5):



- The prevalence of clinically relevant depressive symptoms among people living with diabetes is approximately **30%** (6). Individuals with depression have a **40% – 60%** increased risk of developing type 2 diabetes (6).

- Diabetic retinopathy is the leading cause of vision loss in people of working age (7). Vision loss is associated with increased falls, hip fractures, and a 4-fold increase in mortality (7). The prevalence of diabetic retinopathy is approximately **25.1%** in Canada (8).
- Foot ulceration affects an estimated **15%–25%** of people with diabetes in their lifetime (9). **One-third** of amputations in 2011–2012 were performed on people reporting a diabetic foot wound (10).
- The risk factors for type 1 diabetes are not well understood, but interaction between genetic and environmental factors are likely involved (11). Type 2 diabetes is caused by a combination of individual, social, environmental, and genetic factors (11).
 - Certain populations are at higher risk of developing type 2 diabetes, such as those of African, Arab, Asian, Hispanic, Indigenous, or South Asian descent, those who are older, have a lower level of income or education, are physically inactive, or are living with overweight or obesity (11).
 - The rate of diabetes is **2.2 times** higher in the Métis population than in the non-Indigenous population, a situation compounded by barriers to care for Indigenous peoples (12,13).
 - The prevalence of diabetes among adults in the lowest income groups is **7.7 times** that of adults in the highest income group (13).
 - Adults who have not completed high school have a diabetes prevalence **7.2 times** that of adults with a university education (13).
- For many Canadians with diabetes, adherence to treatment is affected by cost. The majority of Canadians with diabetes pay more than **3%** of their income or over **\$1,500** per year for prescribed medications, devices, and supplies out-of-pocket (2,14).
- Among Canadians with type 2 diabetes, **33%** do not feel comfortable disclosing their disease to others (2).
- Hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar) may affect mood and behaviour, and can lead to emergency situations if left untreated (11).

Policy, Programs, and Services Related to Diabetes

- In 2019, Pharmacare issued a revised Special Authorization form in an effort to remove the opportunity for subjective interference by provincial adjudicators and thereby enhance access to diabetes medications prescribed by physicians.
- In 2013, the Government of Nova Scotia announced funding for insulin pumps for youth with type 1 diabetes up to age 19, as well as supplies for insulin pumps for people up to age 25. As of April 2015, both pumps and supplies for those 25 years and younger are covered.
- The Diabetes Care Program of Nova Scotia (DCPNS) was implemented in 1991, with a mandate to standardize and improve the quality of care provided through Nova Scotia's Diabetes Centres and other diabetes care providers across all settings.
- Several guidelines and resources are produced by the DCPNS as a result of an

identified need and are designed to help Nova Scotia's health care providers.

- The DCPNS has hosted either a provincial conference or a number of regional workshops and/or Telehealth sessions for health care professionals.
- The Nova Scotia Family Pharmacare Program (NSFPP) (2008) assists people without drug coverage or with high drug costs not covered by private insurance. The program helps cover the costs of diabetes medications and supplies on the Nova Scotia formulary.
- Nova Scotia made changes to the Pharmacare Special Authorization form regarding access to oral medications for type 2 diabetes.
- Nova Scotia has family practice incentive programs and billing codes for physicians providing care for chronic illnesses, including diabetes.
- In Nova Scotia, Diabetes Canada's Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada are embedded in standard forms, including referral, assessment, follow-up, and flow sheets, applicable guideline documents and the chronic disease flow sheet.
- The DCPNS Registry allows longitudinal tracking of newly diagnosed referrals, including those with prediabetes, and key self and clinical indicators of care, including lower-extremity amputation data, hypertension rates, and retinopathy screening rates.
- Nova Scotia produces an annual report for district health authorities on diabetes epidemiology and health services utilization using the National Diabetes Surveillance System. The DCPNS Registry allows for a

review of process and outcome measures in diabetes centres that use the Registry onsite.

Challenges

Nova Scotia faces unique challenges in reducing risk of type 2 diabetes and meeting the needs of those living with diabetes:

- Non-modifiable risk factors of type 2 diabetes include age, sex, and ethnicity (11).
 - The median age in Nova Scotia is **45.5 years** (15). **19.9%** of Nova Scotians are over 65 years old (15). The risk of developing type 2 diabetes increases with age (11). Older adults living with diabetes are more likely to be frail and progressive frailty has been associated with reduced function and increased mortality (16).
 - Adult men are more at risk of type 2 diabetes compared to adult women (11).
 - Approximately **7%** of Nova Scotians self-identify as being of African, Arab, Asian, Hispanic, or South Asian descent (15). These groups are at increased risk of developing type 2 diabetes (11).
 - There are **51,495** Indigenous Peoples in Nova Scotia, who face significantly higher rates of diabetes and adverse health consequences than the overall population (17).
- Nova Scotia has high rates of individual-level modifiable risk factors (18):
 - **45%** of adults and **45%** of youth are physically inactive;
 - **36.8%** of adults are living with overweight and **33.7%** of adults are living with obesity;
 - **74.5%** of adults are not eating enough fruits and vegetables; and

- 18% of adults are current tobacco smokers.
- Factors related to the social determinants of health and that can influence the rate of individual-level modifiable risk factors among Nova Scotians include income, education, food security, the built environment, social support, and access to health care (3).
 - Nova Scotia has one of the highest rural populations among the provinces. For people with diabetes, accessing care is more challenging in rural areas across Canada than in urban areas (19).
 - The median after-tax family income in Nova Scotia is among the lowest among the provinces (20).

Diabetes Canada's Recommendations to the Government of Nova Scotia

1. Launch a provincial diabetes strategy that aligns with [Diabetes 360°](#), and support a nation-wide D360° strategy.
2. Enhance access to diabetes medications, devices, and supplies.
 - Publicly fund advanced glucose monitoring devices (CGM and Flash) for Nova Scotians with diabetes who would benefit.
 - Eliminate the age restriction on the insulin pump program.
3. Expand services and supports to promote limb preservation for Nova Scotians living with diabetes.

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