

Diabetes in Alberta

Backgrounder

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

Publication Date: January 2021

Report Length: 6 Pages

Cite As: Diabetes in Alberta: Backgrounder. Ottawa: Diabetes Canada; 2021.

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.

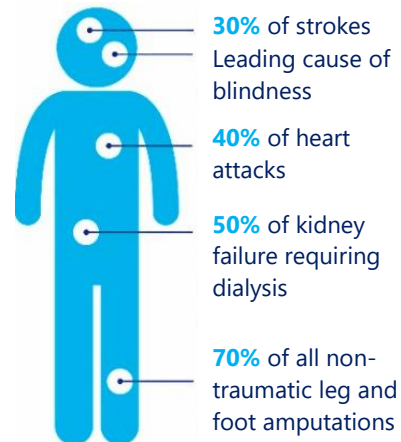
Estimated Prevalence and Cost of Diabetes

Prevalence (1)	2021	2031
Diabetes (type 1 and type 2 diagnosed)	386,000 / 8%	556,000 / 10%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	1,207,000 / 25%	1,580,000 / 29%
Increase in diabetes (type 1 and type 2 diagnosed), 2021-2031	44%	
Direct cost to the health care system	\$475 million	\$672 million
Out-of-pocket cost per year (2)		
Type 1 diabetes on multiple daily insulin injections	\$2,200–\$2,400	
Type 1 diabetes on insulin pump therapy	\$600–\$900	
Type 2 diabetes on oral medication	\$500–\$2,000	

Impact of Diabetes

- Among Albertans (1):
 - **25%** live with diabetes or prediabetes and
 - **8%** 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%** 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 age-standardized prevalence rates for diabetes are **18.5%** among people of African descent, **15.5%** among people of South Asian descent, and **6.3%** among people of East/Southeast Asian descent.
 - Diabetes rates are **3.5 times** higher in First Nations People off reserve and **1.4 times** higher in Métis 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 **3.9 times** that of adults in the highest income group (13).
 - Adults who have not completed high school have a diabetes prevalence **7 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 April 2020, the Government of Alberta announced postponing the deadline for nonmedical switching from Lantus to Basaglar until January 15th, 2021.
- In December 2019, the Government of Alberta released its Biosimilars Initiative which introduces changes for individuals using insulin glargine. Albertans are required to switch from the biologic Lantus to the biosimilar Basaglar by 1 July 2020, unless a special authority request to continue using Lantus is approved.
- In February 2019, the Government of Alberta released *Guidelines for Supporting Students with Type 1 Diabetes*.

- In 2016, hospitals across the province began to adopt the Diabetes, Obesity and Nutrition Strategic Clinical Network (DON SCN) Inpatient Diabetes Management Initiative in its effort to standardize how patients with diabetes are cared for in Alberta's hospitals.
- On April 1, 2015, the Government of Alberta discontinued the Alberta Monitoring for Health program.
- In 2014, DON SCN initiated and later released a provincial Diabetes Foot Care Clinical Pathway for Albertans with diabetes to reduce diabetic foot ulcers and amputations.
- In June 2013, the Government of Alberta launched a publicly funded insulin pump and supplies program for eligible Albertans with type 1 diabetes, regardless of age.
- Alberta Health-sponsored drug plans (e.g. Blue Cross Coverage for Seniors and Non-Group Coverage) include coverage in June 2012 for the full cost of diabetes supplies (e.g. blood glucose test strips, lancets, syringes, needles, cartridges, and urine test strips) to a maximum of \$600/year for individuals managing their diabetes with insulin. These drug plans do not cover diabetes supplies for individuals with type 2 diabetes who do not use insulin.
- In June 2012, Alberta Health Services launched the Diabetes, Obesity and Nutrition Strategic Clinical Network (DON SCN), comprised of a diverse community of patients, health care professionals, associations, government, and researchers who are passionate and knowledgeable about these three interrelated health priorities.
- The Alberta Diabetes Strategy (ADS 2003-2013) has expired, and some important initiatives introduced within the strategy have been discontinued:
 - The Alberta Diabetes Surveillance System (ADSS) was established to support surveillance and reporting on the incidence, prevalence, and mortality of diabetes and its complications and comorbidities. The ADSS ended in March 2012.
 - The Alberta Monitoring for Health (AMFH) program provided low income Albertans living with type 1 or type 2 diabetes without public or private insurance coverage with some funding for diabetes supplies. This program ended in June 2015.
 - The Mobile Diabetes Screening Initiatives (MDSI) provided diabetes screening for some remote communities in Alberta, as well as Indigenous people living off-reserve. The MDSI program ended in 2014.
- Alberta Seniors Benefit, Adult Health Benefit, and Child Health Benefit provide support for diabetes medication, supplies, and devices for individuals with type 1 and type 2 diabetes. Individuals who benefitted from the AMFH Program have been transitioned to these programs.

Challenges

Alberta faces unique challenges in preventing 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 Alberta is **36.7 years** (15). **12.3%** of Albertans 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 **24.8%** of Albertans 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 **258,640** Indigenous Peoples in Alberta, who face significantly higher rates of diabetes and adverse health consequences than the overall population (17).
 - Alberta has high rates of individual-level modifiable risk factors (18):
 - **42.5%** of adults and **43.5%** of youth are physically inactive;
 - **35%** of adults are living with overweight, **28.8%** of adults are living with obesity, and **24%** of youth are living with overweight or obesity;
 - **72.6%** of adults are not eating enough fruits and vegetables; and
 - **16.2%** 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 Albertans include income, education, food security, the built environment, social support, and access to health care (3).
 - Alberta had the largest increase in diabetes prevalence during the last 10 years among the provinces and is

projected to also experience the largest increase over the next 10 years (1).

- Albertans with diabetes living in non-metro health zones have lower rates of specialist care visits and higher use of hospital and emergency departments for acute and chronic complications of diabetes.

Diabetes Canada's Recommendations to the Government of Alberta

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 Albertans with diabetes who would benefit.
 - Enhance access to blood glucose test strips for Albertans living with diabetes to align with Diabetes Canada's minimum reimbursement recommendations.
3. Expand services and supports to promote limb preservation for Albertans living with diabetes.

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