Diabetes in Saskatchewan

Estimated prevalence and cost[1]

Prevalence	2019	2029
Diabetes (type 1and type 2 diagnosed)	103,000 / 8%	136,000 / 10%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	314,000 / 26%	382,000 / 28%
Increase in diabetes (type 1 and type 2 diagnosed), 2019-2029	32%	
Direct cost to the health-care system	$101 million	$132 million
Out-of-pocket cost per year[2]		
Type 1 diabetes on multiple daily insulin injections	$700–$2,700	
Type 1 diabetes on insulin pump therapy	$700–$6,200	
Type 2 diabetes on oral medication	$900–$1,900	

Impact of diabetes

- Diabetes complications are associated with premature death. Diabetes can reduce lifespan by five to 15 years. It is estimated that at least one in every ten deaths in Canadian adults was attributable to diabetes in 2008–2009.[3]
- 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 30% of strokes, 40% of heart attacks, 50% of kidney failure requiring dialysis, and 70% of non-traumatic lower limb amputations every year[4] and is a leading cause of vision loss.
- The prevalence of clinically relevant depressive symptoms among people with diabetes is about 30%; individuals with depression have an approximately 60% increased risk of developing type 2 diabetes.[5]
- The risk of blindness in people with diabetes is up to 25 times higher than in those without diabetes.[6] Diabetes is the leading cause of acquired blindness in Canadians under the age of 50.[7] Diabetic retinopathy affects 500,000 Canadians.[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]
- Some populations are at higher risk of type 2 diabetes, such as those of African, Arab, Asian, Hispanic, Indigenous or South Asian descent, those who are older, have a low income or are living with overweight. Diabetes rates are three to five times higher in First Nations populations than in the general population, a situation compounded by barriers to care for Indigenous peoples.5
- 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 their own pocket.[11,12]
- Among Canadians with type 2 diabetes, 33% do not feel comfortable disclosing their disease to others.[12]
- Hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar) may affect mood and behaviour, and can lead to emergency situations, if left untreated.

Policy, programs and services related to diabetes

- In February 2019, in response to current evidence, Saskatchewan made empagliflozin, an SGLT-2 inhibitor, available as additional therapy for individuals with type 2 diabetes and clinical cardiovascular disease who have inadequate glycemic control despite existing pharmacotherapy.
- The Government of Saskatchewan introduced changes in 2015 to reduce public coverage of blood glucose test strips. Within the new test strips policy, the maximum number of test strips reimbursed is similar to Diabetes Canada's minimum recommended test strip usage guidelines.
- In 2015, the government announced funding to support a pediatric endocrinology and diabetes program, adding a second pediatric endocrinologist and more support positions for the pediatric diabetes team.
- In January 2012, the Government of Saskatchewan announced expansion of the insulin pump program to include all individuals with type 1 diabetes under the age of 26.
- The Saskatchewan Children's and Seniors' Drug Plans are available to children aged 14 and younger and eligible seniors aged 65 and older, who pay $25 per prescription for drugs on the Saskatchewan Formulary and those approved under Exception Drug Status.

Challenges

Saskatchewan faces unique challenges in preventing type 2 diabetes and meeting the needs of those living with diabetes:

- The province experienced a 43% increase in diabetes prevalence during the last decade.

- Saskatchewan has the second highest concentration of Indigenous people among Canadian provinces.[13] It also has the highest rate of obesity in adults (46%) compared to the other provinces and all of Canada.[14]
- About 14% of people living in Saskatchewan have prediabetes.
- Saskatchewan has a higher rural population than the national average. Accessing care is more challenging for people with diabetes in rural areas across Canada than in urban areas.[15]

Diabetes Canada recommendations to the Government of Saskatchewan

1. Establish a mandatory standard of care for students with type 1 diabetes that is inline with Diabetes Canada's *Guidelines for the Care of Students Living with Diabetes at School*.
2. Expand the insulin pump program by eliminating the age restriction for medically eligible individuals with type 1 diabetes.
3. Develop and implement a standard provincial diabetes care pathway in consultation with Diabetes Canada.
4. Support Diabetes 360˚, a nationwide strategy framework to prevent and manage diabetes.

References

[1] Diabetes statistics in Saskatchewan are estimates generated by the Canadian Diabetes Cost Model, a forecasting model that provides projections on prevalence, incidence and economic burden of diabetes in Canada based on national data from government sources.
[2] Estimated out-of-pocket costs for type 1 and type 2 diabetes were calculated based on composite case studies. As such, the estimates may reflect the out-of-pocket costs for many people with diabetes in Saskatchewan, but not all. The costs are 2015 estimates and may vary depending on income and age. For details on the methodology and estimates, please see the appendix in the Diabetes Canada's *2015 Report on Diabetes: Driving Change,* retrieved from https://www.diabetes.ca/getmedia/5a7070f0-77ad-41ad-9e95-ec1bc56ebf85/2015-report-on-diabetes-driving-change-english.pdf.aspx.
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