

## Diabetes in Manitoba

### Estimated prevalence and cost<sup>1</sup>

Prevalence	2019	2029
Diabetes (type 1 and type 2 diagnosed)	136,000 / 10%	185,000 / 12%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	386,000 / 27%	472,000 / 31%
Increase in diabetes (type 1 and type 2 diagnosed), 2019-2029	36%	
Direct cost to the health-care system	\$137 million	\$185 million
Out-of-pocket cost per year <sup>2</sup>		
Type 1 diabetes on multiple daily insulin injections	\$800–\$3,100	
Type 1 diabetes on insulin pump therapy	\$2,200–\$6,200	
Type 2 diabetes on oral medication	\$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.<sup>3</sup>
- 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.<sup>3</sup>
- 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<sup>4</sup> 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.<sup>5</sup>
- The risk of blindness in people with diabetes is up to 25 times higher than in those without diabetes.<sup>6</sup> Diabetes is the leading cause of acquired blindness in Canadians under the age of 50.<sup>7</sup> Diabetic retinopathy affects 500,000 Canadians.<sup>8</sup>

- Foot ulceration affects an estimated 15%–25% of people with diabetes in their lifetime.<sup>9</sup> One-third of amputations in 2011–2012 were performed on people reporting a diabetic foot wound.<sup>10</sup>
- 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.<sup>5</sup>
- 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.<sup>11,12</sup>
- Among Canadians with type 2 diabetes, 33% do not feel comfortable disclosing their disease to others.<sup>12</sup>
- 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**

- The Government of Manitoba announced the cancellation of the Special Drug Program as of April 1, 2018. Those covered under this program, who were exempt from paying a Pharmacare deductible, were transitioned to the provincial Pharmacare program.
- In October 2017, the Government of Canada announced funding for the First Nation Basic Foot Care Program, which will provide Manitoba First Nations communities with access to improved foot care and treatment.<sup>13</sup> Over time, it will help to significantly decrease the incidence and risk of diabetes-related foot complications.
- Effective June 2017, changes were made to Pharmacare and Employment & Income Assistance Drug Programs benefit coverage to reduce the number of blood glucose test strips available to individuals with diabetes. 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.
- The Manitoba government launched a pediatric insulin pump program in April 2012.
- Manitoba established a retinal screening program for northern communities in 2007, which screens for prediabetes in Winnipeg. It has enhanced funding for several self-management tools.
- Manitoba’s Physician Integrated Network seeks to improve primary care for chronic disease management, including diabetes, through multidisciplinary teams and the use of electronic medical records.

## Challenges

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

- Manitoba has the highest concentration of Indigenous people among Canadian provinces (16.7%).<sup>14</sup> About 13% of Canada's First Nations people live in Manitoba.<sup>15</sup> The self-reported rate of diabetes is higher among First Nations adults living both on and off-reserve than among non-Indigenous people.<sup>16</sup>
- Overweight and obesity affect about 39% and 32% of adults in Manitoba respectively.<sup>17</sup> Both of these rates are higher than the Canadian average. Approximately 28% of Manitoba youth are living with overweight and 11% are living with obesity.<sup>18</sup>

## Diabetes Canada recommendations to the Government of Manitoba

1. Provide coverage for medical devices that help heal diabetic foot ulcers and reduce the risk of amputation, in addition to enhancing screening and foot care policies and programs.
2. Expand the insulin pump program for medically eligible Manitobans with type 1 diabetes by eliminating the age restriction.
3. Support Diabetes 360°, a nation-wide strategy framework to prevent and manage diabetes.

## References

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- <sup>1</sup> Diabetes statistics in Manitoba 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.
- <sup>2</sup> 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 Manitoba, 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>.
- <sup>3</sup> Public Health Agency of Canada. (2011). Diabetes in Canada: Facts and figures from a public health perspective. Ottawa, Ont.: Public Health Agency of Canada. Retrieved from <https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/cd-mc/publications/diabetes-diabete/facts-figures-faits-chiffres-2011/pdf/facts-figures-faits-chiffres-eng.pdf>.
- <sup>4</sup> Institute for Clinical Evaluative Sciences. (2003). Diabetes in Ontario: An ICES Practice Atlas. Retrieved from <http://www.ices.on.ca/Publications/Atlases-and-Reports/2003/Diabetes-in-Ontario.aspx>.
- <sup>5</sup> Diabetes Canada Clinical Practice Guidelines Expert Committee. (2013). Diabetes Canada 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Can J Diabetes*, 37 (suppl 1).
- <sup>6</sup> Thomann KH, Marks ES, Adamczyk DT. (2001). Primary Eye care in Systemic Disease; New York: McGraw-Hill. (Cited in <http://www.cdc.gov/diabetes/ndep/pdfs/ppod-guide-eye-care-professionals.pdf>; also by Ovenseri-Ogbomo, et al. 2013).
- <sup>7</sup> CNIB. (2015). About diabetic retinopathy. Retrieved from <http://www.cnib.ca/en/your-eyes/eye-conditions/eye-connect/DR/About/Pages/default.aspx>.
- <sup>8</sup> CNIB. (2015). Eye connect: diabetic retinopathy. Retrieved from <http://www.cnib.ca/en/your-eyes/eye-conditions/eye-connect/DR/Pages/default.aspx>.
- <sup>9</sup> Singh, N, Armstrong, DG, Lipsky, BA. (2005) Preventing Foot Ulcers in Patients with Diabetes. *JAMA*. 2005;293(2):217-228. Retrieved from <http://jama.jamanetwork.com/article.aspx?articleid=200119#REF-JCR40054-1>.
- <sup>10</sup> Canadian Institute for Health Information. (2013). Compromised wounds in Canada. Ottawa, Ont.: Canadian Institute for Health Information. Retrieved from [https://secure.cihi.ca/free\\_products/AiB\\_Compromised\\_Wounds\\_EN.pdf](https://secure.cihi.ca/free_products/AiB_Compromised_Wounds_EN.pdf).
- <sup>11</sup> Out-of-pocket costs that exceed 3% or \$1,500 of a person's annual income are defined as catastrophic drug costs by the Kirby and Romanow Commissions on healthcare. Please see Diabetes Canada. (2011). The burden of out-of-pocket costs for Canadians with diabetes. Retrieved from <http://www.diabetes.ca/CDA/media/documents/publications-and-newsletters/advocacy-reports/burden-of-out-of-pocket-costs-for-canadians-with-diabetes.pdf>.
- <sup>12</sup> Diabetes Canada (2015). 2015 Report on Diabetes: Driving Change. Toronto, Ont.: Diabetes Canada. 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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<sup>13</sup> Cision. Government of Canada welcomes the creation of a First Nations program to lower risks of diabetes-related foot complications in Manitoba First Nations. Ottawa: Cision. Retrieved from <http://www.newswire.ca/news-releases/government-of-canada-welcomes-the-creation-of-a-first-nations-program-to-lower-risks-of-diabetes-related-foot-complications-in-manitoba-first-nations-649790153.html>.

<sup>14</sup> Statistics Canada. Number and distribution of the population reporting an Aboriginal identity and percentage of Aboriginal people in the population, Canada, provinces and territories, 2011. Retrieved from <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl02-eng.cfm>.

<sup>15</sup> Statistics Canada, Table 3 – Distribution of First Nations people, First Nations people with and without registered Indian status, and First Nations people with registered Indian status living on or off reserve, Canada, provinces and territories, 2011. Retrieved from <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl03-eng.cfm>.

<sup>16</sup> First Nations Information Governance Centre (FNIGC) (2012). First Nations Regional Health Survey (RHS) 2008/10: national report on adults, youth and children living in First Nation communities [internet]. Ottawa, ON: FNIGC; 2012 [cited 2018 Jan 29]. 433 p. Retrieved from [https://fnigc.ca/sites/default/files/docs/first\\_nations\\_regional\\_health\\_survey\\_rhs\\_2008-10\\_-\\_national\\_report.pdf](https://fnigc.ca/sites/default/files/docs/first_nations_regional_health_survey_rhs_2008-10_-_national_report.pdf).

<sup>17</sup> Statistics Canada. (2017). Table 105-2023 – Measured adult body mass index (BMI) (World Health Organization classification), by age group and sex, Canada and provinces, Canadian Community Health Survey – Nutrition, occasional. Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1052023&&pattern=&stByVal=1&p1=1&p2=31&tabMode=dataTable&csid=>.

<sup>18</sup> Statistics Canada. (2017). Table 105-2024 – Measured children and youth body mass index (BMI) (World Health Organization classification), by age group and sex, Canada and provinces, Canadian Community Health Survey – Nutrition, occasional. Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=1052024&&pattern=&stByVal=1&p1=1&p2=31&tabMode=dataTable&csid=>.

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