

## Diabetes in Manitoba

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

Prevalence	2018	2028
Diabetes (type 1 and type 2 diagnosed)	131,000 / 9%	180,000 / 12%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	377,000 / 27%	464,000 / 30%
Increase in diabetes (type 1 and type 2 diagnosed), 2018-2028	37%	
Direct cost to the health-care system	\$132 million	\$181 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 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 South Asian, Asian, African, Hispanic or Indigenous descent, those who are overweight, older or have low income. 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 (elevated 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 2018, the Government of Manitoba announced the cancellation of the Special Drug Program. Those covered under this program will be transitioned to the provincial Pharmacare program, effective April 1, 2018.
- 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 strip policy, the maximum level of test strip reimbursement 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 has developed and distributed the *Manitoba Diabetes Care Recommendations* (2010), which are consistent with Diabetes Canada’s Clinical Practice Guidelines for the Prevention and Management of Diabetes.
- Manitoba released *Diabetes in Manitoba: A Call to Action* (2009) to strengthen existing diabetes partnerships and build new ones to reduce the burden of type 2 diabetes.
- Manitoba released *Diabetes in Manitoba 1989–2006: Report of Diabetes Surveillance* (2009).
- Reduce Your Risk (2008) is a province-wide public education campaign that helps Manitobans to identify and reduce their risk for type 2 diabetes.

- Manitoba has established a retinal screening program for northern communities (2007) which screens for prediabetes in Winnipeg. It has enhanced funding for several self-management tools.
- Manitoba's Physician Integrated Network (2006) seeks to improve primary care for chronic disease management, including diabetes, through multidisciplinary teams and the use of electronic medical records.
- Manitoba's Chronic Disease Prevention Initiative (2004) promotes healthy eating, physical activity and smoking cessation.

## 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 overweight and 11% are obese.<sup>18</sup>

## Diabetes Canada recommendations to the Government of Manitoba

1. Enhance access to essential diabetes medications, devices and supplies.
2. Invest in a provincial diabetes pathway that would identify gaps in care and ensure timely support for optimal diabetes management.
3. Support, adopt, and promote Diabetes Canada's *Guidelines for the Care of Students Living with Diabetes at School*.

## 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).
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- <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>.
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- <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>.
- <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>.
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- <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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