

## Diabetes in New Brunswick

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

Prevalence	2019	2029
Diabetes (type 1 and type 2 diagnosed)	96,000 / 12%	126,000 / 16%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	258,000 / 33%	305,000 / 38%
Increase in diabetes (type 1 and type 2 diagnosed), 2019-2029	31%	
Direct cost to the health-care system	\$100 million	\$127 million
Out-of-pocket cost per year <sup>2</sup>		
Type 1 diabetes on multiple daily insulin injections	\$30–\$3,100	
Type 1 diabetes on insulin pump therapy	\$100–\$6,200	
Type 2 diabetes on oral medication	\$1,100–\$2,000	

### 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**

- In February 2018, the Government of New Brunswick announced an expansion of the insulin pump program for people up to the age of 25 who are living with type 1 diabetes. As of April 1, 2018, those who meet eligibility criteria have help covering the cost of their insulin pump and supplies.
- Live Well! Bien Vivre!, a partnership between the Government of New Brunswick and Diabetes Canada, takes a community approach for the prevention and management of type 2 diabetes through peer support, wellness programs and health coaching.
- The Government of New Brunswick released *A Comprehensive Diabetes Strategy for New Brunswickers 2011-16*, which includes plans to improve capacity, prevention, detection and management of diabetes. This plan has yet to be renewed.
- A chronic disease prevention and management unit has been created within the Department of Health.
- The government has established screening tools to identify preschool children at risk for nutritional concerns and a process for addressing those with identified risk factors.
- New Brunswick has various screening programs that have been implemented to target those at risk.
- Depression screening tools and management skills have been integrated within primary care practices.
- A public health nutrition strategy was developed and implemented.

- New diabetes outreach case manager positions have been funded across province. Support is provided to allied health-care providers to become certified diabetes educators. Health coach-based training in lifestyle and behaviour counseling is available.
- Implementation of the chronic disease billing incentive for physicians is ongoing and provincial physician practice profiles are available.
- A regional network of diabetes management committees has been established in New Brunswick.
- New Brunswick's wellness strategy (2014 to 2021) includes healthy eating and physical activity.
- New Brunswick has diabetes education programs for Indigenous people.
- The province has adopted a provincial drug plan, aimed at providing support and financial relief, including for people with diabetes who require diabetes medications covered under the provincial formulary.

## Challenges

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

- The median age in New Brunswick, 45.3 years, is the second highest in Canada.<sup>13</sup> About 16% of New Brunswickers are over 65 years old.<sup>14</sup>
- New Brunswick's median after-tax family income is the lowest among the provinces.<sup>15</sup>
- About 39% of adults in New Brunswick are living with overweight, while 34% are living with obesity.<sup>16</sup>
- New Brunswick 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.<sup>17</sup>

## Diabetes Canada recommendations to the Government of New Brunswick

1. Renew the provincial Comprehensive Diabetes Strategy and support Diabetes 360°, a nation-wide strategy to prevent and manage diabetes.
2. Broaden and increase access to blood glucose testing strips for people with diabetes to align with Diabetes Canada's minimum reimbursement recommendations.
3. Remove the current age restriction and expand the existing insulin pump program to include all people with type 1 diabetes who would benefit from pump therapy and for whom it has been prescribed.
4. Support diabetes foot care and amputation prevention initiatives.
5. Introduce a levy on sugar-sweetened beverages as a fiscal measure to reduce excess sugar intake from beverages in the population and lower type 2 diabetes risk.

## References

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- <sup>1</sup> Diabetes statistics in New Brunswick 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 New Brunswick, 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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- <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>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> Statistics Canada. Table 051-0001. Estimates of population, by age group and sex for July 1, Canada, provinces and territories, annual. Available from <http://www5.statcan.gc.ca/cansim/a26?id=510001>.
- <sup>14</sup> Statistics Canada. Age and Sex Highlight Tables, 2011 Census profile. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/hlt-fst/as-sa/Pages/highlight.cfm?TabID=1&Lang=E&Asc=1&PRCode=01&OrderBy=999&Sex=1&View=1&tableID=21&queryID=1>.
- <sup>15</sup> Income Statistics Division, Statistics Canada Table 206-0011 - Market income, government transfers, total income, income tax and after-tax income, by economic family type, Canada, provinces and selected census metropolitan areas (CMAs), annual, CANSIM (database). Retrieved from <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2060011>.
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