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from Diabetes Canada

Submitted to the Honourable Cameron Friesen, Minister of  
Finance

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## **Executive Summary**

Currently, almost one in three Canadians – close to 11 million people – lives with diabetes or prediabetes.<sup>1</sup> Canada’s growing and aging population, coupled with rising weights (about 35 per cent of Canadian adults are overweight and an additional 27 per cent are obese<sup>2</sup>) and high rates of physical inactivity, will continue to increase the prevalence of diabetes, with many people being diagnosed at a younger age.

Diabetes is a major health issue in Manitoba. In 2017, about 13 per cent of Manitobans are living with diagnosed and undiagnosed diabetes.<sup>1</sup> This is expected to rise to approximately 16 per cent by 2027.<sup>1</sup> Diabetes is very expensive for the province. The estimated direct cost of diabetes and its related complications to the health care system in 2017 was \$114 million, with costs projected to reach \$152 million by 2027.<sup>3</sup>

A number of factors influence the prevalence of diabetes in Manitoba, including demographics, health behaviours, and social and physical environments. According to census data, close to 17 per cent of Manitobans are Indigenous peoples, which is the highest proportion among all the provinces’ populations.<sup>4</sup> About 13 per cent of Canada’s First Nations people live in Manitoba.<sup>5</sup> The self-reported rate of diabetes for First Nations adults living both on and off-reserve is higher than for non-Indigenous peoples in Canada.<sup>6</sup>

The median after-tax income for a Manitoban family is lower than the Canadian average<sup>7</sup>, with over 100,000 family units earning less than \$13,000 per year.<sup>8</sup> About 45 per cent of adults are not meeting guidelines for amount of weekly physical activity and 70 per cent do not get the recommended daily intake of fruits and vegetables.<sup>9</sup> All these factors contribute to a prevalence of diabetes in Manitoba that, in 2017, was higher than the national average.<sup>1</sup> A multi-level, multi-pronged approach is required to end the diabetes pandemic. For the purposes of this submission, Diabetes Canada provides recommendations to the Government of Manitoba on the following important diabetes issues:

1. A new Canadian Diabetes Strategy
2. A provincial Diabetes Care Pathway
3. Amputation prevention
4. Enhanced access to medications and insulin pumps

## **About Diabetes Canada**

Diabetes Canada is a registered charitable organization that leads the fight against diabetes by helping those affected to live healthy lives, and preventing the onset and consequences of diabetes while we work to find a cure. Our staff and more than 20,000 volunteers provide education and services to help people in their daily fight against the disease, advocate on behalf of people with diabetes for the opportunity to achieve their highest quality of life and break ground towards a cure.

Diabetes Canada believes that all Canadians with diabetes have the right to be treated with dignity and respect, and have equitable access to high quality diabetes care and supports. Such are the guiding principles within the Diabetes Charter for Canada.<sup>10</sup> Our vision through the Charter is a country where all people with diabetes can live to their full potential.

### **I. A new 90-90-90 Canadian Diabetes Strategy**

Diabetes is a vast and growing epidemic which costs our health care system many billions of dollars each year. If current growth trends continue, this debilitating disease will erode Canada's social and economic fabric and bankrupt the health-care system. International best practice suggests Canada could benefit from adopting a renewed Canadian Strategy for Diabetes – one which achieves greater impact through the inclusion of more targeted, measurable outcomes. To establish these outcomes, Canada can learn from the experience of UNAIDS with establishing a 90-90-90 target to end the HIV/AIDS epidemic, and modify the target to the context of diabetes in Canada.

With its emphasis on early detection of both diabetes and prediabetes, early access, and early interventions a 90-90-90 strategy will encourage optimal prevention, early diagnosis and engagement which will prevent diabetes and its related chronic conditions and complications. The strategy will also promote health equity and access to care for all Canadians by making screening, diagnosis, and support for self-management of diabetes more uniformly available to those affected.

Diabetes Canada is leading the development of a new “90-90-90” approach to preventing and managing diabetes and its related complications. The goal of Phase 1 of this initiative is

to develop a recommendation to Parliament for federal funding in its 2019 budget. Currently, we are working to populate the working groups and soliciting for in-kind or financial support.

**Diabetes Canada Recommendation:**

**The Government of Manitoba invest in a new “90-90-90” Canadian Diabetes Strategy by 1) providing recommendation of one or more government representatives to participate on the working groups; and/or 2) providing in-kind contributions and/or financial support for the process.**

## **II. A Provincial Diabetes Pathway**

A care pathway is defined as “a multidisciplinary management tool-based healthcare plan for a specific group of patients with a predictable clinical course, in which the different tasks by the professionals involved in the patient care are defined, optimized and sequenced.”<sup>11</sup> The key elements included in a pathway are as follows:

- an explicit statement of the goals and key elements of care based on evidence, best practice and patient expectations<sup>11</sup>
- the facilitation of the communication, coordination of roles and sequencing of the activities of the multidisciplinary care team, patients and their relatives<sup>11</sup>
- the documentation, monitoring and evaluation of variances and outcomes<sup>11</sup>
- the identification of the appropriate resources<sup>11</sup>

Pathways are intended to promote standardized care and reduce inappropriate clinical variation. They help achieve consistency in assessment and treatment approaches, may reduce wait times for access of key services, increase efficiencies in processes, and can improve patient experience and health outcomes. Across Canada, provincial governments are developing and implementing pathways to streamline health delivery and support evidence-based care. The Government of Saskatchewan has established several different clinical pathways to help patients access timely and appropriate services. To date, these include hip and knee, spine, prostate assessment, bariatric surgery, pelvic floor, acute stroke, lower extremity wound, and fertility care pathways.<sup>12</sup> The Government of Alberta has a diabetes foot care clinical pathway in place that is used by provincial health

authorities to guide providers in the early detection of foot problems, the selection of effective treatment options and the offer of appropriate support services.<sup>13</sup>

The Government of Manitoba has demonstrated leadership in this domain by developing and adopting clinical pathways for the diagnosis and treatment of various types of cancer, including lymphoma and breast, lung, colon and rectal cancers. A strategy called *In Sixty* has been developed by primary care providers, disease specialists and health system experts in Manitoba to create clinical pathways based on best-practice guidelines that move patients from cancer suspicion to treatment in 60 days or less.<sup>14</sup> These pathways help to put the patient at the centre of care and guide health care providers' management of disease.

**Diabetes Canada Recommendation:**

**The Government of Manitoba develop a diabetes pathway for Manitobans at risk of and diagnosed with diabetes.**

### **III. Amputation Prevention**

Diabetes is the leading cause of non-traumatic lower limb amputation<sup>15</sup>, one of the most debilitating and feared complications among people with diabetes. The majority of amputations (85 per cent) that occur in people with diabetes follow foot ulcers<sup>16</sup>, which are foot wounds that are often the result of diabetic neuropathy (nerve damage) and/or peripheral vascular disease (poor circulation or blood supply to the feet). The mortality rate for people experiencing diabetic foot complications is worse than rates of some forms of cancer.<sup>16</sup> In fact, the five-year mortality rate for those with a neuropathic ulcer is higher than that of Hodgkin's disease, breast cancer or prostate cancer.<sup>16</sup> Those with an ischemic (arterial) ulcer have a five-year mortality rate higher than those with colon cancer.<sup>16</sup>

Diabetic foot ulcers (DFU) pose a huge emotional burden to individuals and their families, and are costly to the health-care system. People with diabetes are over 20 times more likely to be hospitalized for a non-traumatic lower limb amputation compared to the general population.<sup>17</sup> Effective treatment of foot ulcers can result in significant cost savings to the health-care system. It can also improve productivity and quality of life for people living with diabetes.

Diabetes Canada recently commissioned a report to estimate the health and economic toll of foot ulceration and amputations in Manitoba. This report details the results of a modeling exercise designed to approximate the number of cases of diabetic foot ulcers in the province and related health outcomes. In Manitoba, it is estimated that between 1,400 and 2,400 people with diabetes developed a diabetic foot ulcer in 2017, and of those, close to 270 were expected to undergo an amputation.<sup>18</sup> Diabetic foot ulcers represent approximately \$29 million to \$35 million in direct cost to Manitoba's health-care system<sup>18</sup>, with the majority of the costs due to lengthy hospital stays. Indirect costs are estimated to total between \$3 million and \$5 million.<sup>18</sup>

Clinical studies have shown that offloading devices (defined as a piece of equipment that alleviates pressure from various areas of the foot prone to, or affected by, ulceration), proper footwear and timely access to foot specialists can help people with foot complications related to diabetes avoid amputation. Publicly funded services and offloading devices to promote healing of foot ulcers and to prevent amputation are essential for people living with diabetes. Offloading devices, including total contact casts, custom braces, and ankle and foot orthoses, are not currently funded by the government and are thus unaffordable for many people with diabetes who would benefit from their use.

The total cost (direct plus indirect) of diabetic foot ulcers is estimated to be \$32 million to \$40 million per year when no offloading device is used.<sup>18</sup> Provincial funding of offloading devices may result in their use in up to 75 per cent of patients with a DFU.<sup>18</sup> Coverage for offloading devices and foot specialist visits would cost the government an estimated \$1.8 million to \$3.1 million a year.<sup>18</sup> However, with offloading devices fully covered by the Government of Manitoba, there would also be estimated net savings of \$7 million to \$9.1 million annually in direct health-care costs.<sup>18</sup> These savings are in addition to the amputations prevented. There would also be a decrease in indirect costs from morbidity and premature mortality totaling between \$500,000 and \$800,000.<sup>18</sup>

#### **Diabetes Canada Recommendations:**

**The Government of Manitoba establish an amputation prevention program that would allow access to publicly funded offloading devices for medically eligible people with diabetes, in addition to professionally fitted footwear and devices and timely referrals/visits to a foot care specialist.**

**The Government of Manitoba incentivize health-care professionals to screen for diabetic neuropathy and peripheral vascular disease, perform annual examinations for foot complications (more frequent for those at high risk) and educate people with diabetes about proper foot care as an integral component of diabetes management**

#### **IV. Enhanced access to diabetes medications and insulin pumps**

Optimal diabetes management is also key to decreasing the risk of complications, such as ulcers and amputations, heart attack, stroke, kidney failure, blindness and depression. However, living with diabetes often represents a huge cost to individual Manitobans as treating complications is to the healthcare system.

In Manitoba, some reimbursement for drug therapy to treat diabetes is available based on a person's income level, age and prescribed therapy. The level of coverage impacts out-of-pocket costs and an individual's ability to optimally manage their diabetes. Diabetes Canada estimates that adults with type 1 diabetes who rely solely on public coverage and take insulin through multiple daily injections can spend on average \$800 to \$3,100 a year to manage their diabetes, depending on their income.<sup>19</sup> For people with type 1 diabetes who meet medical criteria for insulin pump therapy and choose to use an insulin pump, the Government of Manitoba will offset the cost of the pump (\$6,000 to \$7,000 a year on average) and supplies (\$2,000 to \$4,000 a year on average).<sup>21</sup> However, this reimbursement program is currently only available to those 17 years of age and under. Others must pay anywhere between \$2,200 and \$6,200 annually, depending on their age and income.<sup>21</sup>

While some public programs help cover treatment costs for people with type 1 diabetes, Manitobans living with type 2 diabetes have very limited assistance from their government. A 55-year old individual with type 2 diabetes earning an average annual income of \$40,000 to \$80,000 with no private insurance must cover the entire cost of a prescribed course of

treatment out-of-pocket, at an estimated total of \$2,000 per year.<sup>21</sup> At a lower income (e.g. \$20,000), Manitobans with type 2 diabetes may still need to pay almost all of their expenses themselves. Upon reaching 65 years of age, diabetes treatment expenses exceeding an annual deductible are covered by the provincial plan.

In a survey conducted by Diabetes Canada in 2015, 25 per cent of people with diabetes indicated their adherence to treatment was affected by cost.<sup>22</sup> The impact was most significant for lower income earners – 45 per cent said they had to choose between buying medications and paying for food, rent and utilities while 18 per cent admitted to not filling their prescriptions or taking their medications because they could not afford to.<sup>22</sup> A considerable proportion of Manitobans surveyed indicated they also had no insurance to pay for blood sugar monitoring equipment, dental expenses and eye care visits.<sup>22</sup>

**Diabetes Canada Recommendations:**

**The Government of Manitoba enhance access to medications on the provincial formulary so people with diabetes can optimally manage their diabetes.**

**The Government of Manitoba expand the insulin pump program to all eligible Manitobans with type 1 diabetes, regardless of age.**

## **Conclusion**

We urge the Government to implement the recommendations presented in this submission, to ensure Manitobans with diabetes have the support to achieve their health potential. With concerted efforts and strong leadership from the Government, in close collaboration with key stakeholders in the diabetes community, we can bend the impact curve of diabetes and significantly improve the lives of those with diabetes and all Manitobans.



## References

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- <sup>1</sup> Diabetes statistics in Canada are estimates generated by the Canadian Diabetes Cost Model, a forecasting model that provides projections on prevalence and incidence of diabetes in Canada based on national data from government sources. Figures concerning prevalence estimated through the Diabetes Cost Model are updated on a regular basis as data become available.
- <sup>2</sup> Statistics Canada. *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*, CANSIM (database). (accessed: 21 Sept 2017).
- <sup>3</sup> Diabetes-related costs in Manitoba are estimates generated by the Canadian Diabetes Cost Model, a forecasting model that provides projections on economic burden of diabetes in Canada based on national data from government sources. Figures concerning direct cost to the health-care system estimated through the Diabetes Cost Model are updated on a regular basis as data become available.
- <sup>4</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 [Internet]. Canada: StatsCan; 2011 [cited 2017 Sept 21]. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl02-eng.cfm>.
- <sup>5</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 [Internet]. Canada: StatsCan; 2011 [cited 2017 Sept 21]. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/2011001/tbl/tbl03-eng.cfm>.
- <sup>6</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 2017 Sept 21]. Available 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>7</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). (accessed: 21 Sept 2017).
- <sup>8</sup> Statistics Canada. Table 111-0015 - Characteristics of families, before-tax and after-tax low income status (based on census family low income measures, LIMs) by family type and family composition, annual (number unless otherwise noted), CANSIM (database). (accessed: 4 Oct 2017).
- <sup>9</sup> Statistics Canada. *Table 105-0508 - Canadian health characteristics, annual estimates, by age group and sex, Canada (excluding territories) and provinces, occasional*, CANSIM (database). (accessed: 21 Sept 2017).
- <sup>10</sup> Diabetes Canada. (2014). *The Diabetes Charter of Canada*. Retrieved from <http://www.diabetes.ca/diabetes-and-you/your-rights/support-the-diabetes-charter-for-canada/diabetes-charter-for-canada>.
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<sup>17</sup> Public Health Agency of Canada. (2011). Diabetes in Canada: Facts and figures from a public health perspective. Ottawa, ON: Public Health Agency of Canada. Retrieved from <http://www.phac-aspc.gc.ca/cd-mc/publications/diabetes-diabete/facts-figures-faits-chiffres-2011/index-eng.php>.

<sup>18</sup> Diabetes Canada. Impact of Offloading Devices on the Cost of Diabetic Foot Ulcers in Manitoba – draft copy. Ottawa, ON: Diabetes Canada, 2017.

<sup>19</sup> Estimated out-of-pocket costs for type 1 and type 2 diabetes are 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*, available at <https://www.diabetes.ca/getmedia/5a7070f0-77ad-41ad-9e95-ec1bc56ebf85/2015-report-on-diabetes-driving-change-english.pdf.aspx>.