



Diabetes Canada
2019 Pre-Budget Consultation Submission
Standing Committee on Finance and Economic Affairs
Government of Ontario
January 29, 2019



Executive Summary

Every six minutes, another person in Ontario is diagnosed with diabetes. Approximately 4.4 million people in the province have diabetes or prediabetes, and this number is expected to grow by 29 per cent over the next ten years. Today, the annual cost of the disease to the health care system is a staggering \$1.5 billion.

Each year, there are tens of thousands of preventable diabetes-related hospitalizations. Diabetes contributes to 30 per cent of strokes, 40 per cent of heart attacks, 50 per cent of kidney failure requiring dialysis, 70 per cent of non-traumatic lower limb amputations and is a leading cause of vision loss. It increases the risk of developing major depressive disorder; in turn, individuals with depression have an approximately 40 to 60 per cent increased risk of developing type 2 diabetes.

To ease the pressure on hospitals, the Government of Ontario must look to prevention and the improved management of diabetes. To stop this epidemic, we need urgent action, combined with a comprehensive diabetes strategy with aggressive, measurable goals.

Today, a 20-year-old has a 50 per cent chance of developing diabetes in his or her lifetime. While type 1 diabetes has no known cause and currently cannot be prevented, the World Health Organization estimates that close to 90 per cent of type 2 diabetes cases can be prevented. Type 2 diabetes results from a combination of genetic, environmental and lifestyle factors.

For the 2019 Ontario Budget, Diabetes Canada urges the Government of Ontario to:

1. Reduce thousands of unnecessary hospitalizations by introducing a comprehensive Ontario Diabetes Strategy that is complimentary to [Diabetes 360°](#). The strategy should set aggressive targets to stem the tide of the diabetes epidemic and improve health outcomes for people with diabetes.

As part of an Ontario Diabetes Strategy, we recommend that the Government:

2. Publicly fund devices that help people with specific types of diabetes optimally monitor and manage their blood glucose (sugar) levels, in line with Health Quality Ontario's recommendations:
 - **Continuous glucose monitoring:** Health Quality Ontario recommends publicly funding continuous glucose monitoring (CGM) for patients with type 1 diabetes who are willing to use CGM for the vast majority of the time and who meet one or more of the following criteria:
 - i. Severe hypoglycemia without an obvious precipitant, despite optimized use of insulin therapy and conventional blood glucose monitoring, and/or



- ii. Inability to recognize, or communicate about, symptoms of hypoglycemia.
- **Flash glucose monitoring:** Health Quality Ontario's draft report, released January 2019, recommends publicly funding flash glucose monitoring systems for:
 - i. People with type 1 diabetes who experience recurrent hypoglycemia despite frequent self-monitoring of blood glucose and efforts to optimize insulin management, and
 - ii. People with type 2 diabetes requiring intensive insulin therapy (multiple daily injections or use of insulin pump) who experience recurrent hypoglycemia despite frequent self-monitoring for blood glucose and efforts to optimize insulin management.
- 3. Address gaps in access to medications, devices and supplies required for effective diabetes management by reducing deductibles associated with publicly funded programs (e.g. Trillium Drug Program) and ensuring adequate coverage for supplies such as pen needles and syringes.

1. A Comprehensive Diabetes Strategy for Ontario

The World Health Organization recommends that every country implement a national diabetes strategy, yet despite higher prevalence and per capita costs of diabetes than most of the world's developed nations, Canada has been without one since 2013. In Ontario, the last strategy was introduced in 2012, and was not renewed in 2016.

With an aging population and exploding growth rates amongst at-risk populations – from South Asians to Indigenous Canadians – Canada's diabetes burden will continue its rise over the next decade. Both prevalence and direct costs for treating the disease in Canada have been rising at a rate of 4 per cent and 10 per cent respectively per year and show no signs of slowing down. Treating diabetes costs Canada's health care system \$28 billion per year and will approach \$40 billion per year by 2028, unless we act with a sense of urgency.

Canada needs a strategy to coordinate the efforts underway in all provinces and territories to combat this epidemic, one which would bring Canada in line with global best practice, reduce the human burden of this disease significantly in a very short period and achieve savings in health care costs. As the largest province, Ontario could lead the way.

Diabetes Canada partnered with representatives from more than 100 stakeholder organizations over the past year to develop [Diabetes 360°](#) – a measurable, outcome-focused national strategy for the prevention and management of diabetes. It is based on the hugely successful 90-90-90 model implemented globally to combat HIV/AIDS and is the product of collaboration among 129 stakeholders including representation from nine provincial governments.



If implemented, the strategy could achieve **\$9 billion in health care cost savings** across Canada from diabetes prevention alone over seven years.¹

The Diabetes 360° framework includes specific evidence-based recommendations in the areas of prevention, screening, treatment and patient outcomes for diabetes, and is set up to deliver results in just seven years by focusing on the following key targets:

- 90 per cent of Canadians live in an environment that preserves wellness and prevents the development of diabetes
- 90 per cent of Canadians are aware of their diabetes status
- 90 per cent of Canadians living with diabetes are engaged in appropriate interventions to prevent diabetes and its complications
- 90 per cent of Canadians engaged in interventions are achieving improved health outcomes

These targets are based on extensive consultation and rigorous analysis of research, and the actions required for their achievement are detailed in our [Diabetes 360°](#) report.

Diabetes Canada has submitted its recommendations for a nationwide diabetes strategy to the Government of Canada and requests the establishment of a seven-year national partnership with the federal government's strategic investment of \$150 million over the seven years. The partnership would collaborate with provinces and territories, civil society and private sector to prioritize and implement programs to achieve the Diabetes 360° targets and then sunset – a realistic and evidence-based approach that can work for Ontario and Canada.

Recommendation: Diabetes Canada is urging the Government of Ontario to develop a comprehensive provincial diabetes strategy that is complimentary to Diabetes 360°. The strategy should set aggressive targets to stem the tide of the diabetes epidemic and improve health outcomes for people with diabetes.

2. Glucose Monitoring Systems

Diabetes Canada's *2018 Clinical Practice Guidelines* notes that blood glucose monitoring aids people with assessing the effectiveness of their glucose-lowering interventions, while also helping to prevent and detect hypoglycemia (low blood sugar). Timing and frequency of blood glucose monitoring depends on diabetes type, treatment type, the need for information about blood glucose levels, and the individual's ability to modify healthy behaviours or self-adjust antihyperglycemic agents (such as insulin).

For some people with diabetes, devices such as continuous glucose monitoring systems or flash glucose monitors can help them better stay within their target blood sugar range when compared to capillary blood glucose monitoring (i.e. using test strips). Staying within the target



blood sugar range may help to prevent long-term health complications and sudden, life-threatening emergencies, such as seizures, comas and even death.

There are two types of glucose monitoring devices that Health Quality Ontario's Ontario Health Technology Assessment Committee (OHTAC) has recently reviewed: continuous glucose monitoring systems and flash glucose monitors.

The report on the continuous glucose monitoring systems was finalized in February 2018, while the report on flash glucose monitoring is currently in the draft stage and available for public feedback until February 3, 2019. Health Quality Ontario recommends public funding for both types of devices for people with diabetes who fit within specific categories:

- **Continuous glucose monitoring:** Health Quality Ontario recommends publicly funding continuous glucose monitoring (CGM) for patients with type 1 diabetes who are willing to use CGM for the vast majority of the time and who meet one or more of the following criteria:
 - i. Severe hypoglycemia without an obvious precipitant, despite optimized use of insulin therapy and conventional blood glucose monitoring, and/or
 - ii. Inability to recognize, or communicate about, symptoms of hypoglycemia.
- **Flash glucose monitoring:** Health Quality Ontario's draft report, released January 2019, recommends publicly funding flash glucose monitoring systems for:
 - i. People with type 1 diabetes who experience recurrent hypoglycemia despite frequent self-monitoring of blood glucose and efforts to optimize insulin management, and
 - ii. People with type 2 diabetes requiring intensive insulin therapy (multiple daily injections or use of insulin pump) who experience recurrent hypoglycemia despite frequent self-monitoring for blood glucose and efforts to optimize insulin management.

Continuous Glucose Monitoring Systems

A continuous glucose monitor (CGM) is a wearable device that tracks blood glucose every few minutes, throughout the day and night. The readings are then relayed in real time to a device, which can be read by the patient, caregiver or health-care provider, even remotely.

This information gives people living with diabetes a more complete picture of their blood sugar control, which can lead to better short and long-term treatment decisions. It can help them identify when their blood sugar is trending down, which allows for appropriate, timely action to be taken to avoid [hypoglycemia](#). It can also provide early indication of hyperglycemia (high blood sugar) over the course of the day and prompt adjustments to medications, activity and



food intake to help achieve blood sugar targets. Alarms on the device can help users to take action early to prevent life-threatening emergencies, especially if the users are hypoglycemic unaware (i.e. they do not show or are unable to recognize the typical symptoms of extremely low blood sugar).

A CGM includes a small disposable sensor that is worn under the skin (often on the stomach or arm), an attached transmitter and, usually, a separate receiving device, such as an insulin pump or smart phone.

OHTAC estimates the cost to the province to support those who are currently using this technology could be as low as \$8.5 million over five years. To make the technology available to all people who are often unaware they are having a low blood sugar episode, the cost could rise to \$82.5 million over five years.

Flash Glucose Monitors

Flash glucose monitoring (flash) also measures glucose concentration, but it differs from CGM technology in several ways. Flash is factory calibrated and does not require the user to calibrate it with a manual blood glucose test. Blood glucose levels are not continually displayed on a monitoring device but instead are displayed when the sensor is ‘flashed’ with a reader device on demand.

The flash reader also displays a plot profile of the last eight hours, derived from interpolating glucose concentrations recorded every 15 minutes. Therefore, when the person with diabetes performs three or more sensor scans per day at up to eight-hour intervals, the flash system records 24-hour glucose profiles. The sensor can be worn continuously for up to 14 days. The device does not provide low or high glucose alarms.

OHTAC estimates the cost to the province to provide flash glucose monitoring over the next five years for people with type 1 diabetes and type 2 diabetes requiring intensive insulin therapy would cost about \$15 million to \$39 million annually.

Recommendation: The Government of Ontario should publicly fund devices that help people with specific types of diabetes optimally monitor and manage their blood glucose (sugar) levels, in line with Health Quality Ontario’s recommendations.

3. Access to Medications, Devices and Supplies

People with diabetes need timely and affordable access to prescribed medications, devices and supplies to optimally manage their disease and avoid serious and costly complications. To keep blood glucose under control and prevent or manage complications, many people with diabetes



take multiple medications: 32 per cent of Canadians reported taking three to four medications, 40 per cent reported taking five to nine, and 12 per cent reported taking 10 medications or more.²

Unfortunately, financial constraints and high out-of-pocket costs limit people's ability to effectively manage their diabetes. A considerable proportion of Ontarians with diabetes have great difficulty paying for prescribed medications and supplies. Public coverage for diabetes medications, devices, supplies and services is available to some people but not everybody, and to varying degrees. The expenses associated with disease management can be a huge burden for people living with diabetes.

Coverage for support programs depends on income, and Ontarians under 65 with diabetes can experience severe financial constraints from high deductibles. For example, for most people who qualify, the deductible for the Trillium Drug Program equals about 3 to 4 per cent of household income after taxes.³ People then pay up to \$2 for each drug, per person, that is filled or refilled.

Drug therapy must be accessible to ensure proper diabetes management.

In Ontario, public coverage for drug therapy to treat diabetes varies based on a person's income level and prescribed therapy—the level of coverage impacts out-of-pocket costs. For people with type 1 diabetes who meet medical criteria for insulin pump therapy and choose to use an insulin pump, some, but not all, of their expenses would be covered under Ontario's insulin pump program. They may still need to pay \$500 to \$1,700 a year of their own money.

People with type 2 diabetes living in Ontario have very limited assistance from the provincial government. A 55-year old individual with type 2 diabetes earning \$40,000 to \$80,000 annually may need to pay the full cost for prescribed treatment at an estimated \$1,900 per year. At a lower income (e.g. \$20,000), Ontarians with type 2 diabetes may still need to pay over 80 per cent of their expenses.

When people with type 2 diabetes reach 65 years of age, many expenses are covered by the Ontario Drug Benefit program (ODB), however not all needed medications are listed on the public formulary and some are restricted. The annual deductible for ODB is \$100 for single seniors with an annual net income of above \$19,300 or senior couples with a combined annual net income of above \$32,300. The co-payment is currently \$6.11 per drug. These costs may be prohibitive for some seniors and impact their ability to access the treatments they require to manage disease.

Diabetes is a costly condition, even when people are eligible for various provincial support programs. This is why Diabetes Canada urges the Government of Ontario to reduce deductibles associated with publicly funded programs to make medications, devices and supplies less expensive and more accessible.



Pen needles and syringes: Public coverage does not adequately cover annual costs

The Government of Ontario's Syringes for Seniors Program provides \$170 annually in public coverage for pen needles and syringes for seniors 65 and over who use insulin on a daily basis. Coverage for these diabetes supplies is also available through Ontario Works and the Ontario Disability Support Program for income support clients.

However, for people who test four times daily, the annual cost for pen needles and syringes is closer to \$500 to \$600, if they use a needle or syringe once only, as is recommended by medical professionals. The cost to the individual may be higher or lower depending on the treatment regimen, the type of needles or syringes used, where they are purchased and whether they have public or private coverage.

Diabetes Canada urges the Government of Ontario to raise the coverage for pen needles and syringes to cover the annual costs for people with diabetes.

Recommendation: Diabetes Canada urges the Government of Ontario to address gaps in access to medications, devices and supplies required for effective diabetes management by reducing deductibles associated with publicly funded programs (e.g. Trillium Drug Program) and ensuring adequate coverage for supplies such as pen needles and syringes.

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¹ Canadian Journal of Diabetes. *Prevalence, Total and Excess Costs of Diabetes and Related Complications in Ontario, Canada*. 2009 [https://www.canadianjournalofdiabetes.com/article/S1499-2671\(09\)31007-2/pdf](https://www.canadianjournalofdiabetes.com/article/S1499-2671(09)31007-2/pdf)

² Statistics Canada. 2011 Survey on Living with Chronic Disease in Canada. Custom data request.

³ Government of Ontario. *Get Help with Prescription Drug Costs*. <https://www.ontario.ca/page/get-help-high-prescription-drug-costs#section-4>