

## Recommendation

**Recommendation 1:** The federal government should invest \$150 million in funding over seven years (beginning with an initial budget of \$6 million in 2019 ) to support the development and implementation of a new national diabetes strategy in time to celebrate the 100<sup>th</sup> anniversary of the Canadian discovery of insulin in 2021.

## **Diabetes: A present and growing threat to Canada's economy**

### ***A 360° Response to Canada's Diabetes Epidemic***

The World Health Organization recommends every country implement a national diabetes strategy yet, despite having higher prevalence and per capita costs of diabetes than most of the world's developed nations, Canada has been without one since 2013.

Diabetes is a leading cause of death. At every age group, the death rates of Canadians with diabetes is at least double that of Canadians without.<sup>i</sup> The International Diabetes Federation lists Canada among the worst OECD (Organisation for Economic Co-operation and Development) countries for diabetes prevalence.<sup>ii</sup>

With an aging population and exploding growth rates amongst at-risk populations - most notably indigenous Canadians - Canada's diabetes burden will continue its rise over the next decade. Both prevalence and direct costs of treating the disease in Canada have been rising at a rate of 4% and 10% 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.

This problem can only be fixed with committed and coordinated leadership to address a complex array of contributing factors including poverty, stigma, food supply and insecurity, and environments that discourage healthy living and contribute to diabetes.

In doing its part to address the diabetes epidemic, this year Diabetes Canada brought together more than 100 organizations in a year-long exercise to develop recommendations to the Government of Canada for a measurable, outcome-focused national strategy for the prevention and management of diabetes. Such an approach will generate billions of dollars in savings to the health care system and help relieve the enormous toll placed on individuals and families.

With federal government support in Budget 2019, implementation of this national strategy could begin in time for 2021 – allowing Canada to truly celebrate the milestone of the 100th anniversary of Dr. Banting's discovery of insulin.

## ***The Burden of Diabetes***

In Canada today, 11 million people live with prediabetes or diabetes, and every three minutes, someone new is diagnosed with this progressive, chronic illness. The life expectancy of a person with diabetes is shortened by an average of 13 years.

Diabetes prevalence has increased more than 50% in the last ten years. The disease contributes to 30 percent of strokes, 40 percent of heart attacks, 50 percent of kidney failure requiring dialysis and 70 percent of non-traumatic limb amputation.

Seniors make up over half of the people living with diagnosed diabetes in Canada, and close to 40% of new diagnosed cases of diabetes in 2018 will occur in the senior population in Canada.<sup>iii</sup>

Once thought to be a disease of older individuals, type 2 diabetes is now being diagnosed in young Canadians, impacting people in the prime of life. Canadians who are now 20 years old face a 50% chance of developing the disease in their lifetime.

Canadians with lower incomes have a much higher prevalence of diabetes and greater challenges accessing supports. People of certain ethnic backgrounds are genetically at greater risk of developing type 2 diabetes, specifically people of African, Arab, Asian, Hispanic, Indigenous and South Asian descent.

For First Nations peoples living on reserve, diabetes prevalence is 3 to 5 times greater than in the general population, and the rates of complications are much higher.<sup>iv</sup> In contrast to the general Canadian population (in which the prevalence is higher in men than women), First Nations women bear a heavier diabetes burden than men, across most age groups.<sup>v</sup> Indigenous individuals are diagnosed at an increasingly younger age, have greater severity at diagnosis, and experience poorer treatment outcomes.

### ***Diabetes and Canada's economy: the connection between health and wealth***

It has long been recognized that a healthy workforce is a more productive workforce. In fact, the World Bank reports that 50% of the economic growth differentials between developing and developed nations are attributed to poor health and low life expectancy. The healthier the citizens of a country, the more effective the workforce.<sup>vi</sup>

As the Conference Board of Canada has noted, poor health negatively impacts individual and household economic prospects, labour force participation and productivity. For individuals, it can result in reduced income or unemployment; for businesses, it may mean productivity losses, and labour and skills shortages; for

governments, it could result in a reduced tax base. In a recent report, the Conference Board of Canada found that the collective health of Canadians has a significant impact on economic performance and the health care system. An aging population and increase in chronic diseases create enormous demands on, and higher costs for, the health care system. Concurrently, the capacity to fund health care is increasingly strained by the impact of these same demographic and health trends.<sup>vii</sup>

Diabetes is increasingly recognized as a global economic threat. According to the World Economic Forum, the possible negative impact of diabetes on output, revenue, profitability, business performance, and potential for economic growth can be substantial. In the USA, a company of 10,000 employees, of which 820 are estimated to have diabetes, must spend over \$1.38 million on diabetes related healthcare costs. And the cumulative costs of diabetes are even more alarming in emerging economies. Between 2012 and 2030, India is expected to lose \$140 billion, Indonesia \$200 billion and China \$590 billion due to the burden of diabetes.

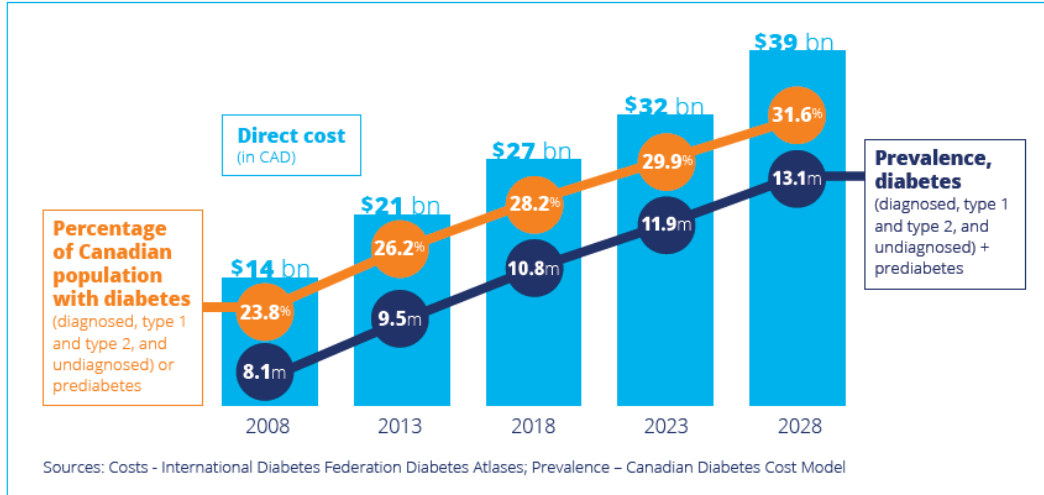
Here in Canada, the economic impact of diabetes is significant – to individuals, our health care system and our economy. In the workforce, diabetes and other preventable non-communicable diseases can lead to increased absenteeism and reduced productivity while at work, inability to work due to disease-related disability, and lost productive capacity due to early mortality and exclusion from the workplace to take care of sick family members.

Employees with type 2 diabetes cost employers an estimated \$1,500 annually per employee due to reduced productivity and missed work.<sup>viii</sup> Drug plan spending for employees treating type 2 diabetes is four times the amount for all other claimants, and for employees who must take disability leave because of their diabetes, the leaves are on average 15% longer in duration, and many of these employees remain on disability for the maximum benefit period or until death.<sup>ix</sup>

On an individual level, most 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>x</sup> Out-of-pocket costs that exceed 3% of a person's annual income are defined as catastrophic drug costs by the Kirby and Romanow Commissions on healthcare.

Diabetes is equally expensive to Canadian healthcare. It will cost Canada's healthcare system \$27 billion in 2018 and if we continue with current growth rate, the direct costs associated with treating diabetes in Canada will top \$39 billion by 2028.<sup>xixii</sup>

## Economic Impact:



### *Diabetes 360°: A Canadian Call to Action*

Bold action is urgently needed to bring about necessary change in Canada that will help stem the rising tide of diabetes.

While considerable effort is being made to address this epidemic, it is not coordinated or comprehensive enough to address the complex issues involved. Our collective efforts must overcome the impact of stigma and complacency and address complex societal challenges such as unhealthy environments and barriers to treatment access that still pervade in Canadian society. The present approach, which sees the provinces and territories each working on diabetes in their own way, has not facilitated economies of scale or rapid knowledge-sharing that are the hallmarks of transformative change and has resulted in a patch-work approach and great health inequities for people living with diabetes across Canada.

A coordinated strategy could result in huge savings in human and other economic costs. Consider just one fact – the implementation of proven diabetes prevention programs across the country could prevent **1 million cases** of diabetes and **save over \$9 billion** in healthcare costs over 10 years.

Most European Union countries have national strategies, and those strategies are paying dividends. Finland, for example, implemented a national approach in 2000 that provided an overarching framework, but left specific design to local partners. This approach included testing a lifestyle modification program that supported weight-loss, which was shown to reduce by 58% the risk of developing diabetes.<sup>xiii</sup> This model's success led to a range of new approaches being developed from the bottom-up, taking

account of local needs, resources and priorities. Similar successes are stemming from national strategies in place in Sweden, Denmark, India and Portugal, among others.

In 2018, Diabetes Canada and dozens of other groups came together to develop a framework for a new diabetes national strategy, called Diabetes 360°. It has been built on a successful model implemented in the HIV/AIDS community that has been credited for transformational breakthroughs in the treatment and management of HIV/AIDS.

The Diabetes 360° framework includes specific recommendations in the areas of prevention, screening, treatment and patient outcomes for diabetes. It describes the unique considerations of people with type 1 diabetes and Indigenous peoples in Canada. This plan could deliver measurable results within seven years. All recommendations are based on extensive consultation and thorough review of the evidence.

Diabetes 360° will provide a long overdue framework for stakeholders to work with Indigenous leaders and communities wishing to embrace and implement a similar strategic framework.

***The Recommendation:***

Canada needs a national diabetes 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 of time, and achieve savings in health care costs.

**The federal government should invest \$150 million in funding over seven years to support the development and implementation of a new national diabetes strategy, based on the Diabetes 360° framework, and should facilitate the creation of type 1 diabetes- and Indigenous-specific strategic approaches, the latter to be led and owned by Indigenous groups.**

The federal government should establish a national partnership for a period of time (approximately 5 to 7 years) that could guide the development and implementation of the national diabetes strategy. The mandate of this partnership would be to collaborate with provincial, territorial and, if appropriate and agreeable, Indigenous governments along with academia, industry and non-governmental organizations to ensure that the strategy creates measurable advances in our fight against diabetes. The partnership should facilitate the creation of Indigenous-specific strategic approaches led and owned by any Indigenous groups wishing to embrace this

framework. The goal of this partnership would be to collaborate with healthcare systems to optimize disease prevention and healthcare delivery for people with diabetes, with a goal of sunseting itself as quickly as possible.

There are helpful precedents for this type of partnership; Canada has benefited from successful focused national initiatives led by the Canadian Partnership Against Cancer (CPAC) and the Mental Health Commission of Canada (MHCC), which have both had proven, measurable impacts.

Canada has a proud history as an innovator in diabetes including Dr. Frederick Banting's insulin discovery in 1921. The 100<sup>th</sup> anniversary of this discovery is fast approaching, and by supporting Diabetes 360°, Canada can retake a leadership role in the fight against diabetes.

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<sup>i</sup> PHAC, [Diabetes in Canada: Facts and figures from a public health perspective](#)

<sup>ii</sup> CIHI, [International Comparison: A Focus on Diabetes](#)

<sup>iii</sup> Diabetes Canada, [2015 Report on Diabetes: Driving Change](#)

<sup>iv</sup> *ibid*

<sup>v</sup> *ibid*

<sup>vi</sup> WEF, [Outlook on the Global Agenda 2015](#)

<sup>vii</sup> CBOC, [Health Matters: An Economic Perspective](#)

<sup>viii</sup> Janssen, Managing Diabetes in the Workplace: Understanding the Motivated Patient.

<sup>ix</sup> Benefits Canada, [ROI of one life: diabetes](#)

<sup>x</sup> Diabetes Canada, [The burden of out-of-pocket costs for Canadians with diabetes.](#)

<sup>xi</sup> IDF, [IDF Diabetes Atlas, 8<sup>th</sup> Edition](#)

<sup>xii</sup> Diabetes Canada. 2009. [An economic tsunami – the cost of diabetes in Canada.](#)

<sup>xiii</sup> ADA, [The Finnish Diabetes Prevention Study](#)