DIABETES:
CANADA AT THE TIPPING POINT
Charting a new path

POLICY BACKGROUNDER

Issue: Canada is at a tipping point and here are the reasons why...

- The total population with diabetes in Canada is estimated to be 3.1 million people (8.6%) in 2013, and will rise to 4.2 million people (10.8%) by 2020. An additional almost one million have the disease but do not know it. Over one in four Canadians lives with diabetes or prediabetes; this will rise to one in three by 2020 if trends continue.
- Diabetes also cost our healthcare system and economy $13.1 billion in 2013 and is projected to cost $16 billion annually by 2020. Unless we take action, diabetes threatens not only more Canadians, but also our healthcare system and prosperity.
- Affordability and access to diabetes medications, devices and supplies vary depending on where you live in Canada. While some jurisdictions have increased support, costs continue to be a barrier for many with diabetes.
- Atlantic Canada has the greatest burden, but provinces with the lowest prevalence rates have the highest rates of prevalence growth. Aboriginal peoples, immigrants, some ethnocultural communities, low-income Canadians and women within these populations bear a heavier burden of the disease. While best practices in diabetes programs and services exist across Canada, information about them is lacking.
- For diabetes prevalence, hospitalizations, mortality and access to medications, Canada performs poorly.

Canada has a choice to make to "tip" the course of diabetes. We can continue on our current trajectory and achieve similar results, or chart a new path to provide hope to Canadians with diabetes or prediabetes. While the Canadian Diabetes Association's report entitled *Diabetes: Canada at the Tipping Point – Charting a New Path* indicates that some progress has been made by governments to address diabetes over the past several years, it is dwarfed by the growing burden of this disease across Canada. To avoid falling further behind, we must take immediate action to chart a new path to respond to diabetes in Canada.

To move forward, federal, provincial and territorial governments must use whatever suitable methods are available to them to work in collaboration with stakeholders and partners. To meet the challenge of diabetes in Canada, governments must:

- Reassess and refocus their strategic approach to diabetes to achieve the greatest gains in addressing the burden of diabetes, including costly and potentially life-threatening complications from the disease.
- Ensure that all people living with diabetes have comparable access to the supports they need to effectively self-manage their disease in collaboration with their healthcare providers; and
- Enhance and refocus their investments in addressing the burden of diabetes into programs and services that provide the greatest support to those people living with the disease.

To tip the course of diabetes in Canada, the Canadian Diabetes Association (CDA) and Diabète Québec (DQ) recommend that governments collaborate with partners to:

1. Reduce the burden of diabetes, including:

a. Implementing a comprehensive Pan-Canadian healthy weights strategy

b. Instituting a comprehensive secondary prevention strategy

c. Implementing a national knowledge dissemination platform for diabetes

2. Enhance access to quality care and support for people living with diabetes, including:

d. Standardizing the quality of diabetes education across Canada

e. Renewing the vision for the Canadian drug approval process

f. Creating a Canadian diabetes health charter

3. Strategically invest in diabetes, including:

g. Enhancing financial assistance for people living with diabetes

h. Enhancing the Canadian Diabetes Strategy (CDS) and Aboriginal Diabetes Initiative (ADI)

i. Increasing investment in high quality, pan-Canadian research

Pan-Canadian healthy weights strategy

Sixty-one per cent of Canadians are overweight or obese.[1] The rising rate of excess weight in Canada is a significant risk factor in increasing diabetes prevalence. Obese persons have the highest individual diabetes risk (27.4%), but those who are overweight have the greatest population risk (9.9%) of developing the disease since, despite their lower individual risk, there are more overweight people compared to those who are obese (7 to 1).[2] To achieve maximum benefit for all Canadians in diabetes management and prevention, governments need to expand their focus to include Canadians who are overweight as well as obese.

Maintaining a healthy weight is essential to preventing diabetes, including for those with prediabetes[3], and also delaying or avoiding altogether the secondary complications of diabetes. Although there is a genetic predisposition for diabetes, even a modest weight reduction (5-10% of total body weight) can reduce the chance of developing or at least delaying type 2 diabetes by over 50%.[4] Therefore, for the millions of Canadians with diabetes or prediabetes, maintaining a healthy weight is one of the most important elements in managing their disease.

The Canadian Diabetes Cost Model (DCM)[5] shows that a 2% reduction in new cases of diabetes would result in a 9% reduction in the direct cost of diabetes to the healthcare system,[6] thus allowing the direction of limited healthcare resources toward meeting the needs of all Canadians. Furthermore, a recent study in Ontario showed that new cases of diabetes could be reduced by 10% in that province between 2007 and 2017 by reducing the average BMI for all Ontarians by 3.3%.[7]

Achieving healthy weights within our population will mean a significant shift in the approaches by governments, private sector involvement and, most of all, a widespread personal and societal change. A Pan-Canadian Healthy Weights Strategy would seek to increase the percentage of Canadians maintaining a healthy weight and thereby reduce diabetes prevalence rates and the complications associated with diabetes. The strategy must focus on four major goals:

1. Identifying and understanding the underlying societal causes of obesity and unhealthy weights.
2. Setting targets to increase the number of Canadians achieving healthy weights, specifically within "at-risk" populations (e.g.

children, those with prediabetes or diabetes).

3. Creating the appropriate "public environment" for the population to achieve healthy weights through a multi-dimensional and multi-sectoral approach.
4. Improving access to healthy weights programs and services for high-risk populations.

Comprehensive secondary prevention strategy

One of the most significant factors driving the rise in diabetes in Canada is the demographic composition of jurisdictions across the country. This poses a difficult challenge since despite all efforts made by governments to reduce diabetes, Canada is partially "locked-in" to increasing diabetes prevalence over the next decade.

Government needs to ensure that Canada is prepared for increasing diabetes prevalence, so that our healthcare system can absorb this burden. While a certain percentage of this increase is locked in, the impact of diabetes can be mitigated. For example:

- Effective treatment exists for diabetes. When managed correctly by a healthcare team, people living with diabetes can lead healthy and productive lives.
- Effective treatment of diabetes saves governments money. The DCM indicates that 80% of all diabetes costs come from the complications associated with the disease, and not the treatment of the disease itself. So, even a small gain in the prevention or delay of secondary complications can provide huge savings.

To address increasing diabetes prevalence, the Association recommends that all governments include within their approach to diabetes a broad-based secondary prevention strategy to exclusively target people who have been diagnosed with diabetes or prediabetes. This strategy should provide them with the tools, support and services to effectively self-manage their disease and prevent or delay secondary complications, including a comprehensive diabetes risk assessment model for screening, and culturally specific educational and nutrition tools to support lifestyle modification counselling.

National knowledge dissemination platform

Diabetes: Canada at the Tipping Point – Charting a New Path provides examples of best practices for diabetes services, care and education across Canada. However, accessible information about these supports is lacking and not shared between jurisdictions, resulting in the duplication of work and lost opportunities for collaboration and learning. In fact, the 2009 *Report by the Expert Panel of the Diabetes Policy Review* noted that "work to support knowledge exchange in the area of diabetes has been very limited to date."[8] The Canadian Diabetes Association echoes the Expert Panel's recommendation for a national platform for knowledge dissemination and exchange to enable jurisdictions and healthcare providers to learn from each other to provide optimal care and support for people with diabetes.

Standardize the quality of diabetes education across Canada

Diabetes self-management education is associated with important health benefits for people with diabetes, including reductions in A1C and improved quality of life.[9] Accordingly, all Canadians with diabetes regardless of where they live in Canada need access to high-quality diabetes education to ensure optimal self-management to delay or avoid secondary complications.

While several jurisdictions have innovative diabetes education programs, most do not require their diabetes education centres (DECs) to comply with DES/CDA's *Standards for Diabetes Education*. All jurisdictions should recognize these standards as the model for diabetes education in Canada, require their DECs to undergo regular evaluation, and promote their best practices in care and programs across jurisdictions. In addition, to ensure all Canadians with diabetes receive high-quality diabetes education, certification programs accessible to all healthcare professionals are needed.

Renew the vision for the Canadian drug approval process

Health Canada determines the safety of all medications and approves them for use. Before gaining market authorization, manufacturers must present scientific evidence of their product's safety, efficacy and quality as required by the *Food and Drugs Act and Regulations*. Then, each jurisdiction across Canada determines if the medication should be included in its formulary of medications and medical supplies covered by its drug plan. A product may be available to everyone who is eligible ("listed"); only available under special circumstances ("restricted"); or not available ("not listed").

The practice of new diabetes medications approved by Health Canada being classified as "restricted" or "not listed" in formularies means that these effective treatments are not available to some Canadians, potentially compromising their self-management. Only those with private drug plans or their own resources can acquire these therapies, meaning two-tiered access to these supports. *Diabetes: Canada at the Tipping Point – Charting*

a New Path indicates that access to many diabetes medications remains inconsistent across jurisdictions. In 2009, Canada reimbursed fewer drugs than the OECD average and we ranked near the bottom in reimbursement for the latest treatments for diabetes.

Clearly, the current drug review process results in too many Canadians not having equitable access to the medications, devices and supplies required for effective self-management. Canada must do better. To this end, in 2012, the Association released a report entitled *In the Balance: A Renewed Vision for the Common Drug Review* which includes a review of best practices internationally to identify a more effective and efficient drug review system that better serves the health needs of all Canadians. Key stakeholders were engaged in a subsequent summit attended by public drug programs, policy makers, researchers, patient groups, healthcare professionals and industry. As informed by the key stakeholders, the Association will advocate for a pan-Canadian approach to:

1. Clarify all aspects of the drug review process, including the roles and responsibilities of the CDR and participating drug plans.
2. Meaningfully capture patient and societal values to ensure that patient experience is optimally represented.
3. Strengthen transparency to ensure that governments, the CDR, and manufacturers are held accountable to disclose assessment criteria, evidence, and rationale for decisions.

Jurisdictions should also explore a common drug formulary to standardize access.

Create a Canadian diabetes health charter

As noted above, major findings of *Diabetes: Canada at the Tipping Point – Charting a New Path* include:

- Where you live in Canada greatly affects your ability to effectively manage your diabetes.
- Difficulty exists in accurately assessing the progress being made to address the increasing burden of diabetes in Canada due to lack of accessible information across jurisdictions concerning diabetes supports.

To be able to assess progress in addressing diabetes, Canada needs to have a transparent assessment tool to measure progress across jurisdictions. Such a tool would assess the quality and accessibility of diabetes care, programs and services, medications, education and other supports. These standards will enable us to assess the performance of all jurisdictions against a common set of benchmarks developed by experts in diabetes care, management and education.

Enhance financial assistance for people with diabetes

Affordability and access to diabetes medications, devices and supplies remain the greatest challenge for Canadians with diabetes, many of whom face a significant health and financial burden. Healthcare costs for Canadians with diabetes not covered by either public or private insurance plans can be two to five times higher than for people without diabetes, including expenses for:

- Supplies such as syringes, glucose testing meters, test strips and insulin pumps.
- Insulin and/or other diabetes drugs and therapeutics.
- Other medication to lower cholesterol, blood pressure, etc.
- Frequent medical visits and diagnostic tests.
- Specialized home care visits, and rehabilitation or permanent residential care should debilitating complications arise.

People with diabetes face these costs in almost all parts of Canada. The average annual out-of-pocket cost for a person with type 2 diabetes is just under $2,300. These costs often compromise the ability of Canadians with diabetes to manage their disease: 57% do not comply with their prescribed medical therapy due to these costs. If Canadians with diabetes could afford to manage their disease more effectively and avoid or delay serious complications, it would improve their quality or life and reduce the cost burden of diabetes. Accordingly, the government of Canada should institute a system of enhanced tax credits to enable people with diabetes to be eligible for a non-refundable tax credit or a refundable payout to lower medical and treatment costs. This would reduce the financial burden of supplies and medications needed to manage diabetes.

Enhance the Canadian Diabetes Strategy and Aboriginal Diabetes Initiative

In 1999, the Government of Canada pledged $115 million over five years to the CDS to enable Canadians to benefit more fully from the considerable resources and expertise available across the country concerning this disease. Partners in the CDS include the provinces and territories, various national health bodies and interest groups, and Aboriginal communities across the country. The CDS supports:

- The National Diabetes Surveillance System (NDSS), which provides surveillance information concerning diabetes at provincial, territorial and national levels.
- Knowledge development and exchange for diabetes prevention and management, which supports research and evidence to provide the basis for understanding the causes of diabetes, as well as its prevention, effective management and cure.

- Diabetes community-based promotion and programming, which promote a positive shift in health status in high-risk populations.

In 2005, the federal government extended funding for the CDS within the larger envelope of the integrated Strategy on Healthy Living and Chronic Disease, increasing funding to $18 million a year from $15 million.

Established in 1999, the Aboriginal Diabetes Initiative (ADI) had initial funding of $58 million over five years. It was then expanded in 2005 with a budget of $190 million over five years. Budget 2010 included a commitment of $110 million over two years for the ADI. Currently, Health Canada is investing over $50 million per year to support the third phase (2010-2015). The ADI supports more than 600 programs for Canadian Aboriginals living with diabetes.

Given the doubling of prevalence rates for diabetes, we urge the federal government to augment funding for diabetes accordingly on an annualized basis by doubling the current annual allotment to the CDS of $18 million to $36 million. In addition, to ensure stable and reliable funding for the ADI, we urge the federal government to commit permanent funding for the ADI at current levels beyond 2015, with annual increases in the years after 2015 appropriate to address population increases within these constituencies.

Increase investment in high-quality research

The federal government has not committed adequate support for basic research in recent budgets. Adjusted for inflation, Canada's three granting councils (CIHR, NSERC, and SSHRC) saw steady erosion in their base budgets, even with the recent increases. Between 2007-08 and 2011-12, funding for CIHR, NSERC and SSHRC declined by 4.1%, 1.2% and over 10% respectively.[10] [11] Without increased investments in research, Canada may lose its competitive edge that previous investments in research have achieved.

The Canadian Association of University Teachers recommended increasing basic research funding for Canada's three granting councils by $500 million a year. [12] It is important to note that this increase would benefit research activity in many different sectors and areas of interest and importance to Canadians, and assist in Canada's productivity and competitiveness.

It is also important to point out that 84% of Canadians indicate investing in high-quality research makes an important contribution to the economy. Furthermore, 90% think basic research should be supported by government even if it brings no immediate benefit, and a majority of Canadians are willing to pay more to improve health and research capacity even in uncertain economic times.[13]

Canada is not keeping pace with its peer countries for investment in diabetes research, given funding reductions to our three granting councils in recent budgets and limited reinvestments. Canada needs to increase its commitment to research to build on the accomplishments that previous investments in research have achieved.

Notes

1 Statistics Canada. *Canadian Health Measures Survey*, 2009-2011. September 2012. Available at: http://www.statcan.gc.ca/pub/82-625-x/2012001/article/11708-eng.pdf According to this survey, approximately 32% of Canadian men were at a healthy weight. About 1% were underweight, 40% were overweight and 27% were obese. For women, 44% had a healthy weight, while 29% were overweight, 25% were obese and 3% were underweight.

2 Institute for Clinical Evaluative Science. *How Many Canadians Will Be Diagnosed with Diabetes Between 2007 and 2017?* 2010.

3 Prediabetes exists when blood glucose is elevated, but not as high as type 2 diabetes.

4 See the Canadian Diabetes Association. *An economic tsunami: the cost of diabetes in Canada*, 2009, p. 15.

5 The Diabetes Cost Model integrates incidence estimates and administrative prevalence from the Canadian NDSS and economic cost estimates from The Economic Burden of Illness in Canada to estimate and forecast diabetes prevalence and cost. It supports analysis of sensitivity in prevalence and cost in response to demographic data, incidence and mortality rates by age (from age 1+) and sex, and the average annual number of net general practitioner and specialist visits by people with diabetes. Additional information concerning details of the DCM are available at: http://www.diabetes.ca/economicreport/.

6 See An Economic Tsunami, p. 16.

7 See *How Many Canadians Will Be Diagnosed with Diabetes Between 2007 and 2017?* 2010.

8 The *Report of the Expert Panel for the Diabetes Policy Review* is available in its entirety on the website of the PHAC at: www.phacaspc.gc.ca/publicat/2009/dprrep-epdrge/index-eng.php.

9 CDA. *Canadian Diabetes Association 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*, *Canadian Journal of Diabetes* 37(2013): S26-S27. Reductions in A1C have been shown in persons with type 2 diabetes, whereas improved quality of life has been shown in persons with either type 1 or type 2 diabetes.

10 The Canadian Association of University Teachers. Statement Regarding the 2012 Federal Budget, pp. 1-2.

11 The 2009 Federal Budget reduced funding to the granting councils by $149.0 million over three years, followed by a slight increase of only $32 million in Budget 2010. Budget 2011 added a modest increase of $37 million, with an additional $10 million allocated to the Indirect Costs Program administered by SSHRC. Budget 2012 contained no increase in the budgets of the three granting councils; rather, the government planned to cut $37 million and "reinvested" it in academic-industry partnerships. Budget 2013 brought no net increase in the budgets, as the "increase" of $37 million matches the planned cut of the same amount announced in the previous year.

12 See note 11.

13 The Association of Faculties of Medicine of Canada, BIOTechCanada, Rx&D, Canadian Healthcare Association, MEDEC, Research Canada: An Alliance for health Discovery. Canada Speaks! 2010: Canadians Go for Gold in Health and Medical Research - A National Public Opinion Poll in Health and Medical Research, January 2010, p. 5.