Working Together to Achieve Healthy Weights: 
Addressing the Tsunami of Diabetes

Recommendations by the Canadian Diabetes Association 
to the House of Commons Standing Committee on Health 
Study on Healthy Living

February 2011
Executive Summary

In 2009, the Canadian Diabetes Association estimated that the rate of diabetes almost doubled from 2000-2010 from 1.3 million to approximately 2.5 million, and will continue to rise from 2010 to 2020 to approximately 3.7 million. While the number of Canadians diagnosed with diabetes is high, an additional 700,000 are estimated to have diabetes, but do not know it.

Although these numbers are alarming, refinements to these estimates to be released by the Canadian Diabetes Association in the spring of 2011 based on new information indicate an even higher estimated prevalence for diabetes both now and in the future unless action is taken to address this coming tsunami. These revisions will also include the number of people living with prediabetes. About 50% of Canadians with prediabetes develop type 2 diabetes.

The increasing rate of diabetes and its complications are also a burden on our health care system and our economy. In 2009, the Canadian Diabetes Association estimated that in 2010, diabetes would cost Canada's health care system an estimated $12.2 billion, up from $6.3 billion in 2000. By 2020, diabetes will cost our health care system $16.9 billion in direct health care costs (hospitalization, general practitioners, specialists, and medications), and indirect costs such as lost productivity due to disability and premature death.

Many factors contribute to the development of type 2 diabetes, including being over 40, a family history of the disease, having gestational diabetes, which occurs during pregnancy, low socio-economic status, and belonging to a high-risk ethno-cultural population. A major contributing factor is excess weight: an estimated 80-90% of people with type 2 diabetes are overweight or obese. Given that almost two-thirds of Canadian adults and over one-quarter of Canadian children and youth are currently overweight or obese, if these rates remain constant, diabetes rates will continue to climb for the foreseeable future.

To alleviate cost pressures on our publicly funded health care system, ensure access to needed health care services for all Canadians, and increase our productivity, the Canadian Diabetes Association recommends that the federal government work in collaboration with provincial and territorial governments, partners and stakeholders to:

• Implement a comprehensive pan-Canadian healthy weights strategy.
• Examine and consider available regulatory options to promote healthy eating and physical activity.
• Institute a comprehensive secondary prevention strategy for people with diabetes and prediabetes.

I. Introduction

The Canadian Diabetes Association is pleased to respond to the invitation of the Standing Committee on Health to offer the following recommendations for action to ensure a healthy and productive Canada for people living with diabetes and prediabetes, their families, and all Canadians. We thank the Committee for this important opportunity.

The Canadian Diabetes Association is a leading authority on diabetes in Canada and around the world. It has a heritage of excellence and leadership, and its co-founder, Dr. Charles Best, along with Dr. Frederick Banting, is credited with the co-discovery of insulin. Across the country, the Association leads the fight against diabetes by helping people with diabetes live healthy lives while it works to find a cure. The Association is supported in its efforts by a
community-based network of volunteers, employees, health care professionals, researchers, and partners. By providing education and services, advocating on behalf of people with diabetes, supporting research, and translating research into practical applications, the Association is delivering on its mission.

II. Background: Diabetes in Canada

Prevalence of diabetes. In 2009, the Canadian Diabetes Association estimated that the prevalence of diabetes has doubled over the past decade from 1.3 million in 2000 (4.2% of the population) to an estimated 2.5 million Canadians in 2010 (7.3%). Another 700,000 Canadians are estimated to have diabetes but have not yet been diagnosed with the disease. An aging population, rising obesity rates, sedentary lifestyles, and demographic changes within new immigrant populations will continue to drive these increases. Indeed, by 2020, an estimated 3.7 million (9.9%) Canadians will have diabetes.¹

In addition, millions of Canadians are living with prediabetes, a condition characterized by blood glucose levels that are higher than normal, but not yet high enough to be diagnosed as type 2 diabetes (i.e. a fasting plasma glucose level of 7.0 mmol/L or higher). About 50% of those with prediabetes will develop type 2 diabetes. Research has shown that some long-term complications associated with diabetes (e.g., heart disease and nerve damage) may begin during prediabetes.²

Implications of secondary complications from diabetes. Diabetes has potentially life-threatening complications; it is a leading cause of heart attack, stroke, kidney disease, blindness, limb amputation and depression. The burden of co-morbidity and mortality imposed by diabetes is a serious threat to both the quality of life for people with the disease and also our health care system. For example:

• Cardiovascular disease (CVD) accounts for approximately 70% of all deaths among people with diabetes.³
• Diabetes increases the risk of stroke, particularly for younger individuals.⁴
• People with diabetes are estimated to have a two-to-four-fold increase in rates of peripheral vascular disease (PVD). Approximately 50% of all lower limb amputations are performed on patients with diabetes.⁵
• Diabetes continues to be the predominant cause of kidney failure in Canada, identified in 34% of new cases in 2009.⁶
• Diabetic retinopathy (DR) is common in people with diabetes. Approximately 70% of people with type 1 diabetes and 40% of people with type 2 diabetes develop DR, which is the leading cause of blindness in Canadians between the ages of 30 and 69.⁷
• Approximately 25% of Canadians with diabetes are also diagnosed with depression. The combination of diabetes and depression is associated with poor compliance with treatment and increased health care costs.⁸
• Eleven percent of Canadians with diabetes have three or more chronic health conditions.⁹
• Canadians with diabetes use, on average, two to three times the health resources of the general population given the need to manage their illness and delay or avoid these complications associated with the disease.¹⁰, ¹¹ In terms of specific health services and providers, Canadians with diabetes are four times more likely to be admitted to a hospital or nursing home, seven times more likely to need home care, and three to five times more likely to see a health care provider.¹²
• Serious secondary complications from diabetes such as heart attack, stroke, kidney failure, and other illnesses add to wait lists for care for all Canadians for hospital emergencies and surgeries. Approximately 10% of acute care hospital admissions are related to diabetes and its secondary complications.¹³
Cost burden of diabetes. In 2010, diabetes cost Canada’s health care system an estimated $12.2 billion, up from $6.3 billion in 2000. By 2020, it is estimated that diabetes will cost our health care system $16.9 billion in direct health care costs (hospitalization, general practitioners, specialists, and medications), and indirect costs such as lost productivity due to disability and premature death. All Canadians pay the direct costs of treating diabetes-related complications. These costs are an impediment to Canadian productivity and prosperity.

III. What Can be Done to Address Diabetes and Promote Healthy Living: Recommendations

Solutions are available to lessen the burden of diabetes, including healthy eating and increased physical activity. In fact, it is estimated that over 50% of type 2 diabetes could be prevented or delayed with healthier eating and increased physical activity. Weight loss of 5 - 10% has been shown to significantly reduce the risk of diabetes. In turn, a modest reduction in diabetes prevalence would have a significant financial impact. A 2% reduction in prevalence would have a 9% reduction in direct healthcare costs. To achieve these outcomes, the Canadian Diabetes Association recommends the following:

1. Implement a comprehensive pan-Canadian healthy weights strategy. According to Statistics Canada, 61% of Canadian adults are overweight or obese. Among children and youth, slightly more than 17% were overweight and 9% were obese.

The contribution of unhealthy eating to obesity is well known. For example, the consumption of sugar-sweetened beverages has been associated with the development of childhood obesity and may be responsible for as much as one pound per month weight gain in adolescents. Other factors influencing the development of obesity include low socio-economic status, even among children. Some research has noted the link between food insecurity and obesity. This is particularly important given that approximately 2.7 million Canadians live with food insecurity because of low income or poverty. This is in turn important regarding diabetes prevention since individuals within these households have almost twice the rate of diabetes compared to households with sufficient food.

The link between excess weight and type 2 diabetes is well established. For example, it is estimated that 80-90% of people with type 2 diabetes are overweight or obese. Obese persons have the highest individual diabetes risk (27.4%), but those who are overweight have the greatest population risk (9.9%) of developing diabetes over the next 10 years. Given the link between excess weight and diabetes, we urge governments to move forward with their Framework for Action to Promote Healthy Weights (September 2010).

Maintaining a healthy weight is key to both preventing both diabetes and diabetes-related complications. A pan-Canadian healthy weights strategy would increase the percentage of Canadians maintaining a healthy weight and focus on five main goals:

- Identifying and understanding the underlying societal causes of unhealthy weights.
- Setting targets to increase the number of Canadians achieving healthy weights, specifically within high-risk populations.
- Improving access to programs and services for high-risk populations.
- Initiating a public education campaign across all sectors of society.
- Incorporating a multisectoral approach involving governments, non-governmental organizations, the private sector and all Canadians as individuals.
This will mean a significant shift in government approach, private sector involvement and, most of all, a widespread personal and societal change.

2. **Institute a comprehensive secondary prevention strategy.** Measures to promote healthy living must also include those living with chronic disease. Successful diabetes management is critical to delaying or preventing complications to reduce the onset of associated chronic diseases and complications such as heart attack, stroke, blindness, kidney disease and amputation.25

A diabetes secondary prevention strategy would exclusively target people who have been diagnosed with diabetes or prediabetes, and provide them with the tools, support and services to effectively self-manage their disease and prevent or delay diabetes-related complications. The strategy should also provide a comprehensive diabetes risk assessment model for screening populations at higher risk of diabetes, including:

- Aboriginal peoples;
- new Canadians and those from specific ethno-cultural groups such as South and East Asian, African Canadians, and Hispanic Canadians;
- low-income Canadians.

This strategy would also provide culturally specific educational and nutrition tools to support lifestyle modification counselling for these populations.

3. **Examine and consider available regulatory options to promote healthy eating.** Such measures may include, but not be limited to:

- Enhanced nutrient labelling for food products, building on the achievements of food labeling introduced to Canada in 2005.
- Calorie labeling for menus in large chain restaurants as the governments of New York City, California and numerous other U.S. states and municipalities have already done.
- Taxation of calorie dense foods with little nutrient value.
- Ensuring availability of affordable, nutritious foods for Canada’s north.26
- Legislative measures concerning broader social policy environment. For example, BC and QC are the only jurisdictions with overweight/obesity rates lower than the national average and QC has the lowest rate of obesity for ages six to 11 in Canada.27 One factor in curbing childhood obesity in QC may be its *Consumer Protection Act* (1980), which bans all commercial advertising directed at children, including unhealthy foods.

**IV. Conclusion**

Working together, we can make a difference. We can enhance and save lives and at the same time improve our economic health and the future prosperity of Canada. Once again, thank you for the opportunity to provide the Canadian Diabetes Association’s recommendations and we look forward to discussing these recommendations before the Committee.
Endnotes

2 Ibid, p.6.
13 Ibid.
16 Statistics Canada. “Canadian Health Measures Survey, 2007 to 2009,” The Daily, January 13, 2010. According to this survey, approximately 38% of Canadian adults were at a healthy weight. About 1% were underweight, 37% were overweight and 24% were obese. Available at: http://www.statcan.gc.ca/daily-quotidien/051104/dq051104b-eng.htm.
18 CIHI. Obesity in Canada: Identifying Policy Priorities, June 23-24, 2003. As noted within this roundtable, “poverty is a risk factor for obesity because:

• Access to exercise facilities can be restricted due to cost;
• Housing and transportation costs typically take precedence over food and exercise costs; and
• Junk foods, such as pop, candy, and fast foods are often cheaper than healthier alternatives.” (p. 4) Available at: http://secure.cihi.ca/cihiweb/products/CPHI_proceed_e.pdf.
19 Children who live in neighbourhoods with higher unemployment rates, lower average family incomes or fewer neighbours with post-secondary education were at a greater risk of being overweight or obese. Statistics Canada. The Daily, November 4, 2005. Available at: http://www.statcan.gc.ca/daily-quotidien/051104/dq051104ab-eng.htm.
20 See for example “Food Security as a Determinant of Health”. A summary is primarily based on papers and presentations by Lynn McIntyre, Professor, Faculty of Health Professions, Dalhousie University and Valerie Tarasuk, Associate Professor in the Department of Nutritional Sciences, Faculty of Medicine, University of Toronto. The presentations were prepared for The Social Determinants of Health Across the Life-Span Conference, held in Toronto in November 2002. Available at: http://www.phac-aspc.gc.ca/ph-sp/oi-ar/pdf/08_food_e.pdf.
26 The federal government recently ended its food mail program that subsidized the cost of mailing food to northern communities. Instead, the subsidy will be given directly to food retailers. The Canadian Diabetes Association is concerned that some retailers may not include the full subsidy in pricing. If so, nutritious food will be more expensive in the north, and people with diabetes who can’t afford healthy foods will be at risk of not being able to affordable these foods, which are essential to good self-management of their disease.