

# Diabetes in Canada

## Fact Sheet

- Diabetes is a chronic condition that results from the body's inability to sufficiently produce and/or properly use insulin. Insulin is a hormone that helps the body use glucose for energy.
- More than two million Canadians currently have type 1 and type 2 diabetes.<sup>1</sup> As many as one third of these people are unaware they have this condition.<sup>2</sup>
- It is estimated that over three million Canadians will be diagnosed with diabetes by 2010.<sup>1</sup>
- Type 2 diabetes accounts for about 90 per cent of all diagnosed cases and is one of the fastest growing diseases in Canada, with over 60,000 new cases yearly.<sup>3</sup>

### About type 2 diabetes

- Occurs when the pancreas is unable to produce enough insulin or when the body cannot effectively use the insulin that is produced.
- Risk factors include:<sup>4</sup>
  - Age - older than 40 years of age
  - Weight - obesity
  - Family history of diabetes
  - High-risk populations - for example those of Aboriginal, African, Asian, Hispanic or South Asian descent
  - Impaired glucose tolerance or impaired fasting glucose
  - Heart disease, high blood pressure and/or high cholesterol
  - Gestational diabetes
  - Giving birth to a baby weighing over four kilograms
- Signs and symptoms of diabetes include:
  - Unusual thirst
  - Frequent urination
  - Weight change
  - Extreme fatigue or lack of energy
  - Blurred vision
  - Frequent or recurring infections
  - Cuts and bruises that are slow to heal
  - Tingling or numbness in hands or feet
  - Trouble getting and maintaining an erection

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- Diabetes damages small and large blood vessels throughout the body.
- The incidence of type 2 diabetes is not only increasing in the general adult population but diagnosis of this form of diabetes has also increased in children and adolescents from high-risk populations.<sup>5</sup>
- Left untreated or poorly treated, type 2 diabetes can lead to complications such as stroke, heart disease, kidney disease, blindness, amputations, nerve damage and erectile dysfunction.<sup>4</sup>

### **Controlling diabetes – problem remains**

- The onset of type 2 diabetes can be delayed by increasing physical activity, healthy eating and losing weight.<sup>5</sup>
- Controlling levels of glucose and levels of insulin, which help the body use glucose for energy, are both keys to managing type 2 diabetes.<sup>5</sup>
- Given the progressive nature of the disease, most people living with type 2 diabetes may require multiple medications with different mechanisms of action to achieve optimal glycemic control and to manage co-morbidities. As beta-cell function declines, many drug therapies become less effective over time.<sup>5</sup> (Beta-cells are found in the pancreas and their primary purpose is to make, store and secrete insulin.)
- Results from the Diabetes in Canada Evaluation (D.I.C.E.) study demonstrated that almost 50 per cent of study participants with diagnosed type 2 diabetes did not achieve the Canadian Diabetes Association Guidelines target level of blood glucose (HbA1C less than or equal to 7 per cent). The percentage of patients who did not have their blood glucose levels under control increased to more than 62 per cent among those who had type 2 diabetes for 15 years or more.<sup>6</sup> This failure to achieve adequate control occurs for a variety of reasons, including:
  - the progressive nature of the disease,
  - some issues of tolerability and durability with available medications, and
  - lack of adherence to lifestyle modifications and therapy.
- In a survey conducted in 2007 with 200 Canadian physicians (160 GPs and 40 specialists) who treat people living with type 2 diabetes, one third of GPs and two-thirds of endocrinologists feel that there are not enough treatment options for their diabetes patients.<sup>7</sup>

### **Impact of living with type 1 and type 2 diabetes**

- It is estimated that 40 per cent of Canadians with living with diabetes will develop long term complications.<sup>8</sup>
- Canadian adults living with diabetes are twice as likely to die prematurely than non-diabetics. For people living with type 2 diabetes, life expectancy may be shortened by five to 10 years.<sup>9</sup>
- Every year, diabetes is a contributing factor in the deaths of some 41,500 Canadians.<sup>9</sup>
- Approximately 80 per cent of people living with diabetes will die as a result of heart disease or stroke.<sup>9</sup>
- The financial burden for people living with diabetes is two to three times higher than it is for those without diabetes with direct costs for medications and supplies between \$1,000 and \$15,000 a year.<sup>8</sup>
- The Canadian Diabetes Association estimates that diabetes and its complications cost the Canadian healthcare system approximately \$13.2 billion every year.<sup>9</sup>

### **Provincial statistics**

- In 2005 there were approximately 400,000 adults with diabetes in Quebec. In 2016, this number is expected to double.<sup>10</sup>
- Diabetes affects more than 800,000 people, or 8.73 per cent of Ontario's population.<sup>11</sup>
- 75,000 people in Nova Scotia live with diabetes with the greatest total prevalence rate found in males (11.89 per cent in males vs. 6.9 per cent in females).<sup>12</sup>
- Nova Scotia had over 5,300 new cases in 2001/02.<sup>12</sup>
- Approximately 120,000 Albertans live with diabetes and each month an additional 1,000 people in Alberta are diagnosed with the disease.<sup>13</sup>
- More than 67,000 Manitobans are affected by diabetes and each day 16 Manitobans are diagnosed with this disease, compared to the national average of 11 new cases diagnosed daily.<sup>14</sup>

- In BC, there are more than 210,000 people living with diabetes, excluding the one in three people who have diabetes but do not know it.<sup>15</sup>
- By 2010, without action, more than 325,000 British Columbians will be suffering from diabetes.<sup>15</sup>

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## References

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