

The Cost of Diabetes in  
**MANITOBA**

# The Cost of Diabetes in Manitoba

## The Manitoba Diabetes Cost Model<sup>1</sup>

In 2009, the Canadian Diabetes Association commissioned a report, “*An Economic Tsunami: the Cost of Diabetes in Canada*,” to determine the cost of diabetes in Canada, including the impact of lost productivity on the economy. The report also evaluated the potential benefits of initiatives designed to delay or prevent the onset of type 2 diabetes and reduce the occurrence and severity of complications arising from the disease.

The diabetes cost model used in the 2009 report has since been adapted to provide an analysis of the costs of diabetes at provincial levels. The findings in this report are the preliminary findings concerning the costs of diabetes in Manitoba derived through the Manitoba Diabetes Cost Model. This is one of a series of reports issued on diabetes at a provincial level. The Association will continue to roll-out diabetes cost models across Canada.

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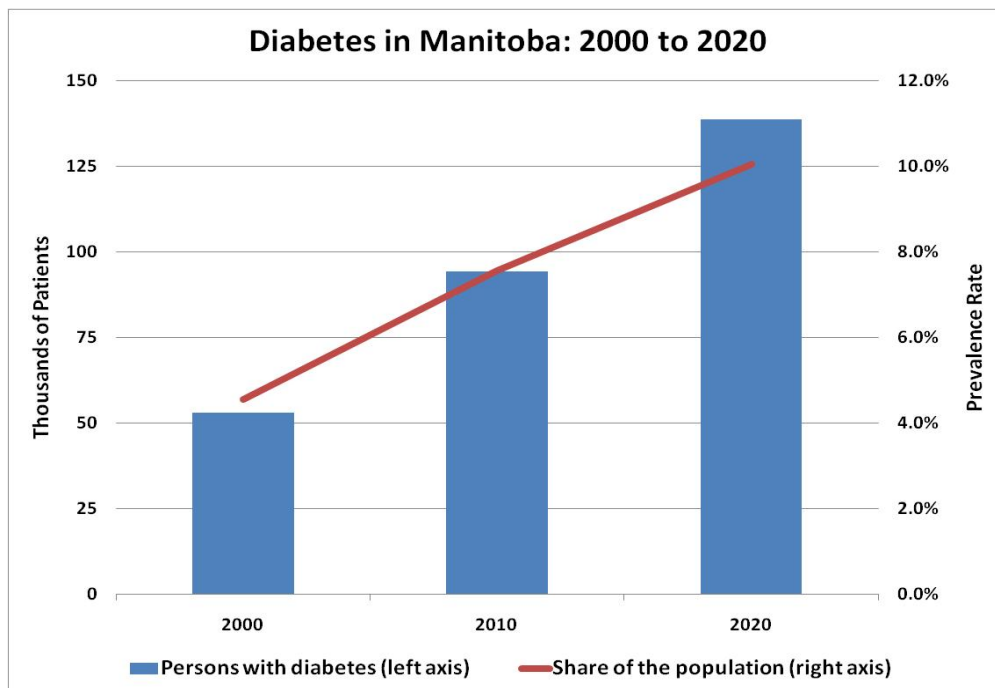


<sup>1</sup> The Manitoba Diabetes Cost Model was created for the Association by the Centre for Spatial Economics based on the Canadian Diabetes Cost Model developed by Informetrica Limited and made possible by an unrestricted educational grant provided by Novo Nordisk Canada Inc. The two main sources of data used for the estimate and forecasts come from the National Diabetes Surveillance System (NDSS) and Health Canada’s study the Economic Burden of Illness in Canada (EBIC). The Model aimed to integrate the administrative prevalence and incidence estimates from NDSS with the economic cost estimates from EBIC.

The Model supports analysis of the sensitivity of the prevalence and cost estimates to changes in demographic data, incidence and mortality rates by age and sex, and the average annual number of net general practitioner and specialist visits by people with diabetes. Assumptions made in this model are conservative and may understate the prevalence and cost of diabetes in the future, rather than to overstate it.

## The Prevalence of Diabetes in Manitoba

The Manitoba Diabetes Cost Model estimates<sup>1</sup> that 94,000 people in Manitoba have been diagnosed with type 1 or type 2 diabetes in 2010 – representing approximately 7.6% of the population. This number is expected to increase by 45,000 over the next decade to 139,000 or 10.1% of the population of Manitoba.



Source: Manitoba Diabetes Cost Model

Diabetes in Manitoba (Table 1)

|                                      | 2000 | 2010 | 2020  |
|--------------------------------------|------|------|-------|
| Persons with diabetes (left axis)    | 53   | 94   | 139   |
| Share of the population (right axis) | 4.5% | 7.6% | 10.1% |

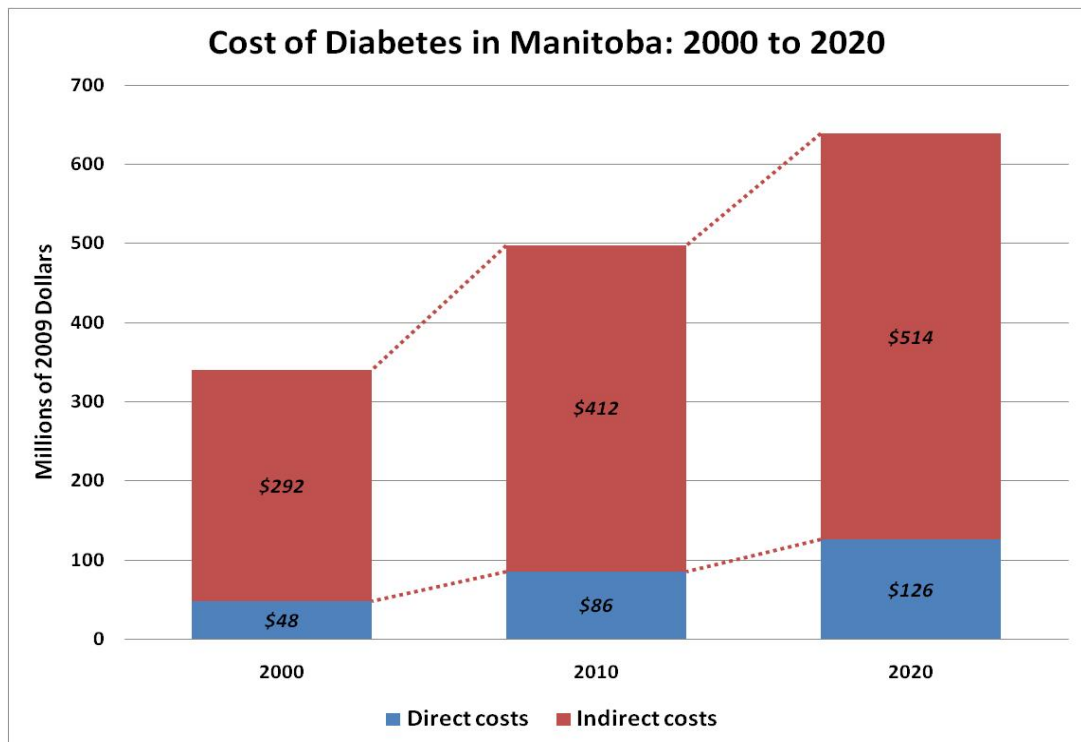
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<sup>1</sup> The estimates provided in this report include the most current data available from all sources but should be viewed as preliminary and will be subject to revision based on continuing research and more complete data.

## The Economic Burden of Diabetes in Manitoba

The economic burden of diabetes in Manitoba is estimated to be \$498 million in 2010 (measured in 2009 dollars). This cost is expected to increase by 28% over the next decade to \$639 million by 2020.

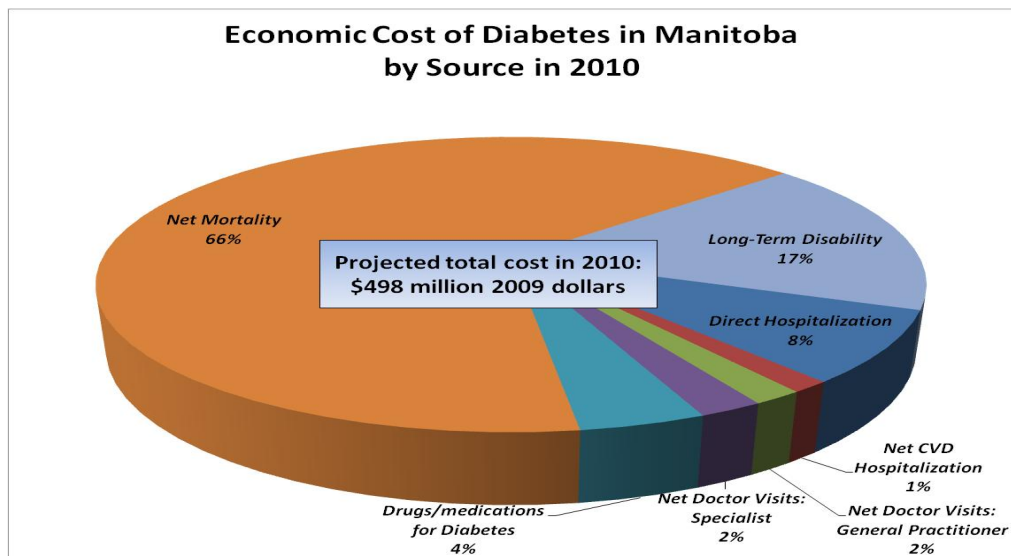


Source: Manitoba Diabetes Cost Model

Cost of Diabetes in Manitoba In Millions of 2009 Dollars (Table 2)

|                | 2000 | 2010 | 2020 |
|----------------|------|------|------|
| Direct costs   | 48   | 86   | 126  |
| Indirect costs | 292  | 412  | 514  |

The direct costs of diabetes – which accounts for 17% of the total cost of the \$498 million in 2010 - are led by hospitalization costs. Indirect mortality and disability costs account for 83% of the total cost attributed to diabetes by the Diabetes Cost Model.



Source: Manitoba Diabetes Cost Model

**Economic Costs of Diabetes in Manitoba  
in Millions of 2009 Dollars (Table 3)**

|   | 2000       | 2010       | 2020       |
|---|------------|------------|------------|
| Direct Hospitalization                  | 22         | 40         | 58         |
| Net CVD Hospitalization                 | 4          | 6          | 10         |
| Net Doctor Visits: General Practitioner | 5          | 8          | 12         |
| Net Doctor Visits: Specialist           | 6          | 11         | 16         |
| Drugs/medications for Diabetes          | 12         | 21         | 30         |
| Net Mortality                           | 245        | 327        | 397        |
| Long-Term Disability                    | 47         | 85         | 117        |
| <b>Total</b>                            | <b>340</b> | <b>498</b> | <b>639</b> |

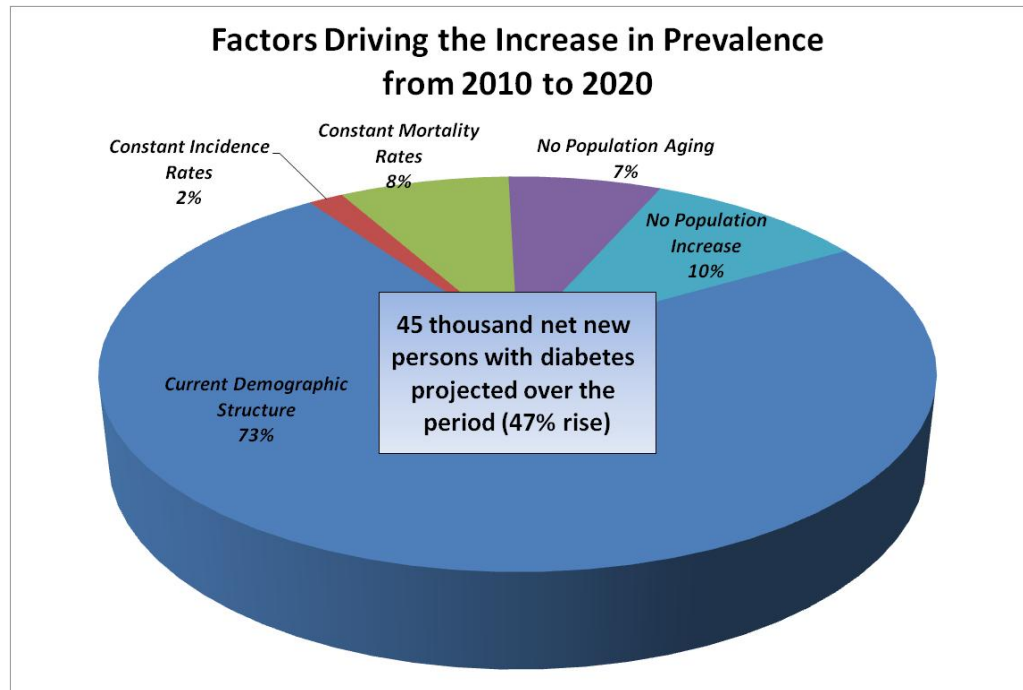


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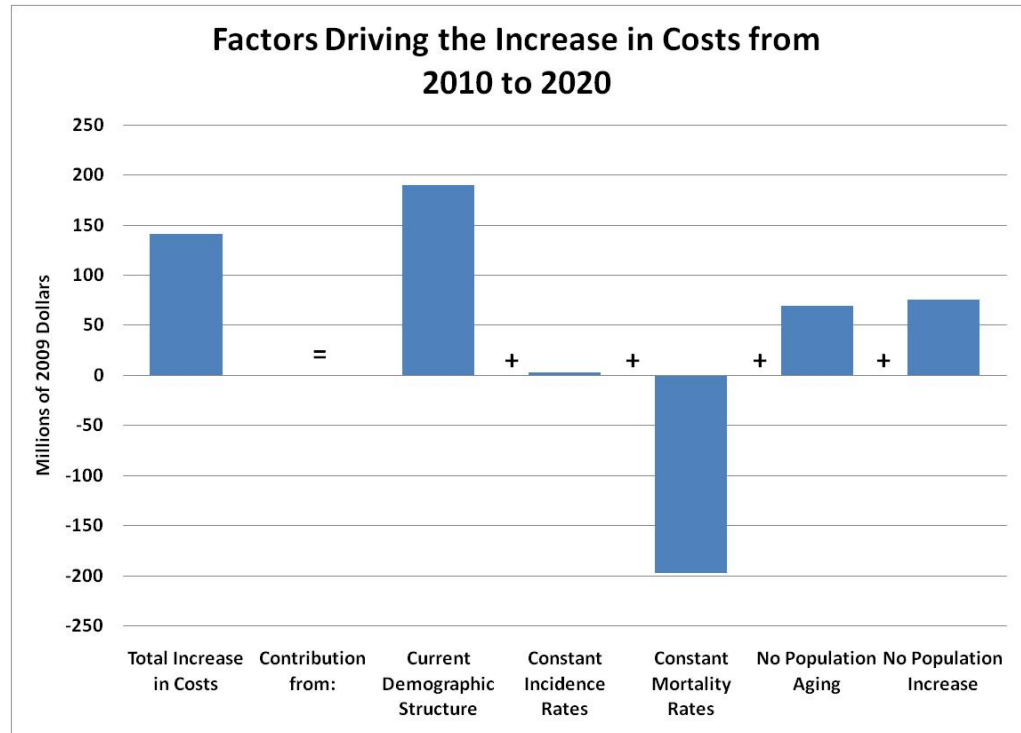
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## The Factors Driving Diabetes Prevalence and Costs in Manitoba

Over the next decade, population growth, an aging population, rising incidence rates and declining mortality rates will be responsible, in part, for the 45,000 net increase (a 47% rise) of people diagnosed with diabetes in Manitoba. Nearly three quarters of the increase is, however, locked-in – based on the prevalence of diabetes and the province’s current demographic structure – due to the number of net new people diagnosed with diabetes in Manitoba each year. These same factors are also responsible for the projected \$141 million increase in costs over the decade. While declining mortality rates for persons with diabetes increases the prevalence of the disease over the period, it also decreases the cost of the disease associated with premature mortality.



Source: Manitoba Diabetes Cost Model



*Source: Manitoba Diabetes Cost Model*



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## About the Canadian Diabetes Association

Today, more than nine million Canadians live with diabetes or prediabetes. Across the country, the Canadian Diabetes Association is leading the fight against diabetes by helping people with diabetes live healthy lives while we work to find a cure. Our community-based network of supporters help us provide education and services to people living with diabetes, advocate for our cause, break ground towards a cure and translate research into practical applications.

**For more information, please visit [diabetes.ca](http://diabetes.ca)  
or call 1-800-BANTING (226-8464).**

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We thank Novo Nordisk Canada Inc. for its ongoing  
commitment to diabetes in Canada.