

THE COST OF DIABETES IN NEW BRUNSWICK

The New Brunswick Diabetes Cost Model¹

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.

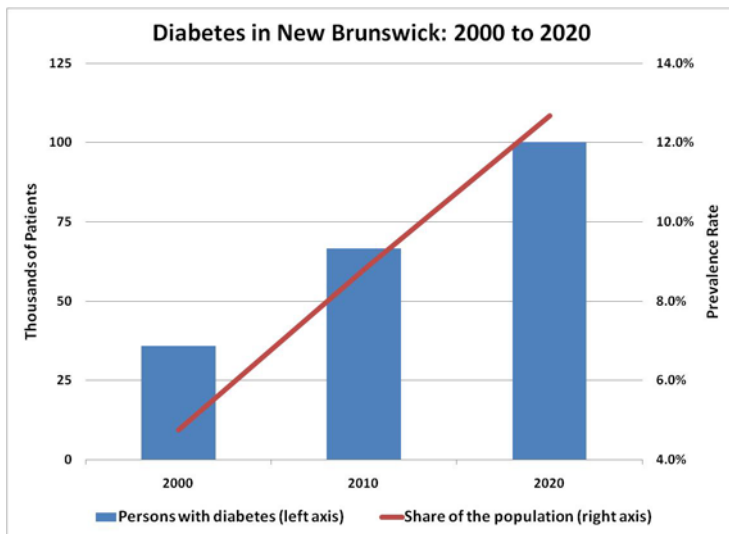
The diabetes cost model used in the 2009 report has since been adapted to provide an analysis of the costs of diabetes at provincial levels. This report summarizes the projected cost of diabetes in New Brunswick derived through the New Brunswick Diabetes Cost Model. This is one of a series of reports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

¹ The New Brunswick 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 titled 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 New Brunswick

The New Brunswick Diabetes Cost Model estimates² that 67,000 people in New Brunswick have been diagnosed with type 1 or type 2 diabetes in 2010 – representing approximately 8.8% of the population. This number is expected to increase by 34,000 over the next decade to 100,000 or 12.7% of the population of New Brunswick.



Source: *New Brunswick Diabetes Cost Model*

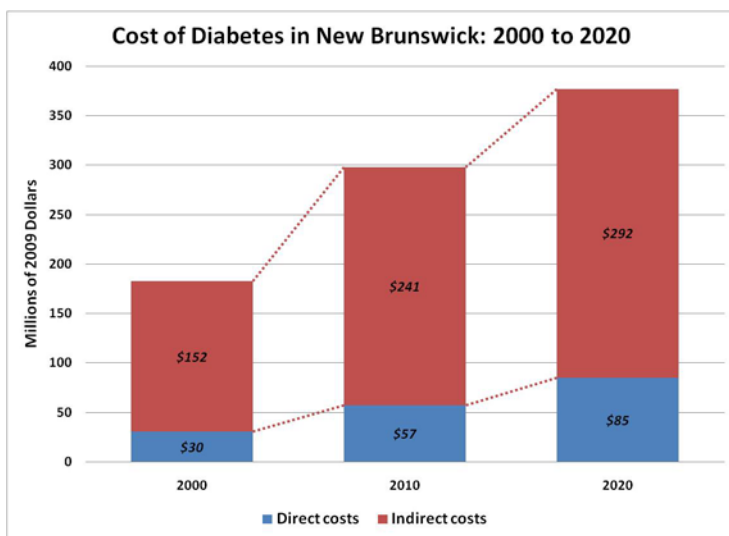
Diabetes in New Brunswick (Table 1)

	2000	2010	2020
Persons with diabetes (left axis)	36	67	100
Share of the population (right axis)	4.7%	8.8%	12.7%

² The estimates provided in this fact sheet includes 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 New Brunswick

The economic burden of diabetes in New Brunswick is estimated to be \$298 million in 2010 (measured in 2009 dollars). This cost is expected to increase by 26% over the next decade to \$377 million by 2020.

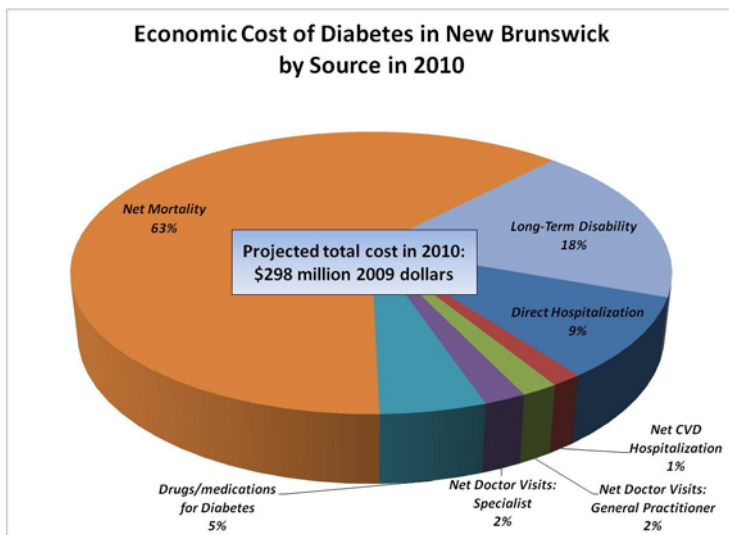


Source: *New Brunswick Diabetes Cost Model*

Cost of Diabetes in New Brunswick in Millions of 2009 Dollars (Table 2)

	2000	2010	2020
Direct costs	30	57	85
Indirect costs	152	241	292

The direct costs of diabetes – which accounts for 19% of the total cost of the \$298 million in 2010 - are led by hospitalization costs. Indirect mortality and disability costs account for 81% of the total cost attributed to diabetes by the Diabetes Cost Model.



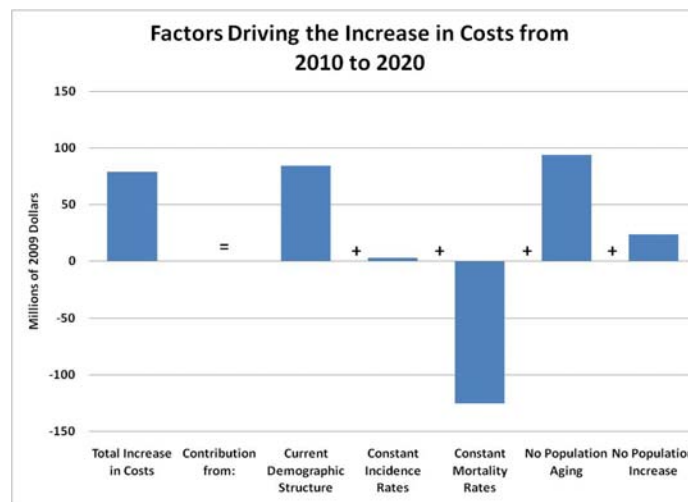
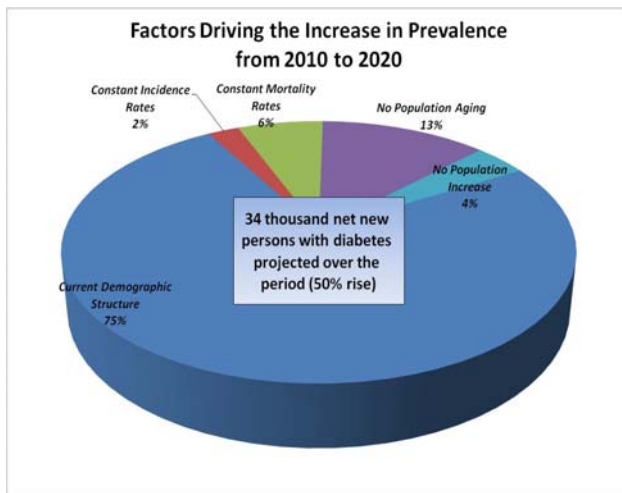
Source: New Brunswick Diabetes Cost Model

Economic Costs of Diabetes in New Brunswick in Millions of 2009 Dollars (Table 3)

	2000	2010	2020
Direct Hospitalization	15	28	41
Net CVD Hospitalization	2	4	7
Net Doctor Visits: General Practitioner	3	5	7
Net Doctor Visits: Specialist	3	6	9
Drugs/medications for Diabetes	8	14	21
Net Mortality	123	187	220
Long-Term Disability	29	55	72
Total	183	298	377

The Factors Driving Diabetes Prevalence and Costs in New Brunswick

Over the next decade, population growth, an aging population, rising incidence rates and declining mortality rates will be responsible, in part, for the 34,000 net increase (a 50 per cent rise) of people diagnosed with diabetes in New Brunswick. About 75 per cent 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 New Brunswick each year. These same factors are also responsible for the projected \$79 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: New Brunswick Diabetes Cost Model