

THE COST OF DIABETES IN BRITISH COLUMBIA

The British Columbia 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.

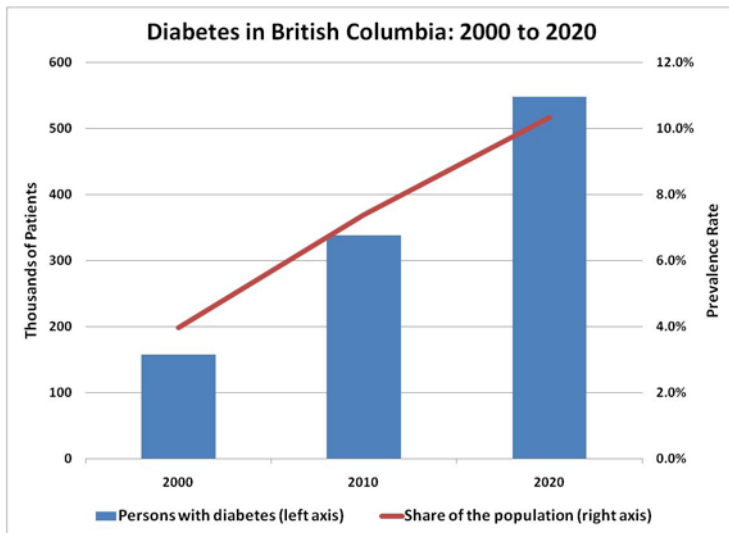
The diabetes cost model used in the 2009 report has since been adapted to provide an analysis of the costs of diabetes at provincial levels. This report summarizes the projected cost of diabetes in British Columbia derived through the British Columbia Diabetes Cost Model. This is one of a series of reports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

¹ The British Columbia 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 British Columbia

The British Columbia Diabetes Cost Model estimates² that 338,000 people in the province have been diagnosed with type 1 or type 2 diabetes in 2010 – representing approximately 7.4 per cent of the provincial population, equivalent to the population of Greater Victoria (13 municipalities). This number is expected to increase by 210,000 over the next decade to 548,000, or 10.3 per cent of the population of British Columbia. This will give the province the third-highest increase in prevalence rates out of all provinces from 2010-2020.



Source: *British Columbia Diabetes Cost Model*

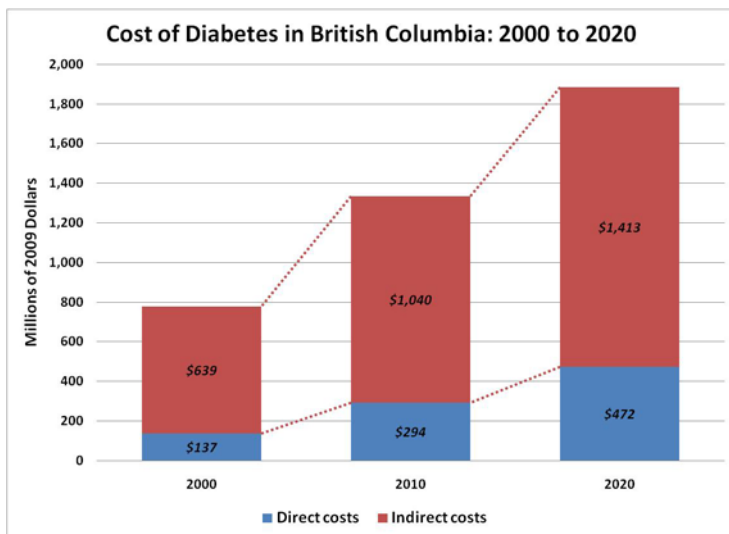
Diabetes in British Columbia (Table 1)

	2000	2010	2020
Persons with diabetes (left axis)	158	338	548
Share of the population (right axis)	4.0%	7.4%	10.3%

² The estimates provided in this fact sheet includes the most current data available from all sources and will be subject to revision based on continuing research and more complete data.

The Economic Burden of Diabetes in British Columbia

The economic burden of diabetes in British Columbia is estimated to be \$1.3 billion in 2010 (measured in 2009 dollars). The Diabetes Cost Model projects that this cost will increase by 41 per cent over the next decade to \$1.9 billion by 2020.

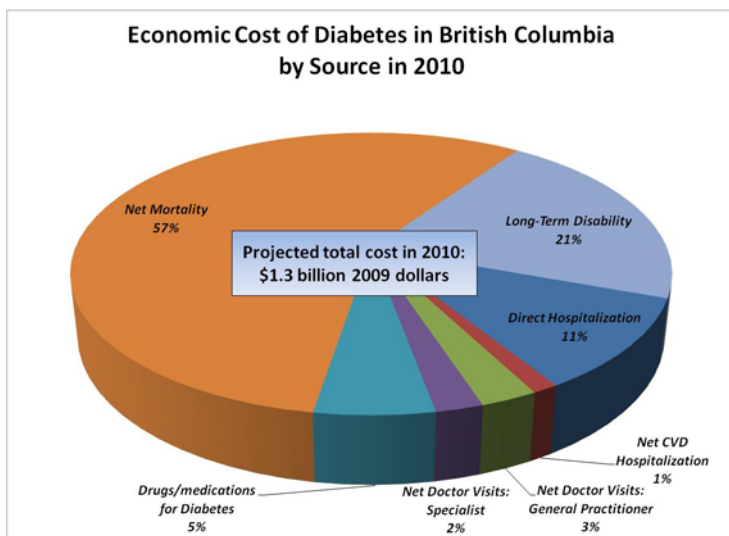


Source: *British Columbia Diabetes Cost Model*

Cost of Diabetes in British Columbia in Millions of 2009 Dollars (Table 2)

	2000	2010	2020
Direct costs	137	294	472
Indirect costs	639	1040	1413

The direct costs of diabetes – which accounts for 21 per cent of the total cost of the \$1.3 billion in 2010 – are led by hospitalization costs. Indirect mortality and disability costs account for 79 per cent of the total cost attributed to diabetes by the BC Diabetes Cost Model.



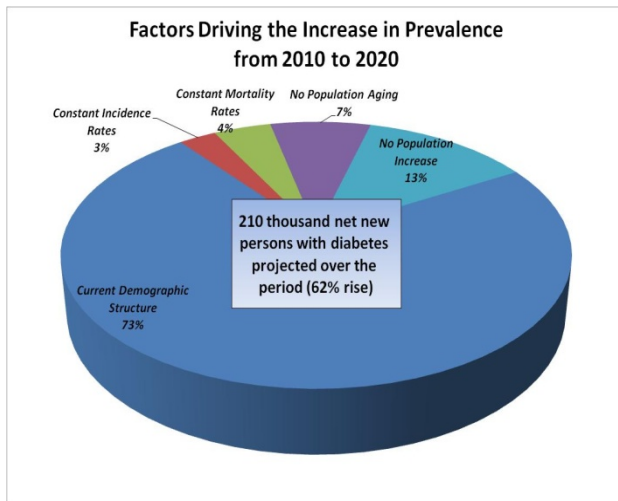
Source: British Columbia Diabetes Cost Model

Economic Costs of Diabetes in British Columbia in Millions of 2009 Dollars (Table 3)

	2000	2010	2020
Direct Hospitalization	66	141	228
Net CVD Hospitalization	7	16	27
Net Doctor Visits: General Practitioner	16	35	56
Net Doctor Visits: Specialist	14	29	47
Drugs/medications for Diabetes	34	73	115
Net Mortality	507	761	1002
Long-Term Disability	132	280	411
Total	776	1334	1885

The Factors Driving Diabetes Prevalence and Costs in British Columbia

Over the next decade, population growth, an aging population, rising incidence rates and declining mortality rates will be responsible, in part, for the 210,000 net increase (a 62% rise) of people diagnosed with diabetes in British Columbia. About 70 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 British Columbia each year. These same factors are also responsible for the projected \$551 million increase in costs over the decade.



Source: British Columbia Diabetes Cost Model

