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The number of Canadians living with diabetes will rise dramatically over the next decade, spurring an "economic tsunami" that will be felt well beyond the health system, new research predicts.

By 2020, there will be 3.7 million Canadians with diabetes, up from 2.5 million today, and from 1.3 million a decade ago, according to projections prepared by Robin Somerville of the Centre for Spatial Economics in Milton, Ont.

Stated simply, more than 20 people will be diagnosed with diabetes every hour for the foreseeable future.

The numbers are soaring because of Canada's changing ethnic makeup (diabetes rates vary by ethnicity), the population is aging (the risk of diabetes increases with age) and due to poor health habits of Canadians (obesity and inactivity raise the risk).

The report stresses that while some of those factors cannot be altered, the key is catching diabetes early so it can be controlled and so that harmful, expensive complications can be averted.

If current trends continue, the economic burden of the disease will climb to \$16.9-billion in the next decade, up from \$12.2-billion today, the analysis shows. (The cost data are all in 2005 dollars to allow for direct comparisons.)

"Diabetes is a financial crisis for the health-care system. It is consuming an ever-larger share of provincial and territorial health-care budgets and will force an increase in those expenditures," the report states. "Diabetes is a personal crisis for people living with the disease and for their [families]," it adds.

Steve Dembicky of Mississauga, Ont., knows that all too well. He was diagnosed with Type 2 diabetes in 1990 and began to take medication. But he didn't take the disease too seriously until he suffered a heart attack in 2001.

"That was a real wake-up call for me," Mr. Dembicky said. He quit smoking, began to exercise, changed his diet dramatically and lost more than 100 pounds. But his diabetes had progressed to the point where oral medication was no longer enough and he began to inject insulin, which he now needs to do four times a day.

"I really wish I had acted earlier. I could have avoided a lot of problems," Mr. Dembicky said. He is on disability due to a workplace injury unrelated to diabetes, and said he is lucky that his treatment costs are covered. "If you don't have coverage, it's really, really costly."

Ellen Malcolmson, president and CEO of the Canadian Diabetes Association, said that the cost individuals have to bear is one of the big impediments to early, aggressive treatment. Individuals can spend between \$1,000 and \$15,000 a year out-of-pocket on products such as test strips and medication.

"Some people choose to not manage their diabetes because it's too costly," she said. "That cost falls on the health system."

That is particularly true because diabetes is a precursor to many other severe illnesses. It is a major cause of cardiovascular disease, and the leading cause of kidney disease, blindness and amputation.

"About 50 per cent of diabetes complications can be prevented but we need to invest in prevention and control," Ms. Malcolmson said. One of the most important measures, she said, is regular screening. Diabetes can be detected with a simple test for blood glucose.

Once a person has been diagnosed, there are four tests they should undergo routinely: the HbA1c exam to test glucose control; a urine test to check for kidney damage; a foot check that can reveal nerve damage; and a dilated eye exam. A study released last week showed that only one in three patients regularly undergo these tests.

In 1999, the federal government invested \$115-million over five years to develop a Canadian Diabetes Strategy, and then bolstered the plan with another \$30-million in 2004.

Ms. Malcolmson said her hope is that the new report – entitled *An economic tsunami: The cost of diabetes in Canada* – will prompt Ottawa to make a new investment.

There are three distinct forms of diabetes: gestational diabetes is a temporary condition that occurs during pregnancy; Type 1 diabetes, usually diagnosed in children, occurs when the pancreas is unable to produce insulin; Type 2 diabetes occurs when the pancreas does not produce enough insulin or the body does not effectively use the insulin it produces.

About 90 per cent of diabetics have Type 2, which is usually a consequence of obesity, inactivity, poor diet and aging. Diabetes is also strongly associated with poverty.

Members of some ethnic groups – notably Southeast Asians, Asians and Hispanics – have much higher rates of diabetes, particularly when they immigrate to countries like Canada and adopt a Western lifestyle. Aboriginal people also have much higher diabetes rates.

"The numbers are compelling," said Ms. Malcolmson. "They remind us that diabetes is a pervasive and systemic problem that we can't afford to ignore any longer."

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## The cost of a disease

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**More than 20 people will be diagnosed with diabetes every hour for the foreseeable future. And with that, the physical and economic burdens of the disease will climb.**

### THE PHYSICAL COSTS OF DIABETES

*Diabetes is a disease that, untreated, can lead to serious complications and premature death:*

Percentage of Canadians with diabetes who die from a heart attack or a stroke



Percentage of new kidney dialysis patients who have diabetes



Percentage of Canadians with diabetes who will become blind



Percentage of non-traumatic limb amputations that are the result of diabetes complications



Percentage of people with diabetes who suffer from depression



The life expectancy for people with Type 1 diabetes may be shortened by as much as

# 15 years

The life expectancy for people with Type 2 diabetes may be shortened by

# 5 to 10 years

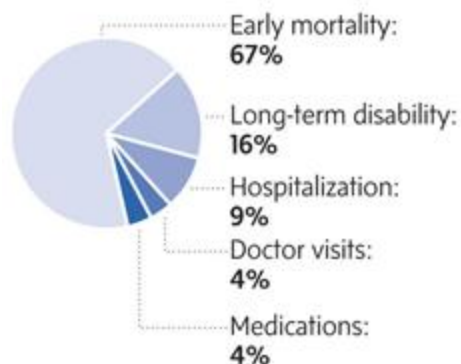
### THE ECONOMIC COST OF DIABETES

*In 2010, diabetes will cost the Canadian economy an estimated \$12.2-billion (in constant 2005 dollars).*

### FACTORS DRIVING THE INCREASE IN THE COST OF DIABETES

*Between 2010 and 2020, the economic cost of diabetes is expected to increase by \$4.7-billion (in constant 2005 dollars) to \$16.9-billion.*

### COST BREAKDOWN



### FACTORS CONTRIBUTING TO RISE

