

# Diabetes in Manitoba

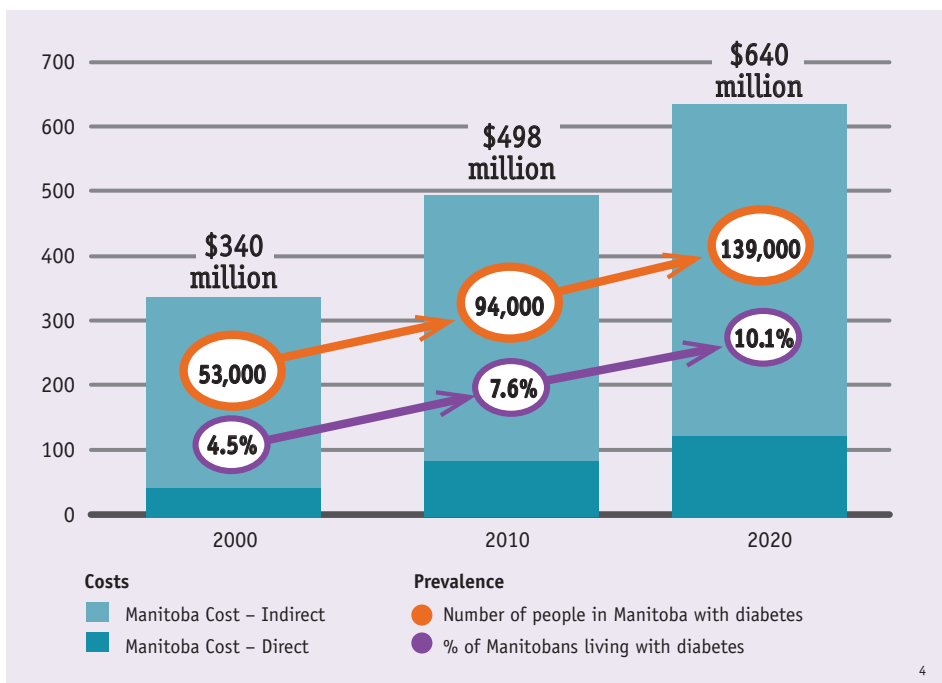
There were approximately **9000** NEW CASES of diabetes in 2015

Prevalence rates and costs have significantly increased over time

Almost 1 in 10 Manitobans are currently living with diabetes<sup>1</sup>

Preventing 100 new cases of diabetes will save the health care system **\$1 million<sup>3</sup>** every 2 years

Manitobans with the lowest income have almost double the rate of diabetes compared with Manitobans with the highest income<sup>2</sup>



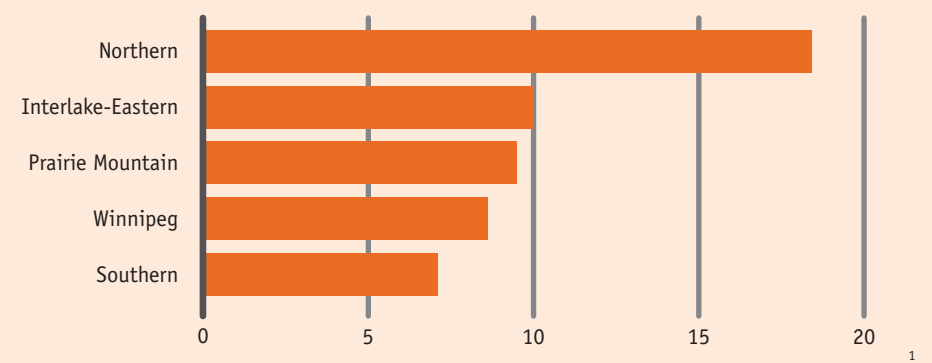
## How can we reduce the risk of developing type 2 diabetes?

- Adult interventions combining high intensity physical activity and healthy eating have been shown to reduce the risk of type 2 diabetes<sup>5</sup>.
- Physical activity reduces the risk of developing type 2 diabetes by 43%<sup>6</sup>.
- Peer-led, culturally appropriate & holistic interventions for children and youth have been shown to:
  - increase one's belief in their ability to succeed (self-efficacy)
  - improve healthy living knowledge
  - reduce waist circumference
  - reduce overall body mass index score<sup>7</sup>

### Sources

1. Canadian Chronic Disease Surveillance System, version 2015.
2. The Chief Provincial Public Health Officer, Healthy Environments, Healthy People. (2015 Health Status of Manitobans Report). <http://www.gov.mb.ca/health/cppho/report.html>
3. Gregory S Finlayson et al., The Additional Cost of Chronic Disease in Manitoba. (Winnipeg, MB: Manitoba Centre for Health Policy, 2010). [http://mchp-appserv.cpe.umanitoba.ca/reference/Chronic\\_Cost.pdf](http://mchp-appserv.cpe.umanitoba.ca/reference/Chronic_Cost.pdf)
4. Canadian Diabetes Association. "Cost of Diabetes in Manitoba" <https://www.diabetes.ca/CDA/media/documents/publications-and-newsletters/advocacy-reports/cost-of-diabetes-in-manitoba.pdf>
5. Balk, E. M., Earley, A., Raman, G., Avendano, E. A., Pittas, A. G., Remington, P. "Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among People at Increased Risk: A Systematic Review for the Community Preventive Services Task Force." Annual Internal Medicine, 163.6 (2015): 437-451, doi: 10.7326/M15-0452
6. Janssen, Ian. "Health Care Costs of Physical Inactivity in Canadian Adults," Applied Physiology Nutrition and Metabolism, 37, No. 4, (2012): 803-806, doi:10.1139/H2012-061
7. Eskicioglu, P et al., "Peer Mentoring for Type 2 Diabetes Prevention in First Nations Children." Pediatrics, (2014): 1630. Accessed January 2017. doi:10.1542/peds.2013-2621

## Diabetes Prevalence by Region (ages 1+)



# Glossary

## What is incidence?

Incidence refers to the occurrence of new cases of disease or injury in a population over a specified period of time.

## What is prevalence?

Prevalence is the proportion of persons in a population who have a particular disease or attribute at a specified point in time or over a specified period of time. Prevalence differs from incidence in that prevalence includes all cases, both new and preexisting, in the population at the specified time, whereas incidence is limited to new cases only.

## What are the direct costs?

Direct costs include hospitalizations, physician and specialist visits and medication costs.

## What are the indirect costs?

Indirect costs include morbidity (illness) and mortality (death) costs.

## What is diabetes?

Diabetes is a chronic, often debilitating and sometimes fatal disease, in which the body either cannot produce insulin or cannot properly use the insulin it produces. Insulin is a hormone that controls the amount of glucose (sugar) in the blood. Diabetes leads to high blood sugar levels, which can damage organs, blood vessels and nerves. The body needs insulin to use sugar as an energy source.



## What is type 1 diabetes?

Type 1 diabetes occurs when the immune system mistakenly attacks and kills the beta cells of the pancreas. No, or very little, insulin is released into the body. As a result, sugar builds up in the blood instead of being used as energy. About 10 per cent of people with diabetes have type 1 diabetes. Type 1 diabetes generally develops in childhood or adolescence, but can develop in adulthood. Type 1 diabetes is always treated with insulin.

## What is type 2 diabetes?

Type 2 diabetes occurs when the body can't properly use the insulin that is released (called insulin insensitivity) or does not make enough insulin. As a result, sugar builds up in the blood instead of being used as energy. About 90 per cent of people with diabetes have type 2 diabetes. Type 2 diabetes more often develops in adults, but children can be affected. Depending on the severity of type 2 diabetes, it may be managed through physical activity and meal planning, or may also require medications and/or insulin to control blood sugar.

## What is gestational diabetes?

A third type of diabetes, gestational diabetes, is a temporary condition that occurs during pregnancy. It affects approximately three to twenty percent of all pregnancies and involves an increased risk of type 2 diabetes in the future for both mother and child.

## What are the complications of diabetes?

Having high blood sugar can cause diabetes-related complications, like chronic kidney disease, foot problems, non-traumatic lower limb (leg, foot, toe, etc.) amputation, eye disease (retinopathy) that can lead to blindness, heart attack, stroke, anxiety, nerve damage, and erectile dysfunction (men). Other potential complications of diabetes can include anxiety and depression. Diabetes-related complications can be very serious and even life-threatening. Blood sugar control reduces the risk of developing these complications.

## Sources:

[www.diabetes.ca/about-diabetes/types-of-diabetes](http://www.diabetes.ca/about-diabetes/types-of-diabetes)

[www.cdc.gov/ophss/csels/dsepd/ss1978/lesson3/section2.html](http://www.cdc.gov/ophss/csels/dsepd/ss1978/lesson3/section2.html)

[www.diabetes.ca/CDA/media/documents/publications-and-newsletters/advocacy-reports/economic-tsunami-cost-of-diabetes-in-canada-english.pdf](http://www.diabetes.ca/CDA/media/documents/publications-and-newsletters/advocacy-reports/economic-tsunami-cost-of-diabetes-in-canada-english.pdf)

[www.diabetes.ca/diabetes-and-you/living-with-gestational-diabetes](http://www.diabetes.ca/diabetes-and-you/living-with-gestational-diabetes)

[www.diabetes.ca/diabetes-and-you/complications](http://www.diabetes.ca/diabetes-and-you/complications)