

# 12 QUEBEC FIRST NATIONS: DIABETES

Chapter 12 of the Quebec First Nations Regional Health Survey (RHS 2008) gives a comprehensive review of the prevalence of diabetes with consideration to gender, age, nation, and geographic zone. This is a summary of the information included in Chapter 12. Therefore, it does not include all the knowledge covered by the survey, and may be open to different interpretations. To have a complete understanding of the results, the reader is invited to consult the entire chapter.

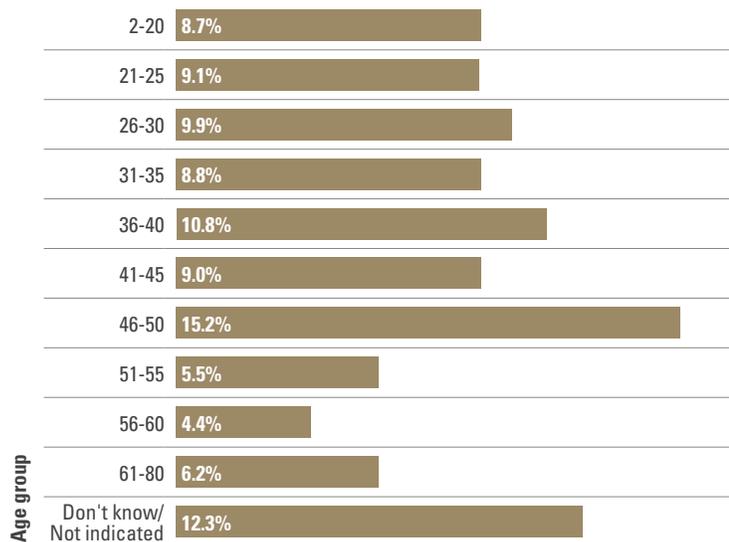
Diabetes is an illness resulting from inability to process glucose, causing an accumulation of glucose in the blood called hyperglycemia. There are three types of diabetes: Type 1 is an autoimmune disease wherein little or no insulin is produced by the pancreas. Type 2 occurs when the body does not properly use insulin and is acquired later often due to obesity and inactivity. Gestational diabetes develops during pregnancy, with potential impacts for mother and the baby. Impacts of diabetes include blindness, kidney failure, gangrene, and cardiovascular diseases.

## Prevalence

The data collected during this survey revealed that one in six (17.5%) adult participants reported being diagnosed with diabetes. The vast majority of diagnoses were for Type 2 diabetes, with 13.5% of participants reporting that they had it whereas 1.5% of adults would suffer from Type 1 and 1.0% from gestational diabetes (Non-specified=1.5%). Among women, the rate of diabetes has been stable since the 2002 survey (16.4% vs. 16.9%). For the same period, an increase has been observed among men, from 12.5% to 18%. For the first time in 2008, we see a higher prevalence among men (18.0%) than women (16.9%).

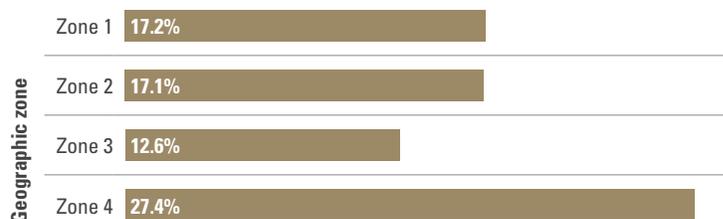
As Figure 1 shows, despite Type 2 diabetes typically arising later in life, 47.3% of respondents were diagnosed before the age of 40, 36.5% before 35 and 8.7% before 20.

**Figure 1: Age upon diagnosis of diabetes (N=3,521)**



As Figure 2 shows, the prevalence of diabetes is more important within communities without year-round access to a health clinic (Zone 4)<sup>1</sup> than in other areas (Zone 4=27.4% vs. Zone 1=17.2%; Zone 2=17.1%; Zone 3=12.6%).

**Figure 2: Prevalence of diabetes among First Nations adults, by zone (N=18,713)**



## Diabetes, obesity, diet, and socioeconomic status (SES)

Diabetes, particularly Type 2, is frequently associated with obesity and unhealthy lifestyle. This survey confirmed the association between obesity and diabetes, but further highlights the importance of understanding the context in which both arise. Deprivation, associated with low SES, is found to have a profound impact on well-being, as it influences key aspects such as food security, physical environment, and health services. In considering diabetes and well-being prevalence, attention to this broader setting is important to adequately address the problem.

## Treating diabetes

There are a variety of ways of treating diabetes. Experts on diabetes typically recommend lifestyle changes such as diet and exercise supported by medical intervention. It is recommended that diabetics attend diabetes clinics or consult a health professional to get information on this disease. All zones combined, results from the survey indicate that 62% of participants have done so. 43.8% of diabetics in zone 4 noted that there is no such clinic for them to attend.

### <sup>2</sup> Geographic zone

Degree of geographic isolation is based on a zone system developed by Indigenous and Northern Affairs Canada (INAC).

Zone 1: The community is located less than 50 km from a service centre with year-round road access.

Zone 2: The community is located between 50 km and 350 km from a service centre with year-round road access.

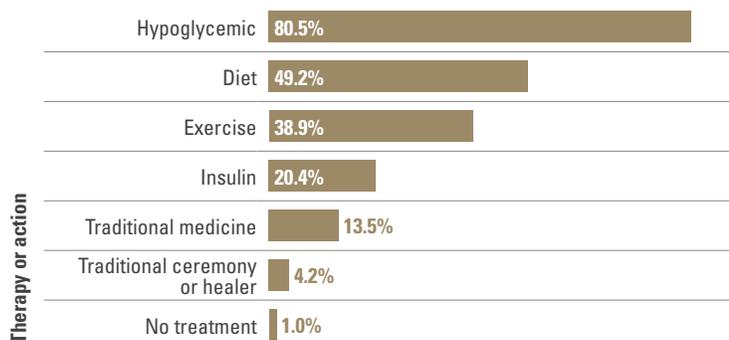
Zone 3: The community is located over 350 km from a service centre with year-round road access.

Zone 4: The community has no year-round road access to a service centre.

Service centre: The nearest location where the community members must go in order to access service providers, banks and governmental services.

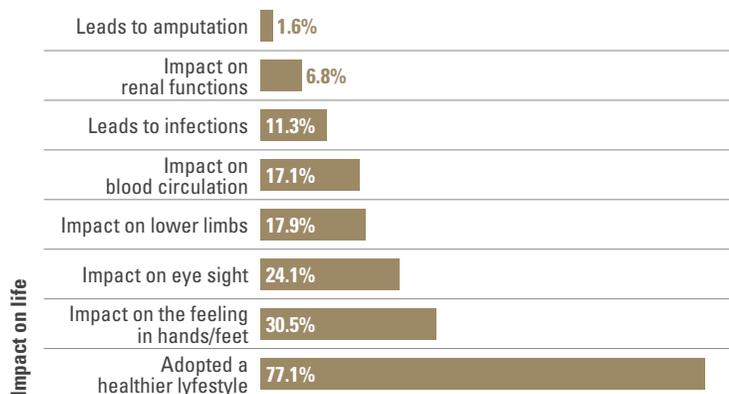
Overall, 77.1% of participants reported having adopted a healthier lifestyle as a result of the diagnosis. However, as Figure 3 demonstrates, results regarding day-to-day actions for management suggest room for improvement in areas of diet and exercise.

**Figure 3: Type of therapy or action implemented by diabetics to treat their diabetes (N = 3,325)**



In addition to the adjustment to a healthier lifestyle, diabetics note experiencing several negative impacts of the disease on their daily living (Figure 4).

**Figure 4: Diabetes impact on the life of diabetics**



### Exercise and diet for prevention and treatment

As discussed above, exercise and diet are considered important to both diabetes prevention and treatment. Continued promotion of healthy lifestyle activities including not smoking, balanced weight, regular physical activity and healthy diet are recommended to prevent Type 2 diabetes and assist in its management. On a broader level, promotion of the social determinants of health such as education, accommodation, security, and health opportunities will also assist in reducing diabetes in First Nations communities.

Finally, this summary provides an overview of Chapter 12 of the Quebec First Nations Regional Health Survey. For more details on the survey results, the full chapter is available at the following link: <https://www.cssspnql.com/docs/centre-de-documentation/chapitre-12-diab%C3%A8te-eng.pdf?s-fvrnsn=2>



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