

High Rates of Diabetes in Aboriginal Populations Demands a Complex Solution

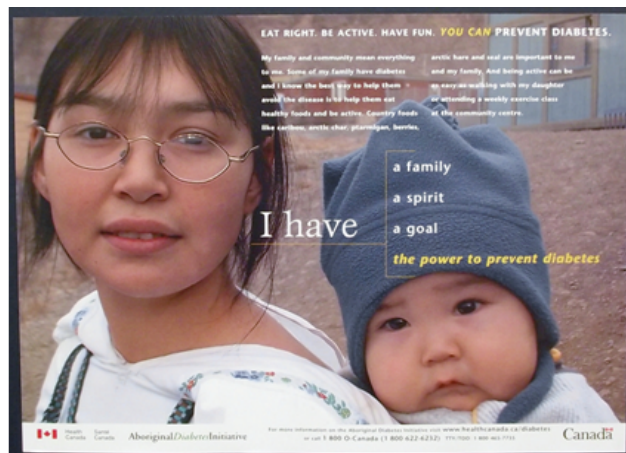
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The rate of type 2 diabetes for First Nations people living on reserve is three to five times higher than that of other Canadians.¹ Individuals of First Nations, Inuit and Métis heritage constitute the Aboriginal population in Canada. In the 1940s this disease was barely known, yet it has grown to become widespread in Aboriginal communities since then. The increasing rates have prompted the government of Canada to commit \$275 million over the next five years for preventative programming.

Among Canadians with diabetes, between 90% and 95% are estimated to have type 2, while 5% to 10% have type 1, and 3% to 5% have a temporary form of gestational diabetes, which develops during pregnancy.¹ Type 2 diabetes is a metabolic disorder that is primarily attributed to changes in diet, decreased physical activity, and other factors that contribute to higher rates of obesity.

Diabetes was 17.2% among First Nations individuals living on-reserve, 10.3% among First Nations individuals living off-reserve, and 7.3% among Métis, compared to 5.0% in the non-Aboriginal population.

On December 15, 2011, the Public Health Agency of Canada released *Diabetes in Canada: Facts and figures* from a public health perspective.² This report provides the age-standardized rates of type 2 diabetes in Canadian populations. Statistics indicate that the prevalence of diabetes is 17.2% among First Nations individuals living on-reserve, 10.3% among First Nations individuals living off-reserve, and 7.3% among Métis, compared to 5.0% in the non-Aboriginal population. Although rates of diabetes in the Inuit population are comparable to the rest of Canada, risk factors of obesity, such as poor diet and physical inactivity are expected to cause an increase in the near future.



An educational poster created as part of the The Aboriginal Diabetes Initiative (ADI).

Amanda Lipinski, a Toronto area Diabetes Prevention Coordinator of the Southern Ontario Aboriginal Diabetes Initiative states, "Everyone knows someone with diabetes in the native community." She adds, "Children as young as 5 are now affected, and you didn't used to see that in the past."

Lipinski states the main causes of the high rates of diabetes in the Aboriginal population are due to a loss of traditional culture, which includes food and medicines. "Now we eat lard, salt, sugar, flour, and milk, which are all foreign to native people. Our ancestors didn't eat that... in short it is food that caused the problem – white processed foods."

The problem is complicated by the isolation of many reserves where access to healthy food is limited. Processed foods are more accessible because they're more affordable, "milk is more expensive than pop" Lipinski states, "there are no animals, and the cleared land is not suitable for planting".

The Aboriginal Diabetes Initiative (ADI) was established by Health Canada in 1999 to "reduce the incidence of type 2 diabetes through a range of health promotion, prevention, screening and treatment services, delivered by trained health service providers and community diabetes



prevention workers". It had an initial funding of \$58 million over five years, just over half of the total \$115 million allocated for the Canadian Diabetes Strategy. This was later expanded in 2005 to a budget of \$190 million over five years. In 2010, the budget committed \$275 million over the following five years "for the ADI to continue supporting health promotion and diabetes prevention activities and services."

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Lipinski focuses on both the treatment and prevention of diabetes in the Aboriginal community in the Toronto area. Her job is to "promote holistic wellness in the community and provide them with the tools to make powerful healthy decisions". Health Canada states that "ADI reaches more than 600 Aboriginal communities across Canada".

Diabetes in the Aboriginal populations is a complex problem. According to their website, partners of the Canadian Diabetes Strategy believe that what is most needed at this time is a "concerted, long-term approach to prevention and

control, one that engages the efforts of all who have a stake in the issue -- the many Canadians affected by diabetes, their families, health care providers, health care institutions and workplaces, governments, voluntary organizations, the non-health sector and the public at large".

Lipinski feels to reduce the rate of type 2 diabetes we need "less talk and more action". She says we need to "show people how to live healthy, not just hand out information... we need to provide them with hands-on tools". Some of these tools include kitchen courses, walking groups and fitness circles.

Lipinski sees the situation of the high prevalence of diabetes in Canada's Aboriginal population improving; "people want to know and are eager to learn".

References

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Megan Dodd has been a student of McMaster University for many years where she pursued a variety of academic interests. She is currently developing a gene therapy for hemophilia in the department of Biomedical Engineering as a PhD candidate. She has a strong interest in science communication and is a coordinator for the Hamilton Let's Talk Science site, and manager for the news section of Health Science Inquiry. She hopes to graduate soon and find a challenging and rewarding career in the field of biotechnology.