

Book

Addressing type 2 diabetes in Indigenous Canadian youth



I had two patients, whom I will call Alice and Kenton, both Indigenous Canadians. Alice was lean at diagnosis of type 2 diabetes at age 10 years. Kenton was more than 250 pounds (113 kg) at age 14 years. Alice had a very strong family history, Kenton had no family history. Both Alice and Kenton are dead, both before age 30 years, Alice from complications of dialysis, Kenton from intractable diarrhoea and diabetic gastroparesis. The mysteries of type 2 diabetes.

How can this happen today in the developed world? In his book *Diagnosing the Legacy*, Larry Krotz explores the role of the legacy of colonialism in Canada, where Alice and Kenton lived, describing “the discovery, research, and treatment of type 2 diabetes in Indigenous Youth” in rural Manitoba. The book’s title also refers to the legacy of Heather Dean, a paediatric endocrinologist who found herself seeing young people like Alice and Kenton in the 1980s.

About 50% of Indigenous Canadians live in rural or remote communities (reserves), a minority live in urban towns, and many live among the urban poor in the major cities. In the late 1980s, physicians serving Island Lake in Northern Manitoba started referring children and adolescents with subtle symptoms and surprisingly high blood sugar concentrations (no ketoacidosis) to Winnipeg—specifically to Dean, at that time the new director of the University of Manitoba’s children’s diabetes programme.

Dean knew about type 1 diabetes. But these new referrals were not in textbooks. Dean had heard about similar patients in the Pima tribes in Arizona, USA. The Pimas in Arizona have several commonalities with the Island Lake people. Being confined to the reservation in Arizona brought poverty, unemployment, unhealthy food, obesity, and the highest rates

of type 2 diabetes in the world, developing at ever earlier ages.

At an international meeting I attended in California in the early 1990s, Dean introduced Bertha Flett, from Island Lake, a community health worker who had type 2 diabetes; more importantly, Bertha was the mother of Donna Flett, who was diagnosed with the disease at age 9 years. At age 20, Donna had kidney failure and was blind; by age 25 she was dead, leaving a 5-year-old daughter for Bertha to care for. Many of the young people seen by Dean and her team—their roster ever growing—were developing complications. Orphans would be left to grandparents, as happened to Bertha. There was not a dry eye in the house.

This encounter strengthened my resolve to leave the hallowed halls of the university and enter the unimaginably challenging health centres on Canadian reserves, governed not by an academic dean or a health authority, but by treaties, federal promises made at the turn of the century by the British monarch. Where was I?

Like Dean and her team, I attempted to help children and their families miles away from academia. But what could have equipped us to deliver care with the challenges of poverty, unemployment, depression, and hopelessness that characterise so many Canadian reserves, with human development indices worse than those of many low-income countries? How could we prevent obesity, the ultimate common pathway resulting from the lack of crucial determinants of health—education, housing, employment, safe drinking water—in this setting?

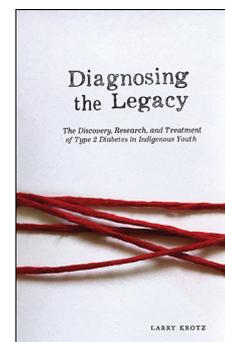
Krotz developed an affinity for the remote North when he lived there as a young journalist and wrote books about “Indians”, a term now considered derogatory. He puzzled

over federal colonial policies, which had been the root of the residential school era, now recognised to have caused profound disruption of entire communities as a result of pervasive sexual and physical abuse, starvation and disease, and very little education. These conditions led to the challenges Dean and her team face—mistrust, poverty, low educational achievement—among her patients. They have faced these challenges head on, with some success, as a result of pausing long enough to listen to the communities.

As Krotz documents, Dean and her team really have tried. She educated others and lobbied for more resources. At first, Indigenous children with diabetes came to attend Dean’s clinic (in planes, to Winnipeg). Later, Dean and her colleagues visited the communities, in small planes, despite the risk. At first, they used insulin as treatment, but stopped because it did not work and the children did not take it. Dean and her colleagues increasingly tried to understand, through qualitative research, partnering with the schools, and having peers mentor the younger children. They found that only partnerships would work, and that the answers to the challenges they had encountered could come only from within the communities.

As a whole, academically trained researchers and practitioners are making very little difference to the lives of Indigenous children with type 2 diabetes. We need to advocate, not for longer-acting or more concentrated insulins, or a better pill, but for better relationships, such as those between the Manitoba team and these remote communities, as described in the compelling stories of Larry Krotz’ book.

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Lancet Diabetes Endocrinol 2019

Published Online
January 11, 2019
[http://dx.doi.org/10.1016/S2213-8587\(19\)30009-9](http://dx.doi.org/10.1016/S2213-8587(19)30009-9)

**Diagnosing the Legacy:
The Discovery, Research, and
Treatment of Type 2 Diabetes
in Indigenous Youth**
Larry Krotz
University of Manitoba Press,
2018
pp 192, CANS\$24.95
ISBN 978-0887558238