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The quest to improve Aboriginal health

The epidemic of diabetes mellitus is still growing in many of Canada's First Nations communities, and the causes remain to be fully elucidated.[1,2] Various intervention projects have been tried, and some show promise. However, much still needs to be understood.

One in 5 First Nations adults has received a diagnosis of diabetes, primarily type 2. They are more than 4 times as likely as First Nations people without diabetes to have hypertension.[1] Having both conditions puts them at increased risk of ischemic heart disease and other disorders affecting renal, visual, peripheral and cerebral vascular function, especially if they also smoke or are overweight or obese. An effective program for controlling hypertension in the presence of diabetes is therefore crucial.

In this issue (page 1267), Tobe and colleagues report the findings of the third Diabetes Risk Evaluation and Microalbuminuria study (DREAM 3).[3] They compared 2 community-based strategies for controlling hypertension in First Nations people with existing hypertension and type 2 diabetes. All participants had their blood pressure measured by a home care nurse and underwent laboratory tests at regular intervals over 12 months, with updates reported back to the patients' primary care physicians. For patients randomly assigned to the intervention group, the nurse followed a predefined algorithm of pharmacologic antihypertensive therapy. For those in the control group, the nurse arranged follow-up with the patient's primary care physician if the blood pressure was elevated. Both study groups experienced significant reductions in blood pressure by the final visit; the difference between the groups was significant only for the change in diastolic pressure.

The DREAM 3 study is important because it shows the feasibility, effectiveness and efficiency of a method for following patients in First Nations communities. It also represents an important milestone in building a capacity for advanced research that aims to improve the health and well-being of one of Canada's most vulnerable populations.[4] Although it is more convenient and less costly to undertake clinical trials in highly populated urban centres, it is important to conduct high-quality research in Aboriginal communities. It is not sufficient to attempt to "translate" outcomes from other population-based research and apply the findings directly to the unique and diverse Aboriginal populations.

To be useful to Aboriginal populations, clinical research studies need to meet the highest standards of excellence in quality and be initiated in partnership with the priorities of First Nations, Inuit and Métis communities.[5] Unravelling the mysteries of diabetes and why it is so prevalent among Aboriginal people in Canada and around the world requires a renewed exploration of indigenous "ways of knowing," with the integration of innovative ideas derived from ancient traditional practices of Aboriginal healers with the modern scientific methods of inquiry practised by a new generation of researchers.

Non-Aboriginal health care professionals need to understand how Aboriginal people interpret their illness experience and respond to treatment regimens, and to respect the logic and rationale of another system of thought. They need to adapt their treatment plans and education programs to the cultural, social and economic circumstances of their Aboriginal patients and to recognize that many First Nations, Inuit and Métis communities are geographically remote, with little access to specialty services.[2]

Diabetes is a complicated disease that is nested in the experience of rapid social and cultural change; thus, its prevention and control may need new ideas that go beyond an individual approach in a clinic or hospital ward. Long-term change will probably require broader community-level action and collaboration between researchers, policymakers, Aboriginal community organizations, governments, volunteer agencies and health care professionals. In addition, the broader population health determinants need to be addressed and social repercussions of the disease better understood.

Finally, important clinical findings gained from advanced health research must be shared with other Aboriginal communities and translated into evidence-based guidelines to improve the health of all Canadians. The Canadian Institutes of Health Research (CIHR) supports knowledge translation, and Aboriginal communities are eager to see the products of research be strategically targeted to improve health services and narrow the gap in health and well-being between Aboriginal people and other Canadian populations. — Jeff Reading, Scientific Director, CIHR Institute of Aboriginal Peoples' Health, and Professor, Faculty of Human and Social Development, University of Victoria, Victoria, BC.

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