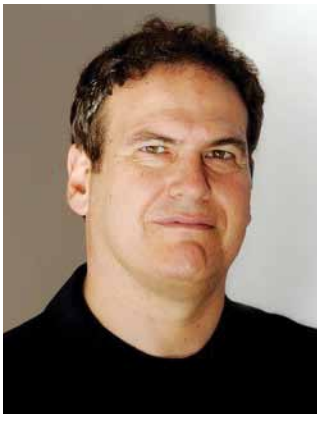
Diabetes in British Columbia: Starvation in the midst of plenty



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British Columbia is one of Canada's wealthiest provinces. So why do people with diabetes fare so poorly here?

A stark picture was painted recently by Diabetes Canada (DC), formerly known as the Canadian Diabetes Association, in a report estimating that 29% of British Columbians (1.4 million people) are living with diabetes or prediabetes.[1] Moreover, another DC report describes an "estimated increase of diabetes prevalent cases from 2016 to 2026" of 46%.[2] This is a profoundly worrying prospect for a disease that shortens lifespan by 5 to 15 years; contributes to 30% of strokes, 40% of heart attacks, 50% of renal failures requiring dialysis, 70% of nontraumatic limb amputations; and is a leading cause of vision loss.[3-5] BC's highly diverse population includes many at-risk ethnic groups, including South Asian, Chinese, and Indigenous peoples.[1,6] In addition, almost 15% of British Columbians are smokers, and almost 40% percent of the population is not physically active enough, with 50% of adults and almost 20% of youth being overweight or obese.[1] DC estimates that the cost to the BC health care system of diabetes-related hospitalizations, physician visits, and inpatient medications alone is $418 million per year.[1] So what is the province doing about the present danger and anticipated tsunami of health care costs?

The Diabetes Charter for Canada[7] has established agreed-upon rights and self-care responsibilities for people living with diabetes, health care providers, and governments. The charter states that governments have the responsibility to:

- Form comprehensive policies and plans for the prevention, diagnosis, and treatment of diabetes and its complications.
- Collect data on diabetes burden such as costs and complications, and to regularly evaluate whether progress is being made.
- Guarantee fair access to diabetes care, education, prescribed medications, devices, and supplies to all Canadians, no matter what their income or where they live.
- Address the unique needs and disparities in care and outcomes of vulnerable populations that experience higher rates of diabetes and complications and significant barriers to diabetes care and support.
- Implement policies and regulations to support schools and workplaces in providing reasonable accommodation to people with diabetes in their self-management.

While other provinces (notably Nova Scotia,[8] New Brunswick,[9] and Ontario[10]) have long recognized the need for a guiding and cohesive strategy to achieve these goals, BC has not.

Although BC has taken some positive steps in the past number of years,[2] the initiatives resulting from these steps exist in isolation and are not part of an integrated approach.

This article has been peer reviewed.

For example:

- In 2013 the province's public health plan[11] set a target to reduce the annual incidence rate for diabetes from 6.3 (2009/10 baseline) to 6.0 per 1000 by 2023. However, no explicit plan was proposed for achieving this, and the prevalence of diabetes is now expected to increase from 8.3% in 2013 to 10.3% in 2020.[12]
- In 2018, the provincial insulin pump program, first introduced in 2008 for children and youth age 18 and younger, was expanded to insure patients of all ages.[13]

Other examples of initiatives that operate in isolation include the following:

- The Food Skills for Families program, which is funded by the provincial government and delivered by DC.
- The Primary Health Care Charter, which identifies diabetes management as a priority medical condition and establishes outcome measures.
- Medical Services Plan fee codes for family physicians providing care for chronic illnesses, including diabetes, and fee codes for diabetes remote consults and remote glucose monitoring.

Despite the lack of a coordinated provincial approach to diabetes care, BC has a very strong diabetes research and clinical community that is engaged in many initiatives. For example:

- Scientists at the University of British Columbia are undertaking fundamental research into islet cell biology.
- Participants are being monitored at Vancouver General Hospital in the first in-human cellular implant trial to treat type 1 diabetes.
- First Nations populations are the focus of diabetes care and cultural outreach programs.
- The Islet Transplant Program at the Ike Barber lab is comparing the progression of microvascular complications in patients with islet transplantation and those receiving current medical therapy.
- The Diabetes Delivery Education Research program is translating evidence-based interventions in high-risk and medically underserved communities, evaluating peer support models for long-term self-management, and designing culturally innovative approaches to lifestyle change in ethnic minority communities.
- The Diabetes Clinical Trial Unit at Vancouver General Hospital is being supported by an electronic medical record system for 22 000 patients, the largest and most comprehensive longitudinal diabetes database of its kind.
- The Endocrine Research Society at St. Paul's Hospital is conducting groundbreaking research into novel diabetes technologies, including insulin pumps, continuous glucose sensors, and Internet-based care delivery and blood glucose reporting systems.

Every day in British Columbia, primary care physicians, allied health professionals such as dietitians and social workers, endocrinologists, and other medical and surgical specialists are caring for people with diabetes. And every day these dedicated professionals are faced with the reality of being unable to provide optimal, evidence-based care to many of their patients. Why? Because we live in British Columbia.

This theme issue was born out of the concern and frustration produced by practising in a province with Canada's most restrictive drug formulary and where successive governments have been reluctant to show leadership in attempting to address the epidemic of diabetes. BC is a have province, yet patients who do not have private insurance coverage are forced to use outdated, higher-risk, and less-effective therapies, while patients with private insurance have access to the best evidence-based therapies available. And to complicate matters, the government funds the Therapeutics Initiative (TI), which provides physicians with its own unique interpretation of the diabetes literature through bimonthly Therapeutics Letters that often cast doubt on the findings of robust trials and guideline recommendations issued by highly respected international organizations.

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The first article in this theme issue reports on findings from a working group of primary care physicians and specialists from across BC formed to identify both the negatives and positives of diabetes care in BC. This

article by Dr Maureen Clement and colleagues considers the conflicting recommendations for diabetes management and notes that Therapeutics Initiative messages disseminated to BC physicians differ significantly from recommendations provided by national and international bodies that follow rigorous guideline development processes. The authors also describe the way restrictive drug coverage policies in BC limit options for diabetes management.

The second article is by Dr Keith Dawson, who describes the prevalence of diabetes in Indigenous populations. He reviews innovative programs that are addressing the epidemic of diabetes affecting Indigenous British Columbians, but also expresses concern about the lack of coverage for guideline-recommended therapies under Pharmacare Plan W.

The third and final theme issue article is by Dr C. Bruce Verchere, who summarizes the extraordinary research initiatives underway in our province. These include projects at the UBC Point Grey Campus, Vancouver General Hospital, BC Children's Hospital, and sites outside Vancouver.

It is time for the BC government to take the lead in diabetes care and develop an overarching approach in partnership with health care experts. A good start would be to implement a provincial taskforce. Strategies considered must include:

- Defining achievable prevention and treatment goals.
- Identifying standards for care and barriers to their implementation.
- Collecting and analyzing population-level data (e.g., outcomes, hospital admissions) through a provincial registry.
- Establishing a holistic diabetes research institute within a provincial diabetes program to better coordinate research opportunities, align with population needs, and ensure the implementation of best practices.

This theme issue is particularly timely with the recent release of the Diabetes Canada 2018 clinical practice guidelines, which provide the most up-to-date evidence-based recommendations for preventing and managing diabetes.[14] We hope that these new guidelines and the articles in this issue will generate discussion among BC health care professionals that lead to changing the status quo. British Columbians deserve better.

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