Diabetes in Nova Scotia

Estimated prevalence and cost[1]

Prevalence	2018	2028
Diabetes (type 1and type 2 diagnosed)	110,000 / 11%	135,000 / 13%
Diabetes (type 1)	5-10% of diabetes prevalence	
Diabetes (type 1 + type 2 diagnosed + type 2 undiagnosed) and prediabetes combined	317,000 / 31%	357,000 / 35%
Increase in diabetes (type 1 and type 2 diagnosed), 2018-2028	22%	
Direct cost to the health-care system	$104 million	$125 million
Out-of-pocket cost per year[2]		
Type 1 diabetes on multiple daily insulin injections	$1,100–$3,100	
Type 1 diabetes on insulin pump therapy	$1,100–$6,200	
Type 2 diabetes on oral medication	$800–$2,100	

Impact of diabetes

- Diabetes complications are associated with premature death. Diabetes can reduce lifespan by five to 15 years. It is estimated that at least one in every ten deaths in Canadian adults was attributable to diabetes in 2008–2009.[3]
- People with diabetes are over three times more likely to be hospitalized with cardiovascular disease, 12 times more likely to be hospitalized with end-stage renal disease and almost 20 times more likely to be hospitalized for a non-traumatic lower limb amputation compared to the general population.3
- Diabetes contributes to 30% of strokes, 40% of heart attacks, 50% of kidney failure requiring dialysis, and 70% of non-traumatic lower limb amputations every year[4] and is a leading cause of vision loss.
- The prevalence of clinically relevant depressive symptoms among people with diabetes is about 30%; individuals with depression have an approximately 60% increased risk of developing type 2 diabetes.[5]
- The risk of blindness in people with diabetes is up to 25 times higher than those without diabetes.[6] Diabetes is the leading cause of acquired blindness in Canadians under the age of 50.[7] Diabetic retinopathy affects 500,000 Canadians.[8]

- Foot ulceration affects an estimated 15%–25% of people with diabetes in their lifetime.[9] One-third of amputations in 2011–2012 were performed on people reporting a diabetic foot wound.[10]
- Some populations are at higher risk of type 2 diabetes, such as those of South Asian, Asian, African, Hispanic or Indigenous descent, those who are overweight, older or have low income. Diabetes rates are three to five times higher in First Nations populations than in the general population, a situation compounded by barriers to care for Indigenous peoples.5
- For many Canadians with diabetes, adherence to treatment is affected by cost. The majority of Canadians with diabetes pay more than 3% of their income or over $1,500 per year for prescribed medications, devices and supplies out of their own pocket.[11,12]
- Among Canadians with type 2 diabetes, 33% do not feel comfortable disclosing their disease to others.[12]
- Hypoglycemia (low blood sugar) and hyperglycemia (elevated blood sugar) may affect mood and behaviour, and can lead to emergency situations, if left untreated.

Policy, programs and services related to diabetes

- In 2013, the Government of Nova Scotia announced funding for insulin pumps for youth with type 1 diabetes up to age 19, as well as supplies for insulin pumps for people up to age 25. As of April 2015, both pumps and supplies for those 25 years and younger are covered.
- The Diabetes Care Program of Nova Scotia (DCPNS) was implemented in 1991, with a mandate to standardize and improve the quality of care provided through Nova Scotia's 38 Diabetes Centres and other diabetes care providers across all settings.
- The Nova Scotia Family Pharmacare Program (NSFPP) (2008) assists people without drug coverage or with high drug costs not covered by private insurance. The program helps cover the costs of diabetes medications and supplies on the Nova Scotia formulary.
- Nova Scotia has family practice incentive programs and billing codes for physicians providing care for chronic illnesses, including diabetes.
- In Nova Scotia, Diabetes Canada's Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada are embedded in standard forms, including referral, assessment, follow-up and flow sheets, applicable guideline documents and the chronic disease flow sheet.
- The DCPNS Registry allows longitudinal tracking of newly diagnosed referrals, including those with prediabetes, and key self and clinical indicators of care, including lower-extremity amputation data, hypertension rates and retinopathy screening rates.
- Nova Scotia produces an annual report for district health authorities on diabetes epidemiology and health services utilization using the National Diabetes Surveillance System. The DCPNS Registry allows for a review of process and outcome measures in diabetes centres that use the Registry onsite.

Challenges

Nova Scotia faces unique challenges in reducing risk of type 2 diabetes and meeting the needs of those living with diabetes:

- The median age in Nova Scotia is 44.6 years.[13] About one-fifth of the provincial population is 65 years and older, which is the among the highest seniors populations in the country.[14]
- The median after-tax family income is among the lowest of the provinces.[15]
- Rates of overweight and obesity among Nova Scotia adults are 31% and 36% respectively.[16]
- Nova Scotia has a rural population more than double the national average.[17] Accessing care is more challenging for people with diabetes living in rural areas across Canada than in urban centres.

Diabetes Canada's recommendations to the Government of Nova Scotia

1. To alleviate cost pressures of diabetes on the provincial health-care system and increase the competitiveness of the province, Diabetes Canada recommends that the Government invest in the development of a provincial diabetes strategy that includes the following key components:
   - increased support for self-management of diabetes
   - enhanced access to diabetes medications, devices and supplies, including expanded financial coverage for insulin pumps and supplies to all individuals with type 1 diabetes, regardless of age
   - coordinated diabetes care and access to interprofessional teams in a timely manner
   - wellness programs to support diabetes prevention
   - diabetes foot care and amputation prevention education and service provision
2. Introduce a levy on sugar-sweetened beverages as a fiscal measure to reduce excess sugar intake from beverages in the population and lower type 2 diabetes risk.

References

[1] Diabetes statistics in Nova Scotia are estimates generated by the Canadian Diabetes Cost Model, a forecasting model that provides projections on prevalence, incidence and economic burden of diabetes in Canada based on national data from government sources.
[2] Estimated out-of-pocket costs for type 1 and type 2 diabetes were calculated based on composite case studies. As such, the estimates may reflect the out-of-pocket costs for many people with diabetes in Nova Scotia, but not all. The costs are 2015 estimates and may vary depending on income and age. For details on the methodology and estimates, please see the appendix in the Diabetes Canada's *2015 Report on Diabetes: Driving Change,* retrieved from https://www.diabetes.ca/getmedia/5a7070f0-77ad-41ad-9e95-ec1bc56ebf85/2015-report-on-diabetes-driving-change-english.pdf.aspx.
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