

## Chapter 11

# Key Findings and Policy Options



# ADSS

Alberta Diabetes  
Surveillance System

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## KEY FINDINGS AND POLICY OPTIONS

### SUMMARY

The *Alberta Diabetes Atlas 2009* presents a clear picture of the burden that diabetes continues to place on Albertans, with over 1,300 new cases identified each month. Over 6%, or 1 in 15 adults in Alberta are living with diabetes. An aging population will further drive the increasing prevalence over the coming years.

While it appears that *rates* of some complications and comorbidities are stabilizing or even decreasing for people with diabetes in Alberta, the real burden is the actual *number* of people with these conditions. In most cases, the actual number of people with diabetes who developed complications or comorbidities has increased over the past decade, signaling the increasing demand for health care resources for diabetes and related conditions over the next decade.

In this chapter we have attempted to make this *Alberta Diabetes Atlas 2009* more useful to you, the reader. We identified what we feel are several important *key findings* in interpreting the evidence presented in the *Atlas*, and linked these with potential *policy options* to consider in managing these observed patterns. We do not see these as the only options, or the final word on what must be done, but rather the beginning of a dialogue amongst stakeholders on how to best deal with the serious and growing problem of diabetes and related conditions in Alberta.

All of the findings in this *Alberta Diabetes Atlas 2009* offer substantial evidence for the need to enhance primary prevention and management efforts in order to stem the tidal wave we are experiencing due to comorbidities and complications as a result of diabetes. This will require substantial investment now to reduce the health care burden and improve the health of Albertans for decades to come.

The 2009 *Alberta Diabetes Atlas* is more comprehensive than the 2007 version, with expanded information on health care utilization and health care costs, and a clearer picture of the burden of diabetes in the Status Aboriginal population. With this 2009 *Atlas*, we have also shown that the rate of diabetes is growing amongst children and adolescents. These enhancements were recommendations made within this section of the 2007 *Atlas*, and were possible by the continued support of the Alberta Diabetes Surveillance System (ADSS) by Alberta Health and Wellness, and the Alberta Diabetes Strategy, which was first introduced in 2003. As a reader, you are an important stakeholder, and we encourage you to engage in discussion with other stakeholders including patients and the public, health care professionals, managers, policy-makers and researchers. We encourage this dialogue as we continue to enhance the ADSS, to include more information on patterns of health care delivery and health outcomes for people with diabetes, and to improve our ability to interpret and disseminate our findings.

## KEY FINDINGS

**1. The prevalence and incidence of diabetes are increasing in Alberta, and especially among older adults who are at risk of type 2 diabetes.**

### Policy Options

- Enhance investment in diabetes prevention efforts across all ages.
- Institute an intensive public education program aimed at lifestyle modification to decrease the risk factors for developing diabetes, most importantly obesity and physical inactivity.

**2. The incidence of diabetes is also growing amongst children and adolescents in Alberta. The incidence rates are increasing in all ages, with the fastest growing rates for the youngest children. These trends suggest we are seeing increasing rates of both type 1 and type 2 diabetes.**

### Policy Options

- Ensure adequate service and support for children and families living with type 1 diabetes.
- Strengthen efforts to improve health and health behaviours of children and adolescents to reduce overweight and obesity, and therefore prevent further increases in type 2 diabetes.
- Ensure equal access to diabetes education and support services through all areas of the province.

**3. People with diabetes have a markedly increased chance of having a heart attack or stroke, requiring dialysis, going blind or having a lower limb amputation, compared to people without diabetes. Some success has been achieved in reducing heart disease and strokes in recent years. The chance of developing these complications can be further reduced with more aggressive control of risk factors, such as blood pressure, cholesterol and blood sugar. Still, reports from Alberta and other provinces suggest sub-optimal use of evidence-based therapies to reduce these risks.**

### Policy Options

- Actively disseminate evidence-based guidelines about optimal medication use in people with diabetes, especially to general practitioners.
- Establish risk factor modification clinics throughout the province, aimed at people with diabetes. Appropriately trained teams of allied health professionals, including nurses, pharmacists and dieticians, could coordinate these services.
- Regularly monitor the trends in the number and rates of complications over time, and use this information to plan services for the future.
- Consider financial barriers to individuals for the use of evidence-based medications aimed at improving risk, given that people with diabetes are often on many of these medications at the same time.

**4. The majority of medical care for people with diabetes is from general practitioners. Still, people with diabetes see medical specialists 3 times more often than people without diabetes.**

**Policy Options**

- Enhance investments in strategies to improve quality of care by primary health care providers.
- Ensure that there are sufficient primary care providers in Alberta.
- Enhance access to allied health professional primary care providers, particularly in rural and non-metro health regions.
- Regularly monitor the trends of the number and type of complications of diabetes, and use this information to plan for access to specialized services in the future, such as dialysis and specialized cardiac procedures.

**5. Mental illness, including depression and psychoses, is much more common in people with diabetes, and has been increasing in prevalence over the past decade.**

**Policy Options**

- Enhance screening for complications in both populations: screening for diabetes in people with mental illness and for mental illness in people with diabetes.
- Enhanced screening will likely result in a greater number of people with depressive diagnoses. We therefore need to also enhance access to allied mental health care, and particularly in the primary care environment.
- Implement and evaluate a pay-for-performance framework for improving outcomes in patients with diabetes and depression.

**6. People with diabetes living in non-metro health zones have lower rates of specialists care visits and higher use of hospital and emergency departments for acute and chronic complications of diabetes.**

**Policy Options**

- Ensure an adequate supply of primary care providers and access to all diabetes services in all areas of Alberta.
- Consider access to allied health professional primary care providers in rural and non-metro health regions, such as nurses, pharmacists and dieticians.
- Regularly monitor the trends in the number and type of complications of diabetes, and use this information to plan for access to specialized services in the future, such as dialysis and specialized cardiac procedures.

**7. Screening for diabetic eye disease is an important strategy in preventing blindness. Despite this strong evidence, the frequency of eye examinations by experienced professionals is lower than suggested by practice guidelines.**

**Policy Options**

- Increase awareness of the need for regular eye examinations by actively disseminating the guidelines to both patients and providers.
- Enhance surveillance to include care provided by all eye care professionals.
- Consider increased use of teleophthalmology to enhance access for required eye examinations in non-metro health regions, with particular attention to the North zone.

**8. The prevalence of diabetes is twice as high in the Status Aboriginal population compared to the rest of the population in Alberta.**

**Policy Options**

- Target culturally appropriate preventive and therapeutic interventions to Status Aboriginal people and communities, ensuring access to a full range of necessary services.
- Work with Status Aboriginal peoples and communities to better understand the impact of diabetes and related conditions, and enhance ongoing surveillance programs in Status Aboriginal populations.
- Work with Métis Nations in Alberta to develop a strategy to include this segment of the Aboriginal population in the ADSS and surveillance of other health conditions.

**9. While the ADSS provides important new information about diabetes and related conditions, there are several limitations in our full understanding of the care and outcomes for people with diabetes in Alberta.**

**Policy Options**

- Surveillance should be expanded to include information about risk factors, such as smoking, obesity, physical inactivity, high blood pressure and high cholesterol, and should be linked with information on use of health services and long-term outcomes.
- Surveillance should be expanded to include other special populations (e.g. diabetes in pregnancy) and other comorbid conditions (e.g. cancer, infectious diseases).
- The number and location of diabetes clinics and information about workload and outcomes associated with these clinics needs to be collected and shared on a regular basis.
- Reliable information on socioeconomic status and lifestyle behaviours is lacking at present and should be made available through the linkages of administrative data with other sources, including clinical and patient-reported outcomes data.

## RESEARCH IMPLICATIONS

Surveillance activities such as the ADSS provide a general overview of the burden of diabetes and its associated health conditions, with a population-based perspective. After seeing the general picture from a bird's eye view, there are many questions generated about what underlies these observed trends. Clinical and health policy research questions are often stimulated by health surveillance activities, such as the information presented in this *Alberta Diabetes Atlas 2009*. Discussions among ADSS contributors have raised a number of important questions that should be addressed through more in-depth investigation:

- Are there differences in health care utilization by socioeconomic status throughout Alberta (across and within health zones)?
- Have recently established primary care networks lead to improved care and outcomes for people with diabetes?
- Do health zones with higher rates of eye examinations or eye disease procedures have lower rates of blindness?
- Is there a better way to define mental illnesses using the administrative databases?
- How many Albertans will be living with diabetes in the next 10 years?

These questions, and many others, can be addressed with data from the same administrative databases as used in the ADSS, possibly linked with other valuable data sources in Alberta. Answers to these questions can help to improve the quality of care for people with diabetes and the efficiency of health care delivery in Alberta. Information from the ADSS is intended to spur such research activities to achieve these goals.

