Diabetes Obesity and Nutrition

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Key Partners

Diabetes Canada

Alberta Obesity Society

Obesity Canada

Major milestones and achievements, 2023-2024

Insulin Pump Therapy Program supports Albertans with diabetes and health system efficiency

Insulin pumps can help maintain insulin levels within a target range, and make it easier for patients to manage their diabetes. However, they are expensive and can be cost-prohibitive. The Insulin Pump Therapy Program (IPTP) supports Albertans living with type 1 or type 3c diabetes by offering coverage for an insulin pump and its supplies, and other diabetes management supplies. The IPTP is administered by Alberta Health, with support from the Diabetes, Obesity & Nutrition (DON) Strategic Clinical Network (SCN) and IPTP clinics across the province. The DON SCN has helped ensure standardized, evidence-based care and supported ongoing process and quality improvement efforts. The network has also been responsible for IPTP data collection to support the clinics with quality improvement initiatives.

Over the past fiscal year, two private clinics in Edmonton became authorized IPTP sites (Garneau Endocrinology and the Edmonton Diabetes & High Risk Foot Clinic). More IPTP clinics means increased access to insulin pump therapy for patients living in the Edmonton Zone, and a reduction in wait times for insulin pump starts, assessment, education, and support.

Data from Alberta's IPTP shows strong uptake and positive impacts for patients and Alberta's healthcare system. In 2023, 692 individuals were started on an insulin pump in 15 clinics across Alberta (a 70% increase from 2022). Program evaluation is ongoing; however, early data shows positive impacts. Two years after their pump start, IPTP patients utilize fewer healthcare resources compared to the year of their pump start. Average annual visits to general practitioners and specialists declined, and modest declines were also observed in emergency department visits, length of stay, and inpatient discharges.

Perioperative Glycemic Management Pathway (PGMP)

In Alberta, 35-40% of patients who have surgery each year experience hyperglycemia (high blood sugars) after surgery. Some of these patients have diabetes, some have undiagnosed diabetes, and others have no pre-existing conditions. A clinical pathway was developed (led by Drs. Shannon Ruzycki and Anna Cameron) to support patients at risk for hyperglycemia following surgery. This work has now shifted to the implementation phase, with the DON SCN and Surgery SCN partnering with patient and family advisors and surgical clinicians within the Enhanced Recovery After Surgery (ERAS) programs to co-develop an implementation process for the pathway. Between June 2021 and March 2024, 10 programs across nine surgical sites have been working towards implementation. Five are midway through the process, and five are in the pre-implementation phase. Early results show:

- Increased identification of patients who are at high risk of high blood sugars pre-operatively
- Improvement in post-operative hyperglycemia recognition and treatment
- A decreasing trend in surgical site infections is associated with PGMP implementation, based on preliminary data
- Patients and staff report a positive experience with PGMP implementation

Impact on health, care, quality or performance

The DON SCN's mission focuses on building a patient-centered health care system that prevents the onset and complications of diabetes, obesity, and malnutrition. Over the past year, the network has positively impacted care and outcomes by:

- Embedding the Diabetes Foot Care Clinical Pathway in the vascular pathway to enhance transitions in care between high-risk foot teams and vascular surgery.
- Participating in the Alberta Health Diabetes Working Group as subcommittee members and co-chairing the Indigenous subcommittee reviewing diabetes care in Alberta, identifying gaps and recommending opportunities to improve care for Albertans at risk for and living with diabetes.
- Engaging with patients, researchers, clinicians, and decision-makers from the diabetes and obesity communities.
- Developing programs and strategies to prevent the onset and progression of diabetes, obesity and malnutrition and enable patients and providers to manage these conditions.

Other highlights

Virtual Diabetes Prevention Program (vDPP)

Alberta Health Services (AHS) and the DON SCN, in partnership with Alberta Blue Cross (ABC) and primary care clinics across Alberta, implemented an evidence-based virtual Diabetes Prevention Program (vDPP) program. The program, which launched in early 2021, was delivered entirely via a smartphone application and included individual health coaching, educational resources, and 1:1 support. A total of 177 Albertans with prediabetes participated via a referral from their primary care physician.

In 2023-24, the program evaluation was completed, which showed positive health and economic benefits, including changes in modifiable risk factors and significant cost savings for Alberta's health system. The program was well-received by patients and providers, with participant rate of weight loss exceeding what was initially forecasted (39.8% of participants achieved 5% weight loss within a median 4 completed months of the 12-month program). This amount of weight loss is shown to be clinically significant in reducing the risk of type 2 diabetes mellitus (T2DM).

"Many of my patients were successful in sustained weight loss throughout the program and now following its early completion. They enjoyed the real-time advice on dietary choices and accountability."

Provider

Economic analyses demonstrated that the vDPP is cost-saving, on average reducing costs by $2,788 per patient over a 25-year time horizon, with an incremental net monetary benefit of $13,066. Modelling developed by the Institute of Health Economics suggests that if the vDPP were expanded, for every 5,000 participants enrolled in the vDPP, projected long-term costs savings for the health system would be an estimated $12,6 million. Overall, the vDPP pilot was a positive test for implementation in Alberta and illuminates the potential benefit of such a program for Albertans and the health care system.

DIABETES, OBESITY & NUTRITION SCN

Publications & Grants		Engagement		Outcomes and Impact
17	Peer-reviewed Publications	71	Presentations & Workshops	12.4% decrease in average annual medical visits for patients two years after insulin pump start, compared to first year
$3.2M	Research Grants	201	Research Members	$12.6 million projected long-term cost savings for the healthcare system with vDPP (per 5,000 participants)

www.ahs.ca/donscn

For more information, see the 2023-2024 SCN Annual Impact Report