Improving health outcomes and care experience of persons with diabetes and related complications

DAC Workshop
May 4th and 5, 2018
80 Patient Partners  
29 Partners  
7 provinces  
91 Researchers  
10 Programs
# Funding Partners

<table>
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<th>Academic Health Science Centers/Organizations</th>
<th>Charitable Health Organizations</th>
<th>Federal &amp; Provincial Funding Agencies</th>
<th>Industry Partners</th>
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<tr>
<td><strong>UNIVERSITY OF TORONTO</strong>&lt;br&gt;Centre intégré universitaire de santé et de services sociaux de la Capitale-Nationale Québec</td>
<td><strong>DIABETES CANADA</strong>&lt;br&gt;JDRF</td>
<td>New Brunswick Health Research Foundation&lt;br&gt;Fondation de la recherche en santé du Nouveau-Brunswick</td>
<td><strong>BAYER</strong>&lt;br&gt;AstraZeneca</td>
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<td><strong>UNIVERSITÉ DE SHERBROOKE</strong>&lt;br&gt;Alliance santé Québec&lt;br&gt;An Innovative Health Research Network</td>
<td><strong>HEART &amp; STROKE FOUNDATION</strong>&lt;br&gt;The FOUNDATION FIGHTING BLINDNESS</td>
<td>National Institute of Diabetes and Digestive and Kidney Diseases&lt;br&gt;MICHAEL SMITH FOUNDATION FOR HEALTH RESEARCH&lt;br&gt;Research Manitoba</td>
<td><strong>MERCK</strong>&lt;br&gt;WINSANTOR&lt;br&gt;CAPRION</td>
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<td><strong>NORTH YORK GENERAL</strong>&lt;br&gt;Making a World of Difference</td>
<td><strong>AHRC</strong>&lt;br&gt;APPLIED HEALTH RESEARCH CENTRE</td>
<td>CIHR IRSC&lt;br&gt;Canadian Institutes of Health Research</td>
<td><strong>CAPRION</strong></td>
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Mission

To develop patient- and research-informed innovations in equitable health systems and policy designed to prevent diabetes and its related complications and to achieve the Quadruple Aims (improved: patient experience; population outcomes; health professional experience; health system cost)
Patient engagement – our core success factor

Lines represent connections with larger communities of people affected by diabetes
DAC Programs

Specific Goal-Directed Programs

1. Retinopathy Screening to Prevent Blindness – Michael Brent (UoT), David Maberley (UBC)
2. Indigenous Peoples Health – Jon McGavock (U Manitoba), Alex McComber (McGill)
3. Aging, Community and Health Research Program – Maureen Markle-Reid, Jenny Ploeg, Ruta Valaitis (McMaster U)
4. Digital Health for Diabetes Research and Care – Michelle Greiver, Joe Cafazzo (UoT)
5. Innovations in Type 1 Diabetes (Clinical Trials) – Bruce Perkins (UoT), Peter Senior (UoA)
6. Foot Care to Prevent Amputations - Mohammed Al-Omran, Thomas Forbes (UoT)

Enabling Programs

1. Patient Engagement – Holly Witteman, Joyce Dogba (U Laval)
2. Knowledge Translation – France Légaré, Sophie Desroches (U Laval)
3. Training and Mentoring – André Carpentier (U Sherbrooke), Mathieu Bélanger (UNB)
4. Sex and Gender – Paula Rochon, Robin Mason (UoT)
1. National Diabetic Retinopathy Screening Program to prevent blindness

We are developing a national tele-retina screening program in Community Health Centers and Primary Care Practices to screen the most vulnerable in our population.
Strategy to prevent vision loss and blindness

- Effective treatments are available to prevent vision loss if early diabetic retinal damage is detected.
- ... but 40% of Canadians living with diabetes do not have regular eye exams, for a variety of reasons. Our patient partners and population health studies are identifying the barriers to screening.
- The most under-screened groups are younger adults, recent immigrants, Indigenous people, and residents of inner city and remote communities.
- DAC is developing data systems linked to primary care providers to identify those who have not had their eyes checked, in order to notify them and to direct them to tele-ophthalmology retinal screening centres.
- Screening programs are being scaled up in a number of provinces in collaboration with ministries of health and regional health organizations. Health economic analysis has shown this to be a cost effective approach.
5 Reasons to Use Tele-Ophthalmology

- Low cost option for screening and intervention
- This program looks at whole person care and screening not just diabetes
- Tremendous underutilized capacity
- Experience and skills in reaching vulnerable populations
- Can connect back to PCPs with reports to help with follow-up care

PREVENTION instead of cure
Strategy to prevent vision loss and blindness

IDENTIFY

ENGAGE

CARE INTERVENTION

FOLLOW-UP

ONGOING MONITORING
2. Prevent diabetes and its complications in Indigenous Peoples

- Scale up highly successful lifestyle and self esteem-building national Aboriginal Youth Mentoring Programs (AYMP) partnered with the community – Jon McGavock, Alex McComber

- Train health professionals in an established/successful model trauma informed diabetes care – Barry Lavallee and Caroline Chartrand. Educate researchers and health care teams about culturally-sensitive practices when working with Indigenous Peoples to promote wellness and the healing process

- In collaboration with NADA lead a national stakeholder project on a new initiative to update the Indigenous Peoples Diabetes Atlas. The results of this report will help identify gaps, barriers and inequities in the health care experienced by Indigenous communities and will provide accurate data to guide the interventions necessary to overcome these challenges
Prevent diabetes and its complications in Indigenous Canadians

Scale up highly successful lifestyle and self esteem-building national Aboriginal Youth Mentoring Programs partnered with the community.

The Aboriginal Youth Mentorship Program (AYMP): a peer-led healthy living after school program for achieving a wellness lifestyle and creating mentorship skills among First Nations children living either in a northern isolated setting, or inner city.
Resilience-Informed Diabetes Prevention

Diabetes Action Canada
Preventing complications. Transforming lives.

Brokenleg, Brendtro Reclaiming Children and Youth 2005
3. Promoting Independent Living and Preventing Complications and Hospitalization for Seniors with Diabetes and Multiple Chronic Conditions

- Older adults with diabetes frequently have multiple additional chronic illnesses such as high blood pressure, heart disease, arthritis, lung disease, depression.

- Individuals with multiple chronic conditions often have poor self management, reduced quality of life, increased unplanned use of health care services including hospital admissions.

- To better support older adults with diabetes and multiple chronic conditions, the Aging Community and Health Research Unit at McMaster University is developing and refining a community-based intervention, in collaboration with the YMCA and regional health authorities.
Community Partnership Program
T2D ≥ 65 yr with more than 2 chronic conditions

Source: CDC #14167

Source: CDC #13735
The Patient Engagement National Diabetes Repository
4. Digital Health for Diabetes Research and Care

- National Diabetes Data Repository linked with a mobile app ‘bant’ to enable direct patient communication and improve self management
- Connect patients, primary care providers and specialists to enable shared decision-making and self-management to prevent onset and progression of diabetes complications
- Information solutions will help solve some of the most important health challenges facing Canada today. These include;
  - access to care in remote and rural communities,
  - alerts for primary care health teams for chronic conditions management,
  - development of a Personal Health Record platform that can be easily accessed by patients through mobile apps, and
  - the capability to store and link health data for analytics that can provide insights to help both patients and providers improve care quality and achieve better health outcomes.
5. Improve health outcomes for people living with T1D – Innovations in T1D Goal Group

- Establish a National Diabetes Clinical Trials Network and Diabetes Registry with a major focus in Type 1 Diabetes (T1D) and prevention of complications.

- Our group is providing assistance to researchers across Canada – supporting the design of their patient-oriented clinical trials.

- Clinical trials are testing new therapies and models of care.

- Create a T1D clinical trials network to facilitate testing of the most advanced technologies for treatment of T1D (artificial pancreas, smart insulin pumps connected to mobile apps, e.g., bant, immune therapies, cell replacement).
5. Create a T1D clinical trials network to facilitate testing of the most advanced technologies for treatment of T1D

Towards an artificial pancreas
6. Reduce diabetic foot ulceration and lower extremity amputations

In collaboration with Vascular Surgery at the University of Toronto, Canadian Association of Wound Care (Wounds Canada), Diabetic Foot Canada and others we will establish projects to scale-up successful foot-care programs in collaboration with chiropody, home care and primary care.
6. Reduce diabetic foot ulceration and lower extremity amputations

Identify high risk candidates for multi-disciplinary chiropodist-led intervention RCT to reduce limb loss and improve quality of life along with hard clinical outcomes (all-cause mortality, peripheral arterial revascularization, health economics, and impact on the family unit).
Enabling program: Knowledge Translation

Committed to supporting members of Diabetes Action Canada in moving research outcomes into practice so more people living with diabetes have better outcomes, better experiences with healthcare, at improved cost.

Initiatives underway:

- Patient-oriented research KT scholarships
- Environmental scan on effective knowledge translations strategies to prevent diabetes and its complications
- Scalability assessment assistance to evaluate potential to scale-up programs
- Assessing the impact of Networking for Diabetes Action Canada
Enabling program: Patient Oriented Research Training and Mentoring

Committed to building capacity and supporting the next generation of researcher in patient-oriented research in the field of diabetes and its complications

Initiatives underway:

- Mentorship and Internship Awards (Application due June 29th, 2018)
- Joint Diabetes Action Canada/Diabetes Canada Post-Doctoral competitions (Applications accepted April 2018)
- POR Training in French (March 2018) and English (May 2018)
- Partnered with Cardiometabolic Health, Diabetes and Obesity (CMDO) Research Network to offer boot camps for trainees
Enabling program: Sex and Gender

Enhance capacity of Diabetes Action Canada research teams to integrate sex and gender in their research activities, including enhanced knowledge of the importance of sex and gender for health research and skills and strategies for sex and gender based analysis

Initiatives underway:

• Essential Metrics for the Assessment of Sex and Gender Integration in Health Research
• Sex and Gender Support Services
• Sex and Gender Facilitator Program
• Building capacity and demonstrating the value of networking in developing models in sex and gender