Improving Connection to Team-Based Diabetes Care

Recommendations from the **Regional Diabetes Steering Committee**

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Toronto Diabetes Care Connect

Hosted by South Riverdale Community Health Centre

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Introduction

This report from the Regional Diabetes Steering Committee (RDSC) contains a series of recommendations to support the development of an effective, efficient, regional connection system. These recommendations are based on the unique experiences, current state analysis and common vision of the steering committee (Appendix A): a group that is brought together by Toronto Diabetes Care Connect, a program of South Riverdale Community Health Centre, to advise and inform system-level diabetes care planning in the Toronto Region. Through the adoption of these recommendations, people at-risk of or already living with diabetes will be able to easily connect to the most appropriate support to meet their needs and ultimately to improve their health outcomes.

In Canada, one-third of the population, approximately 11 million people, are currently living with diabetes or prediabetes and this number is expected to rise to over 14 million within the next 10 years.[1] Diabetes can have a significant impact on people lives and on the health care system, through its increased risk of heart attack, stroke, kidney failure, amputation, and blindness and its impact on productivity and employment.[1]

People with diabetes are often in the top 5% of health system users contributing to extensive health system costs.[2] The International Diabetes Federation reported that the direct health care cost of diabetes in Canada was $27 billion in 2018 and is expected to rise to $39 billion by 2028.[1] In reality, the actual system costs related to diabetes may be even greater if, as Diabetes Canada suggests, there has been an underestimation of the indirect costs of lower productivity, unemployment and pre-mature death.[3] To make matters worse, diabetes is also now commonly affecting young Canadians. Someone who is 20 years old today now has a 50% chance of developing diabetes in their lifetime; increasing to 80% if they are from an Indigenous population.[1]

According to Diabetes Canada, health system cost saving can be realized through connections to comprehensive team-based care that will result in:

- 110,000 fewer cases of new diabetes each year through the implementation of proven diabetes prevention programs, resulting in a health system savings of $322 million.
- 35, 000 fewer hospitalizations each year through effective diabetes management support.
- 85% reduction in diabetes-related amputations each year.
- 95% risk reduction for diabetes-related blindness through early detection and treatment.

Similar health system savings from team-based diabetes care have also been demonstrated internationally.[4,5,6,7,8] According to the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics, this cost-effectiveness is achieved through the reduction in hospital admissions/readmissions and the lower incidence of diabetes complications.[9]

Unfortunately, a Diabetes Canada survey of people with diabetes found that only 22% of those surveyed reported being referred to a diabetes education program when they were diagnosed and only 26% reported ever having received diabetes education.[1] These patterns of low service utilization have also been reported within Toronto Central LHIN boundaries where only 15% of residents with diabetes were accessing community-based diabetes education programs in 2014,[10] and within West Toronto Health Link boundaries in 2015.[2]

In an attempt to improve access to high-quality team-based diabetes care, key stakeholders within the Toronto region used a quality improvement lens to identify potential contributing factors. Informed by the resulting root cause analysis, RDSC members identified and prioritized the following four areas that require deeper exploration:

1. Connection system redesign to support the effective, simple connection to support for people at-risk of or already living with diabetes
2. Physician engagement strengthening to support connection to team-based diabetes care

3. Models of care/care pathway development to ensure client/caregiver needs are met
4. Communication pathway/tool development to support effective team-based care

The focus of this report is on the first of the priorities areas: connection system redesign. Within the Toronto region, an individual can receive diabetes support not only from their primary care provider but also from a number of interprofessional diabetes-related supports. Some examples include diabetes prevention programs, self-management programs, diabetes education programs, diabetes eye screening programs, foot care, and specialist/endocrinologist care. The process of connection varies across program/service type and in many cases there are multiple ways that an individual can be connected to the same program. For example, an individual or their healthcare provider might connect to diabetes support by submitting a referral/making a connection directly to the program/service, by submitting a referral to the Toronto Central Referral Service (TCRS), or by submitting a referral through Solo Practitioner in Need (SPiN).

Although the various processes of connection have a number of strengths, RDSC members agree that they are not well connected and that a number of improvements within the overall connection system are required in order to support the following key strategies outlined by the Ontario Ministry of Health[11]:

1. Use of a digital first approach
2. 24/7 access to coordination of care and system navigation services
3. Use of a standardized performance framework aligned to the Quadruple Aim
4. Access to a full and coordinated continuum of care
5. Seamless transitions through a person's care journey
6. Improved outcomes associated with the Quadruple Aim: better patient and population health outcomes, better patient family and caregiver experience, better provider experience, and better value

This report contains the Regional Diabetes Steering Committee's current state analysis, shared vision, and consensus-based recommendations aimed to inform the implementation of these improvements within the Toronto region.

The Current Situation within the Toronto Region

The RDSC members identified the following strengths and challenges with the current broad diabetes connection system. These have been grouped as system-level, program/organization-level, and individual-level to support further exploration and planning.

Current Strengths Identified by Steering Committee Members		
System Level	Program/Service Level	Individual Level
1. Within the Toronto region, a wide range of diabetes supports are available that are generally accessible in a timely manner (e.g. management and prevention support, self-management support, diabetes eye screening, specialist support etc.).	1. Examples exist of good communication flow throughout the connection process that could be leveraged and built upon.	1. Many stakeholders agree that improvement to the diabetes connection system is required and are interested and engaged in supporting the change process.

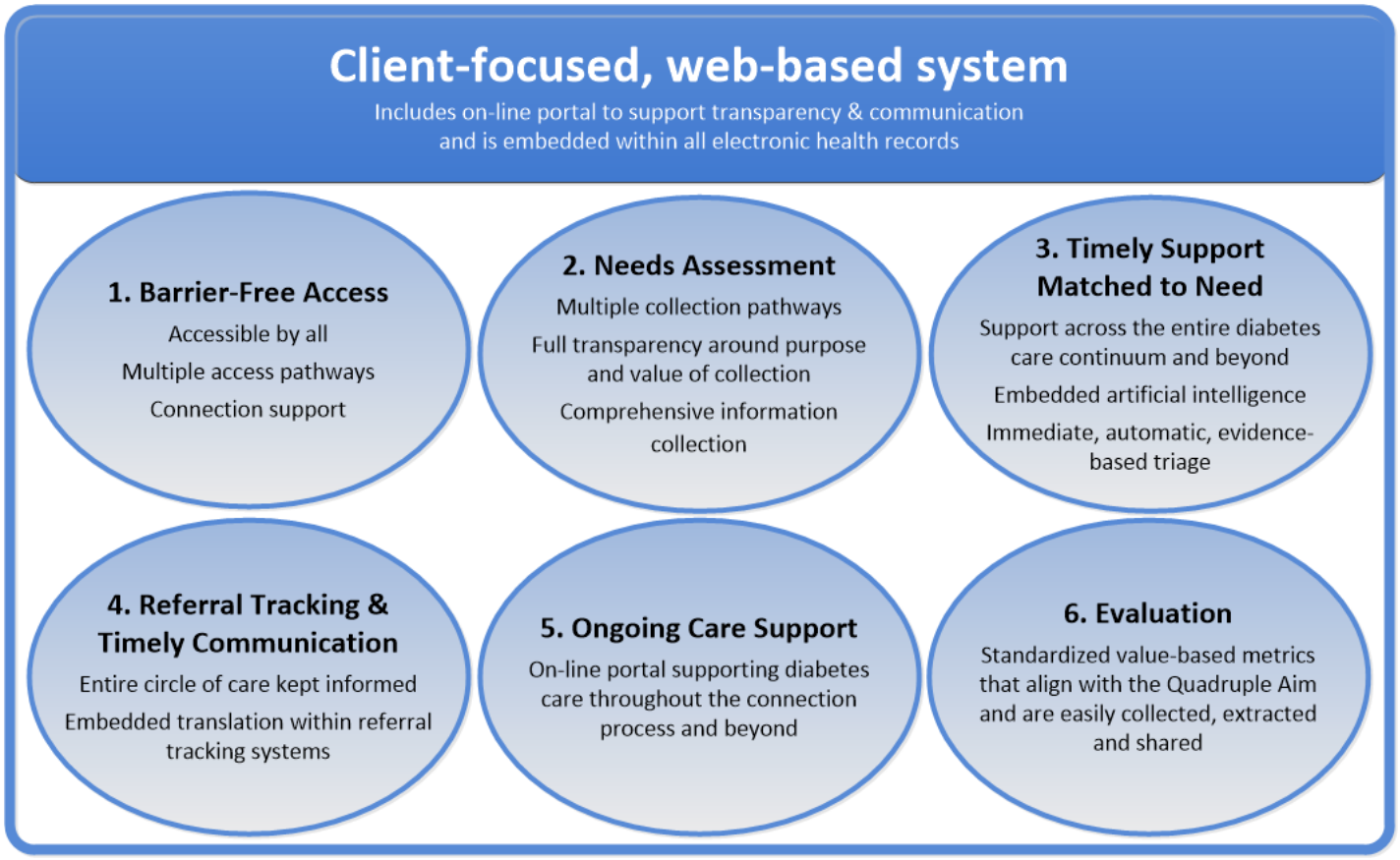
2. A number of services/tools exist that help support awareness of and connection to team-based diabetes care including: a. Toronto Diabetes Care Connect (regional website and central referral service)[12] b. Solo Practitioner in Need (SPiN)[13] c. SCOPE[14] d. Health Care Options[15] e. thehealthline.ca[16] f. 211[17] g. Program specific websites	2. Many programs/services have minimized barriers to connection by: a. Supporting connection across regional boundaries. b. Accommodating self-referral. c. Accepting referrals through various submission pathways (e.g. on-line, fax, phone, in-person, mail). d. Offering services in many languages at many locations. e. Supporting specific high-risk populations. f. Offering co-located services within the region that enable easier connection to a range of supports.	2. Examples exist where appointment information is communicated to the person being referred in their preferred language.

Current Challenges Identified by Steering Committee Members		
System Level	Program/Service Level	Individual Level
1. The overall connection process is: a. "Reactive" instead of being proactively embedded within consistent care pathways. b. Not optimally designed to match service to need. c. Inefficient and complicated. d. Not equitably accessible. e. Fragmented and disconnected.	1. Some connection services are program-based versus needs-based (e.g. the person completing the referral needs to have some knowledge about the available programs/services).	1. Awareness among healthcare providers around what diabetes services and programs are available; how to refer to these programs; and what to expect from them is inconsistent and sometimes lacking.
2. Clients are seen as "receivers of services" within the system vs "active participants in their own health and wellness" (e.g. they are often not able to initiate the connection to the support they need).	2. Some programs/providers refer clients using internally maintained lists of programs/services which may not be comprehensive and/or current.	2. The person being referred and/or others within the circle of care may not be aware of the perceived benefit connecting to additional supports.
3. Connection support is lacking across the entire continuum of care (e.g. early prevention to complex management).	3. Some providers/programs make referrals based on their existing referral patterns when other referral choices might better meet the needs and/or honour the preference of the person being referred.	3. Primary care providers, especially those new to practice, may lack clarity as to their role when working with a diabetes educator or an endocrinologist.

4. System navigation support is inadequate within the current connection system.	4. Access to some programs/services is challenging and/or limited due to issues such as catchment, eligibility, required documentation etc.	4. Clients may need to be connected and/or reconnected to programs/services at any point along their health continuum (e.g. when identified with high risk of developing diabetes, when needs become more complex, during times of transition, or after long periods of not accessing services).
5. Technology is inconsistent, not intuitive, and does not effectively support connection and communication.	5. Variation exists in access to programs/services across organizations and sectors (e.g. access to chiropodists, social workers etc.).	
6. Systemic racialization and linked marginalization exists within the system.	6. Number of outreach workers, administrative assistants is insufficient to facilitate connection.	
7. Standardization of indicators is lacking (e.g. satisfaction, usability, connection outcome/impact etc.).		
8. Evaluation outcomes are not shared broadly (e.g. reports, client satisfaction surveys, scorecard).		

Shared Vision

RDSC members created the following shared vision to illustrate how a future connection system could efficiently and effectively connect people to the support they need.



Expanded Vision
Barrier-Free Access • The system is accessible by all including people at risk, people with diabetes, caregivers, healthcare providers, and community service providers. • Multiple access points exist including primary care, community organizations, centralized connection systems, and targeted outreach initiatives by programs. • Interfaces are used to increase accessibility (e.g. multiple languages options, accommodations, diversity, and multiple access options including website, phone, and in-person). • Support from system navigators is automatically triggered and/or requested when required. • eConsult is available to support all healthcare providers (e.g. to help determine when referral is appropriate). • Privacy regulations & professional tools (e.g. medical directives) are embedded.
Needs Assessment • Multiple pathways exist to obtain information including digital/web-based referral forms, client conversations/phone calls, and community outreach and partnerships. • Comprehensive information is collected to help match support to need (e.g. socio-demographics, urgency, desired support, special instructions, requested follow-up frequency). • All members of circle of care are aware of purpose and value information sharing.
Timely Support Matched to Need • People are able to connect to the full spectrum of programs/services across the diabetes care continuum in a timely manner (e.g. healthy individual wanting to decrease their risk of developing chronic conditions). • Artificial intelligence is embedded within the connection system to support appropriate and timely matching of support to need. • Referrals are triaged immediately and automatically using evidence-based triage processes to support timely connection based on need and urgency (e.g. risk-level, type of diabetes, age etc.). • All needs are identified and connections to additional non-diabetes related program/services are offered and supported (e.g. mental health, women's health, youth/adult transition, other chronic conditions, etc.).
Referral Tracking & Timely Communication • All members within the expanding circle of care, including person being referred, are kept informed about referral status throughout the entire connection process (e.g. referral confirmation is sent automatically, needs assessment is shared, information about service(s) referred to is shared, translation is used when required). • Embedded systems are used to support tracking including SMS reminders and calendar links, prompts to guide rescheduling decisions (e.g. next available appointment), and appointment cancelation/rescheduling alerts.
Ongoing Care Support • An on-line portal is used to link electronic health records, to provide clients with access to education materials prior to their initial appointment, to share guidelines and tools with healthcare providers, and to track all programs/services people are currently connected to as well as those they were previously or are soon to be connected to. • Future connections and transitions are seamlessly supported as required (e.g. when needs change, client moves, client stops accessing support). • Circle of care is alerted when client is admitted to hospital and/or treated in the emergency department. • The use of standardized communication tools (e.g. notes/reports) and processes is supported.
Evaluation • Meaningful, standardized metrics are used to evaluate success and support ongoing system improvement. • Metrics align with the Quadruple Aim: better patient and population health outcomes, better patient family and caregiver experience, better provider experience, and better value. • Metrics are easily collected, extracted, analyzed and shared across the system.

Recommendations for Change

RDSC members developed the following recommendations to inform the creation and adoption of a more efficient, effective connection system within the Toronto Region.

Recommendations for Ontario Health

1. Support local partners (i.e. Ontario Health Teams and other regional groups) to use a digital first approach to leveraging technology by:

a. Creating a connected web-based, client-centered connection system that effectively and proactively matches the support offered/provided to the person's needs.
b. Embedding the newly improved connection processes/tools within existing EMRs to identify and automatically offer early connection to support in a proactive way and that doesn't rely on client/provider awareness of supports.
c. Expanding e-consult capabilities for primary care and support access to and use of evidence-based tools and guidelines.

2. Support local partners (i.e. Ontario Health Teams and other regional groups) to provide 24/7 access to coordination of care and system navigation services by:

a. Ensuring various levels of system navigation support to meet the needs of community members are available and included in standardized connection processes. This support needs to include:
    i. A single point of contact for diabetes support that is accessible to all (e.g. one number to call, one website to use to etc.).
    ii. Algorithms and other intuitive forms of artificial intelligence, that use plain language, imbedded into the public-facing side of a website.
    iii. More system navigators, with expanded roles, to support active attachment and follow-up.

3. Support local partners (i.e. Ontario Health Teams and other regional groups) to use a standardized performance framework aligned to the Quadruple Aim* by:

a. Working together with the local partners to co-design a standardized performance framework that:
    i. Leverages any data that is already being collected (e.g. Primary Care Scorecard data, electronic health record data, funding report data) and align with any emerging national monitoring system (e.g. those of Diabetes Action Canada and Diabetes Canada).
    ii. Includes value-based metrics of experience, process and outcome/impact.
    iii. Considers the use of tools, such as the Assessment of Chronic Illness Care, that can inform the development of more effective chronic care models.
b. Performing and/or supporting careful analysis of data to identify strengths and areas for improvement.
c. Sharing the framework, measurement plan and resulting data from each region/OHT broadly.

Recommendations for Ontario Health Teams

4. Expand access to a full and coordinated continuum of care by:

a. Leveraging and building upon existing successful connections strategies, models, and tools (e.g. program-specific strategies, TCRS, SPiN, SCOPE, system navigators, service directories, Ontario Paediatric Diabetes Network, Rapid Access Clinics for Low Back Pain), etc.). This can be done by:

i. Respecting, protecting, sharing, and potentially spreading unique, innovative, effective program specific strategies of connection that successfully connect people within specific populations
ii. Supporting multiple access points including primary care, targeted outreach, community organizations, centralized referral, etc.
iii. Maintaining regional connection pathways within any larger provincial connection system whenever possible/feasible to allow individualization in response to need and to support cross-program/service collaboration and relationship development.

b. Creating a standardized system of connection that supports access to care for all people including: children, youth and adults, who are at risk for type 2 diabetes or gestational diabetes, and who are already living with prediabetes, type 2 diabetes, type 1 diabetes, or gestational diabetes. This system needs to include:
    i. Immediate triage to support timely connection based on urgency of care (e.g. by type of diabetes, age, need etc.).
    ii. A holistic, proactive approach that aligns with the chronic care model, to offer connection to supports that are focused upstream (i.e. early prevention), mid-stream (i.e. diagnosis & early management), and down-stream (complication management).
    iii. Ongoing care support that extends beyond the specific connection being made.

5. Improve seamless transitions through a person's care journey by:

a. Creating seamless, efficient connection pathways that support proactive, patient-centred coordinated care across the health continuum.
b. Supporting connections between programs and transitions across programs within in-patient and out-patient/community settings including connections to other chronic disease services (e.g. mental health, asthma/COPD, cardiovascular etc.).
c. Including a focus on upstream engagement with hospitals and other stakeholders as part of a community focus neighborhood concept stressing the importance of information sharing and smoother transitions from hospital to community settings.

6. Improve outcomes associated with the Quadruple Aim* by:

a. Supporting existing connections and relationships made by people at-risk of or already living with diabetes, their caregivers, their healthcare providers and their community service providers.
b. Developing an accessible system for healthcare providers and community members to easily access and monitor connections to support (e.g. previous, current, and in process), appointments, care plans, medications, lab/screening results etc.). Required elements of this system include:
    i. Communication with community members both verbal and written in the preferred language.
    ii. Shared access to appointment times, consult notes, and medications and lab results.
    iii. Flagging system for those lost to follow-up (e.g. youth transitioning to adult care).
    iv. Awareness within the circle of care of referral/connection status, previous connections made, current circle of care composition, care plan etc.
c. Providing information on what to expect and where to find information to get person started on their self-management journey while referral/connection is being processed.

*Quadruple Aim: better patient and population health outcomes, better patient family and caregiver experience, better provider experience, and better value.

Additional Considerations

The use of a quality improvement framework for planning, implementation, and evaluation of all recommendations is required to ensure success. Key elements of this approach that are of particular importance include:

a) Involvement of all key stakeholders from the beginning and throughout the entire process (e.g. people at-risk of or already living with diabetes, caregivers, service providers, etc.).
b) Alignment with evidence-based work including Ontario Health's Diabetes Standards, Diabetes Canada's Clinical Practice Guidelines, and Diabetes Canada's 360° Strategy.
c) Small tests of change (e.g. within one OHT) that are sustained and spread.

Summary & Next Steps

This report contains a number of recommendations to support the creation of an efficient, effective connection system that will easily connect people to the most appropriate support to meet their needs and improve their health outcomes. Significant work is still required to adopt these recommendations and redesign the connection. To support this future work the RDSC has committed to the following next steps:

1. Commitment and support of planners, decision-makers and governing bodies will be required moving forward to support the development of an efficient, effective system of connection. Therefore, the following groups will receive a copy of this report and be further engaged to consider adopting these recommendations:
    a. Ontario Health
    b. Local planning partners (i.e. Ontario Health Teams and other regional groups) within the Greater Toronto Area
    c. Primary care groups who will be asked to share with their colleagues at planning tables and/or at physician training sessions
    d. Diabetes-related central connection services with the Toronto region
    e. All other key stakeholders groups involved in planning and/or delivery of diabetes-related programs/services (e.g. diabetes-related program leads, patient advisory groups, etc.)
2. The groups identified above will be invited to connect with the Regional Diabetes Steering Committee, via Toronto Diabetes Care Connect (South Riverdale Community Health Centre), for ongoing consultation to support the adoption of these recommendations.
3. These recommendations will also be posted on the Toronto Diabetes Care Connect website and shared through other methods of dissemination as appropriate.

More information

Contact Lori Sutton, Regional Facilitator – Toronto Diabetes Care Connect, South Riverdale Community Health Centre at lsutton@srchc.com

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Appendices

Appendix A: Regional Diabetes Steering Committee

The Regional Diabetes Steering Committee was formed in May 2018 by Toronto Diabetes Care Connect, a program of South Riverdale Community Health Centre, to inform, advise and direct coordinated, system-level, population-based planning, implementation and service integration to advance diabetes-related care within the Toronto region.

Members were selected using a standardized process to ensure a broad range of unique perspectives, experiences, and areas of expertise were represented.

Members (alphabetical)	Position	Program & Organization
Cheryl Luces	Clinical Manger, Short Stay Team, Nursing Clinics	Toronto Central LHIN
Dana Whitham	Clinical Leader, Manager of Diabetes & Renal Transplant	Comprehensive Care Program St. Michael's Hospital
Ellen MacLean	Supervisor (Acting), Diabetes Prevention Strategy	Toronto Public Health
Jane Harrison	Manager, WAASH-KESHUU-YAAN	Anishnawbe Health Toronto
Dr. Jeremy Gilbert	Staff Endocrinologist (and TDCC Endocrinology Lead)	Sunnybrook Health Sciences Centre (and South Riverdale CHC)
Leigh Caplan	Team Lead/RN, CDE	SUNDEC Sunnybrook Academic FHT
Lori Sutton	Regional Facilitator	Toronto Diabetes Care Connect South Riverdale CHC
Neil Stephens	Manager, Population Health and Wellness (supervisor for South Asian Diabetes Prevention Program)	Flemingdon Health Centre
Maria Cenizal	Manager, Chronic Disease and Mental Health	Flemingdon Health Centre
Mariam Botros	Executive Director	Wounds Canada
Dr. Mathew Morgan	Vice President, Clinical	Ontario Health (Toronto)
Dr. Rayzel Shulman	Staff Physician	The Hospital for Sick Children
Rebecca Merritt	Regional Manager	Diabetes Eye Screening South Riverdale CHC
Surkhab Peerzada	Regional Manager, Chronic Disease	Choose Health Self-Management Program South Riverdale CHC
Note: Dr. Nicole Nitti (East Toronto Sub-Region Primary Care Clinical Lead) represented the primary care provider perspective on the RDSC from May 2018 until August 2019.		

Legend: CHC=Community Health Centre; CDE=Certified Diabetes Educator; FHT=Family Health Team; RN=Registered Nurse; TDCC=Toronto Diabetes Care Connect; TC LHIN=Toronto Central Local Health Integration Network

The RDSC would like to thank the following individuals who provided feedback in Feb 2019 which was considered in the creation of the RDSC's Shared Vision: Carmen Lovsin (LMC Healthcare) and Dr. Yoel Abells (Primary Care Clinical Lead, North Sub-Region).

Recommendations from the **Regional Diabetes Steering Committee**

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