







Novo Nordisk Network for Healthy Populations

2022 Engagement and Dialogue Report













In partnership with:









2022 Engagement and Dialogue Report

Authors

Fatema M. Ali

Tiffany Bartlett

Krista Lamb

Lorraine L. Lipscombe

Ian S. Zenlea

April 2024

How to Cite:

Ali FM, Bartlett T, Lamb K, Lipscombe LL, and Zenlea IS. 2022 Engagement and Dialogue Report. Mississauga, ON: Novo Nordisk Network for Healthy Populations; April 2024.

2022 Engagement and Dialogue Report

© 2024 University of Toronto | All rights reserved

This report is published by the Novo Nordisk Network for Healthy Populations at the University of Toronto.

This publication may be reproduced in whole or in part for non-commercial purposes only and on the condition that the original content of the publication or portion of the publication not be altered in any way without the express written permission of the University of Toronto's Novo Nordisk Network for Healthy Populations. To seek this permission, please contact director.novonordiskhp@utoronto.ca.

CONTENTS

- **IV** Author Affiliations
- **V** Acknowledgements
- VI Core Summary

1 SECTION 1: INTRODUCTION

- 1.1 What is the Novo Nordisk Network for Healthy Populations?
- 1.2 What is the Problem to be Solved?
- 1.3 Why was the Novo Nordisk Network for Healthy Populations established in Peel region, Ontario?

6 SECTION 2: OUR APPROACH TO COMMUNITY ENGAGEMENT

- 2.1 What were our Initial Engagement Activities?
- 2.2 What Did We Learn?
- 2.3 How Did We Decide Which Projects to Fund?

17 SECTION 3: MOBILIZING KNOWLEDGE INTO ACTION

- 3.1 What Are Our Next Steps?
- 3.2 Conclusions

AUTHOR AFFILIATIONS

Fatema M. Ali, MSc

Network Coordinator, Novo Nordisk Network for Healthy Populations, University of Toronto

Tiffany Bartlett, MA Ed.

Director of Research Programs, Operations and Partnerships, Novo Nordisk Network for Healthy Populations, University of Toronto

Krista Lamb

Krista Lamb Communications

Lorraine L. Lipscombe, MDCM, MSc

Executive Director, Novo Nordisk Network for Healthy Populations, University of Toronto

Professor, Department of Medicine, Temerty Faculty of Medicine and Dalla Lana School of Public Health

Staff Physician and Senior Scientist, Research and Innovation Institute, Women's College Hospital

Senior Adjunct Scientist, ICES

Ian S. Zenlea, MD, MPH

Family and Community Health & Engagement Lead, Novo Nordisk Network for Healthy Populations, University of Toronto

Division Head & Medical Director, Children's Health, Paediatric Endocrinology, Trillium Health Partners

Clinician Scientist & Lead, Family and Child Health Initiative, Institute for Better Health, Trillium Health Partners

Part-time Assistant Professor, Temerty Faculty of Medicine, University of Toronto

Assistant Professor, Status Only, Institute for Health Policy, Management & Evaluation, University of Toronto

ACKNOWLEDGEMENTS

We are pleased to share our first community engagement and dialogue report describing findings from our conversations with community organizations, clinicians, researchers, health systems leaders, and government representatives. These conversations were intended to inform the design and development of the Novo Nordisk Network for Healthy Populations (NHP) research approach and future engagement activities with the community. The NHP was established in 2021 to reduce the burden of type 2 diabetes and other chronic diseases by creating new relationships and opportunities that bring together the community with students, healthcare providers, policymakers, and academics. The NHP brings together experts from the Dalla Lana School of Public Health, Temerty Faculty of Medicine, and the University of Toronto Mississauga—where the Network is based—to find new ways to support healthier urban populations. Also, NHP is building a network and platform for researchers and the community to share knowledge, promote innovation, explore new methods, and learn from one another. We hope to catalyze and support new collaborative teams to launch community-identified initiatives and research projects to reduce the burden of diabetes and chronic disease.

We would like to express our sincere gratitude to Novo Nordisk Canada for their generous financial support, which has enabled us to undertake this important work. Their commitment to improving the lives of people living with diabetes and related chronic conditions in Peel is a testament to their dedication to our shared mission.

Furthermore, we would like to acknowledge the support of the NHP executive committee and NHP advisory committee, who provided valuable guidance in developing the Network's engagement strategy. Their insights and recommendations have been invaluable in shaping our approach and ensuring the success of our 2022 engagement strategy.

We would also like to extend our appreciation to the various organizations and individuals who have supported and contributed to this project. Their unwavering commitment to our shared goal has been instrumental in achieving our objective.

Together, the support and collaboration of these individuals and organizations have made this project possible, and we are grateful for their contributions.

CORE SUMMARY

In 2021 and 2022, The Novo Nordisk Network for Healthy Populations (NHP) focused tremendous efforts on building relationships within the Peel Region and identifying key opportunities for collaboration and partnership.

The community's input continues to inspire and drive NHP teams as we work to find effective, equitable, feasible, and sustainable ways to reduce the risk of type 2 diabetes and other chronic health conditions in the region.

What Were Our Successes?

- The NHP team met with more than 100 community partners in the Peel Region as part of a series of community conversations aimed at gaining a comprehensive understanding of the region's resources and needs.
- NHP hosted a "Think Tank" event in November 2021 to bring together academics and healthcare providers at the University of Toronto to develop the Network's mission and guiding principles. More than 30 researchers, community partners and clinicians attended.
- The NHP formed an Advisory Committee and held our first meeting in June 2022. This group is comprised of a diverse and representative mix of people from the Peel Region, including representatives from patient organizations, government, community organizations, healthcare providers and experts in diabetes and obesity. The members play a pivotal role in shaping the work of the NHP and ensuring our goals remain aligned with the community.
- We launched a Catalyst Grant competition to support community-engaged and community-driven projects. Each project has the potential to improve health outcomes in the region and will involve working closely with community organizations.

What Have We Learned?

Health equity and social justice must be central to research, programs, services, and interventions.

The NHP needs to focus on the experiences of groups that tend to be overlooked by research and policy. Meaningful and thoughtful engagement with the community is essential to understanding the needs and opportunities.

The NHP must support an increased understanding of the impact of the social determinants of health and how they contribute to chronic disease.

Understanding the lived experiences of the communities in Peel will provide critical insights into the barriers that lead to health disparities.

Embedding health prevention and promotion in public policies related to neighbourhood design, employment, housing, transportation, and food access has the potential to create large-scale change.

Access to health services and primary care in Peel is seen as a significant barrier by community members and must be considered in the NHP's plans.

SECTION 1: INTRODUCTION

The Novo Nordisk Network for Healthy Populations (NHP) is committed to engaging community leaders, service providers, community members, and researchers in co-creating health research, innovations, interventions, services, and programming. During the initial phase of developing the NHP, we met with local community leaders, social service and healthcare service providers, municipal and regional authorities, and advocacy groups to introduce ourselves and tell the NHP's story.

WHAT IS IN THIS REPORT?

This report outlines the NHP's community engagement techniques and overall engagement strategy.

The methods used by the NHP to:



Build partnerships



Engage with community



Gather priorities and needs

Our engagement activities revealed the existence of numerous other initiatives underway in the Peel Region related to type 2 diabetes (T2D) prevention and treatment, including the City of Mississauga's "Mississauga Diabetes Strategy," which is a global partnership with Novo Nordisk's Cities Changing Diabetes Strategy and broader work taking place related to the COVID-19 pandemic, supporting newcomers, and community health. In addition, the NHP sought to gain a deeper understanding of community priorities through direct interactions, feedback, and commentaries gathered during meetings, conversations, and other engagement sessions.

A key focus of the NHP is to design and conduct research that addresses the priorities and needs of the Peel community around T2D and chronic disease prevention and management across a person's lifespan. The goals are to improve local citizens' health and well-being and share what we learn locally with provincial, national, and international decision-makers. Our methodology has been shaped and informed by the community's perspectives, ensuring that the NHP's priorities align with those of the community. Throughout our engagement activities, we are committed to being responsive, adaptable, and dedicated to addressing the identified priorities and needs in a meaningful and impactful way.



1. 1 WHAT IS THE NOVO NORDISK NETWORK FOR HEALTHY POPULATIONS?

The NHP at the University of Toronto (UofT) was established in 2020 through a generous \$20-million donation from Novo Nordisk Canada and matching funds from UofT to address the risk and burden of T2D in Peel Region, Ontario and globally. Based at the University of Toronto Mississauga (UTM), the NHP brings together leading researchers from UTM, the Dalla Lana School of Public Health, and the Temerty Faculty of Medicine to work collaboratively to achieve our goals. In addition, we are actively engaging regional community partners to cocreate new approaches to chronic disease prevention and care that speak to the lived experiences of diverse populations.



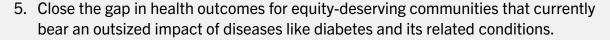
Mississauga is an ideal location for discovering and incubating this kind of transformational research and developing innovative outreach initiatives that can make cities healthier places to live. Home to Canada's most extensive community-based hospital system, Trillium Health Partners, this growing Region allows researchers to understand the impact of social and built environments on behaviours, health outcomes, and access to services in a highly diverse setting.

The NHP is a multidisciplinary, collaborative effort which aims to become a globally renowned source of new knowledge on making populations healthier. It will foster innovation, build regional capacity for this important work, and catalyze connections across fields to integrate diverse mindsets and approaches in the fight against chronic conditions like diabetes.

The mission of the NHP is to reduce inequities in the risk and burden of diabetes and other chronic diseases through better care, lower risk factors and healthier living environments.

WE AIM TO PARTNER WITH THE COMMUNITY TO:

- 1. Address the root cause of diabetes.
- 2. Develop interventions to slow its current unsustainable rise.
- 3. Enable more early detection of the disease.
- 4. Alleviate risk factors such as health access barriers.









Three areas of activity have been identified to address the NHP's mission, which are the following:



CAPACITY BUILDING:

Create **new relationships** and opportunities that bring together the community with students, healthcare providers, policymakers, and academics to **collectively address the burden of chronic disease.** The NHP focuses on empowering members to effectively address the risk and burden of chronic disease by creating opportunities for collaboration and resource-sharing.



EDUCATION AND KNOWLEDGE SHARING:

Create a network and a platform for researchers, students, providers, community members, and decision-makers to share and **advance knowledge**, promote innovation, explore new methods, and learn from one another. We aim to provide the future generation of health leaders training and education. Also, we are dedicated to mentoring and supporting the development and implementation of effective interventions targeting reducing diabetes risk and burden in Peel.



CATALYZE AND SUPPORT SCALABLE SOLUTIONS:

Foster and facilitate cross-disciplinary collaborative teams to co-design, launch, and evaluate community-based projects and **reciprocal partnerships** to **demonstrate impact** on the burden of diabetes and chronic disease. The NHP has catalyzed and supported new collaborative teams to launch community-identified initiatives and research projects to reduce the risk and burden of diabetes and related chronic disease. This included developing and identifying funding opportunities, helping organizations and researchers with grant writing, and providing financial and administrative support to help ensure the success of these projects. The NHP will continue to provide resources, mentoring and support to community-based initiatives and research projects to help them succeed.

1.2 WHAT IS THE PROBLEM TO BE SOLVED?

Type 2 diabetes (T2D) is a chronic condition characterized by impaired production or use of insulin, which regulates blood sugar. The complications arising from diabetes can be severe and include cardiovascular disease, chronic kidney disease, and nerve and vision damage. Cities everywhere are struggling with rising rates of chronic conditions, with the global prevalence of diabetes reaching 537 million in 2021. Furthermore, it has been predicted that this number will increase to 643 million by 2030 and 783 million by 2045. There are three main forms of diabetes - type 1, type 2, and gestational – with T2D representing 90% of cases. ²

The increasing prevalence of diabetes has largely been attributed to a combination of an aging society and significant shifts in health

behaviours and living environments that promote more sedentary activity and poorer nutrition. Increasing vulnerability to obesity and T2D has resulted from a complex array of biological, social, cultural, and environmental determinants that interact with these changes in urban settings (see figure below). There is also evidence that T2D disproportionally affects more socially disadvantaged populations, underscoring the central role of social determinants of health in driving the T2D epidemic.³

Reducing T2D rates will require the use of several different strategies that target individual behaviour, urban environments, and the underlying social determinants of health (see figure below).

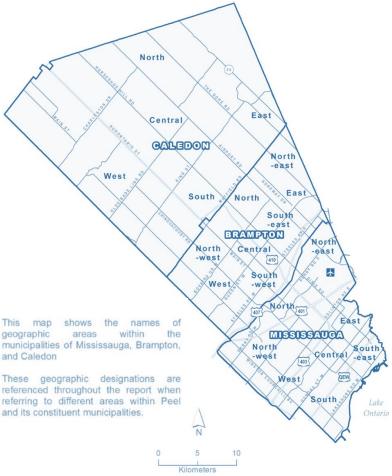
Diabetes Risk and Burden Social Disadvantage Low income Higher diabetes, chronic disease Recent immigration **Higher complications** Low socioeconomic status **Higher healthcare costs** Ethnic minority **Higher mortality** · Trauma, racism Health Chronic stress **Behaviours** Social isolation · Financial insecurity • Higher obesity · Education attainment • Disordered eating • Unsafe neighbourhoods • Lower DM screening, delayed • Poor food choices • Low health literacy DM diagnosis • Low physical activity Poor housing • Greater comorbidity • Lack of regular health care Food insecurity • Chronic pain, osteoarthritis • Lower use of preventive • Less walkable neighbourhoods Greater disability • Food deserts, healthy food less accessible • Mental health disorders • Time poverty, competing demands • Substance abuse • More ED, walk-in clinic use • Mistrust, cultural beliefs Poor sleep · Working conditions • Higher medication burden • Community belonging Social mobility Health Burden Contextual **Factors**

1.3 WHY WAS THE NOVO NORDISK NETWORK FOR HEALTHY POPULATIONS ESTABLISHED IN PEEL REGION, ONTARIO?

Peel Region, Ontario, has approximately 1.38 million residents, with 52.2% and 43.0% of the population living in the suburban cities of Mississauga and Brampton, respectively, and 4.8% of the people residing in the rural Town of Caledon. 4 In 2018, a study conducted by Patel described Peel as an example of hyper-diversity, referring to the region's intense diversity in socioeconomic status, racial and ethnic identities, gender, and age, in addition to there being differing lifestyles, attitudes, and activities among diverse immigrant populations. 4, 5 Peel has the highest percentage of racialized individuals (62.3%) and the second highest prevalence of low-income households (12.8%) within the Greater Toronto Area. 6 Peel Region is a microcosm for many Canadian communities, making it the ideal setting for innovative approaches that could be replicated in other communities across Canada and globally.

The prevalence rate of T2D almost doubled in Ontario, and the Peel Region has been significantly higher than the average in Ontario since 1996. ⁷ T2D burden differs across groups of people by social and demographic characteristics. There is considerable evidence demonstrating that a gradient exists for T2D across multiple measures of socioeconomic status. ^{8,9} Certain immigrant and racialized populations are at higher T2D risk and diabetes-related complications. ¹⁰ In Ontario, a higher incidence of prediabetes (a condition with elevated levels of blood glucose) has been found for immigrants

and those of non-European ethnic backgrounds. ¹¹ Further, Peel has been one of the hardest-hit regions in Canada when it comes to COVID-19. As one of Canada's COVID-19 hotspots over all three waves, it has seen positivity rates reaching as high as 20.4% in March 2021. ¹² Racialized individuals compose 73.1% of COVID-19 cases between April 13, 2020, to July 31, 2021, despite making up 58.7% of Peel. ¹³ Peel also has high rates of obesity and coronary artery disease, which were likely impacted by COVID-19 restrictions. ⁷



SECTION 2: OUR APPROACH TO COMMUNITY ENGAGEMENT

The engagement activities discussed in this report were our first steps in working towards connecting with the Peel Region community. We sought to understand the current work, priorities, and challenges for T2D prevention and management in the Peel Region.

In the following sections, we have highlighted initial engagement activities, representing the first phase of a longer-term engagement strategy to build a community-driven portfolio of research, education, and advocacy. These discussions involved local community leaders, social service and healthcare service providers, community members, municipal and regional authorities, and advocacy groups.

OUR INITIAL ENGAGEMENT OBJECTIVES:

- 1. Build relationships with community members and organizations that represent the diversity of Peel.
- Learn about community services, programming, and resources currently delivered.
- 3. Identify opportunities for ongoing partnership for program evaluation and research.
- 4. Seek input from community members, researchers, and clinicians on the NHP's mission and approach to research, education, and advocacy.

SUMMARY OF ENGAGEMENT ACTIVITIES

COMMUNITY CONVERSATIONS

Gain a comprehensive understanding of research capacity, resources, and healthcare in the region, as well as the community's specific needs related to diabetes. These conversations support developing connections with key community members, and they are ongoing.

NHP ADVISORY COMMITTEE: LAUNCH MEETING

Connect with the community to discuss the role of the NHP. Identify the activities that would have the most significant impact and determine current local initiatives that address the burden of chronic disease in Peel. Identify opportunities for additional outreach and membership.

CATALYST GRANT COMPETITION-CYCLE 1

Launch a grant competition that ensures successful applicants will develop projects and interventions that are community-engaged. Create new relationships and encourage the implementation of community interventions.

THINK TANK

Identify foundational intentions and initial actions for the first year.

BASELINE DATA STRATEGY (BDS) WEBINAR

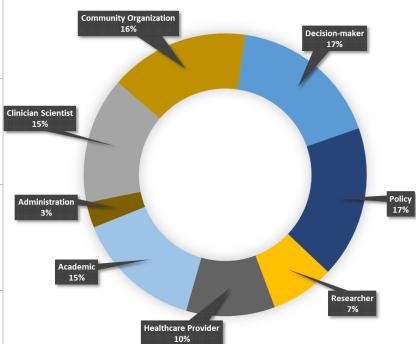
Gain feedback on needs and opportunities for baseline data evaluation in Peel and identify opportunities for partnership with the community and other researchers.



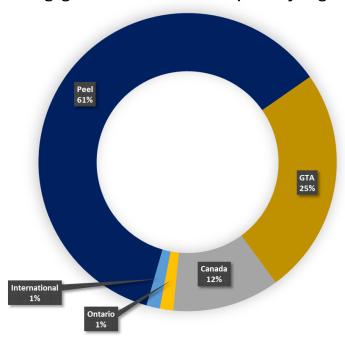
ENGAGEMENT ACTIVITIES PARTICIPANTS

Academic	Dedicated to advancing knowledge through research, teaching, and publication. They typically hold advanced degrees and are affiliated with a university or other academic institution.
Administration	Responsible for managing and overseeing the operations of an organization or institution. They may manage budgets, personnel, facilities, and other administrative functions.
Clinician Scientist	Trained both as a clinician (such as a physician or nurse) and a scientist. They use their knowledge of clinical practice to inform their research and their research findings to improve patient care.
Community Organization	Involved in organizing and advocating for the needs and interests of a particular community or group. They may also be involved in providing services that address the needs of the community and groups they serve.
Decision-Maker	Responsible for making important decisions that affect the direction and success of an organization or institution. They may be a CEO, board member, or other high-level executives.
Policy	Involved in developing and implementing policies that guide the actions and decisions of government agencies.
Researcher	Advancing knowledge and understanding in a particular field through conducting original research. They may work in academic or healthcare settings.
Healthcare Provider	Involved in providing health care and related services, including physicians, nurses, and other healthcare professionals. They may work in various settings, including hospitals, clinics, and private practices.

Engagement Activities* Participants by Category



Engagement Activities* Participants by Region



*Attendees of the Think Tank, BDS Webinar, and Advisory Committee Launch GTA=Greater Toronto Area

2.1 WHAT WERE OUR INITIAL ENGAGEMENT ACTIVITIES?

Community Conversations

The team conducted a series of meetings to establish the NHP with more than 100 members of the Peel Region in 2021 and 2022. We met with health researchers, community members, public health officials, policymakers, students, and physicians. We aimed to gain a comprehensive understanding of the region's research capacity, resources, and healthcare, as well as the community's specific needs related to T2D and chronic conditions.

The information gathered was used to inform the development of the NHP and its goals, mission, and structure. Additionally, these meetings established the NHP's presence in the community, built trusting relationships with community members and positioned the NHP as a valuable resource for addressing the burden of T2D and chronic disease. Further, the team determined the following steps: identifying specific research projects, building partnerships with other organizations, and determining the most effective means of engaging with the community. Overall, the meetings were an essential step in creating a research network that addresses the diabetes burden in the community.



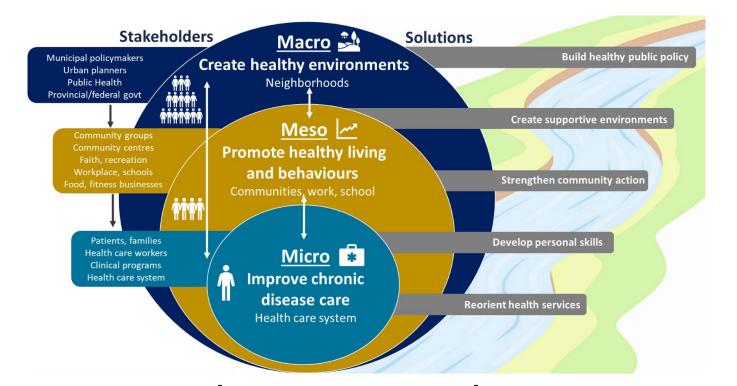


Think Tank

To engage academic researchers and healthcare providers at the University of Toronto in helping us to establish the mission and guiding principles for the NHP, an inaugural "Think Tank" event was held on November 22, 2021, to identify foundational intentions and initial actions for the first year. The group included approximately 30 researchers, community partners and clinicians.

There was consensus among the attendees that the NHP would provide a unique opportunity for a cross-disciplinary, equity-focused, upstream, and longitudinal approach to creating, implementing, adapting, and scaling new interventions. Further, attendees spoke of the importance of centering the community in all activities, reaffirming the NHP's commitment to embedding engagement with the community in network activities. In addition, while focusing on diabetes, the group recognized T2D as a prototype condition. The interventions and knowledge generated by the NHP could be applied to other diseases related to social determinants of health and health behaviours.

The **conversations with the community** and the **Think-Tank discussion** inspired NHP to adopt the socio-ecological model of health and develop a framework specific to the Peel Region's needs. This has resulted in **a comprehensive**, **multisectoral framework** which aims to understand factors impacting diabetes and identify potential challenges and opportunities for interventions at three levels:



Level 1- Macro

This level targets factors that affect the entire population and examines the role of environmental determinants of chronic disease related to how we design and build our neighbourhoods. Interventions targeting the macro level may include municipal and regional policies and urban planning to optimize the built environment and improve access to nutritious foods, physical activity, and housing to create healthy environments.

Level 2- Meso

This level focuses on groups disproportionally affected by diabetes and addresses how to promote healthy living and behaviours through socioculturally-specific co-designed interventions. Interventions may involve strengthening and enhancing community action and mobilization by designing and implementing prevention programs across various settings and contexts to raise awareness and promote healthy living and behaviours.

Level 3- Micro

This level addresses individuals with or at risk of diabetes and chronic disease within the healthcare system and examines how access and quality of chronic disease healthcare can impact potential health outcomes and quality of life. Interventions may focus on patients and families, healthcare providers and administrators to improve chronic disease care by making health services more coordinated, effective, accessible, and equitable.

Baseline Data Strategy

Before addressing the burden of T2D and chronic disease in the region, we need to understand the problem. The NHP framework, developed as per the recommendations of the Think-Tank, led to the development of a Baseline Data Strategy (BDS) to examine **three streams of inquiry connected to each level of the framework:**

1) MACRO:

Municipal and policy levels to address health inequities and the built environment

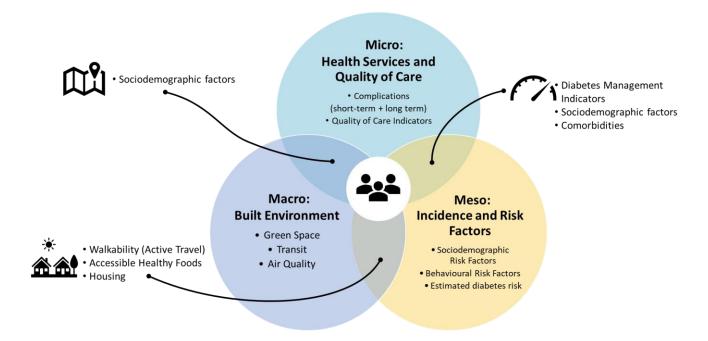
2) MESO:

Community-based settings to target health behaviours in high-risk and marginalized groups

3) MICRO:

The healthcare system to improve the delivery of care and prevention for diabetes and chronic disease;

We created a BDS Committee to understand the current and future risk and burden of diabetes in Peel Region by analyzing available data. The BDS Committee was comprised of senior and early-career researchers who have experience with the relevant research topics. The committee aimed to gather information to inform the development of interventions and projects that could reduce inequities in the risk and burden of diabetes and other chronic diseases through better care, lower risk factors and healthier living environments. The research streams within the committee focused on macro, meso, and micro factors that impact the burden of illness due to diabetes and its complications. In addition, the BDS group prioritized identifying candidate indicators linked to the burden and risk of T2D and chronic disease. The team established a preliminary list of indicators within each stream based on a literature review and accepted quality standards for T2D care.



Baseline Data Strategy Webinar

As a next step, the BDS team sought feedback from the community regarding the relevance and importance of candidate indicators. To support this step, we hosted a webinar on June 6, 2022, during which the BDS Committee described potential indicators of the burden of T2D and chronic disease in Peel related to the built environment (macro), incidence and risk factors (meso), and health services and quality of care (micro). Attendees included approximately 50 community members, public health officials, policymakers, physicians, and researchers.

The overarching themes identified from the discussions highlighted the importance of carefully considering health equity and social justice issues when considering indicators and measurement methods. Other areas of focus identified by attendees included identifying gaps in access to health services such as primary care and diabetes education programs, additional systemic funding for health services, the impact of seasonal weather and climate change on health, and the importance of intersectoral work and partnerships.

The feedback and comments during this webinar have informed the BDS Committee's research priorities. They are now ensuring that they consider the experiences of all residents of the region with a particular focus on those that experience higher rates of diabetes and to conduct subgroup analyses by sex/gender, newcomer/immigrant status, and those with disabilities. This webinar's attendees highlighted the importance of considering how individuals with intersectional identities experience healthcare and social determinants of health. Additionally, the BDS Committee plans to include climate-related data in diabetes-related health behaviours and

status analyses. The discussion further highlighted the importance of collaboration with community, public health, government, healthcare services, and academic disciplines.

Overall, the webinar ensured that the BDS reflects the priorities of the region. The team is now undertaking analyses to describe those indicators and address questions regarding sociodemographic and regional disparities that can serve as intervention targets.

Advisory Committee Launch Meeting

The NHP prioritizes community-based research and integrated knowledge mobilization; therefore, our governance structure includes various knowledge users and decision-makers who share common goals and responsibilities with the Peel Region community.

The NHP is dedicated to investing the time and resources required to build and foster trusting and reciprocal relationships with these groups. To integrate academic and community knowledge within our governance structure, we organized an Advisory Committee comprised of knowledge users and decisionmakers from local healthcare, community, government, and academic settings. The committee includes a diverse and representative group of members, including representatives from patient organizations, municipal and/or provincial representatives, community organizations, healthcare providers and organizations, Indigenous organizations and people, academics and clinician-scientists and experts in diabetes and obesity. The members play a pivotal role in the NHP through their contribution and input on network projects, their participation in grant competition activities and leveraging their connections to support the growth of the NHP.

The Advisory Committee launch meeting was held on June 20, 2022. The initial meeting was intended to explore the NHP's potential impact and begin mapping connections, opportunities, and possible roles for community members. The goal of the meeting was to foster collaboration between researchers, community members, and key decision-makers to improve the impact and relevance of the NHP.

The discussion at the meeting supported the development of the NHP's mission, priorities, and next steps. We informed the Advisory Committee about current projects, initiatives, and programs. The Advisory Committee

suggested that the NHP focus on building capacity through interdisciplinary collaboration and intersectoral partnerships, engaging thoughtfully with the community to understand their needs and mobilize and create knowledge about the impact of social and structural determinants on the health and well-being of residents of Peel. The Advisory Committee called for collective action by creating sustainable programs and interventions. This inspired the creation and structure of the NHP's catalyst grant competition, where successful projects will address the burden of diabetes by targeting micro-, meso-, and macro-level risk factors.

2.2 WHAT DID WE LEARN?

To inform the NHP's early focus, we identified overarching themes by conducting a thematic analysis of the feedback and comments collected during the Think-Tank, the Advisory Committee Launch meeting, and the BDS Webinar. Next, we read, coded, and categorized the information collected from the community engagement activities. The qualitative interpretation included organizing the codes conceptually and determining relationships between the categories.

An overarching theme was to ensure that health equity and social justice are central to research, programs, services, and interventions. The emergent subthemes included the importance of community-driven solutions, the need for interdisciplinary and intersectoral collaborations, the state of services/primary care, and meaningful impact.



Health Equity

Topics related to health equity were at the forefront of the conversations during the engagement activities. Specifically, participants identified the need to focus on the experiences of groups that tend to be overlooked by research and policy.

66

Addressing diversity and systemic biases in systems (not just health sector) that are drivers of health inequity.

"

Since the goal of the NHP is to understand and address the burden of chronic disease in Peel, understanding the lived experiences of the communities in Peel will provide insights into the barriers that propagate health disparities.

Community-Driven Solutions

The discussions during the NHP engagement activities highlighted the need to connect thoughtfully with the community to understand current opportunities, build trust, centre community voices, and understand community capacity. In addition, the NHP presents a transformative opportunity to facilitate partnerships with diverse communities in Peel and beyond to create and mobilize knowledge based on community-defined goals and outcomes.



The importance of relationship-building (especially between marginalized communities and formal institutions).

Meaningfully engage the community in all planning and implementation of activities.

Participants emphasized the potential for the NHP to advocate for the funding and development of environmental and social interventions to create the conditions for community change that support prevention and self-management. Therefore, the NHP will continue facilitating activities that encourage reciprocal partnerships and collaboration that will centre the community's needs and priorities.

Interdisciplinary and Intersectoral Collaborations

Participants spoke about the value of intersectoral partnerships and the potential role of the NHP in building collaborative relationships. Participants envisioned collaborations between social and community organizations, service providers, and researchers to promote integrating services with interdisciplinary approaches to supporting health and well-being.



"Grow a generation of health professionals that will work together differently — understand social inequities and interdisciplinary care."



The discussions highlighted the importance of embedding health prevention and promotion in public policies related to neighbourhood design, employment, housing, transportation, and food access. In addition, we can build capacity through interdisciplinary collaboration, intersectoral partnerships, and community engagement.

Education and Capacity Building

Participants articulated a role for the NHP in generating new knowledge, including a nuanced understanding of the impact of the social determinants of health on the pathophysiology of chronic disease. In addition, participants emphasized the importance of examining disparities between groups rather than population averages.



"Willingness to look at new ways of tackling this disease and a commitment to health equity."

We will facilitate the sharing of new knowledge and give the community space to share their work and activities. This will foster further collaboration and access to learning opportunities for faculty, researchers, students, and community members.

State of Services/Primary Care

The community discussed access to health services and primary care in Peel. These discussions identified two barriers, the first being access to healthcare and support services and the second being the lack of adequate funding.



"Some of the communities in the most need of diabetes care and prevention have not been prioritized for diabetes."



The lack of funding and public health policy priorities shifting away from diabetes are the upstream causes that impact care access for patients and the community (food banks, social services, primary care, etc.). Therefore, we were advised to develop a comprehensive understanding of the diabetes care landscape in the region.











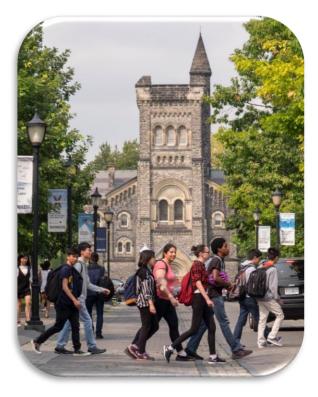
2.3 HOW DID WE DECIDE WHICH PROJECTS TO FUND?

We launched a Catalyst Grant Competition in the Fall of 2022 to support interdisciplinary, collaborative teams to co-design community-engaged research. The grants were intended to foster partnerships between researchers and community organizations to bridge the divide between research and practice, supporting and sparking collaborations, projects, and interventions.

The competition called for projects that addressed the risk or burden of diabetes and chronic disease and demonstrated an implementation science approach, which involves tailoring, adopting, and integrating evidence-informed practices, interventions, and policies into local health care, community services, and living environments to improve the impact on population health.

Goals of the catalyst grant opportunity:

- 1. Identify, adapt, and pilot test evidenceinformed solutions to address the rising burden or risk of diabetes and chronic disease that are locally relevant, feasible, and equitable for the Peel Region.
- Spark interdisciplinary collaboration across sectors and foster the creation of partnerships between researchers, policymakers, knowledge users, and people with lived experience to implement relevant, feasible, effective and equitable solutions collectively.
- Mobilize diverse methodologies, multiple disciplines and perspectives, and knowledge mobilization approaches to generate relevant and valuable evidence for local organizations and decisionmakers.
- 4. Demonstrate pilot data on local implementation of evidence-informed interventions to support longer-term evaluation of the impact on health outcomes and scale and spread to other regions.



Our initial community engagement activities informed the requirements for the proposed interventions. All funded projects focused on population health and health equity and aimed to positively affect all or priority populations within Peel Region, improving the environmental, social, cultural, and structural determinants of health related to diabetes and chronic disease.

To centre the community, the project teams were required to engage community members as equal partners in the research by codesigning the research questions and methodology, as well as in data collection, the interpretation of findings and dissemination of results. Furthermore, project teams had to be interdisciplinary and support early career researchers.

Grant Application Process

The grant application process involved submitting a letter of intent, and the successful applicants were invited to present at a community pitch event. The NHP connected applicants with appropriate and interested community partners. The pitch event was an opportunity for members of the Peel community to learn about potential projects of interest to their community/organization and for project teams to learn about community organizations and their priorities.

This event also connected applicants with potential community organizations that wanted to partner with them to co-design the final proposal to support the facilitation and development of collaborative project teams. To further center the community's voice and promote a cross-sector approach, we created a panel of judges comprised of government leaders, experts from local community groups, researchers, and clinicians.

The audience members also had an opportunity to select feasible projects that would have the most impact; after the

deliberation, the panel chose five projects to move forward to the full proposal stage. The projects selected to move to the complete application phase included a community garden education program, a phone app that provides dietary guidance, diabetes medication management for older adults, integrated care for adults with young-onset diabetes, and a program that aims to reduce health inequities in severe diabetic foot infection and amputation. In addition, we have connected the finalists with other community organizations interested in supporting the projects. The full applications underwent a rigorous peer review by a selection committee, and two projects were awarded the catalyst grant.







Calvin Ke - Developing and Implementing a Personalized Care Pathway to Improve the Management of Young-Onset Type 2 Diabetes in Peel Region

Objective: Collaboratively engage patients and community members to adopt a personalized diabetes care pathway to meet the diverse needs of young adults across all ethnicities in the Peel Region.



Terence Tang - Reducing Health Inequities in Severe Diabetic Foot Infection and Amputation by Engaging At-Risk Communities to Optimize the Implementation of Evidence-Based Strategies

Objective: Further optimize the implementation of evidence-based strategies (multidisciplinary team and care pathways) in the care of diabetic foot ulcers to prevent severe outcomes and reduce health inequities.



Vasanti Malik- Increasing Knowledge, Reducing Risk: A community- integrated nutrition education intervention to prevent type 2 diabetes in Peel

Objective: Assess the effectiveness and implementation strategy of an intervention co-designed with community stakeholders that delivers nutrition education based on the Portfolio Diet on reducing T2D risk factors among Peel residents with elevated T2D risk

SECTION 3: MOBILIZING KNOWLEDGE INTO ACTION

3.1 WHAT ARE OUR NEXT STEPS?

Building from our early engagement activities, we will continue to engage the community in research, programming, or innovation work undertaken. In addition, we envision a future state where research ideas and priorities are community-driven.

Patient Engagement and Community Tables:

Discussions are underway to understand additional avenues for reaching underrepresented groups in the Peel Region. Led by the NHP's Family and Community Health and Engagement Lead, the NHP will continue working with community partners to consider further opportunities to engage people with lived experience in our planned research and engagement activities in 2023. In addition, we will focus on learning from and incorporating the voices and experiences of people living with T2D to guide our actions and research priorities.

We will also look to expand our presence in the Peel Region through participation at local community tables. Participating in community tables offers an opportunity to learn about issues of shared interest and understand how to direct our efforts best to generate impact.

Advisory Committee Engagement:

The NHP's advisory committee continues to be a critical component of the community engagement strategy. The first meeting in 2023 will be to review and reflect on the findings from the current baseline data strategy and community engagement reports. In addition, the attendees will be asked to provide their thoughts and suggestions for the next steps and to help identify priority areas for the 2023 Catalyst Grant competition. Finally, we recognize the importance of involving the Advisory Committee in the community

engagement process and are committed to using their input to inform and guide its initiatives.

Catalyst Grant Program-Cycle 2

To enhance community engagement and create opportunities for community-driven research, we launched a new Catalyst Grant program in the Spring of 2023. These grants focused on prioritizing research ideas developed by the community and partnering them with academics, researchers, and clinicians in project teams to conduct community-driven research.

Cycle 2 of the Catalyst Grants will aim to support the community and align with our findings by:

- Applying an Equity-Based Approach to Priority Setting: Community members will be actively involved to ensure a fair and equitable priority setting.
- 2. Supporting Community-Based Organizations in Local Research Projects: The grant program will establish partnerships with community-based organizations that are already addressing the issues being studied. This will help incorporate community perspectives into the research and provide opportunities for community organizations to contribute new research ideas.
- 3. Emphasizing Education and Capacity Building: The grant program will provide education and capacity-building opportunities to increase community members' knowledge and skills related to research. This will enhance their ability to participate in and benefit from the research.

- 4. Fostering Relationships between UofT faculty and the Peel Region: The grant program will encourage collaboration between faculty and community members to establish a long-lasting relationship and build trust. This will ensure that future research aligns with the needs and perspectives of the community.
- Identifying Future Research
 Priorities/Themes: Community members
 will be engaged to identify future research
 priorities and themes. This will ensure that
 the research is relevant and meaningful
 and addresses the most pressing issues
 for the community.

The Catalyst Grant competition was launched by inviting people with lived experience, researchers, clinicians, hospital and public health leaders, and the NHP's Advisory Committee members to attend a full-day workshop to identify key research priorities and begin forming collaborative research project teams. Workshop attendees came together again in Fall 2023 to validate these themes and confirm their interest in participating on a project team. Interested teams were invited to submit applications for Catalyst Planning Grants, a new funding opportunity developed to support teams to undertake the necessary engagement and planning work to develop full Catalyst Grants applications for submission in April 2024.

3.2 CONCLUSIONS

Over 2022, the NHP focused tremendous efforts on building relationships within the Peel Region and identifying key opportunities for collaboration and partnership. Discussions are underway to understand additional avenues for reaching underrepresented groups in the Peel Region. In addition to the themes and priorities identified through the BDS Strategy, we continue to engage the broader Peel community to identify existing programs and initiatives that can be evaluated and scaled. The goal will be to bring our network of leading academics from the University of Toronto to hear from the Peel community about what is most important to them. These community needs will inspire and drive interdisciplinary teams to work alongside the community to find feasible, effective, equitable, and sustainable solutions.

Furthermore, if you share our mission of addressing and reducing the burden of diabetes, please **join our network!** Through collaboration, we can improve the well-being and enhance the quality of life for individuals affected by this condition. Together, we can make a meaningful impact on the journey towards a healthier future.

For more information on how to get involved please email: director.novonordiskhp@utoronto.ca

Or join our **Engagement List!** https://healthypopulationsnetwork.utoronto.ca/join-our-engagement-list









References

International Diabetes Federation, GLOBODIAB Research Consortium. IDF Diabetes Atlas, 10th ed. 2021. Available from: https://diabetesatlas.org/atlas/tenth-edition/, Accessed December 29, 2022.

- American Diabetes Association. Diagnosis and classification of diabetes mellitus. Diabetes care. 2009;32(Suppl 1):S62-S67. doi:10.2337/dc09-S062.
- ³ Public Health Agency of Canada. Key Health Inequalities in Canada: A National Portrait. Ottawa: Public Health Agency of Canada; 2018.
- ⁴ Patel A, Regier K, Wilson K, Ghassemi E, Dean J. Beyond the Cosmopolis: Sustaining Hyper-Diversity in the Suburbs of Peel Region, Ontario. Urban Planning. 2018;3(4):38-49.
- ⁵ Tasan-Kok T, Van Kempen R, Mike R, Bolt G. Towards hyper-diversified European cities: A critical literature review. 2014.
- ⁶ Region of Peel Public Health. The Changing Landscape of Health in Peel. A Comprehensive Health Status Report. 2019
- Diabetes Prevalence. Region of Peel. n.d. [cited 2022 Nov 10]. Available from: https://www.peelregion.ca/strategicplan/20-year-outcomes/diabetes-prevalence.asp.
- ⁸ Hill-Briggs F, Adler NE, Berkowitz SA, Chin MH, Gary-Webb TL, Navas-Acien A, Thornton PL, Haire-Joshu D. Social determinants of health and diabetes: a scientific review. Diabetes Care. 2021;44(1):258-79.
- Rivera LA, Lebenbaum M, Rosella LC. The influence of socioeconomic status on future risk for developing Type 2 diabetes in the Canadian population between 2011 and 2022: differential associations by sex. International Journal for Equity in Health. 2015;14(1):1.
- ¹⁰ Khan NA, Wang H, Anand S, Jin Y, Campbell NR, Pilote L, Quan H. Ethnicity and sex affect diabetes incidence and outcomes. Diabetes Care. 2011;34(1):96-101. doi:10.2337/dc10-0865.
- ¹¹ Fazli GS, Moineddin R, Bierman AS, et al. Ethnic differences in prediabetes incidence among immigrants to Canada: a population-based cohort study. BMC Medicine. 2019;17:100. doi:10.1186/s12916-019-1337-2.
- Peel Public Health. COVID-19 in Peel Dashboard and information about the status of COVID-19. Available from: https://www.peelregion.ca/coronavirus/case-status/2021. Accessed December 29, 2021.