
For Information

REPORT TITLE: **Diabetes in Peel – A Public Health Approach**

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OBJECTIVE

To provide an update to Regional Council, as the Board of Health, on the current state of diabetes in Peel and public health and community partner initiatives for diabetes prevention and management.

REPORT HIGHLIGHTS

- Diabetes is a chronic disease that leads to long-term negative health issues.
 - For the past 25 years, the Peel diabetes rate has been increasing and is higher compared to Ontario, with the gap widening over time.
 - Diabetes, along with other chronic diseases, has several risk factors including social and environmental factors.
 - Unless addressed, the rate of diabetes in Peel region will continue to increase, which will have a significant burden on the health care system and communities.
 - Public Health aims to prevent diabetes and other chronic diseases using upstream approaches to reduce the burden of illness in the population.
 - Peel Public Health addresses diabetes prevention and management through programs, policies, and partnerships that reduce risk factors for chronic diseases and create supportive environments for healthy living.
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DISCUSSION

1. Background

Diabetes occurs when the body is unable to properly use or produce insulin, which is a hormone that helps the body absorb sugar from the bloodstream and use it as energy. There are three types of diabetes: type 1 diabetes, type 2 diabetes, and gestational diabetes. Over 90% of people with diabetes have type 2, which mostly affects adults over 40 years old.

Type 2 diabetes can lead to long-term complications and increases the risk of other chronic diseases such as heart disease. Diabetes puts a burden on the health care system and impacts the productivity and health of communities. Decreasing the risk and burden of diabetes and related health issues is essential to make Peel residents healthier.

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2. Diabetes in Peel

While rates of many chronic diseases have been going down over time, the rate of diabetes has continued to rise over the past couple of decades. This is a concern in Peel where the rates of diabetes have been higher compared to Ontario, with the gap widening over time (see Appendix I). Since 2000, the diabetes rate in Peel has doubled. In 2022, there were nearly 200,000 residents aged 20 years and older living with diabetes (17%). This means that one in six adults in Peel is living with diabetes.

Diabetes rates vary throughout Peel, with lower rates in the south part of Mississauga and parts of Caledon and higher rates in many areas of Brampton (see Appendix II). Some parts of Peel have rates twice as high as other areas. While Mississauga may have lower rates (151 per 1,000), adjusted for age and sex, compared to Brampton (192 per 1,000), many areas are still higher compared to Ontario (123 per 1,000).

Between 2020 and 2030, it is projected that over 100,000 new cases of diabetes will be diagnosed in Peel and that associated health care costs will be nearly \$700 million (this doesn't include costs associated with existing cases of diabetes).

3. Factors Related to the Development of Diabetes

The risk of developing diabetes increases with age, although the rate has been increasing over the past 15 years among younger age groups (less than 50 years old). Similar to other jurisdictions, in Peel the burden of diabetes is higher among males compared to females.

We know from other research that some racialized populations (e.g., South Asian, Black, and Indigenous) experience higher rates of diabetes. In addition, it has been observed in Peel that the proportion of those with diabetes who are immigrants (73%) is higher than the proportion of those without diabetes who are immigrants (57%). The estimated rate of developing diabetes in Peel between 2020 and 2030 is higher among racialized populations and immigrants. Depending on the population, this may be due to family history, cultural differences, inequities, or different opportunities to access care.

Being overweight or obese is a risk factor for developing diabetes. In Peel, over the past two decades, the proportion of adults who are obese or overweight has increased. While obesity is complex and has many contributing factors, important factors that influence obesity risk are healthy eating and physical activity. In 2021, only 18% of Peel adults ate fruits and vegetables five or more times per day, which is a decrease from five years earlier (27%), and just under half (48%) of Peel adults reported being physically active for 150 minutes or more per week.

Diabetes has multiple risk factors which influence health over time. Although people can change some of their diabetes risk through lifestyle and behaviour changes, broader factors, known as the social determinants of health (e.g., income, housing), can have a direct impact on diabetes prevention and control. Health behaviours are also shaped by social and cultural factors that interact with their surrounding physical environments. These factors may impact diabetes risks by influencing engagement in physical activity, eating habits, or broader opportunities to live and work in supportive environments, such as job or neighbourhood choice. Ensuring resources and supports are culturally and socially appropriate is necessary to help prevent diabetes and reduce other chronic disease risks.

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Peel Public Health is working on addressing these factors through preventive programming and policies.

4. Public Health Approach

Peel Public Health is mandated through the Ontario Public Health Standards to address risk factors for chronic diseases using a population health approach. This means public health aims to address the underlying factors that lead to disease and illness before people get sick.

Public health adds value to the health of the community and yields significant return on investment, despite receiving less than 2% of the total health care budget. For every dollar invested in public health initiatives, there is a return of four dollars. By focusing on reducing the risk factors for chronic diseases (primarily physical inactivity, unhealthy eating, tobacco use, alcohol misuse), 80% of heart disease and type 2 diabetes, and 40% of cancers could be prevented. Investment in public health also helps address overcrowding and patient wait times, hallway healthcare, health inequities, and local readiness for future threats.

Public Health's 'Enabling Active Living and Healthy Eating' Strategic Priority helps prevent type 2 diabetes by promoting physical activity, reducing sedentary behavior, and making healthier food choices easier across the life course. This involves engaging with the community and partners on building healthier policies, advocating on the social determinants of health, creating supportive environments, and providing skill building and education supports for early year success. Partners include other regional departments (e.g., Human Services, Public Works), local municipalities, community organizations, school boards, and childcare centres.

a) Early Life and Childhood

- Programming that helps develop personal skills for healthy eating and active living before, during, and after pregnancy, which also aids in the prevention of gestational diabetes. For example, the Infant Feeding Program provides families with feeding support through health education, technical hands-on support, and telephone counselling. Optimal nutrition during the first two years of life helps reduce the risk of chronic disease and foster better overall development.
- Public Health works with local school boards and schools to offer comprehensive initiatives that promote mental wellbeing, physical activity, and healthy eating.

b) Supportive Environments

Peel Public Health works with community partners to increase access and opportunities for healthier food and active living, including infrastructure changes, awareness building initiatives, and policy influence to make the healthy choice the easy choice. For example:

- Nutrition Standards (2024) for food and beverages sold in workplace, municipality, and recreation settings. The City of Mississauga's Healthy Food and Beverage Policy for Recreation Facilities has incorporated these guidelines.
- The Walking Audit Program engages communities and local government to assess the walkability of neighborhoods in municipal planning initiatives (e.g., in 2024, at the Dixie Road Corridor and endorsed by Councillor Dasko).
- Peel Public Health has worked with faith leaders to increase access to healthy eating and physical activity in places of worship. A new project, in partnership with a group

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of local physicians and the University of Toronto, will also incorporate diabetes screening and connecting congregants to a family physician.

c) Built Environment

Building complete communities that make healthy behaviours convenient and safe can help prevent chronic diseases, including diabetes, by increasing opportunities to be physically active. Throughout 2024, Public Health worked with Internal Departments, City of Brampton, Town of Caledon, and City of Mississauga to implement the Healthy Development Framework (HDF). Between 2017 and 2024, the annual number of development proposals that underwent a health assessment more than doubled from 40 to 103, and the percentage of applications that met or exceeded a pass (i.e., “healthy”) score increased from 65% to 96%. Furthermore, calculation of the Peel Walkability Composite Index suggests that from 2016 to 2024, walkability increased in all three local municipalities (refer to Appendix III for additional information).

d) Social Determinants of Health (Food Insecurity)

Food Insecurity refers to the lack of consistent access to a sufficient amount of safe, nutritious, culturally appropriate food within a geographic region. Peel Public Health annually monitors food insecurity data, determines the cost of basic healthy eating in Peel, and shares research and data with partners in social services (e.g., Human Services, food banks) to collectively influence the social determinants of health.

5. Organizational Partnerships

Peel Public Health is included as a partner on several institutional-based initiatives:

a) Cities for Better Health and the Mississauga Healthy City Strategy

The strategy was developed in response to the Urban Diabetes Declaration, to embed a “healthy city” perspective in City decision-making to help reduce the rising rates of type 2 diabetes. Building on existing City policies and programming, the strategy’s focus is on compact, complete and connected neighbourhoods, community services and programming in support of active living and education, and collaborations to support changes. Peel Public Health staff are on the Advisory Committee and Working Group.

b) Novo Nordisk – Network for Healthy Populations

Novo Nordisk, in partnership with the University of Toronto, created the Network for Healthy Populations. The network’s focus is to reduce the burden of diabetes through better care, lower risk factors, and creating healthier living environments. Peel Public Health is on the Network’s Advisory Committee, participated in the Baseline Data Strategy, and is contributing to projects funded by the Catalyst grant.

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CONCLUSION

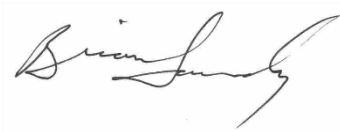
Peel region has higher rates of diabetes than the Ontario average, which creates a significant burden on the health care system and the overall health and wellbeing of the Peel community. Peel Public Health works with partners across various settings and life stages to implement health promotion interventions and address the social determinants of health. Recognizing the increasing rate of diabetes in Peel, Peel Public Health will continue work with the community to address diabetes prevention.

APPENDICES

Appendix I – Age-Sex Standardized Diabetes Rates by Year, Peel and Ontario, 1996-2022

Appendix II – Age-Sex Adjusted Prevalence Rate Ratio (5-year average) by Peel Health Data Zone

Appendix III – Additional Information on the Peel Walkability Composite Index



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