

Neighborhood planning, ethnic backgrounds play roles in Peel's high diabetes rates

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According to researchers at St. Michael's Hospital, there are two significant reasons why Peel has one of the highest rates of diabetes in Ontario: neighbourhood design that discourages walking and a population with many residents whose ethnic backgrounds predispose them to diabetes.

Diabetes is a growing concern in Peel. That is why Peel Public Health partnered with researchers at St. Michael's Centre for Research on Inner City Health to develop an atlas of Peel that maps rates of [diabetes](#) in neighbourhoods across Brampton, Caledon and Mississauga.

"Peel certainly lights up on a map of Ontario diabetes rates," said Dr. Rick Glazier, a researcher with St. Michael's Centre for Research on Inner City Health. "And when we looked at the region in more detail, we found that some neighbourhoods, particularly those in Brampton, had noticeably higher rates."

One in 10 Peel adults has diabetes. By 2025, that number is likely to be one in six.

"How we live and where we choose to live determine our chances of enjoying a long, healthy life," said Region of Peel's Medical Officer of Health Dr. David Mowat. "This atlas helps us understand how our community influences our [health](#) and will help us improve Peel's overall health for future generations."

The 233-page diabetes atlas, published today by Peel Public Health, contains maps and data comparing diabetes rates against risk factors, such as obesity, income level or ethnic background. The atlas allows researchers to determine where diabetes is most common and what factors are most at play.

"We found that diabetes rates were highest in neighbourhoods that discourage walking and in neighbourhoods where more of the residents come from world regions that have high levels of diabetes," said Dr. Gillian Booth, an endocrinologist and researcher at St. Michael's Hospital and an adjunct scientist with the Institute for Clinical Evaluative Sciences.

Peel has a large population of people of South Asian and Caribbean descent, who are more likely to develop diabetes than those from many other countries. For example, South Asians have a genetic susceptibility to developing diabetes at younger ages and at a lower [body mass index](#) than Caucasians.

Peel is also characterized by wide streets and high-traffic intersections – neither of which are conducive to walking. Once developed, a city's "built environment" – city planning features, such as the layout of roads or division of retail and residential real estate – is difficult to modify. But not impossible.

Peel Public Health and the region's Planning Department are collaborating to influence built environment policies and processes. "As Peel's population grows it is important to understand what areas are at most risk for developing type 2 diabetes. The diabetes atlas is a useful reference to help us grow in a way that is healthy, economically viable and sustainable," said Arvin Prasad, Director of Integrated Planning at the Region of Peel.

Dr. Glazier, who is also a senior scientist and program lead with the Institute for Clinical Evaluative Sciences, agrees on the usefulness of the atlas. "Now's the perfect time to use this atlas and include healthy, walkable design characteristics in future projects in Peel and beyond."

A disease with serious consequences, diabetes is a leading cause of vision loss, kidney failure, limb amputations and cardiovascular disease. Providing health care to those affected presents a significant challenge to our health care system.

Data for the [atlas](#) came from the Institute for Clinical Evaluative Sciences and Statistics Canada.

More information: www.peelregion.ca/health/resources/diabetes-atlas.htm

Provided by St. Michael's Hospital

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