

Institute of Population and Public Health Applied Public Health Chair Impact Case Study



Dr. Jim Dunn: Shaping the built environment to promote healthy communities



Research Focus

The structure of a community has a significant impact on people’s day-to-day behaviour. The design and location of buildings—such as stores, offices, factories, and schools—and transportation routes—such as roads, sidewalks, bike lanes, and footpaths—all influence how people spend their day and how they move around the community.

These “built environments” can either promote physical activity and good food choices by putting healthy options within easy reach or make them more difficult to pursue. Better built environments have been proven to reduce the risk of chronic disease—such as heart disease, type-2 diabetes, and certain cancers—premature death, and disability.

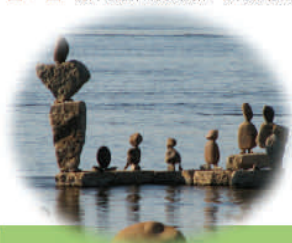
Given the connection between built environment and lifestyle choices, modern zoning applications for residential, commercial, and institutional property have important implications for the health of communities. That’s why Dr. Jim Dunn, Applied Public Health Chair, and his research team created an evidence-based tool for healthy urban development in Ontario’s second-largest regional municipality: the Peel Region of Greater Toronto.

The tool makes it possible for the region’s planning department to assess newly-submitted applications to ensure that future development improves, or at least does not harm, population health. Since the Peel Region gains some 30,000 new residents each year—most of them in new developments on the urban fringe—its potential impact is considerable.

Research Impact: Making a Difference

Recognizing that urban sprawl and rapid population growth can create an unhealthy built environment, Peel Regional Council asked Peel Public Health to create an assessment tool that would enable planners to shape new urban development to promote population health, especially through physical activity.

Dr. Dunn and his research team took on the daunting project. They reviewed existing literature on the built environment and health, drafted an assessment tool, explained the process by which it was developed, and



recommended an effective process for its implementation.

In examining the available evidence, the team identified seven main elements that the tool should assess: density, service proximity, land-use mix, street connectivity, road network and sidewalk characteristics, parking, and aesthetics and human scale.

The research team then refined these elements into quantifiable measures that are statistically associated with specific physical activity outcomes. The tool uses these measures to calculate the degree to which a proposed development will promote healthy behaviours—for example, whether it will encourage walking or cycling to key destinations or make grocery stores as accessible as convenience stores and fast-food outlets.

In addition to creating the healthy urban development tool, Dr. Dunn and his team made recommendations about other changes that need to take place to ensure a healthy built environment. For instance, they recommend taking a collaborative approach to resolving inconsistencies between jurisdictions, departments, and sectors, and consulting with a broad range of stakeholders to set desired targets.

The Region of Peel has accepted the team's recommendations and is now implementing the assessment tool. To help expand the reach of their research, Dr. Dunn and his team have also made presentations to other interested organizations, such as the McMaster Institute for Environment and Health and the Association for Commuter Transportation of Canada.

This initiative is a good example of how urban planners, transportation engineers, public health specialists, researchers and others are working together to shape built environments that support healthier, happier, and more sustainable communities.

Want to Know More?

For more information, please visit: <http://www.peelregion.ca/health/urban/pdf/Realist-Review-Peel-Urban-Built-Form-FINAL-Jan29-09.pdf>
<http://www.crunch.mcmaster.ca/people-1/chair>

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