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Using Planning Data to Monitor the Health of Communities - The Healthy Development: Monitoring and Mapping Project

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Introduction

The impact of the built environment on health and chronic disease outcomes is increasingly being recognized. As Public Health develops interventions to transform the health-promoting potential of built environments, effective monitoring and evaluation will require the creation and baseline measurement of key health-promoting urban elements.

Objectives and Approach

The Healthy Development Monitoring Project aims to assess health-promoting aspects of the existing built environment across the Region of Peel, a large region of 1.382 million people in Southern Ontario comprised of three local municipalities (the Cities of Mississauga, Brampton and Town of Caledon).

Project objectives include:

- i Produce evidence-informed indicators to measure health-promoting built form elements at a neighbourhood-scale across the region
- ii Produce a GIS-based visualization that incorporates these indicators into a single model to measure their combined impact on the built form
- iii Reproduce these indicators over time to monitor for changes in Peel's built form

Results

The resulting Healthy Development Monitoring Map (HDMM) is an interactive online mapping tool that includes twenty built form indicators characterizing the region's built environment, including: density, service proximity, land use mix, street connectivity, streetscape characteristics and efficient parking. These indicators were created through extensive cross-sectoral collaboration with regional and municipal staff in land-use and policy planning, transportation, internal data centers and academic institutions. This collaborative approach enabled the linking of data sets from land-use planning, urban design and transportation to allow the health-promoting potential of existing built environment conditions to be objectively described.

The HDMM demonstrates considerable progress in producing precise, neighbourhood-level built environment indicators at a regional scale by integrating census and local data into a comprehensive set of empirically-derived measures.

Conclusion/Implications

The HDMM is a novel approach to quantifying a social determinant of health through collaborative data acquisition and analysis. The HDMM benefits public health, planning and non-governmental decision-makers by creating a holistic presentation of key infrastructure and design elements that contribute to healthier urban environments.