

Built Environment Influences on Diet, Physical Activity, and Obesity: An Applied Transdisciplinary Approach (NEWPATH)

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Summary:

This study is evaluating how the built environment impacts physical activity, diet, obesity and air pollution. It is being conducted in the Region of Waterloo through a partnership between the Region of Waterloo and researchers that span transportation, land use, and public health. The study team includes both researchers and practitioners. The project is part of the work program of a regional planning authority that makes and informs land development and transportation investment decisions establishing a direct conduit for knowledge transfer and exchange. A set of leaders in the evaluation of physical activity, dietary patterns, and built environment relationships with obesity and air pollution, and the translation of research for practitioners, has been assembled. This “project team” includes: Dr. Larry Frank, Dr. Roy Cameron, Dr. Kim Raine, Dr. Mary Thompson and Patrick Fisher on behalf of the Regional Municipality of Waterloo. The study AIMS are to:

- I. Establish a national model to integrate dietary, transportation, physical activity, built environment, and body weight data.
- II. Apply this model within the context of a regional travel-behaviour and built- environment decision-making process.
- III. Evaluate the impact of dietary behaviour (energy in) versus physical activity levels (energy out) in explaining obesity across a range of income, age, and walkability levels.
- IV. Evaluate the amount of harmful air pollutants generated from personal travel by people living in different levels of walkability.

The knowledge gained through this research will involve documenting travel and vehicle related air pollution, food environment, food purchasing patterns, dietary consumption, body weight, urban form, and demographic measures, for 2400 households, and objectively measured physical activity for 1000 persons within the Waterloo region. The research will adjust for demographics and preferences for neighbourhood type and travel choices when evaluating how built environments relate with physical activity and dietary behaviours. This study is collecting baseline data for a potential longitudinal follow up assessment in a corridor that will be significantly altered after rapid transit investments are made. The Region of Waterloo has committed funding as a financial match and is also allocating a considerable amount of staff time as well as some of the data required for the effort.