

Where Matters: Walkable Places Support Healthy Lifestyles

/ Erin Rennie, Candidate Member

Designing walkable cities that promote public health is one of the foundations of strong community and regional planning. And for good reason: The *Where Matters: Health and Economic Impacts of Where We Live* study found that people who live in walkable neighbourhoods tend to have better health, are less likely to suffer from stress, and feel a stronger sense of community belonging.

Where Matters quantifies the relationship between the built environment and health outcomes by linking walkability and park access in Metro Vancouver with real health care data. To support this project, a group of interdisciplinary organizations formed a unique partnership spanning land use, transportation, and health expertise.

The three goals of *Where Matters* were to:

- examine how built environment features relate to physical activity, body mass index, and chronic disease
- analyze impacts by age and income
- evaluate whether built environment features are connected to healthcare use and costs

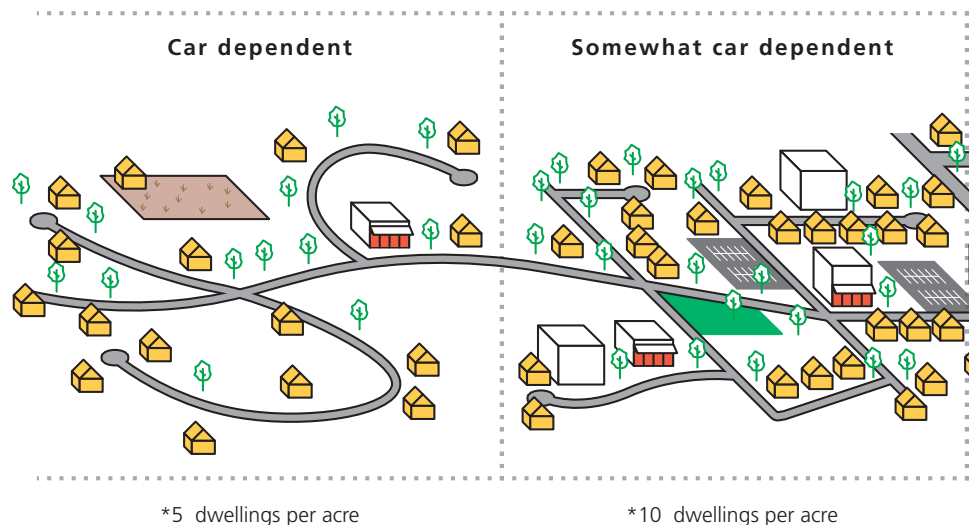




Photo credit: Ryoji Iwata courtesy of UnSplash

Walkability is a measure of the physical characteristics of the built environment that support pedestrian movement. *Where Matters* used the 2011 Walkability Index, which is developed by combining four input variables (residential density, land use mix, street connectivity, and pedestrian-oriented retail density) to predict walking, physical activity, and obesity. The 2011 Walkability Index produces a walkability score for every postal code in the Lower Mainland.

Along with the Walkability Index, two new data layers were added: a measure of regional accessibility (i.e.: distance to key destinations) and a measure of park access (i.e.: number of parks within walking distance). This created the built environment database for the Lower Mainland.

Researchers then linked the built environment database with two large health outcome databases: the My Health My Community dataset and the BC Generations dataset. Researchers could connect for every postal code the walkability score was with health outcomes. The postal codes were then divided into five groups called “place types” (or quintiles) of roughly equal size to allow the researchers to make inferences about how the built environment and health outcomes are related. Finally a “Cost of Illness” methodology

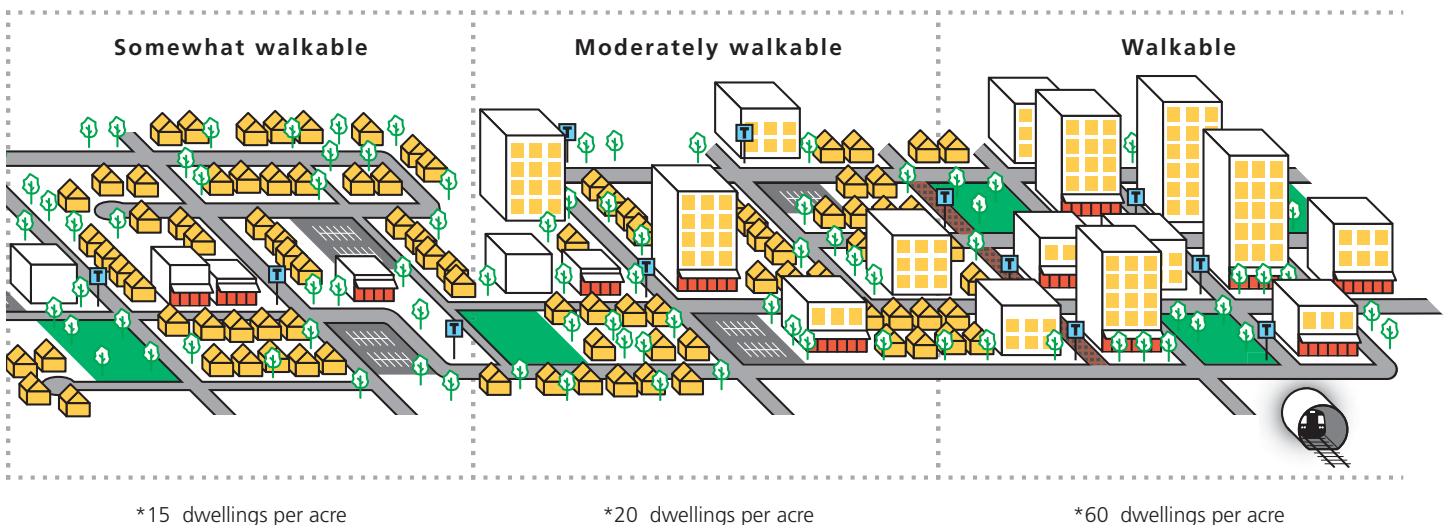
was applied to the health outcomes information to draw conclusions about healthcare costs associated with walkable vs. less walkable neighbourhoods.

Health Benefits of Walkability and Park Access

The study found higher levels of walkability resulted in more people selecting to walk as a preferred mode of transportation, and achieving the recommended 150-minutes-per week of physical activity. This was particularly true for lower income earners (less than \$60,000 per year), who were 51% more likely to achieve the recommended amounts of physical activity if they lived in walkable neighbourhoods.

Compared to those in the least walkable, car-dependent neighbourhoods, residents in walkable places were also:

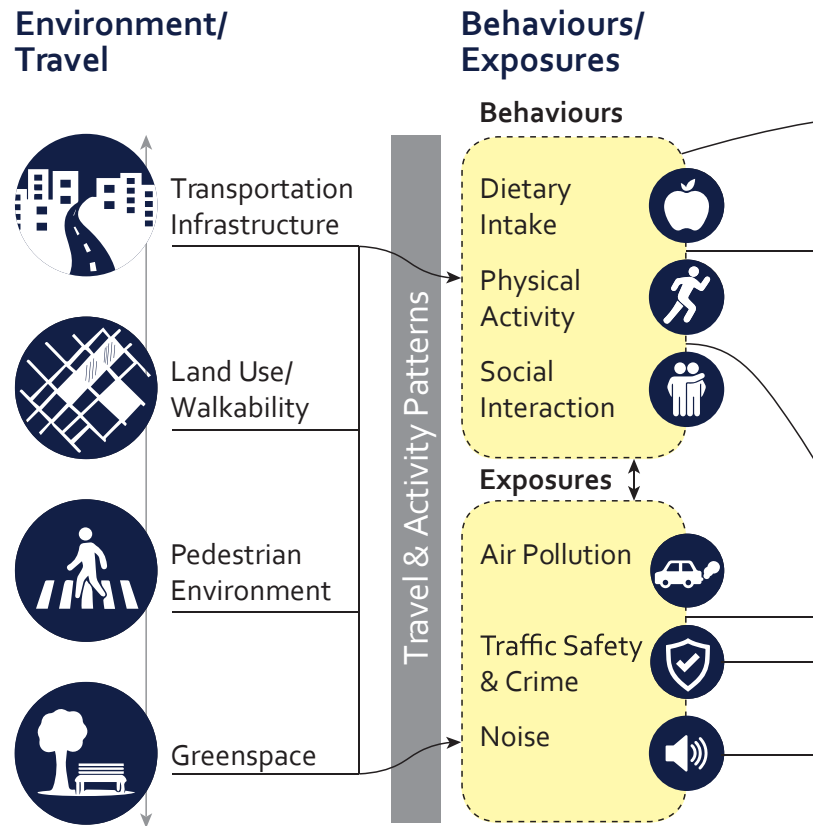
- 39% less likely to have diabetes
- 28% less likely to have hypertension
- 23% less likely to suffer from stress



*Numbers represent median value for each place type.

Casual Pathway Linking Environments, Health, and Cost

Source: Frank et al, 2017



Living close to a park also appears to improve those odds. The study found residents in neighbourhoods with the greatest park access were 20% more likely to walk for recreation and 33% more likely to meet the recommended weekly physical activity rates compared to the neighbourhoods with the lowest park access. As a result, 53% were less likely to have diabetes, 39% less likely to have heart disease and 35% less likely to suffer from high blood pressure.

Both walkability and access to parks could be associated with lower healthcare costs. By using the “Cost of Illness” method – multiplying the annual direct healthcare cost of chronic diseases by the prevalence in a population – the study found that compared to neighbourhoods with low park access (zero to one park) to a neighbourhood with high park access (six or more parks), direct “in-patient” healthcare costs could be:

- 75% lower for diabetes
- 69% lower for hypertension
- 69% lower for heart disease

Furthermore, residents in walkable neighbourhoods were 46% more likely to report a strong sense of community belonging compared to the least walkable places. People over the age of 60, for instance, were 91% more likely to report having a strong sense of community if they lived in the most walkable places.

What does it mean for planners?

Where Matters demonstrates the benefits of investing in improved walkability and park access, in terms of both health benefits and related healthcare cost savings. Communities can support better health outcomes by building compact residential areas, increasing intersection density, supporting compact commercial development, building mixed-use neighbourhoods, and improving access to parks. Focusing growth in areas that are already walkable and with good park access could mean improved health for more residents and workers and a reduced health care cost burden overall.

A sprawling, unwalkable development pattern dilutes from the vibrancy of centres and corridors; contributes to increased traffic congestion, air pollution, and greenhouse gas emissions; and results in negative health outcomes for residents and workers. This study demonstrates that it also drives healthcare costs. Renewed commitment to growth management principles is required to ensure more of the region’s residents have access to healthy, walkable neighbourhoods.

Unfortunately, there are challenges: housing affordability is a growing concern in many of the region’s highly walkable neighbourhoods. More work is required to support inclusivity of all income groups in existing and emerging walkable neighbourhoods, including policies that increase the supply of affordable rental and family-friendly housing. Failing to do so is likely to result in widening inequities in health outcomes across income groups.

In memory of Jay Simons RPP, MCIP



Jay Simons passed away suddenly July 25th, while camping in the Cowichan region.

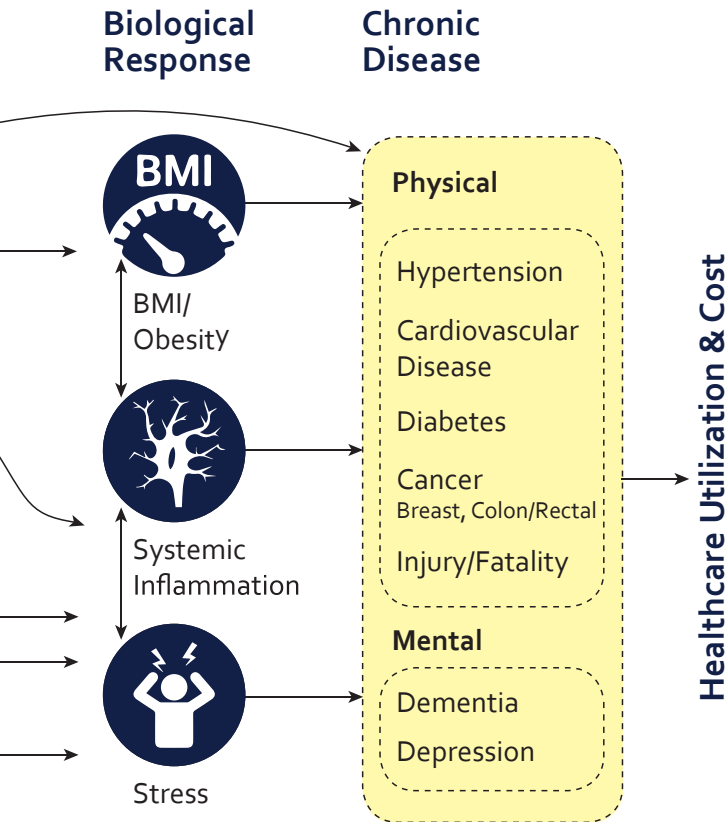
A graduate of the 1972 class of University of Waterloo's Community and Regional Planning program, Jay never saw himself as a "career planner" with one local government, institution, or business. Jay's planning and CAO career included the Old Man Regional District (Alberta), Metro Vancouver, the Agricultural Commission, Bulkley Valley Regional District, Esquimalt, Slave Lake, and the Columbia Shuswap Regional District.

Jay was instrumental in reinvigorating PIBC in the 1990s and served as President in the mid-90s. At a time when there were no women on Council, Jay encouraged several women to stand for office. Four women were elected who went on to serve in leadership positions with PIBC and CIP.

As the photo shows, Jay loved the outdoors, travelling extensively, skiing, canoeing, and camping. How many planners travel to the Everest base camp? Jay did!

Jay is greatly missed by his beloved family, and his many friends and colleagues.

Memoriam submitted by Linda Allen RPP, FCIP, along with Jay's wife and planning colleagues.



Where Matters provides strong evidence for the health benefits of many of the growth management and community planning practices that are already part of the planner's toolkit. Focusing growth in compact, complete, and walkable communities is a core principle of both the *Metro Vancouver 2040: Shaping our Future*, the regional growth strategy, and the *Regional Transportation Strategy*. *Where Matters* allows planners to quantify the benefits of walkability and park access in terms of reduced chronic disease and reduced healthcare costs.

The strong inter-agency partnership formed through this work will help strengthen ongoing collaboration across disciplines and between agencies so that planning and public health can continue to be mutually supportive as we look towards the future of the region.

Where Matters was led by researcher Dr. Larry Frank with UBC's Health and Community Design Lab. It was supported by Metro Vancouver, TransLink, Vancouver Coastal Health, the City of Vancouver, the Real Estate Foundation of BC, and Fraser Health. ■

Erin Rennie is a Senior Planner at the Metro Vancouver Regional District working with the Regional Planning Division.

Graphics courtesy of Dr. Lawrence D. Frank, Health and Community Design lab, School of Population and Public Health, University of British Columbia. Graphic support provided by Mr. Stuart Hamre.