my Health my Community

How do you like your 'hood? – Perception of built environment and the influence on health and well-being across Metro Vancouver, British Columbia

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Background and Objectives

My Health My Community (MHMC) is a collaboration between Vancouver Coastal Health (VCH) and Fraser Health (FH) regions, developed to better understand how lifestyle, environment and neighbourhood characteristics affect community health and well-being at a local level. The MHMC survey captured information within domains of:

➢ **socio-demographics**
➢ **health status**
➢ **lifestyle**
➢ **access to care**
➢ **built environment**
➢ **community resiliency**

MHMC recruited adults across VCH and FH, primarily online, from June 2013 to June 2014. The survey ran in English, Chinese (online and paper) and Punjabi (paper). Online recruitment was supplemented with community outreach (i.e. seniors groups, homeless shelters) and a variety of media and social media promotions were used engage participants.

The objective of this analysis was to examine the associations between perception of neighbourhood built environment, lifestyle behaviour, health status and community belonging across Metro Vancouver (MV).

Methods

MHMC surveyed 28,128 MV residents aged 18+ years. Respondents were asked eight questions about the natural and built environment of their neighbourhood (Box 1). Responses were combined into a neighbourhood perception index (NPI) (scores 0-32) and categorized (Table 1).

Those with **low NPI were compared to those with high NPI** for the following indicators::

• **lifestyle behaviour** (self-reported moderate to vigorous physical activity, daily fruit and vegetable consumption)
• **health status** (self-reported general health, mental health and obesity)
• **sense of community belonging**

Table 1: NPI categories

NPI category	Score
Low	<20
Medium	20-26
High	>26

Differences were considered to be statistically significant if 95% confidence intervals were non-overlapping.

## Box 1: My Health My Community Neighbourhood Environment Questions[†]

Statements were rated on a 5 point scale from strongly disagree (0) to strongly agree (4):

1. There are special lanes, separate paths or trails, shared use paths for cyclists and pedestrians in or near my neighbourhood
2. There are sidewalks in my neighbourhood that are well maintained (paved, with few cracks) and not obstructed
3. Many shops, restaurants, services and facilities are within easy walking or cycling distance of my home
4. A large selection of fruits and vegetables is available in my neighbourhood
5. There are many attractive natural sites in my neighbourhood (such as landscaping, views or parks)
6. There is so much traffic along the street I live on that it makes it difficult or unpleasant to walk in my neighbourhood[‡]
7. I feel safe walking alone in my neighbourhood after dark
8. I see a lot of people walking and biking in my neighbourhood

† based on 2011 Canadian Community Health Survey Module on Neighbourhood Environments
‡ response order flipped to create NPI

Results

Figure 1: Neighbourhood Perception Index by neighbourhood. Metro Vancouver, My Health My Community, 2013-14
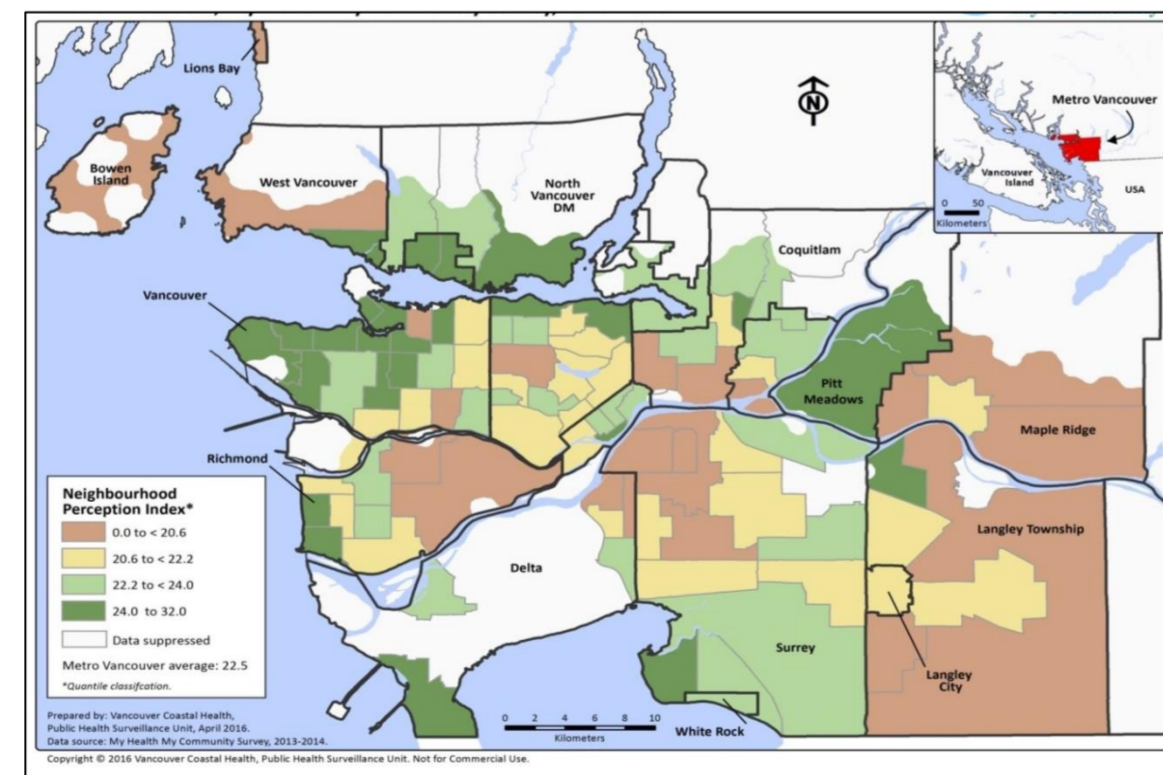

NPI varied across Metro Vancouver neighbourhoods (Figure 1). Compared to low NPI, respondents with high NPI[*](Figure 2) were:

• 60% more likely to report very good/excellent general health (63% vs. 39%),
• 30% more likely to report very good/excellent mental health (66% vs. 51%),
• 20% less likely to be obese (20% vs. 25%),
• 40% more likely to report 150+ mins of weekly physical activity (52% vs. 38%),
• 50% more likely to report consumption of 5+ daily servings of fruits and vegetables (31% vs. 21%),
• 50% more likely to report a strong sense of community belonging (68% vs. 45%).

*Statistically significant differences, p<0.05*

Figure 2: Health status, lifestyle and community belonging indicators by Neighbourhood Perception Index, 2013-14
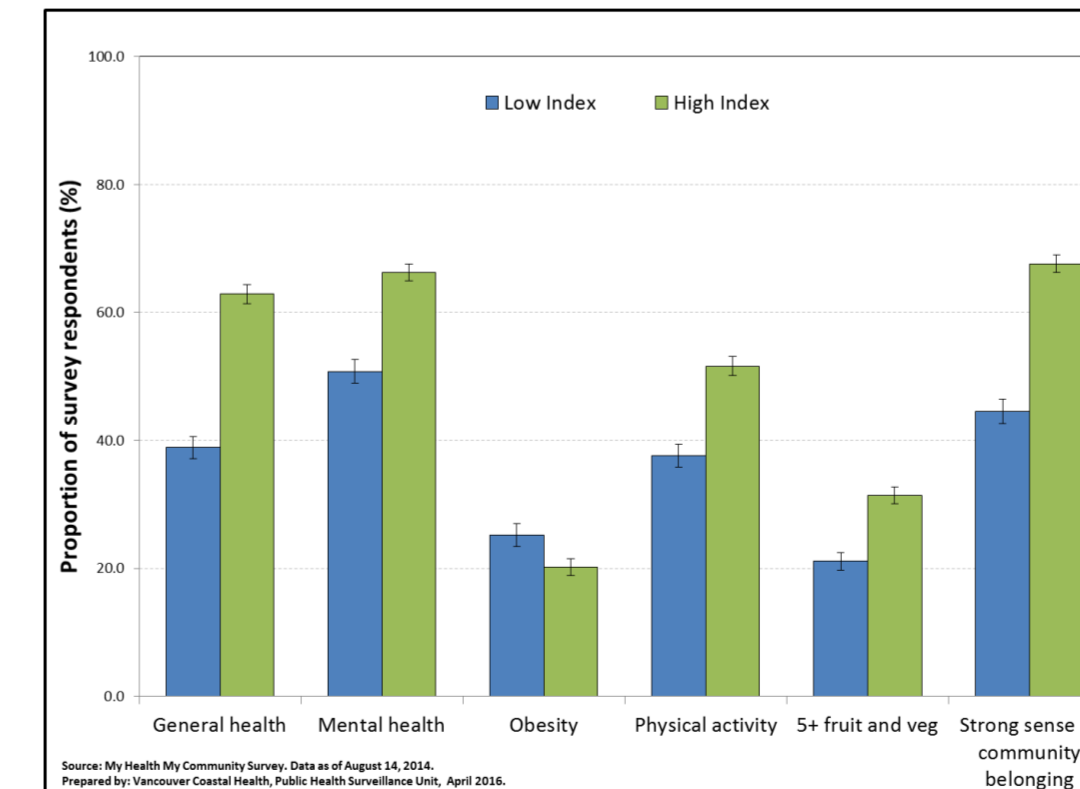
Discussion and Conclusions

MHMC is a large, granular data source available to examine how place affects health and well-being across VCH and FH. Land use, transportation, housing, food environment and green space are important determinants of lifestyle, social capital, physical and mental health outcomes. In Metro Vancouver, respondents who perceived living in safer, walkable neighbourhoods with access to amenities were more likely to report positive lifestyle factors, stronger sense of community belonging and better health outcomes.

These results do not take into account differences in reported income which is likely to be a confounding factor. Further analysis is required to adjust for income and other potential confounders.
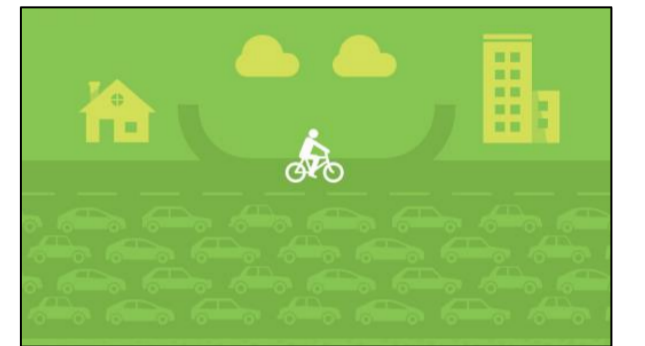
Improved neighbourhood design can reduce inequities, influence population health and wellbeing, and results such as these can be used to inform municipal and regional planning decisions and policy development. Further work is underway to incorporate other health and non-health data sources into My Health My Community analyses to further advance the body of knowledge.

Acknowledgements

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