

Healthy Toronto by Design: Current Research and Policy Initiatives for a Healthy Built Environment

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From:	Medical Officer of health
Wards:	All
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SUMMARY

The way we plan, design and build our communities can influence our health. There is a connection between the built environment and factors influencing our health such as physical activity, injuries, healthy eating, air pollution, water quality, risk of traffic collision, and community social networks. Land use and urban design characteristics can influence the degree to which people walk, cycle, visit parks, drive cars or take public transit.

Toronto Public Health (TPH) has collaborated with City colleagues and external stakeholders to undertake several initiatives which support a healthier built environment. These include the development of health-based decision-support tools for use in the land-use planning process, improving understanding and awareness of the relationship between the built environment and health outcomes, and exploring how policy enhancements and public engagement can be used to develop healthier environments that will help prevent obesity, cancer, and other chronic diseases.

This report provides an overview of research and policy work on the built environment that is underway by TPH, with a special focus on activities which are part of the *Healthy Canada by Design* collaborative project funded by the Canadian Partnership Against Cancer (CPAC) through their Coalitions Linking Action and Science for Prevention (CLASP) initiative. The Medical Officer of Health (MOH) will report to the Board of Health (BOH) on these initiatives individually as they are completed.

Financial Impact

There are no financial implications arising from this report.

DECISION HISTORY

At its meeting of November 30, December 1, 2, 4 and 7, 2009, City Council approved funding for Toronto Public Health (TPH) to participate in the Healthy Canada by Design initiative of the CLASP. TPH is part of a pan-Canadian group of agencies working on Built Environment and Health initiatives that are funded federally through the CPAC. (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2009.HL26.7>).

On January 26 and 27, 2010, City Council also approved the receipt of additional funding for the period of February 2010 to March 2012 to enable TPH to enter into Purchase of Service contracts with external experts such as Urban Design 4 Health to undertake projects as part of this built environment and health initiative. (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.HL27.6>)

This report highlights research and policy work that TPH has undertaken on built environment and health over the past two years, including activities through the CLASP grant and corresponding in-kind contributions.

ISSUE BACKGROUND

At its October 17, 2011 meeting the Board received the report *Healthy Toronto by Design*, which highlighted the many ways in which cities affect the health of their residents. Some of the factors that influence health are related to how our cities are designed and built.

There is growing evidence that many features of the built environment have an effect on the health of the public and have likely generated significant health inequalities within urban populations. Environmental conditions such as population density, land use mix, access to and quality of transit, recreational amenities, exposure to air pollution and noise levels can contribute to chronic disease. How we design the built environment can help address important current public health concerns, including obesity, cardiovascular disease, diabetes, asthma, injury, mental health, and isolation.

There is growing evidence that the design, infrastructure and layout of communities can encourage or discourage activities such as walking, cycling and social interaction. Individuals who live in more walkable areas, with greater land-use mix, residential density, and street connectivity, are more likely to be physically active and less likely to be obese or overweight. These types of neighbourhoods are also associated with higher levels of social and community engagement (that is, social capital), which is associated with more positive health outcomes.

Many of the health effects of the built environment are related to the level of reliance on automobiles. Dispersed, low-density, single-use (that is, separation of residential, commercial, and employment areas) land uses mean that people have to travel further to reach their destinations. This tends to result in greater use of automobiles to get to work and school, to shop, and to access services and recreational opportunities than would occur in more compact, mixed use neighbourhoods that are more walkable, bikeable, and better serviced with more frequent public transit.

Toronto Public Health has partnered with other City Divisions (such as the Toronto Environment Office, City Planning, Transportation Services) and external stakeholders (such as United Way Toronto, Urban Public Health Network, The Heart and Stroke Foundation of Canada) to undertake several initiatives on the built environment. These initiatives include increasing understanding and awareness of how the built environment impacts health, developing health-based decision-support tools for use in the land use planning process, and exploring policy enhancements, programs and public engagement opportunities that can be used to develop healthier environments that help prevent cancers and other chronic diseases.

COMMENTS

Toronto Public Health initiatives related to the built environment and health are summarized below in the following categories:

- Advocacy and Knowledge Transfer;
- Knowledge synthesis;
- Research; and
- Creation of Decision-Supporting Tools.

Increasing knowledge and advocating for an improved built environment

In October 2011, TPH submitted its first report on the built environment to the BOH. This report, *Healthy Toronto by Design*, provided an overview of the many ways cities influence health and highlights the role of city governments in improving health. By raising awareness of the various factors, including those related to the built environment, it recommended collaboration between TPH and a range of City services to improve health. The MOH will report back to the BOH at the end of 2012 on progress made to foster healthy public policy in Toronto.

In November 2011, the BOH adopted the report *Improving Health and Health Equity through the Toronto Parks Plan*, which made recommendations on the Park's Forestry and Recreation (PF&R) Division's updated Parks Plan for Toronto. Using various socio-economic factors, TPH created maps that identified underserved low-income areas with poorer health that should be given priority when the City acquires or upgrades parks. (See: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.HL9.4>). This novel mapping of overlapping low parks density and low income areas of the City was made possible through concurrent research underway through the CLASP grant.

Toronto Public Health has prepared an *Inventory of Best Practices* which showcases examples of innovative practices and policies across City Divisions that promote healthy built environments. This report will help other public health units and municipalities in Canada to become aware of innovative approaches that promote urban sustainability, environmental protection and health. The document will be posted on the National Collaborating Centre for Environmental Health (NCCEH) and TPH websites.

Toronto's *Official Plan* (OP) provides guidance for land-use planning decisions that impact how growth in Toronto will take place between now and 2031. Currently, the City Planning Division is gathering information for the 5-year review process and conducting public consultations. A final report on the review, including recommendations for amendments to the OP, is scheduled to be brought forward to City Council in early 2013. The current OP includes many policies that support health. TPH is reviewing the Plan in consultation with City Planning and other City divisions. As part of this review, TPH is hosting a workshop in collaboration with City Planning to help identify areas where the OP could be strengthened to foster a healthier Toronto. The MOH will report back to the BOH in early summer on the input received from the Health and Planning Roundtable currently scheduled for March 30, 2012.

Synthesizing knowledge to improve our understanding

Toronto Public Health is undertaking a major study on *Active Transportation and Health in Toronto*. This study reviews and synthesizes the evidence of both health risks and benefits associated with walking, cycling, and physical activity related to the use of public transit. The active transportation study will provide a comprehensive review of the literature on the health impacts of walking and cycling for transportation in urban areas and also discuss the economic, social, environmental and transportation system benefits. It will present data on walking and cycling mode shares and collisions in the City of Toronto and quantify the health benefits of active transportation. It will also present information on the costs of pedestrian and cyclist collisions and injuries in Toronto. The report will identify specific strategies for increasing the safety and use of active transportation in Toronto, and will be submitted to the BOH in the spring of 2012.

Enabling Healthier Neighbourhoods through Land Use Planning is another significant project underway by TPH, and is being done in response to recommendations the Board made at its meeting of the March 1, 2011 meeting

(<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.HL2.1>).

This report will identify policy barriers and develop policy alternatives to promote healthy neighbourhoods in Toronto, particularly in the clusters of tall residential apartment towers in lower income areas in the inner suburbs. The creation of new mixed land use options in these communities would allow for the provision of local fresh food, local retail, service delivery, local employment and economic development opportunities. These types of amenities and opportunities can help create social connection and enable residents to participate in healthy activities enjoyed by other city residents in higher income communities. Toronto Public Health is collaborating with the United Way which will be releasing related reports with recommendations for a new planning framework to address these issues. The TPH report will help provide the health lens on these issues, and is anticipated to be presented to the Board in summer 2012.

Adding to our knowledge through research

Through CLASP funding, TPH was able to lead implementation of a major study on Residential Preferences in two major urban/suburban regions of Canada. This study is a population survey that gauges public demand for various neighbourhoods including more walkable versus more auto-oriented neighbourhoods, and that compares the stated

preferences with revealed demand in both the Greater Toronto Area and the Greater Vancouver Region. The results of the survey provide insights on the desirability of different walkable neighbourhood characteristics, and can assist local governments in their efforts to plan and design neighbourhoods. Toronto Public Health commissioned Urban Design 4 Health to conduct the study on behalf of the CLASP partnership. A detailed technical report of the study findings will be posted on the internet. Based on these findings, TPH has prepared a Toronto-specific report for the Board called *The Walkable City*.

Another research project that emerged through the CLASP partnership is the *Multi-City Bicycle Share Study*. This project is led through Montreal Public Health and the Research Centre of the University of Montreal Hospital Centre and is being done in collaboration with TPH. Surveys are to be conducted in 5 cities (Montreal, Toronto, Vancouver, Boston, and New York City) where there are or will be bicycle-share programs. The study will compare changes in cycling and collisions in these cities to similar cities (Detroit, Philadelphia, and Chicago) without bicycle share programs. The study will also examine knowledge and use of public bicycle share programs, and cycling experiences of collisions with cars, by age, sex and income. The results will inform public policy to promote safe and active forms of transportation.

Creating tools to help in decision-making

As part of the CLASP initiative, TPH commissioned Urban Design 4 Health to map utilitarian (as opposed to recreational) walkability in Toronto. While walkability refers to walking, the characteristics of walkable neighbourhoods also support other forms of active transportation such as cycling and public transit. Using a walkability index derived from measures such as residential density, retail density, land use mix and intersection density, Urban Design 4 Health developed *Walkability Maps* for Toronto, including a map that overlays low income and low walkability areas. These maps, along with neighbourhood-level walking audits that assess pedestrian safety, access, comfort and convenience of the walking environment can help identify where and how the built environment can be improved.

On behalf of the CLASP partnership, TPH also retained Urban Design 4 Health to develop a *Health Impact Assessment Software Tool* to help policy and decision-makers critically assess how alternative and contrasting approaches to neighbourhood design and built environment patterns might impact health-related outcomes such as physical activity levels and body weight. The tool uses Toronto data to establish the relationships between the built environment and health outcomes while accounting for socio-demographic factors.

The tool has been applied to the West Don Lands study area (which includes the site of the Athlete's Village for the Pan Am Games) to compare the current planned conditions of the built environment with an alternative development scenario. The West Don Lands was chosen as a pilot site to test the tool because it is being transformed from former industrial lands into a sustainable, mixed-use, pedestrian-friendly, riverside community. West Don lands will accommodate a mix of housing, office space, and retail/restaurants,

all within a few minutes' walk from Toronto's waterfront. The MOH expects to report to the Board on the results of this work later in 2012.

Also as part of the CLASP initiative, TPH collaborated with Peel Health on the development of a *Health Background Studies Framework* to assist developers and planners to determine if development plans include features that are supportive of health. The guidelines incorporated in this framework already being met or exceeded in Toronto, however, the guidelines developed by Peel will be useful to other municipalities and regions trying to curb suburban sprawl.

While Toronto will not be implementing the health background studies framework, City Planning has consulted with TPH on a *Sustainable Planning Framework Tool*. City Planning developed this tool to guide sustainable neighbourhood-scale planning during the preparation and review of secondary plans, precinct plans, revitalization projects and plans of subdivisions. The tool provides a simple structure and process for City staff to learn about sustainability indicators, enter the characteristics of their neighbourhood plan, and evaluate the plan against high-level targets. The tool consists of 32 indicators that are combined into eight distinct groups. Many of these indicators, such as proximity to transit, proximity to daily services, street and block design are related to health outcomes.

Conclusion

There is increasing evidence of the relationship between features of the built environment and health. With support from CLASP, TPH has carried out a number of activities to improve knowledge about this relationship and to develop tools that can guide decision-making and help improve the built environment.

Through this work, TPH will increase awareness among stakeholders, including City staff, of how the urban physical environment and socio-economic factors interact to influence health. TPH and other City divisions will also have tools to assist in decision-making. The MOH will report to the BOH on these initiatives as they are completed.

CONTACT

Monica Campbell

Director, Healthy Public Policy

Tel: 416-392-7463, Fax: 416-392-0713, email: mcampbe2@toronto.ca

SIGNATURE

Dr. David McKeown
Medical Officer of Health