TORONTO

STAFF REPORT
ACTION REQUIRED

The Walkable City

Date:	March 15, 2012
To:	Board of Health
From:	Dr. David McKeown, Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

The attached report, *The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health*, summarizes the findings of a residential preferences survey. This study examined the preferences of residents regarding walkable and transit-supportive neighbourhoods and specific features of those neighbourhoods. The results also highlight the relationship of travel choices, levels of physical activity, and body weights of residents in relation to the walkability of their current neighbourhoods and to their neighbourhood preferences.

This original research was conducted as part of the *Healthy Canada by Design* collaborative project funded by the Canadian Partnership Against Cancer (CPAC) through the Coalitions Linking Action and Science for Prevention (CLASP) initiative. The full study was conducted in the Greater Vancouver Regional District (GVRD) and in the Greater Toronto Area (GTA), but this report focuses on the GTA results only and highlights the findings for the City of Toronto. This study was done for Toronto Public Health (TPH) utilizing a methodology developed by Dr. Larry Frank and other health and planning experts at the firm Urban Design 4 Health.

The survey found that residents in the City of Toronto have a strong preference for walkable neighbourhoods including strong support for walkable neighbourhood features, such as shops and services within walking distance of homes. It also found that there is a strong unmet demand for more walkable neighbourhood features among residents in the City who currently live in automobile-oriented neighbourhoods. The survey found that residents who live in more walkable neighbourhoods walk more for utilitarian purposes (i.e. for everyday non-recreational activities), use transit more, drive less often and less far, and weigh less than residents who live in auto-oriented neighbourhoods, regardless of their neighbourhood preferences. This finding underlines the important role that neighbourhood design plays on travel choices, physical activity and health.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health forward this report to the Chief Planner and Executive Director of City Planning to support Official Plan policies and inform all planning studies in areas of Toronto with low walkability.

2. The Board of Health forward this report to the Chief Planner and Executive Director of City Planning and the General Manager of Transportation Services to inform all studies and undertakings to improve the public realm in order to promote improved walkability.

3. The Board of Health forward this report to the General Manager of Transportation Services and the Vice President, Asset Management, Toronto Hydro to support the development of a pedestrian-scale lighting program.

4. The Board of Health forward this report to:
    a. The Ontario Ministers of Municipal Affairs and Housing, Health and Long-Term Care, Transportation, Infrastructure, and the Environment;
    b. The Ontario Public Health Association (OPHA), the Urban Public Health Network, the Heart and Stroke Foundations of Canada and Ontario, the Ontario Medical Association (OMA), the Medical Officers of Health of Durham Region, Peel Region and Halton Region, and the Ontario Lung Association;
    c. The Ontario Professional Planners Institute (OPPI), Canadian Institute of Planners (CIP), the Canadian Urban Institute (CUI) and the Cities Centre at University of Toronto;
    d. The Toronto Board of Trade and Conference Board of Canada;
    e. Metrolinx, the Toronto Transit Commission, and the Canadian Urban Transit Association (CUTA);
    f. Canadian Mortgage and Housing Corporation (CMHC), the Canadian Real Estate Association (CREA), Toronto Real Estate Board and the Building Industry and Land Development Association (BILD); and
    g. The City Manager; the General Managers of Toronto Employment and Social Services and Toronto Community Housing Corporation; the Director of the Toronto Environment Office and the Executive Director of Social Development, Finance and Administration.

Financial Impact

There are no financial implications arising from this report.

DECISION HISTORY

At its meeting of November 16, 2009 (http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2009.HL26.7) and January 18, 2010 (http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2010.HL27.6), the Board of Health (BOH) approved Toronto Public Health to participate in the Healthy Canada by Design initiative of the Coalitions Linking Action and Science for Prevention (CLASP). Toronto Public Health is part of a pan-Canadian group of agencies working on Built Environment and Health initiatives that are funded federally through the Canadian Partnership Against Cancer (CPAC). The BOH approval also enabled TPH to enter into Purchase of Service contracts with external experts to undertake projects as part of this built environment and health initiative.

This report highlights the findings from a research project that TPH has undertaken working with Dr. Larry Frank and his firm Urban Design 4 Health as one of the deliverables of this built environment project funded through the CLASP grant and corresponding in-kind contributions from TPH.

ISSUE BACKGROUND

At its October 17, 2011 meeting the Board of Health (BOH) received the report *Healthy Toronto by Design*. This report 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 provided a basis for further collaboration between TPH and other City divisions to improve the health of Torontonians. The Medical Officer of Health (MOH) expects to report back to the BOH at the end of 2012 on progress made to foster healthy municipal public policy in Toronto.

Through CLASP funding, TPH was able to lead implementation of a study on residential preferences in two major urban/suburban regions in Canada - the Greater Toronto Area (GTA) and Greater Vancouver Regional District (GVRD). This study is a population survey that gauges public demand for more walkable versus more auto-oriented neighbourhoods, and that compares the stated preferences with revealed demand in both the GTA and GVRD. The survey methodology is summarized in the attached report. 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.

This study provides Toronto-specific findings to support the 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. How the built environment is designed can help address current public health concerns, including obesity, cardiovascular disease, diabetes, asthma, injury, depression and social inequities.

COMMENTS

Walkable Neighbourhoods are Important to Health

Neighbourhood design can have a substantial impact on the health of residents because it affects the levels of physical activity among residents, the access that residents of varying incomes, ages and abilities have to healthy foods, jobs, services and recreational opportunities, and indirectly, regional and local air quality.

Physical inactivity can have a significant impact on human health. It has been clearly linked to an increased risk in chronic diseases such as colon cancer, type 2 diabetes, osteoporosis and heart disease. Despite the significant health benefits associated with physical activity, six out of ten residents in Toronto are not getting the physical activity they need to maintain good health.

Walking is the number one activity used by most Canadians to stay physically fit. It is an activity that is generally easy for all age groups, inexpensive, and accessible to most people. Several studies have found that time, or the lack of time, is one of the most common barriers to physical activity. For this reason, active transportation (e.g., walking, cycling), where physical activity is substituted for a trip that might otherwise be made in a vehicle, is as a good way to enable people to be more physically active during their everyday activities.

Unhealthy weights can have a significant impact on human health and have been clearly linked to chronic diseases such as hypertension, type 2 diabetes, heart disease and stroke. In Toronto, it has been estimated that four out of ten adults and one in five teenagers are overweight or obese. The escalating rates of obesity have been attributed to physical inactivity and poor nutrition.

Studies also demonstrate that people are more likely to eat healthy foods when they have ready access to grocery stores that sell healthy and affordable foods, such as fresh vegetables and fruit, than if they only have access to food from nearby convenience stores that offer mostly packaged and processed foods. Reduced access and availability to healthy foods has a greater impact on low income households that have less mobility and fewer affordable transportation options.

Neighbourhood design can have a greater impact on the health and well-being of people who live on low incomes and are less likely to own their own vehicles and are therefore more dependent upon public transit, active modes of transportation, and local services. When neighbourhoods are walkable in their design, and serviced with public transit, social and health inequities can be reduced because those who cannot afford automobiles, and those who are not able to drive vehicles because of age or ability, have greater access to jobs, healthy foods, services, and recreational facilities.

Walkable and transit-supportive neighbourhoods can play an important role in creating healthier cities. A growing body of evidence suggests that walkable and transit-supportive neighbourhoods are healthier and more environmentally sustainable than non-walkable neighbourhoods because they allow people to walk, bicycle and use transit more, and to drive less for their day to day trips. These travel choices are associated with

higher levels of physical activity and lower body weights among residents. They can also be associated with lower emissions of air pollutants and greenhouse gases per person and potentially in reduced traffic congestion.

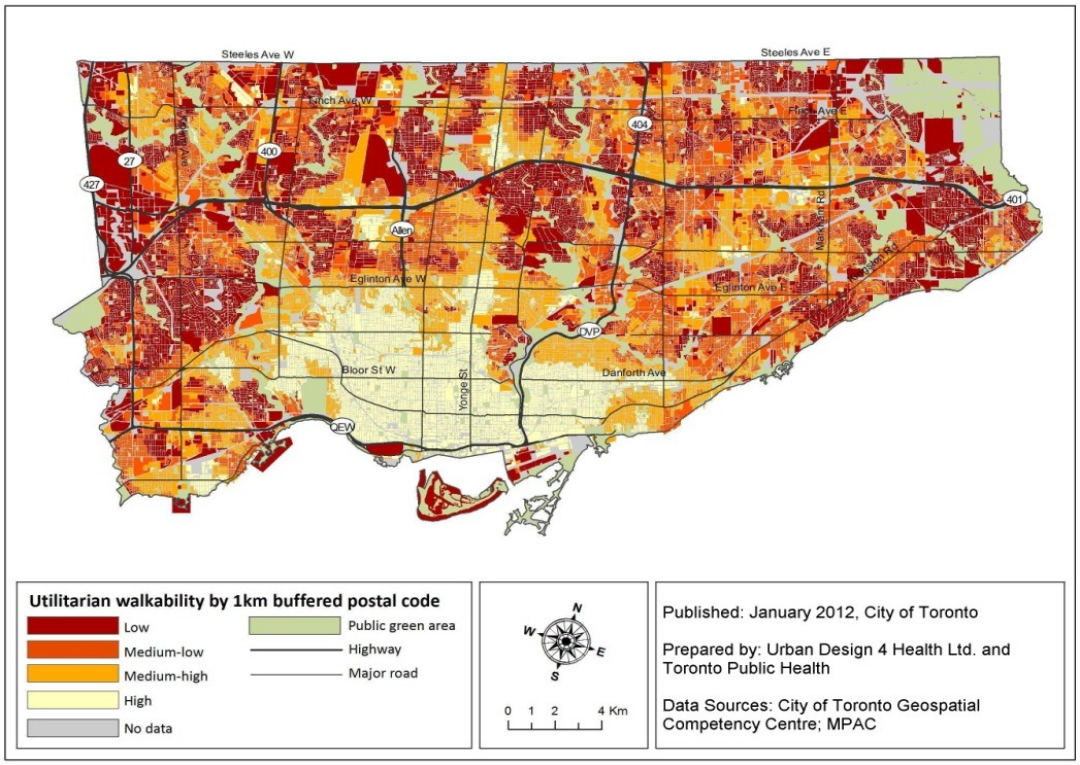
The attached report, *The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health*, provides Toronto-specific findings to support the growing evidence around the features of the built environment and their impacts on health. Some of the key findings are highlighted here.

Walkability of Toronto Neighbourhoods

For this study, the walkability of Toronto neighbourhoods was assessed and mapped using the walkability index. The walkability index is a rigorous tool that has been developed to measure and evaluate neighbourhood design features that have been clearly associated with utilitarian walking (i.e., walking for errands) such as residential density, retail ratio, land use mix and intersection density.

The Walkability Map developed for the City of Toronto categorizes the walkability of neighbourhoods across the city as low, medium-low, medium-high, or high. As shown in Figure 1, while the downtown core of the City of Toronto is highly walkable, there are many areas of the City, particularly on the outskirts of the City, that have been rated low for walkability.

Figure 1: Toronto Walkability



Walkable Neighbourhoods make Healthy Choices the Easy Choice

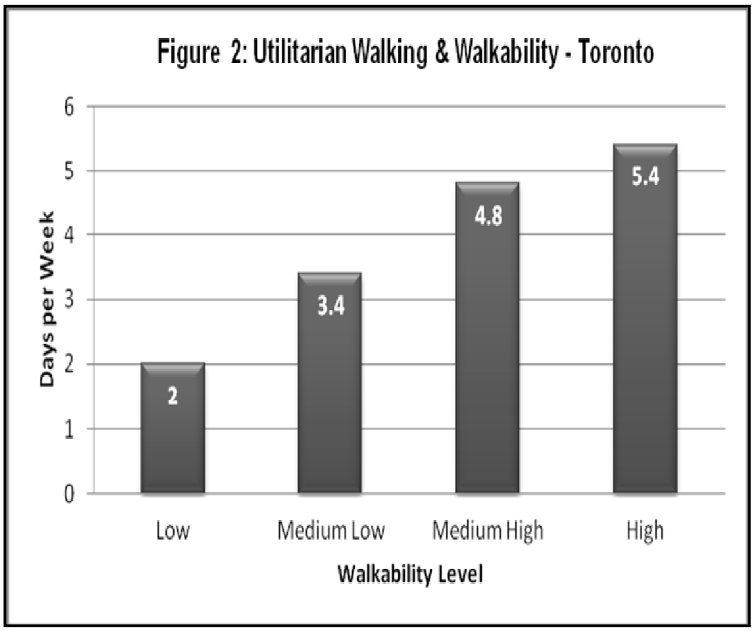
Residents in Toronto who live in more walkable neighbourhoods likely have healthier lifestyles than those who live in less walkable neighbourhoods. The study demonstrated a statistically significant relationship between the walkability of neighbourhoods and the frequency with which people walk, take transit, and use their cars. It found that as the walkability of neighbourhoods increases, Toronto residents walk more, use transit more, drive less often and less far. They also weigh less although this trend was not statistically significant Figures 2 and 3 illustrate how utilitarian walking increases and distance travelled in personal vehicles decreases as the walkability of neighbourhoods increases.

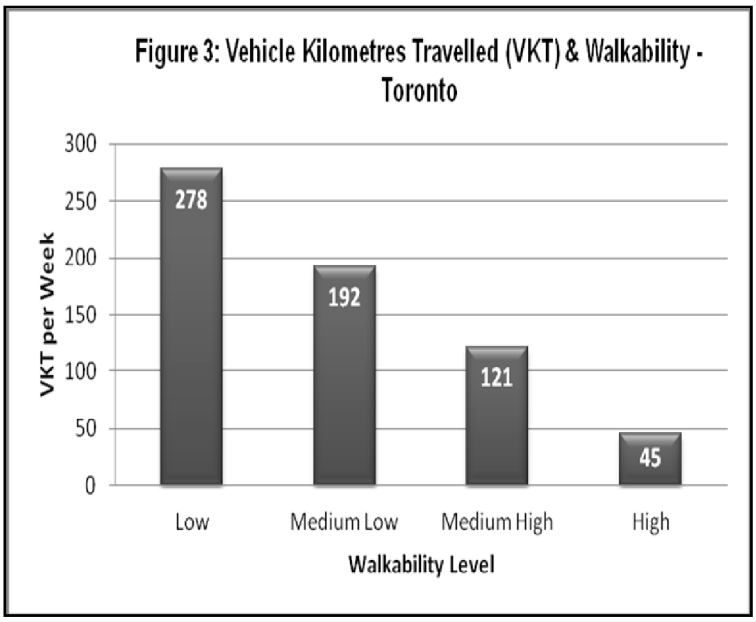
When Toronto residents from the most walkable neighbourhoods in Toronto were compared to the residents from the least walkable neighbourhoods within Toronto, the study found that they:

- walk for utilitarian reasons almost 3 times as often each week;
- use transit 2.5 times as often;
- drive 4 times less often;
- drive 6 times fewer kilometres (i.e. 45 km instead of 278 km each week); and
- have a Body Mass Index that is one point lower (i.e., 26.0 instead of 27.3).

A one point reduction in the Body Mass Index reflects a 6 or 7 pound decrease in weight for an individual. For a neighbourhood, this one point decrease can represent a substantial decrease in the number of people whose weights are in the obese range where the risks of chronic diseases are very high.

These findings suggest that Toronto residents living in walkable neighbourhoods are more physically active, with less chance of developing chronic diseases, than those who live in less walkable neighbourhoods. The findings also suggest that there may be significant benefits from improved air quality, reduced greenhouse gas emissions and less traffic congestion on a per person basis, associated with walkable neighbourhoods in Toronto.





Neighbourhood Design and Preferences Influence Behaviour

The study also found that neighbourhood design, as well as neighbourhood preferences, is significantly associated with travel choices and levels of physical activity. It demonstrates that residents who live in walkable neighbourhoods do more utilitarian walking, use transit more, drive less often and less far, and weigh less, than those who live in less walkable neighbourhoods, regardless of their neighbourhood preferences. These findings counter the argument that residents in walkable neighbourhoods use transit and walk more because walkable neighbourhoods attract people who prefer to live a more active lifestyle.

Toronto Residents Prefer Walkable and Transit-Supportive Neighbourhoods

The study found that Toronto residents place a high premium on living in walkable and transit-supportive neighbourhoods. When asked to choose between a highly walkable neighbourhood and an auto-oriented neighbourhood, 74% of Toronto residents surveyed expressed a strong preference for walkable neighbourhoods, while only 6% expressed a strong preference for auto-oriented neighbourhoods.

Residents in Toronto expressed strong and consistent support for the walkable options for specific neighbourhood features such as proximity to shops and services, food stores, recreational opportunities and greenspace. The Toronto residents surveyed appear to be quite willing to trade-off larger houses and larger lot sizes to live within walking distance of commercial areas and public recreation. They are also willing to accept mixed housing types and streets with greater foot and vehicle traffic if it allows them to walk, cycle and use public transit to reach their common destinations.

Unmet Demand for More Walkable Neighbourhoods

There is a significant unmet demand among Toronto residents living in auto-oriented neighbourhoods for more walkable neighbourhood features. Between 21% and 32% of Toronto residents surveyed, who are currently living in auto-oriented neighbourhoods, expressed a strong preference for the walkable neighbourhood features that were missing from their current neighbourhoods. There is more demand for walkable neighbourhoods than the current housing market in Toronto supplies, and may be a factor in the higher cost of living in some of the more walkable areas of the city.

Toward a More Walkable City

The City of Toronto Official Plan (OP) currently calls for future population growth and development to be directed to "areas of growth" that are well served by transit and existing road network, which have a number of properties with re-development potential. The OP also identifies a number of neighbourhoods that are in need of improvement under Section 2.3 entitled, "Stable But Not Static: Enhancing Our Neighbourhoods and Green Spaces". This section includes a number of policies in a subsection called Healthy Neighbourhoods that articulate how these stable neighbourhoods should be encouraged to evolve over time. These policies address, among other things, the need to improve and expand existing parks, recreational facilities, libraries, local institutions, transit services and other community services in these neighbourhoods. They also identify the need to develop revitalization strategies to improve, among other things, the public realm, streets, sidewalks, existing housing stock, and a range of housing in these neighbourhoods.

Given that the Toronto Official Plan is under review, it is recommended that this report be forwarded to the Chief Planner and Executive Director of City Planning to support Official Plan policies, secondary plans and community improvement plans that aim to revitalize areas of Toronto with low walkability, as well as those that require improved walkability. It is also recommended that this report be shared with City Planning and the General Manager of Transportation Services to inform all studies and undertakings to improve the public realm in order to promote improved walkability.

City Planning and Transportation Services work on a range of studies and undertakings to improve communities and their public realm, such as the Etobicoke Centre Public Space and Streetscape Plan adopted in late 2011. With proactive plans in place regarding future development, the City can potentially capture private sector development dollars for necessary infrastructure, i.e., to increase transit capacity, make improvements to main streets (to support local businesses), identify community facilities for a mix of uses, and/or make functional improvements to reduce traffic congestion by providing attractive, safe and viable alternatives for trips (walking, transit, cycling, car sharing) in the neighbourhood.

Through reconstruction and other projects, the City can identify opportunities to address deficient facilities for pedestrians such as missing sidewalks or other ways to improve pedestrian safety. Significant cost savings are gained when public works are undertaken at the same time for water, streetscape, and other capital works. A co-ordinated capital

program, with linkage to City Planning, Transportation Services, TTC, Metrolinx, and other key divisions and agencies will ensure that linear infrastructure is well designed and optimized to achieve community improvements, including boosting transit ridership, by improving pedestrian access to stations and stops.

The City of Toronto requires a capital program for community improvements, including pedestrian-scale infrastructure such as street lighting. Pedestrian-scale street lighting improves visibility and safety from hazards on sidewalks, allows for greater visibility of pedestrians to drivers and can reduce crime and vandalism in neighbourhoods by increasing 'eyes on the street.' This is especially important for pedestrians who may rely on walking as a primary means of getting around such as seniors and women.

The revitalization of less walkable neighbourhoods in the City will require collaboration between the public and private sectors. It will require a commitment to creating walkable and more complete neighbourhoods where the space allows it, and working to introduce walkable neighbourhood features into well established auto-oriented neighbourhoods when opportunities arise. It will also require the support of residents living in existing neighbourhoods and awareness to help residents and decision makers understand the neighbourhood features that help make neighbourhoods more walkable and healthier.

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SIGNATURE

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Medical Officer of Health

ATTACHMENTS

The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health