



**STAFF REPORT
ACTION REQUIRED**

Transportation Priorities and Investment for a Healthy Toronto

Date:	March 11, 2013
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

The ways in which people travel in Toronto and surrounding regions impact their health and the environment. Land-use patterns and transportation systems influence health-related outcomes such as obesity and physical inactivity, which are risk factors for chronic diseases such as diabetes, hypertension, coronary heart disease, stroke and cancer. In addition, they have an impact on the incidence of traffic-related injuries and respiratory and cardiac illnesses related to air quality. These patterns also have an effect on mental health, stress levels, social cohesion and well-being. Transport systems provide more than mobility to people. They enable health by providing access to employment, learning, recreation, food and health and other services. These health benefits are maximized when transportation system priorities emphasize public transit and active transportation infrastructure.

This report provides input from a health and equity perspective for the City's "Feeling Congested" consultation that seeks input on two separate but related processes: (i) the Official Plan (OP) five-year review process on how to prioritize transportation infrastructure investments in Toronto; and (ii) recommendations to Metrolinx on preferred funding tools for the regional transportation plan "The Big Move".

The City's framework for transportation infrastructure investments must recognise that an affordable transportation system is essential for health. It must also include principles that support equitable access to transit and active transportation infrastructure city-wide, and recognise the special needs of disadvantaged groups.

Generating funds *without delay* for the proposed expansion of transportation infrastructure is critical for building a healthy and equitable Toronto. Revenue generation

and investment in transportation infrastructure should support public policies and initiatives that promote active transportation, reduce air pollution and prevent traffic-related injuries. While the expansion of affordable multi-modal transport will benefit all people in the city, it is crucial that revenue collection incorporate equity so that it does not increase the burden on people living on low-income, who already are at higher risk of poor health.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. the Board of Health request the Chief Planner and Executive Director of City Planning to consider the health and equity criteria in Attachment 1 of this report when amending the Official Plan's transportation policies, specifically, policy directions for transportation investment and priorities;
2. the Board of Health request the City Manager to include health and equity criteria in Attachment 2, when developing the City's position on funding tools for Council's endorsement and submission to Metrolinx; and,
3. the Board of Health forward this report to Metrolinx, CivicAction, Toronto Region Board of Trade, Pembina Institute, Canadian Urban Transit Association, Martin Prosperity Institute, Ontario Public Health Association, Association of Local Public Health Agencies, and the Boards of Health for Hamilton, and the regions of Durham, Halton, Peel and York.

Financial Impact

There are no financial impacts from the adoption of this report.

DECISION HISTORY

At its meeting of September 24, 2012, the BOH approved the report *Creating a Healthier Toronto Through the Official Plan* that provided recommendations for strengthening health and equity in various policies in the Official Plan.

(<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.HL16.1>)

At its meeting of October 9, 2012, the Executive Committee considered the City Manager's report *Long Term Transportation Plan and Funding (Investment) Strategy* (September 24) which authorized the City Manager to conduct public consultations seeking input from the citizens of Toronto on transportation infrastructure funding options. (<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.EX23.1>)

ISSUE BACKGROUND

The ways in which people are able to travel in the city impacts their health and the environment. Land-use patterns and transportation systems influence health-related outcomes such as obesity and physical inactivity, which are risk factors for chronic diseases such as diabetes, hypertension, coronary heart disease, stroke and cancer. They

also impact the incidence of traffic-related injuries and respiratory and cardiac illnesses related to air quality. Land-use patterns and transportation systems also have an impact on mental health, stress, social cohesion and well-being.

The expansion of infrastructure for public transit and for walking and cycling will provide more than increased mobility options to Torontonians; it will also contribute to improved health. As described in the October 2011 report *Healthy Toronto by Design*¹, an accessible and affordable transportation system contributes to health through: improved access to economic opportunities, services, facilities and social resources; increased physical activity from active transportation; and reduced traffic-related air pollution and injuries.

The City of Toronto is undertaking public consultations through its “Feeling Congested” campaign on ways to fund the transportation needs of Toronto and on future priorities for improvements in transportation infrastructure. The consultation seeks input into two separate but related processes:

- i) the Official Plan (OP) five-year review dealing with transportation policies; and,
- ii) the City’s response to Metrolinx on preferred funding tools to pay for future investments in the “The Big Move” transportation plan.

“The Big Move” is a 25 year Regional Transportation Plan for the Greater Toronto and Hamilton Area (GTHA) launched in 2008 by Metrolinx, the Ontario Government agency responsible for planning and delivering an integrated transportation system for the region. It is a multi-modal plan to expand and integrate transit, walking and cycling trails, roads and highways. The plan envisions a significant expansion of rapid transit in Toronto and also aims to improve local highways, roads and bus service in an integrated way.

The City is also seeking input on decision-making criteria to guide investment priorities for transportation infrastructure. The information collected will be used by City Planning to amend the Official Plan, as part of the five-year review process that is underway. The City is proposing to include directives on how investment decisions should be made for transportation infrastructure projects in Toronto when it makes revisions to the transportation policies in the Official Plan. Details of the consultations can be found at www.feelingcongested.ca.

At the same time as the City process is taking place, Metrolinx is conducting public consultations, the “Big Conversation”, across the GTHA to get input on revenue generation options and investment priorities in the region. Metrolinx is seeking dedicated GTHA region funding sources to generate \$2 billion a year to be used for capital expenditure on transportation infrastructure.

This report identifies considerations that should be incorporated into the decision-making criteria for both transportation investment priorities and funding to ensure that these decisions maximize the benefits to health, including health equity.

COMMENTS

Transportation and Health

In 2007, Toronto Public Health (TPH) estimated that traffic-related pollution caused about 440 premature deaths and 1,700 hospitalizations each year in Toronto. Mortality-related costs associated with traffic pollution in Toronto were estimated at \$2.2 billion each year. A 30% reduction in motor vehicle emissions in Toronto that could be achieved through various measures that reduce reliance on the private automobile could prevent about 200 premature deaths and result in 900 million dollars in health benefits annually².

The recent TPH reports *The Walkable City*³ and *Road to Health*⁴ highlight the health and economic benefits of walking and cycling. Increasing active transportation to achieve commuting mode shares of 12% for walking and 6% for cycling would prevent about 100 premature deaths each year from chronic diseases, and yield additional annual benefits of \$100 million to \$400 million³.

Expanding and enhancing infrastructure for active transportation to generate more pedestrian and cycling traffic and reduce car traffic will have multiple health benefits. Physical activity associated with walking, cycling and taking transit reduces deaths related to chronic diseases and the risk of illnesses such as strokes, heart attacks, obesity, and diabetes, which are among the top ten causes of death in Toronto. Less automobile traffic will also result in reduced air pollution and injuries from automobile-related collisions.

Transportation and Equity

People with low income in Toronto experience greater risk of illness, higher rates of disease and death at an earlier age than people with higher income. The 2012 report to the Board, *Creating a Healthier Toronto Through the Official Plan*, identified ways in which health and equity considerations in the Official Plan could be enhanced, specifically, in low-income, low-growth neighbourhoods, which are primarily found in the inner suburbs. The complementary staff report *Next Stop Health: Transit Access and Health Inequities in Toronto*⁵ identifies disparities in levels of accessibility to public transit in Toronto and discusses in more detail how it affects low-income individuals' access to employment, health and social services.

Creating a multi-modal transportation system that prioritizes walking, cycling, affordable public transit and efficient transport of goods and services will contribute to health and reduce inequities. To maximize the benefits to health from investments in transportation in Toronto, it is necessary to take into consideration the need of disadvantaged groups in Toronto, such as people living on low incomes and neighbourhoods with a higher proportion of people living on low income. This focus will increase their ability to fully participate in society through improved access to employment, education, health and social services, which will promote their health and well-being.

Revenue Tools that Support Active Transportation and Transit

The economic cost of congestion in the Toronto region is large and the need for immediate investment to improve the transportation system in Toronto and the surrounding region is widely recognised⁶. Expansion of public transit, especially rapid transit, and active transportation infrastructure will support public health goals to promote physical activity, increase access to health, social services, education, employment opportunities and income. It is essential to make major investment to improve the transportation system in Toronto without further delay.

Taking into account health and equity when decisions are made on the type of infrastructure, the location of investments and the revenue tools to fund them will help maximize the overall health benefits of these investments in Toronto.

A review of the potential benefits of a number of revenue tools as it relates to environmental pollution, transportation options and congestion has been prepared for CivicAction⁶. It discusses how certain revenue tools could serve as incentives or disincentives for people to adopt healthier choices that benefit the individual, community and the environment. For example, a fuel tax would promote transit use, encourage the purchase of low emission vehicles, and potentially reduce auto use, all of which are beneficial to health. Road tolls would encourage more use of transit, but raises some social equity concerns, which can be partially addressed if those funds are used for improving transit and active transportation infrastructure^{6,7}.

Addressing Equity when Choosing Funding Tools

Many of the factors that determine health such as access to nutritious food, housing and transportation, are already unaffordable to those on low-income. Therefore, attention must be given to prevent revenue collection tools, such as new taxes or user-fees, from disproportionately increasing the burden for people living on low-income. For instance, property, sales or fuel tax are considered regressive in that people on low income spend a higher proportion of their income on basic needs. However, if they improve affordable mobility options (for example, transit and active transportation) and provide more convenient and lower-cost options for travel. the net result can be progressive⁸.

While it is necessary to consider revenue sources that can generate the resources needed for improved transit and active transportation modes, it is essential to adopt parallel measures that will mitigate negative impacts on people living on low income. These can take the form of refundable tax credits, transfer payments, fare subsidies and other measures targeted to people with low income, some of which are discussed in more detail in the report *Next Stop Health: Transit Access and Health Inequities in Toronto*⁵.

Decision Making Criteria to Enhance Health and Equity in Transportation

As noted above, the City plans to strengthen the Official Plan policies so that they provide stronger direction on how the transportation system should be developed. To initiate a conversation with the public, a set of preliminary criteria for use in evaluating and prioritizing transportation infrastructure have been drafted. These are criteria related to overall goals of Toronto's transportation system: transportation for moving people (travel options, travel experience, fairness), for places (shaping the city, healthy

neighbourhoods, environmentally friendly) and for prosperity (affordable, supports growth). The next phase of the review will include refining the preliminary criteria, and developing more detailed objectives associated with each broadly defined criterion. Attachment 1 outlines health and equity factors that the City should consider when it refines its framework for identifying future transportation priorities.

There are many things to consider when selecting revenue tools. The City and Metrolinx have identified key factors to be used when evaluating potential options:

- Policy Fit – does it meet objectives of reduced congestion?
- Revenue – how much revenue can the tool be expected to collect?
- Fairness – how equitable/fair is the revenue tool? Is it related to who benefits; who can afford it?
- Efficiency – how expensive is it to implement the tool compared to the revenue it will bring?

The policy fit and fairness factors are the most relevant to health. Attachment 2 presents factors which will promote health and reduce health inequities that should be used when evaluating potential revenue tools for the "The Big Move".

Investing in expansion of public transit and infrastructure for active transportation will help address traffic congestion, air quality, and mobility. It will also improve health by supporting walking and cycling and by reducing inequities in access to opportunities to work, learn and play. Benefits of transportation investments can be optimized by including health and equity principles as key factors when developing policies and selecting strategies for funding and investing in transportation expansion. These principles include: enabling and supporting city-wide access to transit and active transportation infrastructure, with special attention to people living on low income; enabling more and safer walking and cycling; investing in low-growth, low-income neighbourhoods; creating healthy communities; supporting least polluting transport technologies; encouraging local economic growth; and, strengthening social infrastructure. An efficient and affordable multi-modal transportation network will help achieve these goals.

CONTACT

Monica Campbell
Director
Healthy Public Policy
Toronto Public Health
Phone: 416-392-7463
Email: mcampbe2@toronto.ca

Ronald Macfarlane
Supervisor, Environmental Health
Assessment and Policy
Toronto Public Health
Phone: 416-338- 8097
Email: rmacfar3@toronto.ca

SIGNATURE

Dr. David McKeown
Medical Officer of Health

ATTACHMENTS

- Attachment 1: Health and Equity Criteria for the Evaluation Framework for
Transportation Infrastructure Priorities in the Toronto Official Plan
- Attachment 2: Health and Equity Criteria for Guiding the Selection of Revenue Tools for
Transportation Expansion under the Metrolinx Regional Transportation
Plan

References

- ¹ Toronto Public Health (2011). *Healthy Toronto by Design*. Available at http://www.toronto.ca/health/hphe/pdf/healthytoronto_oct04_11.pdf
- ² Toronto Public Health (2007). *Air Pollution Burden of Illness from Traffic in Toronto, Problems and Solutions*. Available at http://www.toronto.ca/health/hphe/pdf/air_pollution_burden.pdf
- ³ Toronto Public Health (2012). *The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health*. Available at http://www.toronto.ca/health/hphe/pdf/walkable_city.pdf
- ⁴ Toronto Public Health (2012). *Road to Health: Improving Walking and Cycling in Toronto*. Available at <http://www.toronto.ca/health/hphe/pdf/roadtohealth.pdf>
- ⁵ Toronto Public Health (2013). *Next Stop Health: Transit Access and Health Inequities in Toronto*
- ⁶ Irwin, N. and Bevan, A. (2010). *Time to Get Serious: Reliable Funding for GTHA Transit/ Transportation Infrastructure*. Prepared for Toronto City Summit Alliance (CivicAction). Available at <http://www.civicaction.ca/sites/default/files/AllianceReliableFundingPaper.pdf>
- ⁷ Litman, T. (2013). *Transportation Affordability: Evaluation and Improvement Strategies*. Victoria Transport Policy Institute. Available at <http://www.vtpi.org/affordability.pdf>
- ⁸ Litman, T. (2013). *Local Funding Options for Public Transportation*. Victoria Transport Policy Institute. Available at <http://www.vtpi.org/tranfund.pdf>

Attachment 1

Health and Equity Criteria for the Evaluation Framework for Transportation Infrastructure Priorities in the Toronto Official Plan

Criterion	Comment
Criteria that promote health of the whole population	
Provide transit and active transportation infrastructure to all Torontonians	Guides the development of a transportation system that consists of good walking environments, safe and convenient cycling infrastructure, efficient public transit, and makes provisions for car-share and taxi services in all areas, which increases the affordability of transportation. It builds an efficient transportation network across the city that is comfortable and convenient and increases accessibility to employment opportunities, services and other facilities ^{a,b} .
Encourage walking and cycling as primary modes of transportation	Improves the convenience and safety of walking and cycling and supports the implementation of "complete streets", which provide safe, equal access to all modes of transportation for all people, including the most vulnerable ^c . Gives priority to improving the infrastructure for walking in areas that are less walkable ^d .
Encourage public transit use	When transit is convenient to take and fares are kept affordable more people choose transit as a preferred mode of transport for longer distances ^b .
Encourage the adoption of least-polluting transport technologies that support climate change and sustainable energy use policies	Promotes the installation of infrastructure for alternative fuels. This provides incentives for increased use of greener vehicles (electric and hybrid vehicles, for example) which reduces emissions of pollutants from the transportation sector ^e .
Support healthy communities	Facilitates the creation of mixed-use, compact, walkable and bikeable communities that are served by high quality public transit and are built to support people with disabilities ^{c,f} . Compact-mixed use development can reduce the distance people need to travel, which also reduces the emission of pollutants ^{b,g} .
Maximize local economic growth and strengthen social infrastructure	Promotes investment in the public realm along transit routes, transportation nodes and other destinations to create vibrant spaces that increase the viability of commercial enterprises and interaction among people in the community ^c .
Criteria that promote health equity	
Include affordability as a transportation planning goal	Considers impacts on accessibility rather than just focus on mobility, and takes into account individual needs and abilities (for example, affordability, physical access) when making transportation investment decisions ^b .

Criterion	Comment
Support investment in low-growth, low-income neighbourhoods	Places priority on improving transit and active transportation infrastructure and creating complete communities with an appropriate mix of uses, connectivity, and density in areas of Toronto that are not targeted for population growth in the Official Plan and where a larger proportion of people living on low income reside to help provide a healthier environment to the more vulnerable segments of the population ^{f,h} .

^a Toronto Public Health (2011). *Healthy Toronto by Design*.

http://www.toronto.ca/health/hphe/pdf/healthytoronto_oct04_11.pdf

^b Litman, T. (2013). *Transportation Affordability: Evaluation and Improvement Strategies*. Victoria Transport Policy Institute. <http://www.vtpi.org/affordability.pdf>

^c Toronto Public Health (2012). *Road to Health: Improving Walking and Cycling in Toronto*. <http://www.toronto.ca/health/hphe/pdf/roadtohealth.pdf>

^d Toronto Public Health (2012). *The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health*. http://www.toronto.ca/health/hphe/pdf/walkable_city.pdf

^e Burda, C., Bailie, A. and Haines, G. (2010). *Driving Down Carbon: Reducing GHG Emissions from the Personal Transportation Sector in Ontario*. The Pembina Institute. <http://pubs.pembina.org/reports/driving-down-carbon-report.pdf>

^f Toronto Public Health and the Centre for Urban Growth and Renewal (2012). *Toward Healthier Apartment Neighbourhoods*. http://www.toronto.ca/health/hphe/pdf/healthier_apartments.pdf

^g Irwin, N. and Bevan, A. (2010). *Time to Get Serious: Reliable Funding for GTHA Transit / Transportation Infrastructure*. Prepared for Toronto City Summit Alliance (CivicAction). <http://www.civicaaction.ca/sites/default/files/AllianceReliableFundingPaper.pdf>

^h Toronto Public Health (2012) *Creating a Healthier Toronto Through the Official Plan*. <http://www.toronto.ca/legdocs/mmis/2012/h1/bgrd/backgroundfile-49921.pdf>

Attachment 2

Health and Equity Criteria for Guiding the Selection of Revenue Tools for Transportation Expansion under the Metrolinx Regional Transportation Plan

Criterion	Comments
Criteria that promote health of the whole population	
Make walking, cycling and taking transit more attractive options	For example, the use of road tolls, congestion charges and parking fees which increase the relative cost of using the private automobile compared to other travel modes makes walking, cycling and taking transit more attractive options; this also helps to reduce congestion ^{a,b} .
Encourage the adoption of least polluting transport technologies that support climate change and sustainable energy use policies	For example, fuel taxes or permitting hybrid or electric cars to use high-occupancy vehicle lanes are incentives for using more fuel efficient and low-emission vehicles that result in fewer greenhouse gas emissions and air pollutants for the distance travelled ^{a,c} .
Support healthy communities	For example, if development charges or value capture levies are used to fund transportation investments they need to be structured to promote the creation of mixed-use, compact, walkable and bikeable communities ^{a,b} .
Criteria that promote health equity	
Ensure revenue collection for transportation does not place a disproportionate burden on people living on low-income	The regressive nature of tools to fund transit is mitigated using tax rebates or other mechanisms as needed. For example, using the revenues from road tolls and fuel taxes to improve walking, cycling and transit reduces their regressive impacts ^b .
Provide affordable transit for people living on a low income	Fares are kept low to ensure that people living on low income do not have to pay a disproportionate amount of their income on transit or subsidies are provided to offset the cost to those in greater need ^b .
Maximize local economic growth and strengthen social infrastructure	For example, if development charges or employee levies (payroll tax) are used they need to be structured not to increase commercial rents or reduce housing affordability in areas of infrastructure improvements ^{a,b} .

^a Irwin, N. and Bevan, A. (2010). *Time to Get Serious: Reliable Funding for GTHA Transit/ Transportation Infrastructure*. Prepared for Toronto City Summit Alliance (CivicAction). <http://www.civicaaction.ca/sites/default/files/AllianceReliableFundingPaper.pdf>

^b Litman, T. (2013). *Local Funding Options for Public Transportation*. Victoria Transport Institute. Available at <http://www.vtpi.org/tranfund.pdf>

^c Burda, C., Bailie, A. and Haines, G. (2010). *Driving Down Carbon: Reducing GHG Emissions from the Personal Transportation Sector in Ontario*. The Pembina Institute. <http://pubs.pembina.org/reports/driving-down-carbon-report.pdf>