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Road to Health: Improving Walking and Cycling in Toronto

Cities are for people. An essential part of city life is for all residents to be able to travel within the city on an everyday basis to shop, do errands, go to work or school, and participate in social, recreational and cultural activities. There are substantial benefits for people, neighbourhoods and the city overall when travel is done by active transportation rather than by car. Active transportation refers to human-powered transportation such as walking (including to transit) and cycling.

Physical activity from active transportation generates important health benefits

There is considerable evidence worldwide that being active by walking and/or cycling reduces overall mortality from chronic diseases and the risk of heart attacks, strokes, obesity, diabetes and several types of cancer such as colon and breast cancer. When walking or cycling replaces travel by car, there are additional health benefits that arise from reduced air pollution, fewer greenhouse gas emissions, less urban noise and fewer vehicle collisions.

Based on 2007 data, about 60% of Toronto residents were not sufficiently active to ensure good health as determined by the Canadian Physical Activity Guidelines. Adults can meet these guidelines by 30 minutes of activity (such as 3 km walking or 7.5 km cycling) each day for 5 days per week.

Physical activity from active transportation has economic benefits

Based on 2006 census data, 7.1% of Toronto residents walk to work and 1.7% cycle. Using very conservative calculations, these levels of walking and cycling are estimated to prevent about 120 deaths from chronic diseases each year. Savings in direct health care costs arising from current levels of active transportation in Toronto are about \$110 - \$160 million due to reduced chronic disease. By improving safety for pedestrians and cyclists, current direct costs of \$62 million associated with vehicle collisions involving pedestrians (\$53 M) and cyclists (\$9 M) could be reduced.

In terms of indirect costs, if estimates of lost productivity or economic value of a life are considered, the economic benefits include an additional \$130 - \$478 million, depending how deaths are valued in the economic model. Walking and cycling rates are increasing in Toronto but lag behind some leading North American cities such as Vancouver, Montreal, San Francisco, Washington and Portland. If Toronto were to increase its



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is a new report by Toronto Public Health in its *Healthy Toronto By Design* series. *Road to Health* is a comprehensive examination of the health benefits of active transportation, as well as the economic, social, environmental and transportation system benefits.

This study provides Toronto-specific information on the prevalence of walking and cycling, data on collisions, injuries and fatalities, and models this data to estimate health benefits from avoided chronic diseases as well as health-related costs of collisions. The report also identifies specific interventions that have been proven to effectively reduce collision and injury rates for pedestrians and cyclists.

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commuting mode share to 12% for walking and 6% for cycling, this could prevent about 100 additional deaths from chronic diseases each year, yielding additional annual benefits of \$100 to \$400 million.

Annual capital expenditures on cycling and pedestrian projects in Toronto are a small fraction of the health benefits they provide. Federal and provincial funding of active transportation infrastructure at the municipal level is one important way to control escalating health care costs associated with physical inactivity and obesity.

Walking and cycling is more dangerous in Toronto than in other Canadian cities

Over the past 10 years, Toronto has made progress in reducing collision and fatality rates involving pedestrians and cyclists. However, Toronto's injury rates as a result of motor vehicle collisions are significantly higher than in most other major Canadian cities. They are more than double those of Montreal, Calgary and Vancouver. Collisions involving pedestrians or cyclists most commonly occur at intersections and on arterial roads. Many also appear linked to inadequate separation of cyclists from motor vehicles. Collisions involving pedestrians and cyclists in Toronto cost over \$60 million each year. By continuing to improve the safety of active transportation, Toronto could reduce collisions, injuries and fatalities, and generate significant economic benefits.

Small increases in traffic speed result in a disproportionately large increase in fatalities of pedestrians and cyclists. For example, pedestrians have about an 85% chance of dying when hit by a car travelling at 50 km/hr, but fatality rates decrease to less than 5% when a car is travelling at 30 km/hr. In Europe, a large review of traffic-calming initiatives demonstrates that injuries caused by collisions fell for all road users by 41-81% and fatalities were reduced by 14-85%. In London, after 30 km/hr zones were introduced fatalities were decreased by 42%. New York City is currently piloting 30 km/hr reduced neighbourhood speed zones.

The health benefits of walking and cycling are not evenly distributed across Toronto

Levels of walking and cycling are over 3 times greater in the urban core of Toronto than its suburban periphery where walkability and commuter cycling infrastructure are less well developed. With growing concentration of low-income households in suburban neighbourhoods, inequity in safe transportation options adds further health burdens and deprivation. Investing in pedestrian and cyclist safety in low-income suburban neighbourhoods is an urgent need.

Toronto has significant potential to increase active transportation levels

Toronto's trip distances reveal a significant potential to increase active transportation mode shares to levels observed in other North American cities. Of all trips made by Toronto residents, 21% are less than 2 km and hence very walkable. About 55% of all trips are less than 7 km and hence very bikeable. In these cases, walking and cycling may be more convenient and faster than other transportation modes such as driving or transit. The *Road to Health* report identifies many specific ways in which the quality and safety of pedestrian and cycling facilities can be enhanced and expanded on a City-wide basis.

Key Recommendations

- ✓ Reduce vehicle speed limits to 30 km/hr on residential streets and a city-wide speed limit of 40 km/hr on all other streets, unless otherwise posted.
- ✓ Implement traffic signal systems and markings that provide advanced crossing to pedestrians and cyclists.
- ✓ Provide long-term dedicated funding to municipalities for pedestrian and bicycle infrastructure.
- ✓ Set goals and work towards meeting increased active transportation targets and safety.

Road to Health is available at http://www.toronto.ca/health/hphe/built_environment.htm

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