



CYCLING BEHAVIOUR AND POTENTIAL IN THE GREATER TORONTO AND HAMILTON AREA

Raktim Mitra, Nancy Smith Lea, Ian Cantello, Gregory Hanson

Executive Summary

In the Greater Toronto and Hamilton Area (GTHA), policy and popular interest in active transportation has grown considerably over the past decade. The Regional Transportation Plan for the GTHA, *The Big Move*, has identified higher walking and cycling rates as a major objective to be achieved by 2025. This strategic position is also supported by the *Growth Plan for the Greater Golden Horseshoe*, and as a result, Official Plans and Transportation Plans that emphasize cycling and cycling-friendly communities have become more common. This research was undertaken to inform the current policy and planning practice on this topic. The report documents current **patterns** of cycling in the GTHA, quantifies cycling **potential** in the region, and identifies areas with high **propensity** for cycling.

GTHA residents take 14 million trips everyday to travel to various destinations; only 6% of them are currently either walked or cycled. Between 2001 and 2011, cycling rates have increased by 37%, which is a 61% increase in the total number of cyclists in 10 years. Despite that, the overall cycling mode share for the GTHA was moderate in 2011, only 1% of all trips were taken using a bicycle. It appears that the previously observed 37% growth in cycling mode share can largely be explained by an increased popularity of cycling in Toronto's downtown/ inner urban neighbourhoods. In most parts of the GTHA other than Toronto, cycling rates have increased moderately (i.e., between 0.26% and 1.5%) or have remained unchanged.

In comparison, 4.35 million trips within the GTHA can be considered potentially cyclable trips, which is one-third (i.e., 33%) of all trips that are not currently taken on foot or a using a bicycle. A potentially cyclable trip is a trip where (1) the primary mode of travel was not walking or cycling, (2) the trip distance was between 1 and 5 km, and (3) the purpose of the trip was not to facilitate other passenger(s). Other key findings from this report are:

- More than half (53%) of the estimated potentially cyclable trips are short trips, between 1 and 3 km in length. All regional municipalities produce very high volumes of short trips that could potentially be cycled.
- With regard to socio-demographic groups, the potential for cycling was higher among unemployed travellers and among women. Women currently make more trips that can potentially be cycled (54%) compared to men (46%). However, only 30% of current cyclists on GTHA's roads are female.
- Currently only 1.1% of school or work-related trips by 11-16 year old youth are cycled. However, our estimations suggest that at least 27.5% of all trips to school or work by this age group can potentially be cycled.

- Most transit access and egress trips are short (i.e., 90% trips are below 1 km) and are walked. However, approximately 4% of transit access trips, and 3.6% of egress trips, are potentially cyclable but are currently taken using a car (either as drivers or passengers).
- One in five (22%) of transit access/egress trips relating to the use of GO Transit could potentially be cycled. However, cycling potential varies across GO stations.
- Neighbourhood built environment is a significant enabler (or barrier) to cycling. A statistical modeling of cycling behaviour in the GTHA revealed that population density, land use mix, dedicated cycling facilities (i.e., cycle tracks and bicycle lanes) and safer streets (i.e., roads with lower speed limits) were positively associated with cycling uptake. Longer trip distances (>5 km) was a potential barrier.

Metrolinx, which is the provincial agency responsible for transportation planning for the GTHA, has outlined several strategic directions in a recently released *Discussion Paper for the Next Regional Transportation Plan* (Metrolinx, 2016). Our recommendations within this report are positioned to inform the new Regional Transportation Plan, and more broadly, advance transportation planning policy and practice in this region.

First, Metrolinx's proposed strategy of promoting active transportation for short trips is a critical first step. Many GTHA municipalities are currently in the process of adopting new and improved Active Transportation Plans and/or supporting policies, which may benefit from stronger support from the province. There is also a critical need for the planning and investment of all municipal and regional transit expansion projects to include an active transportation plan that prioritizes walking and cycling connections to transit.

Second, as the GTHA communities continue to grow within the provisions set out in the *Growth Plan*, the GO-transit corridors have evolved as spines that have guided much of this growth in the suburban municipalities. As a result, an opportunity has emerged where Metrolinx can play the role of a key stakeholder in creating dense, mixed use and complete communities by utilizing the land development potential around transit stations. This report identifies such opportunities. By carefully designing the communities and streets near major transportation nodes that demonstrate high cycling potential, significant improvements in the regional cycling rate can be achieved.

Third, Metrolinx has been facilitating walking and cycling among children through the Active and Sustainable School Travel (ASST) initiative. A regional approach can be extremely useful in capitalizing the very high potential for cycling among this younger population by improving coordination, leadership and monitoring/evaluation processes.

Fourth, women are the way forward for cities and regions aiming to increase cycling trips. In the absence of policy and programming that are strategically directed to women, much of the existing cycling potential among female travellers may never be materialized, particularly in suburban municipalities within the GTHA. However, more research focusing on women's cycling behaviour and barriers to cycling is needed to inform the development of future policy and programming that can specifically address the current very large gender-gap.

Lastly, promoting cycling to/from transit stations can play a critical role in addressing and mitigating the first mile/ last mile problem, and improving the quality and quantity of transit ridership as a result. Current Metrolinx policy around GO Rail Parking and Station Access is heavily focused on automobiles, which is perhaps justified based on current travel patterns. However, this report identifies

significant potential for cycling to/from many GO transit stations. The results can help Metrolinx and its stakeholders in determining the priorities for capital investment in cycling facilities, or perhaps identify locations/ stations for pilot projects focusing on improving active transportation network and facilities aimed at providing better access to stations.