

Executive Summary

Report Purpose

The purpose of this report is to provide recommendations for York Region to effectively improve road safety for vulnerable populations. These recommendations incorporate an equity lens developed through an analysis of York Region collision data and a comprehensive investigation into the determinants of road vulnerability. The recommendations are aimed at enhancing the current work being done by York Region and its municipal partners to improve road safety for the residents of York Region.

In 2015 York Region released the Built Environment and Health Action Plan as a framework to guide collaboration within the Region to develop health supportive projects, policies, and programs. York Region has identified road safety as an integral aspect of public health and a main concern of York Region's residents. The Region and its municipal partners are considering implementing Vision Zero principles and require an equity lens to inform road safety policies and programs.

This report focuses on the safety of pedestrians and cyclists. The research used for this report explores how personal and environmental determinants influence the safety of vulnerable road users, i.e., pedestrians and cyclists but will not provide an in-depth review of how motorist behaviour affects overall road safety.

Research Methodology

This report used a mixed methodology research approach:

- An academic literature review reviewed 53 academic articles to document spatial, socio-economic, and individual-level determinants of traffic injuries and fatalities.
 - A news media review was undertaken to understand how determinants of traffic injuries and fatalities are being framed to the general public in North America.
 - Four case studies were completed to review current approaches to road safety initiatives.
 - York Region collision data analysis using York Regional Police Motor Vehicle Collision data and York Region Traveller Safety Reports and census data.
 - Site observations were conducted to visit 11 intersections in York Region that have high collision frequencies and pedestrian safety improvements.
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- **Semi-structured interviews with five professionals who have expertise in road safety initiatives and/or working with vulnerable populations were conducted to gather insight on vulnerability in road safety.**

Key Research Findings

- * **Pedestrians and cyclists are well established vulnerable road users who face greater risk of traffic injuries and fatalities**
 - * **Vulnerable populations at greatest risk: Children and Youth, Older Adults, Racialized Individuals, Immigrants and Newcomers, Individuals Experiencing Homelessness**

Lower-income individuals are at higher risk of traffic injuries and fatalities because of transportation inequity
Walking and cycling are more cost-efficient modes of transportation.
 - * **Lower-income individuals are more likely to walk, cycle, or take public transit which exposes them to traffic more frequently as well as to the systems that receive less public investment.**
 - * **Individuals holding multiple at-risk identities face higher risk of traffic injuries and fatalities**
These individuals are extremely vulnerable due to the compounding exposure to multiple socio-economic and/or spatial determinants.
 - * **The language used to describe and frame traffic collisions is important**
The language used to characterize traffic collisions establishes how the public perceives and understands road safety issues, which can influence the level of action that needs to be taken
 - * **Reimagining traditional approaches to road safety**
Conventional approaches to road safety have not done enough to make roads safer for vulnerable populations.
More responsibility and actions to address road safety should come from the system designers who hold decision-making power.
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Recommendations

Research results revealed that there are a variety of ways to address the needs of vulnerable road users. While the Region currently produces a significant amount of productive road safety initiatives and interventions, the following recommendations were developed to guide the Region in areas that require improvements. Additionally, the recommendations provide guidance on how to apply an equity lens to effectively target vulnerable road users. The recommendations are categorized using the 5 E's model, Evaluation, Engagement, Engineering, Enforcement, and Education. The following is a summary of the 'Start' recommendations for York Region.



EVALUATION

- A.1 Collect additional socio-economic and socio-demographic data to clearly identify those most at-risk.
- A.2 Collect data on vehicle make, model, year, and after-market modifications.
- A.3 Collect temporal volume of cyclists and pedestrians.
- A.4 Include severity of injury in collision reports.
- A.5 Analyze the spatial relationship between traffic related-inquiries and reports and high collision areas to investigate whether there is a discrepancy between collisions and inquiries.

A.6 Centralize collision data and make it publicly available.

ENGAGEMENT

B.1 Partner with non-profit organizations and community groups that understand and are more familiar with target communities.

B.2 Apply a Gender-Based Analysis Plus (GBA+) lens to design public engagement strategies and events.

B.3 Prioritize the collection of lived experience data at public engagement events.

B.4 Use a participatory planning approach to create road safety policy and new road safety interventions.

B.5 Prioritize engagement with those in lower-income areas where active transportation is more likely to be relied upon and populations are harder to reach.

B.6 Ensure diversity amongst staff working in public engagement and that all staff understand their own positionality prior to the engagement process.

B.7 Reduce barriers for newcomers to participate in public engagement.

B.8 Use multi-lingual recruitment materials and ensure translators are available at public engagement events.

B.9 Hire external consultants who specialize in certain engagement techniques in road safety planning projects if there are no York Region employees who have the expertise.

ENGINEERING

C.1 Increase investment in pedestrian and cyclist infrastructure beyond the Municipal Streetscape Partnership Program (MSPP) and the Pedestrian/Cycling Municipal Partnership Program (PCMPP).

C.2 Enhance street illumination on blocks surrounding high pedestrian activity locations.

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- C.3 Expand the implementation of traffic calming devices.
 - Example: street trees, concrete planters, speed humps, and roundabouts.
 - C.4 Implement traffic signal-based safety improvements concurrently with improvements to the built environment.
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ENFORCEMENT

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- D.1 Expand the regional red light camera program by focusing on high frequency collision intersections, as identified in the York Region Traveller Safety Report (2020).
 - D.2 Increase safety initiatives around school zones.
 - D.3 Increase enforcement on distracted driving.
 - D.4 Target enforcement at intersections with new traffic regulations to ensure motorist compliance with changes.
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EDUCATION

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- E.1 Review and update current programming to ensure that messaging surrounding road safety is up to date.
 - E.2 Educate the public on the implementation of new safe street designs and providing guidance on how to use them.
 - E.3 Expand existing population-specific strategies for road safety initiatives.
 - E.4 Create a York Region Task Force dedicated to education-based initiatives aimed at reducing traffic injuries and fatalities.
 - E.5 Re-evaluate education programs that target pedestrians including 'Be Visible Be Seen' and 'Cross Smart', that perpetuate the idea that vulnerable road users are responsible for avoiding collisions.
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