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ROAD SAFETY PROGRAM STATUS REPORT

The Transportation and Works Committee recommends:

- 1. The presentation by Zoran Postic, Supervisor, Traffic Management and Safety, Roads Transportation be received; and**
- 2. The recommendations contained in the following report, October 26, 2004, from the Commissioner of Transportation and Works be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. This report be received for information as an update on the status of the road safety program in York Region.
2. The Regional Clerk forwards a copy of this report to the Chief of Police and to the Clerk of each of the local municipalities.

2. PURPOSE

This report provides an update on the status of the road safety program in York Region and describes the initiatives that are, and will be undertaken to improve road safety in York Region.

3. BACKGROUND

The Region manages and maintains a comprehensive collision database. The database contains information on all reported collisions on Regional roads obtained from the police's motor vehicle accident (MVA) reports. The type of information contained in the database includes: collision location, date, time, collision severity, collision type, road surface condition, age and gender of the driver and passengers (only for injury collisions).

Recently, staff from the Roads Transportation Branch conducted a detailed analysis of the collision data for 2003. The first objective was to provide information on the factors that affect road safety and the strategies that can be adopted to improve road safety. The second objective of the detailed analysis was to make information available to York Regional Police, York Region Health Services Department and the Roads Transportation Branch to support the planning of co-ordinated law enforcement, public education, publicity and advertising campaigns, and engineering solutions to improve road safety as part of York Region's Save-a-Life campaign.

This report includes a summary of the principle findings, conclusions of the analysis and research that was conducted by Regional staff.

4. ANALYSIS

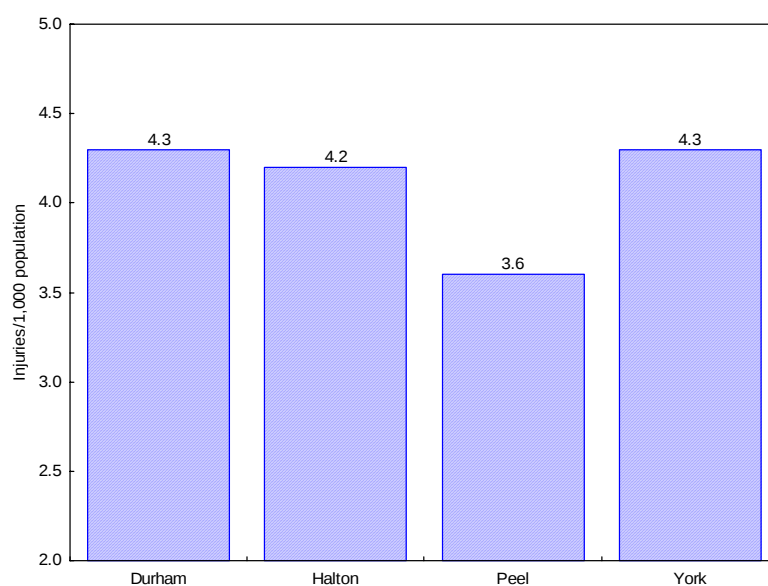
4.1 Public Health

Deaths and injuries resulting from traffic collisions are a significant public health concern in York Region. Traffic collisions are the biggest cause of injury related deaths in York Region, in particular for residents less than 34 years old. In 2003, a total of 29 people were killed in motor vehicle collisions, compared to 13 people killed in criminal homicides. Also, traffic collisions are the most frequent cause for injury hospitalizations for residents between 25 and 34 years old.

Annually, approximately 3,800 people are injured in York Region as a result of motor vehicle collisions. Approximately 18% of injury related collisions in York Region occur on provincial highways and 57 % on Regional roads, with the rest occurring on municipal roads.

Figure 1 compares the injury rates (injuries/1,000 population) of four different Regional municipalities in the Greater Toronto Area (GTA). It is evident that the injury rate in York Region is higher than the injury rates in Halton Region and Peel Region and the same as the injury rate in Durham Region. The statistics for Peel Region include those of the City of Mississauga, the sixth biggest city in Canada. In such high population density areas, vehicle travel rates per capita are likely lower due to higher transit use and shorter commuter trips- resulting in lower injury rates.

Figure 1
Injury Rates for Regional Municipalities in the GTA



4.2 Economic Burden

In 2003, the economic burden of collisions in York Region was approximately \$407 million in damage to property, health care cost, administrative cost, lost productivity, pain and suffering. Annually, collisions result in an estimated 7,100 days of hospital care and 2,500 visits to hospital emergency rooms. According to “The economic burden of unintentional injury in Ontario” by Smartrisk, 1999, direct health care costs in York Region, resulting from traffic collisions, is about \$4.4 million per year.

4.3 Collision Trends

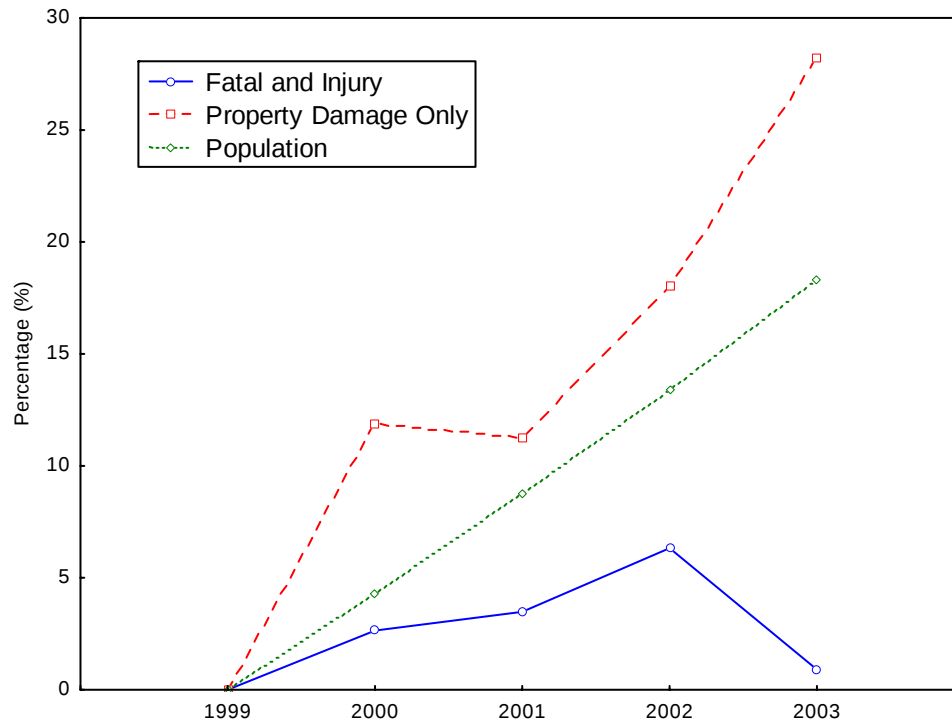
Table 1 shows the number of collisions by the degree of severity for York Regional roads.

Table 1
Collision Statistics: 1999 to 2003

Year	Fatal	Injury	Property Damage Only	Total
1999	27	1,411	4,985	6,423
2000	25	1,451	5,618	7,094
2001	18	1,470	5,581	7,069
2002	33	1,496	5,918	7,447
2003	19	1,456	6,499	7,974

Figure 2 shows since 1999, the rate of increase in fatal and injury collisions was less than the rate of population increase, while the opposite was true for property damage only (PDO) collisions.

Figure 2
% Increase in Collisions Since 1999



4.4 Save-a-Life Program

To address growing community concerns about road safety in York Region, the Save-a-Life road safety campaign was initiated in 1999 and is supported by a number of agencies in York Region representing the Engineering, Education and Enforcement disciplines.

The Save-a-Life program utilizes a cross-departmental team approach to communicate, co-operate, co-ordinate and collaborate in the planning and implementation of traffic safety strategies. This team approach has gained great acceptance by the community and has strengthened partnerships, streamlined decisions and improved customer service and service delivery, and more importantly, reduced the severity of collisions.

The goal of the Save-a-Life program is:

*“To **Save a Life** on the roadways in York Region and to improve the quality of life of the citizens of York Region by being the benchmark of excellence in Road Safety.”*

4.5 Road Safety Issues

The following section outlines a number of critical road safety issues in York Region, and will describe the various road safety initiatives that are, and will be implemented, under the umbrella of the Save-a-Life program, to address the various traffic safety concerns.

4.5.1 Winter Driving

In the winter months of November, December, January and February, more than 50% of all collisions occurred in conditions where the road surface was covered with water, snow, slush or ice. Under these winter driving conditions, most collisions occur when drivers drive too fast for the conditions.

Six of the 19 fatal collisions and 317 of the 1,456 injury collisions recorded on York Regional roads during 2003 occurred during winter driving conditions.

4.5.1.1 Proposed Action

To reduce collisions during the winter requires an integrated and co-ordinated strategy involving the Roads Transportation Branch and York Regional Police. In addition to strict law enforcement and effective winter maintenance (anti-icing and snow removal), public education on driving in winter is essential.

4.5.2 Young Drivers

In York Region, and across Canada, road collisions are the leading cause of death for young people aged 16 to 24. In 2003, 23% of fatal and injury collisions, on Regional roads, involved drivers aged 16 to 24, even though drivers in this age group only account for about 15% of total distance travelled.

There appears to be four major factors contributing to the high injury rate for road users between 16 and 24 years old. These factors are:

- Excessive travel speeds
- Failure to wear seatbelts
- High number of passengers
- Impaired driving

Three times as many drivers involved in speed related fatal and injury collisions are in the 16 to 24 age group than in the 45 to 54 age group.

Approximately 37% of all road users that were injured and were not wearing seatbelts were between 16 and 24 years old, compared to the 7% of road users injured in the 45 to 54 year old age group.

Approximately 27% of passengers injured in collisions were between 16 and 24 years old. About 50% of the drivers in collisions in which these young passengers were injured were also between 16 and 24 years old.

4.5.2.1 Proposed Action

To address the young driver problem, all road safety advertising and educational initiatives will specifically target young road users.

4.5.3 Impaired Driving

Research shows that critical driving skills can be impaired for anyone that has consumed alcohol or drugs before driving. At blood alcohol content (BAC) levels of .05 to .08, the risk of collision for drivers in the 20+ age group is about twice that of drivers with zero BAC. For young novice drivers (16 to 19 years of age), the crash risk at .05 to .08 was about eight times that of normal drivers.

Canadian research has shown that **6.9%** of all fatally injured drivers had BAC levels between .08 and .15, and that **17.7%** of fatally injured drivers had BAC levels over .15.

During 2003, alcohol was a contributing factor to six of the 28 (21%) fatal collisions that occurred in York Region.

In 2003, the majority of alcohol and drug related collisions occurred between July and November. December experienced significantly less collisions than expected. This in part may be due to the success of the festive Reduce Impaired Driving Everywhere (RIDE) law enforcement campaign.

During 2003, York Regional Police stopped a total of 63,821 vehicles during 166 RIDE stops. A total of 836 roadside tests were conducted. A total of 231, 12-hour license suspensions were issued and 57 drivers were charged with impaired driving.

4.5.3.1 Proposed Action

During 2004, the RIDE program will operate a minimum of once every four days. A high profile deployment strategy will be created for the RIDE program during December. A media launch will take place late in November followed by RIDE enforcement activities on a daily basis.

The Roads Transportation Branch will continue to assist York Regional Police by providing information about locations where there have been a high number of motor vehicle collisions caused by drinking and driving.

4.5.4 Aggressive Driving

Speed plays a role in all collisions, irrespective of the cause. The faster a vehicle travels prior to a collision the greater the risk of injury and death. For example, on an urban road with an average speed of 60 km/h, the risk of involvement in a fatal collision doubles with each 5 km/h increase in speeds above 60 km/h, and a pedestrian hit by a car at a speed of 50 km/h is twice as likely of being killed as at a speed of 40 km/h.

Travelling at excessive speeds on Regional roads is a common occurrence. The top speed recorded by York Regional Police in 2003 was 198 km/h in an 80 km/h speed limit zone. During 2003, excessive travel speeds contributed directly to nine of the 28 fatal collisions in York Region.

In 2003, York Regional Police issued 53,752 offence tickets for drivers speeding, following too closely, performing unsafe lane changes and driving carelessly.

4.5.4.1 Proposed Action

York Region is an active participant in the Mission Possible campaign. Mission Possible is an initiative by the Canadian Automobile Association (CAA) and Police Services from the GTA to create an integrated strategy that mobilizes partnerships and combines resources to increase road safety by curbing aggressive driving. For example, the CAA would engage the media to provide overall publicity to the campaign, while the police from the different jurisdictions in the GTA would all focus on the same type of driving offences, using similar strategies.

The Roads Transportation Branch assisted the York Regional Police by providing information about locations where there have been high incidences of collisions as a result of aggressive driving acts such as speeding, disobeying traffic signals and right of way violations.

The incidence of street racing in York Region is a growing concern. In the last five years, 22 people have died as a direct result of street racing in the GTA.

To combat illegal racing in York Region, York Regional Police has taken the lead and has partnered with other police services, the Ministry of Transportation and the Ministry of the Environment. During 2003, a total of 5,325 vehicles were investigated for defects and illegal modifications, resulting in 15 charges and 45 vehicle impoundments.

4.5.5 Seatbelts

Wearing a seatbelt can reduce the risk of a fatal injury by 45%. During 2003, the deaths of two drivers in York Region could potentially have been avoided if the drivers wore seatbelts.

On average, in York Region, 15% of all drivers do not wear seatbelts. In the municipalities of Georgina and East Gwillimbury, up to 20% of drivers do not wear seatbelts. Transport Canada estimates that five lives could be saved for every 1% increase in seatbelt use in Ontario.

Failure to wear seatbelts is one of the reasons for the high injury rate amongst young road users between 16 and 24 years of age. Of all persons injured in collisions not wearing seatbelts, 37% were in the 16 to 24 age group.

4.5.5.1 Proposed Action

Each year, York Regional Police and Public Health Services participate in two highly publicized national seatbelt campaigns. The first campaign is conducted during the spring (April), and the second during the fall (October). In 2003, during these campaigns and other routine law enforcement activities, York Regional Police charged 3,259 drivers and vehicle occupants with not wearing their seatbelts.

At York Regional Police seatbelt checkpoints, Public Health staff inspect vehicles for the proper use of car seats for children. Public Health staff also conduct child seat safety clinics at major shopping malls in York Region to educate parents on the proper use of car seats for children.

To monitor the seatbelt wearing rate in York Region, the Roads Transportation Branch commenced a seatbelt monitoring program in March 2004. Each month, surveys are conducted at randomly selected locations throughout York Region. The data is then statistically analyzed to establish trends and to determine the wearing rate characteristics by occupant type (driver, front passenger and rear passenger), and local municipality. It is expected that this monitoring program will provide useful information to York Regional Police as to where and when to conduct law enforcement activities. It will also be used to assess the effectiveness of the National spring and fall seatbelt campaigns in York Region.

4.5.6 Pedestrians

Between 2000 and 2003, 17 pedestrians lost their lives in York Region. Nine of these pedestrian collisions occurred on Regional roads. To date, in 2004, there have been seven collisions in which eight pedestrians have been killed. During 2003, 96 pedestrians were injured on Regional roads. This is an increase of 26% compared to 2002.

Two groups of pedestrians are at most risk of being involved in a fatal collision with a vehicle. They are the young (ages 5 to 9) and the elderly (over 65). Young children are most vulnerable where they feel safest, around their homes and the neighbourhood in which they play. In addition, young children are impulsive and have not yet developed the cognitive skills required to judge the speed of approaching cars. Senior citizens in general require additional time to cross the road and are especially vulnerable because an injury often results in longer recovery times, and less chance of full recovery.

4.5.6.1 Proposed Action

York Regional Police recently launched the Pedestrian Safety Plan, targeting pedestrians who are not obeying the rules of the road and putting their lives, and the lives of drivers in at risk. The Roads Transportation Branch provided data to York Regional Police as to where there were high incidences of pedestrian related collisions on Regional roads. In 2004, about 30 pedestrians have been charged by plainclothes officers in areas where there are high incidents of pedestrian collisions.

4.5.7 Intersections

More than 50% of collisions on Regional roads occur at intersections. At signalized intersections about 50% of fatal and injury collisions occur as a result of “right angle” and “turning” type collisions.

“Right angle” collisions at signalized intersections typically occur when a driver wilfully disobeys a traffic signal, or when the driver is unable to stop at a signal due to excessive

high speed and/or inattentiveness. Most “turning” collisions tend to occur when a driver performs an inappropriate left-turn manoeuvre.

To reduce injuries at signalized intersections, engineering improvements and law enforcement strategies should focus on reducing “right angle” and “turning” collisions through engineering improvements and law enforcement programs.

4.5.7.1 Proposed Action

As part of developing a Traffic Safety Improvement Program, the Roads Transportation Branch used state-of-the art statistical techniques to:

- Identify intersections with promise for cost effective engineering improvements.
- To identify intersections where specific engineering countermeasures ie. exclusive left-turn phases, resurfacing etc. are likely to have the most benefit.

A professional road safety specialist was retained to conduct detailed safety investigations at seven intersections that were identified as having the highest potential for safety improvement in York Region. Additionally, staff are also reviewing a number of other intersections where there is a potential to reduce left-turn collisions, angle collisions and rear-end collisions.

The feasibility of using red-light cameras to address the incidence of red-light running collisions is currently under investigation. It is anticipated that the red-light camera infrastructure will be implemented at 12 intersections and that three cameras will be rotated between these sites on an ongoing basis.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

6. LOCAL MUNICIPAL IMPACT

Local municipalities will indirectly benefit from additional and enhanced safety programs and strategies that may emanate from this report.

7. CONCLUSION

This report provides an overview of the status of road safety in York Region and has highlighted some of the strategies that are, and will be implemented to address various critical road safety concerns in York Region.

To raise public awareness of these safety issues and strategies, the information in this report will be used to develop a public information brochure.

The Senior Management Group has reviewed this report.