



ROAD SAFETY MONITOR 2020: THE IMPACT OF THE COVID-19 PANDEMIC ON TRAVEL BEHAVIOUR & ROAD SAFETY

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Introduction

This fact sheet summarizes results from the Road Safety Monitor (RSM) related to the effects of the COVID-19 pandemic on travel behaviour and road safety. The RSM is an annual public opinion survey conducted by the Traffic Injury Research Foundation (TIRF) under sponsorship from Beer Canada, Desjardins and Labatt. The survey takes the pulse of the nation on key road safety issues by means of an online survey of a random, representative sample of Canadian drivers.

The objective of this fact sheet is to examine the effects of the pandemic on the beliefs and practices of Canadian drivers. As a result of the pandemic, decreased traffic volumes have been observed (Institute of Transportation Engineers 2020). However, unsafe driving behaviours such as speeding and stunt driving appear to have increased according to police enforcement data and some crash data (Shilling & Waetjen 2020). To illustrate, in March of 2020, Saanich police saw a 700% increase in the number of cars impounded for excessive speeding (Chan 2020), and Edmonton police have noticed a 200% increase in drivers speeding more than 50 km/h over the speed limit (Heidenreich 2020). Toronto Police reported that from March 15 to March 31, there was a 35% increase in speeding tickets and an almost 200% increase in stunt driving compared to the same period last year (City of Toronto April 2020).

Although preliminary data show there has been a decrease in overall crashes, some sources suggest injuries are more severe (Carter 2020), possibly as a result of higher speeds. Further monitoring is necessary to determine the full effect of the COVID-19 pandemic on road safety.

Concern about COVID-19

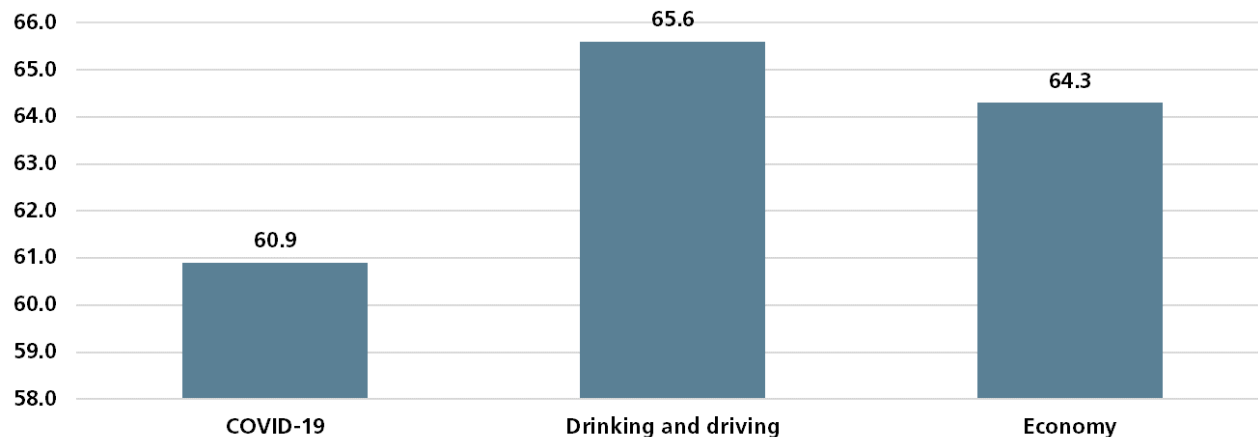
In 2020, Canadians were asked how concerned they were about the COVID-19 pandemic. Respondents were asked to rate their concern ranging from 1 (not a problem at all) to 6 (an extremely serious problem); for scoring purposes, respondents were coded as being concerned about an issue if they chose five or six.

Results revealed 60.9% of respondents were concerned about COVID-19 (Figure 1). To put this issue in context, 65.6% of Canadians were concerned about drinking and driving, and 64.3% were concerned about the economy.

Impact of COVID-19 on travel method

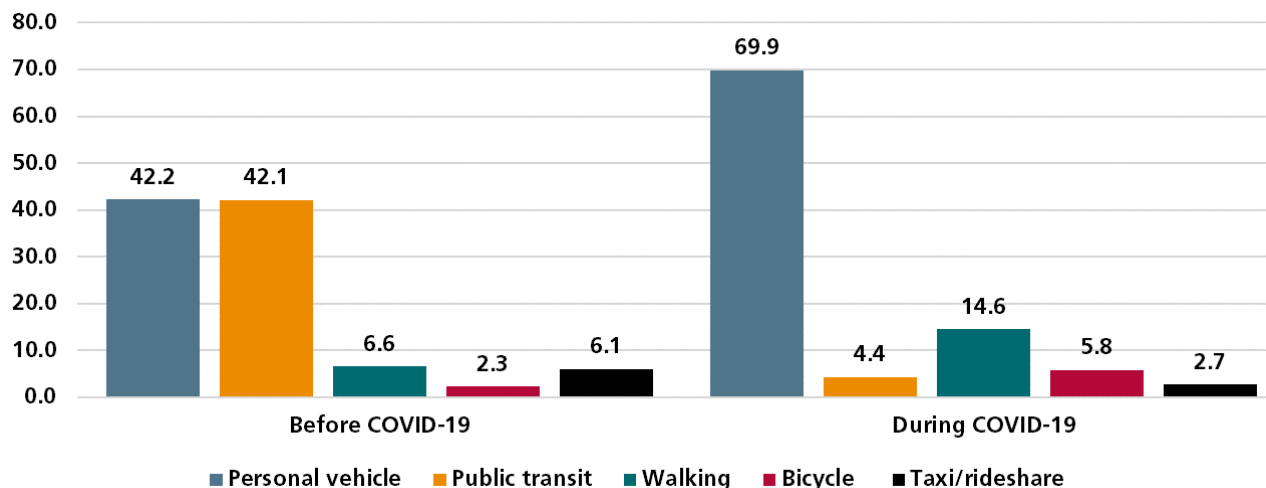
Respondents were asked whether their preferred method of travel changed during COVID-19 (Figure 2). Almost 1 in 4 Canadians (23.3%) indicated their preferred method of travel changed during the pandemic, as compared to before COVID-19. Respondents who reported this were also asked to indicate their preferred travel method before COVID-19, as well as during the pandemic, and how likely it was that this change would be permanent.

Figure 1: Percentage of respondents concerned about COVID-19



Prior to COVID-19, personal vehicle was the main preferred method of travel by 42.2% of respondents, followed by 41.2% who used public transit. During the pandemic, 69.9% used a personal vehicle as their preferred method of travel, a significant increase of 65.6% ($z=15.28$, $p=0.000$). Only 4.4% used public transit during the pandemic, corresponding to a significant decrease of 89.3% ($z=-24.4$, $p=0.000$). A significant increase of 121.2% was observed in the percentage of respondents who reported walking (from 6.6% to 14.6%; $z=7.12$, $p=0.000$) as well as a significant increase of 152.1% in cycling (from 2.3% to 5.8%; $z=4.86$, $p=0.000$). The use of a taxi or ride share decreased significantly by 55.7%, as 6.1% of respondents reported this as their preferred method of travel before the pandemic, compared to 2.7%

Figure 2: Percentage of respondents indicating their preferred travel method before and during COVID-19

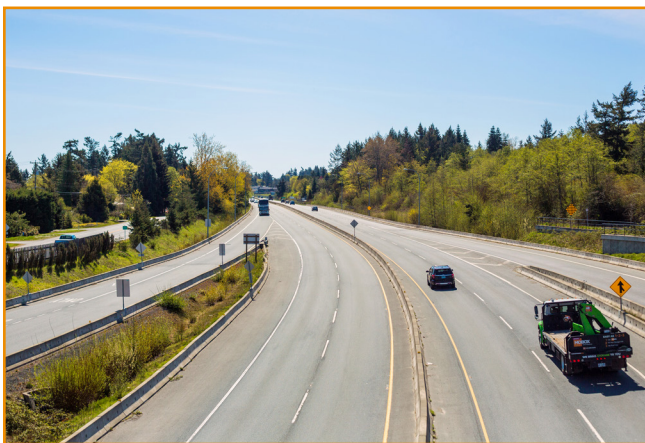


during COVID-19 ($z=-4.5$, $p=0.000$). Almost 1 in 3 (30%) of respondents indicated it was likely this change in preferred travel method would be permanent.

A logistic regression analysis was conducted to assess the impact of sex and age on change in preferred travel method, but no significant results were found.

Impact of COVID-19 on driving behaviour

To gauge Canadians' attitudes and practices during the COVID-19 pandemic, respondents were asked about various self-reported unsafe driving behaviours including speeding, distracted driving, alcohol-impaired driving, and drug-impaired driving. Specifically, respondents were asked how likely they were to engage in these risky behaviours during the COVID-19 pandemic, compared to their typical behaviour before the pandemic. The questions were asked on a scale from 1 (far less likely) to 5 (far more likely); for scoring purposes, respondents were coded as more likely to engage in these behaviours while driving if they chose a four or five. Additionally, logistic regression analyses were undertaken to assess the impacts of sex and age on the odds of respondents indicating that these unsafe driving behaviours were more likely during the pandemic.



Excessive speeding. A total of 5.5% of Canadians admitted they were more likely to excessively exceed the posted speed limit during this time, as compared to before the pandemic. A main reason cited by respondents for exceeding the speed limit was the reduction in the number of vehicles on the road during the pandemic. The majority of respondents (77.5%) reported there was no

change to their driving behaviour and 16.9% were less likely to excessively exceed the speed limit during the pandemic. Logistic regression modelling demonstrated sex was not a significant predictor of this unsafe driving behaviour. However, age was a significant predictor; for every 10-year increase in age, the odds of drivers indicating they were more likely to excessively exceed the speed limit during the pandemic decreased by 19%.

Distracted driving. Respondents were asked how likely they were to be distracted while driving during COVID-19. A small percentage (4.2%) of respondents reported they were more likely to be distracted while driving during COVID-19.

- > Over half (53.5%) of these respondents indicated they were distracted by “competing thoughts, such that they were preoccupied or thinking about things not related to driving”;
- > Second to this was “distractions from outside the vehicle” (14.8%);
- > Third was “texting on a cell phone” (14.3%).

Moreover, 9.1% of respondents reported they had more difficulty focusing while driving during the pandemic, compared to before the pandemic. A large majority (79.3%) of respondents reported no change in their level of distraction during the pandemic, compared to before this period. Another 16.5% of respondents indicated they were less likely to be distracted during the pandemic, possibly suggesting some drivers may have taken extra care due to the circumstances increasing demands on our health care system. A logistic regression demonstrated age, but not sex, was a significant predictor of this unsafe driving behaviour. Specifically, for every 10-year increase in age, the odds of drivers indicating they were more likely to be distracted while driving during the pandemic decreased by 34%.

Alcohol and driving. A small percentage of Canadians (2.4%) admitted they were more likely to drive within two hours of consuming alcohol during the pandemic. The majority of respondents indicated there was no change in this behaviour (75.4%), and 22.2% reported they were less likely to drive within two hours of consuming alcohol during the pandemic, as compared to before COVID-19. The logistic regression analysis assessing the impact of sex and age on this unsafe driving behaviour did not reveal any significant results.

Drugs and driving. Similarly, 2.2% of Canadians indicated they were more likely to drive within two hours of using drugs during the pandemic, as compared to before COVID-19. Just under half (46%) of these respondents indicated prescription drugs that may affect their driving were most frequently used before driving. Second to this was marijuana, with 1 in 3 respondents (33.5%) reported using this substance most frequently before driving. The use of illegal drugs was reported by 20.4% of those who indicated they were more likely to drive within two hours of using drugs during COVID-19. A logistic regression demonstrated age, but not sex, was a significant predictor of this unsafe driving behaviour. Specifically, for every 10-year increase in age, the odds of drivers indicating they were more likely to drive within two hours of using drugs during the pandemic decreased by 33%.



Conclusion

This fact sheet summarizes attitudes and practices of Canadian drivers related to the effects of COVID-19 on travel behaviour and road safety. These findings are based upon data from TIRF's RSM.

Almost 1 in 4 Canadians indicated their preferred method of travel changed during the pandemic, as compared to before COVID-19. Prior to COVID-19, personal vehicle was the main preferred method of travel, followed by public transit. During the pandemic, a significant increase in those using a personal vehicle as their preferred method of travel was observed while there was a significant decrease in respondents who reported using public transit as their preferred method of travel. Positively, a significant increase was observed in the use of active transportation (walking, cycling). On the other hand, the use of a taxi or ride share

decreased significantly during the pandemic. Almost 1 in 3 respondents (30%) indicated this change in preferred travel method was likely to be permanent. Interestingly, sex nor age were significant predictors of a change in preferred travel method, suggesting Canadians from all demographics were equally impacted by the effects of the COVID-19 pandemic on travel method.

Overall, a notable proportion of respondents indicated they were more likely to engage in risky or dangerous driving behaviours during the pandemic, as compared to before COVID-19. Specifically, some respondents were more likely to excessively exceed the speed limit when COVID-19 restrictions were in fullest effect. The majority of these drivers reported doing so because of the reduction in traffic volumes. Some Canadian drivers also reported a greater likelihood of being distracted, mainly due to competing thoughts, while driving. It is hypothesized these competing thoughts were in part due to the concern and anxiety over the "new normal" as a result of the COVID-19 pandemic. Although sex had no effect, age was a significant predictor of these unsafe driving behaviours, and the odds of drivers indicating these behaviours were more likely during the pandemic decreased with every 10-year increase in age.

A notable proportion of respondents indicated they were more likely to engage in risky or dangerous driving behaviours during the pandemic, as compared to before COVID-19.

There was also a small proportion of Canadians who indicated they were more likely to drive within two hours of impairing substance use during the pandemic, as compared to before COVID-19. To illustrate, 2.4% admitted they were more likely to drive within two hours of consuming alcohol, and 2.2% indicated they were more likely to drive within two hours of using drugs. The most frequently used drug before driving was prescription drugs which may affect driving, followed by marijuana and illegal drugs. For the most part, sex and age did not have a significant impact on the odds of drivers reporting these unsafe driving behaviours were more likely during COVID-19. However, the odds of drivers indicating

they were more likely to drive within two hours of using drugs during the pandemic decreased by 33% with every 10-year increase in age.

The large majority of respondents indicated their behaviour did not change, and most positively, a small proportion reported they were less likely to engage in these dangerous driving behaviours. Although the full impact of the COVID-19 pandemic on road safety is presently unknown, these data help illustrate the self-reported behaviours of Canadian drivers during COVID-19 restrictions, and can help compliment other sources of data such as crash and fatality data. A more in-depth understanding of how the pandemic has affected road safety, and how a gradual re-opening and possible subsequent restrictions may affect driver behaviours is still to be determined. As such, close attention must be paid to these indicators to determine if there is a continued effect of pandemic restrictions on road safety.

About the poll

These results are based on the RSM, an annual public opinion poll developed and conducted by TIRF. A total of 1,500 Canadians completed the poll in September 2020. Results can be considered accurate within plus or minus 2.5%, 19 times out of 20. The majority of the questions were answered using a scale from one to six where six indicated high agreement, concern, or support and one indicated low agreement, concern or support.

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Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.

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