



DISTRACTED DRIVING IN CANADA: MAKING PROGRESS, TAKING ACTION



The knowledge source for safe driving

Traffic Injury Research Foundation

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

Drop It And Drive

Drop It And Drive (D.I.A.D.) is a national British Columbia-based organization that has presented its reality-based workshops to more than 50,000 students, faculty and workers throughout British Columbia, Alberta and Ontario since their launch in late 2010. Its mission is to prevent injuries and fatalities caused by distracted driving, distractions in the workplace and distracted walking. It actively promotes the need for societal change in order to effectively address road, pedestrian and workplace safety.



This initiative was made possible by a charitable contribution from
The Co-operators Group Limited.



Traffic Injury Research Foundation
171 Nepean Street, Suite 200
Ottawa, Ontario
Canada K2P 0B4
www.tirf.ca
Toll Free: 1-877-238-5235
Fax: 613-238-5292
Email: tirf@tirf.ca

Registered Charity No. 10813 5641 RR0001

Copyright © November 2015
ISBN: 978-1-926857-67-1

DISTRACTED DRIVING IN CANADA: MAKING PROGRESS, TAKING ACTION

Prepared for:
The Co-operators Group Limited
130 Macdonell St., Guelph, Ontario N1H 6P8

Prepared by:
Robyn D. Robertson* / Karen Bowman** / Jan-Michael Charles*

**Traffic Injury Research Foundation
171 Nepean St. Suite 200, Ottawa, ON K2P 0B4*

&

***Drop It And Drive
6136 Janelle Place, Nanaimo, BC V9V 1M7*

NOVEMBER 2015

ACKNOWLEDGEMENTS

The Traffic Injury Research Foundation (TIRF) and Drop It And Drive (D.I.A.D.) gratefully acknowledge the many governments, agencies and organizations that participated in the environmental scan for their cooperation and willingness to share their experiences and insights to inform this report on distracted driving in Canada.

TIRF and D.I.A.D. also recognize the contributions of the Canadian Council of Motor Transport Administrators (CCMTA) to share their knowledge and activities in relation to distracted driving to help inform the development of the environmental scan and to facilitate its dissemination to a broad cross-section of respondents.

Finally, TIRF and D.I.A.D. also appreciate the support provided by Ms. Sara Oglestone, former TIRF Manager, Marketing and Communications for her assistance in fielding the online environmental scan and preparing the data for analysis.

DISCLAIMER

The contents of this report are based on the summary and synthesis of results of the online environmental scan and key informant interviews conducted by the Traffic Injury Research Foundation in partnership with Drop It And Drive. The diverse experiences and perspectives shared in this report may not reflect the individual experiences of persons and agencies that participated in this research, or The Co-operators Group Limited who provided funding for this report.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iv
INTRODUCTION	1
Actions to reduce distracted driving in Canada	2
Rationale for the environmental scan	4
OBJECTIVES AND METHODS	5
Online environmental scan	5
Key informant interviews	7
Synthesis of results	7
RESULTS	8
Provincial/territorial government approaches to distracted driving	8
Enforcement strategies and outcomes	11
Data collection activities and measurement processes	15
Education and awareness campaigns	17
Legislation	20
Summary	23
CONCLUSIONS	25
NEXT STEPS	29
REFERENCES	32
APPENDIX A – AGENCY PARTICIPANTS	34
Government agencies	34
Enforcement agencies	35
Insurance agencies	35
Academic institutions	35
Non-governmental agencies	35



INTRODUCTION

Distracted driving has emerged as one of the most prominent road safety concerns in Canada and worldwide in the past decade. Indeed, this issue has taken its place among other high-profile topics including the non-use of seatbelts, speeding and impaired driving that are significant contributors to fatal crashes. As a consequence, much work has been undertaken in the past decade to increase knowledge and understanding of this issue.

This quest has been spurred by an ever-growing body of research that is comprised of real-world, naturalistic studies, combined with the analysis of crash data, driving simulator research and public opinion polls among others. Collectively these studies have revealed some important findings about distracted driving that have substantially influenced activities to begin to reduce it.

- > Drivers routinely engage in a wide variety of tasks which vary in complexity but are unrelated to driving when they are in control of a vehicle on the road. These tasks may include visual, auditory, cognitive and physical distractions.
- > A wide range of tasks that are performed by drivers, sometimes with incredible frequency, serve to escalate crash risk to varying degrees. Data from crashes and near-crashes in the 100-Car Naturalistic Driving study conducted by the Virginia Tech Transportation Institute (Klauer et al. 2006) were used by researchers to calculate the relative risk of crashing associated with different tasks. It was estimated that performing a complex secondary task (e.g., reaching for a moving object, applying makeup or dialing) exposed drivers to approximately three times the risk of involvement in a crash or near-crash; moderate secondary tasks (e.g., talking/listening, eating, inserting a CD) were approximately twice the risk, and for simple secondary tasks (e.g., drinking, smoking) there was no appreciable increase in risk. While there were limitations to this study (Ranney 2008), the results provided important insights into the effects of distraction on crash risk.

As the level of driver distraction escalates, driving performance declines.

- > A more recent and much larger U.S. study analyzed naturalistic driving data that examined safer glances, driver inattention and crash risk. It explored how much time a driver could “look away” before a rear-end crash becomes likely, and revealed that visually demanding tasks were associated with the highest risk. In particular, texting had the highest odds ratio suggesting a greater crash and near-crash risk (Victor et al. 2015).
- > Despite popular belief, it is not only the manual performance of a task that increases crash risk, but also the level of mental concentration or volume of information a task requires. The higher the ‘cognitive load’ on drivers across driving- and non-driving-related tasks combined, the more likely that drivers will be crash-involved.
- > As the level of driver distraction escalates, driving performance declines. The human brain can only process a finite amount of information at one time. As the level of information demanding driver attention grows, whether it comes from the driving task itself or other tasks performed by drivers behind the wheel, the brain becomes “overloaded”. Hence, it starts to unconsciously filter out or ignore information, including that which may be essential to drive safely.

Actions to reduce distracted driving in Canada

As a first step to address this problem, most jurisdictions in Canada have hastened to implement a legislative regime, complete with escalating penalties, to reduce driver distraction; an approach that is highly consistent with the way that many road safety issues have traditionally been tackled. Most notably, in almost all jurisdictions legislation has been comprised of bans of handheld electronic communication devices, with an emphasis on texting, in an effort to curb distracting behaviours behind the wheel. A much smaller proportion of jurisdictions have also prohibited other sources of distraction that pose concern.

Governments have also worked to deliver education and awareness initiatives, to enhance the quality of data regarding distraction-related factors in crash reports, and to monitor this issue. These efforts have helped to both inform research as well as guide the identification of practical solutions to improve road safety. Although much more work is needed on this front, to date, based on available data, an estimated 23% of fatal crashes and 27% of major injury crashes involved distraction as a contributing factor in 2012. Since 2006, distraction-related fatalities have increased 26% and major injuries have increased by 14% (CCMTA 2015).¹

¹ Note that increases may be due to a combination of real increases and improved reporting.



Of concern, in 2014 at least three Canadian jurisdictions reported that distracted driving as a factor in road crashes equalled or even exceeded impaired driving. To illustrate, Manitoba Public Insurance reported distraction was a leading cause of fatalities in 2014 (Singh 2015), Newfoundland and Labrador has reported a significant increase (40%) in distraction-related crashes in the past decade (CBC News February 23, 2015), and the Ontario Provincial Police has indicated that distraction is a significant factor in crashes (Jeffords 2015). Of greater concern, it is well-recognized that under-reporting of the role of distraction in crashes is considerable, meaning that data reporting distraction in crashes are likely under-estimated.

The responsiveness of governments, industry, and non-profit organizations to the distracted driving problem has been rapid, and progress has been achieved on multiple fronts across Canada. Efforts have most often been related to research, education and prevention, legislation and enforcement, and policy development.

However, road safety issues are not only a provincial/territorial responsibility, but also a collective one across sectors and organizations. This has hindered efforts to both measure and track at a national level the magnitude and extent of work that has been accomplished, that is underway, and that has been planned.

In order to maximize effectiveness, the knowledge and experience that has accumulated in the past several years as a result of these efforts must be captured, amassed and shared to create efficiencies, facilitate partnerships and leverage resources. Mechanisms to accomplish this goal and sustain it in the long-term must be established and coordinated. To this end, the willingness of agencies to collaborate is abundant.

An important step forward has been the formation of a Distracted Driving Working Group by the Road Safety Research and Policy Committee of the CCMTA in early 2014. The Working Group has focused on electronic communication devices in particular, as well as other electronic devices that are used by drivers in vehicles or are incorporated in new model vehicles. Initial action taken by the Working Group

has been to prepare a list of priority areas that require more information or action to support the efforts of provincial/territorial governments, and more work is planned to explore these priorities.

Rationale for the environmental scan

Building on these efforts, TIRF, in partnership with Drop It And Drive (D.I.A.D.) undertook an environmental scan of distracted driving efforts beginning in late 2014 and extending into early 2015, with cooperation from the CCMTA, to create a national picture of distracted driving in Canada. This was conducted, in large part, because the sheer volume and unprecedented pace of news reports, proposed and implemented legislation and policy initiatives, enforcement activities and awareness efforts have made it exceptionally challenging to not only keep pace of the issue, but also to track and manage the breadth of action that continues to occur.

The main objective of this work was to compile current statistics, information and lessons learned about distracted driving strategies that have been implemented by different sectors and regions. A secondary objective was to gauge activities that are currently underway, or that are planned for the future. The purpose of this work was to establish a solid foundation on which future initiatives could be planned and coordinated across organizations with a vested interest in this issue. The importance of identifying opportunities for collaboration and partnership to bolster these efforts was underscored.

The results of this environmental scan are summarized in this report which was made possible with financial support from The Co-operators Group Limited. The intent of this report is to provide a current snapshot of progress in reducing distracted driving in Canada, and to inform the development of a national strategic plan to address this road safety priority. Of note, this scan was not designed to be exhaustive. There were five key issues that were explored as part of the scan and that are described in more detail in this report. These include:

- > provincial/territorial approaches to understand and address distracted driving;
- > enforcement strategies and outcomes;
- > data collection activities and measurement processes;
- > education and awareness campaigns; and,
- > legislation.

Current perspectives and ideas that can help shape future distracted driving initiatives were also explored. Looking forward, this information can provide guidance and inform discussion about potential distracted driving initiatives at all levels with an eye towards maximizing progress in reducing this priority road safety problem.

OBJECTIVES AND METHODS

This environmental scan on distracted driving was designed using a qualitative approach and was not intended to be representative of all experiences. Its overall objective was to develop a current, national picture of distracted driving in Canada. In particular, it sought to identify common practices and experiences across jurisdictions that could help to ascertain priorities and opportunities based on activities to date. This information is essential to facilitate the broader coordination of strategies in the coming years.

There were three essential steps associated with this environmental scan which was conducted over a period of six months. As a first step, in October 2014, TIRF and D.I.A.D. created a brief online questionnaire for an environmental scan that could be shared with a broad cross-section of agencies in Canada who were engaged in the distracted driving issue. This online scan was informed by the results of a national survey of provincial/territorial jurisdictions conducted earlier in 2014 by

the Road Safety Research and Policy committee of the CCMTA in order to avoid duplication of efforts. The second step was to conduct key informant interviews with a smaller sample of respondents to the online scan to provide some context to help interpret the results of the scan, and the third step involved the analysis and synthesis of the results.



Online environmental scan

This scan was comprised of a total of 20 multiple-answer questions with space for additional input to enable respondents to clarify responses as needed. Areas of inquiry included:

- > current and planned legislative initiatives;
- > enforcement strategies, practices and outcomes;



A total of 40 individuals representing organizations in seven different provinces participated and completed the online scan.

- > data collection activities and measurement processes;
- > education and awareness campaigns; and,
- > perspectives and ideas regarding future activities.

The online environmental scan was conducted from October to December 2014. It was disseminated to more than 45 organizations engaged in road safety who were identified by TIRF, D.I.A.D. and the CCMTA based on their collective knowledge and experience with this issue in Canada. A total of 40 individuals representing organizations in seven different provinces participated and completed the online scan, including: Alberta (AB), British Columbia (BC), Manitoba (MB), Newfoundland and Labrador (NL), Nova Scotia (NS), Ontario (ON), and Prince Edward Island (PE). The types of organizations that responded to the scan in each jurisdiction were varied.

Participants worked in a broad cross-section of agencies including provincial and municipal governments, federal and local police departments, insurance companies, healthcare institutions, as well as non-governmental, academic and community organizations. Overall, 35% of respondents represented police agencies, 28% represented provincial governments, 12.5% represented municipal governments, and 12.5% represented non-governmental organizations and academia. In addition, 7% of respondents represented insurance organizations and the remaining 5% of respondents did not fit within any of these categories.

Key informant interviews

The second step of this work involved key informant interviews that were designed to augment the data collected from the online scan and to further clarify the context of responses to help facilitate the interpretation of the scan results. Key informant interviews were conducted between January and March 2015, using a convenience sample drawn from the online scan respondents. A total of seven individuals representing a cross-section of government, enforcement, industry and non-profits in three jurisdictions participated in these interviews. Each interview was organized according to a semi-structured approach, and participants were provided with a list of guiding questions and areas of interest for discussion in advance of the interview. This semi-structured approach allowed for open conversation and the free flow of new ideas not covered by the advance copy of provided questions.

Synthesis of results

The third step in this study involved the summary and synthesis of results from the online scan and key informant interviews. Data were analyzed using univariate and bivariate techniques. Interview results were analyzed to identify common and re-occurring themes as well as important differences. These interview results were then used to augment and aid with the interpretation of the online scan data to provide context for the distracted driving issue in Canada.

The collective results emerging from the online environmental scan and follow-up key informant interviews are synthesized and presented in the next section. Results in relation to each area are presented according to the key features of planning, the core components of activities, and lessons learned, respectively.

RESULTS

This section summarizes the results from an online environmental scan that was augmented with data gathered through key informant interviews to create a qualitative picture of distracted driving in Canada. Although not all jurisdictions participated in the scan, and the types of agencies responding to the scan varied across jurisdictions, collectively these results are informative to provide a national picture of practice in relation to distracted driving and to highlight progress to date. More importantly, these results can help identify current gaps that exist in relation to this issue, and opportunities to coordinate and strengthen activities to reduce the problem in the future.

The results are presented in accordance with five main areas including: provincial and territorial government approaches to understand and address distracted driving, enforcement strategies and outcomes, data collection activities and measurement processes, education and awareness campaigns, and legislation.

Provincial/territorial government approaches to distracted driving

Distracted driving is ranked as a top priority by provincial and territorial governments across Canada who have responsibility for road safety. Almost all jurisdictions have undertaken efforts on some level to address this priority problem, however many of these initiatives have occurred independent of each other.

At present, there is not a Federal government structure

that exists that has the authority to support the coordination of distracted driving activities across Canadian jurisdictions. While Transport Canada has endeavoured to contribute to efforts to address this problem, it is constrained in its ability since behavioural issues are not a feature of its current mandate, and it lacks resources that can be allocated in this regard. However, Transport Canada has been actively represented in provincial/territorial discussions and provided some leadership through its participation in the CCMTA.



Representing provincial and territorial governments, the CCMTA has formed a Working Group with a focus on electronic communication devices and other vehicle-based technologies. This initiative has aimed to facilitate the sharing of information and activities related to distracted driving among governments. Yet, this issue is but one of several road safety priorities that is undertaken by the CCMTA each year and they are limited in capacity and resources to continuously respond to this issue, or to actively engage with the broad cross-section of agencies outside of government that are working to address it. Hence, there is a gap in dedicated coordination and communication functions specific to this issue at a national level, and the natural abilities of organizations to continuously engage with the diverse agencies that have a vested interest in it.

Most notably, approaches to this issue by provincial and territorial governments have been highly consistent with existing strategies to address emerging road safety priorities. These approaches have been comprised of the monitoring of data to measure the problem, the introduction of legislation to address it, education and awareness campaigns, strong enforcement of new laws, and further monitoring to gauge the results of these efforts.

Approaches to this issue by provincial and territorial governments have been highly consistent with existing strategies to address emerging road safety priorities.

To date, knowledge from research regarding effective strategies to counter distracted driving is low, and few options are available to governments in terms of effective countermeasures. The major challenge on this front has been that the magnitude and characteristics of the problem are still not well-understood.

Legislation. Governments have undertaken a variety of steps to inform the development of legislation. Main priorities have been determined largely in accordance with the analysis of crash data and citation data. In addition, public opinion surveys may have also been conducted in conjunction with an extensive exploration of the most recent research and best practices to inform legislative initiatives as has been the case in Manitoba and Prince Edward Island among others. With the exception of Nunavut, every province and territory has passed legislation to reduce the use of handheld electronic devices, such as cellphones, by drivers. Alberta is currently the only province that has expanded their legislation beyond handheld electronic devices to include other forms of driver distraction, including eating, drinking, reading, writing and personal grooming. The provinces of British Columbia and Ontario have either undertaken, or are preparing to undertake, a review of their respective Highway Traffic Acts, at which point, the subject of distracted driving has been, or will be, considered. In addition, several provinces have subsequently enhanced their penalties for distracted driving such as Ontario, British Columbia and Nova Scotia among others.

Data collection. Governments have also devoted more attention to the collection of data as distracted driving violations and collisions have increased across jurisdictions. Of note, a majority of respondents (76%) to the online environmental scan suggested that distracted driving fatalities, as represented by provincial crash data, accounted for a greater percentage of crash fatalities than impaired driving in their respective jurisdictions. Current efforts with respect to measurement are focused on strengthening data collection practices in order to better understand the magnitude and characteristics of the problem, and thereby improve the development of targeted messaging and strategies.

In particular, there are currently two notable gaps in data collection that are considered priorities by jurisdictions. These include:

- > the types of distraction that are most strongly associated with collisions; and,
- > the characteristics of distracted driving collisions.

In addition, two-thirds of scan respondents (67%) indicated that measures of effectiveness of initiatives are either not readily available or not widely recognized. Overall, respondents to the scan reported that measures of effectiveness of distracted driving initiatives were available (33%), however these data were not well-known

among all agencies with the jurisdiction, suggesting that tools and mechanisms to communicate and share data were limited or not widely shared.

There are currently two notable gaps in data collection that are considered priorities — the types of distraction that are most strongly associated with collisions and the characteristics of distracted driving collisions.

Partnerships. Many jurisdictions in Canada reported that strong partnerships have developed involving governments, enforcement agencies and public insurers as well as community-based groups and

non-profits. Consistent with other road safety issues, communication and coordination between governments and law enforcement has been strong and organized. Respondents also often reported that insurance companies and media have been more actively engaged in maintaining the visibility of this road safety issue through education and regular media reports.

The results of the environmental scan also provided some evidence to suggest that, while partnerships are more pronounced particularly in relation to awareness, there are some gaps related to the sharing of information about strategies and the availability of data. In other words, there appear to be some disconnects between agencies in relation to awareness and action, although this appeared to be more pronounced in larger jurisdictions.

Based on the results of the environmental scan and key informant interviews, smaller jurisdictions may have the distinct advantage of being able to more easily coordinate and mobilize efforts across organizations in response to issues. This may be a function of personal relationships resulting from fewer geographical

challenges, stronger community bonds, and the smaller size of staff within departments which makes working partnerships more feasible.

Education. In almost all jurisdictions respondents reported that they have developed or contributed to the development and promotion of education and awareness campaigns. More recently, in at least two jurisdictions, respondents reported that they were exploring opportunities to revise and/or update provincial driver education programs to incorporate more information about distracted driving and the risks and consequences of distracted driving for young and new drivers. For example, Manitoba Public Insurance has developed an educational program that is designed for students and delivered in schools. In particular, it includes a driving simulator component that enables students to experience first-hand the effects that distraction can have on driving abilities. Also, the Ministry of Transportation in Ontario is working with an advertising agency to develop an integrated social marketing/public education campaign that creates awareness for all Ontarians about road safety priority items with a strong focus on distracted driving. The campaign is targeted to launch in Spring 2016.

Enforcement strategies and outcomes

Across Canada, many law enforcement agencies have undertaken enforcement activities and some have also tracked their outcomes. This section contains a brief overview of some of the ways in which law enforcement strategies have been developed and delivered to date, as well as some of the outcomes associated with these efforts.

For police agencies, allocating manpower and resources to consistently enforce distracted driving laws can be challenging.

Strategies. Larger police agencies often adopt a structured approach to enforcement activities in which specific road safety issues and enforcement activities are planned on an annual calendar basis. To date, the selection of months in which specific enforcement activities are scheduled has been somewhat arbitrary. Gaps in data make planning more challenging, and to some extent, enforcement is scheduled independent of consideration of relevant crash or citation data; this data may also not be readily available in time to inform planning activities. While distraction appears to have been an issue that is prevalent year-round, consideration of available data could potentially help to drive the targeted scheduling of enforcement campaigns.

According to respondents, within provinces, high levels of coordination across police agencies have been well-established and maintained, generally as a function of experience and consistency in relation to the enforcement of other priority road safety issues. Provincial governments have also been actively engaged with police agencies in order to promote education and awareness efforts in conjunction with enforcement.



When asked about the frequency of distracted driving enforcement that is in addition to routine road safety enforcement, 30% of respondents noted enforcement occurred on a monthly basis in their jurisdiction, 21% indicated a quarterly basis, and 24% of respondents reported bi-annual enforcement efforts. Data from key informant interviews indicated that agencies have attempted to enforce distracted driving laws as frequently as possible, however, competing road safety priorities has made it challenging to consistently allocate manpower and resources to this issue in the long-term. To this end, 35% of respondents to the environmental scan reported that resources were low or inadequate; 38% reported that resources were moderately available. A common concern that was noted among police agencies was that there are a number of road safety issues that require consistent enforcement and allocating manpower and resources to maintain consistent enforcement can be challenging. To this end, some police agencies may combine distracted driving enforcement with some other priority issues such as seatbelt use since detection strategies for this issue are similar to detection strategies used for distraction.

Of interest, police respondents that reported having a dedicated traffic enforcement unit and/or collision investigators seemed better able to focus continuous attention on distracted driving enforcement. Conversely, it was reported that agencies without dedicated traffic officers found it more challenging, as regular patrol officers often struggled to keep pace with competing priorities and non-traffic related calls for service.

A positive finding that emerged from the environmental scan and key informant interviews was that at least some agencies have been working towards targeting high distracted driving violation areas that coincide with distracted driving crash locations for enforcement efforts. However, the overall selection of enforcement

locations (e.g., intersections, highways, business areas) has more often been based on the experience of patrol officers with an emphasis on trying to be at “the right place at the right time” to identify distracted drivers. In some jurisdictions, officers may rely upon the random selection of busy intersections and/or targeting enforcement in locations where enforcement may not always be expected. Some agencies are seeking to identify peak time frames in terms of time of day or specific weeks or times of the year when distraction is more prevalent.

The majority of respondents to the environmental scan also indicated that enforcement efforts were most often general in scope in order to identify any drivers that are distracted; at times respondents also reported that there was a focus on young drivers in particular due to their elevated crash risk in general as well as in relation to distracted driving activities. Police respondents also noted that government partners, insurance industry and media outlets have been an important partner to strengthen enforcement efforts by delivering awareness messages in tandem with periods of enforcement, as well as on a continuous basis.

Enforcement activities and outcomes. In Canada, distracted driving enforcement activities by police have been conducted using both overt (i.e., marked and clearly visible) and covert (i.e., unmarked patrol vehicles, officers appearing as bystanders or flag staff near construction sites, or persons waiting for the bus) strategies. Results of key informant interviews revealed that both overt and covert enforcement activities were effective to detect large numbers of distracted drivers. What was perhaps most disconcerting to police was that despite highly publicized enforcement blitzes, distraction continued to be a prevalent problem and these blitzes often resulted in very large numbers of distracted drivers being detected and citations being issued, even when they were highly publicized. While in general, police respondents reported that public reactions to enforcement and education campaigns relating to distracted driving were positive, the prevalence of distracted driving among motorists and the level of non-compliance with legislation remains troubling. Of concern, it was noted that some police agencies had reported at least a proportion of drivers persisted in distracted driving behaviours and modified their behaviour in an effort to make it more difficult for officers to detect them, such as by holding their phone in their lap out of sight. This is a source of concern since this causes drivers to look down at their phone, thereby taking their eyes off of the road.

Despite highly publicized enforcement blitzes, the prevalence of distracted driving among motorists and the level of non-compliance with legislation remains troubling.

Most often the interaction between a police officer and a motorist to issue a warning or citation for distracted driving was reported as taking just a few minutes. It was suggested that perhaps the brevity of the interaction resulted in the violation

having less of an effect on a driver's behaviour. It was most often reported that reactions to police from motorists typically included:

- > a denial of the distraction or claim that they were not distracted; or,
- > an acknowledgement of the distraction and acceptance of the citation as the "cost of doing business".

As context for the frequency of distracted driving citations, a brief review of media outlets in the months during which the scan was conducted revealed that Alberta Transportation reported that there were 25,000 convictions for distracted driving in AB for 2013–2014 (Ramsay 2015); the Insurance Corporation of British Columbia reported that 54,600 tickets were issued in BC in 2014 for email or texting violations or using an electronic device behind the wheel (CTV Vancouver 2015).

Police respondents to the environmental scan also noted that their perceptions of the characteristics of distracted driving crashes based on individual experience with enforcement may vary. While some respondents suggested that rear-end and side swipe crashes appeared to be more common, others indicated that drivers crossing the centre line, resulting in a head-on collision, were characteristic of distracted driving incidents.

The environmental scan results showed that the measures of effectiveness of distracted driving enforcement often consisted of the number of tickets issued for distraction, and informal observations by officers of fewer distracted drivers being detected. Anecdotally, police respondents noted some officers indicated that there appeared to be more drivers who were using a hands-free option as opposed to handheld phones. Among at least some police respondents, from a broader perspective, it was noted that success will only be achieved when officers have to work much harder to detect distracted driving because the behaviour is infrequent among drivers.

It was also acknowledged that these measures provided some insight into the magnitude of the problem but that more robust measures were needed. Respondents underscored that these measures did not reveal whether drivers were merely moderating their involvement in distracting behaviours in response to different environments. In other words, drivers may have just avoided using their phone while driving in environments where they were more likely to be detected, such as at intersections.

Of importance, key informants noted that efforts to enforce driver compliance with distracted driving legislation were associated with some barriers in practice. In jurisdictions where the number of violations has increased, and more drivers have elected to challenge citations in court, there were some concerns that court capacity to process violations, and the ability of officers to participate in violation hearings was not sustainable in the long-term and may ultimately detract from enforcement efforts.

Data collection activities and measurement processes

While many jurisdictions have sought to improve data that are collected in relation to this important issue in recent years, at present it is limited for a variety of reasons.

- > First, the role of distraction in crashes is difficult to determine at roadside since drivers are unlikely to admit to engaging in distracted behaviours behind the wheel, particularly in the event of a crash. Without direct observation by police or reports from witnesses, or rare conditions being present, such as a phone in hand, distraction may not be recorded as a factor.
- > Second, while some distraction data are collected, it is often not possible to analyze these data in terms of individual or specific distraction-related factors simply because of the breadth of factors that may play a role.
- > Finally, data comparisons across jurisdictions is also difficult as each may utilize a slightly different definition of distraction (perhaps in accordance with legislation), collect different levels of detail, categorize distractions using different groupings, or have different types of charges that police may apply based on the Highway Traffic Act.



Respondents indicated that the types of data that were most commonly collected included distracted driving violations and crashes.

Regardless, as noted previously, despite these differences, a majority of respondents (76%) to the environmental scan reported that provincial crash data from the past five years showed distraction has been responsible for a greater percentage of road fatalities than impaired driving. Again, when respondents were asked if their jurisdiction had any measures available to demonstrate whether legislation or enforcement efforts had reduced the frequency of distracted driving, 67% indicated they had no measures, or they did not know if there were any measures; just 33% suggested that measures of effectiveness were available. However, universally, respondents acknowledged that measures that were available could be more robust, and that there were questions of completeness and reliability in relation to these measures.

Respondents indicated that the types of data that were most commonly collected included distracted driving violations and crashes, and these measures were derived from police-reported data or crash data. It was noted that some insurance claims

data were available; however, since culpability was not often recorded, that this data source was limited and not necessarily reflective of the problem. In addition, respondents from several jurisdictions reported that provincial public opinion data were available, as well as from national surveys on this issue that have been previously conducted by TIRF in its annual Road Safety Monitor (RSM), and also annual polls by the Canadian Automobile Association (CAA) and State Farm, among others. Of course, there is also some data gathered through observational surveys conducted by the CCMTA and Transport Canada (Jonah 2014).

Respondents to the environmental scan reported at least some jurisdictions collected data regarding the effectiveness of either legislation or enforcement efforts in reducing the frequency of distracted driving. Overall, these data involved some process measures and some outcome measures that were used to examine trends before and after periods of intensive awareness and/or enforcement, and trends over time on an annual basis. Examples provided in the environmental scan included:

- > the penetration and reach of awareness campaigns;
- > responses to awareness campaigns in the form of self-reported data collected through public opinion polls;
- > the number of drivers stopped during enforcement periods;
- > the number of distracted driving citations or tickets issued;
- > provincial charge and conviction data; and,
- > crash data including fatal and serious injury crashes.

It was noted that the variables that were most amenable to analysis included age, sex and to some extent, temporal factors. According to key informant interviews, data that were least often available pertained to culpability for the crash, types

The variables that were most amenable to analysis included age, sex and to some extent, temporal factors.

of distraction, and types of collisions as these data are not easily, and thereby not consistently, collected. In addition, only one-third of respondents indicated that their respective jurisdictions collected data about the role of distraction in pedestrian crashes, which is a rapidly emerging topic of concern; on average half of respondents (50%) reported that they did not

know if these data were collected. In other words, while jurisdictions may in fact be collecting these data, it is not well-known or awareness about it is low among other organizations. This is a salient point in light of recent media reports in at least Manitoba and Ontario suggesting that efforts to ticket cyclists for distraction have been raised in some sectors. Hence, the importance of quantifying distraction in relation to other modes of transportation is increasing.

Positively, some jurisdictions have reported declines in distracted driving, and have evaluated or are currently evaluating their distracted driving legislation. Yet it was also underscored that while these outcomes suggest that progress

has been achieved, what remains unknown is the general and continued frequency of enforcement to put these outcomes in context. In this regard, there is a recognized need to collect more outcome-specific data to track and gauge effects of legislation, enforcement efforts and education campaigns.

Of note, the potential for under-reporting and/or under-detection as it relates to the available sources of data (i.e., claims statistics, violation data, crash data, public opinion surveys, observations) poses some concern, and the variability of collection practices even within a jurisdiction, makes it difficult to accurately measure the magnitude and characteristics of the problem. Of greatest importance, a better understanding of where distracted driving occurs and why, as well as what factors contribute to crashes is much-needed. Similarly, more detailed police reporting can help to refine distracted driving strategies, although there are important barriers to collecting such data which must be overcome. Ultimately, the biggest challenge resulting from these data gaps is that it is not possible at present to accurately identify what specific audiences or age groups should be targeted; neither is it currently possible to tailor education to the specific types of distractions that are the main contributors to problem.

Education and awareness campaigns

Education and awareness efforts were considered integral to achieving progress by both respondents to the environmental scan and also to individuals participating in key informant interviews. Most respondents (71%) reported that there were one or more awareness campaigns being used in their jurisdiction. Across respondents, these campaigns were typically based on strong partnerships between government, police agencies, insurance companies and media outlets as well as non-profit organizations.

Just 10% of respondents indicated they were not using awareness efforts, and 19% reported that they did not know whether awareness efforts were being employed in their own jurisdictions. This latter result provides insight into the low frequency of efforts, the low penetration of messages, or suggests that the messages were not easily recalled by at least some audiences.

In terms of the development of education and awareness campaigns, respondents reported that they generally explored and considered other education and awareness messages that had been previously developed and utilized by other agencies or jurisdictions. However, almost all respondents noted that they elected to develop their own tailored awareness messages. The main reason cited in relation to this approach was the importance of messages being directly relevant to their respective



audiences, and consistent with their style of awareness messaging. Hence, these results underscore that it is considered important that education and awareness campaigns are tailored to audiences and resonate with them, and use accepted approaches to these campaigns. For this reason, respondents generally did not report using pre-existing campaigns, with a few exceptions that were identified.

The main focus of initial education and awareness messages has predominantly emphasized publicizing new legislation and enforcement efforts as well as potential penalties or consequences for distracted driving.

Overall, the environmental scan suggested that there was much variation across messages with many jurisdictions or organizations choosing to develop their own awareness message. A list of education and awareness campaign messages that were deemed most memorable and recognized by participants of the environmental scan included:

- Leave the Phone Alone (CCMTA);
- Your Last Words (MPI);
- Make A Promise To Focus On The Road (South Central CAA);
- Distracted driving — What will you miss? (CAA);
- Nomophobia — Are you a nomophobe? (Iowa State University); and,
- Practice safe TXT (Parachute).



Generally speaking, respondents to the environmental scan and key informant interviews revealed that the main focus of initial education and awareness messages has predominantly emphasized publicizing new legislation and enforcement efforts as well as potential penalties or consequences for distracted driving. Post-implementation of laws, respondents in some jurisdictions reported they have shifted the focus of awareness efforts to underscore the risks and human consequences associated with distracted driving.

Overall, respondents indicated that a majority of education and awareness efforts have been targeted towards general audiences of drivers of all ages (92%) and the general public (88%). Almost three-quarters (71%) of jurisdictions also reported

that there had been, at least to some extent, a specific emphasis on youth and younger drivers. Efforts to target messages towards cyclists and pedestrians are recognized gaps (25% of respondents reported such efforts), as were messages in relation to distractions and workplace safety (21% reported such efforts). Few agencies were identified as having taken a more comprehensive or structured approach to tackling awareness efforts in relation to this latter issue, suggesting either that not many agencies have done so, or that agencies that have implemented distracted driving policies are not well-recognized. However, the Toronto Police Services in cooperation with Sunnybrook Health Sciences Centre produced a pedestrian safety video (see www.youtube.com/watch?v=TKKVQ-uoDrl), that was sponsored by the Ministry of Transportation in Ontario. It aimed to address issues associated with distracted walking and pedestrian safety in general.

Respondents indicated that many education and awareness campaigns are launched in coordination with press events and enforcement blitzes. The main education and awareness tools that were reported as being commonplace among respondents included:

- > posters;
- > public service announcements (PSAs);
- > flyers and other types of handout materials;
- > outdoor media such as billboards; and,
- > social media and/or contests of some sort.

According to respondents, the bulk of messaging in the area of education and awareness has been delivered through media partnerships (i.e., television, radio, websites, and print) and has highlighted enforcement efforts.

However, it was also recognized that more active methods of engagement in terms of emotional appeals, social norming, and tailored messages to specific audiences were needed. In particular, respondents of the key informant interviews suggested that education and awareness efforts should place a stronger emphasis on the significant risks associated with some distracted behaviours. To this end, some jurisdictions reported using simulators at schools to demonstrate adverse consequences of distracted driving (i.e., effects on performance and skill). Other strategies have included intensive in-school educational efforts, beginning with a simulated crash, followed by presentations and discussion delivered by firemen and paramedics, police officers, and medical practitioners. Notable examples of these efforts are undertaken by grassroots organizations such as D.I.A.D., police agencies in Prince Edward Island, the Ontario Students Against Impaired Driving (OSAID), and the Sunnybrook Health Sciences Centre Prevent Alcohol and Risk-Related Trauma in Youth (P.A.R.T.Y.) program. In Ontario, an ongoing school-based project is being

undertaken by 'Sweet Life Roadshow'. This in-school educational initiative targets high school students, and portrays the risks associated with distracted driving behaviour and other road safety issues. MTO is also working with the CAA to update the Ontario Road Safety Resource website which contains a voluntary road safety curriculum for Kindergarten to grade 12 and is available across Ontario. Distracted driving is one of several road safety topics and it can be accessed at www.ontariosafety.ca.

A very positive finding emerging from the environmental scan was that the organization of education and awareness campaigns has become increasingly collaborative at least within some jurisdictions. In British Columbia, it was also noted that some cellphone providers, notably TELUS, were beginning to play a role in the distracted driving issue and undertaking or contributing to education and awareness efforts.

Legislation

Legislation has been widely implemented across Canada with a main focus on handheld electronic devices, notably cellphones. According to a survey by the CCMTA of all Canadian jurisdictions in 2014, fines for distracted driving ranged from \$150.00 to \$400.00 (CAD) on average, and a number of jurisdictions had increased or were considering increasing fines and/or implementing demerit points due to the persistence of drivers in engaging in this behaviour. Table 1 summarizes penalties for distracted driving offences across Canada in 2015.

Legislation has been widely implemented across Canada with a main focus on handheld electronic devices, notably cellphones.

Table 1: Penalties for Distracted Driving Offences across Canada

Jurisdiction	Offence Description	Range in Fines	Demerit Points
Alberta (AB)	Penalties apply specifically to use of handheld cellphones and other specified electronic devices. Additionally, reading, writing, and certain personal grooming behaviours while driving are also prohibited.	\$287	0 demerits
British Columbia (BC)	Penalties apply specifically to use of handheld cellphones and other specified electronic devices while driving. Drivers in the graduated driver licensing program* are not permitted the use of any electronic device.	\$167	3 demerits
Manitoba (MB)	Penalties apply specifically to use of handheld mobile electronics.	\$200	5 demerits
Saskatchewan (SK)	Penalties apply specifically to use of communication devices. Handheld cellphone use while driving is prohibited for both experienced and new drivers. Hands-free cellphone use while driving is prohibited for new drivers.	\$280	4 demerits
New Brunswick (NB)	Penalties apply specifically to use of handheld cellphones. Additionally, the physical manipulation of non-built-in portable GPS, entertainment devices, and display screens is prohibited.	\$172.50	3 demerits
Newfoundland and Labrador (NL)	Penalties apply specifically to the use of handheld electronic devices, including the use of cellphones.	\$100–\$400	4 demerits
Northwest Territories (NT)	Penalties apply specifically to the use of handheld electronic devices, including cellphones, laptops, GPS, and audio/video devices.	\$322	3 demerits
Nova Scotia (NS)	Penalties apply specifically to the use of handheld cellphones.	\$234–\$579	4 demerits
Nunavut (NU)	Not stipulated	Not stipulated	Not stipulated
Ontario (ON)	Penalties apply specifically to the use of handheld communication and electronic entertainment devices and display screens unrelated to driving.	\$300–\$1000	3 demerits
Quebec (QC)	Penalties apply specifically to use of a handheld cellphone or communication device while driving.	\$115–\$145	4 demerits

Table 1: Penalties for Distracted Driving Offences across Canada

Jurisdiction	Offence Description	Range in Fines	Demerit Points
Prince Edward Island (PE)	Penalties apply specifically to use (speaking, texting, watching the screen) of handheld wireless communication devices; this comprises the text, dial, chat, email or search functionalities.	\$500–\$1200	5 demerits
Yukon (YT)	Penalties apply specifically to use of handheld devices for talking, texting and emailing. Additionally, GLP* drivers are not permitted the use of any electronic device.	\$250	3 demerits
* GLP: Graduated Licensing Program Sources: CAA, ICBC, CCMTA British Columbia — Office of the Superintendent of Motor Vehicles, Alberta — Alberta Transportation Distracted Driving, Saskatchewan — SGI Driver Distraction and Inattention, Manitoba — Manitoba Public Insurance: The dangers of distracted driving, Ontario — Ontario Ministry of Transportation Distracted Driving, Quebec — An Act to Amend the Highway Safety Code/Educaloi.qc.ca, Nova Scotia — Government of Nova Scotia, Prince Edward Island — New Cellphone Law, Newfoundland and Labrador — Road Users Guide, New Brunswick — New Brunswick Public Safety: Driver distraction, Yukon — Yukon Government: Changes to the Motor Vehicle Act, Northwest Territories — Department of Transportation			

In summary, 91% of respondents to the environmental scan reported that between two and four demerit points were applied in their jurisdiction in relation to distracted driving violations. Among jurisdictions that indicated their legislation had shown at least some effects, the measures that were used included:

- > fewer visible infractions; and,
- > that the penalties imposed were appropriate for the offence.

More recently, in Ontario the Ministry of Transportation has increased the distracted driving fine to \$300.00 and added 3 demerit points upon conviction (MTO 2015). In addition, Prince Edward Island has introduced legislation, with no reported opposition, to increase fines up to \$1000 and 5 demerit points; the passage of this legislation is pending. Nova Scotia had also recently increased their fine from \$176.45 for a first offence up to \$233.95 and 4 demerit points (CBC News, February 1st, 2015), and British Columbia has added 3 demerits to the \$167.00 fine, and an increased fine is also being contemplated (CTV Vancouver, February 27th, 2015).

Many respondents to the environmental scan and key informant interviews generally agreed that current penalties were too low to affect significant change in driver behaviour. This was particularly pronounced among police respondents who reported that, according to officers, the ticket was viewed by drivers as inconsequential and just “the cost of doing business”. In addition, there was consensus among respondents that the use of monetary fines alone would not provide sufficient disincentive to drivers to effectively discourage them from driving while distracted. As a result,

when asked whether jurisdictions were considering increases in fines or the use of demerits, respondents to the scan reported that:

- > 63% were considering an increase in fines; and,
- > 91% were considering the use of demerits.

Another topic of interest that was explored as part of the scan related to the effect of distracted driving crashes on insurance premiums. While one-quarter (24%) of respondents indicated that insurance premiums were indeed affected by distracted driving crashes, almost three-quarters (74%) said they did not know if this was the case. Yet when asked if distracted driving offences should be reflected in insurance premiums, the large majority (85%) of respondents indicated yes. Some respondents to the key informant interviews suggested that vehicle impoundment should be considered as a penalty for multiple distracted driving violations, although such impoundment programs are inconsistently used across jurisdictions. Collectively, these results indicate that effective strategies to reduce distracted driving have been a topic of discussion, and that alternative sanctions were being explored.



Summary

Overall, the results emerging from the environmental scan and the key informant interviews provided some important insight into and context for the status of this issue, and a national overview of ways that it is being tackled by different sectors. Of considerable concern, the scan revealed that distraction is a significant contributor to the crash problem that is comparable to impaired driving, meaning that this issue will continue to be a road safety priority in the coming years.

General approaches to understanding this problem and seeking ways to address it are quite consistent across jurisdictions, however, the mechanisms, tools and outputs are to some extent variable. There are common barriers to consistently delivering these strategies, most notably resources and competing priorities. In addition, while work may be underway or available, even those actively addressing this issue are not always well-informed, or aware of activities by others in their own jurisdictions, or neighbouring jurisdictions. These findings suggest that better leveraging opportunities to share information and increase collaboration could help to identify more efficient ways to support consistent delivery.

To date, measures of distraction or effectiveness of strategies are fairly limited and not comparable across jurisdictions. Often measures are process-oriented, and

outcome measures such as crashes cannot be directly linked to results of specific initiatives in order to gauge effectiveness.

Much more work has been achieved in relation to education and awareness campaigns, and the environmental scan revealed that these strategies are more often based upon collaboration, partnerships, and communication at least within jurisdictions. It is worthwhile to explore how and why these multi-sectoral partnerships have worked, and ways that they can be applied nationally, as well as to other types of strategies such as data collection. Similarly, the high level of coordination among law enforcement agencies within a jurisdiction can provide a model for other sectors to augment agency efforts.

However, much work is needed in terms of increasing the consistency of messages to the public at a national level. In particular, the key informant interviews revealed that the messages delivered through campaigns have been somewhat fragmented and disconnected. For example, campaigns have been delivered during different times of the year, and the tone and style of messages have been varied. In addition, some messages have focused more on penalties or on specific audiences; others have underscored the risks, and different types of distractions. While all of these messages are important, it has been difficult to create a common base of knowledge for the public that can help provide a foundation for social norming approaches. Similarly, it may have unintentionally made the issue somewhat confusing for the public and undermined the clarity or urgency related to this issue. The scan also revealed important gaps in addressing the distracted driver problem in relation to pedestrians and workplace safety.

Overall, penalties were perceived to be inadequate and there is evidence that many jurisdictions are considering increased fines, demerit points or other sanctions to reduce this problem.

With regard to penalties, there was general consensus among respondents that current penalties may not be successful in changing driver behaviour on the scale that is needed. Overall, penalties were perceived to be inadequate and there is evidence that many jurisdictions are considering increased fines, demerit points or other sanctions to reduce this problem. And while the effect of distraction violations in relation to insurance premiums was unclear, these premiums were believed by respondents to be increasing in at least some cases, and there was a high level of support for this move.

Collectively, these results are useful to provide insight into what types of activities have been pursued in Canada to reduce distracted driving. Of equal importance, they also help increase understanding of how and why some activities have been more strongly implemented, and what barriers as well as opportunities exist to strengthen initiatives and achieve further progress.

CONCLUSIONS

Perhaps the most important issues that were explored as a component of the environmental scan and key informant interviews included what has been learned as a result of the distracted driving activities in Canada to date, and what opportunities may help strengthen progress in the coming years. Quite a wide range of perspectives were shared that indicated there were really a multitude of prospects that may hold promise, although ideas regarding what tools may be more effective in reducing this problem were varied. Potential strategies that are needed and tools that may help Canada to reduce distracted driving in the future are summarized below.

There was widespread consensus that better data are a priority to increase understanding of the magnitude and characteristics of the problem.



There was widespread consensus that better data are a priority to increase understanding of the magnitude and characteristics of the problem. The effectiveness of strategies to address this problem, in the form of enforcement and education as well as penalties, was viewed as intimately connected to the availability of these data. Without more and better data, it will be challenging to tailor education and enforcement initiatives to target specific audiences who most often engage in distracted driving and that pose the greatest concern.

A high level of consensus regarding needed changes to education and awareness messaging also emerged. In particular, agencies reported these messages must better communicate the risks, and create and reinforce social pressure to discourage distracted driving behaviours by leveraging peer relationships and social norms. To this end, there were some anecdotal reports from police agencies that such social pressure was already occurring to some extent. In particular, police respondents

indicated that officers had increasingly observed drivers at intersections and on highways gesturing to distracted drivers to get off the phone and pay attention to the road. A constructive and positive approach that enables road users to communicate social norms can have important benefits to increase motivation for road users to avoid distractions.

Respondents to the environmental scan and key informant interviews also agreed that enforcement strategies must be consistent, and that the immediacy and nature of penalty were an important element to change driver behaviour. It was underscored that drivers must have a strong belief in the likelihood of being detected, and the likelihood of receiving a penalty; this can be created through high levels of actual enforcement. However, the magnitude of the penalty that should be applied is unclear. Most jurisdictions have implemented and/or increased the fines that are applied for violations; many have also moved to impose demerit points in conjunction with fines. What is uncertain at this point is the long-term effect of demerits on drivers who accumulate multiple violations, and who may ultimately become unlicensed drivers.

In this regard, there is also a conundrum that is presented by the fact that the administrative nature of distracted driving penalties makes the enforcement of laws efficient, yet the administrative nature of the penalty also seems to undermine the seriousness of the offence in the eyes of drivers receiving a ticket. To illustrate, it was reported that drivers appear to take much more seriously an impaired driving violation because it is a criminal offence. Of importance, this result certainly does not suggest that respondents proposed that distracted driving should be a criminal penalty; instead the comparison of this issue with impaired driving penalties does help to illustrate the fine balance that must be struck between the practical realities of enforcement in relation to the penalties that are imposed. It is essential that a balance exist between the problem behaviour and the imposed sanction, which must be perceived as reasonable and must also be enforceable. In other words,

there is a “ceiling” beyond which penalties become unreasonable and impractical, and this will influence traditional strategies to address the problem.

However, when asked what strategies were believed to be most effective in reducing distracted driving in the future, respondents to the environmental scan reported that the two strategies to address the problem that were most often considered at this time included increased penalties (58%) and increased insurance

premiums (39%). It was also underscored by respondents that striking a balance between deterrence and the reasonableness of penalties would be essential. In addition, it was acknowledged that while increased insurance premiums may be an option, not all insurance companies universally assess drivers’ records in

Two strategies to address the problem that were most often considered at this time included increased penalties (58%) and increased insurance premiums (39%).



determining premiums on an annual basis. This means that increasing premiums may not be equally applied in practice. Other approaches that were considered included increased enforcement (36%) and increased education (31%).

The potential value of mobile applications to encourage change was also recognized and these products are becoming increasingly available, such as the One Tap App by App Colony. These applications can help to reward good behaviour, as opposed to punishing bad behaviour; such reinforcements are a proven method to encourage behaviour change. However, it was equally noted that while the use of mobile applications does provide a viable solution, it is highly dependent on uptake and use which at this time is uncertain. It is believed that drivers who are more amenable to changing their behaviour will be more inclined to use such an app, particularly as rewards programs help to incentivize its use. However, it is believed that drivers who are more inclined to persist in driving while distracted will be reluctant to adopt these products, regardless of the rewards offered.

Another option that appeared to hold potential value to reduce distracted driving was the use of technology and increasingly automated functions, although there were diverse perspectives expressed by respondents to the key informant interviews whether these tools would have positive or negative effects. It was noted by respondents that increased automation of distracted driving enforcement and e-ticketing, similar to that used for speeding and red-light running, could have a range of potential benefits and increase the efficiency of enforcement as well as its consistency. Conversely, there was uncertainty expressed regarding the growing availability of Advanced Driver Assistance Systems in vehicles which may potentially help to minimize the risks posed by distracted drivers, but may also make possible a higher level of distraction among drivers, and perhaps undermine efforts to reduce it.

Most notably, there was also considerable consensus among respondents to the key informant interviews that, similar to the drunk driving and seatbelt issues, it may take quite a long time before jurisdictions are able to substantially reduce distracted driving and the effects of initiatives are realized. A main concern that was noted was the very real pre-occupation with social connectivity and the almost addictive behaviour in relation to phone use; people find it difficult to turn off or ignore their phone when performing other activities. In this regard, it was noted that young and

A comprehensive package of initiatives, and integrated approaches based on partnerships and collaboration, is needed to achieve progress.

new drivers would likely be the population whose behaviour was most easily changed, as was also the case with drinking and driving, to begin to cultivate a generation of drivers who recognize the dangers of distraction.

In sum, it was well-recognized that available strategies to reduce distracted driving are limited at this time, and there was a primary pre-occupation

with increases in penalties to achieve behaviour change. As such, a comprehensive package of initiatives, and integrated approaches based on partnerships and collaboration, is needed to achieve progress. There was consensus that there is not one single strategy that would produce a substantial reduction in distracted driving behaviour. Instead, attention and energy must be focused on the development of a package of complementary measures to achieve reductions in distracted driving, and the building of alliances to deliver them.



NEXT STEPS

Looking forward, knowledge and lessons learned that have been gained through experiences to date with distracted driving initiatives must be consolidated and shared to help all organizations become more effective. In light of the concerning prevalence of the problem, there is also an urgent need to become more efficient in reducing it. To this end, a robust and comprehensive set of strategies that are complementary, but also integrated, will be essential to target the broad cross-section of drivers and other road users who engage in distracting behaviours to varying degrees.

One important element of this strategy is education and awareness campaigns, and the messages utilized as part of the campaign must aim to help drivers understand that there are risks associated with behaviours that they often engage in while driving. As such, campaigns must persuade drivers that behaviours that have always been acceptable behind the wheel are now unacceptable. To achieve this objective, Canadians require a common base of knowledge and consistent messaging regarding the risks, the ways that distraction affects driving, and new habits to replace distracting ones behind the wheel. This knowledge can build a foundation to support and strengthen social norming approaches, and increased coordination across agencies is an important step forward to achieve this goal.

Campaigns must persuade drivers that behaviours that have always been acceptable behind the wheel are now unacceptable.

Another key feature of this strategy is improvements to data collection on multiple fronts to help increase understanding of the problem and develop effective countermeasures. Many agencies are already pursuing this goal, and greater efforts to share information in relation to data definitions, key indicators, collection strategies and outcome measures can inform countermeasures. Mechanisms to facilitate such coordination can have substantial benefits and are essential to progress.

There are also a variety of other possibilities in the form of advancing technologies that must be further explored to examine their feasibility, strengths, limitations, and caveats to implementation. Of greatest importance, the distracted driving issue

requires continued monitoring and tracking to ensure new knowledge is captured and continuously incorporated into the strategy development process. Refining the strategy will also require the input and expertise of a broad cross-section of experienced practitioners who represent provincial/territorial and municipal governments, law enforcement, health practitioners, insurance industry and industries representing new technologies, academia and non-profits. Input is needed from individuals representing policymakers and key influencers, as well as persons working on the front lines of road safety.

As such, there is a need for a multi-faceted National Working Group on Distracted Driving to provide leadership and work with diverse sectors and organizations to create a comprehensive strategy on distracted driving that is developed with consideration of the Canadian context of the problem. It will be equally important that this body actively engages with municipal partners to ensure that national and provincial/territorial initiatives can be translated at a community level.

To contribute to and support this much-needed initiative, The Co-operators Group Limited has provided funding to TIRF to establish this National Working Group and organize a national meeting. The purpose of the Working Group is to undertake the development of a strategic plan that can guide and help structure coordinated efforts to reduce distracted driving. As a first step in this process, TIRF, in partnership with D.I.A.D. is reaching out to other organizations undertaking work on this issue to ensure that the tasks of the National Working Group will be complementary and coordinated with other activities in the field. There is much work that must be done

in relation to this issue and communication is essential to maximize results and the value of this initiative.

One important task is to further explore, and ultimately resolve, the apparent disconnect that exists between public attitudes and opinions on one hand, and the behaviour of road users on the other.

One important task is to further explore, and ultimately resolve, the apparent disconnect that exists between public attitudes and opinions on one hand, and the behaviour of road users on the other. Generally, public opinion polls reveal that Canadians are quite concerned about distracted driving, and in 2010 the issue of texting and driving in particular was ranked as the most

concerning road safety problem, surpassing concern about drinking and driving which has been a priority topic for almost two decades (Marcoux et al. 2011). However, when this concern is viewed in the context of the sheer number of distracted driving violations that are issued by jurisdictions, and the perception that the tickets are the “cost of doing business”, it seems baffling. On one hand there is widespread support for distracted driving legislation, yet on the other

hand there also seems to be a rather common belief among drivers that the legislation should only apply to 'other drivers' and not themselves. In other words, part of the solution to distracted driving will include challenging the prevalent misperception that many drivers have that they are simply 'better drivers' than everyone else. The reality is that even the best drivers and road users alike cannot protect themselves when they take their eyes off the road and this message must be strongly reinforced to overcome this misperception.

In addition, the sheer number of tickets issued for distracted driving in Canada, and the number of drivers who accumulate multiple violations, suggests that there is also a more persistent population of distracted drivers whose behaviour will not be changed by traditional penalties and who will require more targeted and intensive approaches to motivate behaviour change. In light of the need to balance the reasonableness of penalties with the ability of police to efficiently and consistently enforce laws, the strategy of escalating penalties which is currently the predominant approach to the problem, is inadequate in the long-term. Of importance, there are significant lessons learned from experiences with other road safety issues, which are instructive and should not be ignored. Measures that ultimately increase the number of persistent problem drivers who lose their driving privileges, and who continue to drive, as evidenced by research, can undermine the goal of road safety. This means that other strategies and countermeasures must be developed to ensure Canada is well-prepared in the event that escalating fines and demerit points do not have the desired effects, and a National Working Group can help to address these challenges.

The sheer number of tickets issued for distracted driving in Canada, and the number of drivers who accumulate multiple violations, suggests that there is also a more persistent population of distracted drivers whose behaviour will not be changed by traditional penalties and who will require more targeted and intensive approaches to motivate behaviour change.

REFERENCES

- Bailey, I. (2015). B.C. Coroners Service to review how to further reduce driver deaths. The Globe and Mail. Retrieved October 2015, www.theglobeandmail.com/news/british-columbia/bc-sees-fewer-young-driver-deaths-but-coroner-calls-for-review-of-licensing-system/article22931798/
- Canadian Council of Motor Transport Administrators (CCMTA). (2015). Fall Newsletter. Retrieved October 2015, ccmta.ca/images/publications/pdf/CCMTA-newsletter-fall2015-v10.pdf
- CBC News. (February 1st, 2015). Texting and driving fines increase in Nova Scotia. Published on February 1, 2015 12:04pm. Retrieved October 2015, www.cbc.ca/news/canada/nova-scotia/nova-scotia-texting-while-driving-penalties-increasing-1.2784286
- CBC News. (February 23rd, 2015). Undercover police operations target drivers with cellphones in hand. Video Published on February 23, 2015 11:49am. Retrieved October 2015, www.cbc.ca/news/canada/newfoundland-labrador/undercover-police-operations-target-drivers-with-cellphones-in-hand-1.2967238
- CTV Vancouver. (February 2015) Increased infractions not deterring distracted drivers. Video published on Friday February 27, 2015 3:21pm PST. Retrieved October 2015, bc.ctvnews.ca/increased-infractions-not-deterring-distracted-drivers-1.2257486
- Jeffords, S. (2015). Majority of fatal crashes preventable: OPP. Toronto Sun. Retrieved October 2015, www.torontosun.com/2015/02/09/majority-of-fatal-crashes-preventable-opp
- Jonah, B. (2014) Use of Electronic Communication Devices by Canadian Drivers: Combined Urban/Rural Sites. Canadian Council of Motor Transport Administrators (CCMTA)
- Klauer, S. G., Dingus, T. A., Neale, V. L., Sudweeks, J.D., and Ramsey, D. J. (2006). The Impact on Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data. DOT HS 810 594). National Highway Traffic Safety Administration. Washington, DC.

Larkins, D. (2015). Should cellphone-using cyclists be ticketed? Winnipeg Sun. Retrieved October 2015, www.winnipegsun.com/2015/03/16/should-cellphone-using-cyclists-be-ticketed

Manitoba Public Insurance (MPI). (2014) Focus on the Road. Retrieved October 2015, www.mpi.mb.ca/en/PDFs/Distracted-Driving.pdf

Marcoux, K.D., Vanlaar, W.G.M., & Robertson, R.D. (2012). The Road Safety Monitor 2011: Distracted Driving Trends. Traffic Injury Research Foundation. Ottawa, Canada.

Ministry of Transportation Ontario (MTO). (September 2015). Distracted Driving. Retrieved September 30th, 2015 from: www.mto.gov.on.ca/english/safety/distracted-driving.shtml

National Highway Traffic Safety Administration (NHTSA). (2015) Traffic Safety Facts Research Note. (Report No. DOT HS 812 197).

Ramsay, C. (2015). Alberta considers tougher legislation on distracted driving. Global News. Video published on February 4, 2015 8:56pm. Retrieved October 2015, globalnews.ca/news/1812672/province-considering-tougher-legislation-on-distracted-driving/

Ranney, T.A. (2008). Driver Distraction: A Review of the Current State of Knowledge. Technical Report DOT HS 810 787. National Highway Traffic Safety Administration. U.S Department of Transportation. Washington, DC.

Schick, Lisa (2015). Some Sask. Drivers still texting behind the wheel. News Talk 980 CJME. Retrieved October 2015, panow.com/article/499221/some-sask-drivers-still-texting-behind-wheel

Singh, I. (February 13, 2015). Deaths on Manitoba highways hit 30-year low in 2014, following trend. Winnipeg Free Press. Retrieved May 2015 from www.winnipegfreepress.com/local/deaths-on-manitoba-highways-hit-30-year-low-in-2014-following-trend-291806991.html

Victor, T., Dozza, M., Bärgrman, J., Boda, C.N., Engström, J. & Flannagan, C. (2015). Analysis of Naturalistic Driving Study Data: Safer Glances, Driver Inattention, and Crash Risk (SHRP Safety Research, Report S2-S08A-RW-1). Transportation Research Board of the National Academies. ISBN: 978-0-309-27423-4. National Academy of Sciences. Retrieved from: onlinepubs.trb.org/onlinepubs/shrp2/SHRP2_S2-S08A-RW-1.pdf

APPENDIX A – AGENCY PARTICIPANTS

Institutions that responded in time for inclusion in the online environmental scan survey, along with associated jurisdiction represented.

Note: a number of listed institutions were represented more than once, however only a single notation has been included in the following list.

Government agencies

Alberta Transportation	Alberta
Office of Traffic Safety	Alberta
City of Surrey	British Columbia
RoadSafetyBC	British Columbia
Highway Safety Division: Department of Transportation and Infrastructure Renewal	Prince Edward Island
Legislative and Regulatory Services (LRS)	Manitoba
Manitoba Infrastructure and Transportation	Manitoba
Transportation and Infrastructure Renewal (TIR)	Nova Scotia
City of Ottawa	Ontario
Ministry of Transportation (MTO)	Ontario
Transport Canada	Ontario

Enforcement agencies

Delta Police Department	British Columbia
Oak Bay Police Department	British Columbia
Ottawa Police Service	Ontario
Royal Canadian Mounted Police (RCMP)	British Columbia
RCMP Campbell River	British Columbia
Saanich Police Department	British Columbia
Vancouver Police Department	British Columbia

Insurance agencies

Insurance Bureau of Canada (IBC)	British Columbia
Insurance Corporation of British Columbia (ICBC)	British Columbia
Manitoba Public Insurance (MPI)	Manitoba

Academic institutions

University of British Columbia (UBC)	
Injury Research and Prevention Unit	British Columbia

Non-governmental agencies

Safety Services Newfoundland Labrador	Newfoundland and Labrador
arrive alive DRIVE SOBER	Ontario
Canadian Motorcycle Association	Ontario
Sunnybrook Health Sciences Centre	Ontario



**TRAFFIC INJURY RESEARCH FOUNDATION**

Traffic Injury Research Foundation (TIRF)

171 Nepean Street, Suite 200

Ottawa, Ontario

Canada K2P 0B4

www.tirf.ca

Toll Free: 1-877-238-5235

Fax: 613-238-5292

Registered Charity No. 10813 5641 RR0001