
Distracted Driving Legislation in Atlantic Canada

Introduction

Motor vehicle collisions (MVC) are a leading cause of injury-related death for Atlantic Canadians of all ages. MVCs and associated injuries and fatalities are preventable and are typically attributable to factors such as speed, impairment, distraction, or lack of seatbelt use. Distracted driving has gained considerable attention in recent years with the increased popularity of cell phones and other mobile devices. However, the definition of distracted driving goes well beyond mobile devices and encompasses any “diversion of attention from driving, as a result of the driver focusing on a non-driver object, activity, event or person. This diversion reduces awareness, decision-making or performance leading to increased risk of driver error, near crashes, or crashes. The diversion of attention is not attributable to a medical condition, alcohol/drug use, and/or fatigue.”¹

Distraction can be manual, cognitive, or visual. Manual distraction is anything that takes the driver away from the manual task of operating a motor vehicle, such as keeping their hands on the steering wheel. Cognitive distraction includes anything that takes the drivers’ mind off of the task of driving, such as a phone conversation. Visual distraction includes anything that causes the driver to divert their eyes from the road and the task of driving. Although all three types of distraction are dangerous and can lead to a MVC, those activities that combine all three types of distraction, such as sending a text message, are particularly risky.¹ Although distracted driving related collisions are difficult to quantify, policing and road safety experts estimate that distraction is either solely or partially responsible for a large number of MVCs.

The following are examples of some common types of distraction:

- Texting
- Using a cellphone
- Eating or drinking
- Grooming
- Reading
- Watching a video

¹ Definition of distracted driving from the Canadian Council of Motor Transport Administrators (CCMTA) Distracted Driving Subcommittee.

- Using a navigation system (GPS)
- Adjusting an entertainment system such as a radio, MP3 player, or CD player
- Pets
- External distractions such as billboards

Legislation and enforcement is one strategy for addressing distracted driving by restricting the types of behaviours that a driver can engage in while operating a motor vehicle. However, it is not without challenges given the broad nature of the issue and difficulties with enforcement. In addition, automobile manufacturers and telecommunications companies have standardized various hands free in-car technologies based on the false premise that manual and visual distraction are the only significant risks for collision. This not only makes the technology highly available to drivers; it gives the impression that its use is a safe alternative to handheld technology. Legislation can also be used to minimize distractions external to the vehicle, particularly on high speed roads or in driving environments that are particularly complex.

There is no “magic bullet” with distracted driving legislation. Instead, its effectiveness will depend on the range of distraction issues that it covers and the feasibility of enforcement. It is important for legislators to work closely with law enforcement and justice officials in the development of legislation. Distracted driving legislation exists in many jurisdictions throughout Canada. The province of Alberta currently has the most comprehensive legislation in the country, covering a range of distractions including, but not limited to, mobile devices and technology (see Appendix). All four Atlantic Provinces have implemented legislation that addresses distracted driving in some capacity. The purpose of this analysis is to identify the components of distracted driving legislation in each of the Atlantic Provinces and assess the extent to which they are in line with the research literature. The first section briefly overviews the evidence for some important components of distracted driving legislation. A discussion section will identify aspects of legislation that are not in line with best practices and make recommendations for strengthening. This information is current to that which was available online as of March 2014.

Components of Distracted Driving Legislation

Any activity that manually, visually, or cognitively distracts a driver increases risk for MVC. Distracted driving legislation has tended toward allowing and disallowing certain activities based on risk of crash. This section of the analysis will provide a brief overview of the evidence regarding specific distracting behaviours that have been legislated in other jurisdictions.

Feature	The Evidence
Cell Phones - Talking	Hand held cell phones are known to be a distraction while driving because of the physical interference of handling and manipulating the device. ² Hands free cell phones are not a safer alternative; research shows that cell phone conversation in general impairs cognitive functioning that is required for driving. ^{3 4 5 6 7} The result is “inattention blindness” where the driver’s view is narrowed and they tend to “look at” rather than actually “see” their surroundings, therefore processing 50% less of their environment. ^{8 9} Both hand-held and hands free drivers are more likely to miss or respond slower to traffic signals, ¹⁰ slower to change speed or direction, slower to brake, and miss more red lights. ¹¹ Both exhibit a negative effect on staying in their lane, a negative effect on car-following ability, and poor speed control variation. ¹²
Cell Phones - Texting	Reading or typing text messages while driving presents 3 types of distraction: physical/motor, cognitive and visual. Texting while driving is associated with the driver having a greater number of driving errors such as decreased reaction time to surroundings, greater variability in speed, greater lane change variability, and increased physical, mental, and visual demands. ^{13 14 15}
MP3 & Other Entertainment Devices	Scrolling through a list of potential songs on a listening device such as an MP3 player or iPod while driving requires a high level of visual, manual and cognitive attention. Research has found that drivers manipulating music devices strayed away from the centerline more often, had difficulties staying in their own lane, and had greater flexion in speed. Music devices requiring more than two steps to get to the song of choice were related to an increase in delayed response time as well as the number of times and the duration of glances looking at the device. ^{16 17 18}
Pets	Pets can be a source of visual, physical, and cognitive driver distraction, particularly if they are in the front seat of the vehicle and unrestrained. Pets can obstruct the view of the driver along with vehicle controls such as the steering wheel, pedals, or gear-shift. In addition, many drivers engage in activities such as grooming and petting the animal, using arms to restrict the movement of the animal, and allowing the animal to sit in the driver’s lap while driving. ¹⁹

Feature	The Evidence
GPS & Other Navigation Devices	<p>The three most common methods of entering destination information into a navigation system include scrolling through a list to select the appropriate option, manually entering the information, or using voice input. Scrolling through a list and manual input are known to be the most physically and cognitively demanding distractions. Research has found both selecting the destination by scrolling through a list and manually inputting the information into the device have resulted in longer completion times entering the information, longer time looking away from the road ahead, increased number of times glancing at the device, and as well as more lane changes. In comparison, the voice input system had an even greater number of times glancing at the device.^{20 21}</p>
Billboards & Signage	<p>Billboards are found to cause failure in the ability to correctly follow traffic signs, difficulty in changing lanes, and delayed response to other vehicles.²² Static billboards are designed to draw attention and do so because of their large size, coloration, and location. Eye movement studies have shown that billboards capture driver's attention and hold it for an extended period of time.²³ This prolonged visual fixation affects cognitive central processing and creates an increased risk for driver error.²⁴ Electronic billboards that change what they are displaying attract more attention than any other signs. Due to their cued motion change at regular intervals, these billboards have the ability to maintain a driver's curiosity and therefore focus on the sign.²⁵ The change of motion of the billboard triggers and captures the driver's attention in an involuntary manner.²⁶ In comparison, traffic signs are found to be less distracting than billboards. This is because drivers often know where these signs are located, and by using a top-down approach, which is habit related, a driver could ignore the sign if it is not applicable to them.</p>
Other	<p>There are several activities noted in legislation from other jurisdictions that result in a combination of manual, cognitive and visual distraction such as reading, writing, watching television, and grooming. All of these activities require the driver to take their eyes off of the road which greatly increases the likelihood of a crash.²⁷</p>

Distracted Driving Legislation Comparison – Atlantic Provinces

All Atlantic Canadian provinces have some form of legislation that addresses distracted driving, particularly in relation to the use of hand held cellular phones and mobile devices. NB addresses the largest number of distractions by incorporating the programming/operation of GPS and MP3 devices while driving.

Prohibitions on Cell Phones

All four Atlantic Provinces have some form of legislation restricting the use of cell phones, although the focus is on those that are hand-held only. NL was the first province in Canada to ban the use of handheld cell phones while operating a motor vehicle in 2002. NS banned the use of hand held cell phones and sending text messages in 2008 and PEI followed suit in 2010 by banning handheld cellphone use. In 2011, NB banned the use or handling of handheld cell phones and texting while driving. All provinces allow the use of hands-free cell phones and other similar technology.

MP3 & Other Entertainment Devices

NB allows for use of built in devices. Portable devices may be in use while driving but not touched/handled. NS, PEI, and NL have no prohibitions on the use of MP3 or other entertainment devices.

Televisions/Display Screens

NS prohibits the use of television sets that are in front of the driver or in view of the driver. The same is true of NB and NL unless the screen is built into your vehicle in which case it is allowed. PEI has the strongest legislation in this regard – it is illegal to operate a motor vehicle while a television set is operating regardless of whether it is built in.

Pets

None of the Atlantic provinces have provisions regarding pets as a distraction while riding inside the motor vehicle.

GPS/Navigation Devices

NB law prohibits a driver from programming or handling a GPS while driving although they may look at it. NS, NL, and PEI have no prohibitions on the use of GPS/navigation devices while driving.

Billboards & Signage

Roadside billboards and signage are governed in PEI, NS, and NB in Acts separate from the Motor Vehicle Act. These Acts place various restrictions on roadside advertisements that vary based on the level of the highway. These restrictions are in part informed by safety concerns. It does not appear that NL has an Act respecting advertising signage on public roadways.

Other Activities

Other activities not noted above that present a significant distraction include reading, grooming, and writing. None of the Atlantic provinces address these activities in road safety related legislation.

Recommended Improvements to Distracted Driving Legislation by Province

All four of the Atlantic provinces address some aspect of driver distraction in their Acts governing motor vehicle operation, primarily through bans on hand-held cellular phones. NB has the strongest distracted driving legislation of the Atlantic region by its incorporation of GPS/navigation devices and electronic entertainment devices such as MP3 players. Given the various challenges with enforcing distracted driving legislation, it is essential that these recommendations be viewed in consultation with law enforcement officials.

Province	Recommendations
<i>New Brunswick</i>	<ul style="list-style-type: none">• In collaboration with law enforcement officials, investigate options for addressing hands-free communication devices in distracted driving legislation.• Incorporate into distracted driving legislation the following restrictions for drivers while operating a motor vehicle:<ul style="list-style-type: none">○ Using electronic devices not already noted in existing legislation such as laptop computers, video games, cameras, or video entertainment displays○ Reading printed materials○ Writing, printing, or sketching○ Personal grooming• Require that pets in the front seat be restrained and that unrestrained pets be in the back seat to prevent driver distraction and/or obstruction of vision and vehicle controls. Pets should be restrained whenever possible.• Based on available evidence, strengthen existing safety standards for billboard and signage advertising on public roads with particular attention to the use of electronic billboards.
<i>Newfoundland & Labrador</i>	<ul style="list-style-type: none">• In collaboration with law enforcement officials, investigate options for addressing hands-free communication devices in distracted driving legislation.• Incorporate into distracted driving legislation the following restrictions for drivers while operating a motor vehicle:<ul style="list-style-type: none">○ Programming entering information into a GPS or other navigation device○ Using electronic devices like laptop computers, video games, cameras, video entertainment displays and programming portable audio players (e.g., MP3 players)○ Reading printed materials in the vehicle○ Writing, printing or sketching, and○ Personal grooming• Require that pets in the front seat be restrained and that unrestrained pets be in the back seat to prevent driver distraction and/or obstruction of vision and vehicle controls. Pets should be restrained whenever possible.• Regulate advertising at roadside (e.g. billboards, signage) from a road safety perspective.

Province	Recommendations
<i>Nova Scotia</i>	<ul style="list-style-type: none"> • In collaboration with law enforcement officials, investigate options for addressing hands-free communication devices in distracted driving legislation. • Incorporate into distracted driving legislation the following restrictions for drivers while operating a motor vehicle: <ul style="list-style-type: none"> ○ Programming entering information into a GPS or other navigation device ○ Using electronic devices like laptop computers, video games, cameras, video entertainment displays and programming portable audio players (e.g., MP3 players) ○ Reading printed materials in the vehicle ○ Writing, printing or sketching, and ○ Personal grooming • Require that pets in the front seat be restrained and that unrestrained pets be in the back seat to prevent driver distraction and/or obstruction of vision and vehicle controls. Pets should be restrained whenever possible. • Based on available evidence, strengthen existing safety standards for billboard and signage advertising on public roads with particular attention to the use of electronic billboards.
<i>Prince Edward Island</i>	<ul style="list-style-type: none"> • In collaboration with law enforcement officials, investigate options for addressing hands-free communication devices in distracted driving legislation. • Incorporate into distracted driving legislation the following restrictions for drivers while operating a motor vehicle: <ul style="list-style-type: none"> ○ Programming entering information into a GPS or other navigation device ○ Using electronic devices like laptop computers, video games, cameras, video entertainment displays and programming portable audio players (e.g., MP3 players) ○ Reading printed materials in the vehicle ○ Writing, printing or sketching, and ○ Personal grooming • Require that pets in the front seat be restrained and that unrestrained pets be in the back seat to prevent driver distraction and/or obstruction of vision and vehicle controls. Pets should be restrained whenever possible. • Based on available evidence, strengthen existing safety standards for billboard and signage advertising on public roads with particular attention to the use of electronic billboards.

Appendix: Province of Alberta Distracted Driving Legislation (Bill 16)²⁸

Effective September 1, 2011, the Province of Alberta began enforcing Bill 16 making them the province with some of the strongest and most comprehensive distracted driving legislation in Canada. The Bill applies to all vehicles (including bicycles) and is applicable on all roads.

Under the Bill and the existing regulations in the Traffic Safety Act, the following acts are illegal while driving:

- Using a hand-held cell phones
- Texting or emailing
- Using electronic devices like laptop computers, video games, cameras, video entertainment displays and programming portable audio players (e.g., MP3 players)
- Entering information on GPS units
- Reading printed materials in the vehicle
- Writing, printing or sketching, and
- Personal grooming
- Any driver who permits anything, including a pet, to occupy the front seat of the vehicle such that it interferes with the drivers' access to vehicle controls and the safe operation of the motor vehicle and/or obstructs the driver's vision in any direction.

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