Excerpt from Provincial Health Officer's Annual Report (Chapter 10)

Where the Rubber Meets the Road:

Reducing the Impact of Motor Vehicle Crashes on Health and Well-being in BC

BRITISH COLUMBIA

Provincial Health Officer's Annual Report

Chapter 10

Discussion and Recommendations

DISCUSSION OF KEY FINDINGS

This report explored road safety and motor vehicle crashes (MVCs) in BC and examined the related burden of serious injuries and fatalities experienced in our province. This report employed a safe system framework with four pillars (safe road users, safe speeds, safe roadways, and safe vehicles) informed by a combination of a population health approach, a public health approach, and a Safe System Approach (SSA). Using this framework, this report explored how to best promote health and prevent injuries and fatalities resulting from MVCs in the population as a whole and highlighted sub-populations that face a greater burden of MVC serious injuries and fatalities based on health authority region, road user type, sex, and age group.

The SSA entails a modern view of road safety, in which MVCs are seen as systemic failures, and related deaths and serious injuries are considered preventable through systemic interventions. This is a broad and comprehensive view of road safety that highlights not only the users of the road but the roadways they use, the vehicles they operate, and the speed and manner in which they operate them. By taking steps to reduce the number and severity of MVCs we can prevent related serious injuries and fatalities and enhance the health of all road users in BC.

Compared to the MVC fatality rate per 100,000 population in other countries in the same year, Canada was ranked 15th (together with France) out of 36 jurisdictions. Leaders in road safety (Iceland, the UK, Norway, Denmark, and Sweden) had fatality rates between 2.8 and 3.0 per 100,000—half that of Canada. Comparisons based on MVC fatality rate per billion vehicle kilometres show similar results: Canada ranked 13th out of 22 jurisdictions at 5.9 fatalities per billion vehicle kilometres, while leaders (Iceland, Norway, Denmark, Ireland, Sweden, and the UK) had rates between 2.9 and 3.6 fatalities per billion vehicle kilometres.

In BC in 2011, there were about 432,000 people involved in an MVC, 292 MVC fatalities, and 3,038 MVC serious injuries. In 2012, the MVC serious injury rate for BC was slightly below the Canadian average for all provinces at 444.5 per 100,000 population (the average among the provinces was 475.3 per 100,000). With respect to fatalities, the BC rate (6.2 per 100,000) was slightly above the 6.0 per 100,000 average among Canadian provinces, but notably higher than Ontario's rate of 4.2 per 100,000 population, and is more than double the rate of the world's best performers.

In the last two decades there have been many successes in road safety, and reductions in MVC injuries and fatalities in BC. This is particularly notable given the increase in population size and in active driver's licences in BC, and the associated increase in road traffic volume over the same period. Data from the years analyzed show that despite these successes, there are still hundreds of MVC-related fatalities and thousands of related serious injuries occurring in BC each year.

Some populations in BC face a higher burden of MVC-related serious injuries and fatalities than others. Comparing regional health authorities in 2012, 15.9 per cent of the BC population lived in Interior Health, but 38.8 per cent of MVC fatalities occurred there, while 24.7 per cent of the population lived in Vancouver Coastal Health, but only 12.5 per cent of MVC fatalities occurred there. Overall, there have been decreases in the age-standardized rates per 100,000 population of MVC fatalities and serious injuries for both males and females over the last decade. While the rates were higher for males at all points in time, there has been a greater decrease in the rates for males over time, narrowing the gap between males and females in recent years. Males also had higher rates of fatalities and serious injuries per 100,000 than females across all age groups, with the rate for males 16 to 65 years old being at least double that for females in the same age group. Analyses based on age group presented in this report showed that the highest MVC fatality and serious injury rates per 100,000 population were among those age 16-25 and age 76 and up.

Analyses in this report examined various road user types and their respective burden of MVC fatalities and serious injuries. Vulnerable road users are those who do not have the protection of an enclosed vehicle—including pedestrians, cyclists, and motorcyclists. More than one third (38.7 per cent) of MVC serious injuries in 2009 were among vulnerable road users. This increased to 45.7 per cent in 2013. Almost one third (31.7 per cent) of MVC fatalities in 2009 were vulnerable road users. This increased to 34.9 per cent in 2013. Among vulnerable road users, the highest proportion of fatalities was among pedestrians, while the highest proportion of hospitalizations was among motorcyclists. Cyclist data and related trends are more challenging to compare because we lack comprehensive data on how many British Columbians cycle and how many trips and kilometres they travel by bicycle.

Speed, impairment, and distraction were the top contributing factors recorded by police for fatal MVCs in BC between 2008 and 2012. The number and rate of MVCs per 100,000 population with these factors have improved in recent years. However, the proportions of MVC fatalities with speed or distraction as a contributing factor have increased, demonstrating unequal progress compared to impairment and other causes of MVC fatalities. Analyses of these contributing factors by sex and age group showed that while the gap has narrowed over time, males have consistently more speed-related MVC fatalities per 100,000 population than females, with the highest rates among males from age 16 to 45. The distraction-related MVC fatality rate is also highest among males (particularly those age 76 and up), although the rate decreased slowly from 2005 to 2013. Among females, the trend was also decreasing slowly, but with greater year-to-year fluctuations than the male rate. Similarly to MVC fatalities related to speed or distraction, the number and rate of impaired-related MVC fatalities have declined overall but were consistently much higher among males both over time and across all age groups, with the highest levels among males from age 16 to 35.

The examination of roadways and MVC fatalities in this report showed that roadway type and location have an impact on MVC fatality rates. The highest potential for collisions between vehicles, and between vehicles and vulnerable road users, occurs at intersections. Highways are also hazardous due to the high speeds at which vehicles travel. There are multiple challenges for road safety on rural/remote roads, which are often highways, due to high travel speeds combined with longer emergency response times and further distances to health care services. For 2008-2012, about one-quarter of MVC fatalities had one or more environmental contributing factor identified on police crash reports; road condition and weather were the most frequently reported

among them. A number of safety measures focusing on roadway design are explored in this report, including traffic-calming methods, cycling infrastructure, intersection design, and more. Improving roadway design will be particularly important as the population and the number of active drivers in BC continues to increase, creating additional volume on roadways in BC.

This report also examined the role of vehicles and vehicle design in MVCs and related serious injuries and fatalities. Among fatal MVCs with one or more contributing factors related to vehicle condition, police reports identified tire failure/inadequacy as the most-often reported contributing factor by far. Vehicle modifications (such as raising vehicles or adding bull bars) can pose road safety hazards, including the creation and/or exacerbation of dangers related to vehicle incompatibility. However, the extent to which vehicle design and modifications are contributing to MVCs in BC is only partially understood, because data currently do not capture all relevant vehicle design factors, such as if the involved vehicles had crash avoidance or protection technologies or if vehicle incompatibility was an issue. Road safety measures focusing on vehicle design explored in this report include crash avoidance technologies (e.g., improved lights and braking systems, pedestrian and cyclist avoidance systems) and crash protection technologies (e.g., passenger restraints, air bags). Vehicle maintenance is also an important component in ensuring vehicle safety. Research findings related to socio-economic status (SES), link lower SES and ownership of vehicles that are more likely to have lower safety ratings and fewer standard safety features such as side air bags and electronic stability control.

Aboriginal peoples' wellness in relation to road safety was explored by considering the overall burden of MVC fatalities and serious injuries among Aboriginal peoples in BC, as well as exploring the role of safe road user behaviours, safe speeds, safe roads, and safe vehicles in Aboriginal communities.[aw] The ongoing legacy of colonization has direct and indirect influences on serious injuries and fatalities among Aboriginal peoples. In BC, Status Indians have a higher age-standardized MVC fatality rate than other residents; however, this gap has decreased over the last 20 years. MVC fatality rates among the Status Indian population were highest in Interior and Northern Health Authorities. Similar to other BC residents, among Status Indians, males experience the greatest burden of MVCs as measured by Potential Years of Life Lost. For First Nations peoples on reserve, alcohol impairment, speed, and not using a restraint were the top recorded contributing factors to MVC fatalities identified in available data. Some initiatives for improving road safety in Aboriginal communities are already underway, and communities across the province continue to make progress in designing and implementing injury prevention programs tailored to their needs. The First Nations Health Authority is well positioned to support and help expand these efforts.

Overall, this report identified many achievements in road safety and related improvements in rates of MVC fatalities and serious injuries in BC. At the same time, data showed that little progress has been made in reducing the number of MVCs overall, and in decreasing mortality and serious injury among vulnerable road users. Improving road safety in BC requires a comprehensive approach that promotes health by increasing safety for all road users. It also requires safe speeds, safe vehicles, and safe roadway designs to prevent MVCs from occurring, and to reduce their severity when they do occur. This can be achieved by

- Increasing viable public and active transportation options to reduce traffic volume.

[aw] Challenges to data analyses regarding Aboriginal peoples in BC and road safety are described in Chapter 9.

- Enhancing the safety of roadway sections known to pose increased risks (intersections, highways, and rural/remote roads).
- Addressing top human contributing factors (speed, impairment, and distraction).
- Emphasizing the protection of more vulnerable road user groups (pedestrians, cyclists, and motorcyclists).
- Targeting populations most burdened by MVC injuries and fatalities (children, seniors, males, Aboriginal peoples, and those in rural/remote communities).

RECOMMENDATIONS

Governance related to road safety and MVCs is complex, and there has already been considerable collaboration and work done in BC and Canada to improve road safety. International comparisons indicate that a 50 per cent reduction in the number of fatalities and serious injuries resulting from MVCs in BC is an achievable intermediate public health goal as we work toward the *British Columbia Road Safety Strategy: 2015 and Beyond* vision of having the safest roads in North America and the ultimate goal of zero traffic fatalities ("Vision Zero").[1] With new technologies and innovative infrastructure available, Vision Zero is an achievable goal, and as such, pursuit of this goal is a responsibility of public health and road safety partners.

Based on the framework and data presented in this report, the Provincial Health Officer has identified key areas for action to improve road safety and related public health outcomes in BC. These recommendations have four underlying principles:

A. Viable alternatives to vehicle use must be meaningfully supported at the provincial level through infrastructure, related services, and policies for all communities.

B. Public health and the pillars of a Safe System Approach should be considered in all road policy and programming initiatives.

C. The health and protection of vulnerable road users should be at the forefront of policy and programming decisions.

D. Due to the complexity of road safety governance in BC, there is a need for strong collaboration, partnerships, and communication, between and across multiple levels of government and non-government organizations, to make roadways safer for British Columbians.

It is within the context of these four principles that the following 28 recommendations are proposed, with the aim of leveraging and expanding upon existing programs and successes, enhancing road safety, and improving related health outcomes in BC.

A Strategic Approach to Road Safety in BC

International comparisons provide examples of substantial safety improvements that can be made by adopting a road safety paradigm in which there is shared responsibility across the full system, including its designers.[2,3] This requires shifting the way that we think about road safety, as well as making the safety of road users a key priority for BC. Increasing road safety also means ensuring that active transportation, public transportation, and other alternatives to personal vehicles are viable options within and across all BC communities. Not only does this reduce the number of vehicles on the road, and subsequently the number of MVCs,[3] but

it also encourages physical activity and supports healthy lifestyle choices and healthy communities. A shared responsibility for increasing road safety necessitates inter-sectoral and inter-ministerial collaboration, in particular between the Ministry of Health, Ministry of Transportation and Infrastructure, Ministry of Justice, municipalities, police, and health authorities in BC.

1. Support the BC Road Safety Strategy, and work collaboratively across all levels of government and with non-government partners to achieve Vision Zero, including having "the safest roads in North America and work[ing] toward an ultimate goal of zero traffic fatalities" as laid out in the provincial strategy, *British Columbia Road Safety Strategy: 2015 and Beyond.*[1] This should include ensuring the related steering committee and working groups have sufficient resources to achieve their mandates.

2. Establish and resource an independent Centre for Excellence in Road Safety in BC to work in collaboration with the steering committee and working groups for the BC Road Safety Strategy. A multi-agency governance committee should be created to support this centre, with authority to ensure that road safety data are made available to researchers, including data from the Insurance Corporation of British Columbia, the Ministry of Health, BC Ambulance Service, and more. This centre should be university based with a priority mandate to collect, analyse, and house provincial and community-level data related to all aspects of road safety and motor vehicle crashes, with the overall goal of improving the health and safety of road users in BC. The mandate would include collecting data to support the assessment of both systemic and human factors, identifying and addressing data gaps and limitations, and creating more efficient linkages between databases to facilitate meaningful and timely analyses.

3. Employ the principles of a Safe System Approach in all relevant policies and programs in BC. This approach considers road users, safe speeds, safe roadway design, and safe vehicle design in strategies and initiatives, and considers motor vehicle crash fatalities and serious injuries as systemic failures that are inherently preventable.

4. Focus provincial strategies, programs, and policies regarding roadways and infrastructure on the health and safety of vulnerable road users, and increase opportunities for safe, active transportation and public transportation. This should include commitments to develop vulnerable road user and active transportation-friendly plans for each region of BC. This also includes modifying intersections and other roadway infrastructure according to evidence-based safety designs to increase the visibility of vulnerable road users, increase traffic flow clarity, and better protect cyclists and pedestrians through methods such as prioritizing sidewalks, bicycle lane networks, and crosswalks. By focusing on increased protection of vulnerable road users, the health and safety of all road users can be improved.

Safe Road Users

Road user behaviour is a traditional area for interventions for road safety and has the potential to reduce the number of MVC-related serious injuries and fatalities with additional support. Improving road safety by addressing human factors and risk-taking behaviours requires collaboration between many partners, in particular, the Ministry of Health and Ministry of Justice.

5. Establish a more consistent approach to education, enforcement, and related penalties for the top three contributing factors in motor vehicle crash injuries and fatalities in BC: impairment, distraction,

and speed. This includes expanding penalties and legal consequences for driver distraction and speeding to be commensurate with penalties for alcohol-impaired driving (e.g., penalties incurred with the Immediate Roadside Prohibition Program), and increasing the visibility of enforcement for all three factors.

6. Extend the required zero (0.00) blood alcohol content for new drivers beyond completion of the Graduated Licensing Program, to age 25.

7. Continue to reduce alcohol-impaired driving through expansion and evaluation of policies and strategies that limit the availability of alcohol as per recommendations in the report, *Public Health Approach to Alcohol Policy: An Updated Report from the Provincial Health Officer.*[4] This includes evaluating the impact of increased access to alcohol introduced in BC in 2013,[5] and taking action as needed to adjust that access through increased prices and lower density of places that sell alcohol. This strategy should also include introducing random breath testing and implementing best practices for introducing and using ignition interlocks.

8. Improve capacity to identify impaired driving. This requires collaboration between researchers, law enforcement, and government and non-government partners to develop objective measures to assess impairment from all types of drugs. This should include support for research to better understand the impact of the use of all types of drugs on driving ability (e.g., prescription drugs, over-the-counter medications, and illegal drugs).

9. Support existing campaigns and increase public awareness of the laws designed to eliminate the use of cell phones and other handheld devices while driving. Preventing driver distraction should include emphasis on education and awareness of the dangers of this behaviour to complement related increased penalties.

10. Develop a strategy to assist individuals with physical, cognitive, and/or visual impairment—whether due to age or other factors—to be safe road users with ongoing independence and mobility in their communities. This should include improving and enhancing the processes for referrals for assessments and related follow-up, and a focus on identifying, developing, implementing and promoting appropriate transportation alternatives.

Safe Speeds

Speed is the largest contributing factor to MVC fatalities in BC, and vehicles travelling at unsafe speeds should be a priority to focus immediate efforts and resources on, in order to reduce speed-related fatalities and serious injuries. These recommendations highlight the need for an evidence-based, health and safety-first approach to setting speed limits that would increase safety for all road users. Reducing speed-related serious injuries and fatalities requires collaboration between the Ministry of Health, Ministry of Justice, Ministry of Transportation and Infrastructure, and local governments.

11. Set speed limits throughout the province based on roadway type, with consideration of the most vulnerable road users who frequent each type of roadway and the associated survivable speed for those road users during a motor vehicle crash. This includes monitoring and assessing the impacts of any increases in speed limits introduced, in addition to other policy changes that may result in increased speed, and appropriate corrective action to safeguard the health of BC road users.

12. Amend the *Motor Vehicle Act* to reduce the default speed limit on roads within municipalities and treaty lands from 50 km/h to a maximum of 30 km/h (the survivable speed for pedestrians and cyclists). This approach is consistent with road use best practices and increases consistency in speed limits across the province.

13. Establish appropriate speed limits for road and weather conditions and increase related driver awareness and education. This should include reduced speed limits as needed during winter weather and related road conditions.

14. Implement electronic speed management province-wide. This could include speed cameras, point-to-point speed control, or other speed monitoring technologies. The program should be transparent in the selection of locations and in the use of revenue generated. Any revenue generated should be allocated to funding additional road safety programs including a Centre for Excellence in Road Safety. Further, the program should be implemented starting in areas identified by communities as high risk and supported by road safety data where available.

Safe Roadways

There have been many improvements to roadway infrastructure in BC over the last few decades; however, further work is required to improve the health of road users while meeting the growing demands of the population, including greater access to public transit and increased safety and opportunities for vulnerable road users. Rural and remote areas face additional challenges (e.g., longer emergency response times, less public transit, and more wildlife interactions) that must be considered when working to enhance roadways in BC. Improving the safety of BC's roadways requires collaboration between many partners, particularly the Ministry of Health, Ministry of Justice, Ministry of Transportation and Infrastructure, and local governments.

15. Ensure that roadways in BC are safe for all road users by prioritizing pedestrian and cyclist health and safety in road and intersection design. This includes evaluating and improving existing intersections and roadways as appropriate. New or improved infrastructure should be evidence based and may include overhead lighting, improved traffic light timing, restricted turning behaviour, raised pedestrian crosswalks, protected pedestrian crossing phases, protected bicycle paths and bicycle lane networks, public transit-only lanes, protection of roadside workers such as emergency response personnel, and other design elements.

16. Continue to increase the safety of highways and rural and remote roads by implementing and/or expanding evidence-based road safety technologies and methods that can reduce motor vehicle crash fatalities and serious injuries. This should include increased installation of rumble strips and barriers, improved weather warning systems, greater prevention of conflicts with wildlife, and more efficient systems for identifying and responding to crashes in rural/remote areas.

Safe Vehicles

Some motor vehicle crashes in BC are directly attributable to vehicle design or condition (e.g., defective tires, brake failure). Innovations and improvements in vehicle design and engineering can prevent motor vehicle crashes from occurring and prevent fatalities and serious injuries of road users when they do occur. Improving road safety through safer vehicles in BC requires collaboration between the Insurance Corporation of British Columbia, the Ministry of Transportation and Infrastructure, and Transport Canada.

17. Collaborate with car manufacturers and encourage them to promote safety features that align with evidence-based best practices. This should include the expansion of safety features that come standard in new vehicles (e.g., pedestrian detection), and mechanisms to

prevent unsafe driving behaviour (e.g., technology that assists drivers in maintaining safe speeds or in detecting roadway dangers).

18. Implement a vehicle safety testing program in BC that requires regular basic vehicle safety checks (e.g., of tires, brakes, steering) as a condition of vehicle insurance, and offers incentives to British Columbians to acquire safety technologies (e.g., installation of speed limiting devices and breathalyzer ignitions). This program should be based on model examples of vehicle maintenance programs in other jurisdictions and should be cost neutral to vehicle owners by offsetting the required costs with commensurate reductions in insurance fees.

19. Increase the safety of vehicles imported into Canada and BC by requiring vehicles up to 25 years old to meet safety standards (up from the current 15 years) and eliminating the importation of right-hand drive vehicles into the province.

20. Regulate and set limits on the kind of vehicle modifications allowed in BC. This includes, but is not limited to, restricting how high a vehicle can be raised and prohibiting bull bars in urban areas.

21. Collaborate with professional associations to reduce motor vehicle crashes involving commercial vehicles. This includes implementation of new crash avoidance and safety technologies, evaluation and improvement of processes for monitoring vehicle maintenance, and improved monitoring and regulation of driver conditions and behaviours such as driver fatigue.

Road Safety for Aboriginal Communities

The creation of the First Nations Health Authority in BC and their leadership in the development of regional wellness plans[6] present a prime opportunity to facilitate First Nations community-driven solutions in partnership with the provincial and federal governments, other health authorities, Aboriginal organizations, and industry. These recommendations will require resources, meaningful partnerships, and commitment from stakeholders in order to reduce the disproportionate burden of motor vehicle fatalities on Aboriginal peoples in BC. Improving road safety for Aboriginal peoples requires collaboration between the Ministry of Health, Ministry of Transportation and Infrastructure, Ministry of Justice, Ministry of Aboriginal Relations and Reconciliation, and the First Nations Health Authority.

22. Following principles of ownership, control, access, and possession (OCAP), support the development of community-driven research on motor vehicle crash fatalities and serious injuries, including their associated risk factors and appropriate interventions for Aboriginal peoples in BC.

23. Continue to support the First Nations Health Authority to develop an Aboriginal injury prevention strategy that has key targets for improving road safety. This strategy should include improving first responder programs in rural and remote First Nations communities, and increasing awareness about seat belt use and safe driving. Related actions should include the development and evaluation of community-based injury prevention priority initiatives and related educational materials in Aboriginal communities, and support for the evaluation of

existing injury prevention initiatives to assess cultural relevancy and use of best practices.

24. Implement the Aboriginal Administrative Data Standard in organizations that collect motor vehicle crash and related data, including the Insurance Corporation of British Columbia for traffic claims data; police for Traffic Accident System data (police-recorded data); and health authorities for hospitalization data.

Education, Awareness, and Enforcement

Knowledge and awareness about road safety and the consequences of unsafe road use allow all road users to make informed choices about their behaviour, while enforcement—and the visibility of that enforcement—encourages adherence to safe road use standards and practices. Improving road safety education, awareness, and enforcement through policies about vehicles in BC requires collaboration between the Ministry of Health, Ministry of Justice, Ministry of Education, local governments, police, and related community groups.

25. Using evidence-based best practices, reinvigorate road safety campaigns for road users, with particular emphasis on the populations with the heaviest burden of motor vehicle crash fatalities and serious injuries—including males, people age 16-25 and 76 and up, Aboriginal peoples, and those in rural and remote communities—and targeting specific health and safety concerns. This may include both the use of traditional methods such as school seminars and mainstream media, and modern methods such as social media. Campaigns should be coordinated at local, regional, and provincial levels, and should target topics based on regional- and community-level road safety issues, including restraint use, alcohol and/or drug impairment, speeding, vehicle maintenance, and others. Education should focus on knowledge about health promotion and injury prevention, such as an understanding of survivable speed, rather than solely on awareness of related penalties.

26. Use a healthy communities approach to increase road safety among all school-aged children and youth, particularly with respect to pedestrian and cycling safety. This should include re-launching bicycle safety education initiatives through community programs and services, such as sponsoring annual bicycle rodeos, promoting walk/bike to school weeks, and more.

27. Develop a comprehensive education plan for youth that leverages the stages and requirements of BC's Graduated Licensing Program with the goal of increasing education and training about the top contributing factors to motor vehicle crashes: speed, impairment, and distraction.

28. Increase public education and awareness of the risks and consequences of speed, road user distraction, and all forms of impaired driving, and expand related enforcement efforts. This should include awareness of the increase in injury severity as speed increases; the dangers of using handheld devices while driving; the array of impacts that result from impairment from alcohol and other substances such as legal and illegal drugs (e.g., marijuana, prescription medication); and the dangers of cognitive impairment and fatigue.

Update on Road Safety Governance and Leadership for Recommendations

Organizational changes within government can further complicate the already complex governance of road safety in BC, but they may also enable opportunities for new and innovative approaches and potential collaborations. After content for this report was finalized, the BC Ministry of Public Safety and Solicitor General was re-established, and RoadSafety BC was moved under this ministry.[ax] While some of the recommendations presented in this chapter have a clear provincial ministry lead, others will require co-leadership and/or cross-ministry partnerships. It is recommended that leadership for this report's 28 recommendations be as follows:

Lead Organization	Recommendations
Ministry of Public Safety and Solicitor General (PSSG)	#1, #2, #5, #6, #7, #8, #10
Ministry of Transportation and Infrastructure (MoTI)	#13, #16, #18, #20, #21
Shared between PSSG & MoTI	#14
Ministry of Health (MoH)	#22, #23, #24
Insurance Corporation of BC (ICBC)	#9, #25, #26, #27, #28
Transport Canada	#17, #19
Shared between PSSG, MoTI, MoH, ICBC, and local governments	#3, #4, #11, #12, #15

CONCLUSION

Road safety in BC is a critical public health issue. There have been many successes in road safety in BC over the last few decades, including advancements in vehicle design, roadway design, and road user behaviour. Despite the growth in the population and the associated stress on roadway systems in the province, the result of these improvements is that the numbers and rates of motor vehicle crash (MVC) fatalities and serious injuries have decreased. However, preventable MVC fatalities and serious injuries still occur in BC and the overall decline has not kept pace with other jurisdictions. In addition, some populations experience a disproportionate burden of MVC fatalities and serious injuries, and specific contributing factors (e.g., distracted driving) are associated with an increasing proportion of MVC fatalities. Furthermore, there has not been proportionate and meaningful declines in death and serious injuries for vulnerable road users.

We know that BC could achieve lower death and injury rates and that enhancing road safety will not only avert preventable mortality and morbidity but also foster more active and ecologically friendly transportation—improving both human and environmental health. The recommendations offered in this report aim to address challenges to road safety while building upon our current successes. Any preventable death or serious injury is unacceptable, including those that occur as the result of an MVC.

[ax] Since this reorganization took place after this report was finalized, it is not reflected in discussions regarding governance over roads and road safety.