

PROVINCIAL HEALTH OFFICER'S REPORT ON ROAD SAFETY

***PUBLIC
RELEASE***

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MARCH 31, 2016



Office of the
Provincial Health Officer

Motor Vehicle Crashes in BC



VISION ZERO

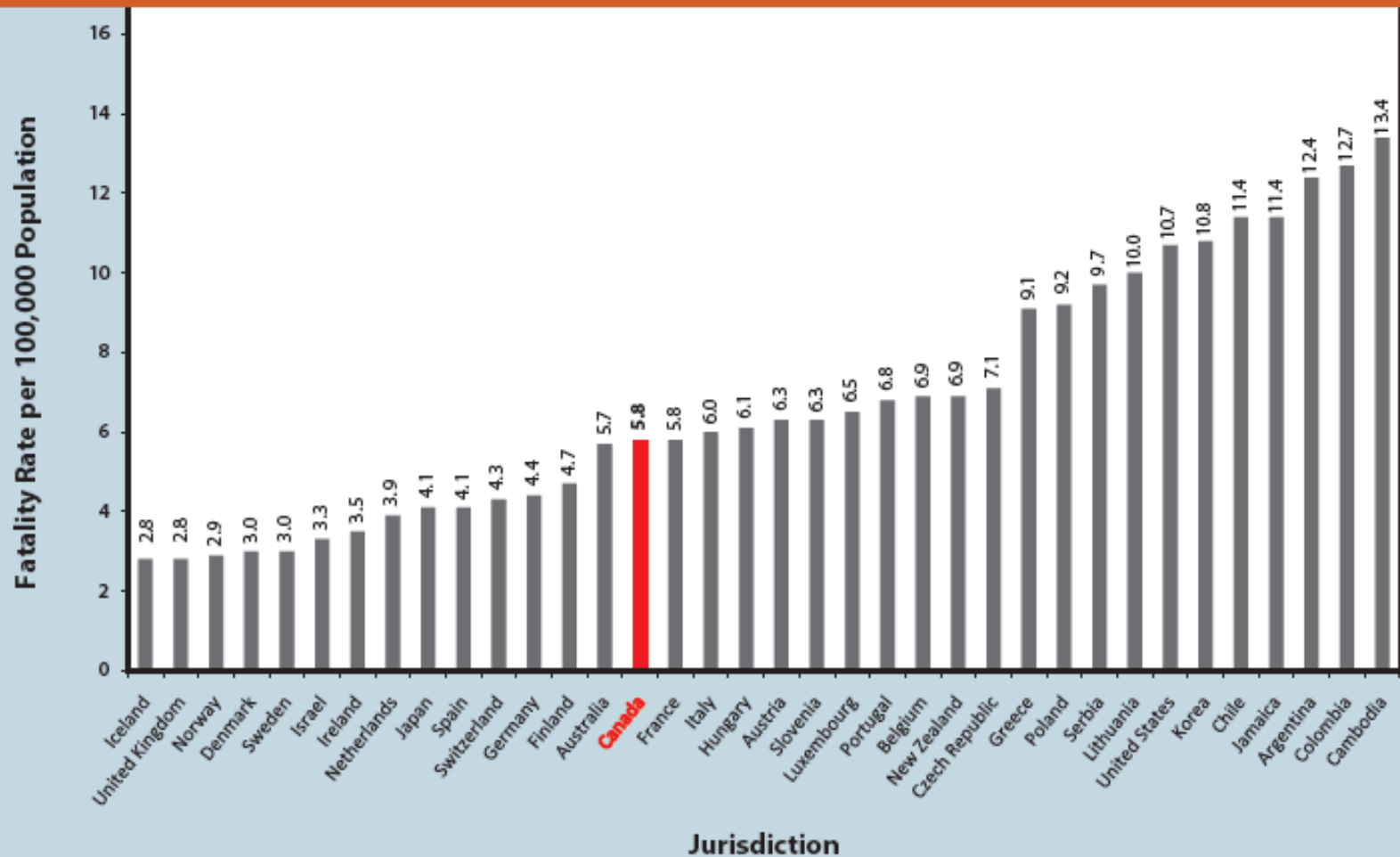
- *British Columbia Road Safety Strategy: 2015 and Beyond* was released in August 2013, by RoadSafety BC.
- The vision is to achieve “the safest roads in North America and work toward an ultimate goal of **zero traffic fatalities.**”
- The Strategy is based on a partnership approach involving over 40 different road safety partners across the province, and it’s designed to leverage the work of all partners and to ensure that effective mechanisms are in place to support cross-sector activities.

A SAFE SYSTEM APPROACH

- *The BC Road Safety Strategy* and this PHO report take a **Safe System Approach (SSA)** to road safety:
 - Motor vehicle crashes (MVCs) will undoubtedly occur, but associated **fatalities and serious injuries are preventable**.
 - The road system must be comprehensive and **designed to anticipate and accommodate inevitable human error**, and reduce the risk of death and serious injury to road users when an MVC occurs.

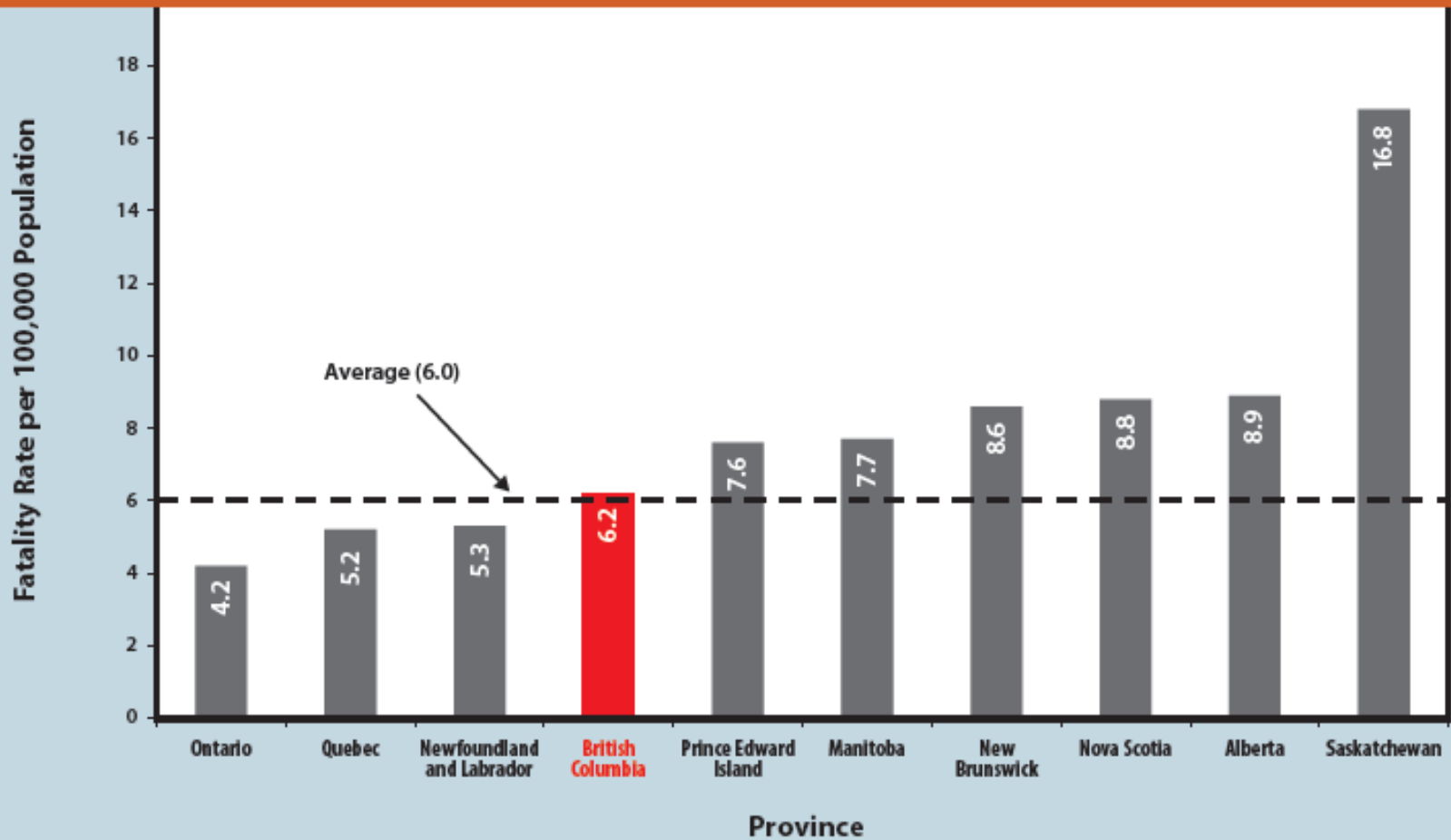


Motor Vehicle Crash Fatality Rate per 100,000 Population, by Jurisdiction, 2012



- Canada ranks 15th out of 36 jurisdictions for road safety.
- Leaders have fatality rates almost half that of Canada.

Motor Vehicle Crash Fatality Rate per 100,000 Population, by Province, Canada, 2012



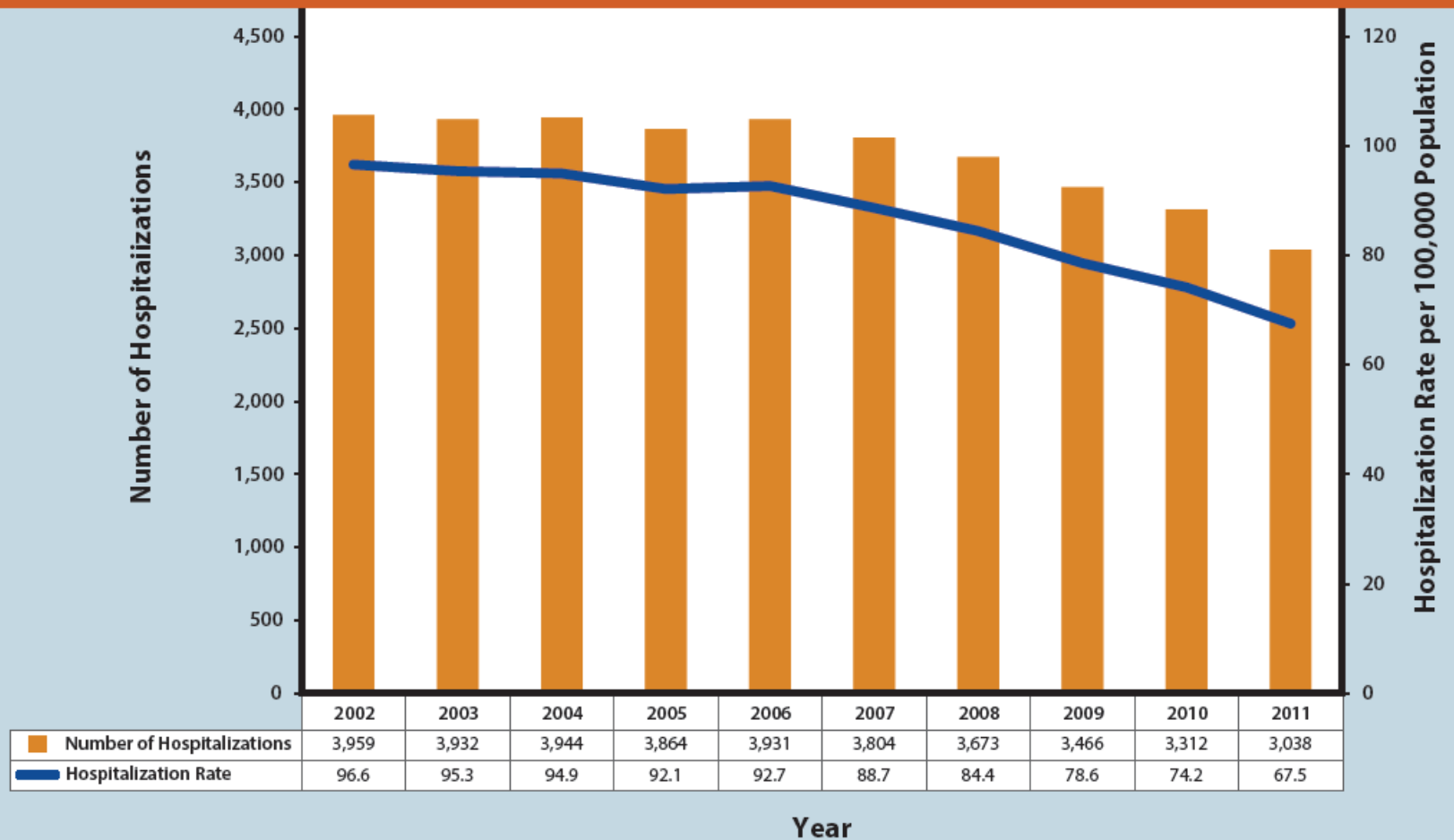
- In 2012, BC's MVC fatality rate was the fourth lowest among Canadian provinces, but slightly above the average, and well above Ontario's rate.

Motor Vehicle Crash Fatality Count and Rate per 100,000 Population, BC, 1996 to 2013



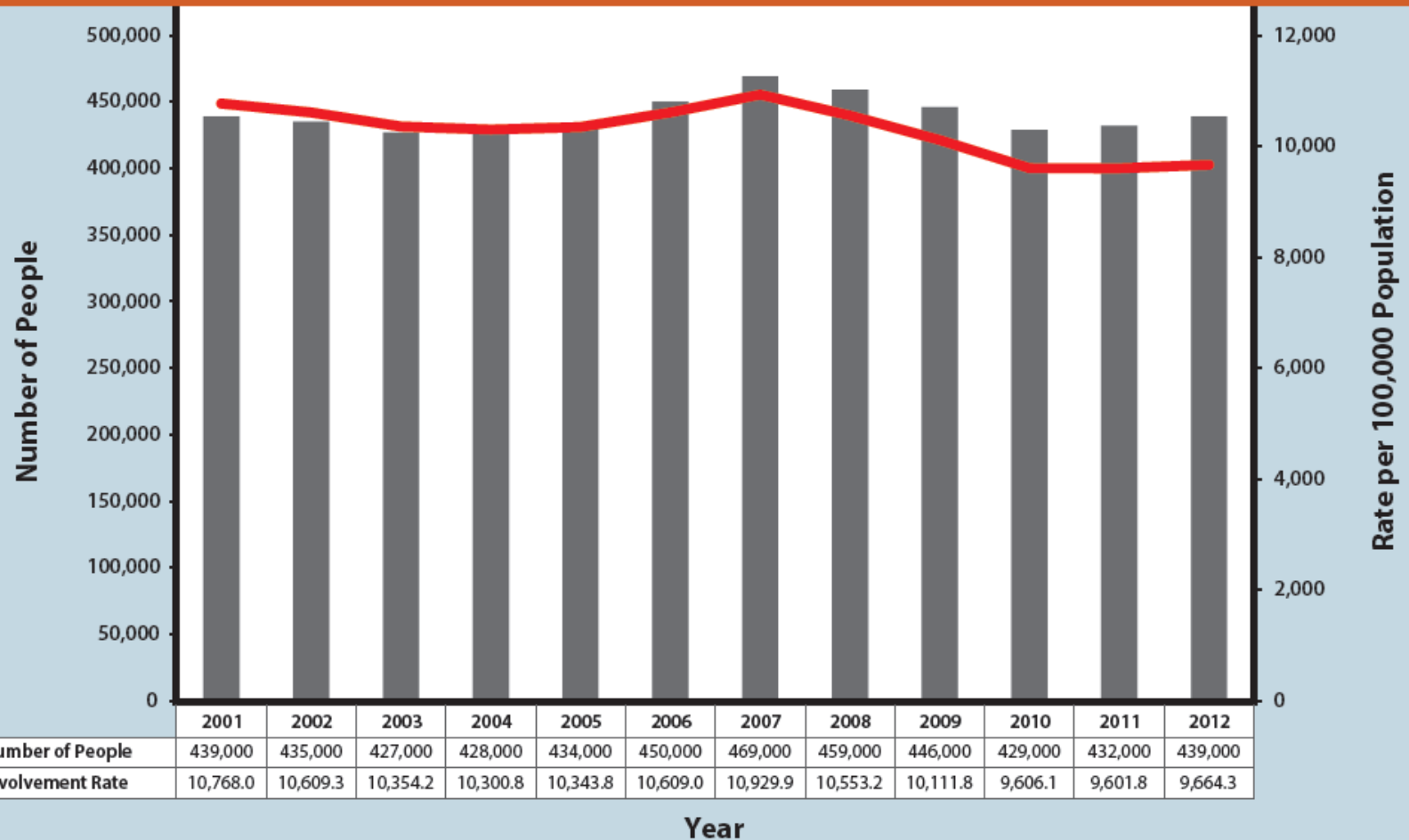
- Between 1996 and 2013, fatalities from motor vehicle crashes decreased by 42.6% in BC.

Motor Vehicle Crash Hospitalization Count and Rate per 100,000 Population, BC, 2002 to 2011



- Between 2002 and 2011, the number and rate of hospitalizations due to motor vehicle crashes also decreased.

People Involved in Motor Vehicle Crashes Count and Rate per 100,000 Population, BC, 2001 to 2012

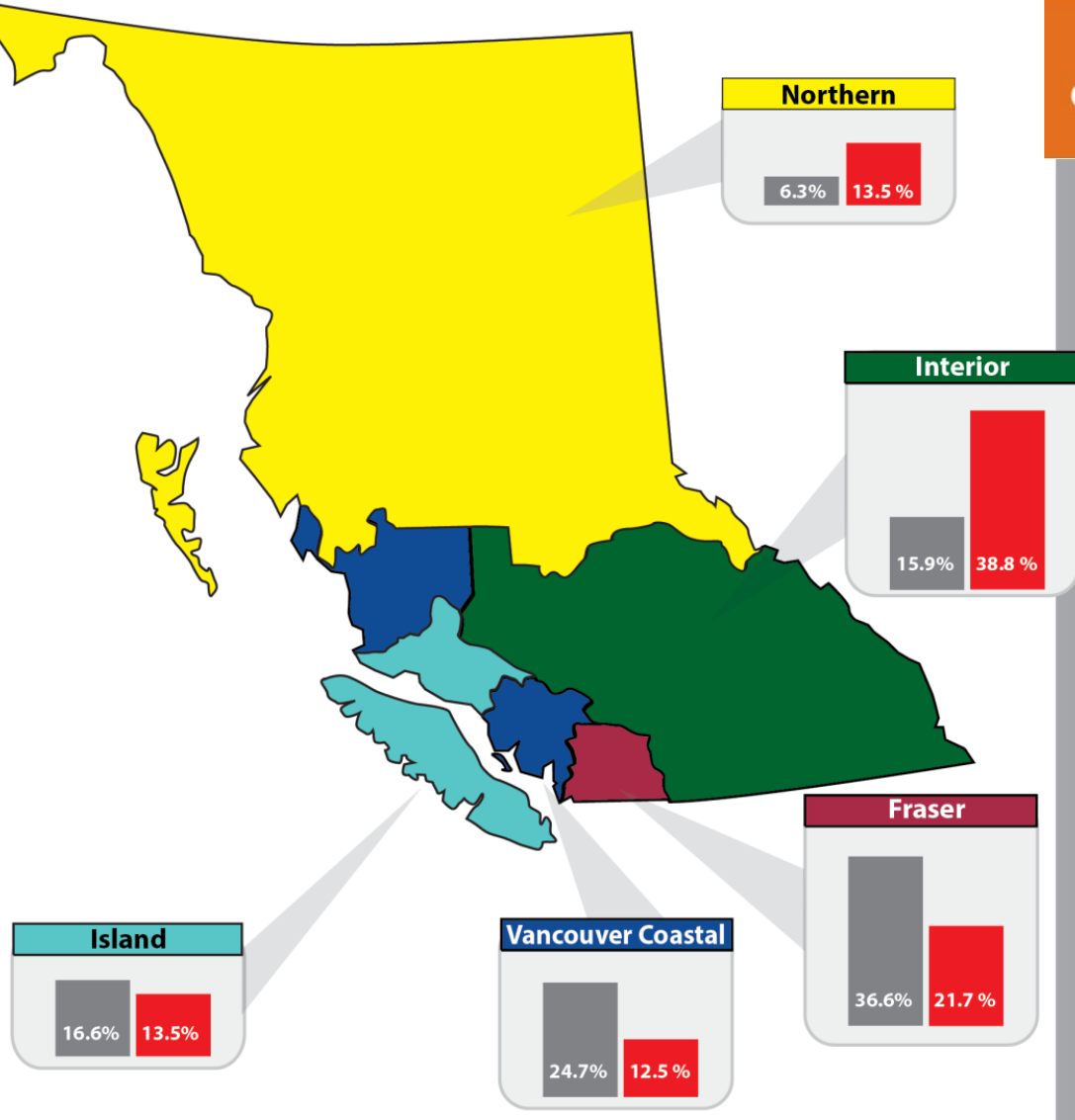


- Despite these improvements, the number and rate of people involved in MVCs has not declined substantially.

What Groups are Experiencing MVC Fatalities in BC?



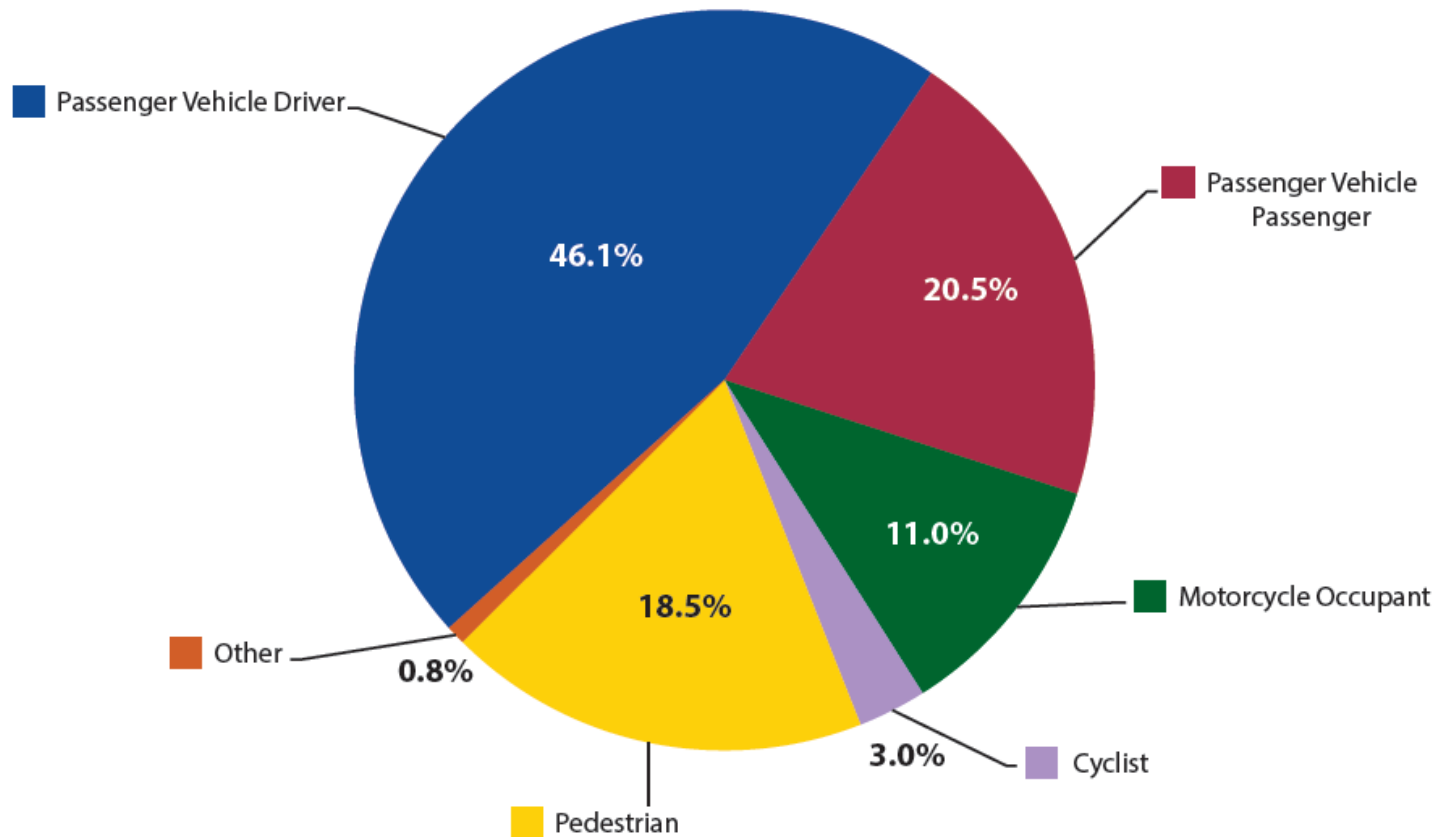
Proportion of Population and Motor Vehicle Crash Fatalities, by Health Authority, BC, 2012



Health Authority	Population	Number of MVC Fatalities
Northern	284,552	38
Interior	722,357	109
Vancouver Coastal	1,121,688	35
Island	751,809	38
Fraser	1,662,102	61
Total	4,542,508	281

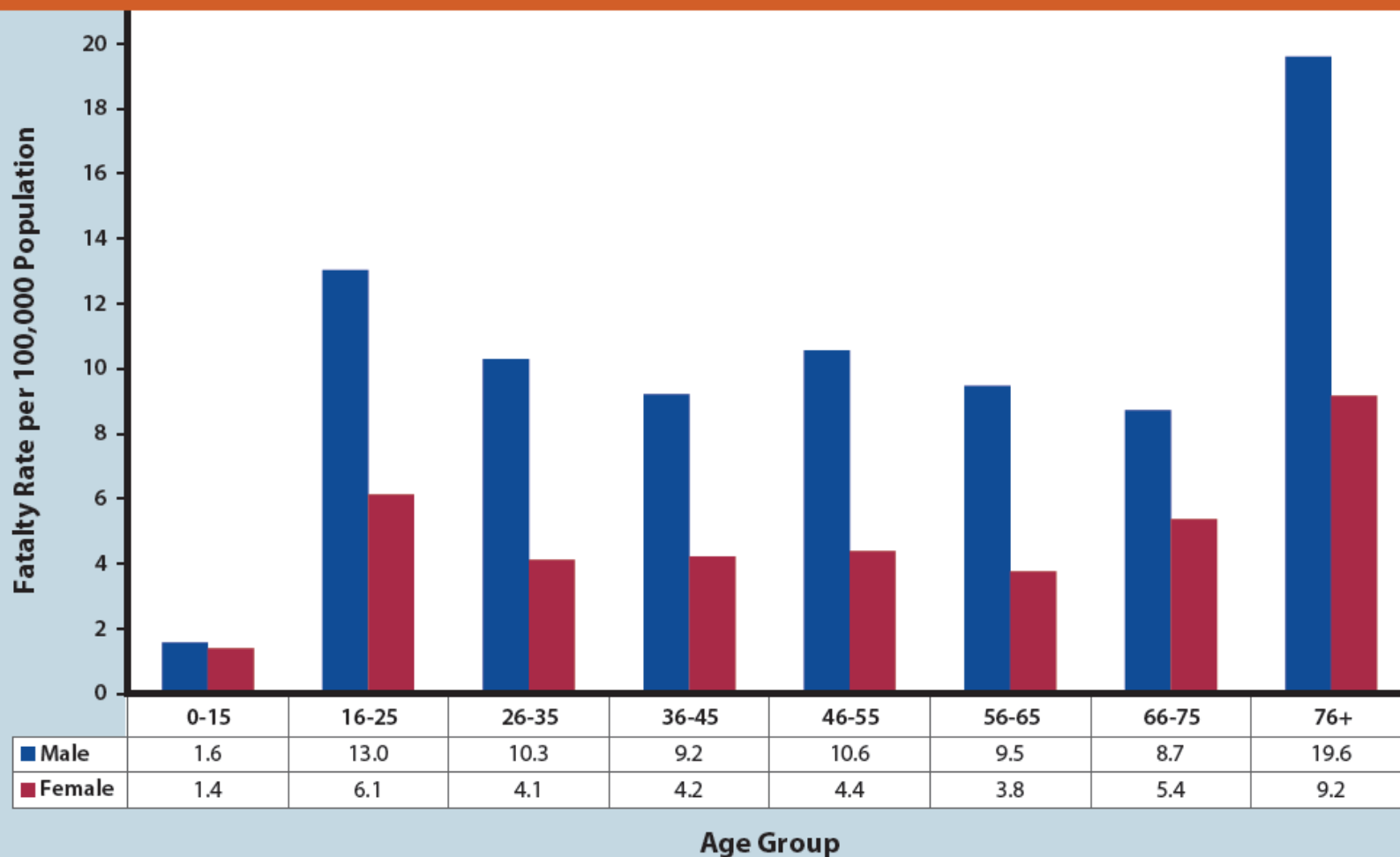
- Rural/remote HAs had 2x the proportion of their population in fatalities.
- Urban HAs had just over half the proportion of their population in fatalities.

Proportion of Motor Vehicle Crash Fatalities, by Road User Type, BC, 2009-2013



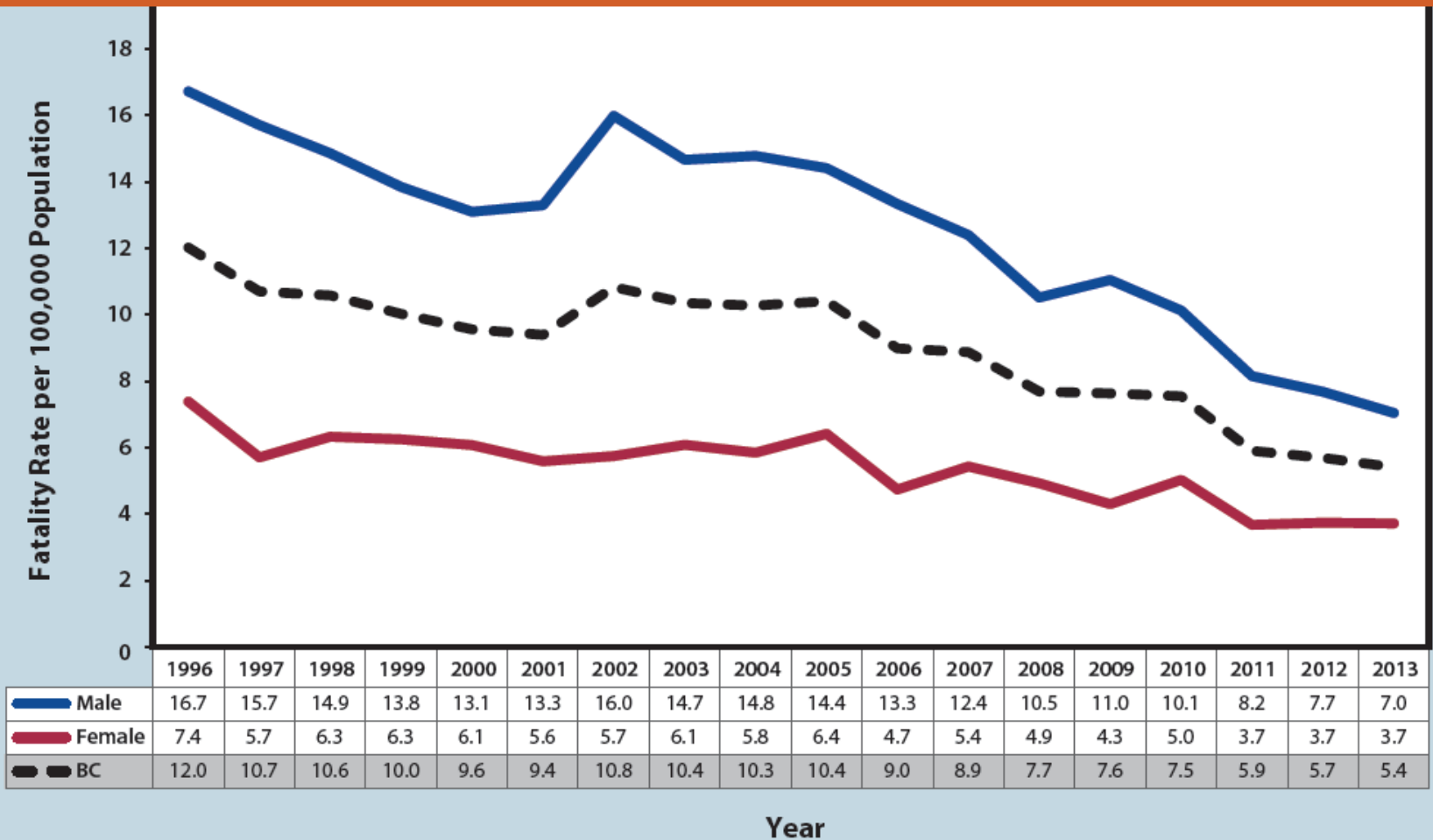
- Vehicle occupants accounted for 66.6% of fatalities.
- Vulnerable road users (motorcycle occupants, cyclists, pedestrians) accounted for 32.5% of fatalities.

Motor Vehicle Crash Fatality Rate per 100,000 Population, by Sex and Age Group, BC, 2009-2013



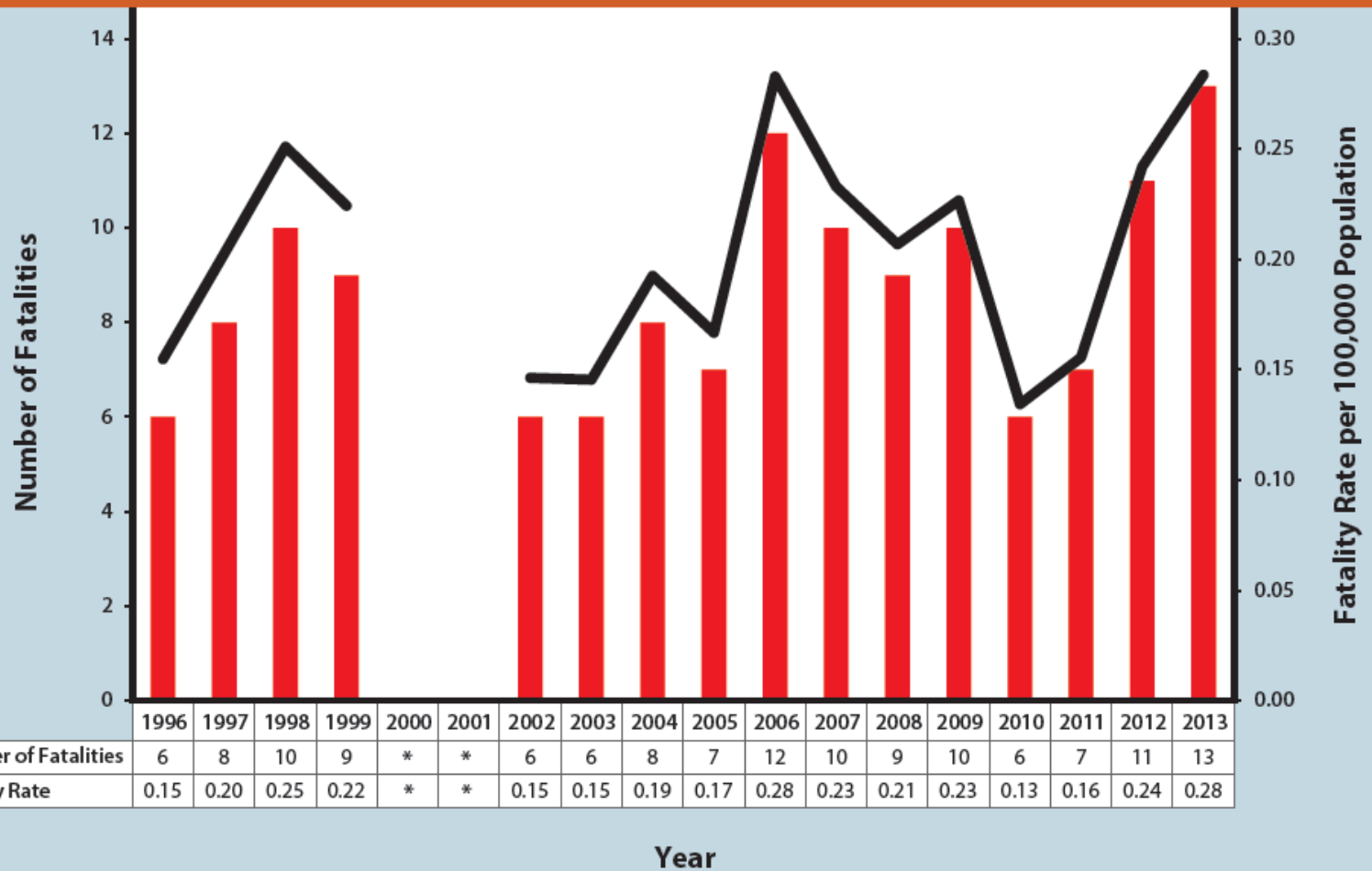
- Over age 15, males have 2x the fatality rate of females.
- Fatality rates are highest for those aged 76 and older and lowest for those less than 16 years old.

Age-standardized Motor Vehicle Crash Fatality Rate per 100,000 Population, by Sex, BC, 1996 to 2013



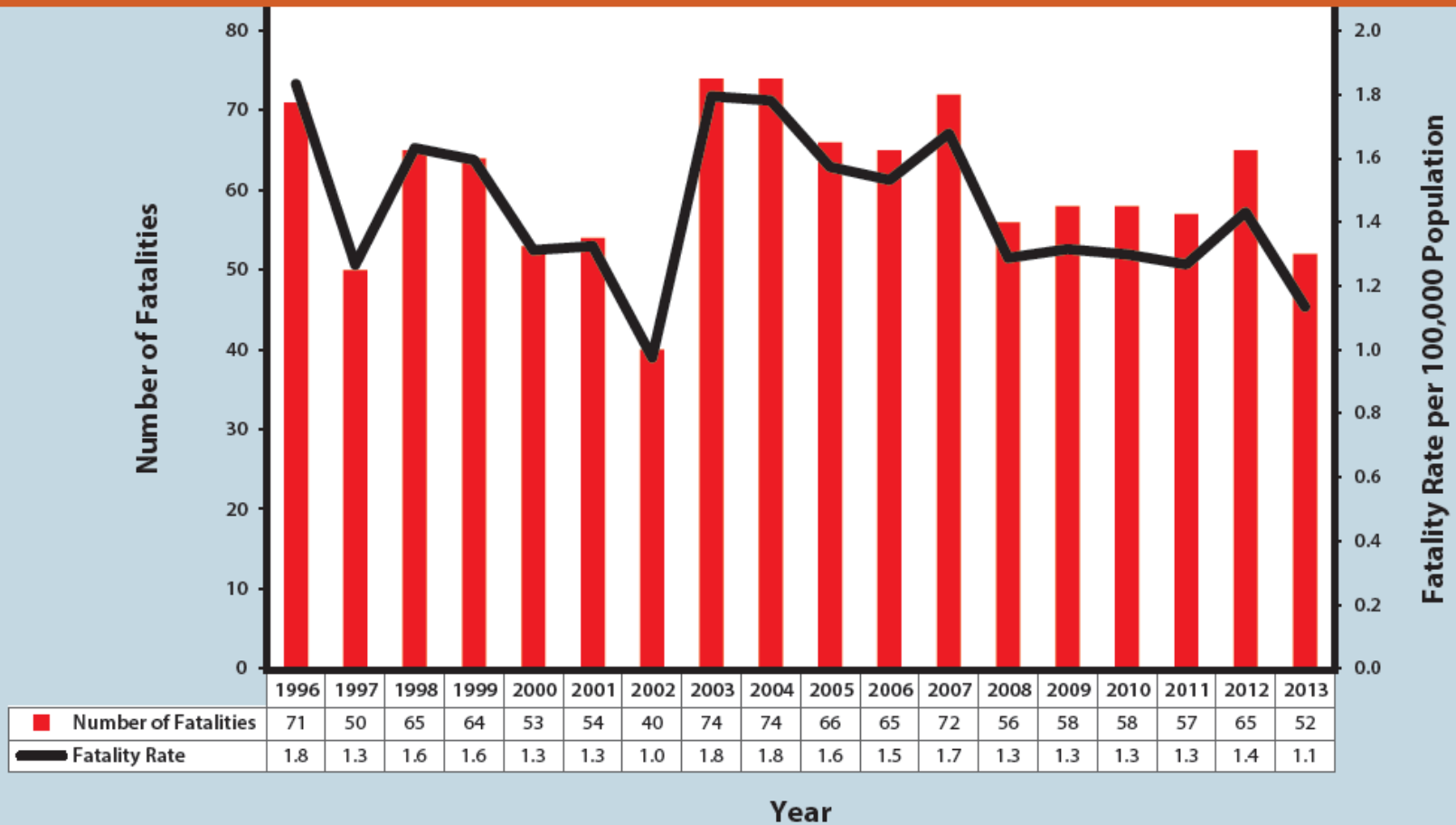
- Age-standardized fatality rate has decreased for both sexes.
- The male fatality rate is 2x females, but the gap is narrowing.

Motor Vehicle Crash Cyclist Fatality Count and Rate Per 100,000 Population, BC, 1996 to 2013



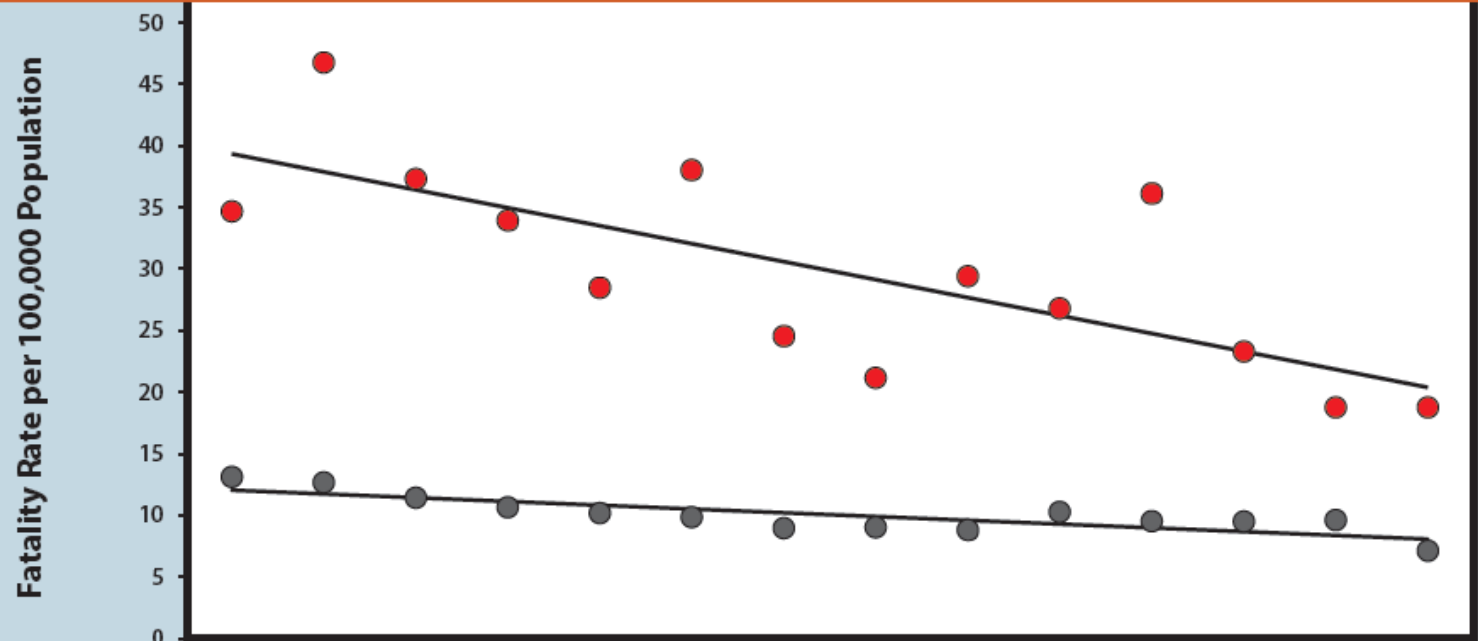
- The number and rate of cyclist fatalities are not improving.

Motor Vehicle Crash Pedestrian Fatality Count and Rate per 100,000 Population, BC, 1996 to 2013



- The number and rate of pedestrian fatalities does not show a sustained downward trend.
- BC has not achieved the clear decreases in pedestrian fatalities that other jurisdictions have.

Age-standardized Motor Vehicle Crash Fatality Rate per 100,000 Population for Status Indians and Other Residents, BC, 1993 to 2006



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
● Status Indian (SI) Fatality Rate	34.7	46.8	37.3	34.0	28.5	38.1	24.6	21.2	29.4	26.8	36.1	23.3	18.8	18.8
● Other Residents (OR) Fatality Rate	13.1	12.7	11.4	10.7	10.2	9.9	9.0	9.0	8.8	10.3	9.5	9.5	9.6	7.1
Number of SI Fatalities	39	51	48	43	38	46	35	30	34	32	50	36	30	27
Number of OR Fatalities	440	444	415	398	385	381	353	363	345	422	397	399	415	307

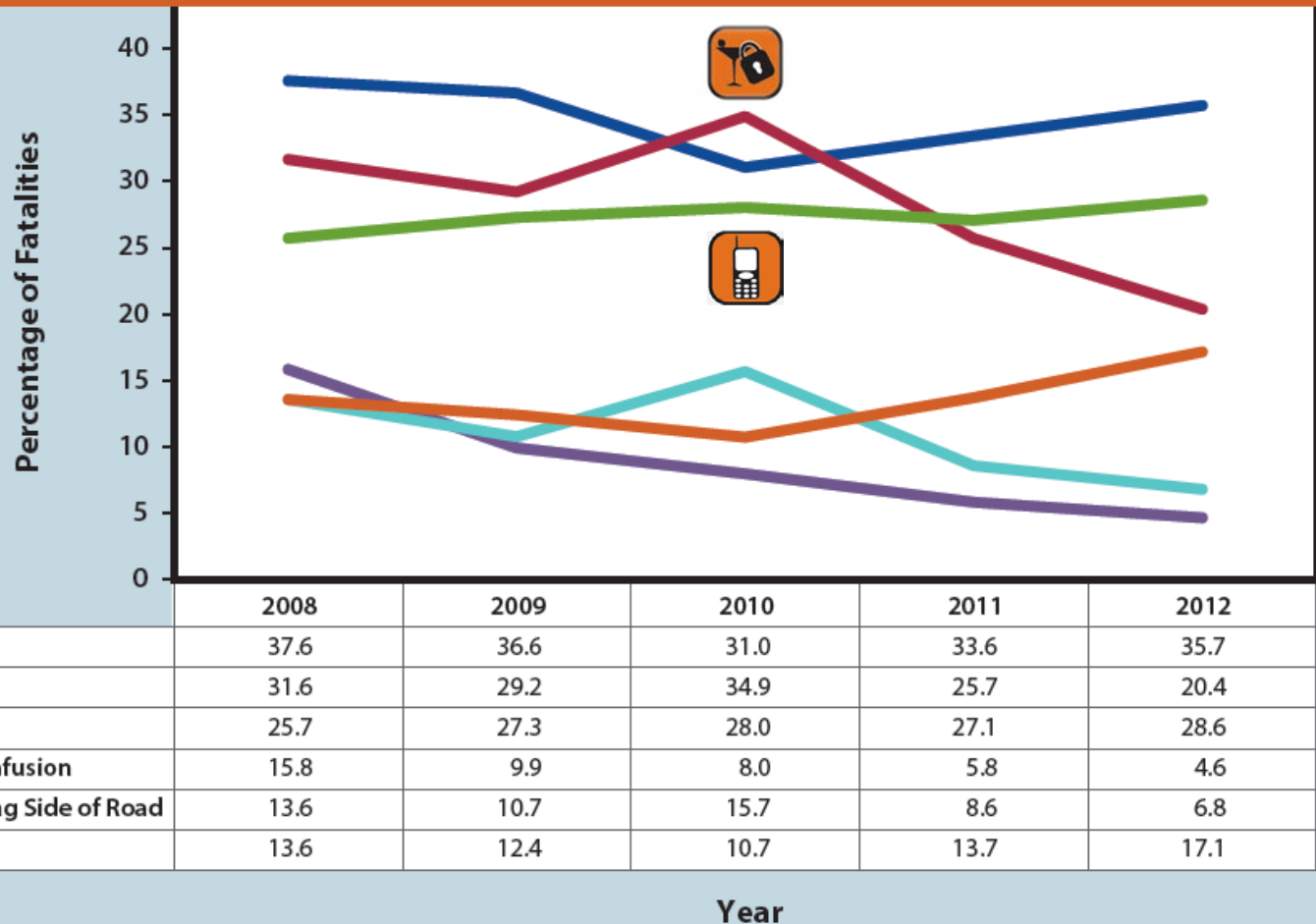
Year

- The age-standardized fatality rate (ASFR) for MVCs for Status Indians decreased by 45.8% from 1993 to 2006, but was still more than double that of other residents in 2006.

Contributing Factors to MVCs in BC

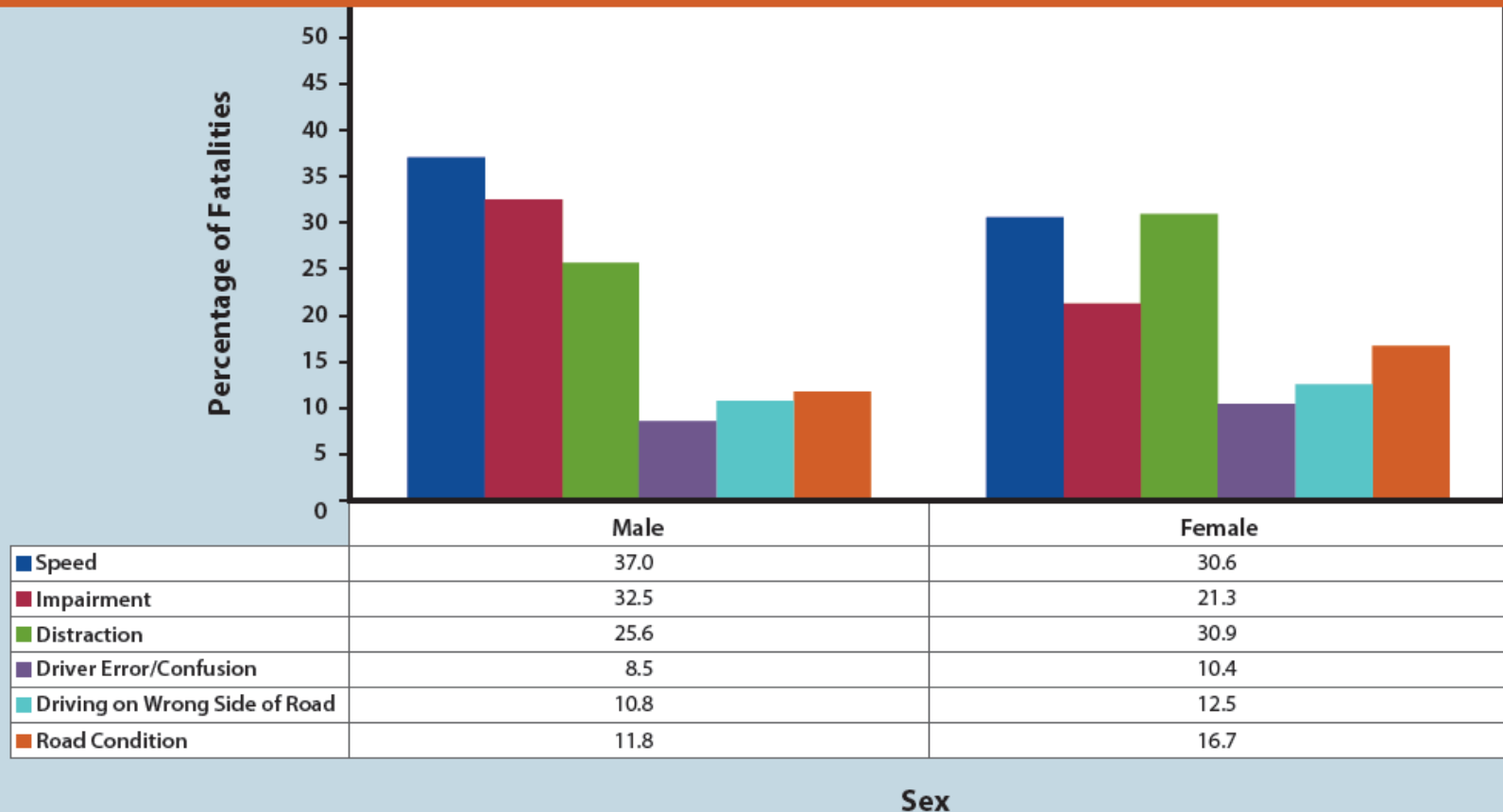


Proportion of Motor Vehicle Crash Fatalities, by Top Contributing Factor, BC, 2008 to 2012



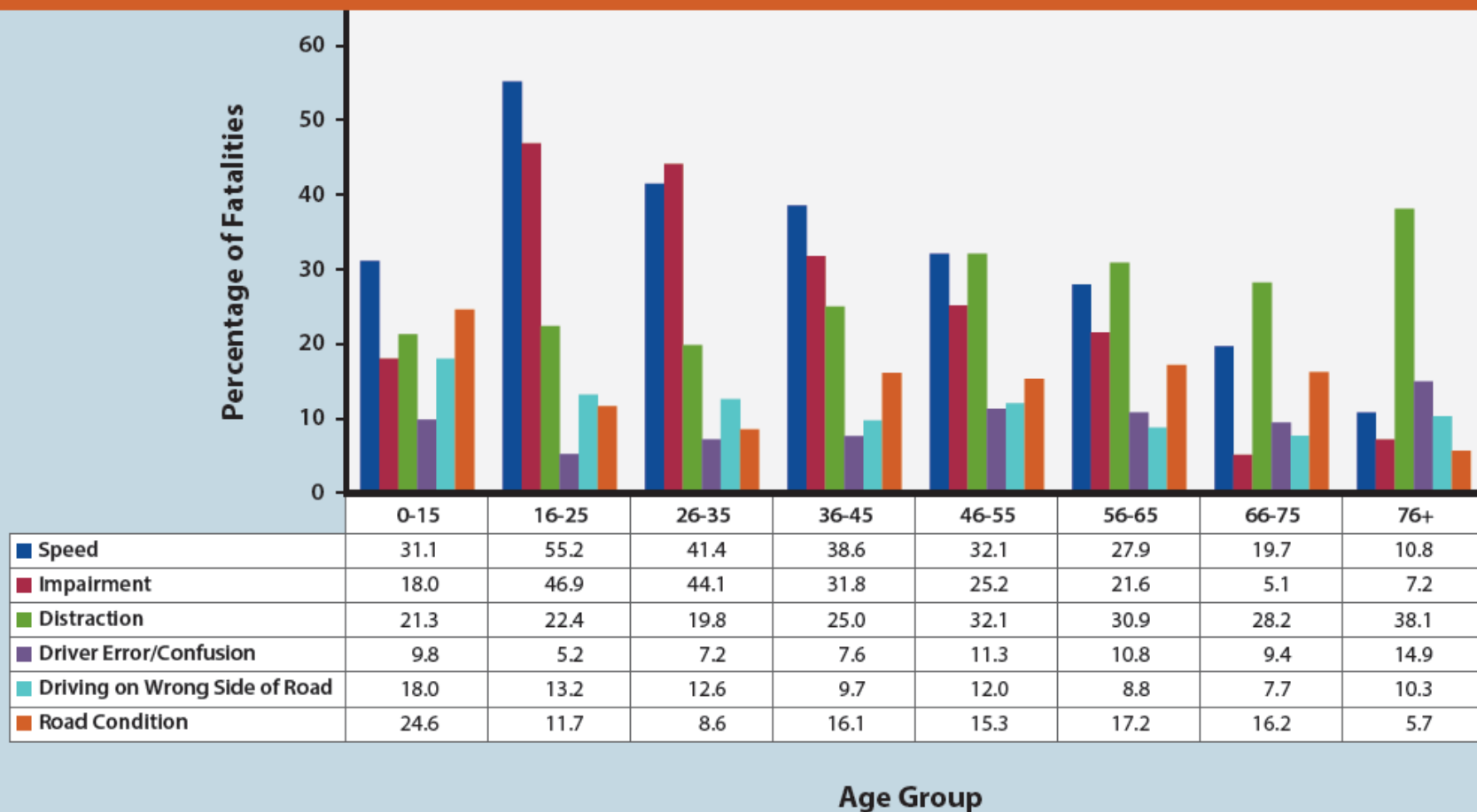
- Top police-reported contributing factors: speed, impairment, distraction.
- Proportions of MVCs with fatalities have decreased for impairment and increased for speed and distraction.

Proportion of Motor Vehicle Crash Fatalities, by Top Contributing Factor and Sex, BC, 2008-2012



- Speed, impairment, and distraction are the top contributing factors for MVCs with fatalities, for both males and females.
- Males were more likely than females to be killed in an MVC involving speed or impairment.
- Females were more likely to be killed in an MVC involving distraction.²⁰

Proportion of Motor Vehicle Crash Fatalities, by Top Contributing Factor and Age Group, BC, 2008-2012



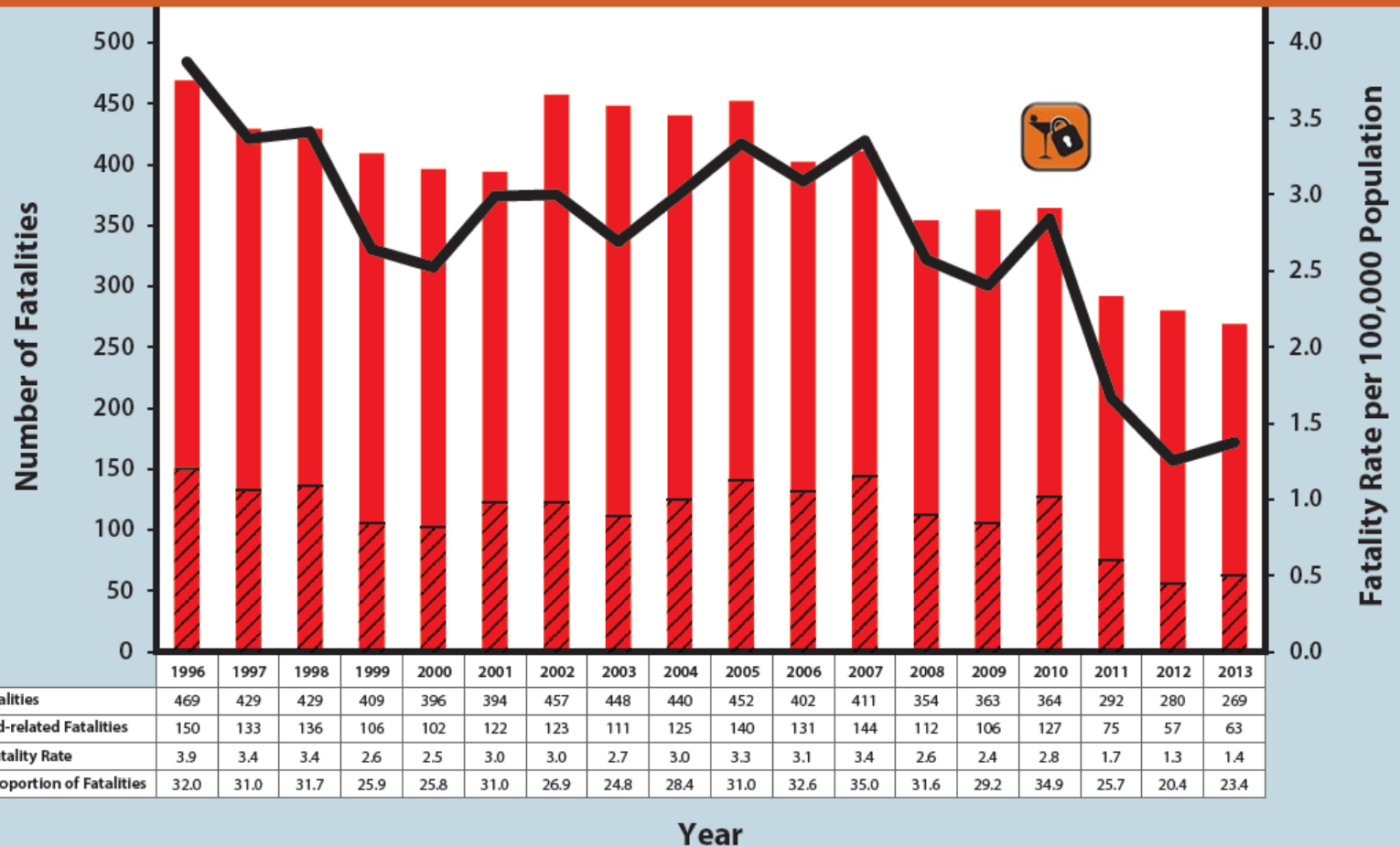
- Speed and impairment decline as an MVC contributing factor with age, but distraction increases somewhat.

Distraction-related Motor Vehicle Crash Fatality Count and Rate per 100,000 Population, BC, 2004 to 2013



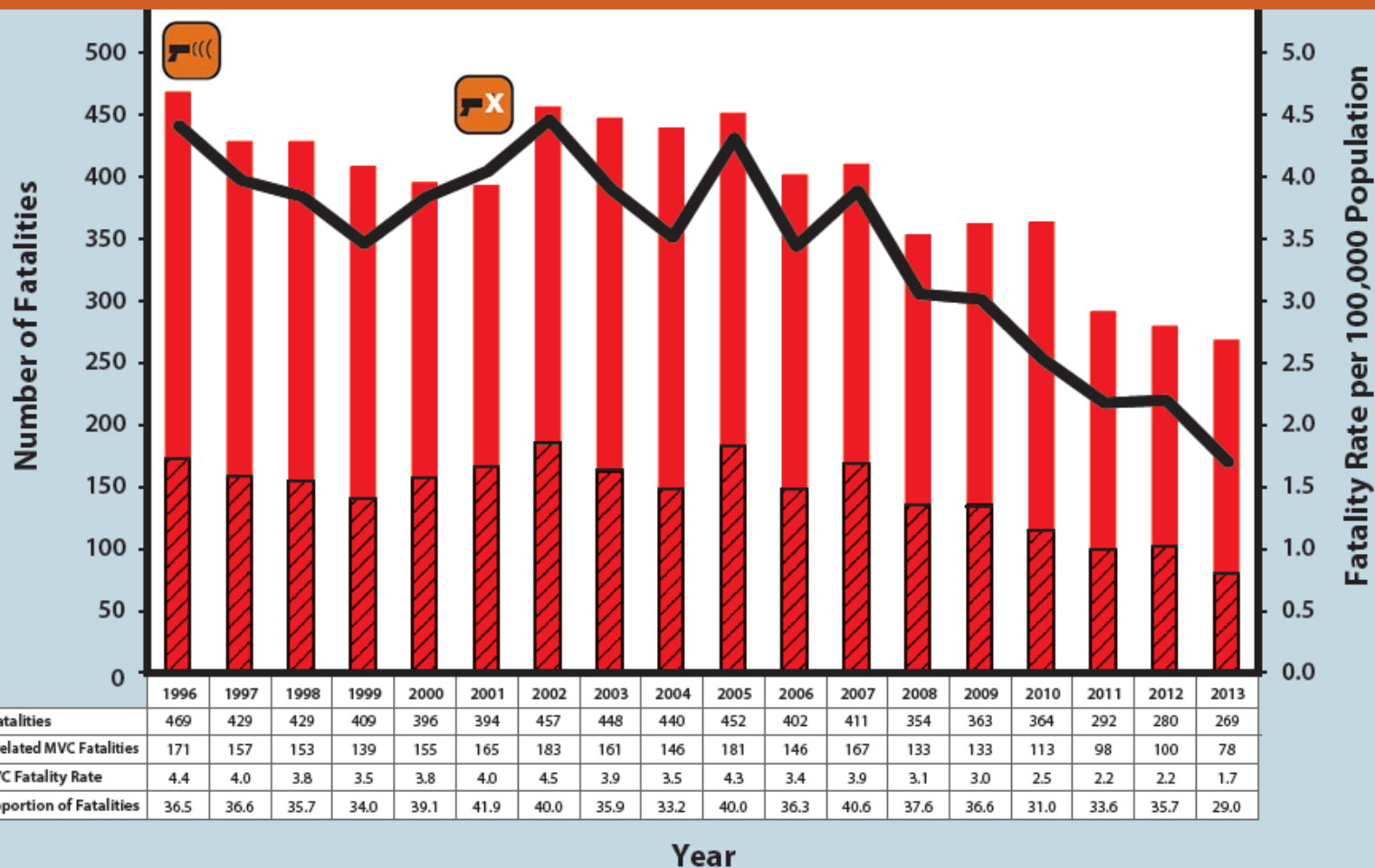
- Distraction-related fatalities are decreasing.
- Distraction accounts for over one quarter of fatalities.

Impaired-related Motor Vehicle Crash Fatality Count and Rate per 100,000 Population, BC, 1996 to 2013



- Impaired-related fatalities are decreasing.
- Impairment is still a factor in nearly one-quarter of fatalities.

Speed-related Motor Vehicle Crash Fatality Count and Rate per 100,000 Population, BC, 1996 to 2013



- The number of speed-related MVC fatalities peaked in BC from 2001 to 2007; now showing decreases in number and rate.

Recommendations



MVC RECOMMENDATIONS –

4 UNDERLYING PRINCIPLES

- A. Viable alternatives to vehicle use must be meaningfully supported.
- B. Public health and the Safe System Approach should be considered in all transportation policy and programming.
- C. The health and protection of vulnerable road users should be at the forefront of policy and programming decisions.
- D. Collaboration, partnerships, and communication among government and non-government organizations are essential.

28 MVC RECOMMENDATIONS

7 AREAS OF ROAD SAFETY

- A strategic approach to road safety in BC (4)
- Safe road users (6)
- Safe speeds (4)
- Safe roadways (2)
- Safe vehicles (5)
- Road safety for Aboriginal communities (3)
- Education, awareness, and enforcement (4)

A STRATEGIC APPROACH TO ROAD SAFETY

- 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*.
- 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. This centre should be university based with a priority mandate to collect, analyse, and house provincial and community-level data related to road safety and MVCs.
- 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 in each region of BC, and includes modifying intersections and other roadway infrastructure according to evidence-based safety designs.

SAFE ROAD USERS

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.
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*.
8. **Improve capacity to identify impaired driving.** This includes developing objective measures to assess impairment from all types of drugs, and supporting for research to better understand the impact of the use of all types of drugs on driving ability.
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.
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.

SAFE SPEEDS

- 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** during an MVC for those road users. This includes monitoring and assessing the impacts of any increases in speed limits introduced.
- 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).
- 13. Establish appropriate speed limits for road and weather conditions** and increase related driver awareness and education.
- 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, with any income generated being allocated to funding additional road safety programs including a Centre for Excellence in Road Safety.

SAFE ROADWAYS

- 15. Ensure that roadways in BC are safe for all road users by prioritizing pedestrian and cyclist health and safety in roadway and intersection design.** This includes evaluating and improving existing intersections and roadways as appropriate, and new or improved infrastructure being evidence based.
- 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 MVC fatalities and serious injuries.

SAFE VEHICLES

- 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, and mechanisms to prevent unsafe driving behaviour.
- 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.
- 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 MVCs 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

- 22.** Following principles of ownership, control, access, and possession (OCAP), **support the development of community-driven research on MVC fatalities and serious injuries, including 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.
- 24.** **Implement the Aboriginal Administrative Data Standard in organizations that collect MVC and related data,** including ICBC for traffic claims data; police for Traffic Accident System data (police-recorded data); and health authorities for hospitalization data.

EDUCATION, AWARENESS, AND ENFORCEMENT

- 25.** Using evidence-based best practices, **reinvigorate road safety campaigns for road users, with particular emphasis on the populations with the heaviest burden of MVC fatalities and serious injuries— including males, people ages 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.
- 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.**
- 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 impact of using handheld devices while driving; and the array of impacts that result from alcohol and other substances such as legal and illegal drugs (e.g., marijuana, prescription medication), as well as cognitive impairment and fatigue.

RECOMMENDED LEADERSHIP RESPONSIBILITIES

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



QUESTIONS ?

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