

This report summarizes all accidental, traffic-related motor vehicle incident (MVI) deaths, occurring in the Fraser Health Authority region, between January 1, 2008 and December 31, 2018.

Inclusion Criteria: For BC Coroner's Service (BCCS) statistics, a traffic-related MVI is one occurring on a public "highway", as defined in the Motor Vehicle Act. This definition encompasses any roadway intended for or used by the public for the passage or vehicles, and any private place to which the public has access or is invited (e.g., for parking or vehicle servicing). Private driveways and forest service roads are excluded, except where the forest service road is open to public use. Incidents involving off-road vehicles, industrial vehicles, and farm vehicles are included when occurring on public highways, but excluded when occurring off-road or on a worksite.

Caveats: As the BCCS operates in a live database environment, the data are considered preliminary and subject to change. These data were compiled by date of death, which may differ from the date of injury. In some cases, the death may occur months or years subsequent to injury. These statistics may vary from those reported by other agencies because of differences in data definitions or reporting standards.

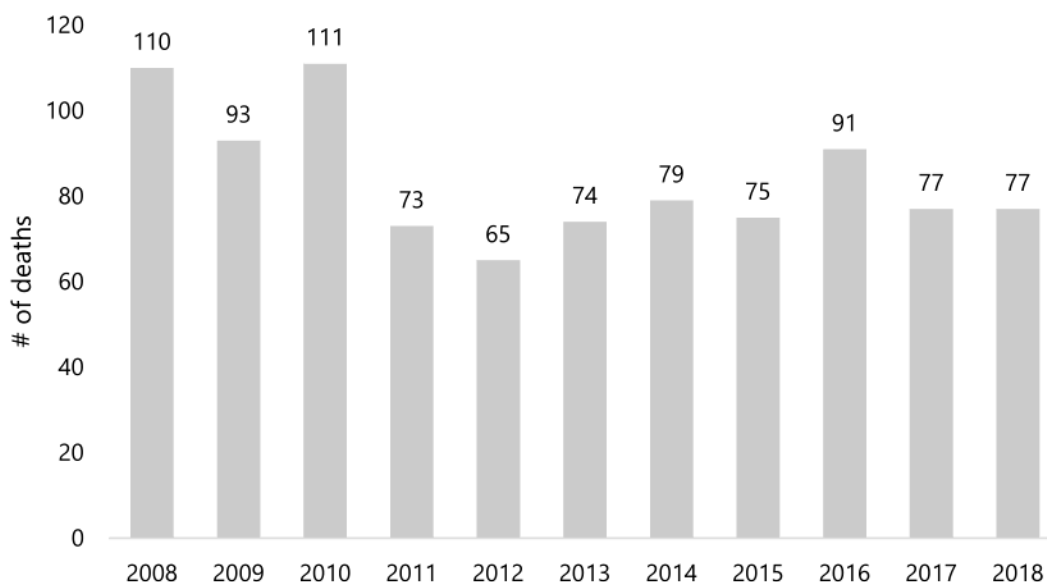


Fig. 1. MVI Deaths in the Fraser Health Authority Region, 2008-2018²

I. Overview

- Overall, 925 motor vehicle incidents occurred in the Fraser Health region from 2008-2018. This accounted for about 26% of all motor vehicle incidents.
- Most deaths (36%) involved drivers in personal vehicles, followed by pedestrians (25%). (Fig. 2).
- More than two-thirds of decedents (69%) were male (Fig. 3).
- Between 2008-2018, the months with the highest average annual number of pedestrian deaths were November (3.3) and December (2.9). For other road users, the average annual number of deaths per month was highest for August (6.8) and September (6.5). (Fig. 4).
- A total of 226 motor vehicle incidents occurred in Surrey from 2008-2018, followed by 107 incidents in Abbotsford (Fig. 5).

II. Drug and Alcohol Involvement

- Based on data available from 2008 to 2016, 35.1% of deaths resulted from MVIs involving drugs and/or alcohol.
- Alcohol and/or drug involvement was identified as a contributing factor in 56% of deaths among individuals aged 30-49 years and 50% of deaths among 40-49 years olds (Fig. 6).

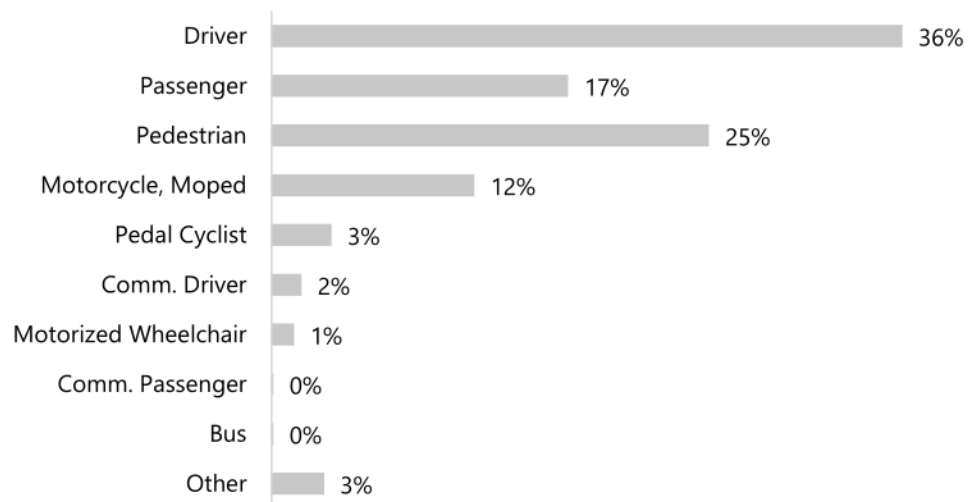
III. Restraint Use

- Based on data available between 2011 and 2016, 23% of decedent drivers and passengers were not wearing a seat belt (Fig. 7).
- Seventy-nine percent (79%) of females were found be using a restraint, vs. 51% of males (Fig. 8).

Table 1. MVI Deaths by Decedent Role*

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Driver	51	36	43	22	25	21	27	24	34	34	19
Passenger	17	19	24	11	8	12	13	9	17	14	14
Pedestrian	25	16	26	20	17	24	24	23	23	14	21
Motorcycle, Moped	9	10	8	10	8	8	9	10	10	9	17
Pedal Cyclist	4	3	4	3	4	3	2	3	2	2	2
Comm. Driver	1	3	4	1	1	0	1	2	0	2	1
Motorized Wheelchair	1	2	0	0	1	0	2	2	3	0	1
Comm. Passenger	0	0	0	1	0	0	0	0	0	0	0
Bus	0	0	1	0	0	0	0	0	0	0	0
Other	2	4	1	5	1	6	1	2	2	2	2
Total	110	93	111	73	65	74	79	75	91	77	77

*See Appendix A for 'Decedent Role' definitions.

**Fig. 2. MVI Deaths by Decedent Role* as % of Total, 2008-2018**

*See Appendix A for 'Decedent Role' definitions.

Table 2. MVI Deaths by Sex

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	32	30	35	19	12	26	20	21	34	28	30
Male	78	63	76	54	53	48	59	54	57	49	47
Total	110	93	111	73	65	74	79	75	91	77	77

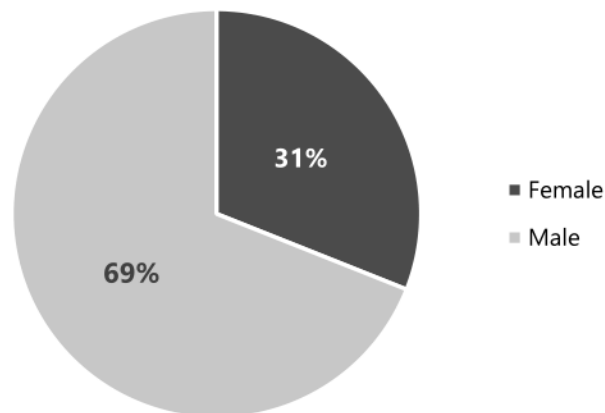


Fig. 3. MVI Deaths by Sex as % of Total, 2008-2018

Table 3. MVI Deaths by Age Group

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<19	15	6	8	5	8	8	6	4	8	6	4
19-29	26	24	21	22	13	8	20	15	17	13	18
30-39	16	9	14	8	4	13	7	4	6	11	16
40-49	11	13	22	10	9	9	9	14	14	11	6
50-59	17	16	22	13	10	9	15	11	10	9	12
60-69	15	8	8	5	4	7	4	11	17	8	9
70-79	4	6	10	3	11	9	8	8	12	9	5
80+	6	11	6	7	6	11	10	8	7	10	7
Total	110	93	111	73	65	74	79	75	91	77	77

Table 4. MVI Deaths by Month

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	7	2	9	8	4	6	7	9	8	4	5
February	11	10	11	10	4	6	7	5	3	6	0
March	11	6	8	8	4	9	5	6	6	11	6
April	5	9	9	4	4	10	4	6	11	5	4
May	11	6	5	4	5	2	5	8	6	7	3
June	9	8	5	6	2	4	9	7	5	5	11
July	11	10	10	5	6	2	5	5	10	3	10
August	9	7	12	4	6	8	6	4	8	8	10
September	7	10	12	11	9	10	10	7	7	8	7
October	10	6	14	5	6	8	7	5	4	10	6
November	8	9	6	4	6	6	9	7	14	4	9
December	11	10	10	4	9	3	5	6	9	6	6
Total	110	93	111	73	65	74	79	75	91	77	77

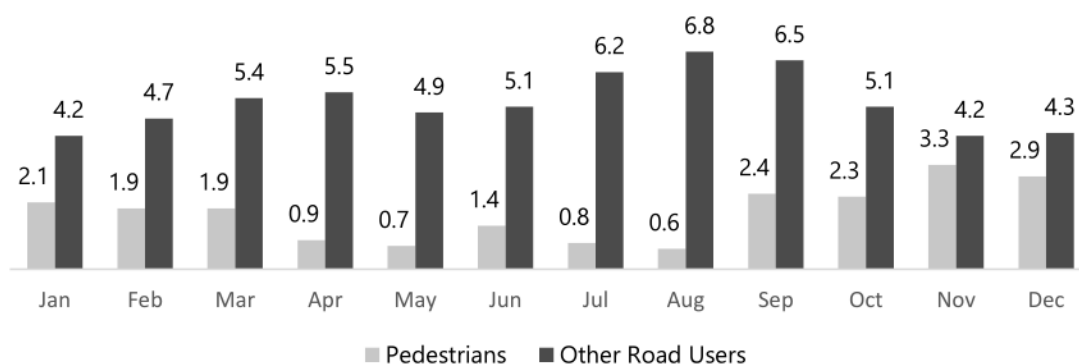


Fig. 4. Average Annual MVI Deaths by Month, Pedestrians vs. Other Road Users, 2008-2018

Table 5. MVI Deaths by Township of Injury²

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Surrey	19	29	28	17	20	21	19	14	19	18	22
Abbotsford	10	10	19	5	10	6	8	8	9	13	9
Langley	15	8	8	10	8	4	7	7	6	8	4
Burnaby	6	7	6	8	3	10	6	6	8	9	8
Chilliwack	5	14	5	7	2	6	4	2	7	2	5
Hope	8	2	8	4	4	5	6	8	4	6	3
Delta	11	7	6	4	2	3	3	4	6	4	6
Maple Ridge	6	5	2	5	5	5	1	7	5	4	5
Mission	4	2	10	3	2	0	8	2	11	1	5
Coquitlam	7	1	1	3	3	5	3	2	3	6	3
New Westminister	6	1	3	1	0	4	2	1	3	0	4
Agassiz	4	2	2	1	1	1	3	1	3	2	0
Pitt Meadows	2	0	5	0	0	1	1	2	0	1	1
Port Moody	2	0	2	1	1	0	3	1	0	0	0
Boston Bar	1	2	0	0	2	0	1	1	0	0	0
Port Coquitlam	1	1	0	1	0	1	1	1	1	0	0
White Rock	0	0	2	1	0	0	0	1	0	1	0
Harrison Hot Springs	1	1	0	2	0	0	0	0	0	0	0
Harrison Mills	0	0	0	0	0	0	0	2	2	0	0
Tsawwassen	0	1	0	0	0	0	2	0	0	1	0
Yale	0	0	3	0	0	0	0	1	0	0	0
Ladner	0	0	0	0	1	0	0	1	1	0	0
Rosedale	0	0	0	0	0	0	0	0	1	0	2
Anmore	0	0	0	0	1	1	0	0	0	0	0
Ridge Meadows	0	0	0	0	0	0	1	1	0	0	0
Spuzzum	1	0	1	0	0	0	0	0	0	0	0
Aldergrove	0	0	0	0	0	0	0	0	0	1	0
Bridal Falls	0	0	0	0	0	0	0	1	0	0	0
Deroche	0	0	0	0	0	0	0	1	0	0	0
Fort Langley	1	0	0	0	0	0	0	0	0	0	0
Haney	0	0	0	0	0	0	0	0	1	0	0
North Delta	0	0	0	0	0	0	0	0	1	0	0
Yarrow	0	0	0	0	0	1	0	0	0	0	0
Total	110	93	111	73	65	74	79	75	91	77	77

Table 6. MVI Deaths Involving Alcohol and/or Drugs

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alcohol	24	13	31	13	14	8	11	13	4
Alcohol & Drugs	15	8	8	3	3	1	9	13	10
Drugs	7	10	12	5	4	6	6	6	9
Total Alcohol and/or Drugs	46	31	51	21	21	15	26	32	23
% of MVI Deaths	41.8%	33.3%	46.4%	30.0%	32.3%	20.3%	33.3%	43.8%	27.1%

Note: Data only available for closed investigations. Alcohol/drug data for 2017 are not currently available.

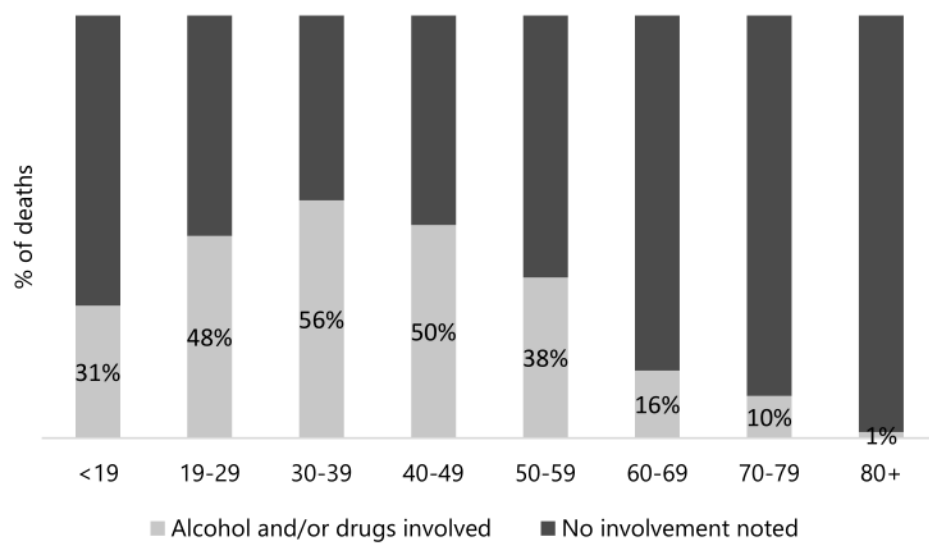


Fig. 6. MVI Deaths With Drugs and/or Alcohol Involvement by Age Group, 2008-2016

Table 7. Driver & Passenger Restraint Use						
Restraint	2011	2012	2013	2014	2015	2016
Yes	24	20	21	25	17	29
No	7	12	7	7	11	8
Unknown ⁴	4	2	5	9	7	14
Total	35	34	33	41	35	51

Note: Restraint use data for 2017 are not yet available.

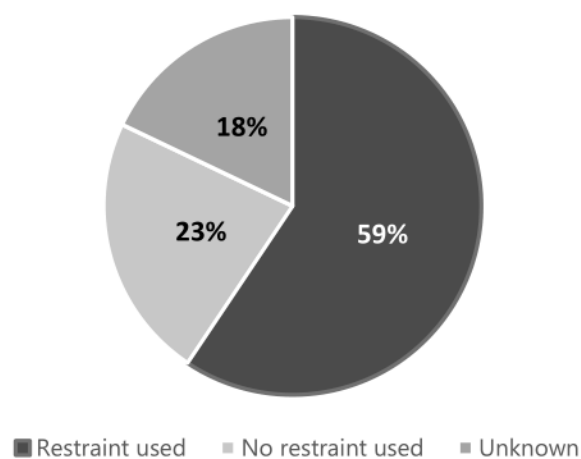


Fig. 7. Driver and Passenger Restraint Use, 2011-2016⁴

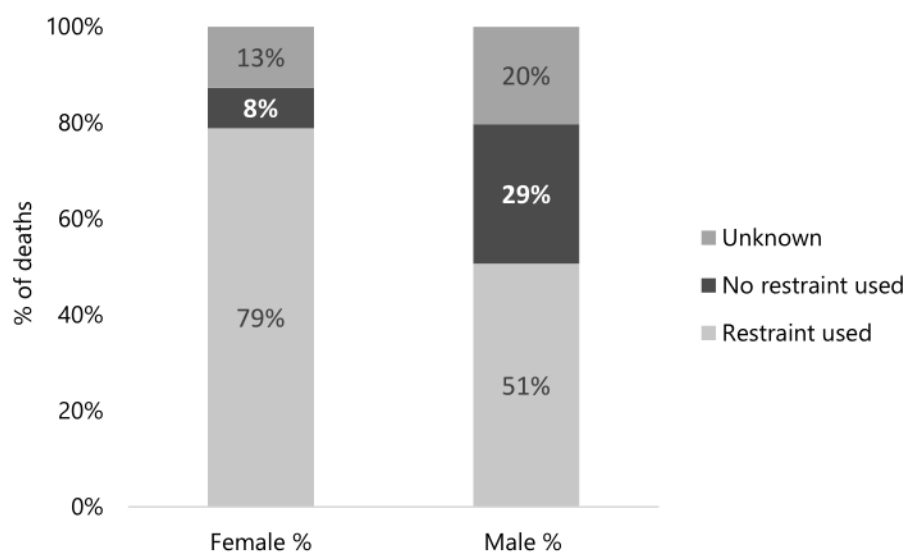


Fig. 8. Driver and Passenger Restraint Use by Sex, 2011-2016⁴

Notes

1. See **Appendix B**, below, for a map of health authorities.
2. Health authority is derived from injury township. Death township is used in cases of unknown or out-of-province injury township. Administrative region is used in rare cases where both injury and death township are out of province.
3. 'Unknown' includes cases still under investigation and cases where restraint use could not be determined.

Appendix A

Decedent Role Definitions

Driver: An operator of a non-commercial motor vehicle (excluding a motorcycle or moped). Motorcycle and moped drivers are coded under *Motorcycle, Moped*.

Passenger: An occupant of a non-commercial motor vehicle other than the driver. Motorcycle and moped passengers are coded under *Motorcycle, Moped*.

Pedestrian: A person involved in a motor vehicle incident who, at the time of the incident, was on foot, sitting down, or lying down on a public highway or a parking lot used by the public. Includes skateboarders, longboarders, and rollerbladers.

Motorcycle, Moped: A driver or passenger of a motorcycle or moped.

Pedal Cyclist: A user of a road transport vehicle operated by pedals.

Comm. Driver: An operator of a commercial motor vehicle. Bus drivers are coded under *Bus*.

Motorized Wheelchair: A user of a motorized wheelchair.

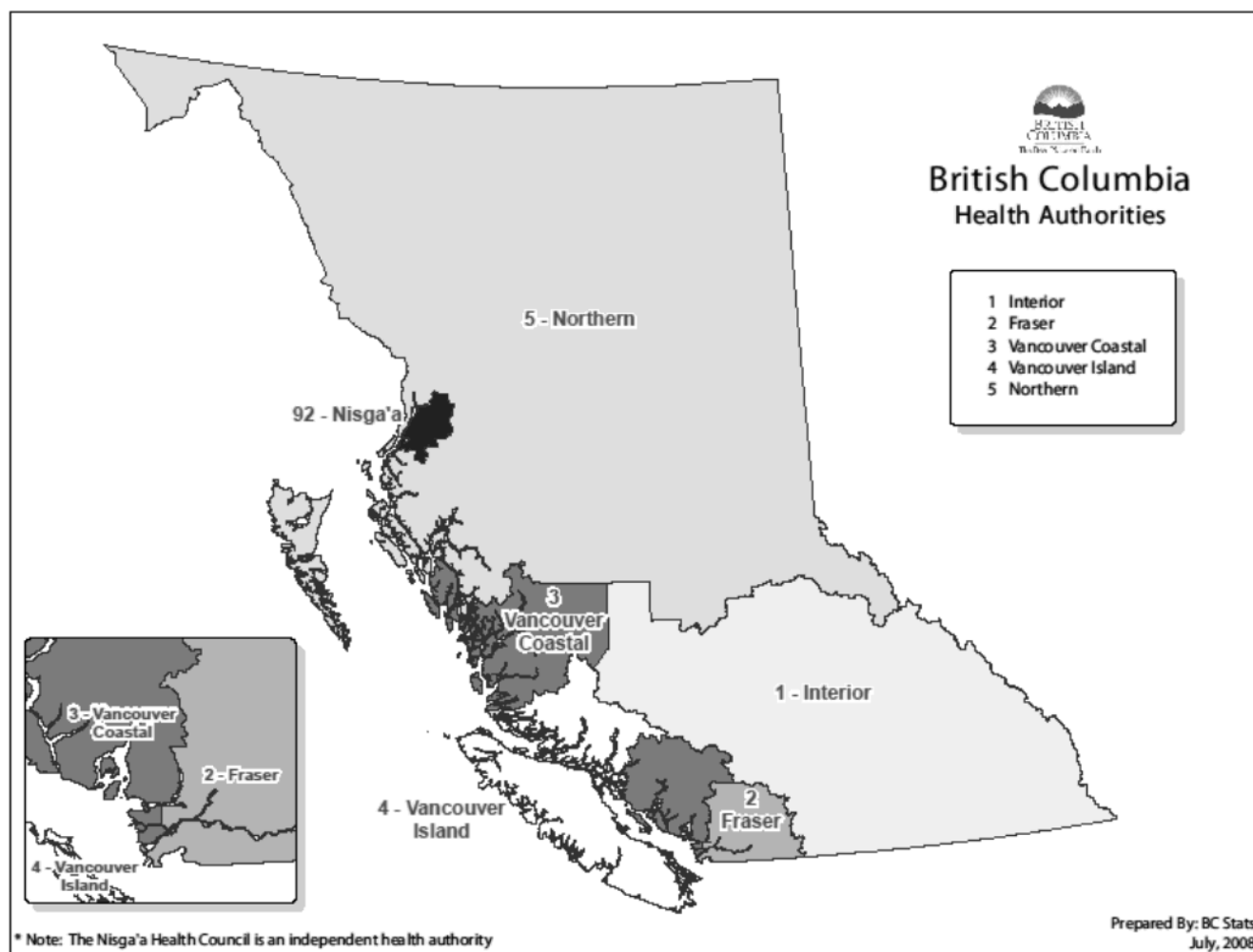
Comm. Passenger: An occupant of a commercial motor vehicle, other than the driver. Bus passengers are coded under *Bus*.

Bus: A driver or passenger of a bus.

Other: 'Other' includes:

- Road users whose role in the motor vehicle incident (e.g. driver vs. passenger) could not be determined. In these cases, injury generally occurred months or years prior to death.
- Drivers and passengers of off-road vehicles (e.g. ATVs, tractors) involved in motor vehicle incidents on public highways
- Car surfers

Appendix B



More information about the health regions can be found at
<http://www.bcstats.gov.ca/statisticsbysubject/geography/referencemaps/health.aspx>