

This report summarizes all accidental, traffic-related motor vehicle incident (MVI) deaths that occurred between January 1, 2008 and December 31, 2018.

**Inclusion Criteria:** For BC Coroners 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 of 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.

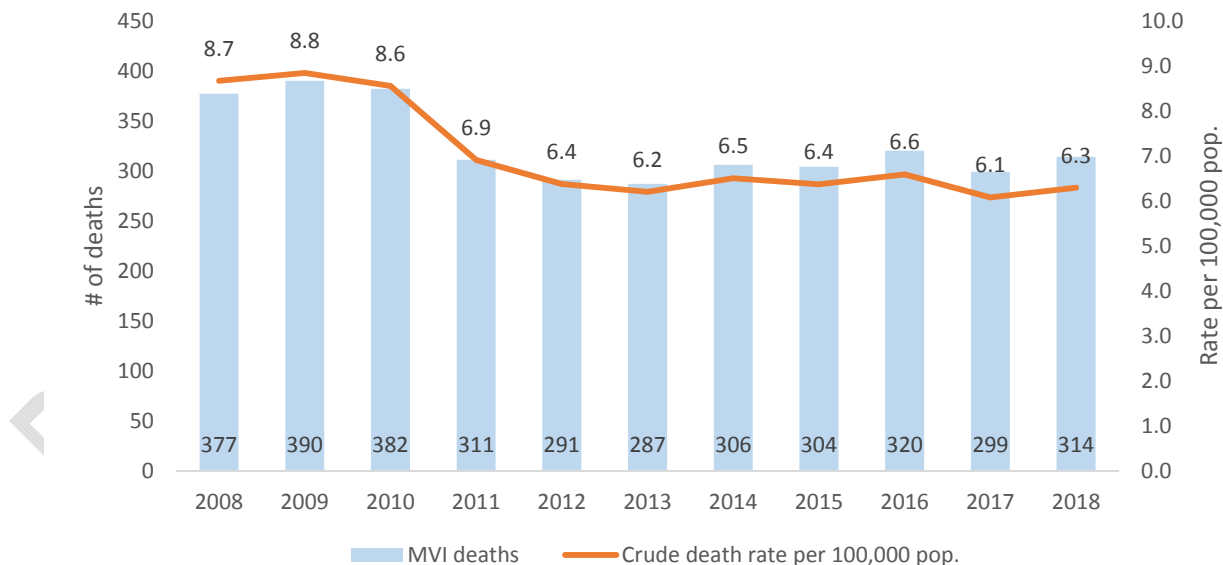


Fig. 1. MVI Deaths and Crude Death Rate per 100,000 Population, 2008-2018<sup>1</sup>

## **I. Overview**

- In 2018, 314 British Columbians died in motor vehicle incidents. The average annual number of MVI deaths in B.C. between 2008-2018 was 326.
- In 2018, the crude MVI death rate was 6.3 per 100,000 population. The average annual rate was higher from 2008-2010 (8.7) than from 2011-2018 (6.5).
- Sixty-one percent (61%) of decedents were drivers or passengers in personal vehicles. Eighteen percent (18%) were pedestrians and 11% were motorcyclists. (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 (7.6) and December (7.1). For other road users, the average annual number of deaths per month was highest for August (31.1) and July (29.5). (Fig. 4).
- Approximately one-third of all MVI deaths (34%) between 2008-2018 occurred in the Interior Health Authority region (Fig. 5).

## **II. Drug and Alcohol Involvement**

- Based on data available from 2008 to 2016, one-third of deaths (34%) resulted from MVIs involving drugs and/or alcohol and
- Alcohol and/or drug involvement was identified as a contributing factor in 52% of deaths of 19-29 year olds and 51% of deaths of 30-39 year olds (Fig. 6).

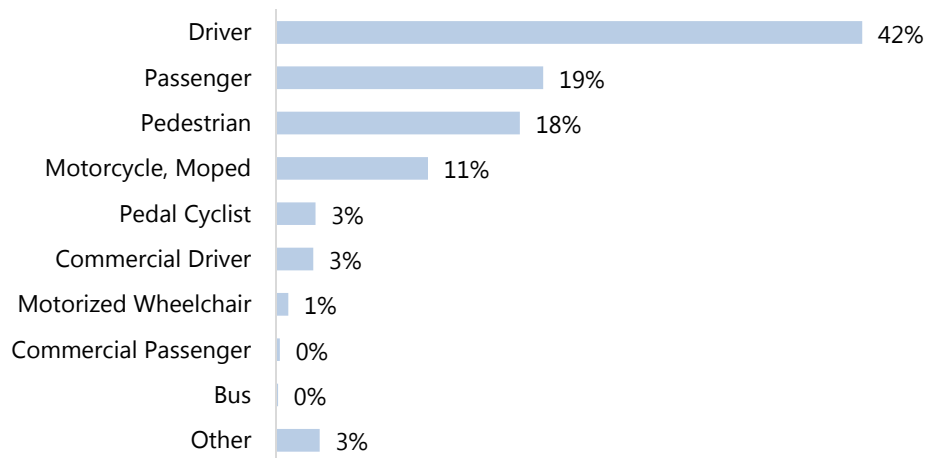
## **III. Restraint Use**

- Based on data available from 2011 to 2016, 29% of decedent drivers and passengers were not wearing a seat belt (Fig. 7) and
- Seventy-one percent (71%) of females were using a restraint, vs. 49% of males (Fig. 8).

**Table 1. MVI Deaths by Decedent Role\***

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Driver	178	175	166	122	109	108	121	124	140	138	119
Passenger	75	72	91	64	59	54	68	50	41	54	56
Pedestrian	56	60	60	57	62	52	54	65	66	43	58
Motorcycle, Moped	39	48	38	35	26	32	37	36	34	34	51
Pedal Cyclist	9	10	7	9	12	11	7	10	11	7	8
Comm. Driver	5	8	11	9	6	12	5	10	8	13	8
Motorized Wheelchair	1	6	1	0	6	2	3	3	4	1	3
Comm. Passenger	2	0	1	1	1	0	3	0	0	1	1
Bus	1	1	1	0	0	1	0	0	1	0	0
Other	11	10	6	14	10	15	8	6	15	8	10
<b>Total</b>	<b>377</b>	<b>390</b>	<b>382</b>	<b>311</b>	<b>291</b>	<b>287</b>	<b>306</b>	<b>304</b>	<b>320</b>	<b>299</b>	<b>314</b>

\*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	123	112	131	95	93	96	89	93	105	90	82
Male	254	278	251	216	198	191	217	211	215	209	232
Total	377	390	382	311	291	287	306	304	320	299	314

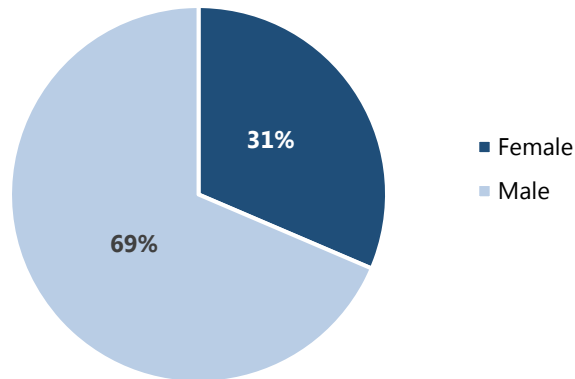


Fig. 3. MVI Deaths by Sex as % of Total, 2008-2018

**Table 3. MVI Deaths by Age Group**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<19	43	30	35	22	29	17	23	15	22	18	18
19-29	85	78	72	65	52	66	52	57	63	49	68
30-39	51	43	47	38	37	40	34	38	37	56	54
40-49	59	81	65	37	38	30	37	48	40	40	30
50-59	49	60	65	53	41	48	49	50	44	49	53
60-69	43	33	30	37	29	28	41	36	50	32	41
70-79	22	32	40	26	38	26	40	27	32	31	22
80+	25	33	28	33	27	32	30	33	32	24	28
Total	377	390	382	311	291	287	306	304	320	299	314

**Table 4. MVI Deaths by Month**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	28	20	36	28	17	21	29	28	30	19	22
February	32	33	31	17	30	17	18	18	15	16	15
March	32	23	23	22	30	24	11	17	34	28	25
April	17	23	29	16	24	17	12	19	25	21	19
May	28	29	23	14	22	24	20	22	15	18	25
June	30	38	37	28	12	21	33	27	19	24	39
July	50	39	35	32	22	26	32	29	28	33	37
August	36	40	44	32	27	31	29	36	36	34	36
September	31	31	37	32	28	38	35	30	34	19	31
October	28	33	32	36	26	21	28	23	26	31	19
November	27	40	25	27	30	24	25	29	35	23	22
December	38	41	30	27	23	23	34	26	23	33	24
<b>Total</b>	<b>377</b>	<b>390</b>	<b>382</b>	<b>311</b>	<b>291</b>	<b>287</b>	<b>306</b>	<b>304</b>	<b>320</b>	<b>299</b>	<b>314</b>

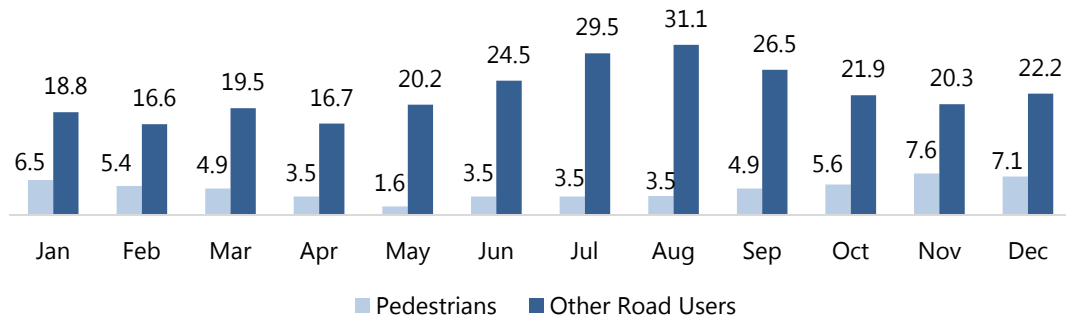
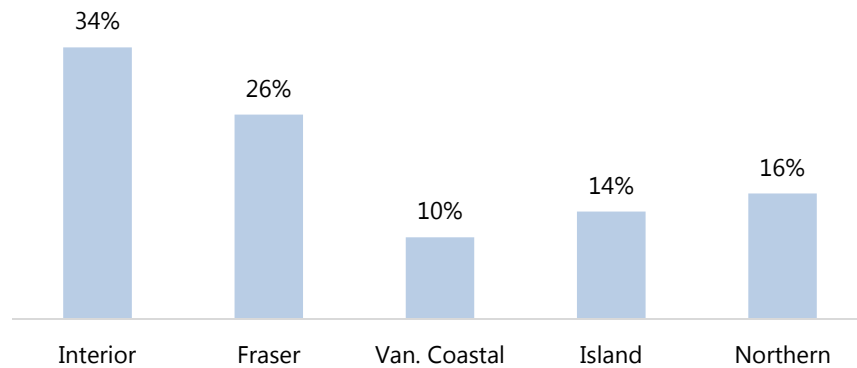


Fig. 4. Average Annual MVI Deaths by Month, Pedestrians vs. Other Road Users, 2008-2018

**Table 5. MVI Deaths by Health Authority of Injury<sup>2,3</sup>**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Interior	122	153	118	114	103	79	113	105	105	106	111
Fraser	110	93	111	73	65	74	79	75	91	77	77
Van. Coastal	35	37	29	28	41	38	29	36	35	30	33
Island	59	60	58	38	42	43	26	38	40	34	49
Northern	51	47	66	58	40	53	59	50	49	52	44
<b>Grand Total</b>	<b>377</b>	<b>390</b>	<b>382</b>	<b>311</b>	<b>291</b>	<b>287</b>	<b>306</b>	<b>304</b>	<b>320</b>	<b>299</b>	<b>314</b>



**Fig. 5. MVI Deaths by Health Authority of Injury, 2008-2018<sup>2,3</sup>**

Table 6. MVI Deaths Involving Alcohol and/or Drugs									
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alcohol	84	90	77	47	45	42	46	54	34
Alcohol & Drugs	44	29	34	21	18	25	24	32	26
Drugs	23	25	28	15	18	27	17	26	20
Total Alcohol and/or Drugs	151	144	139	83	81	94	87	112	80
% of MVI Deaths	40.1%	36.9%	36.5%	27.1%	28.2%	32.9%	29.1%	39.4%	30.9%

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

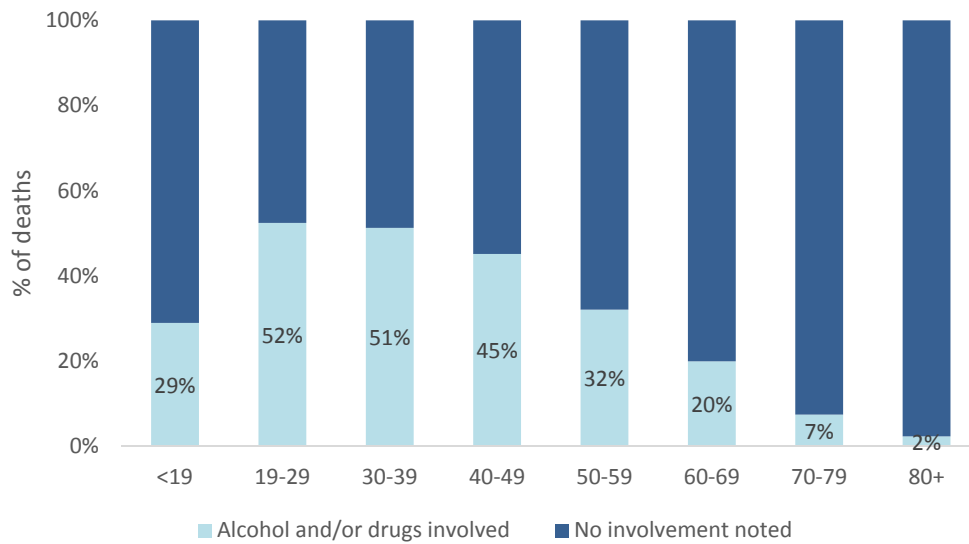


Fig. 6. MVI Deaths With Drugs and/or Alcohol Involvement by Age Group, 2008-2016

Table 7. Driver & Passenger Restraint Use						
Restraint	2011	2012	2013	2014	2015	2016
Yes	117	101	95	115	91	89
No	59	56	63	47	51	40
Unknown <sup>4</sup>	19	18	15	24	29	45
<b>Total</b>	<b>195</b>	<b>175</b>	<b>173</b>	<b>186</b>	<b>171</b>	<b>174</b>

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

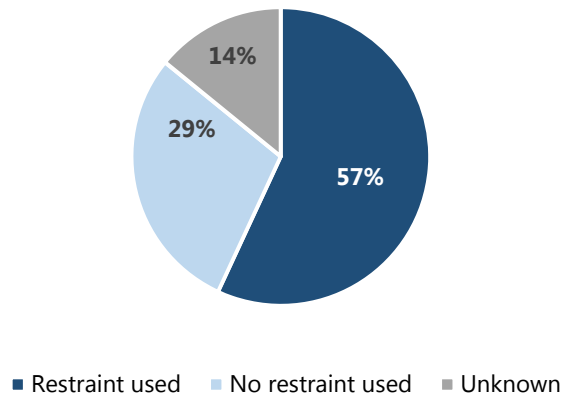


Fig. 7. Driver and Passenger Restraint Use, 2011-2016<sup>4</sup>

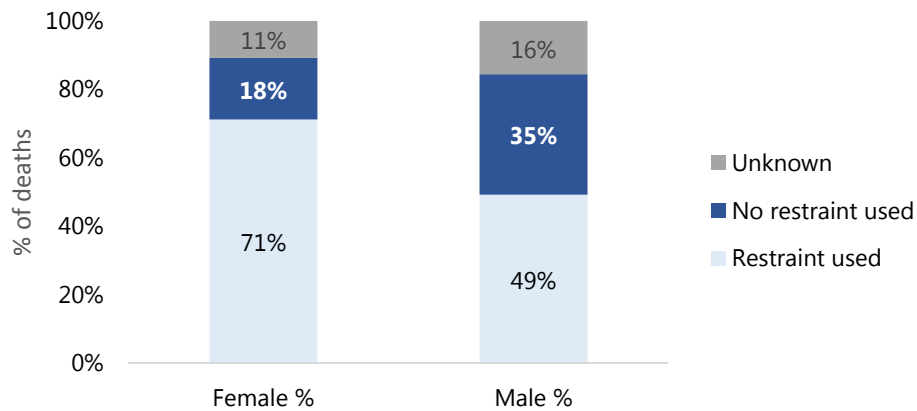


Fig. 8. Driver and Passenger Restraint Use by Sex, 2011-2016<sup>4</sup>



## Notes

1. Population estimates were taken from <https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates> ('B.C. and Other Provincial and Territorial Populations: 1971-2017 (July 1)'); 'Highlights and summary table for 2018').
2. See **Appendix B**, below, for a map of health authorities.
3. 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.
4. '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.

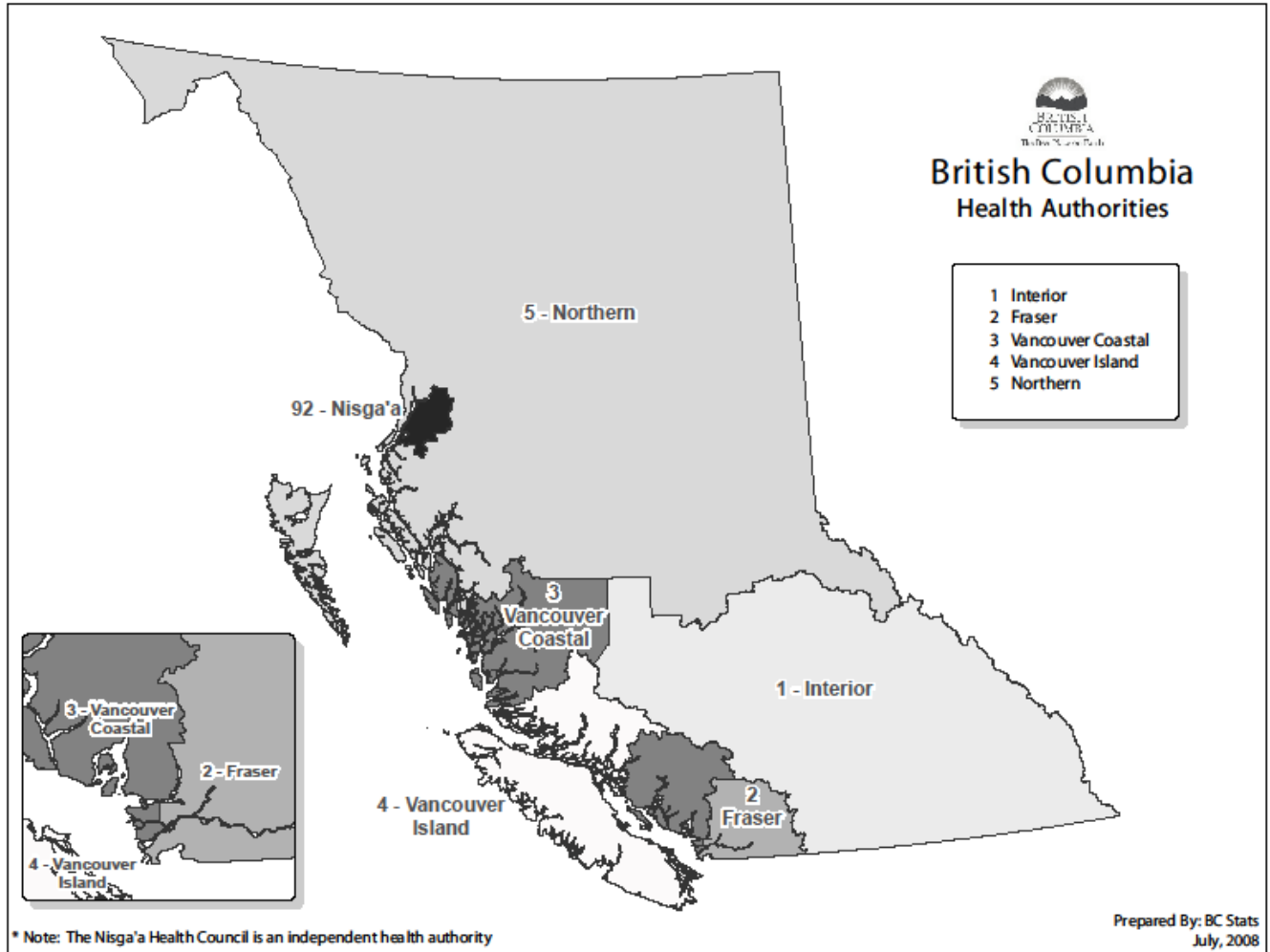
Comm. Passenger: An occupant of a commercial motor vehicle, other than the driver. Bus passengers are coded under *Bus*.

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>