

# Motor Vehicle Incident Deaths 2012-2021

This report summarizes all accidental, traffic-related motor vehicle incident (MVI) deaths that occurred between January 1, 2012 and December 31, 2021.

**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 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 after injury. These statistics may vary from those reported by other agencies because of differences in data definitions or reporting standards.

## **Summary:**

- In 2021, 295 British Columbians died in motor vehicle incidents equating to 5.7 deaths per 100,000 population (Fig. 1).
- Between 2012-2021, the average annual number of MVI deaths was 296. The average annual rate was 6.1 deaths per 100,000 population (Fig. 1).
- 58% of decedents were drivers or passengers in personal vehicles, 19% were pedestrians, and 12% were motorcyclists (Fig. 2).
- Males accounted for 70% of MVI deaths (*Fig. 3*). One-third (33%) were aged 19-39, followed by individuals aged 40-59 (28%) (*Fig. 4*).
- The months with the highest average annual number of pedestrian deaths were November (7.7) and December (6.7). For other road users, the average annual number of deaths per month was highest in August (29.4), September (25.2), and July (25.1) (Fig. 5).
- 35% of all MVI deaths occurred in the Interior Health Authority region, followed by the Fraser Health Authority region (25%) (Fig. 6)

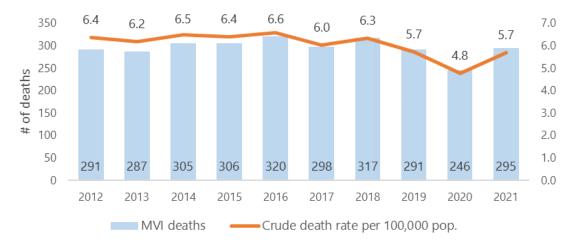
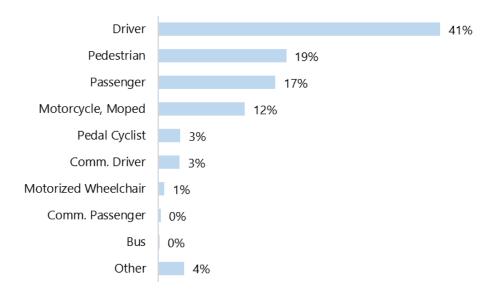


Fig. 1. MVI Deaths and Crude Death Rate per 100,000 Population, 2012-2021[1]

| Table 1. MVI Deaths by Decedent Role*, 2012-2021 |      |      |      |      |      |      |      |      |      |      |  |  |
|--|------|------|------|------|------|------|------|------|------|------|--|--|
| Role   | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |  |  |
| Driver   | 109  | 108  | 121  | 124  | 140  | 137  | 124  | 116  | 102  | 129  |  |  |
| Pedestrian                                       | 62   | 53   | 53   | 64   | 65   | 45   | 56   | 59   | 35   | 56   |  |  |
| Passenger  | 59   | 54   | 68   | 51   | 43   | 52   | 56   | 44   | 38   | 34   |  |  |
| Motorcycle, Moped                                | 26   | 33   | 37   | 36   | 34   | 34   | 53   | 42   | 37   | 37   |  |  |
| Pedal Cyclist                                    | 12   | 11   | 7    | 12   | 11   | 7    | 8    | 8    | 8    | 9    |  |  |
| Comm. Driver                                     | 6    | 12   | 5    | 10   | 8    | 14   | 9    | 10   | 8    | 9    |  |  |
| Motorized Wheelchair                             | 6    | 2    | 3    | 3    | 4    | 1    | 2    | 1    | 2    | 2    |  |  |
| Comm. Passenger                                  | 1    | 0    | 3    | 0    | 0    | 1    | 1    | 0    | 2    | 3    |  |  |
| Bus  | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 2    | 0    | 1    |  |  |
| Other  | 10   | 13   | 8    | 6    | 14   | 7    | 8    | 9    | 14   | 15   |  |  |
| Total  | 109  | 108  | 121  | 124  | 140  | 137  | 124  | 116  | 102  | 129  |  |  |

<sup>\*</sup>See Appendix A for 'Decedent Role' definitions.



**Fig. 2.** MVI Deaths by Decedent Role\* as % of Total, 2012-2021 \*See Appendix A for 'Decedent Role' definitions.

| Table 2. MVI Deaths by Sex, 2012-2021 |      |      |      |      |      |      |      |      |      |      |  |  |  |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|--|--|--|
|                                       | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |  |  |  |
| Female                                | 93   | 96   | 89   | 92   | 105  | 90   | 84   | 92   | 72   | 79   |  |  |  |
| Male                                  | 198  | 191  | 216  | 214  | 215  | 208  | 233  | 199  | 174  | 216  |  |  |  |
| Total                                 | 291  | 287  | 305  | 306  | 320  | 298  | 317  | 291  | 246  | 295  |  |  |  |

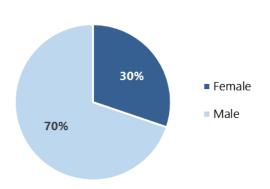


Fig. 3. MVI Deaths by Sex as % of Total, 2012-2021

| Table 3. MVI Deaths by Age Group, 2012-2021 |      |      |      |      |      |      |      |      |      |      |  |
|---|------|------|------|------|------|------|------|------|------|------|--|
|   | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |  |
| <19   | 29   | 17   | 23   | 14   | 22   | 18   | 18   | 19   | 13   | 21   |  |
| 19-29                                       | 52   | 66   | 52   | 57   | 63   | 50   | 67   | 57   | 54   | 46   |  |
| 30-39                                       | 37   | 40   | 34   | 38   | 36   | 56   | 55   | 42   | 48   | 38   |  |
| 40-49                                       | 38   | 30   | 37   | 48   | 40   | 39   | 31   | 28   | 28   | 36   |  |
| 50-59                                       | 41   | 48   | 48   | 53   | 45   | 47   | 55   | 51   | 33   | 64   |  |
| 60-69                                       | 29   | 28   | 41   | 36   | 50   | 32   | 39   | 46   | 28   | 46   |  |
| 70-79                                       | 38   | 26   | 40   | 27   | 33   | 32   | 23   | 31   | 27   | 26   |  |
| +08   | 27   | 32   | 30   | 33   | 31   | 24   | 29   | 17   | 14   | 18   |  |
| Unknown                                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |  |
| Total                                       | 291  | 287  | 305  | 306  | 320  | 298  | 317  | 291  | 246  | 295  |  |

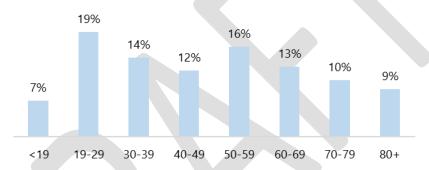


Fig. 4. MVI Deaths by Age Group as % of Total, 2012-2021

| Table 4. MVI Deaths by Month, 2012-2021 |      |      |      |      |      |      |      |      |      |      |  |
|---|------|------|------|------|------|------|------|------|------|------|--|
|   | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |  |
| January                                 | 17   | 21   | 29   | 28   | 30   | 19   | 23   | 25   | 16   | 25   |  |
| February                                | 30   | 17   | 18   | 18   | 15   | 15   | 14   | 13   | 25   | 19   |  |
| March                                   | 30   | 24   | 11   | 17   | 33   | 28   | 27   | 19   | 11   | 11   |  |
| April                                   | 24   | 17   | 12   | 19   | 25   | 21   | 20   | 15   | 9    | 18   |  |
| May                                     | 22   | 24   | 20   | 25   | 15   | 17   | 25   | 26   | 20   | 19   |  |
| June                                    | 12   | 21   | 33   | 27   | 19   | 24   | 38   | 29   | 13   | 32   |  |
| July                                    | 22   | 26   | 32   | 29   | 30   | 32   | 39   | 24   | 21   | 27   |  |
| August                                  | 27   | 31   | 29   | 35   | 36   | 34   | 36   | 37   | 32   | 30   |  |
| September                               | 28   | 38   | 34   | 30   | 34   | 19   | 29   | 29   | 26   | 35   |  |
| October                                 | 26   | 21   | 28   | 23   | 26   | 30   | 19   | 23   | 30   | 33   |  |
| November                                | 30   | 24   | 25   | 29   | 35   | 24   | 22   | 29   | 21   | 32   |  |
| December                                | 23   | 23   | 34   | 26   | 22   | 35   | 25   | 22   | 22   | 14   |  |
| Total                                   | 291  | 287  | 305  | 306  | 320  | 298  | 317  | 291  | 246  | 295  |  |



Fig. 5. Average Annual MVI Deaths by Month, Pedestrians vs. Other Road Users, 2012-2021

| Table 5. MVI Deaths by Health Authority of Injury, 2012-2021 <sup>[2,3]</sup> |      |      |      |      |      |      |      |      |      |      |  |
|---|------|------|------|------|------|------|------|------|------|------|--|
| НА  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |  |
| Interior  | 103  | 79   | 113  | 105  | 105  | 106  | 108  | 105  | 106  | 108  |  |
| Fraser  | 65   | 74   | 78   | 75   | 91   | 76   | 85   | 71   | 56   | 67   |  |
| Van. Coastal  | 41   | 38   | 29   | 39   | 34   | 30   | 30   | 27   | 27   | 39   |  |
| Island  | 42   | 43   | 26   | 38   | 40   | 34   | 50   | 54   | 29   | 44   |  |
| Northern  | 40   | 53   | 59   | 49   | 50   | 52   | 44   | 35   | 29   | 40   |  |
| Total   | 291  | 287  | 305  | 306  | 320  | 298  | 317  | 292  | 247  | 298  |  |

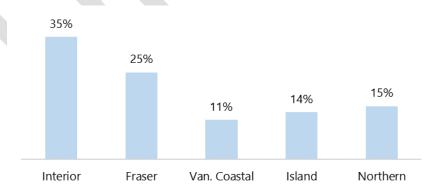


Fig. 6. MVI Deaths by Health Authority of Injury, 2012-2021<sup>[2,3]</sup>

#### **Notes**

- 1. Population estimates were taken from <a href="https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates">https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates</a>
- 2. Health Region breakdowns can be found at: <a href="https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/health-boundaries">https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/health-boundaries</a>
- 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.



# **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