MONASH University

INJURY DEATHS VICTORIA 2018–2020

E-Bulletin Edition 26
February 2023

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VICTORIA State Government | Department of Health

CONTENTS

SUGGESTED CITATION

VISU: Pham, TTL, & Hayman, J. Injury deaths Victoria, 2018–2020. E-Bulletin Edition 26. Victorian Injury Surveillance Unit, Monash University Accident Research Centre, Clayton, Victoria.

Cover image: Adobe Stock / elenabdesign

SUMMARY OF INJURY DEATHS, VICTORIA 2018–2020

ALL AGES

- In the three-year period 2018–2020, 9131 Victorians died as a result of injury. Seventy-two percent of these deaths were unintentional (n=6597, 72.2%), 26.2% were intentional (n=2389: suicide=2195 & homicide=194) and the remaining 1.6% were classified as undetermined intent (n=145).
- The overall average annual injury death rate was 46.7 per 100,000 population.
- Males were overrepresented accounting for 58.1% (n=3830) of unintentional injury deaths, 74.3% (n=1776) of intentional injury deaths and 56.6% (n=82) of undetermined intent injury deaths.
- Three causes: falls (n=3740, 41.0%), suicide (n=2195, 24.0%) and unintentional poisoning (n=1283, 14.1%) combined accounted for 79.1% of injury deaths.

CHILDREN (0–14 YEARS)

- In the period 2018–2020, 79 Victorian children died as a result of injury. More than three-quarters of these deaths were unintentional (n=61, 77.2%) and 22.8% were intentional (n=18).
- The overall average annual injury death rate was 2.2 per 100,000 children.
- Males were overrepresented among all injury (69.6%) and unintentional injury (67.2%) deaths.
- The annual all injury and unintentional injury death rates were highest among children aged 0–4 years (3.3 and 2.8/100,000 respectively) and lowest among those aged 5–9 years (1.0 & 0.9/100,000 respectively).
- The leading causes of child injury death were transport (32.9%, mainly as car occupants and pedestrians), and suicide (13.9%).

ADOLESCENTS AND YOUNG ADULTS (15–24 YEARS)

- In the period 2018–2020, 563 Victorian adolescents and young adults died as a result of injury. More than half of these deaths were intentional (n=310, 55.1%) and 43.2% were unintentional (n=243). The remaining 1.8% of deaths were of undetermined intent (n=10).
- The overall average annual injury death rate was 22.3 per 100,000 adolescents and young adults.
- Males were overrepresented, accounting for 75.7% of unintentional and 77.4% of intentional injury deaths.
- Suicide (51.9%) and transport incidents (24.8%) were the leading causes of injury deaths among adolescents and young adults (n=287 and n=137, respectively).

ADULTS (25–64 YEARS)

- In the period 2018–2020, 3817 Victorian adults died as a result of injury. More than half of these deaths were unintentional (n=2006, 52.6%), 44.4% were intentional (n=1694) and the remaining 3.1% were classified as undetermined intent (n=117).
- The overall average annual injury death rate was 36.7 per 100,000 adults.
- Males were overrepresented accounting for approximately three-quarters of unintentional (74.3%) and intentional (74.8%) injury deaths.
- Suicide accounted for 40.9% of injury deaths (most commonly by hanging). Other common causes of injury death were unintentional poisoning (29.1%) and transport incidents (13.1%, most commonly car occupants).

OLDER ADULTS (65+ YEARS)

- In the period 2018–2020, 4672 Victorian older adults died as a result of injury. Ninety-two percent of these deaths were unintentional (n=4287), and 7.9% were intentional (n=367). Less than one percent of older adult deaths were of undetermined intent (n=18).
- The overall average annual injury death rate was 153.6 per 100,000 older adults.
- Females were slightly overrepresented in unintentional injury deaths (n=2173, 50.7%), while males accounted for 70% of intentional injury deaths (n=255).
- Falls accounted for three-quarters of injury deaths among older persons (n=3551, 76.3%), followed by suicide (n=334, 7.2%) and transport incidents (n=250, 5.4%). A high proportion of the fall deaths were coded to ‘unspecified fall’ (n=2849, 80.2%) but of those with a specified fall mechanism (n=702), more than half were falls on the same level from slipping, tripping or stumbling (n=351, 50.0%).

INTRODUCTION

This E-Bulletin provides a detailed overview of Victorian injury deaths in the three-year period 2018–2020: the latest available cause of death data held by the Victorian Injury Surveillance Unit (VISU). The E-Bulletin shows trends in injury deaths for the period 2007–2020, although the focus is the latest three-year period.

METHODS

DATA SOURCE

Data have been extracted from the VISU-held Cause of Death (COD) dataset supplied by the Australian Coordinating Registry (ACR) and based on the Australian Bureau of Statistics (ABS) cause of death data.

DATA SELECTION

Inclusions:

- Main section: deaths recorded for Victorian residents with a reference year of 2018–2020 (i.e., a three-year period), coded according to the WHO International Classification of Diseases 10th revision (ICD-10).
- Trends section: deaths recorded for Victorian residents with a reference year of 2007–2020 (i.e., a 14-year period).
- Deaths must have an ICD-10 underlying cause of death code in the range V00–Y36 (unintentional, intentional and undetermined intent injury deaths).

Exclusions:

- Deaths resulting from medical causes (adverse events and medical misadventure) have been excluded (ICD-10 codes in the range Y40–Y84).
- Deaths coded as 'undetermined intent' were removed from various analyses for reasons of confidentiality. Deaths of undetermined intent among children (0–14) (<6 deaths over the 3-year period) were excluded from *the entire analysis*.
- Deaths coded as 'undetermined intent' were removed from the analyses *in the adolescents and young adult section* (15–24 years) (n=10 deaths over the 3-year period) for reasons of confidentiality. Similarly, undetermined intent deaths were removed from the *section describing deaths among older adults* (65+ years) (n=18 deaths over the 3-year period).
- When examining overall trends from 2007 to 2020, only child 'undetermined intent' deaths were excluded.
- For reasons of confidentiality, deaths coded to 'intentional self-harm' were not broken down by age and sex in the section describing child deaths (0–14 years).
- State of residence at the time of death rather than place of death registration was used for data selection, considering that population rates were calculated (see Appendix 2 Table 24 for the influence of this on the data selected). Reference year rather than year of death was used, to be consistent with ABS publications of COD data (see Appendix 2 Table 25 for the influence of this on the data selected).
- For the reference year 2019, deaths among Victorian residents were included that had been registered in 2017 and 2018 *but had not previously been provided to the ABS*. See Appendix 3 for more details.

DATA ISSUES

To improve the quality of ICD coding, the ABS introduced a revisions process for all coroner certified deaths registered after 1 January 2006. The process means data are *preliminary* when published for the first time, *revised* when published the following year and *final* when published two years after initial publication. For more detailed information regarding the ABS causes of death coding and revisions processes, readers are directed to the ABS website and in particular:

http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Technical+Note12012

As a result of the revisions process, the current release of data from the ACR contains final data for the period 2006 to 2018, revised data for 2019 and preliminary data for 2020. Data for the 2006 reference year has not been included in this E-Bulletin because the revisions process was different to that of the 2007–2020 reference years.

Data for the main analysis covers the three-year period 2018–2020 and as a result of the revisions process, the numbers for two of these three years are subject to revision and will likely change in future E-Bulletin editions. Consequently, only twelve of the fourteen years presented in trend figures are final and statistical analysis of trends has not been conducted. However, trend figures have been provided to give an indication of current trends in Victorian injury deaths. The following symbols have been used throughout this report to distinguish between the data at different stages of the revisions process:

- Frequency (final) (◆)
- Frequency (revised) (◈)
- Frequency (preliminary) (◇)
- Rate (final) (●)
- Rate (revised) (⊕)
- Rate (preliminary) (○)

The age groups used in this E-Bulletin (0–14, 15–24, 25–64, 65+ years) have been selected to match those in the *National Injury Prevention and Safety Promotion Plan: 2004–2014* (NIPSPP Plan) and will be maintained for consistency.

STATISTICAL ANALYSIS

Age specific rates per 100,000 population have been calculated for all years. The denominators used for calculating rates were June population estimates from the Australian Bureau of Statistics (Source: 3101.0 Australian Demographic Statistics. TABLE 52. Estimated Resident Population by Single Year Of Age, Victoria). Age standardisation of the rates was considered unnecessary for the purpose of this report, as the shifts in the Victorian age distribution over the period 2007–2020 were minor (Appendix 2, Figure 26). Age-group specific rates are presented throughout this report. Where direct comparisons between groups are made, differences in rate have been tested using chi-square tests (results not shown); *p*-values of <0.05 were considered statistically significant.

ALL AGES

An overview of injury deaths in Victoria over the three-year period 2018–2020 is provided in Appendix 1 (Table 22). Any differences between these three years should be interpreted with caution: these can be indicative of an underlying trend in injury deaths, an artefact of the step-wise data revisions process, or both. However, overall injury intent proportions did not differ significantly between the year that is final (2018), that which is revised (2019) and the year that is preliminary (2020), with more than 70% of deaths being unintentional in three years (73.0% in 2018, 70.9% in 2019 and 73.2% in 2020); more than a quarter being intentional (25.6% in 2018, 27.5% in 2019 and 25.1% in 2020); and less than 2% coded as undetermined (1.4% in 2018, 1.6% in 2019 and 1.7% in 2020); (chi-square test p=0.18). Overall, males accounted for sixty-two percent of injury deaths (n=5688). Almost one quarter of injury deaths were due to suicide (24.1%): 2195 Victorians died by suicide in the period 2018–2020.

Overall, there were 9131 injury deaths recorded for Victoria over the period 2018–2020: an average annual rate of 46.7 deaths per 100,000 Victorians (Table 1).

- All intents annual injury death rates were highest in older adults (153.6 per 100,000 older adults) and lowest in children (2.2 per 100,000 children).
- The all ages unintentional annual injury death rate was 33.7 per 100,000 Victorians; rates were highest in older adults (140.9 per 100,000 older adults) and lowest in children (1.7 per 100,000 children).
- The all ages intentional annual injury death rate was 12.2 per 100,000 Victorians (comprising a 11.2/100,000 suicide rate and a 1.0/100,000 homicide rate). Intentional death rates were highest in adults (16.3 per 100,000 adults) and lowest in children (0.5 per 100,000 children). Suicide and homicide rates both followed this age pattern.
- The all ages undetermined intent annual injury death rate was 0.7 per 100,000 Victorians.

Over the period 2018–2020, the male average annual age-specific *unintentional injury death rate* was higher than the female rate in all 5-year age groups. Overall, rates rose after childhood, were fairly stable to age 65 years before increasing dramatically and peaking in the oldest adults (Figure 1).

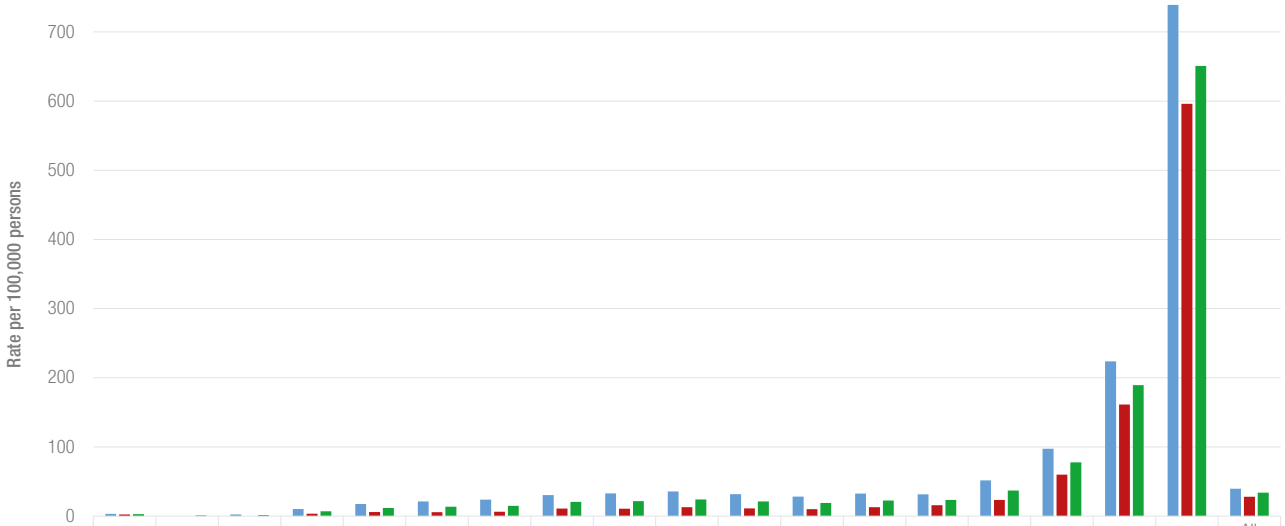
Over the period 2018–2020, the male average annual age-specific *intentional injury death rate* was higher than the female rate in all 5-year age bands **(where rates could be calculated based on n=10 or more)**. Age-specific intentional injury death rates were lowest in children aged 10–14 years (0–4 years and 5–9 years are suppressed in the figure) and were highest in adults aged 40–44 years and 55–59 years (Figure 2).

TABLE 1: FREQUENCY AND AVERAGE ANNUAL RATES OF INJURY DEATHS BY INTENT AND BROAD AGE GROUPS, VICTORIA 2018–2020

	CHILDREN (0–14 YEARS)		ADOLESCENTS AND YOUNG ADULTS (15–24 YEARS)		ADULTS (25–64 YEARS)		OLDER ADULTS (65+ YEARS)		ALL AGES	
	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000
Unintentional	61	1.7	243	9.6	2006	19.3	4287	140.9	6597	33.7
Intentional	18	0.5	310	12.3	1694	16.3	367	12.1	2389	12.2
Suicide	11	0.3	287	11.4	1563	15.0	334	11.0	2195	11.2
Homicide	7	**	23	0.9	131	1.3	33	1.1	194	1.0
Undetermined intent	NA	NA	10	0.4	117	1.1	18	0.6	145	0.7
Total	79	2.2	563	22.3	3817	36.7	4672	153.6	9131	46.7

*Note: Rates based on frequency less than 10 have been suppressed with "**".*
NA=Deaths among children coded to 'undetermined intent' were excluded from the entire analysis (see methods section).

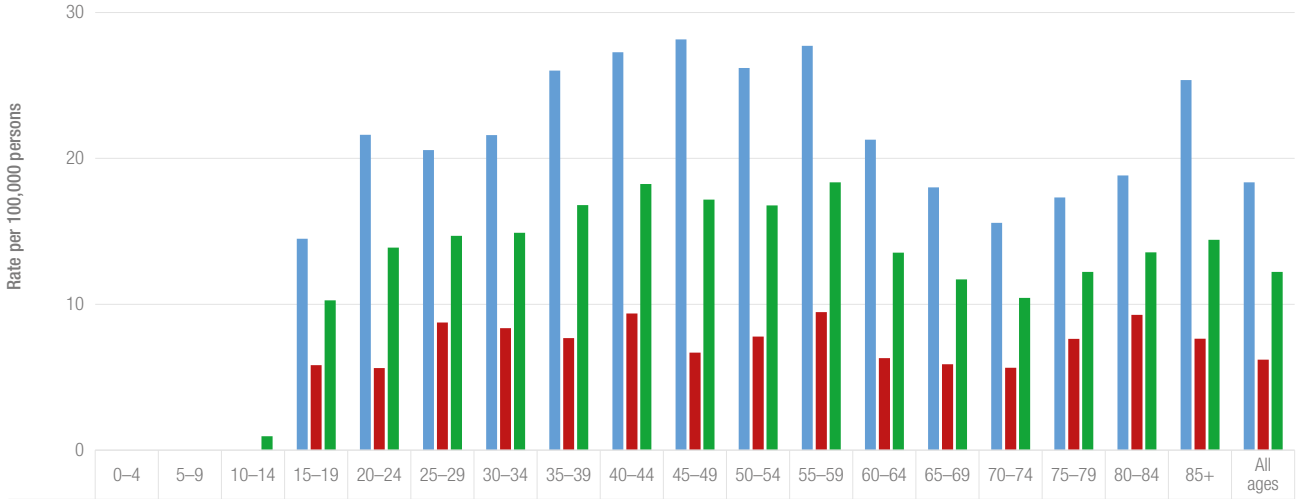
FIGURE 1: AVERAGE ANNUAL UNINTENTIONAL INJURY DEATH RATES BY AGE GROUP AND SEX, VICTORIA 2018–2020



	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+	All ages
Male	3.2		2.4	10.2	17.3	21.2	23.8	30.3	32.8	35.6	31.6	28.2	32.6	31.5	51.5	97.4	223.6	739.0	39.6
Female	2.4			3.5	5.9	5.6	6.2	10.8	10.6	12.9	11.1	10.0	12.8	15.8	23.3	59.9	161.4	596.1	28.0
Persons	2.8	0.9	1.4	6.9	11.8	13.5	14.9	20.5	21.6	24.0	21.1	18.9	22.4	23.3	36.9	77.7	189.3	650.7	33.7

Note: Rates based on frequency less than 10 have been suppressed (these appear as blank cells)

FIGURE 2: AVERAGE ANNUAL INTENTIONAL INJURY DEATH RATES BY AGE GROUP AND SEX, VICTORIA 2018–2020



	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+	All ages
Male				14.5	21.6	20.6	21.6	26.0	27.3	28.2	26.2	27.7	21.3	18.0	15.6	17.3	18.8	25.4	18.4
Female				5.8	5.6	8.8	8.4	7.7	9.4	6.7	7.8	9.5	6.3	5.9	5.6	7.6	9.3	7.6	6.2
Persons			1.0	10.3	13.9	14.7	14.9	16.8	18.2	17.2	16.8	18.4	13.5	11.7	10.4	12.2	13.6	14.4	12.2

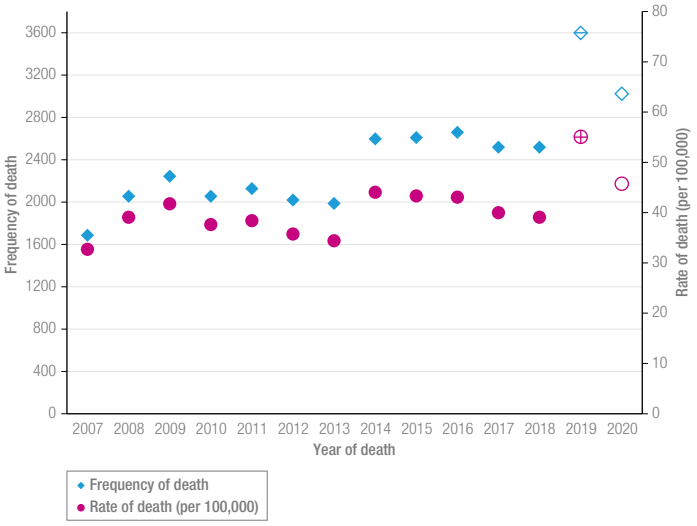
Note: Rates based on frequency less than 10 have been suppressed (these appear as blank cells)

TREND IN INJURY DEATHS (2007–2020)

Data presented for the years 2019 & 2020 are not final and subject to revision (see page 2 for more information). Consequently, statistical analysis of trends has not been conducted but figures have been provided here to give an indication of current trends in Victorian injury deaths.

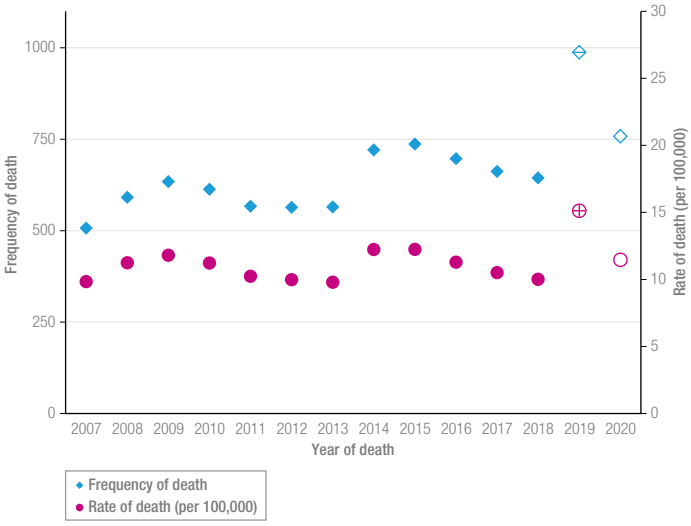
ALL INTENTS INJURY DEATHS

FIGURE 3: TREND IN FREQUENCY AND ANNUAL RATE OF ALL INJURY DEATHS, VICTORIA 2007–2020[1]



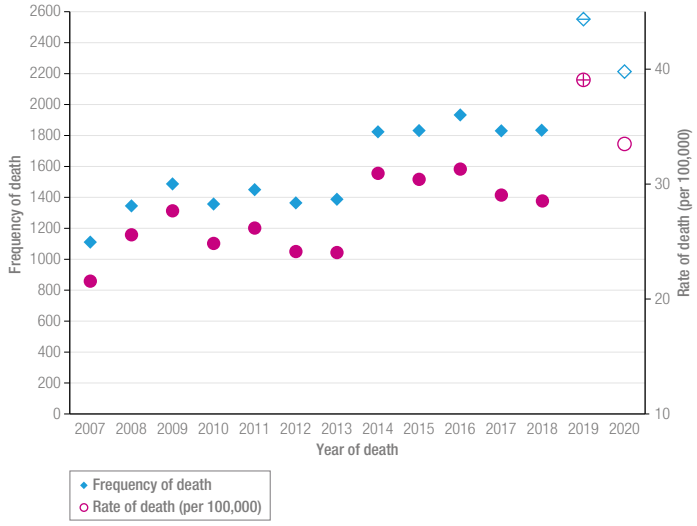
INTENTIONAL INJURY DEATHS

FIGURE 5: TREND IN FREQUENCY AND ANNUAL RATE OF INTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



UNINTENTIONAL INJURY DEATHS

FIGURE 4: TREND IN FREQUENCY AND ANNUAL RATE OF UNINTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



UNDETERMINED INTENT INJURY DEATHS

FIGURE 6: TREND IN FREQUENCY AND ANNUAL RATE OF UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007–2020[1]

Note: Undetermined intent injury deaths among children aged 0–14 were excluded from the analysis.

[1]The 2019 reference year includes deaths that had been registered in 2017 and 2018 but not previously provided to the ABS. See Appendix 3 for more details.

◆ Frequency (final)
◇ Frequency (revised)
◇ Frequency (preliminary)
● Rate (final)
⊕ Rate (revised)
○ Rate (preliminary)

PATTERN OF ALL INJURY DEATHS (2018–2020)

SEX DISTRIBUTION

- Males were overrepresented, accounting for 58.1% of unintentional injury deaths (n=3830), 74.3% of intentional injury deaths (n=1776) and 56.6% of undetermined intent injury deaths (n=82) in Victoria over the period 2018–2020 (Table 2).
- The average annual male injury death rate was 1.7 times higher than the female death rate (58.8/100,000 vs. 34.8/100,000). Men's higher death rates were observed in unintentional, intentional and undetermined intent deaths (by 1.4 times, 3.0 times and 1.3 times, respectively) (Table 2).

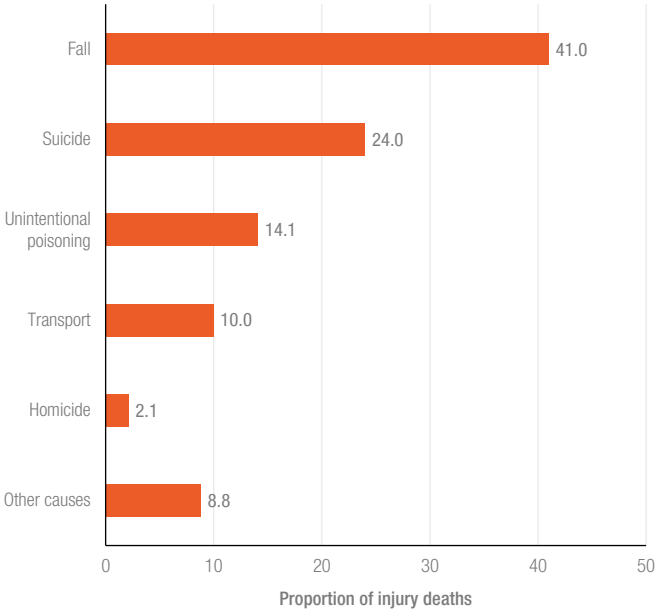
AGE DISTRIBUTION

- Persons aged 65 years and older had the highest annual all injury (153.6/100,000) and unintentional injury death rates (140.9/100,000) whereas children aged 0–14 years had the lowest (2.2 and 1.7/100,000, respectively) (Table 3).
- Adults aged 25–64 years had the highest annual intentional injury death rate (16.3/100,000) and children aged 0–14 years had the lowest intentional injury death rate (0.5/100,000) (Table 3).

LEADING CAUSES OF ALL INJURY DEATHS

- Figure 7 shows the leading causes of injury deaths. Falls (n=3740, 41.0%), suicide (n=2195, 24.0%) and unintentional poisoning (n=1283, 14.1%) together accounted for well above three-quarters of all injury deaths (79.1%) and transport for a further 10.0% (n=912).
- For more detail on causes of injury deaths see Appendix 1 Table 22.

FIGURE 7: LEADING CAUSES OF INJURY DEATHS, VICTORIA 2018–2020 (n=9131)



Note: The cause categories "other specified unintentional", "unspecified unintentional" and "undetermined intent" were included in the "other causes" category

TABLE 2: FREQUENCY AND AVERAGE ANNUAL RATE OF ALL INJURY DEATHS BY INTENT AND SEX, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			UNDETERMINED INTENT			ALL		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	3830	58.1	39.6	1776	74.3	18.4	82	56.6	0.8	5688	62.3	58.8
Female	2767	41.9	28.0	613	25.7	6.2	63	43.4	0.6	3443	37.7	34.8
Persons	6597	100.0	33.7	2389	100.0	12.2	145	100.0	0.7	9131	100.0	46.7

Note: Deaths among children coded to 'undetermined intent' were excluded from the entire analysis (see methods section)

TABLE 3: FREQUENCY AND AVERAGE ANNUAL RATE OF ALL INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			UNDETERMINED INTENT			ALL		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
0–14	61	0.9	1.7	18	0.8	0.5	0	0.0	0.0	79	0.9	2.2
15–24	243	3.7	9.6	310	13.0	12.3	10	6.9	0.4	563	6.2	22.3
25–64	2006	30.4	19.3	1694	70.9	16.3	117	80.7	1.1	3817	41.8	36.7
65+	4287	65.0	140.9	367	15.4	12.1	18	12.4	0.6	4672	51.2	153.6
All ages	6597	100.0	33.7	2389	100.0	12.2	145	100.0	0.7	9131	100.0	46.7

Note: Deaths among children coded to 'undetermined intent' were excluded from the entire analysis (see methods section)

LEADING CAUSES IN MORE DETAIL

- A high proportion of fall deaths were coded to 'unspecified fall' (n=2937, 78.5%). Of those with a specified fall mechanism (n=803), nearly half were falls on the same level from slipping, tripping or stumbling (n=381, 47.5%) (Table 4).

TABLE 4: UNINTENTIONAL FALL INJURY DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Same level: slipping, tripping, stumbling	381	10.2
Involving bed	114	3.0
On and from stairs and steps	87	2.3
Involving chair	49	1.3
Other fall on same level	44	1.2
On and from ladder	30	0.8
From, out of or through building or structure	29	0.8
Involving wheelchair	27	0.7
Other fall from one level to another	21	0.6
Other specified fall	21	0.6
Unspecified fall	2937	78.5
All falls	3740	100.0

- Hanging was the most common method of suicide (n=1185, 54.0%), followed by poisoning by pharmaceuticals (n=341, 15.5%) or another substance (n=141, 6.4%) (Table 5).

TABLE 5: SUICIDE DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	1185	54.0
Poisoning – pharmaceuticals	341	15.5
Poisoning other substances	141	6.4
Jumping or lying before moving object	131	6.0
Firearms	113	5.1
Jumping from a high place	97	4.4
Sharp object	58	2.6
Drowning & submersion	45	2.1
Crashing of motor-vehicle	39	1.8
Smoke, fire & flames	22	1.0
Other specified means	10	0.5
Unspecified means	13	0.6
All suicide deaths	2195	100.0

- Narcotics & psychodysleptics (hallucinogens) were the most common specific agents involved in unintentional poisoning deaths (n=219, 17.1%) (Table 6).

TABLE 6: UNINTENTIONAL POISONING DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Narcotics & psychodysleptics {hallucinogens} not elsewhere classified	219	17.1
Antiepileptic, sedative-hypnotic, antiparkinsonism & psychotropic drugs, not elsewhere classified	118	9.2
Alcohol	118	9.2
Nonopioid analgesics, antipyretics & antirheumatics	9	0.7
Other specified poisonings	9	0.7
Other & unspecified drugs, medicaments & biological subs	810	63.1
All poisonings	1283	100.0

- Unintentional transport deaths mostly involved car occupants (n=464, 50.9%), pedestrians (n=156, 17.1%) or motorcycle riders (n=145, 15.9%) (Table 7).

TABLE 7: UNINTENTIONAL TRANSPORT DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Car occupant injured in transport incident	464	50.9
Pedestrian injured in transport incident	156	17.1
Motorcycle rider injured in transport incident	145	15.9
Other land transport incident	42	4.6
Pedal cyclist injured in transport incident	36	3.9
Water transport incident	23	2.5
Occupant of heavy transport vehicle	20	2.2
Air and space transport incident	13	1.4
Other specified transport incident	13	1.5
All transport deaths	912	100.0

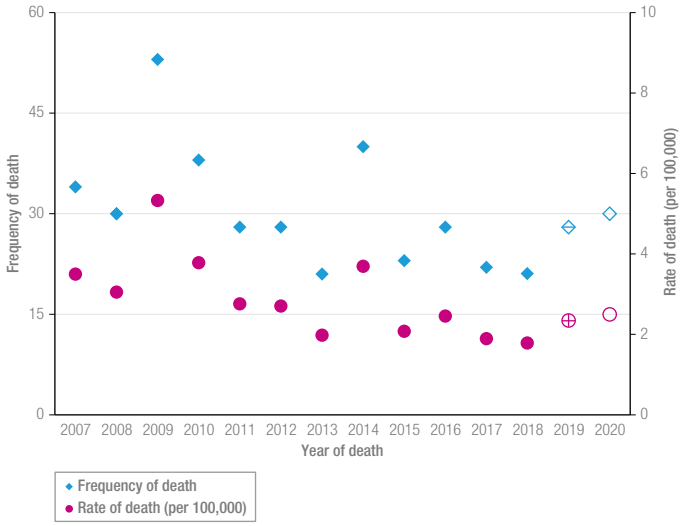
CHILDREN (0–14 YEARS)

TREND IN INJURY DEATHS (2007–2020)

Data presented for the years 2019–2020 are not final and subject to revision (see page 2 for more information). Consequently, statistical analysis of trends has not been conducted but figures have been provided here to give an indication of current trends in Victorian child injury deaths. Trend figures are presented for all injury and unintentional injury deaths only, due to there being less than six intentional deaths among children for most years of the fourteen-year period. Undetermined intent child deaths have been excluded from the entire analysis for reasons of confidentiality.

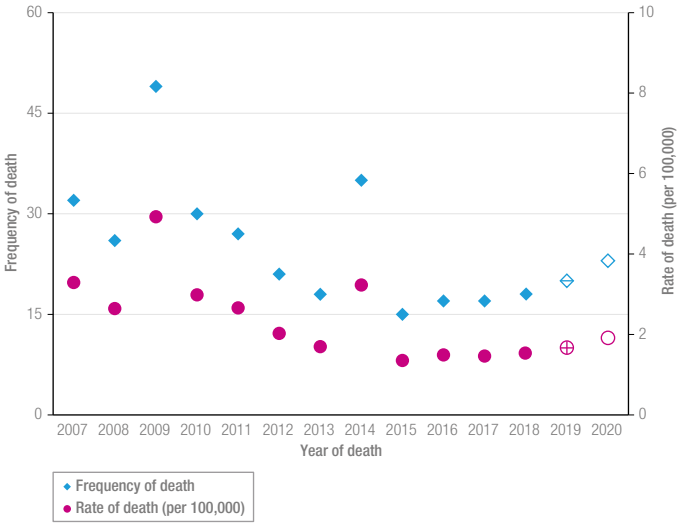
ALL INTENTS INJURY DEATHS

FIGURE 8: TREND IN FREQUENCY AND ANNUAL RATE OF CHILD INJURY DEATHS, VICTORIA 2007–2020



UNINTENTIONAL INJURY DEATHS

FIGURE 9: TREND IN FREQUENCY AND ANNUAL RATE OF CHILD UNINTENTIONAL INJURY DEATHS, VICTORIA 2007–2020



◆ Frequency (final)
◇ Frequency (revised)
◇ Frequency (preliminary)
● Rate (final)
⊕ Rate (revised)
○ Rate (preliminary)

PATTERN OF CHILD INJURY DEATHS (2018–2020)

In the period 2018–2020, 79 Victorian children died as a result of injury. More than three quarters of these deaths were unintentional (n=61, 77.2%). There were 18 intentional deaths among children during the three-year period. These 18 deaths are not broken down by age and sex in this section for reasons of confidentiality.

SEX DISTRIBUTION

- Males were overrepresented among all injury (n=55, 69.6%), and unintentional injury deaths (n=41, 67.2%).
- The annual all injury and unintentional injury death rates were also higher for males than females (3.0 & 2.2/100,000 vs. 1.4 & 1.2/100,000 respectively).

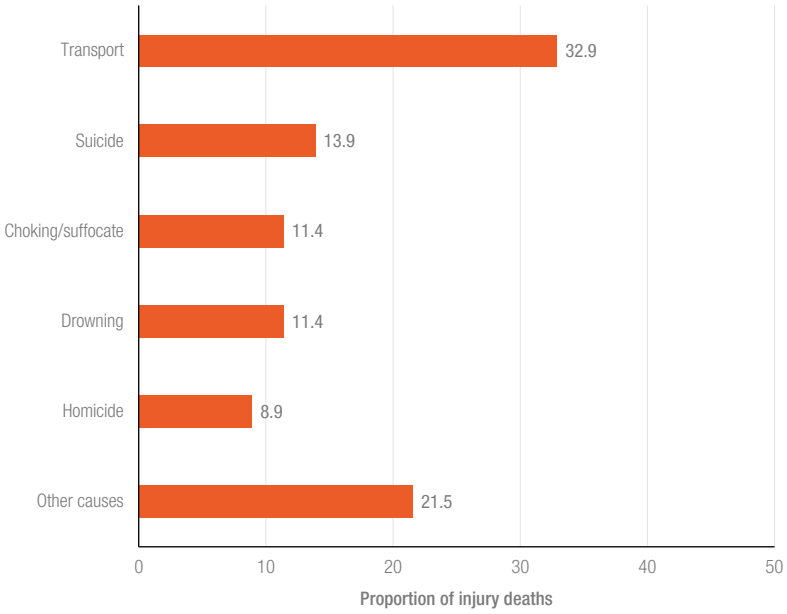
AGE DISTRIBUTION

- The annual all injury and unintentional injury death rates were highest for children aged 0–4 years (3.3 and 2.8/100,000 respectively). This was followed by 10–14 year olds for whom annual all injury and unintentional death rates were 2.3 and 1.4/100,000 respectively. The lowest annual all injury and unintentional death rates were among children aged 5–9 years (1.0 & 0.9/100,000 respectively).

LEADING CAUSES OF CHILD INJURY DEATHS

- Figure 10 shows the leading causes of child injury deaths. Transport accounted for 32.9% of injury deaths (n=26) followed by suicide (n=11, 13.9%).
- Child transport deaths mainly involved car occupants (n=9) and pedestrians (n=9).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 10: LEADING CAUSES OF CHILD INJURY DEATHS, VICTORIA 2018–2020 (n=79)



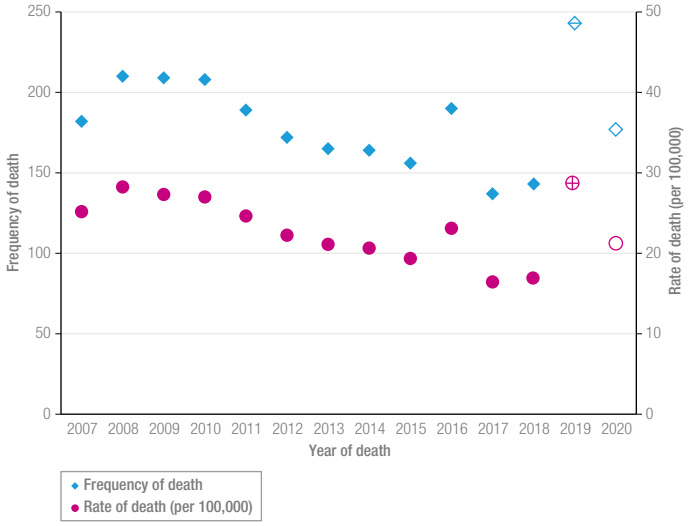
ADOLESCENTS AND YOUNG ADULTS (15–24 YEARS)

TREND IN INJURY DEATHS (2007–2020)

Data presented for the years 2019–2020 are not final and subject to revision (see page 2 for more information). Consequently, statistical analysis of trends has not been conducted but figures have been provided here to give an indication of current trends in Victorian injury deaths among adolescents and young adults.

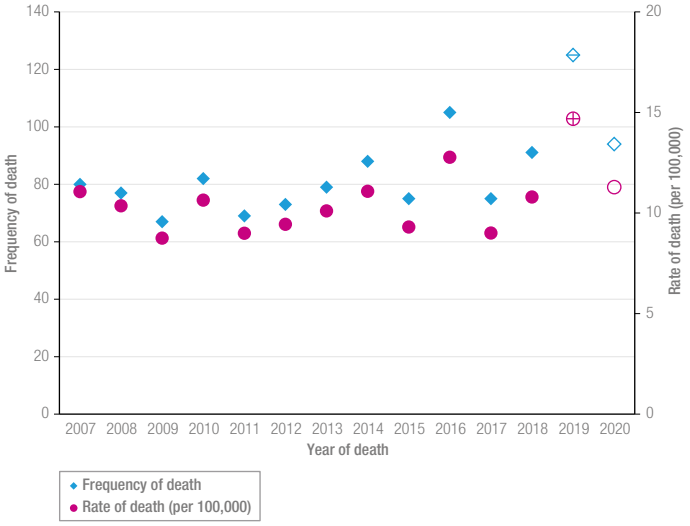
ALL INTENTS INJURY DEATHS

FIGURE 11: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS, VICTORIA 2007–2020[1]



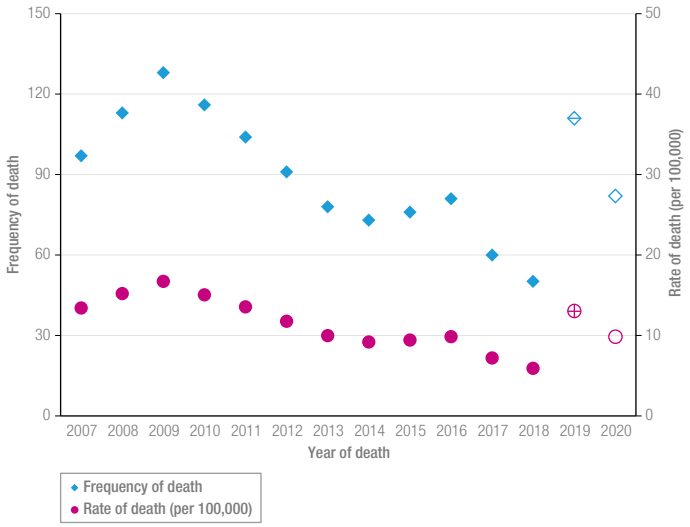
INTENTIONAL INJURY DEATHS

FIGURE 13: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



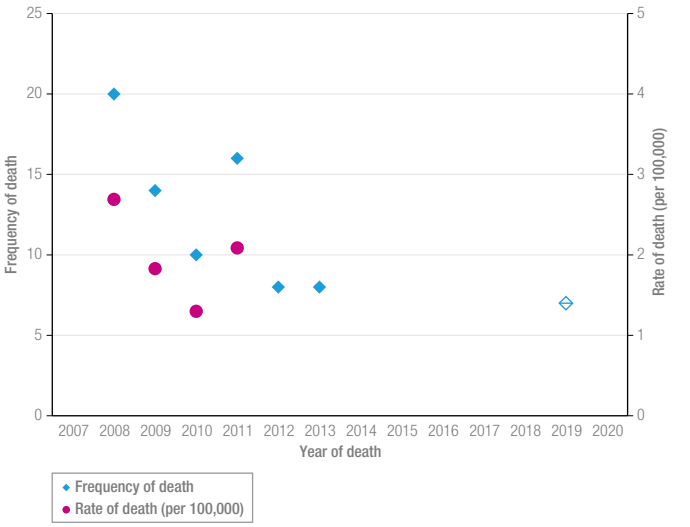
UNINTENTIONAL INJURY DEATHS

FIGURE 12: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



UNDETERMINED INTENT INJURY DEATHS

FIGURE 14: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007–2020[1]



Note: Frequency of 5 or less and rates based on frequency less than 10 have been suppressed.

[1]*The 2019 reference year includes deaths that had been registered in 2017 and 2018 but not previously provided to the ABS. See Appendix 3 for more details.*

◆ Frequency (final)
◇ Frequency (revised)
◇ Frequency (preliminary)
● Rate (final)
⊕ Rate (revised)
○ Rate (preliminary)

PATTERN OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS (2018–2020)

In the period 2018–2020, 553 Victorian adolescents and young adults died as a result of injury. More than half of the deaths were intentional (n=310, 56.1%) and 43.9% were unintentional (n=243) (Table 8). Deaths among adolescents and young adults coded to undetermined intent are not reported in this section for reasons of confidentiality.

SEX DISTRIBUTION

- Males were overrepresented, accounting for 75.7% of unintentional (n=184) and 77.4% of intentional (n=240) injury deaths among adolescents and young adults (Table 8).
- The corresponding adolescent and young adult unintentional and intentional annual injury death rates were also higher for males than females (14.1 & 18.4/100,000 vs. 4.8 & 5.7/100,000 respectively) (Table 8).

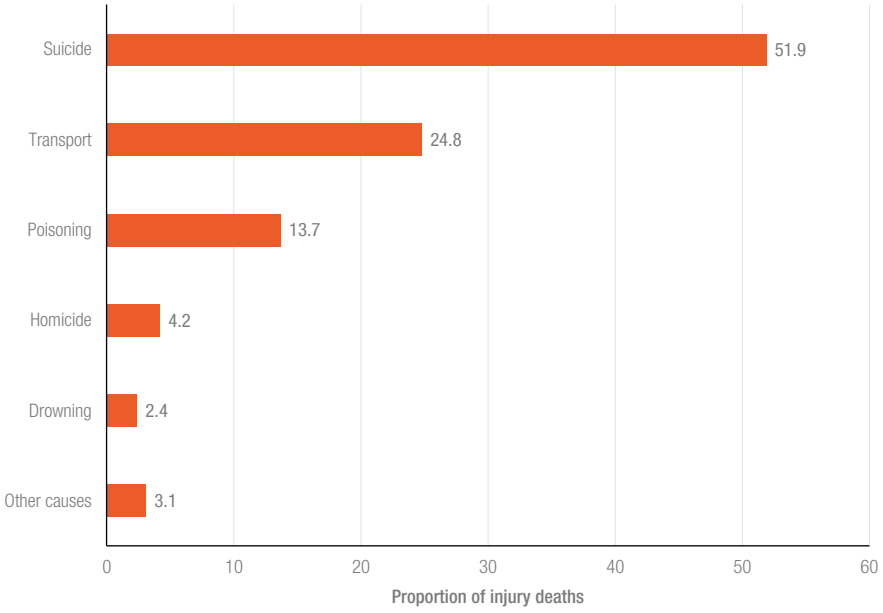
AGE DISTRIBUTION

- Persons aged 20–24 years accounted for 64.9% of all injury deaths (n=359) and 67.9% of unintentional injury deaths (n=165) among adolescents and young adults. Young adults aged 20–24 years accounted for 62.6%. of intentional injury deaths (n=194).
- Intentional annual injury death rates were higher among persons aged 20–24 years than among persons aged 15–19 years (13.9/00,000 vs. 10.3/100,000) (Table 9).

LEADING CAUSES OF ADOLESCENT AND YOUNG ADULT DEATH

- Figure 15 shows the leading causes of adolescent and young adult injury death. Suicide accounted for 51.9% of injury deaths (n=287), followed by transport incidents (n=137, 24.8%) and unintentional poisoning (n=76, 13.7%).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 15: LEADING CAUSES OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS, VICTORIA 2018–2020 (n=553)



Note: The cause category 'other specified unintentional' was included in the "other causes" category.

TABLE 8: FREQUENCY AND AVERAGE ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS BY INTENT AND SEX, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	184	75.7	14.1	240	77.4	18.4	424	76.7	32.6
Female	59	24.3	4.8	70	22.6	5.7	129	23.3	10.5
All	243	100.0	9.6	310	100.0	12.3	553	100.0	21.9

*Note: *Adolescent and young adult deaths coded to 'undetermined intent' were excluded from the analysis (see methods section)*

TABLE 9: FREQUENCY AND AVERAGE ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
15–19	78	32.1	6.9	116	37.4	10.3	194	35.1	17.2
20–24	165	67.9	11.8	194	62.6	13.9	359	64.9	25.7
All	243	100.0	9.6	310	100.0	12.3	553	100.0	21.9

*Note: *Adolescent and young adult deaths coded to 'undetermined intent' were excluded from the analysis (see methods section)*

LEADING CAUSES IN MORE DETAIL

- Hanging was the most common method of suicide (n=183, 63.8%) (Table 10).

TABLE 10: SUICIDE DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	183	63.8
Jumping or lying before moving object	33	11.5
Jumping from a high place	19	6.6
Poisoning- pharmaceuticals	18	6.3
Firearms	9	3.1
Poisoning other substances	7	2.4
Crashing of motor-vehicle	6	2.1
Sharp object	6	2.1
Other specified means	6	2.1
All suicide deaths	287	100.0

- Unintentional transport deaths mostly involved car occupants (n=89, 65.0%) (Table 11).

TABLE 11: TRANSPORT INJURY DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Car occupant	89	65.0
Motorcycle rider	20	14.6
Pedestrian	14	10.2
Other transport	14	10.2
All transport deaths	137	100.0

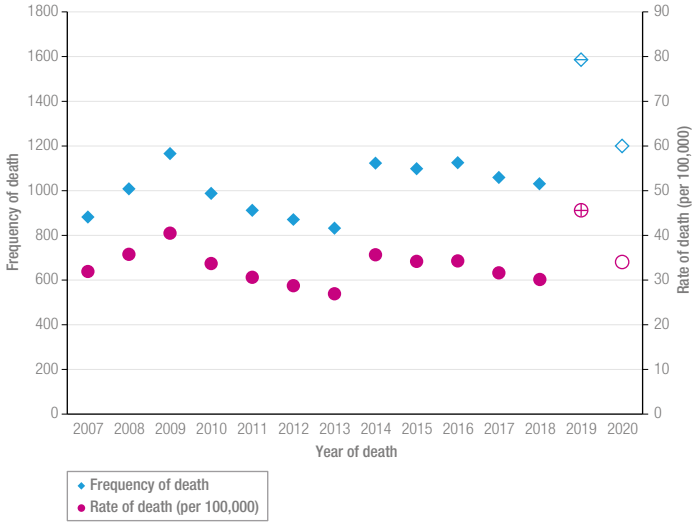
ADULTS (25–64 YEARS)

TREND IN INJURY DEATHS (2007–2020)

Data presented for the years 2019–2020 are not final and subject to revision (see page 2 for more information). Consequently, statistical analysis of trends has not been conducted but figures have been provided here to give an indication of current trends in Victorian adult injury deaths.

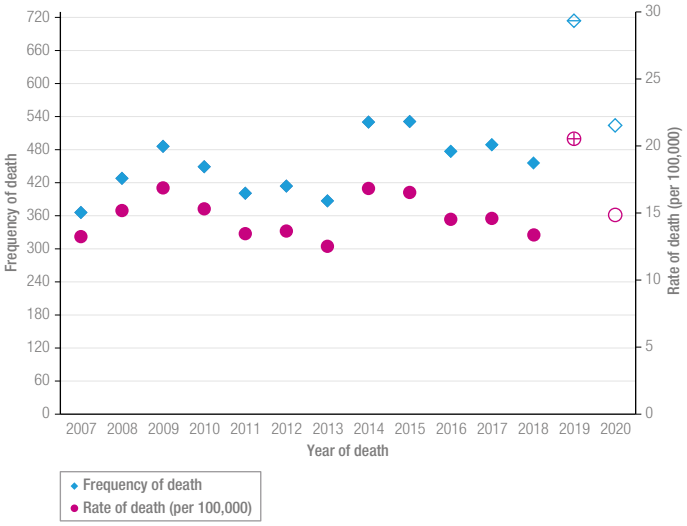
ALL INTENTS INJURY DEATHS

FIGURE 16: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT INJURY DEATHS, VICTORIA 2007–2020[1]



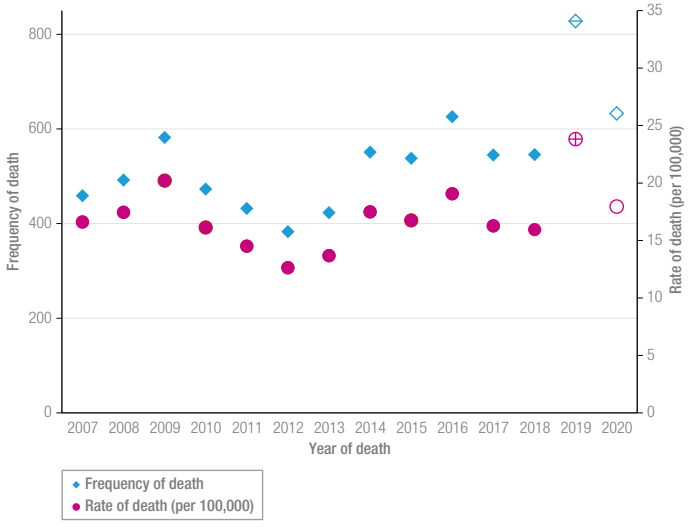
INTENTIONAL INJURY DEATHS

FIGURE 18: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



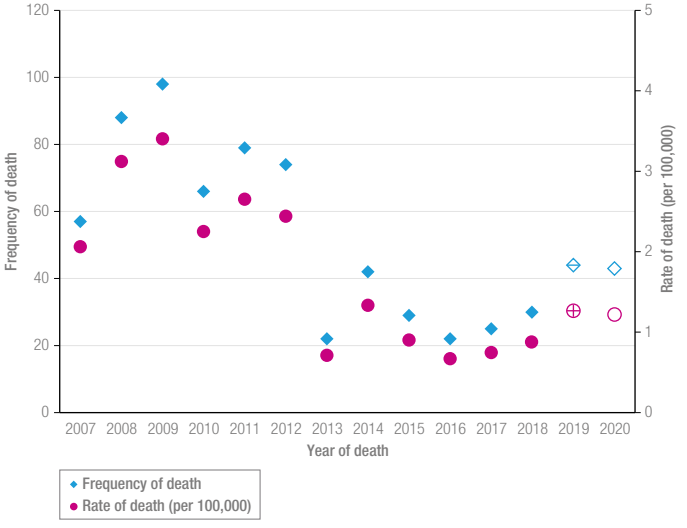
UNINTENTIONAL INJURY DEATHS

FIGURE 17: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



UNDETERMINED INTENT INJURY DEATHS

FIGURE 19: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007–2020[1]



[1]The 2019 reference year includes deaths that had been registered in 2017 and 2018 but not previously provided to the ABS. See Appendix 3 for more details.

◆ Frequency (final)
◇ Frequency (revised)
◇ Frequency (preliminary)
● Rate (final)
⊕ Rate (revised)
○ Rate (preliminary)

PATTERN OF ADULT INJURY DEATHS (2018–2020)

In the period 2018–2020, 3817 Victorian adults died as a result of injury. More than half of these deaths were unintentional (n=2006, 52.6%), 44.4% were intentional (n=1694) and the remaining 3.1% were classified as undetermined intent (n=117) (Table 12).

SEX DISTRIBUTION

- Males were overrepresented in adult injury deaths, accounting for around three-quarters of unintentional (n=1491, 74.3%) and intentional injury deaths (n=1267, 74.8%) (Table 12).
- The unintentional and intentional injury annual death rates were higher for males than females (29.1 & 24.7/100,000 vs. 9.7 & 8.1/100,000, respectively) (Table 12).

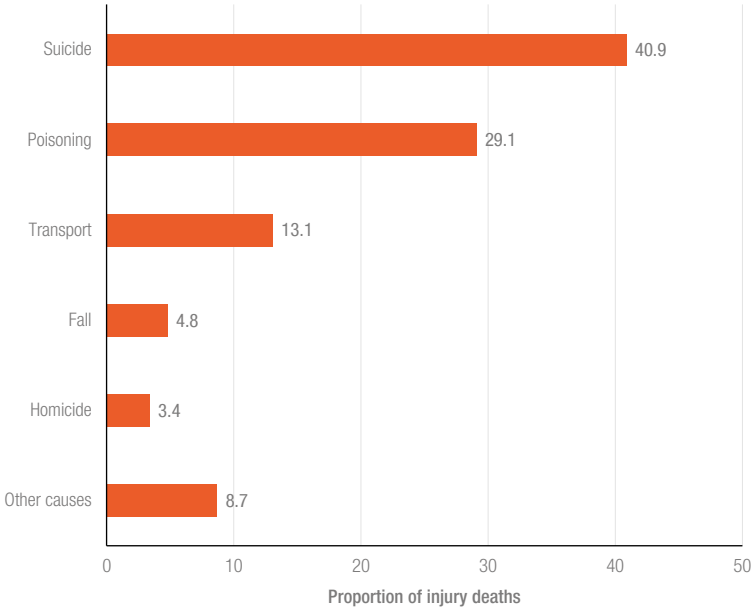
AGE DISTRIBUTION

- Average annual rates for unintentional injury deaths were lowest among adults aged 25–34 years. For intentional injury deaths, average annual rates were lowest among adults aged 60–64 years (Table 13).

LEADING CAUSES OF ADULT INJURY DEATHS

- Figure 20 shows the leading causes of adult injury death. Suicide accounted for 40.9% of injury deaths (n=1563), followed by unintentional poisoning (n=1110, 29.1%) and transport (n=499, 13.1%).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 20: LEADING CAUSES OF ADULT INJURY DEATHS, VICTORIA 2018–2020 (n=3817)



Note: The cause categories "other specified unintentional", "unspecified unintentional" and "undetermined intent" were included in the "other causes" category.

TABLE 12: FREQUENCY AND AVERAGE ANNUAL RATE OF ADULT INJURY DEATHS BY INTENT AND SEX, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			UNDETERMINED INTENT			ALL		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	1491	74.3	29.1	1267	74.8	24.7	65	55.6	1.3	2823	74.0	55.0
Female	515	25.7	9.7	427	25.2	8.1	52	44.4	1.0	994	26.0	18.8
All	2006	100.0	19.3	1694	100.0	16.3	117	100.0	1.1	3817	100.0	36.7

TABLE 13: FREQUENCY AND AVERAGE ANNUAL RATE OF ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			UNDETERMINED INTENT			ALL		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
25–29	207	10.3	13.5	226	11.5	14.7	6	5.1	**	439	11.5	28.5
30–34	229	11.4	14.9	229	12.4	14.9	16	13.7	1.0	474	12.4	30.8
35–39	291	14.5	20.5	239	14.3	16.8	17	14.5	1.2	547	14.3	38.4
40–44	270	13.5	21.6	228	13.6	18.2	22	18.8	1.8	520	13.6	41.6
45–49	309	15.4	24.0	221	14.3	17.2	17	14.5	1.3	547	14.3	42.5
50–54	249	12.4	21.1	198	12.2	16.8	18	15.4	1.5	465	12.2	39.4
55–59	218	10.9	18.9	212	11.6	18.4	12	10.3	1.0	442	11.6	38.3
60–64	233	11.6	22.4	141	10.0	13.5	9	7.7	**	383	10.0	36.8
All	2006	100.0	19.3	1694	100.0	16.3	117	100.0	1.1	3817	100.0	36.7

*Note: Rates based on frequency less than 10 have been suppressed with "**".*

LEADING CAUSES IN MORE DETAIL

- Hanging was the most common method of suicide (n=868, 55.5%) among adults, followed by poisoning with pharmaceutical substances (n=235, 15.0%) and non-pharmaceutical substances (n=100, 6.4%) (Table 14).

TABLE 14: SUICIDE DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	868	55.5
Poisoning – pharmaceuticals	235	15.0
Poisoning – other substances	100	6.4
Jumping or lying before moving object	91	5.8
Firearms	74	4.7
Jumping from a high place	67	4.3
Sharp object	37	2.4
Crashing of motor-vehicle	31	2.0
Drowning and submersion	27	1.7
Smoke, fire & flames	18	1.2
Other specified or unspecified means	15	1.0
All suicide deaths	1563	100.0

- Narcotics & psychodysleptics (hallucinogens) were the most common specific agents involved in unintentional poisoning deaths among adults (n=196, 17.7%) (Table 15).

TABLE 15: UNINTENTIONAL POISONING DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Narcotics & psychodysleptics {hallucinogens} not elsewhere classified	196	17.7
Antiepileptic, sedative-hypnotic, antiparkinsonism & psychotropic drugs, not elsewhere classified	96	8.6
Alcohol	90	8.1
Nonopioid analgesics, antipyretics & antirheumatics	6	0.5
Other gases and vapours	*	*
Pesticides	*	*
Other & unspecified drugs, medicaments & biological subs	717	64.6
All poisonings	1110	100.0

Note: Frequency of 5 or less has been suppressed with an "".*

- Unintentional transport deaths among adults mostly involved car occupants (n=235, 47.1%) and motorcycle riders (n=113, 22.6%) (Table 16).

TABLE 16: UNINTENTIONAL TRANSPORT DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Car occupant injured in transport incident	235	47.1
Motorcycle rider injured in transport incident	113	22.6
Pedestrian injured in transport incident	63	12.6
Pedal cyclist injured in transport incident	22	4.4
Other land transport incident	19	3.8
Occupant of heavy transport vehicle	18	3.6
Water transport incident	14	2.8
Air and space transport incident	7	1.4
Bus occupant injured in transport incident	*	*
Occupant of pick-up truck or van incident	*	*
All transport deaths	499	100.0

Note: Frequency of 5 or less has been suppressed with an "".*

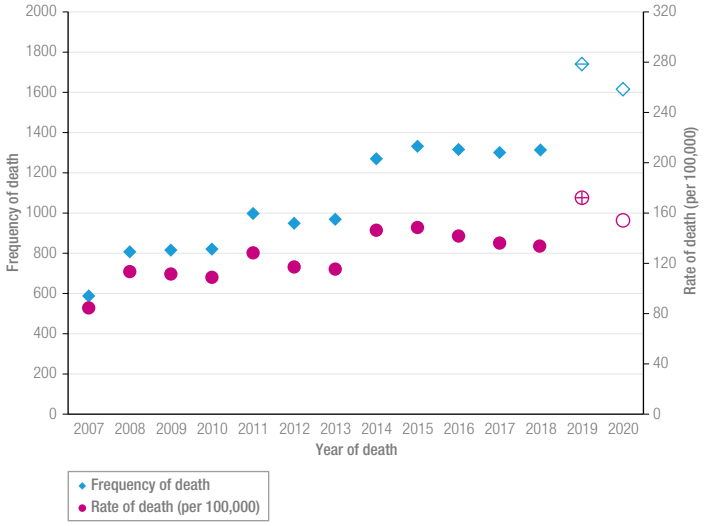
OLDER ADULTS (65 YEARS+)

TREND IN INJURY DEATHS (2007–2020)

Data presented for the years 2019–2020 are not final and subject to revision (see page 2 for more information). Consequently, statistical analysis of trends has not been conducted but figures have been provided here to give an indication of current trends in Victorian injury deaths among older adults.

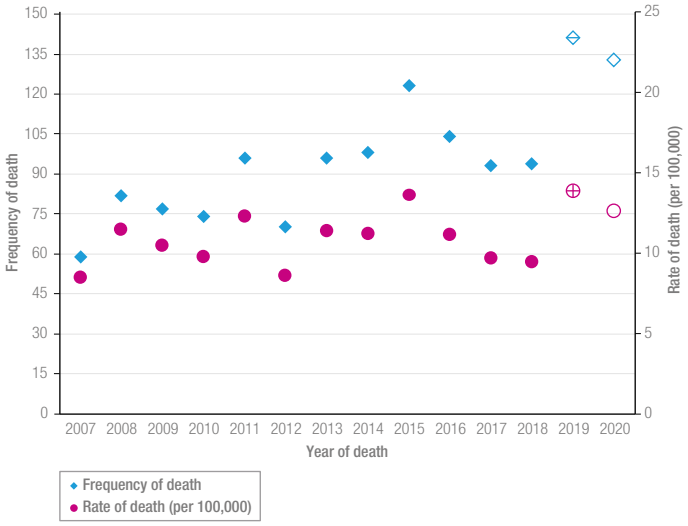
ALL INTENTS INJURY DEATHS

FIGURE 21: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT INJURY DEATHS, VICTORIA 2007–2020[1]



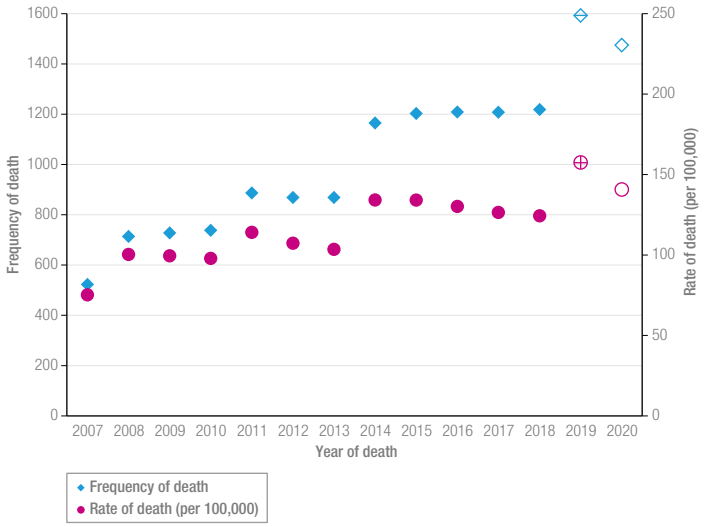
INTENTIONAL INJURY DEATHS

FIGURE 23: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



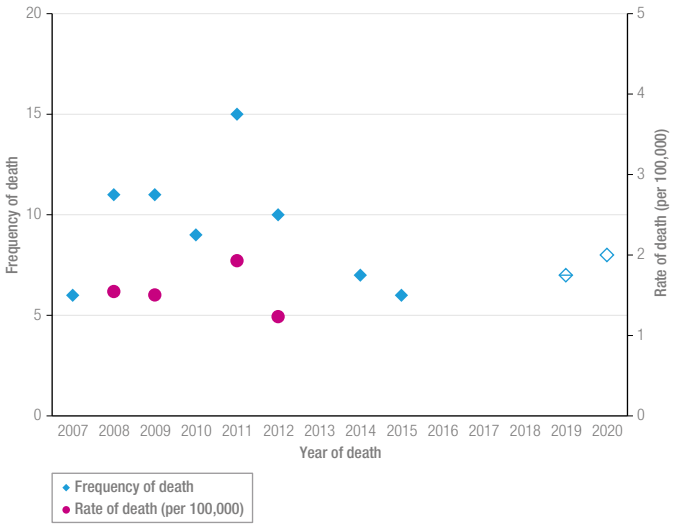
UNINTENTIONAL INJURY DEATHS

FIGURE 22: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007–2020[1]



UNDETERMINED INTENT INJURY DEATHS

FIGURE 24: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007–2020[1]



Note: Frequency of 5 or less and rates based on frequency less than 10 have been suppressed.

[1]The 2019 reference year includes deaths that had been registered in 2017 and 2018 but not previously provided to the ABS. See Appendix 3 for more details.

◆ Frequency (final)
◇ Frequency (revised)
◇ Frequency (preliminary)
● Rate (final)
⊕ Rate (revised)
○ Rate (preliminary)

PATTERN OF OLDER ADULT INJURY DEATHS (2018–2020)

In the period 2018–2020, 4654 Victorian older adults died as a result of injury. Ninety-two percent of these deaths were unintentional (n=4287, 92.1%) and 7.9% were intentional (n=367) (Table 17). Deaths among older adults coded to undetermined intent are not reported in this section for reasons of confidentiality.

SEX DISTRIBUTION

- More than half of the unintentional injury deaths were among females (n=2173, 50.7%), while males accounted for 69.5% of intentional injury deaths (n=255) (Table 17).
- The all injury annual death rates were higher for males compared to females (168.5/100,000 vs 139.7/100,000, respectively), as were the unintentional injury annual deaths rates (150.4/100,000 males vs. 132.8/100,000 for females) (Table 17).
- The intentional injury annual death rates were higher for males (18.1/100,000) compared to females (6.8/100,000) (Table 17).

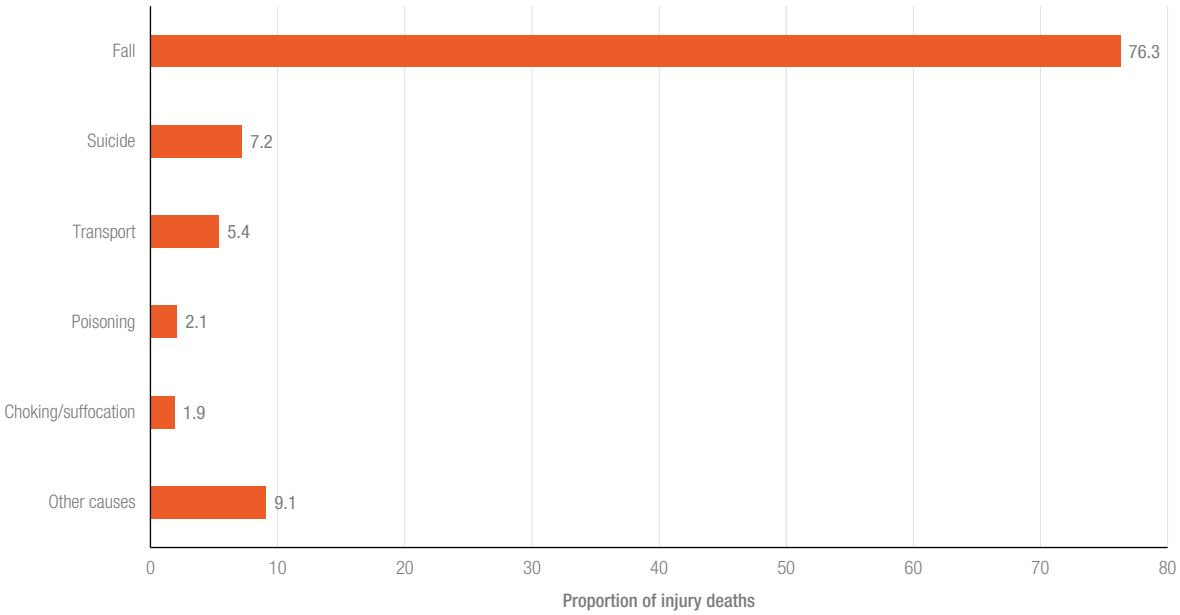
AGE DISTRIBUTION

- Unintentional injury annual death rates increased as age increased, with the highest rates observed in persons aged 85 years and older (650.7/100,000) (Table 18).
- A similar pattern was found for intentional injury annual death rates, with rates peaking in the oldest age group of 85 years and older (14.4/100,000) (Table 18).

LEADING CAUSES OF OLDER ADULT INJURY DEATHS

- Figure 25 shows the leading causes of older adult injury deaths. Falls accounted for more than three-quarters of injury deaths (n=3551, 76.3), followed by suicide (n=334, 7.2%), transport incidents (n=250, 5.4%), unintentional poisoning (n=96, 2.1%), and choking/suffocation (n=88, 1.9%).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 25: LEADING CAUSES OF OLDER ADULT INJURY DEATHS, VICTORIA 2018–2020 (n=4654)



Note: The cause categories "other specified unintentional" and "unspecified unintentional were included in the "other causes" category.

TABLE 17: FREQUENCY AND AVERAGE ANNUAL RATE OF OLDER ADULT INJURY DEATHS BY INTENT AND SEX, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	2114	49.3	150.4	255	69.5	18.1	2369	50.9	168.5
Female	2173	50.7	132.8	112	30.5	6.8	2285	49.1	139.7
All	4287	100.0	140.9	367	100.0	12.1	4654	100.0	153.0

**Note: Deaths among older adults coded to 'undetermined intent' were excluded from the analysis (see methods section)*

TABLE 18: FREQUENCY AND AVERAGE ANNUAL RATE OF OLDER ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2018–2020

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
65–69	213	5.0	23.3	107	29.2	11.7	320	6.9	35.0
70–74	290	6.8	36.9	82	22.3	10.4	372	8.0	47.3
75–79	426	9.9	77.7	67	18.3	12.2	493	10.6	89.9
80–84	740	17.3	189.3	53	14.4	13.6	793	17.0	202.8
85+	2618	61.1	650.7	58	15.8	14.4	2676	57.5	665.1
All	4287	100.0	140.9	367	100.0	12.1	4654	100.0	153.0

**Note: Deaths among older adults coded to 'undetermined intent' were excluded from the analysis (see methods section)*

LEADING CAUSES IN MORE DETAIL

- A high proportion of fall deaths among older adults were coded to 'unspecified fall' (n=2849, 80.2%) (Table 19). Of those with a specified fall mechanism (n=702), half were falls on the same level from slipping, tripping or stumbling (n=351, 50.0%).

TABLE 19: UNINTENTIONAL FALL DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Same level from slipping, tripping, stumbling	351	9.9
Involving bed	112	3.2
On and from stairs and steps	70	2.0
Involving chair	45	1.3
Other fall on same level	43	1.2
Involving wheelchair	24	0.7
On and from ladder	24	0.7
From, out of or through building or structure	12	0.3
Other fall from one level to another	10	0.3
On same level – collision w pushing by another person	*	*
Involving other furniture	*	*
While being carried or supported by other persons	*	*
From tree	*	*
Unspecified fall	2849	80.2
All falls	3551	100.0

Note: Frequency of 5 or less has been suppressed with an "".*

- Hanging was the most common method of suicide (n=123, 36.8%) among older adults, followed by poisoning with pharmaceutical substances (n=88, 26.3%) and non-pharmaceutical substances (n=34, 10.2%) (Table 20).

TABLE 20: SUICIDE DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	123	36.8
Poisoning- pharmaceuticals	88	26.3
Poisoning- other substances	34	10.2
Firearms	30	9.0
Sharp object	15	4.5
Drowning and submersion	15	4.5
Jumping from a high place	11	3.3
Jumping or lying before moving object	7	2.1
Other specified or unspecified means	11	3.3
All suicide deaths	334	100.0

- Unintentional transport deaths among older adults mostly involved car occupants (n=131, 52.4%) and pedestrians (n=70, 28.0%) (Table 21).

TABLE 21: UNINTENTIONAL TRANSPORT DEATHS, VICTORIA 2018–2020

DETAILED CAUSE	n	%
Car occupant injured in transport incident	131	52.4
Pedestrian injured in transport incident	70	28.0
Other land transport incident	17	6.8
Motorcycle rider injured in transport incident	9	3.6
Pedal cyclist injured in transport incident	8	3.2
Water transport incident	6	2.4
Occupant of heavy transport vehicle	*	*
Air and space transport incident	*	*
Bus occupant injured in transport incident	*	*
Occupant of pick-up truck or van incident	*	*
All transport deaths	250	100.0

Note: Frequency of 5 or less has been suppressed with an "".*

APPENDIX 1

TABLE 22: OVERVIEW OF INJURY DEATHS, VICTORIA 2018–2020

		2018[1]		2019[2]		2020[3]		TOTAL*	
		n	%	n	%	n	%	n	%
	ALL	**2510**	**100.0**	**3598**	**100.0**	**3023**	**100.0**	**9131**	**100.0**
Age	0–14 years	21	0.8	28	0.8	30	1.0	79	0.9
	15–24 years	143	5.7	243	6.8	177	5.9	563	6.2
	25–64 years	1031	41.1	1586	44.1	1200	39.7	3817	41.8
	65+ years	1315	52.4	1741	48.4	1616	53.5	4672	51.2
Sex	Male	1537	61.2	2268	63.0	1883	62.3	5688	62.3
	Female	973	38.8	1330	37.0	1140	37.7	3443	37.7
Cause	**UNINTENTIONAL**	**1832**	**73.0**	**2552**	**70.9**	**2213**	**73.2**	**6597**	**72.2**
	Fall	1063	42.4	1386	38.5	1291	42.7	3740	41.0
	Poisoning	327	13.0	526	14.6	430	14.2	1283	14.1
	Transport	262	10.4	392	10.9	258	8.5	912	10.0
	Choking/suffocate	35	1.4	51	1.4	46	1.5	132	1.4
	Drowning/near drowning	25	1.0	36	1.0	29	1.0	90	1.0
	Natural/environmental/animals	16	0.6	23	0.6	13	0.4	52	0.6
	Fires/burns/scalds	10	0.4	24	0.7	31	1.0	65	0.7
	Hit/struck/crush	11	0.4	21	0.6	18	0.6	50	0.5
	Machinery	*	*	*	*	*	*	15	0.2
	Cutting/piercing	*	*	*	*	*	*	9	0.1
	Overexertion and/or strenuous movements	*	*	*	*	*	*	*	*
	Explosions/firearms	*	*	*	*	*	*	*	*
	Foreign body – natural orifice	0	0.0	*	*	*	*	*	*
	Other specified unintentional	6	0.2	7	0.2	8	0.3	21	0.2
	Unspecified unintentional	68	2.7	73	2.0	78	2.6	219	2.4
	INTENTIONAL	**643**	**25.6**	**988**	**27.5**	**758**	**25.1**	**2389**	**26.2**
	Suicide	599	23.9	904	25.1	692	22.9	2195	24.0
	Homicide	44	1.8	84	2.3	66	2.2	194	2.1
	UNDETERMINED INTENT*	**35**	**1.4**	**58**	**1.6**	**52**	**1.7**	**145**	**1.6**

Notes: Data for different years are at different stages of the ABS revisions process: (1) Final, (2) Revised & (3) Preliminary.
Frequency of 5 or less has been suppressed with an "".*
**Deaths among children coded to 'undetermined intent' were excluded from the entire analysis (see methods section).*

TABLE 23: RANKING OF CAUSES OF INJURY DEATHS (ALL AGES), VICTORIA 2018–2020

RANK	AGE GROUPS (YEARS)																		
	0–4 yrs	5–9 yrs	10–14 yrs	15–19 yrs	20–24 yrs	25–29 yrs	30–34 yrs	35–39 yrs	40–44 yrs	45–49 yrs	50–54 yrs	55–59 yrs	60–64 yrs	65–69 yrs	70–74 yrs	75–79 yrs	80–84 yrs	85+ yrs	ALL
1	choking/suffocate	transport	transport	suicide	suicide	suicide	suicide	suicide	suicide	poisoning	suicide	suicide	suicide	suicide	fall	fall	fall	fall	fall
n	8	6	13	112	175	208	206	221	203	204	189	204	132	99	191	318	618	2326	3740
%	20.0	50.0	48.1	57.7	48.7	47.4	43.5	40.4	39.0	37.3	40.6	46.2	34.5	30.9	51.3	64.5	77.9	86.9	41.1
2	transport	fall	suicide	transport	transport	poisoning	poisoning	poisoning	poisoning	suicide	poisoning	poisoning	transport	fall	suicide	suicide	suicide	unspec. unintent.	suicide
n	7	*	11	53	84	101	123	195	184	200	150	93	63	98	77	60	52	143	2195
%	17.5	*	40.7	27.3	23.4	23.0	25.9	35.6	35.4	36.6	32.3	21.0	16.4	30.6	20.7	12.2	6.6	5.3	24.1
3	drowning	fires/burns/scalds	drowning	poisoning	poisoning	transport	transport	transport	transport	transport	transport	transport	poisoning	transport	transport	transport	transport	transport	poisoning
n	6	*	*	12	64	82	78	58	57	51	51	59	60	49	36	52	44	69	1283
%	15.0	*	*	6.2	17.8	18.7	16.5	10.6	11.0	9.3	11.0	13.3	15.7	15.3	9.7	10.5	5.5	2.6	14.1
4	homicide	choking/suffocate		drowning	homicide	homicide	homicide	homicide	homicide	fall	fall	fall	fall	poisoning	poisoning	poisoning	unspec. unintent.	suicide	transport
n	6	*		8	19	18	23	18	25	23	22	40	60	46	19	15	33	46	912
%	15.0	*		4.1	5.3	4.1	4.9	3.3	4.8	4.2	4.7	9.0	15.7	14.4	5.1	3.0	4.2	1.7	10.0
5	hit/struck/crush	oth. unintent.		homicide	drowning	drowning	oth. or undet. intent	oth. or undet. intent	oth. or undet. intent	homicide	oth. or undet. intent	oth. or undet. intent	drowning	homicide	unspec. unintent.	choking/suffocate	choking/suffocate	choking/suffocate	unspec. unintent.
n	*	*		*	*	9	16	17	22	21	18	12	12	8	13	13	21	40	219
%	*	*		*	*	2.1	3.4	3.1	4.2	3.8	3.9	2.7	3.1	2.5	3.5	2.6	2.6	1.5	2.4
6	fires/burns/scalds	homicide		choking/suffocate	fall	oth. or undet. intent	fall	fall	fall	oth. or undet. intent	homicide	homicide	fires/burns/scalds	nat./envir./animals	choking/suffocate	unspec. unintent.	poisoning	fires/burns/scalds	homicide
n	*	*		*	*	6	10	13	9	17	9	8	9	*	11	12	10	13	194
%	*	*		*	*	1.4	2.1	2.4	1.7	3.1	1.9	1.8	2.3	*	3.0	2.4	1.3	0.5	2.1
7	fall			oth. unintent.	choking/suffocate	fall	hit/struck/crush	hit/struck/crush	drowning	drowning	drowning	hit/struck/crush	choking/suffocate	unspec. unintent.	fires/burns/scalds	homicide	nat./envir./animals	homicide	choking/suffocate
n	*			*	*	*	*	6	7	7	6	6	9	*	9	7	*	12	132
%	*			*	*	*	*	1.1	1.3	1.3	1.3	1.4	2.3	*	2.4	1.4	*	0.4	1.5
8	nat./envir./animals			hit/struck/crush	hit/struck/crush	oth. unintent.	drowning	drowning/ near drowning	fires/burns/scalds	choking/suffocate	choking/suffocate	fires/burns/scalds	homicide	drowning/ near drowning	homicide	fires/burns/scalds	drowning	nat./envir./animals	oth. or undet. intent
n	*			*	*	*	*	*	*	7	6	*	9	*	*	6	*	10	117
%	*			*	*	*	*	*	*	1.3	1.3	*	2.3	*	*	1.2	*	0.4	1.3
9	poisoning				nat./envir./animals	hit/struck/crush	nat./envir./animals	oth. unintent.	choking/suffocate	nat./envir./animals	fires/burns/scalds	nat./envir./animals	oth. or undet. intent	choking/suffocate	drowning	nat./envir./animals	fires/burns/scalds	poisoning	drowning
n	*				*	*	*	*	*	6	*	*	9	*	*	*	*	6	90
%	*				*	*	*	*	*	1.1	*	*	2.3	*	*	*	*	0.2	1.0
10	cutting/piercing				machinery	fires/burns/scalds	fires/burns/scalds	choking/suffocate	hit/struck/crush	fires/burns/scalds	machinery	choking/suffocate	hit/struck/crush	fires/burns/scalds	hit/struck/crush	drowning	hit/struck/crush	drowning	fires/burns/scalds
n	*				*	*	*	*	*	*	*	*	6	*	*	*	*	*	65
%	*				*	*	*	*	*	*	*	*	1.6	*	*	*	*	*	0.7
11					oth. unintent.		oth. unintent.	unspec. unintent.	machinery	hit/struck/crush	nat./envir./animals	machinery	unspec. unintent.	explosions/firearms	nat./envir./animals	hit/struck/crush	machinery	hit/struck/crush	nat./envir./animals
n					*		*	*	*	*	*	*	6	*	*	*	*	*	52
%					*		*	*	*	*	*	*	1.6	*	*	*	*	*	0.6
12							machinery	fires/burns/scalds	nat./envir./animals	cutting/piercing	hit/struck/crush	unspec. unintent.	nat./envir./animals	oth. unintent.	cutting/piercing	cutting/piercing	homicide	cutting/piercing	hit/struck/crush
n							*	*	*	*	*	*	*	*	*	*	*	*	50
%							*	*	*	*	*	*	*	*	*	*	*	*	0.5
13							unspec. unintent.	nat./envir./animals	cutting/piercing	strenuous movements	explosions/ firearms	drowning	machinery			foreign body – natural orifice		oth. unintent.	oth. unintent.
n							*	*	*	*	*	*	*			*		*	21
%							*	*	*	*	*	*	*			*		*	0.2
14								machinery	explosions/firearms	machinery	oth. unintent.	cutting/piercing	oth. unintent.						machinery
n								*	*	*	*	*	*						15
%								*	*	*	*	*	*						0.2
15								explosions/ firearms		oth. unintent.	unspec. unintent.	foreign body – natural orifice							cutting/ piercing
n								*		*	*	*							9
%								*		*	*	*							0.1
16								strenuous movements		unspec. unintent.		oth. unintent.							explosions/ firearms
n								*		*		*							*
%								*		*		*							*
17																			strenuous movements
n																			*
%																			*
18																			foreign body – natural orifice
n																			*
%																			*
ALL	40	12	27	194	359	439	474	547	520	547	465	442	383	320	372	493	793	2676	9103

Note: Oth. or undet. intent = other or undetermined intent; nat./envir./animals = natural/environmental/animals; oth. unintent. = other specified unintentional; unspec.unintent. = unspecified unintentional; strenuous movements = overexertion/strenuous movements.
Frequency of 5 or less has been suppressed with an "". Other cells in the same row and/or column may be suppressed in order to maintain confidentiality.*
**Deaths coded to 'undetermined intent' for children, adolescents/young adults and older adults were excluded from the analysis (see methods section).*

APPENDIX 2

TABLE 24: INJURY DEATHS: STATE OF RESIDENCE VS STATE OF DEATH REGISTRATION, 2018–2020

STATE OF RESIDENCE	REGISTRATION STATE								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
NSW	9334	74	99	11	7	*	*	76	9610
VIC	85	8980	31	12	15	*	*	*	9131
QLD	103	26	6614	6	6	*	7	*	6766
SA	21	11	*	2492	*	*	8	*	2544
WA	*	8	*	15	4110	0	7	*	4149
TAS	7	10	*	0	*	901	0	*	923
NT	*	*	*	10	*	0	406	*	**
ACT	40	*	*	0	*	*	0	448	497
Other^	*	0	0	0	0	0	0	*	*
Total	9597	9113	6760	2546	4150	910	435	537	34048

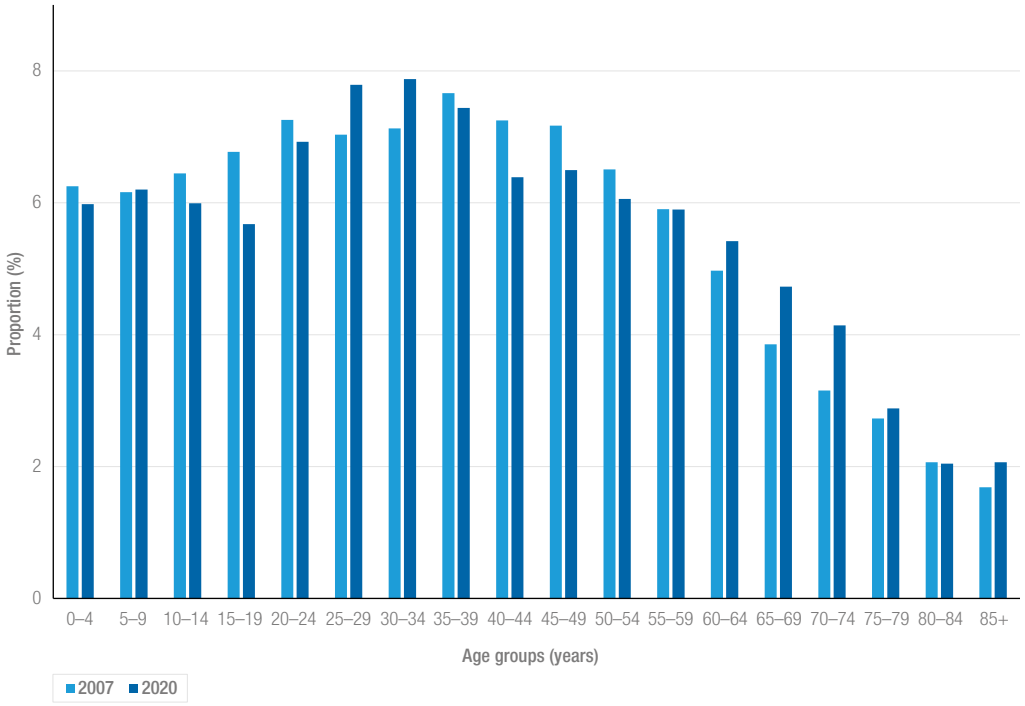
Note: Excludes medical injury and late effects. Also excludes undetermined intent injury deaths among children aged 0–14 years. Frequency of 5 or less has been suppressed with an "". Other cells in the same row and/or column may be suppressed with an "**" in order to maintain confidentiality. ^Other Territories (Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory).*

TABLE 25: REFERENCE YEAR OF INJURY DEATH VS ACTUAL YEAR OF INJURY DEATH FOR VICTORIAN RESIDENTS

DEATH YEAR	REFERENCE YEAR														
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
<2005	16	*	*	*	*	*	*	*	*	*	*	*	0	*	42
2005	11	*	0	*	0	*	0	0	0	*	0	0	0	*	23
2006	122	*	*	0	0	0	*	0	0	0	0	0	0	*	128
2007	1537	352	7	*	0	0	*	0	0	0	0	0	0	*	1900
2008		1692	330	*	*	*	0	*	*	*	0	0	0	*	2035
2009			1903	319	21	*	*	*	0	*	0	0	0	0	2248
2010				1724	286	*	*	0	*	0	0	*	0	0	2016
2011					1814	252	7	*	0	*	*	*	*	0	2081
2012						1759	334	8	*	*	*	*	*	8	2120
2013							1640	524	6	*	*	*	*	6	2184
2014								2060	333	9	*	*	0	*	2407
2015									2263	320	*	0	0	0	2584
2016										2319	342	0	24	*	2686
2017											2165	298	345	8	2816
2018												2202	643	20	2865
2019													2583	384	2967
2020														2587	2587
Total	1686	2055	2244	2055	2127	2020	1987	2597	2609	2659	2519	2510	3598	3023	33689

Note: Excludes medical injury and late effects. Also excludes undetermined intent injury deaths among children aged 0–14 years. Frequency of 5 or less has been suppressed with an "". An increase in deaths for the 2019 reference year is due to inclusion of deaths that had been registered in 2017, 2018 and 2019. See Appendix 3 for more details.*

FIGURE 26: HISTOGRAM OF AGE DISTRIBUTION OF THE RESIDENT POPULATION OF VICTORIA, 2007–2020



Source: ABS catalogue no: 3101.0 - National, state and territory population; TABLE 52 – Estimated Resident Population by Single Year of Age, Victoria. Downloaded October 2022. https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release#data-downloads-data-cubes

APPENDIX 3: ABS TECHNICAL NOTE: VICTORIAN ADDITIONAL REGISTRATIONS AND TIME SERIES ADJUSTMENT

Further information relevant to data trend interpretation is available via the following link: https://www.abs.gov.au/methodologies/causes-death-australia-methodology/2019#technical-note-victorian-additional-registrations-and-time-series-adjustment

MONASH University

ACCIDENT RESEARCH CENTRE

How to access VISU data

VISU collects and analyses information on injury problems to underpin the development of prevention strategies and their implementation. VISU analyses are publicly available for teaching, research and prevention purposes. Requests for information can be lodged via the data request form on the VISU website or by contacting the VISU office by phone.

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The Victorian Injury Surveillance Unit (VISU) is a research unit within the Monash University Accident Research Centre (MUARC). VISU is supported by the Victorian Government.