

INJURY DEATHS VICTORIA 2016-2018

E-bulletin Edition 22
April 2021

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SUGGESTED CITATION

VISU: Hayman, J & Rezaei-Darzi, Ehsan (2021). Injury deaths Victoria, 2016-2018. E-Bulletin Edition 22. Victorian Injury Surveillance Unit, Monash University Accident Research Centre, Clayton, Victoria.

SUMMARY OF INJURY DEATHS, VICTORIA 2016-2018

ALL AGES

- In the three-year period 2016-2018, 7656 Victorians died as a result of injury. Seventy-three percent of these deaths were unintentional (n=5556, 72.6%), 26% were intentional (n=1990: suicide=1844 & homicide=146): and the remaining 1.4% were classified as undetermined intent (n=110). Note that for confidentiality reasons deaths of undetermined intent are examined in detail only for adults (25-64 years).
- The overall average annual injury death rate was 40.4 per 100,000 population.
- Males were overrepresented accounting for 56.6% (n=3146) of unintentional injury deaths, 72.1% (n=1434) of intentional injury deaths and 55.5% (n=61) of undetermined intent injury deaths.
- Three causes: falls (n=3084, 40.3%), suicide (n=1844, 24.1%) and unintentional poisoning (n=1017, 13.3%) combined accounted for approximately three-quarters of injury deaths.

CHILDREN (0-14 YEARS)

- In the period 2016-2018, 70 Victorian children died as a result of injury. Nearly three-quarters of these deaths were unintentional (n=51, 72.9%) and 27.1% were intentional (n=19).
- The overall average annual injury death rate was 2.0 per 100,000 children.
- Boys were overrepresented among all injury (65.7%) and unintentional injury (70.6%) deaths.
- Children aged 0-4 years accounted for 54.3% of child injury deaths (n=38) and 56.9% of unintentional injury deaths (n=29). Children aged 10-14 years accounted for the highest proportion of intentional injury deaths (n=10, 52.6%).
- The leading causes of child injury death were transport (34.3%, mainly as car occupants and pedestrians), drowning (18.6%) and homicide (15.7%).

ADOLESCENTS AND YOUNG ADULTS (15-24 YEARS)

- In the period 2016-2018, 456 Victorian adolescents and young adults died as a result of injury. More than half of these deaths were intentional (n=267, 58.6%) and 41.4% were unintentional (n=189).
- The overall average annual injury death rate was 18.1 per 100,000 adolescents and young adults.
- Males were overrepresented, accounting for 75.7% of unintentional and 73.8% of intentional injury deaths.
- Suicide (55.0%) and transport incidents (28.1%) were the leading causes of injury deaths among adolescents and young adults (n=251 and n=128, respectively).

ADULTS (25-64 YEARS)

- In the period 2016-2018, 3205 Victorian adults died as a result of injury. More than half of these deaths were unintentional (n=1697, 52.9%), 44.3% were intentional (n=1419) and the remaining 2.8% were classified as undetermined intent (n=89).
- The overall average annual injury death rate was 31.8 per 100,000 adults.
- Males were overrepresented accounting for approximately three-quarters of unintentional (74.8%) and intentional (72.2%) injury deaths.
- Suicide accounted for 41.0% of injury deaths (most commonly by hanging). Other common causes of injury death were unintentional poisoning (28.7%) and transport incidents (14.8%, most commonly car occupants).

OLDER ADULTS (65+ YEARS)

- In the period 2016-2018, 3904 Victorian older adults died as a result of injury. Ninety-three percent of these deaths were unintentional (n=3619), and 7.3% were intentional (n=285).
- The overall average annual injury death rate was 135.8 per 100,000 older adults.
- Females were slightly overrepresented in unintentional injury deaths (n=1922, 53.1%) while males accounted for almost three-quarters of intentional injury deaths (n=203, 71.2%).
- Falls accounted for three-quarters of injury deaths among older persons (n=2945, 75.4%), followed by suicide (n=272, 7.0%) and transport incidents (n=235, 6.0%). A high proportion of the fall deaths were coded to 'unspecified fall' (n=2289, 77.7%) but of those with a specified fall mechanism (n=656), half were falls on the same level from slipping, tripping or stumbling (n=328, 50.0%).

INTRODUCTION

This E-bulletin provides a detailed overview of Victorian injury deaths in the three-year period 2016-2018: 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 2007-2018, 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 2016-2018, 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 2007-2018.
- Deaths must have an ICD-10 underlying cause of death code in the range V00–Y84 (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 for Victorian residents coded as ‘undetermined intent’ among children (0-14) were removed from the entire analysis for reasons of confidentiality. Within the sections ‘Adolescents and young adults (15-24 years)’ and ‘Older Adults 65+ years’ deaths coded as undetermined intent were not analysed for reasons of confidentiality.

State of residence rather than registration was chosen considering that population rates were to be calculated (see Appendix 2 Table 24 for the influence of this on the data selected). Reference year rather than registration year was chosen, to be consistent with ABS publications of COD data (see Appendix 2 Table 25 for the influence of this on the data selected).

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 2016, revised data for 2017, and preliminary data for 2018. Data for the 2006 reference year has not been included in this E-bulletin because the revisions process was different to that of the 2007-2018 reference years.

Data for main analysis covers the 3-year period 2016-2018 and as a result of the revisions process, the numbers for two of the three years are subject to revision and will likely change in future E-bulletin editions. Consequently, only ten of the twelve 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) (⊕); and

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 (NIPSP 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 2007-2018 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 3-year period 2016-2018 is provided in Appendix 1 (Table 22). Due to the preliminary/revised nature of the 2017 & 2018 data held by VISU, the most recent three years of data will be presented in this E-bulletin. Any differences between these three years as presented in Table 22 (Appendix 1) 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 (2016), that which is revised (2017) and the year that is preliminary (2018), with more than 70% of deaths being unintentional in all years of the period (72.7% in 2016, and 72.5% in both 2017 and 2018); more than a quarter being intentional (26.2% in 2016, 26.3% in 2017 and 25.5% in 2018); and 2% or less coded as undetermined (1.1% in 2016, 1.2% in 2017 and 2.0% in 2018); (chi-square test $p=0.07$). Overall, males accounted for sixty-one percent of injury deaths ($n=4641$, 60.6%). Around one quarter of injury deaths were due to suicide (24.1%): 1844 Victorians died by suicide in the period 2016-2018.

Overall, there were 7656 injury deaths recorded for Victoria over the period 2016-2018: an average annual rate of 40.4 deaths per 100,000 Victorians (Table 1).

- All intents annual injury death rates were highest in older adults (136.1 per 100,000 older adults) and lowest in children (2.0 per 100,000 children).
- The all ages unintentional annual injury death rate was 29.3 per 100,000 Victorians; rates were highest in older adults (125.9 per 100,000 older adults) and lowest in children (1.5 per 100,000 children).
- The all ages intentional annual injury death rate was 10.5 per 100,000 Victorians (comprising a 9.7/100,000 suicide rate and a 0.8/100,000 homicide rate). Intentional death rates were highest in adults (14.1 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 0.6 per 100,000 Victorians.

TABLE 1: FREQUENCY AND AVERAGE ANNUAL RATES OF INJURY DEATHS BY INTENT AND BROAD AGE GROUPS, VICTORIA 2016-2018

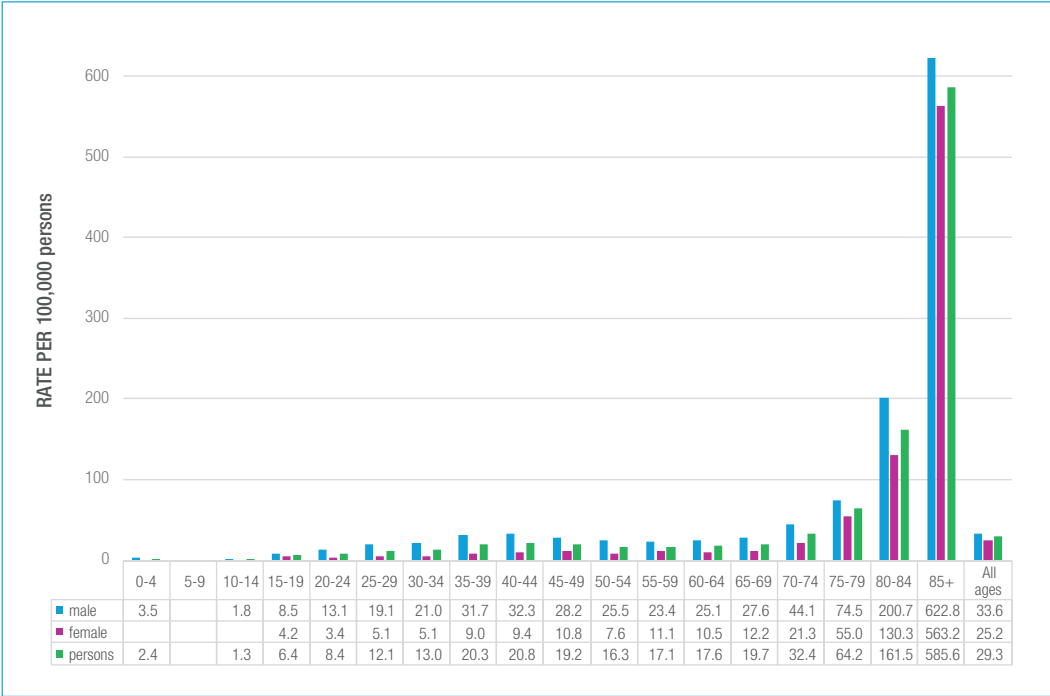
	CHILDREN (0-14 YEARS)		ADOLESCENTS AND YOUNG ADULTS (15-24 YEARS)		ADULTS (25-64 YEARS)		OLDER ADULTS (65+ YEARS)		ALL AGES	
	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000	n	RATE PER 100,000
Unintentional	51	1.5	189	7.5	1697	16.8	3619	125.9	5556	29.3
Intentional	19	0.5	267	10.6	1419	14.1	285	9.9	1990	10.5
<i>Suicide</i>	8	**	251	10.0	1313	13.0	272	9.5	1844	9.7
<i>Homicide</i>	11	0.3	16	0.6	106	1.1	13	0.5	146	0.8
Undetermined intent	NA	NA	13	0.5	89	0.9	8	**	110	0.6
Total	70	2.0	469	18.6	3205	31.8	3912	136.1	7656	40.4

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

NA = Deaths among children coded to 'undetermined intent' were deleted from the entire analysis (see methods section)

Over the period 2016-2018, 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).

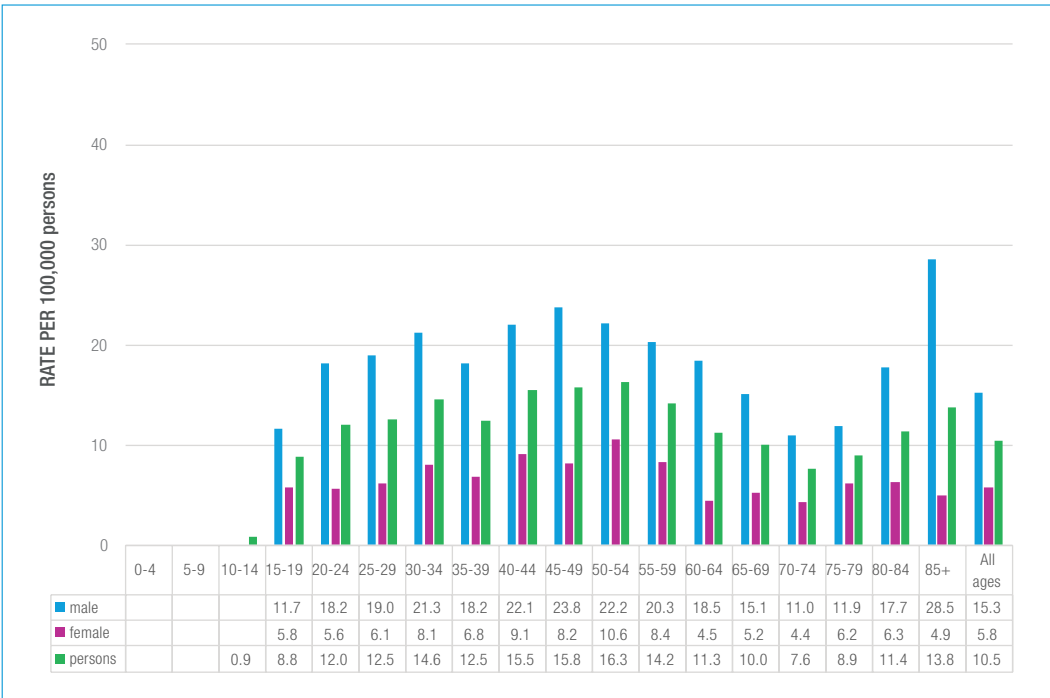
FIGURE 1: AVERAGE ANNUAL UNINTENTIONAL INJURY DEATH RATES BY AGE GROUP AND GENDER, VICTORIA, 2016-2018



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

Over the period 2016-2018, 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 n=10 or more). Age-specific intentional injury death rates were lowest in children aged 0-4 (suppressed in figure) and 10-14 years and were highest in adults aged 50-54 years (Figure 2). Note there were no intentional deaths recorded for children aged 5-9 years.

FIGURE 2: AVERAGE ANNUAL INTENTIONAL INJURY DEATH RATES BY AGE GROUP AND GENDER, VICTORIA 2016-2018



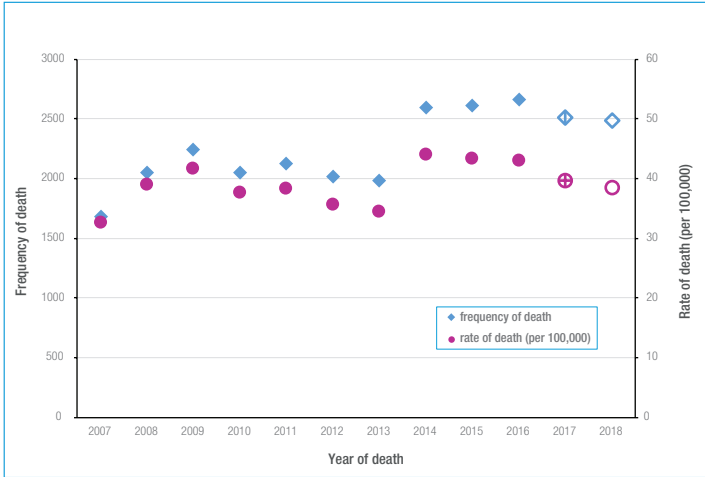
Note: Rates based on frequency less than 10 have been suppressed (appear as blank cells)

TREND IN INJURY DEATHS (2007-2018)

Data presented for the years 2017-2018 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. Note that in the figures below “Year of Death” represents the reference year.

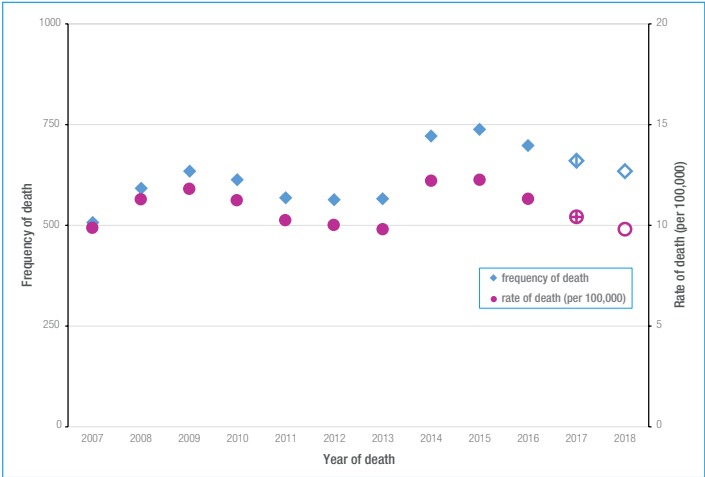
ALL INTENTS INJURY DEATHS

FIGURE 3: TREND IN FREQUENCY AND ANNUAL RATE OF ALL INJURY DEATHS, VICTORIA 2007-2018



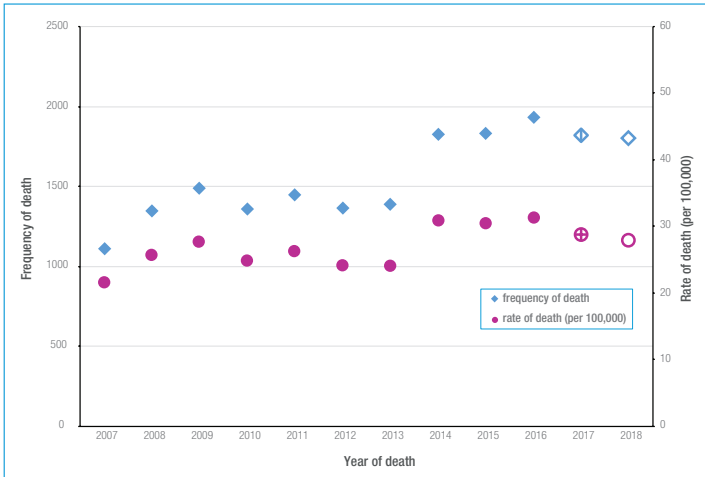
INTENTIONAL INJURY DEATHS

FIGURE 5: TREND IN FREQUENCY AND ANNUAL RATE OF INTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



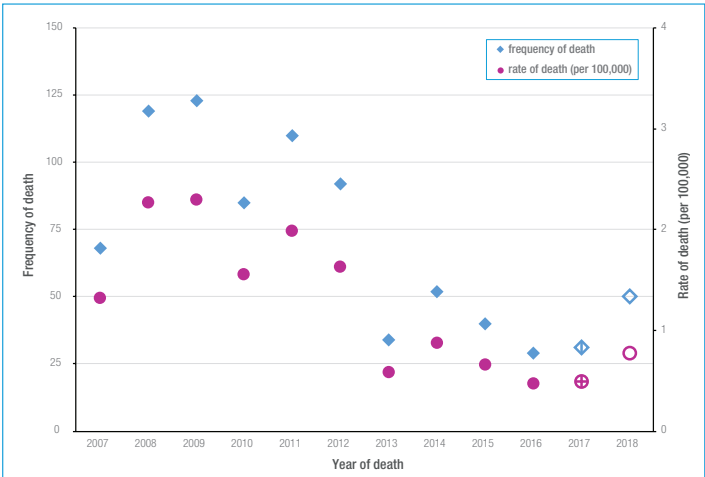
UNINTENTIONAL INJURY DEATHS

FIGURE 4: TREND IN FREQUENCY AND ANNUAL RATE OF UNINTENTIONAL INJURY DEATHS, VICTORIA 2017-2018



UNDETERMINED INTENT INJURY DEATHS

FIGURE 6: TREND IN FREQUENCY AND ANNUAL RATE OF UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007-2018



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

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

PATTERN OF INJURY DEATHS (2016-2018)

GENDER DISTRIBUTION

- Males were overrepresented, accounting for 56.6% of unintentional injury deaths (n=3146), 72.1% of intentional injury deaths (n=1434) and 55.5% of undetermined intent injury deaths (n=61) in Victoria over the period 2016-2018 (Table 2).
- The average annual male injury death rate was 1.6 times higher than the female death rate (49.5/100,000 vs. 31.5/100,000). Men's higher death rates were observed in unintentional, intentional and undetermined intent deaths (by 1.3 times, 2.6 times and 1.4 times, respectively) (Table 2).

AGE DISTRIBUTION

- Persons aged 65 years and older had the highest annual all injury (136.1/100,000) and unintentional injury death rates (125.9/100,000) whereas children aged 0-14 years had the lowest (2.0 and 1.5/100,000, respectively) (Table 3).
- Adults aged 25-64 years had the highest intentional (14.1/100,000) death rate and children aged 0-14 years had the lowest intentional annual injury death rate (0.5/100,000) (Table 3).

TABLE 2: FREQUENCY AND AVERAGE ANNUAL RATE OF INJURY DEATHS BY INTENT AND GENDER, VICTORIA 2016-2018

	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	3146	56.6	33.6	1434	72.1	15.3	61	55.5	0.7	4641	60.6	49.5
Female	2410	43.4	25.2	556	27.9	5.8	49	44.5	0.5	3015	39.4	31.5
Persons	5556	100.0	29.3	1990	100.0	10.5	110	100.0	0.6	7656	100.0	40.4

Note: Child deaths coded to 'undetermined intent' were deleted from the entire analysis (see methods section).

TABLE 3: FREQUENCY AND AVERAGE ANNUAL RATE OF INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2016-2018

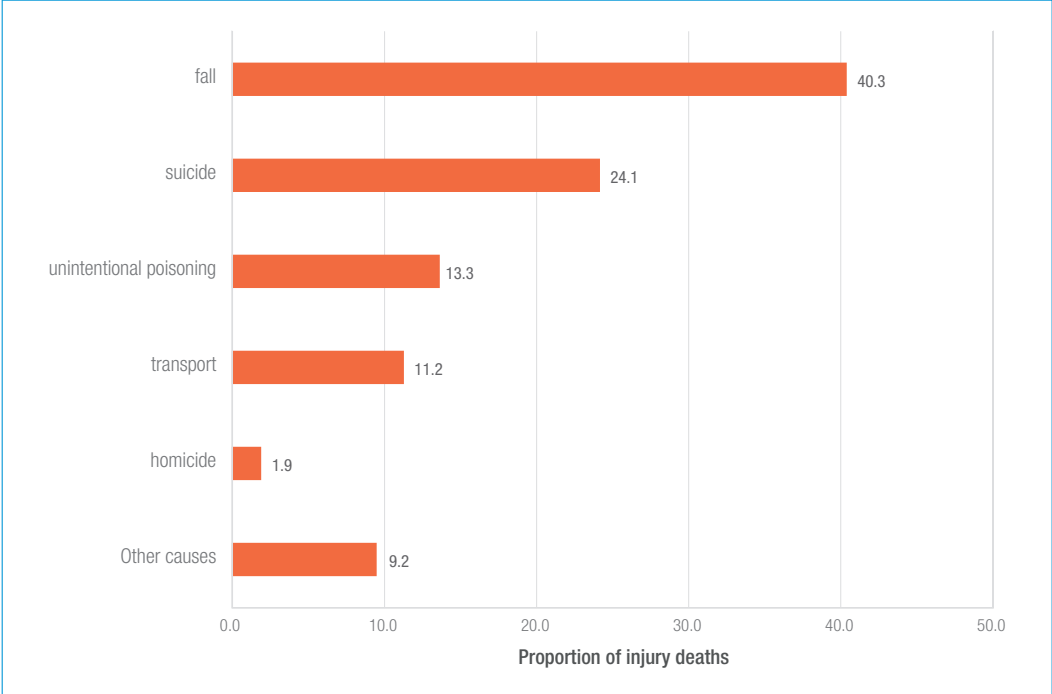
	UNINTENTIONAL			INTENTIONAL			UNDETERMINED INTENT			ALL		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
0-14	51	0.9	1.5	19	1.0	0.5	NA	NA	NA	70	0.9	2.0
15-24	189	3.4	7.5	267	13.4	10.6	13	11.8	0.5	469	6.1	18.6
25-64	1697	30.5	16.8	1419	71.3	14.1	89	80.9	0.9	3205	41.9	31.8
65+	3619	65.1	125.9	285	14.3	9.9	8	7.3	**	3912	51.1	136.1
All ages	5556	100.0	29.3	1990	100.0	10.5	110	100.0	0.6	7656	100.0	40.4

Note: Child deaths coded to 'undetermined intent' were deleted from the entire analysis (see methods section).

LEADING CAUSES OF INJURY DEATHS

- Figure 7 shows the leading causes of injury deaths. Falls (n=3084, 40.3%), suicide (n=1844, 24.1%) and unintentional poisoning (n=1017, 13.3%) accounted for approximately three-quarters of all injury deaths and transport for a further 11.2% (n=861).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 7: LEADING CAUSES OF INJURY DEATHS, VICTORIA 2016-2018 (N=7656)



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

LEADING CAUSES IN MORE DETAIL

- A high proportion of fall deaths were coded to 'unspecified fall' (n=2356, 76.4%). Of those with a specified fall mechanism (n=728), just under half were falls on the same level from slipping, tripping or stumbling (n=349, 47.9%) (Table 4).

TABLE 4: UNINTENTIONAL FALL INJURY DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Same level: slipping, tripping, stumbling	349	11.3
Involving bed	109	3.5
On and from stairs and steps	70	2.3
Involving chair	55	1.8
Other fall on same level	49	1.6
From, out of or through building or structure	28	0.9
On and from ladder	19	0.6
Involving wheelchair	19	0.6
Other fall from one level to another	11	0.4
Other specified fall	19	0.6
Unspecified fall	2356	76.4
All falls	3084	100.0

- Hanging was the most common method of suicide (n=1002, 54.3%), followed by poisoning by pharmaceuticals (n=268, 14.5%) or another substance (n=129, 7.0%) (Table 5).

TABLE 5: SUICIDES, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	1002	54.3
Poisoning- pharmaceuticals	268	14.5
Poisoning other substances	129	7.0
Jumping or lying before moving object	123	6.7
Firearms	95	5.2
Jumping from a high place	77	4.2
Sharp object	54	2.9
Crashing of motor-vehicle	29	1.6
Drowning & submersion	28	1.5
Smoke, fire & flames	23	1.2
Other specified means	10	0.5
Unspecified means	6	0.3
All suicides	1844	100.0

- Narcotics & psychodysleptics (hallucinogens) were the most common specific agents involved in unintentional poisoning deaths (n=185, 18.2%) (Table 6).

TABLE 6: UNINTENTIONAL POISONING DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Narcotics & psychodysleptics (hallucinogens) not elsewhere classified	185	18.2
Antiepileptic, sedative-hypnotic, antiparkinsonism & psychotropic drugs, not elsewhere classified	103	10.1
Alcohol	68	6.7
Nonopioid analgesics, antipyretics & antirheumatics	8	0.8
Other specified poisonings	6	0.6
Other & unspecified drugs, medicaments & biological subs	647	63.6
All poisonings	1017	100.0

- Unintentional transport deaths mostly involved car occupants (n=465, 54.0%), motorcycle riders (n=143, 16.6%), or pedestrians (n=134, 15.6%) (Table 7).

TABLE 7: UNINTENTIONAL TRANSPORT DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Car occupant injured in transport incident	465	54.0
Motorcycle rider injured in transport incident	143	16.6
Pedestrian injured in transport incident	134	15.6
Other land transport incident	34	3.9
Pedal cyclist injured in transport incident	29	3.4
Air and space transport incident	18	2.1
Water transport incident	16	1.9
Occupant of heavy transport vehicle	13	1.5
Other specified transport incident	9	1.0
All transport deaths	861	100.0

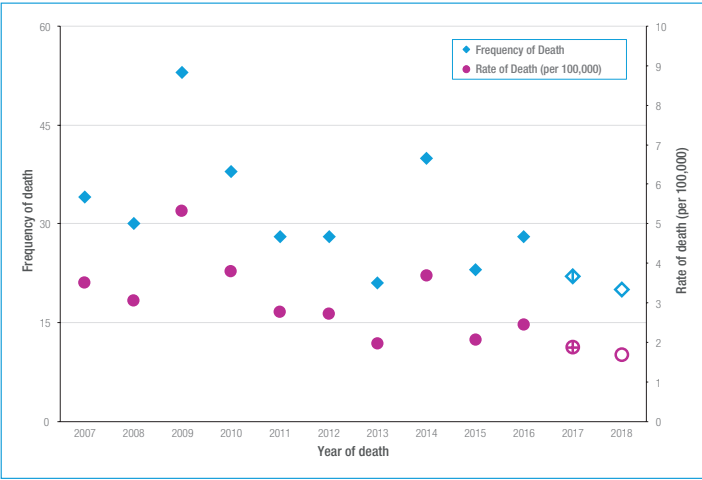
CHILDREN (0-14 YEARS)

TREND IN INJURY DEATHS (2007-2018)

Data presented for the years 2017-2018 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 five intentional deaths among children for most years of the twelve-year period. (Note: undetermined intent child deaths have been excluded from the entire analysis for reasons of confidentiality. Note that in the figures below “Year of Death” represents the reference year).

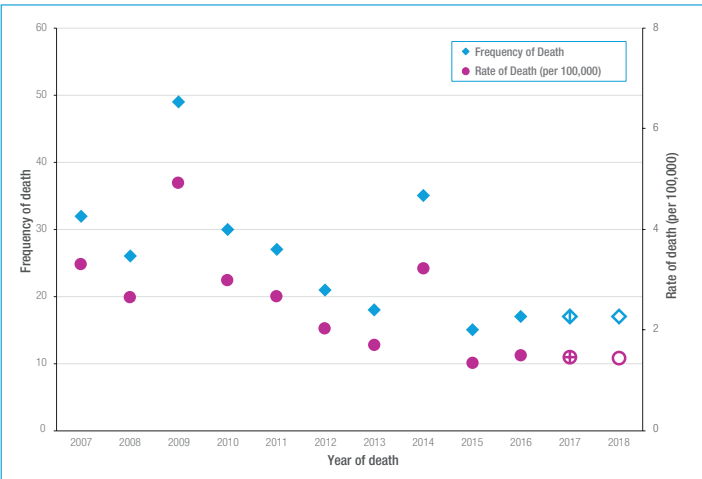
ALL INTENTS INJURY DEATHS

FIGURE 8: TREND IN FREQUENCY AND ANNUAL RATE OF CHILD INJURY DEATHS, VICTORIA 2007-2018



UNINTENTIONAL INJURY DEATHS

FIGURE 9: TREND IN FREQUENCY AND ANNUAL RATE OF CHILD UNINTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



PATTERN OF INJURY DEATHS (2016-2018)

In the period 2016-2018, 70 Victorian children died as a result of injury. More than two-thirds of these deaths were unintentional (n=51, 72.9%) (Table 8).

Gender distribution

- Boys were overrepresented among all injury (65.7%), and unintentional injury deaths (70.6%) (Table 8).
- The annual all injury and unintentional injury death rates were also higher for boys than girls (2.6 & 2.0/100,000 vs. 1.4 & 0.9/100,000 respectively) (Table 8).

Age Distribution

- Children aged 0-4 years accounted for 54.3% of child injury deaths (n=38) and 56.9% of unintentional injury deaths (n=29).
- Children aged 10-14 years accounted for the highest proportion of intentional injury deaths (n=10, 52.6%). Note there were no intentional injury deaths in the 5-9 year age group (Table 9).
- Unintentional annual injury death rates were highest in children aged 0-4 years (2.4 per 100,000) (Table 9).

Leading Causes of Child Injury Deaths

- Figure 10 shows the leading causes of child injury deaths. Transport accounted for 34.3% of injury deaths (n=24) followed by drowning (n=13, 18.6%) and homicide (n=11, 15.7%).
- Child transport deaths mainly involved car occupants (n=10) and pedestrians (n=11).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

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

FIGURE 10: LEADING CAUSES OF CHILD INJURY DEATHS, VICTORIA 2016-2018 (N=70)

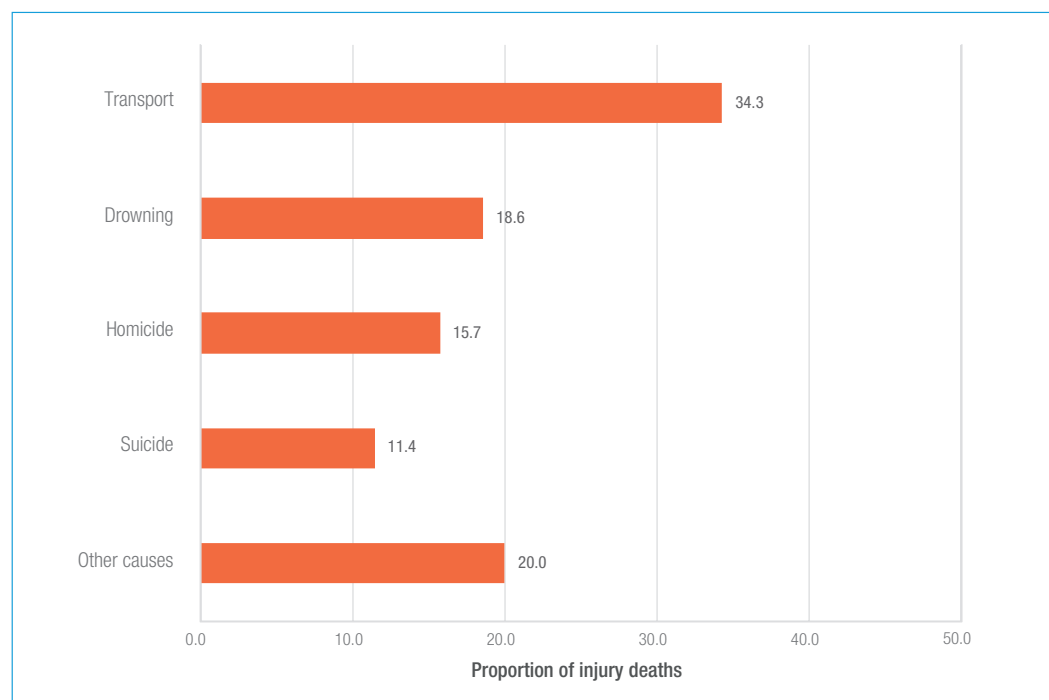


TABLE 8: FREQUENCY AND AVERAGE ANNUAL RATE OF CHILD INJURY DEATHS BY INTENT AND GENDER, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	36	70.6	2.0	10	52.6	0.6	46	65.7	2.6
Female	15	29.4	0.9	9	47.4	**	24	34.3	1.4
All	51	100.0	1.5	19	100.0	0.5	70	100.0	2.0

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

* Child deaths coded to 'undetermined intent' were deleted from the entire analysis (see methods section)

TABLE 9: FREQUENCY AND AVERAGE ANNUAL RATE OF CHILD INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
0-4	29	56.9	2.4	9	47.4	**	38	54.3	3.1
5-9	8	15.7	**	0	0.0	0.0	8	11.4	**
10-14	14	27.5	1.3	10	52.6	0.9	24	34.3	2.2
All	51	100.0	1.5	19	100.0	0.5	70	100.0	2.0

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

* Child deaths coded to 'undetermined intent' were deleted from the entire analysis (see methods section)

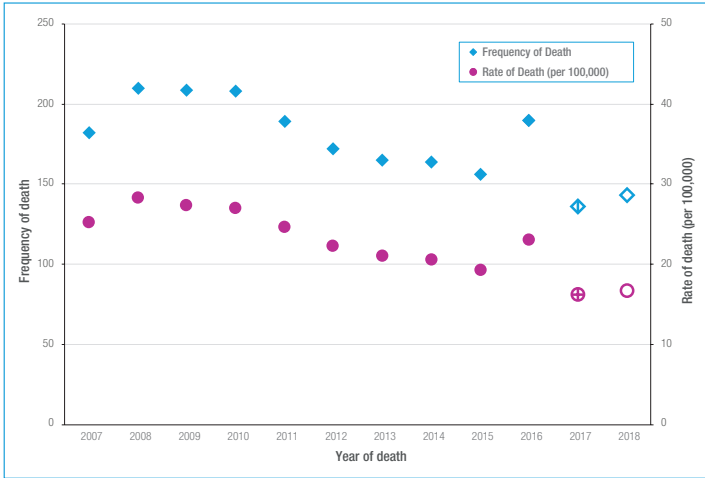
ADOLESCENTS AND YOUNG ADULTS (15-24 YEARS)

TREND IN INJURY DEATHS (2007-2018)

Data presented for the years 2017-2018 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. Note that in the figures below “Year of Death” represents the reference year.

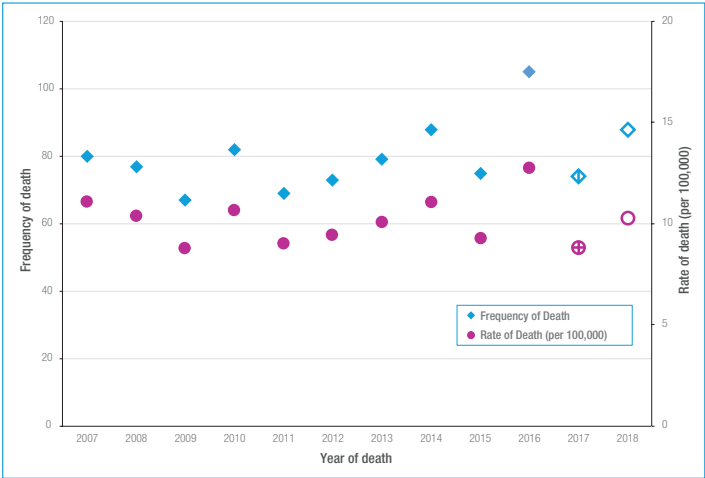
ALL INTENTS INJURY DEATHS

FIGURE 11: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS, VICTORIA 2007-2018



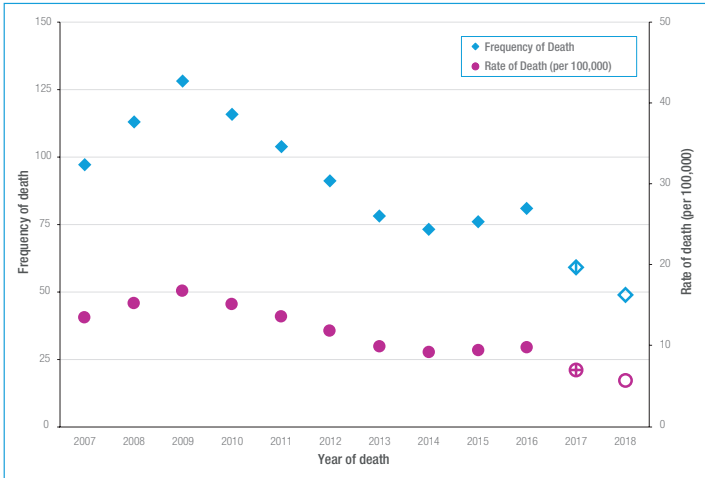
INTENTIONAL INJURY DEATHS

FIGURE 13: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



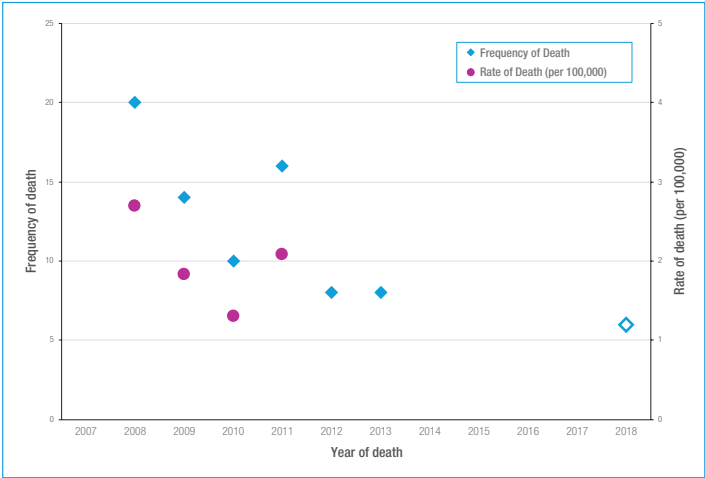
UNINTENTIONAL INJURY DEATHS

FIGURE 12: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



UNDETERMINED INTENT INJURY DEATHS

FIGURE 14: TREND IN FREQUENCY AND ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007-2018



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

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

PATTERN OF INJURY DEATHS (2016-2018)

In the period 2016-2018, 456 Victorian adolescents and young adults died as a result of injury. More than half of the deaths were intentional (n=267, 58.6%) and 41.4% were unintentional (n=189) (Table 10). Note that due to confidentiality reasons deaths coded to undetermined intent were not analysed in the following section.

Gender Distribution

- Males were overrepresented, accounting for 75.7% of unintentional (n=143) and 73.8% of intentional (n=197) injury deaths among adolescents and young adults (Table 10).
- The corresponding adolescent and young adult unintentional and intentional annual injury death rates were also higher for males than females (11.1 & 15.3/100,000 vs. 3.7 & 5.7/100,000 respectively) (Table 10).

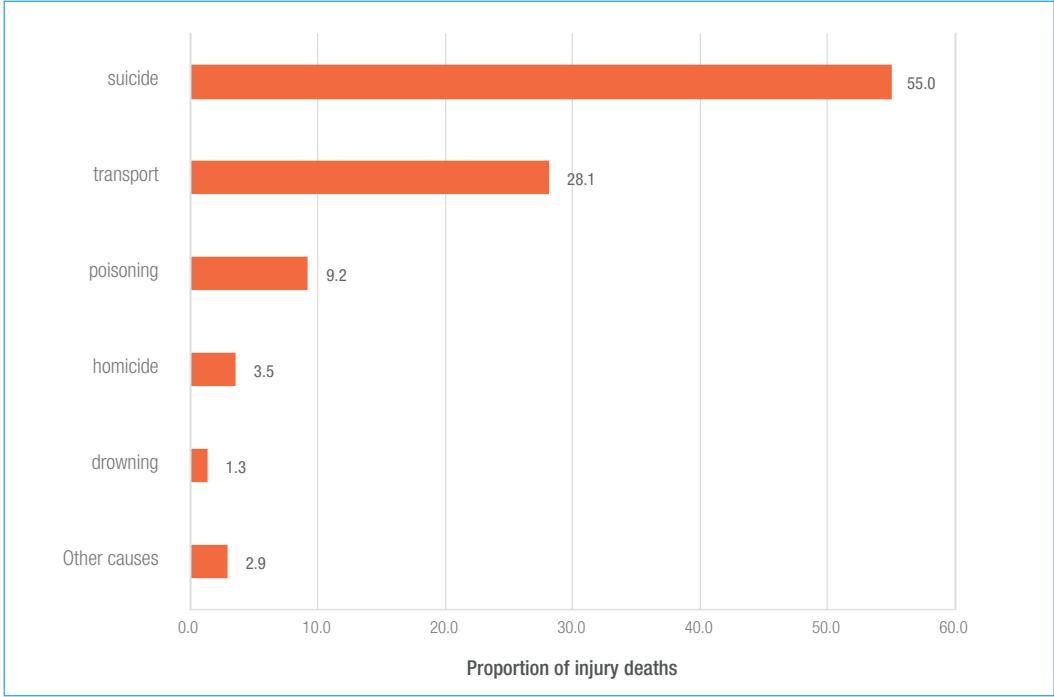
Age Distribution

- Intentional annual injury death rates were higher among persons aged 20-24 years than persons aged 15-19 years (12.0/100,000 vs. 8.8/100,000) (Table 11).

Leading Causes of Adolescent and Young Adult Injury Deaths

- Figure 15 shows the leading causes of adolescent and young adult injury death. Suicide accounted for 55.0% of injury deaths (n=251), followed by transport incidents (n=128, 28.1%) and unintentional poisoning (n=42, 9.2%).
- 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 2016-2018 (N=456)



Note: The cause category ‘other specified unintentional’ was included in the “other causes” category.

TABLE 10: FREQUENCY AND AVERAGE ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS BY INTENT AND GENDER, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	143	75.7	11.1	197	73.8	15.3	340	74.6	26.4
Female	46	24.3	3.7	70	26.2	5.7	116	25.4	9.4
All	189	100.0	7.5	267	100.0	10.6	456	100.0	18.1

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

TABLE 11: FREQUENCY AND AVERAGE ANNUAL RATE OF ADOLESCENT AND YOUNG ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
15-19	72	38.1	6.4	99	37.1	8.8	171	37.5	15.2
20-24	117	61.9	8.4	168	62.9	12.0	285	62.5	20.4
All	189	100.0	7.5	267	100.0	10.6	456	100.0	18.1

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

LEADING CAUSES IN MORE DETAIL

- Hanging was the most common method of suicide (n=148, 59.0%) (Table 12).

TABLE 12: SUICIDES, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	148	59.0
Jumping or lying before moving object	38	15.1
Poisoning- pharmaceuticals	18	7.2
Jumping from a high place	15	6.0
Firearms	10	4.0
Poisoning other substances	8	3.2
Sharp object	6	2.4
Other specified means	8	3.2
All suicides	251	100.0

- Unintentional transport deaths among adolescents and young adults mostly involved car occupants (n=97, 75.8%) (Table 13).

TABLE 13: TRANSPORT INJURY DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Car occupant	97	75.8
Motorcycle rider	15	11.7
Pedestrian	10	7.8
Other transport	6	4.7
All transport	128	100.0

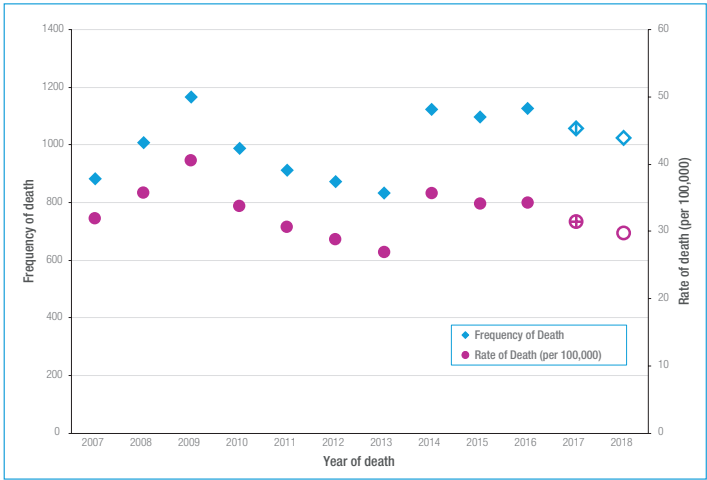
ADULTS (25-64 YEARS)

TREND IN INJURY DEATHS (2007-2018)

Data presented for the years 2017-2018 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. Note that in the figures below “Year of Death” represents the reference year.

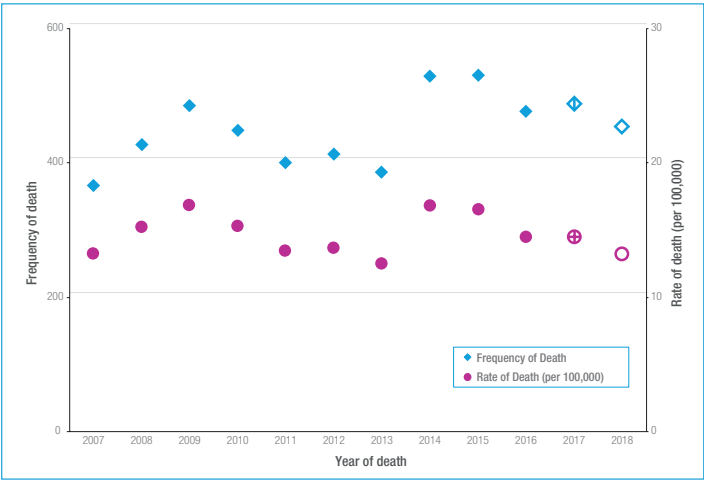
ALL INTENTS INJURY DEATHS

FIGURE 16: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT INJURY DEATHS, VICTORIA 2007-2018



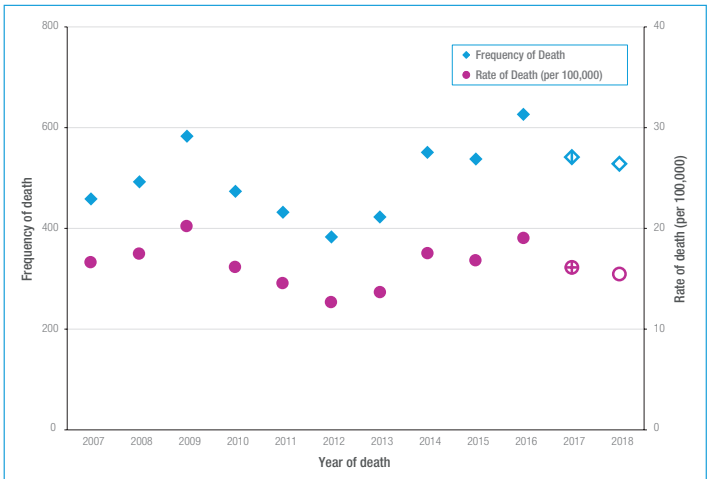
INTENTIONAL INJURY DEATHS

FIGURE 18: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



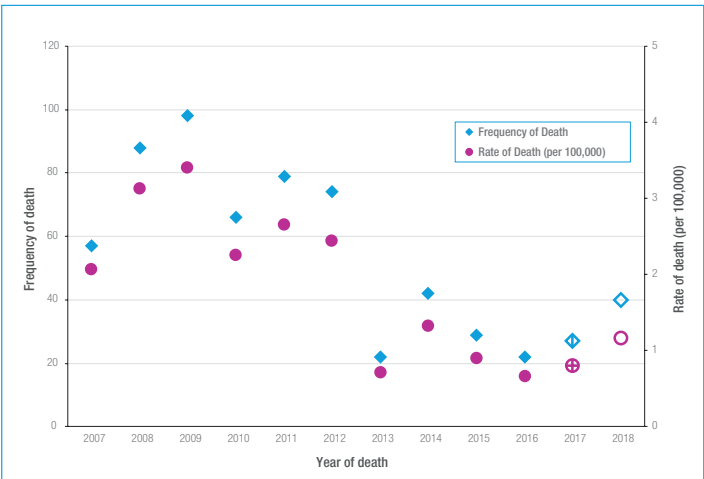
UNINTENTIONAL INJURY DEATHS

FIGURE 17: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



UNDETERMINED INTENT INJURY DEATHS

FIGURE 19: TREND IN FREQUENCY AND ANNUAL RATE OF ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007-2018



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

PATTERN OF INJURY DEATHS (2016-2018)

In the period 2016-2018, 3205 Victorian adults died as a result of injury. More than half of these deaths were unintentional (n=1697, 52.9%), 44.3% were intentional (n=1419) and the remaining 2.8% were classified as undetermined intent (n=89) (Table 14).

Gender Distribution

- Males were overrepresented in adult injury deaths, accounting for around three-quarters of unintentional (n=1270, 74.8%) and intentional injury deaths (n=1024, 72.2%). Males accounted for 56.2% of undetermined intent adult injury deaths (n=50) (Table 14).
- The unintentional and intentional injury annual death rates were higher for males than females (25.6 & 20.6/100,000 vs. 8.4 & 7.7/100,000, respectively). Undetermined intent injury annual death rates were slightly higher for males than females (1.0 vs. 0.8 per 100,000) (Table 14).

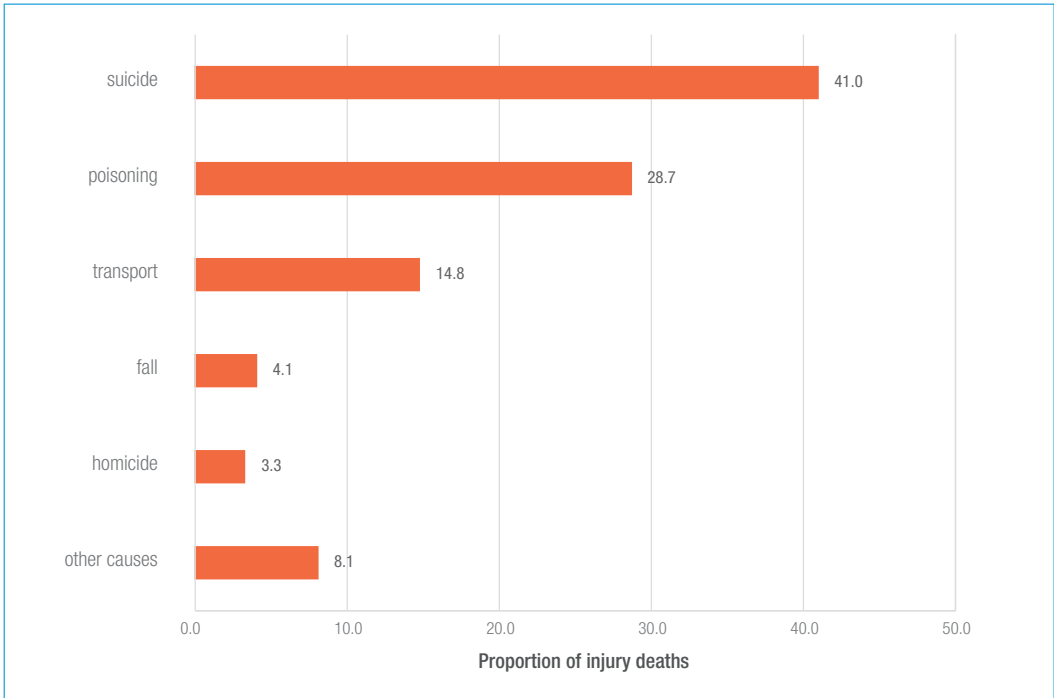
Age Distribution

- Average annual rates were fairly evenly spread across the adult age groups for both unintentional injury and intentional injury deaths (Table 15).

Leading Causes of Adult Injury Deaths

- Figure 20 shows the leading causes of adult injury death. Suicide accounted for 41.0% of injury deaths (n=1313), followed by unintentional poisoning (n=920, 28.7%) and transport (n=474, 14.8%).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 20: LEADING CAUSES OF ADULT INJURY DEATHS, VICTORIA 2016-2018 (N=3205)



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

TABLE 14: FREQUENCY AND AVERAGE ANNUAL RATE OF ADULT INJURY DEATHS BY INTENT AND GENDER, VICTORIA 2016-2018

	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	1270	74.8	25.6	1024	72.2	20.6	50	56.2	1.0	2344	73.1	47.3
Female	427	25.2	8.4	395	27.8	7.7	39	43.8	0.8	861	26.9	16.8
All	1697	100.0	16.8	1419	100.0	14.1	89	100.0	0.9	3205	100.0	31.8

TABLE 15: FREQUENCY AND AVERAGE ANNUAL RATE OF ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2016-2018

	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	181	10.7	12.8	188	13.2	12.9	*	*	**	**	**	24.9
30-34	191	11.3	13.0	215	15.2	14.6	11	12.4	0.7	417	13.0	28.3
35-39	267	15.7	20.3	164	11.6	12.5	17	19.1	1.3	448	14.0	34.1
40-44	258	15.2	20.8	193	13.6	15.5	16	18.0	1.3	467	14.6	37.6
45-49	243	14.3	19.2	199	14.0	15.8	12	13.5	1.0	454	14.2	36.0
50-54	190	11.2	16.3	189	13.3	16.3	12	13.5	1.0	391	12.2	33.6
55-59	192	11.3	17.1	159	11.2	14.2	10	11.2	0.9	361	11.3	32.2
60-64	175	10.3	17.6	112	7.9	11.3	**	**	**	**	**	29.0
All	1697	100.0	16.8	1419	100.0	14.1	89	100.0	0.9	3205	100.0	31.8

Notes: Frequency of 5 or less has been suppressed with an "**". Other cells in the same row and/or column may be suppressed with "**" in order to maintain confidentiality

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=750, 57.1%) among adults, followed by poisoning with pharmaceutical substances (n=180, 13.7%) and non-pharmaceutical substances (n=98, 7.5%) (Table 16).

TABLE 16: SUICIDES, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Hanging, strangulation & suffocation	750	57.1
Poisoning- pharmaceuticals	180	13.7
Poisoning- other substances	98	7.5
Jumping or lying before moving object	75	5.7
Jumping from a high place	55	4.2
Firearms	49	3.7
Sharp object	39	3.0
Crashing of motor-vehicle	23	1.8
Drowning and submersion	18	1.4
Smoke, fire & flames	17	1.3
Other specified or unspecified means	9	0.7
All suicides	1313	100

- Narcotics & psychodysleptics (hallucinogens) were the most common specific agents involved in unintentional poisoning deaths among adults (n=176, 19.1%) (Table 17).

TABLE 17: UNINTENTIONAL POISONING DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Narcotics & psychodysleptics (hallucinogens) not elsewhere classified	176	19.1
Antiepileptic, sedative-hypnotic, antiparkinsonism & psychotropic drugs, not elsewhere classified	90	9.8
Alcohol	57	6.2
Nonopioid analgesics, antipyretics & antirheumatics	*	*
Other gases and vapours	*	*
Other & unspecified chemicals & noxious substances	*	*
Other & unspecified drugs, medicaments & biological subs	589	64.0
All poisoning	920	100.0

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

- Unintentional transport deaths among adults mostly involved car occupants (n=234, 49.4%) and motorcycle riders (n=116, 24.5%) (Table 18).

TABLE 18: UNINTENTIONAL TRANSPORT DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Car Occupant Injured in Transport Incident	234	49.4
Motorcycle Rider Injured in Transport Incident	116	24.5
Pedestrian Injured in Transport Incident	51	10.8
Pedal Cyclist Injured in Transport Incident	21	4.4
Other Land Transport Incident	17	3.6
Water Transport Incident	11	2.3
Occupant of Heavy Transport Vehicle	11	2.3
Air and Space Transport Incident	*	*
Other Specified	*	*
All Transport	474	100.0

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

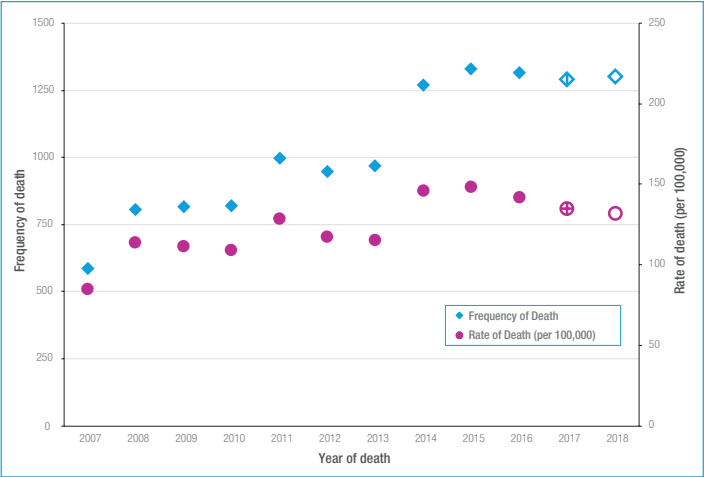
OLDER ADULTS (65 YEARS+)

TREND IN INJURY DEATHS (2007-2018)

Data presented for the years 2017-2018 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. Note that in the figures below “Year of Death” represents the reference year.

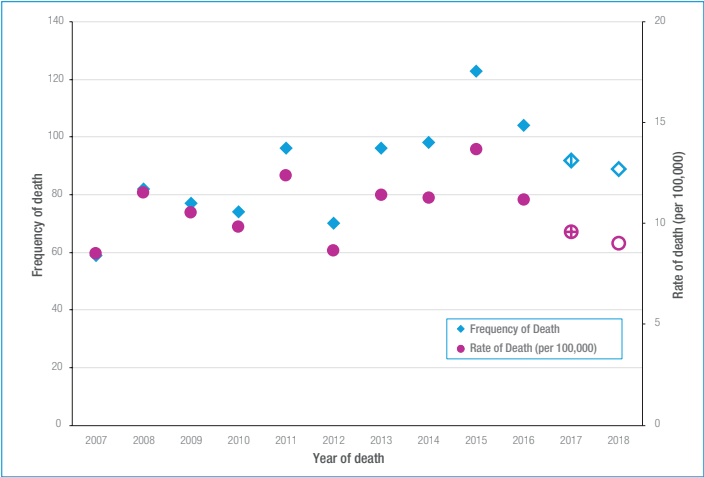
ALL INTENTS INJURY DEATHS

FIGURE 21: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT INJURY DEATHS, VICTORIA 2007-2018



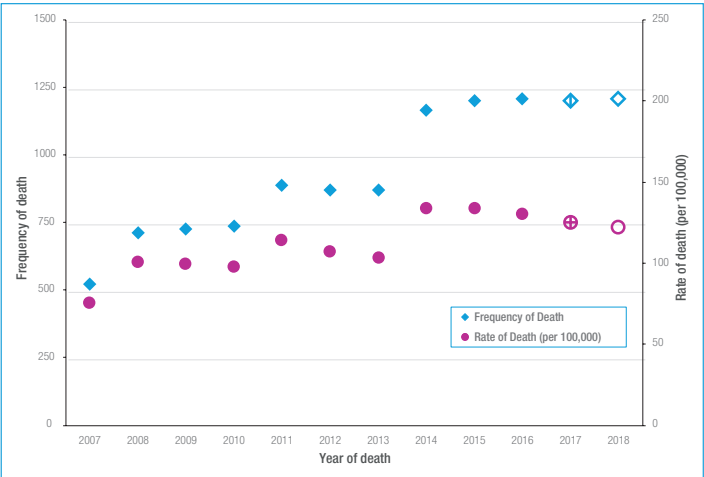
INTENTIONAL INJURY DEATHS

FIGURE 23: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT INTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



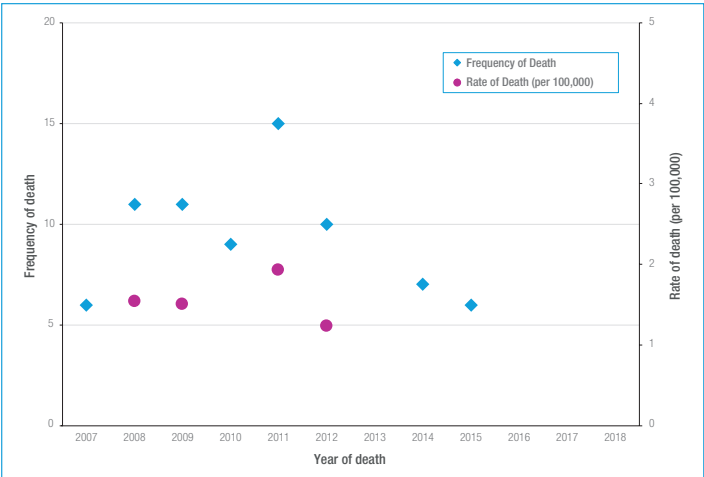
UNINTENTIONAL INJURY DEATHS

FIGURE 22: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT UNINTENTIONAL INJURY DEATHS, VICTORIA 2007-2018



UNDETERMINED INTENT INJURY DEATHS

FIGURE 24: TREND IN FREQUENCY AND ANNUAL RATE OF OLDER ADULT UNDETERMINED INTENT INJURY DEATHS, VICTORIA 2007-2018



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

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

PATTERN OF INJURY DEATHS (2016-2018)

In the period 2016-2018, 3904 Victorian older adults died as a result of injury. Ninety-three percent of these deaths were unintentional (n=3619, 92.7%) and 7.3% were intentional (n=285) (Table 19). Note that due to confidentiality reasons deaths coded to undetermined intent were not analysed in the following section.

Gender Distribution

- More than half of the unintentional injury deaths were among females (n=1922, 53.1%), while males accounted for 71.2% of intentional injury deaths (n=203) (Table 19).
- The all injury and unintentional injury annual death rates were similar for males (142.9 & 127.6/100,000) and females (129.8 & 124.4/100,000, respectively) (Table 19).
- The intentional injury annual death rates were higher for males (15.3/100,000) compared to females (5.3/100,000) (Table 19).

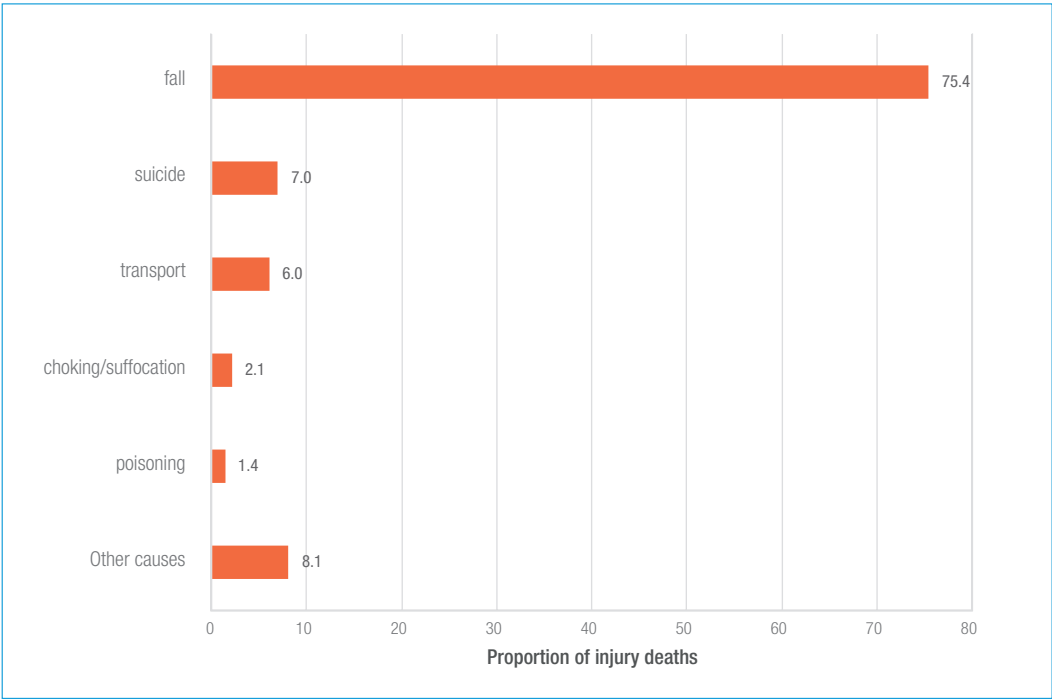
Age Distribution

- Unintentional injury annual death rates increased as age increased, with the highest rates observed in persons aged 85 years and older (585.6/100,000) (Table 20).
- Intentional injury annual death rates were fairly consistent across the older adult age groups in the 65-84-year range but were higher among those aged 85 years and older (13.8/100,000) (Table 20).

Leading Causes of Older Adult Injury Deaths

- Figure 25 shows the 5 leading causes of older adult injury deaths. Falls accounted for three-quarters of injury deaths (n=2945, 75.4%), followed by suicide (n=272, 7.0%), transport incidents (n=235, 6.0%), choking/suffocation (n=81, 2.1%), and unintentional poisoning (n=54, 1.4%).
- For more detail on causes of injury deaths see Appendix 1 Table 23.

FIGURE 25: LEADING CAUSES OF OLDER ADULT INJURY DEATHS, VICTORIA 2016-2018 (N=3904)



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

TABLE 19: FREQUENCY AND AVERAGE ANNUAL RATE OF OLDER ADULT INJURY DEATHS BY INTENT AND GENDER, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
Male	1697	46.9	127.6	203	71.2	15.3	1900	48.7	142.9
Female	1922	53.1	124.4	82	28.8	5.3	2004	51.3	129.8
All	3619	100.0	125.9	285	100.0	9.9	3904	100.0	135.8

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

TABLE 20: FREQUENCY AND AVERAGE ANNUAL RATE OF OLDER ADULT INJURY DEATHS BY INTENT AND AGE GROUP, VICTORIA 2016-2018

	UNINTENTIONAL			INTENTIONAL			ALL*		
	n	%	RATE PER 100,000	n	%	RATE PER 100,000	n	%	RATE PER 100,000
65-69	175	4.8	19.7	89	31.2	10.0	264	6.8	29.7
70-74	230	6.4	32.4	54	18.9	7.6	284	7.3	40.0
75-79	331	9.1	64.2	46	16.1	8.9	377	9.7	73.1
80-84	595	16.4	161.5	42	14.7	11.4	637	16.3	173.0
85+	2288	63.2	585.6	54	18.9	13.8	2342	60.0	599.5
All	3619	100.0	125.9	285	100.0	9.9	3904	100.0	135.8

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

LEADING CAUSE IN MORE DETAIL

- A high proportion of fall deaths were coded to 'unspecified fall' (n=2289, 77.7%) (Table 21). Of those with a specified fall mechanism (n=656), half were falls on the same level from slipping, tripping or stumbling (n=328, 50.0%).

TABLE 21: UNINTENTIONAL FALL DEATHS, VICTORIA 2016-2018

DETAILED CAUSE	n	%
Same level from slipping, tripping, stumbling	328	11.1
Involving bed	104	3.5
On and from stairs and steps	59	2.0
Involving chair	53	1.8
Other fall on same level	47	1.6
From, out of or through building or structure	16	0.5
On and from ladder	15	0.5
Involving wheelchair	15	0.5
Other fall from one level to another	7	0.2
Involving other furniture	*	*
From cliff	*	*
Other specified	6	0.2
Unspecified fall	2289	77.7
All falls	2945	100.0

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

APPENDIX 1

TABLE 22: OVERVIEW OF INJURY DEATHS, VICTORIA 2016-2018

		2016 ⁽¹⁾		2017 ⁽²⁾		2018 ⁽³⁾		TOTAL	
		n	%	n	%	n	%	n	%
	ALL	2659	100.0	2508	100.0	2489	100.0	7656	100.0
Age	0-14	28	1.1	22	0.9	20	0.8	70	0.9
	15-24	190	7.1	136	5.4	143	5.7	469	6.1
	25-64	1125	42.3	1057	42.1	1023	41.1	3205	41.9
	65+	1316	49.5	1293	51.6	1303	52.4	3912	51.1
Sex	Male	1633	61.4	1487	59.3	1521	61.1	4641	60.6
	Female	1026	38.6	1021	40.7	968	38.9	3015	39.4
Cause	UNINTENTIONAL	1933	72.7	1818	72.5	1805	72.5	5556	72.6
	Fall	1025	38.5	1008	40.2	1051	42.4	3084	40.3
	Poisoning	366	13.8	337	13.4	314	12.6	1017	13.3
	Transport	325	12.2	281	11.2	255	10.2	861	11.2
	Choking/Suffocate	48	1.8	33	1.3	39	1.6	120	1.6
	Drowning/Near Drowning	33	1.2	25	1.0	25	1.0	83	1.1
	Fires/Burns/Scalds	15	0.6	10	0.4	9	0.4	34	0.4
	Hit/Struck/Crush	14	0.5	7	0.3	9	0.4	30	0.4
	Natural/Environmental/Animals	10	0.4	14	0.6	16	0.6	40	0.5
	Explosions/Firearms	6	0.2	*	*	*	*	9	0.1
	Machinery	*	*	0	0.0	*	*	7	0.1
	Cutting/Piercing	*	*	*	*	*	*	6	0.1
	Foreign Body - Natural Orifice	*	*	0	0.0	0	0.0	*	*
	Overexertion and/or Strenuous Movements	0	0.0	*	*	0	0.0	*	*
	Other Specified Unintentional	7	0.3	7	0.3	7	0.3	21	0.3
	Unspecified Unintentional	77	2.9	92	3.7	73	2.9	242	3.2
	INTENTIONAL	697	26.2	659	26.3	634	25.5	1990	26.1
	Suicide	634	23.8	619	24.7	591	23.7	1844	24.1
	Homicide	63	2.4	40	1.6	43	1.7	146	1.9
	UNDETERMINED INTENT*	29	1.1	31	1.2	50	2.0	110	1.4
	Event of Undetermined Intent	29	1.1	31	1.2	50	2.0	110	1.4

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 deleted from the entire analysis (see methods section)

TABLE 23: RANKING OF CAUSES OF INJURY DEATHS (ALL AGES), VICTORIA 2016–2018

RANK	AGE GROUPS (YEARS)																		
	0-4yrs	5-9yrs	10-14yrs	15-19yrs	20-24yrs	25-29yrs	30-34yrs	35-39yrs	40-44yrs	45-49yrs	50-54yrs	55-59yrs	60-64yrs	65-69yrs	70-74yrs	75-79yrs	80-84yrs	85+ yrs	ALL
1 n %	drowning 10 26.3%	transport *	transport 11 45.8%	suicide 93 54.4%	suicide 158 55.4%	suicide 178 47.6%	suicide 202 48.4%	poisoning 177 39.5%	suicide 174 37.3%	suicide 176 43.8%	suicide 180 46.0%	suicide 162 42.1%	suicide 105 35.8%	suicide 85 32.2%	fall 148 52.1%	fall 242 63.5%	fall 488 76.6%	fall 1997 85.3%	fall 3084 40.4%
2 n %	transport 9 23.7%	drowning *	suicide 8 33.3%	transport 60 35.1%	transport 68 23.9%	transport 76 20.3%	poisoning 113 27.1%	suicide 146 32.6%	poisoning 165 35.3%	poisoning 153 33.7%	poisoning 110 28.1%	poisoning 76 21.1%	fall 53 18.1%	transport 59 22.3%	suicide 49 17.3%	suicide 47 12.3%	suicide 42 6.6%	unspec. unintent. 167 7.1%	suicide 1844 24.2%
3 n %	homicide 9 23.7	nat./ enviro/ animals *	drowning *	homicide 8 4.2%	poisoning 36 12.6%	poisoning 75 20.1%	transport 64 15.3%	transport 64 14.3%	transport 63 13.5%	transport 58 12.8%	transport 49 12.5%	transport 58 16.1%	poisoning 51 17.3%	fall 58 22.0%	transport 33 11.6%	transport 43 11.3%	transport 41 6.4%	transport 60 2.6%	poisoning 1017 13.3%
4 n %	choking/ suffocation *	choking/ suffocation *	homicide *	poisoning 6 3.5%	homicide 10 3.5%	drowning 11 2.9%	homicide 13 3.1%	homicide 18 4.0%	homicide 19 4.1%	homicide 23 5.1%	fall 17 4.3%	fall 31 8.6%	transport 42 14.3%	poisoning 26 9.8%	poisoning 13 4.6%	unspec. unintent. 14 3.7%	unspec. unintent. 34 5.3%	suicide 53 2.3%	transport 861 11.3%
5 n %	fires/ burns/ scalds	Fall *	poisoning *	homicide 6 3.5%	drowning *	homicide 10 2.7%	oth. or undet. intent 11 2.6%	oth. or undet. intent 17 3.8%	oth. or undet. intent 16 3.4%	oth. or undet. intent 12 2.6%	oth. or undet. intent 12 3.1%	oth. or undet. intent 10 2.8%	homicide 7 2.4%	unspec. unintent. 9 2.4%	choking/ suffocation 12 2.1%	choking/ suffocation 11 1.3%	choking/ suffocation 15 2.4%	choking/ suffocation 40 0.3%	unspec. unintent. 242 3.2%
6 n %	nat./ enviro/ animals *			fall *	explosions/ firearms *	oth. unintentional 6 1.6%	drowning *	fall 8 1.8%	drowning 9 1.9%	fall 9 2.0%	homicide 9 2.3%	homicide 8 2.3%	choking/ suffocation 6 2.0%	nat./ enviro/ animals *	unspec. unintent. 10 3.5%	poisoning 5 1.3%	drowning *	fires/ burns/ scalds 8 0.3%	homicide 146 1.9%
7 n %	Fall *			drowning *	oth. unintentional 6 1.6%	oth. or undet. intent *	nat./ enviro/ animals *	drowning 7 1.6%	fall 9 1.9%	hit/ struck/ crush *	drowning *	choking/ suffocation 6 1.7%	oth. or undet. intent 6 2.0%	choking/ suffocation *	drowning 6 2.1%	fires/ burns/ scalds 5 1.3%	nat/ enviro/ animals *	poisoning 7 0.3%	choking/ suffocation 120 1.6%
8 n %				choking/ suffocation *	fall *	fall *	choking/ suffocation *	hit/ struck/ crush *	hit/ struck/ crush *	choking/ suffocation *	drowning *	unspec. unintent. 17 2.0%	drowning 6 2.0%	homicide *	homicide *	homicide *	poisoning *	hit/ struck/ crush *	oth. or undet. intent 89 1.2%
9 n %					choking/ suffocation *	fires/ burns/ scalds *	unspec. unintent. *	oth. unintentional *	choking/ suffocation *	drowning *	fires/ burns/ scalds *	fires/ burns/ scalds *	hit/ struck/ crush *	oth. unintentional *	nat./ enviro/ animals *	drowning *	fires/ burns/ scalds *	nat./ enviro/ animals *	drowning 83 1.1%
10 n %						choking/ suffocation *	fall *	fires/ burns/ scalds *	nat./ enviro/ animals *	fires/ burns/ scalds *	hit/ struck/ crush *	nat./ enviro/ animals *	nat./ enviro/ animals *	drowning *	hit/ struck/ crush *	nat./ enviro/ animals *	hit/ struck/ crush *	drowning animals 40 0.5%	nat./ enviro/ animals 40 0.5%
11 n %						nat./ enviro/ animals *	machinery *	choking/ suffocation *	Fires/ burns/ scalds *	cutting/ piercing *	nat./ enviro/ animals *	hit/ struck/ crush *	fires/ burns/ scalds *	hit/ struck/ crush *	machinery *	oth. unintentional *	strenuous movements *	explosions/ firearms *	fires/ burns/ scalds 34 0.4%
12 n %								machinery *	machinery *	explosions/ firearms *	explosions/ firearms *	drowning *	unspec. unintent. *	fires/ burns/ scalds *	explosions/ firearms *	oth. or undet. intent *	explosions/ firearms *	hit/ struck/ crush 30 0.4%	hit/ struck/ crush 30 0.4%
13 n %								cutting/ piercing *	cutting/ piercing *	oth. unintentional *	unspec. unintent. *	machinery *	explosions/ firearms *	fires/ burns/ scalds *	fires/ burns/ scalds *	oth. unintentional *	oth. unintentional 21 0.3%	oth. unintentional 21 0.3%	oth. unintentional 21 0.3%
14 n %												explosions/ firearms *	foreign body *	cutting/ piercing *	cutting/ piercing *		homicide *	explosions/ firearms 9 0.1%	explosions/ firearms 9 0.1%
15 n %												cutting/ piercing *	machinery *				machinery 7 0.1%	machinery 7 0.1%	machinery 7 0.1%
16 n %													oth. unintentional *					cutting/ piercing **	cutting/ piercing **
17 n %																		foreign body *	foreign body *
18 n %																			strenuous mov ements *
all	38	8	24	171	285	374	417	448	467	454	391	361	293	264	284	377	637	2342	7635

Note: Oth/ undet. intent = other or undetermined intent; nat./ envir./ animals = natural/environmental/animals; oth. unintentional = 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 with "****" in order to maintain confidentiality.

*Deaths coded to 'undetermined intent' for children, adolescents/young adults and older adults were deleted from the entire analysis (see methods section)

APPENDIX 2

TABLE 24: INJURY DEATHS: STATE OF RESIDENCE VS STATE OF DEATH REGISTRATION, 2016-2018

STATE OF RESIDENCE	REGISTRATION STATE								
	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
NSW	9067	79	113	**	9	7	*	87	9372
VIC	97	7485	31	11	15	**	7	*	7656
QLD	101	24	6358	*	10	*	8	*	6513
SA	16	10	*	2418	9	*	9	0	2468
WA	6	9	11	6	3892	*	11	*	3939
TAS	*	*	*	0	*	851	*	*	869
NT	*	*	*	7	*	0	420	0	**
ACT	36	*	*	0	*	0	*	415	460
Other^	0	0	0	0	*	0	0	*	**
Total	9329	7615	6528	2453	3946	870	462	515	31718

Notes: 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 "*" in order to maintain confidentiality.

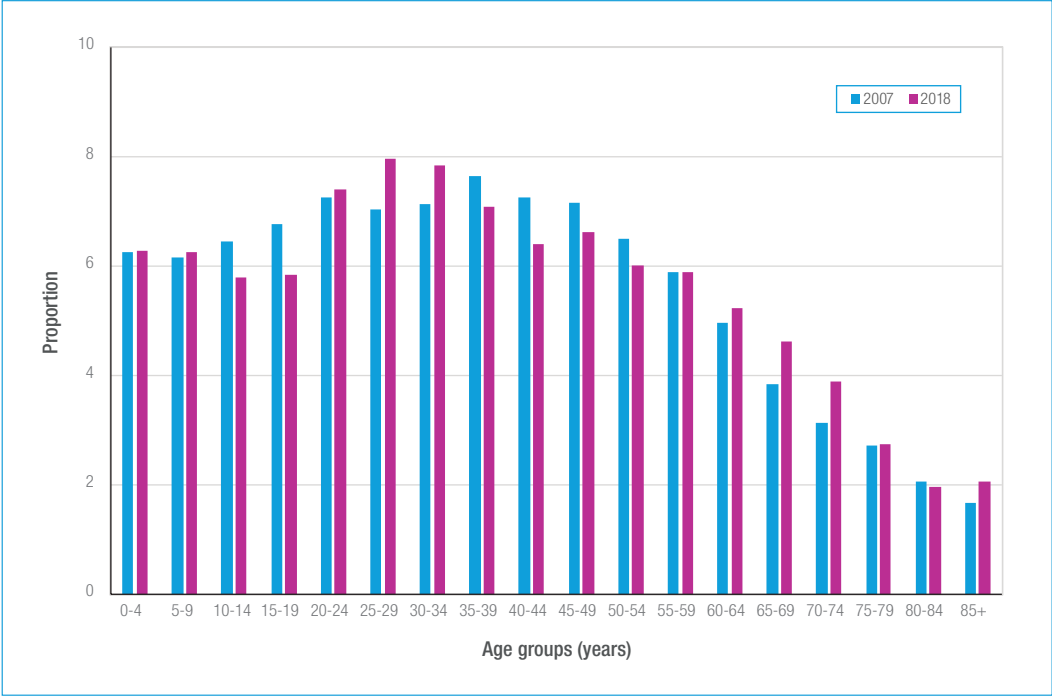
^Other Territories (Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory)

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

DEATH YEAR	REFERENCE YEAR												Total
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<2005	16	*	*	*	*	*	*	*	*	*	*	*	41
2005	11	*	0	*	0	*	0	0	0	*	0	0	19
2006	122	*	*	0	0	0	*	0	0	0	0	0	127
2007	1537	352	7	*	0	0	*	0	0	0	0	0	1899
2008		1692	330	*	*	*	0	*	*	*	0	0	2034
2009			1903	319	21	*	*	*	0	*	0	0	2248
2010				1724	286	*	*	0	*	0	0	*	2016
2011					1814	252	7	*	0	*	*	*	2080
2012						1759	334	8	*	*	*	*	2111
2013							1640	524	6	*	*	*	2177
2014								2060	333	9	*	*	2406
2015									2263	320	*	*	2584
2016										2319	341	0	2660
2017											2155	298	2453
2018												2181	2181
Total	1686	2055	2244	2055	2127	2020	1987	2597	2609	2659	2508	2489	27036

Notes: Excludes medical injury and late effects. Also excludes undetermined intent injury deaths among children aged 0-14 year. Frequency of 5 or less has been suppressed with an "**".

FIGURE 26: HISTOGRAM OF AGE DISTRIBUTION OF THE RESIDENT POPULATION OF VICTORIA, 2007-2018



Source: ABS June 2019; catalogue no: 3101.0 - Australian Demographic Statistics; TABLE 52 - Estimated Resident Population by Single Year of Age, Victoria.

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 (www.monash.edu/muarc/visu) or by contacting the VISU office by phone (03 9905 1805).

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