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✓ Latest release

Causes of Death, Australia

Statistics on the number of deaths, by sex, selected age groups, and cause of death classified to the International Classification of Diseases (ICD)

Reference period 2021

Released 19/10/2022

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Key statistics

- The mortality rate remained low in 2021 (507.2 per 100,000 people).
- Ischaemic heart disease was the leading cause of death.
- Suicide was the 15th leading cause of death.
- There were two deaths from Influenza, a record low.
- The rate for Alcohol-induced deaths was the highest in 10 years.

Revised causes of death data now available

Revised cause of death data is now available (as of 14/04/2023) for the following:

- For coroner certified death data for the years 2019-2021, and,
- for Western Australian doctor certified death data for the years 2016-2020.

Changes to cause of death data are outlined in a series of technical notes accessed via the methodology link on this page. Two data cubes (16 and 17) are also available containing this revised data. These can be accessed via the data downloads tab on this page. See [Revisions to causes of death \(https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#revisions-to-causes-of-death\)](https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#revisions-to-causes-of-death) for links to these resources.

Articles linked to this topic page including 2021 in Review, Leading causes of death and Intentional self-harm do not incorporate the revised data. The annual Causes of Death, Australia, 2022 publication will incorporate these revisions in full when released in the last quarter of this year.

Crisis support services, 24 hours, 7 days

Some of these statistics may cause distress. Services you can contact are detailed in blue boxes throughout this publication and in the [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services) section at the end of the publication.

- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [Suicide Call Back Service \(https://www.suicidecallbackservice.org.au/\)](https://www.suicidecallbackservice.org.au/): 1300 659 467

- [Beyond Blue \(https://www.beyondblue.org.au/\)](https://www.beyondblue.org.au/): 1300 224 636
- [MensLine Australia \(https://mensline.org.au/\)](https://mensline.org.au/): 1300 789 978
- [13YARN \(https://www.13yarn.org.au/\)](https://www.13yarn.org.au/): 13 92 76
- [Kids Helpline \(https://kidshelpline.com.au/\)](https://kidshelpline.com.au/) (for young people aged 5 to 25 years): 1800 551 800
- National Alcohol and Other Drugs Hotline: 1800 250 015

The ABS uses, and supports the use of, the [Mindframe guidelines \(https://www.mindframe.org.au/guidelines\)](https://www.mindframe.org.au/guidelines) on responsible, accurate and safe reporting on suicide, mental ill-health and alcohol and other drugs. The ABS recommends referring to these guidelines when reporting on statistics in this report.

2021: Mortality during the second year of the COVID-19 pandemic

Australia recorded significantly lower than expected mortality during the first year of the COVID-19 pandemic with death rates reaching historical lows. Deaths decreased across many causes, but the decrease in respiratory disease deaths was most notable. The experience of Australia was different from that of many other countries, where significant increases in mortality were recorded, due largely to deaths from COVID-19.

As Australia entered the second year of the pandemic, COVID-19 continued to circulate with the Delta variant emerging and triggering public health response measures. The roll out of COVID-19 vaccines began in February 2021. Monitoring patterns of mortality during 2021 remained important, with [Provisional Mortality Statistics \(/statistics/health/causes-death/provisional-mortality-statistics\)](/statistics/health/causes-death/provisional-mortality-statistics) reports continuing to provide timely insights into the direct and indirect effects of the virus on patterns of death. These reports showed that the mortality rate remained low during 2021 with key causes certified by a doctor being cancers, ischaemic heart diseases and dementia. These provisional reports did not include information on the causes of coroner referred deaths due to the time required to complete coronial investigations.

With the majority of information on 2021 deaths now available, the Causes of Death report is able to provide a more complete picture of deaths registered in 2021, including preliminary cause of death information for coroner referred deaths and other key mortality indicators such as leading causes of death.

2021: Overview of key mortality indicators

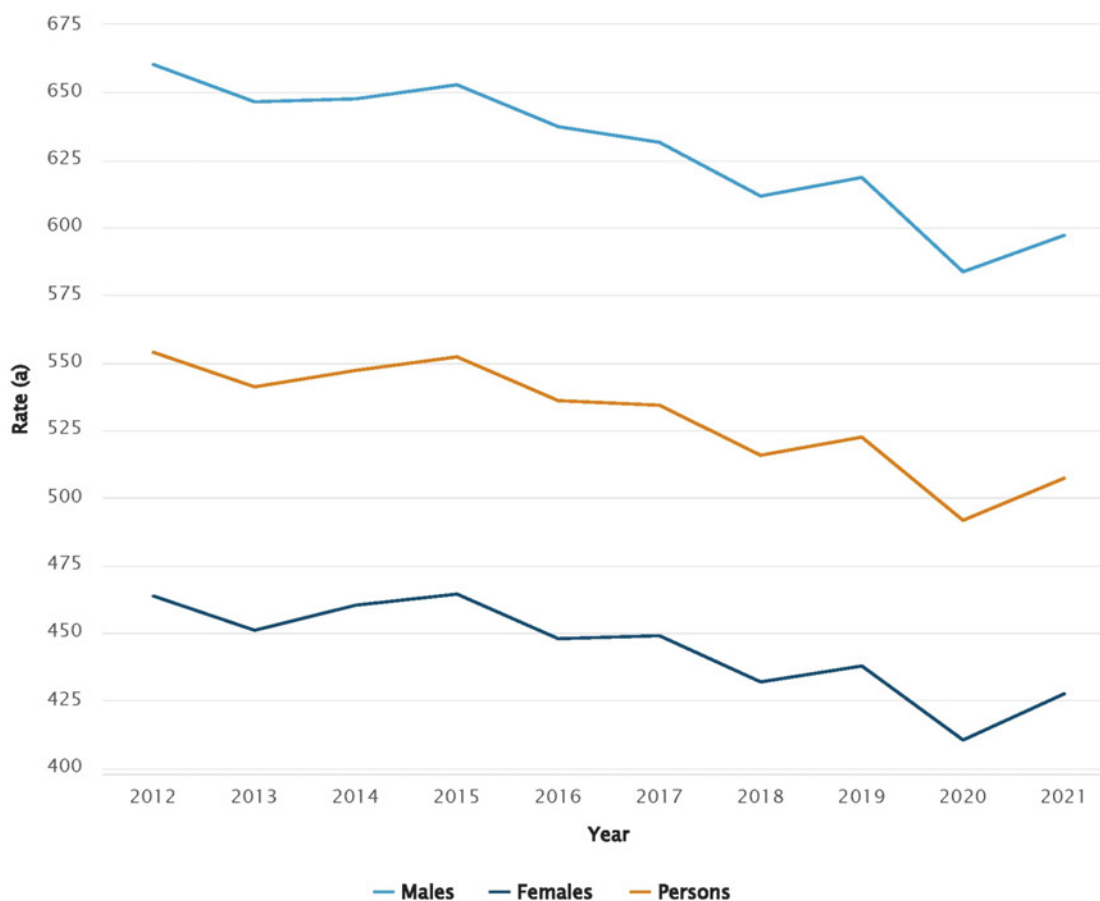
2021: All cause mortality by sex

To show the mortality pattern over the last decade, age-standardised death rates (SDRs) are presented below for males, females and persons.

In 2021:

- The mortality rate remained low at 507.2 deaths per 100,000 people.
- Whilst this was a 3.2% increase on the previous year, the mortality rate in 2020 was at a historical low.
- Mortality rates increased from 2020 by 2.3% for males and 4.1% for females, but remained below 2019 rates.

Age-standardised death rates for all-cause mortality, by sex, 2012-2021 (a) (b)(c)(d)



- a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- b. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- c. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: All cause mortality by age

Data is presented in the table below as age-specific death rates (ASDRs) for selected age groups. In 2020, age-specific death rates decreased for all age groups. In contrast, 2021 saw an increase in ASDRs for all age groups except those aged 25-44, which continued to decline.

In 2021:

- The death rate for those aged 25-44 was the lowest in the 10-year time series.
- In 2020, the largest proportional rate decrease was for females aged 85 and over (6.9%). The mortality rate for this cohort increased by 5.6% in 2021, signifying a return to expected mortality rates.
- ASDRs for those aged 85 and over were similar to those seen in 2018, which was a year of particularly low influenza and pneumonia mortality.
- Almost all ASDRs remained below 2019 rates, excluding those for females aged 0-24.

Age-specific death rates for all-cause mortality, by sex and age group, 2012-(b)(c)(d)

Age group and sex	2012	2013	2014	2015	2016	2017	2018	2019	2021
Males									
0-24	43.5	43.1	39.3	41.7	40.7	40.7	40.4	41.9	39.
25-44	103.7	98.8	106.9	108.4	103.3	105.2	99.2	101.2	97.
45-64	434.0	436.8	452.6	456.9	441.3	437.0	436.2	446.4	422.
65-84	2,672.3	2,604.2	2,552.1	2,526.3	2,469.1	2,430.5	2,352.8	2,360.4	2,247.
85+	14,903.3	14,381.5	14,442.6	14,760.1	14,474.1	14,550.7	14,053.5	14,394.7	13,487.
Females									
0-24	29.4	29.2	27.5	26.8	24.6	25.8	24.0	25.3	24.
25-44	54.1	53.3	55.4	54.9	56.0	52.2	49.9	50.6	49.
45-64	266.5	269.3	272.0	271.6	263.8	262.5	265.0	261.4	250.
65-84	1,837.6	1,756.5	1,762.7	1,747.5	1,667.6	1,661.8	1,588.0	1,597.8	1,494.
85+	12,849.1	12,354.7	12,758.5	13,070.0	12,603.8	12,788.6	12,210.6	12,632.7	11,765.

Age group and sex	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Persons										
0-24	36.6	36.3	33.5	34.5	32.9	33.5	32.4	33.9	31.1	31.1
25-44	78.9	76.1	81.2	81.6	79.5	78.6	74.4	75.8	73.1	73.1
45-64	349.4	352.1	361.0	362.7	350.8	348.0	349.0	352.2	334.1	334.1
65-84	2,237.2	2,163.4	2,142.3	2,122.4	2,053.7	2,032.0	1,955.9	1,963.9	1,855.1	1,855.1
85+	12,567.2	12,074.0	12,366.1	12,600.5	12,300.2	12,440.0	12,000.4	12,200.1	12,420.1	12,420.1

- Age-specific death rates reflect the number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
- Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Top five leading causes of death

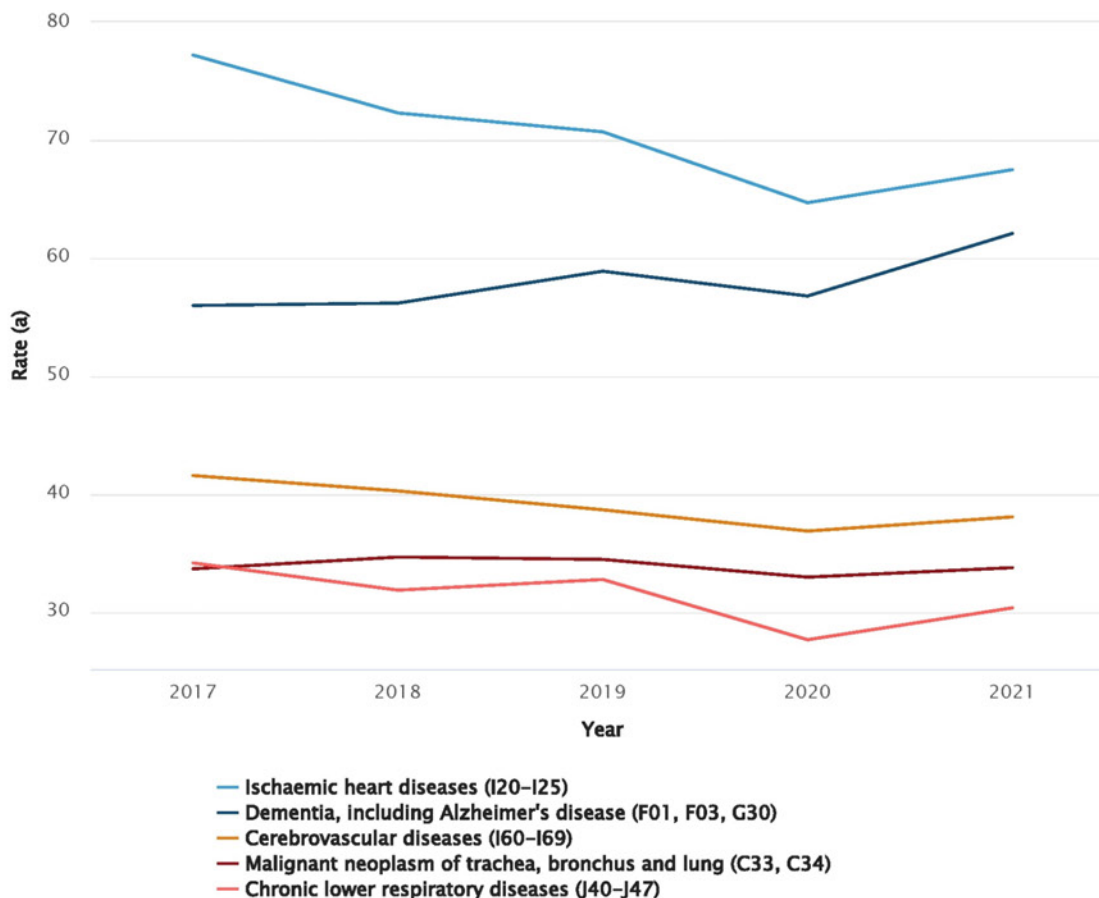
Leading causes of death give an indication of the health of a population and help to ensure that health resources are directed to where they are needed most.

In 2021:

- The top five leading causes of death remained the same.
- All of the top five leading causes recorded increases in their (crude) mortality rates. This follows a decrease in all of these causes during the first year of the pandemic.
- The rate difference between ischaemic heart diseases and dementia continues to narrow – in 2017 the mortality rate of ischaemic heart disease was approximately 38% higher than deaths due to dementia. In 2021 the rate was approximately 9% higher.
- Excluding 2020, both the number and rate of deaths due to ischaemic heart diseases (IHD) have been decreasing over time. While there was a 4.5% increase in the number of deaths due to IHD in 2021, this follows a 7.4% decrease between 2019 and 2020.
- Crude death rates due to dementia were the highest in the time series.

- All top five leading causes of death are non-communicable diseases (they are not passed from person to person).

Crude death rates for top 5 leading causes of death, 2017-2021 (a)(b)(c)(d)



- Crude death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2017 - 2018 (final), 2019

(revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Respiratory disease mortality

Respiratory diseases include acute manifestations such as influenza and pneumonia as well as chronic diseases such as emphysema, asthma and interstitial lung disease.

Tracking respiratory diseases through the COVID-19 pandemic has provided valuable insights into the success of public health measures. Many acute respiratory diseases (such as influenza and some types of pneumonia) are transmitted via droplets, so measures put in place to prevent the spread of COVID-19 can also reduce the spread of other communicable diseases. In addition, people with chronic lung diseases can be particularly vulnerable to poor outcomes from contracting infectious diseases such as influenza and COVID-19. Historically, respiratory disease mortality rates have reflected the severity of the annual influenza season, with higher rates observed during years with severe flu seasons such as 2017 and 2019.

In 2021:

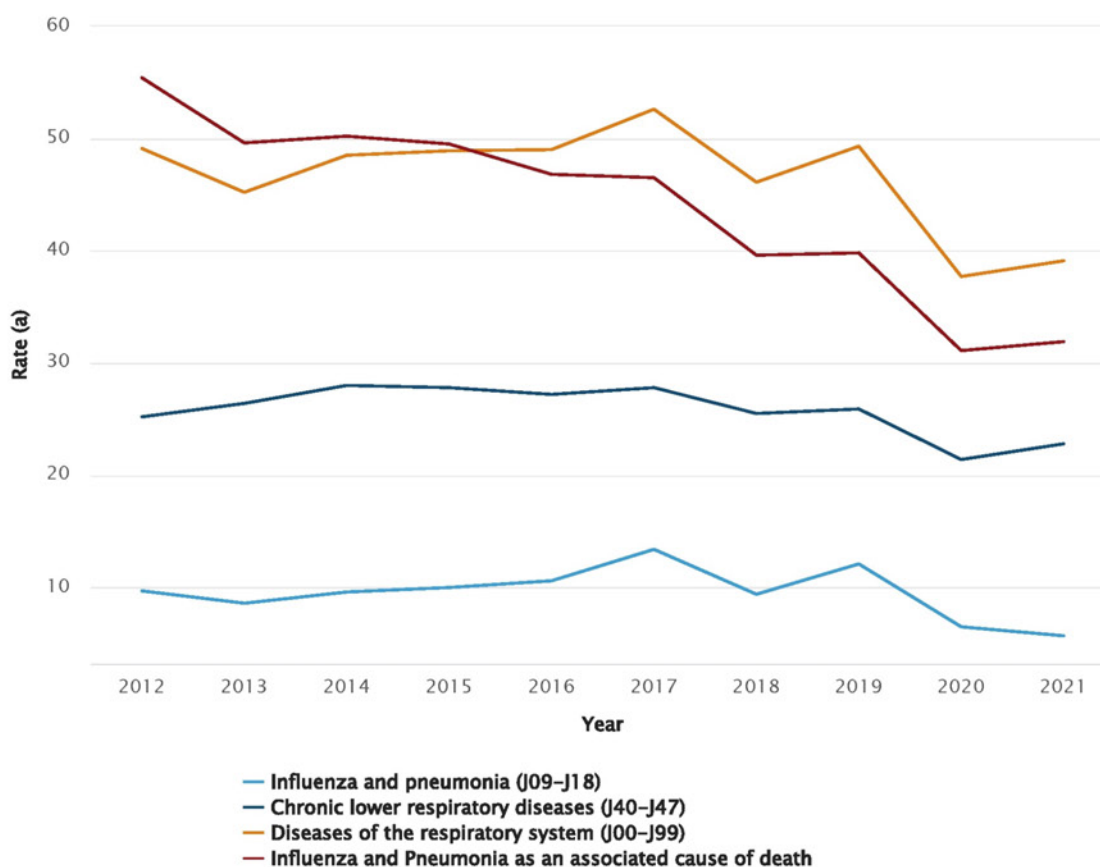
- The mortality rate from respiratory diseases remains low at a rate of 39.1 per 100,000 people.
- This is the second lowest mortality rate on record from respiratory diseases (after 2020).
- There was a 3.5% increase in the mortality rate from respiratory diseases from 2020.
- The increase in 2021 was driven by deaths due to chronic respiratory diseases such as chronic obstructive pulmonary disease (COPD) and interstitial lung disease.

Acute respiratory diseases:

- There were 2 people who died from influenza, which is the lowest number of annual flu deaths on record. This compares to 55 in 2020 and 1,076 in 2019.
- Influenza and pneumonia as a combined group decreased by 12.5% from 2020. This follows a 45.9% decrease in 2020 after a high influenza mortality rate in 2019.
- Pneumonia is a common terminal cause of death, especially for older people who have long term chronic conditions. There was an increase of 2.3% in the rate of influenza and pneumonia as an associated cause of death. However, this remains 28.3% lower than the pre-pandemic rate (2015-2019 average).

- For those who died with pneumonia as a terminal cause, the most common underlying causes of death were dementia and Alzheimer's disease (14.7%), chronic lower respiratory diseases (13.9%), and COVID-19 (6.1%).

Age-standardised death rates for overall respiratory and selected respiratory diseases, 2012-2021 (a)(b)(c)(d)



a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.

b. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.

- c. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: COVID-19 mortality

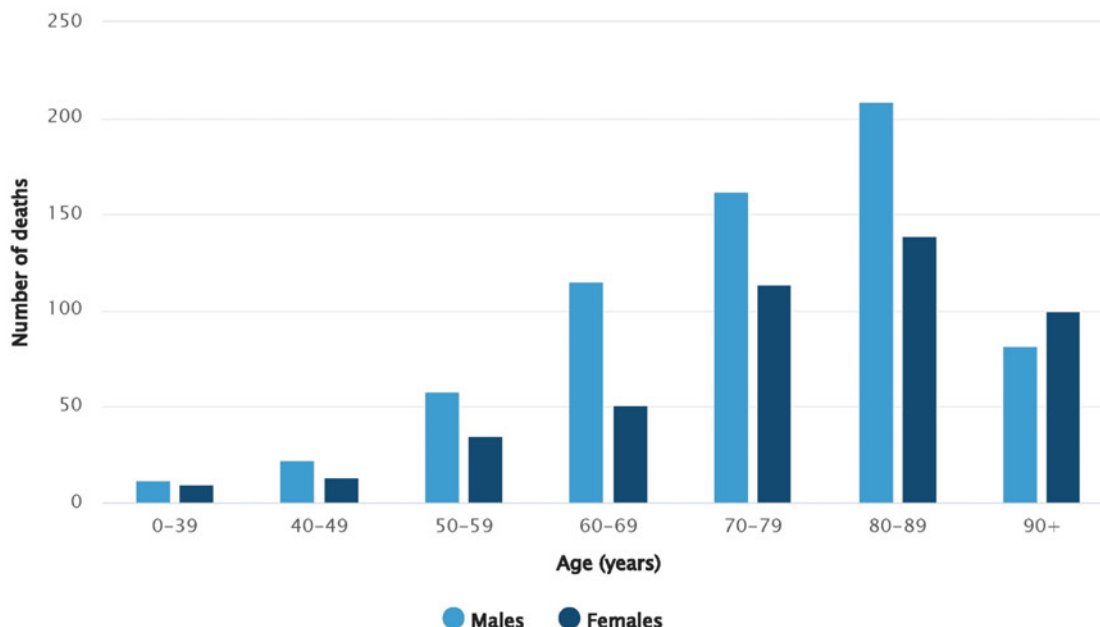
COVID-19 is a respiratory infection caused by the novel coronavirus, SARS-CoV-2. On 11 March 2020 the World Health Organization (WHO) declared COVID-19 to be a pandemic. Mortality data for 2021 largely covers deaths that occurred during the Delta wave of the pandemic, which began in Australia in mid-2021 and continued through to the end of the year. Further information relating to COVID-19 mortality in Australia, including 2022 data, can be found [here \(/articles/covid-19-mortality-australia-deaths-registered-until-31-august-2022\)](/articles/covid-19-mortality-australia-deaths-registered-until-31-august-2022).

- There were 1,122 deaths due to COVID-19 registered in 2021.
- 98.9% occurred during the Delta wave of the COVID-19 pandemic (July – December 2021). The ABS do not receive information on specific variants of COVID-19, and this information is based on date of death only.
- COVID-19 was the 34th leading cause of death.
- There were a further 31 people who died of other causes (e.g., cancer), with COVID-19 as a contributory cause of death.

The profile of people who died from COVID-19 during the Delta wave differed from those who died during Waves 1 and 2 of the pandemic. Of these Delta wave deaths:

- The median age at death was 79.1. This compares with a median age of 86.9 in 2020.
- Over half were male (660 male deaths, 462 female deaths). In 2020, just over half the people who died from COVID-19 were female.
- Pneumonia was the most common acute disease outcome and was present in 60.0% of COVID-19 deaths in 2021, compared with 31.2% of COVID-19 deaths in 2020.
- Cardiac conditions were the most commonly reported pre-existing conditions (287 deaths). The most commonly reported pre-existing condition in 2020 was dementia including Alzheimer's disease.
- New South Wales (557 deaths) and Victoria (553 deaths) had the highest number of deaths. In 2020, most deaths occurred during Wave 2 in Victoria.

COVID-19 mortality by age and sex, 2021 (a)(b)(c)



a. COVID-19 is coded to ICD-10 codes U07.1 and U07.2.

b. Includes only deaths where COVID-19 was the underlying cause of death.

c. Causes of death data for 2021 are preliminary and subject to a revisions process. See Data quality, Revisions process in the methodology for more information.

COVID-19 vaccine-related deaths

2021 also saw the introduction of COVID-19 vaccinations globally. The World Health Organization subsequently issued the ICD-10 emergency code U12.9 (COVID-19 vaccines causing adverse effects in therapeutic use). This code allows COVID-19 vaccine-related deaths to be identified separately from deaths involving adverse reactions to other vaccines and biological substances.

The source of all cause of death data for the ABS is either the Medical Certificate of Cause of Death for doctor certified deaths, or the pathology report or coronial findings for coroner referred deaths (accessed via the National Coronial Information System). This includes deaths which may be caused by the COVID-19 vaccine. Independent analysis and interpretation of deaths data by authorities such as the Therapeutic Goods Administration

(TGA) is not conveyed to the ABS or reflected in coding outputs. Due to the scope of the ABS deaths collection, data received and published by the ABS may differ from data collected through the TGA's independent investigations into COVID-19 vaccine-related deaths. The ABS and the TGA have communicated and understand that there are differences in how a death may be categorised as being related to a COVID-19 vaccine. These differences may include scope (as described) and the timing of coding and investigations (the TGA regularly updates data in relation to vaccines, whereas the ABS is reporting on coded data at a point in time). The ABS and the TGA will continue to work together to ensure that datasets remain consistent as possible whilst taking into account the known differences in each agency's reporting scopes.

- In Australia in 2021, there were 15 deaths for which the information provided to the ABS indicated that COVID-19 vaccination was the underlying cause of death.
- Of these, 13 were certified by a coroner and 2 were certified by a doctor.
- Ten of these deaths involved vaccine-induced thrombocytopenic conditions.
- The majority of deaths (92.3%) assigned as being due to the COVID-19 vaccine have open coronial cases meaning they are in scope of the ABS revisions process. Additional information will be reviewed by the ABS in relation to these deaths as it is received.
- As of October 6 2022, the TGA has identified 14 reports where the cause of death was linked to vaccination. Further details on the TGA's vaccine safety monitoring process can be found [here. \(https://www.tga.gov.au/news/covid-19-vaccine-safety-reports/covid-19-vaccine-safety-report-06-10-2022\)](https://www.tga.gov.au/news/covid-19-vaccine-safety-reports/covid-19-vaccine-safety-report-06-10-2022)

Completeness of coroner referred deaths data in 2021

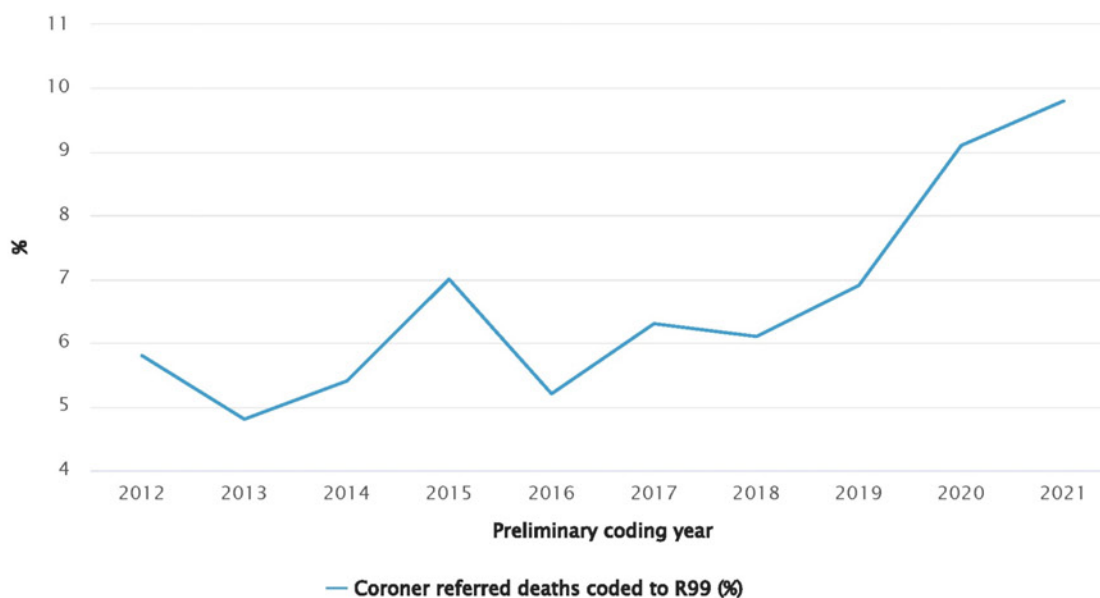
Deaths that are referred to a coroner can take time to be fully investigated, which subsequently affects the availability of data to the ABS for cause of death coding. Each year, some coroner cases are coded by the ABS before the coronial proceedings are finalised. Coroner cases that have not been closed or had all information made available can impact on data quality as less specific ICD codes often need to be applied.

At the time of coding 2021 data, there was a higher proportion of open coroner cases than at the time of preliminary coding in previous years (67.2% in 2021 versus a 5-year average for 2015-2019 of 56.2%). This is reflected in the 2021 dataset by a higher proportion of deaths due to 'other ill-defined and unspecified causes of mortality' (R99). Cases coded to R99 made up 9.8% of the coroner referred deaths dataset in 2021, compared with a historical average of 6.3% for preliminary data. Of the 2021 coroner referred cases, 74.6% are open cases that fall within the scope of the ABS causes of death revisions process.

Causes of death data for 2021 would ordinarily be revised in early 2024. In light of the information detailed above, an early revision of 2021 data will be conducted during the upcoming revisions cycle in 2023. This revision will target open cases currently coded to 'other ill-defined and unspecified causes of mortality' (R99), 'exposure to unspecified factor' (X59) and 'unspecified event, undetermined intent' (Y34), with the aim of enhancing the specificity of the codes applied to these cases by capturing additional coronial information made available since initial coding.

Causes of death with a high proportion of coroner referred deaths (e.g. suicide, assault and drug-induced deaths) should be interpreted with caution due to the expectation that these data will change during revisions.

Coroner referred deaths coded to an underlying cause of R99 (Other ill-defined and unspecified causes of mortality) during preliminary coding, 2012-2021 (a)(b)



- This graph includes coroner referred deaths data only.
- All causes of death data from 2006 onward are subject to a revisions process. Data in this table reflect codes assigned during preliminary coding only and are not comparable with final (2012 - 2018) and revised (2019) data presented elsewhere in this publication. See Data quality, Revisions process in the methodology for more information.

Coroner referred deaths coded to an underlying cause of R99 (Other ill-defined and unspecified causes of mortality) by state of registration, 2021 (a)(b)

	NSW	Vic.	QLD	SA	WA	Tas.	NT	ACT	Aus.
Number of open coroner referred deaths at time of ABS coding	2,022	6,570	2,220	1,265	1,639	281	72	85	14,154
Open coroner referred deaths at the time of ABS coding as a proportion of all coroner referred deaths (%)	40.7	99.0	94.1	44.4	57.2	41.4	23.6	21.9	67.2
Number of open coroner referred deaths coded to R99	527	606	220	414	252	14	9	16	2,058
Open coroner referred deaths coded to R99 as a proportion of all coroner referred deaths coded to R99 (%)	54.1	99.5	97.7	47.3	87.7	57.1	33.3	25.0	74.6

a. This table includes coroner referred deaths data only.

b. Data in this table are presented by the state in which the death was registered. Causes of death data by state of usual residence can be found in the Data downloads section of this publication.

2021: Potentially avoidable mortality and selected external causes of death

Support services, 24 hours, 7 days

- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [Suicide Call Back Service \(https://www.suicidecallbackservice.org.au/\)](https://www.suicidecallbackservice.org.au/): 1300 659 467
- [1800RESPECT \(https://www.1800respect.org.au/\)](https://www.1800respect.org.au/): 1800 737 732
- National Alcohol and Other Drugs Hotline: 1800 250 015
- [Family Drug Support \(https://www.fds.org.au/\)](https://www.fds.org.au/): 1300 368 186
- [MensLine Australia \(https://mensline.org.au/\)](https://mensline.org.au/): 1300 789 978

For further information see [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services).

2021: Potentially avoidable mortality

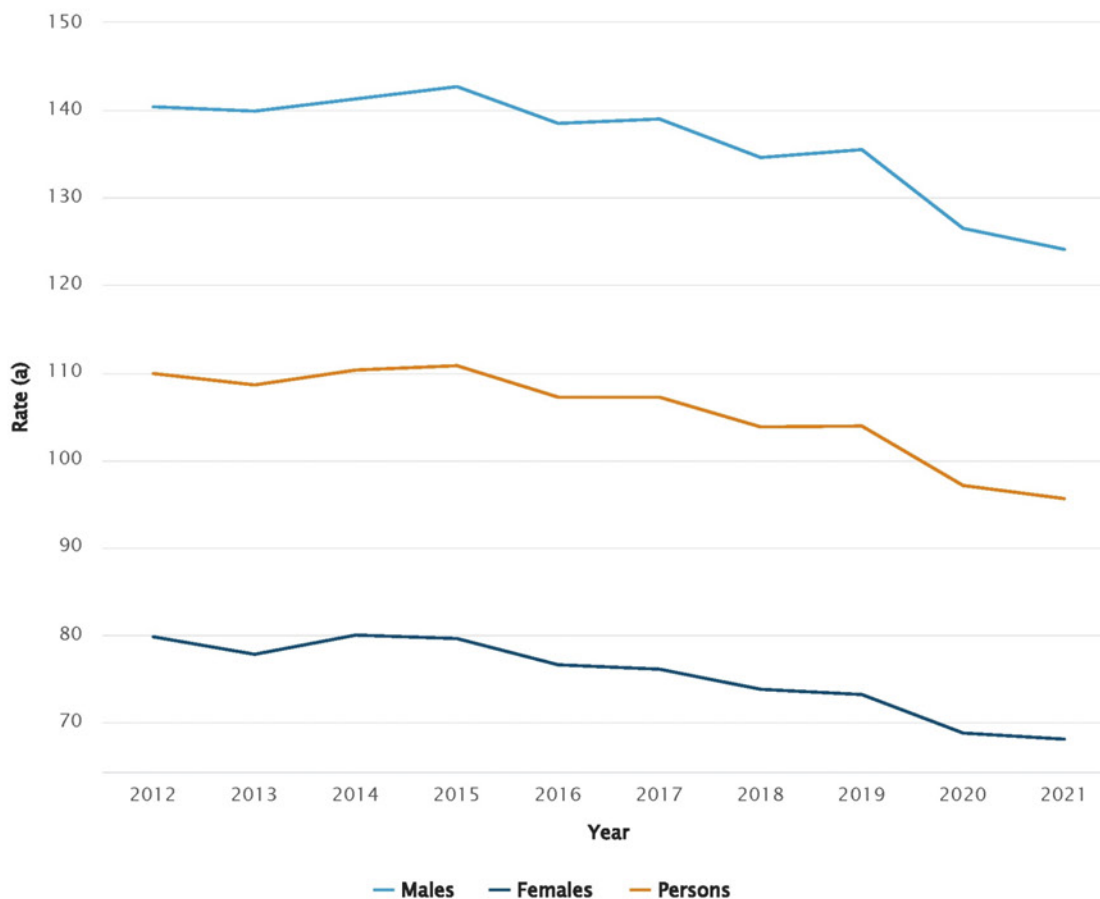
Potentially avoidable deaths are defined as deaths from conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care (METeOR, 2021). They include both natural diseases, including many types of cancer, ischaemic heart disease, diabetes and infectious diseases, and external causes of death (e.g. suicide, assault) of people aged under 75.

On average, 40% of potentially avoidable deaths are referred to a coroner (compared with 11-14% of all deaths). The following data is preliminary for 2021 and 2020 - interpretation should take into account that numbers of potentially avoidable deaths will increase when the ABS revisions process is applied. See Completeness of coroner referred deaths data in 2021 for further information.

For people who died from potentially avoidable causes in 2021:

- There were 26,967 people who died from potentially avoidable causes (17,113 males and 9,854 females). This compares to 26,995 deaths in 2020 (17,231 males and 9,764 females).
- The mortality rate is the lowest in the ten year time series for both males and females.
- While the mortality rate has decreased, the sex ratio has remained relatively constant at 1.8 (male to female).

Age-standardised death rates for potentially avoidable mortality, by sex, 2012-2021 (a)(b)(c)(d)(e)



- a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- b. Potentially avoidable deaths are classified according to the National Healthcare Agreement: PI 16- Potentially Avoidable Deaths, 2021 Classification: <https://meteor.aihw.gov.au/content/725797> (<https://meteor.aihw.gov.au/content/725797>).
- c. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019

(revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

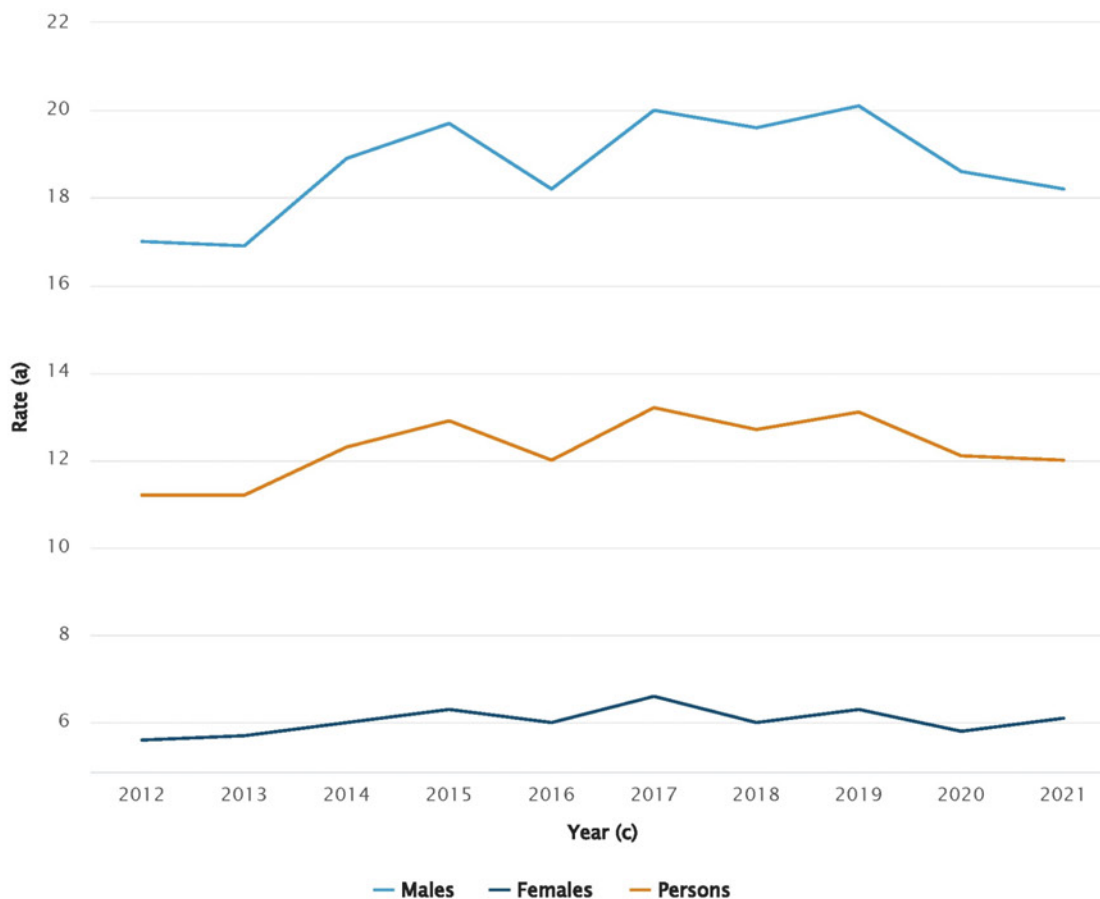
2021: Suicides

The following data is preliminary for 2021 and 2020 - interpretation should take into account that numbers of deaths due to suicide will increase when the ABS revisions process is applied. Revised data for deaths due to suicide in 2021 will be published in early 2023. See Completeness of coroner referred deaths data in 2021 for further information.

For people who died by suicide in 2021:

- There were 3,144 deaths due to suicide (2,358 males and 786 females). This compares to 3,139 suicides in 2020 (2,384 males and 755 females).
- The suicide rate was 12.0 deaths per 100,000 people, similar to that recorded in 2020 (12.1).
- The suicide rate increased for females and decreased for males.
- The median age at death for people who died by suicide was 44.8 (45.8 for males and 42.9 for females).
- Suicide remained the 15th leading cause of death.
- Almost 90% of people who died by suicide had risk factors identified including psychosocial stressors, mental health conditions, chronic diseases, and substance abuse disorders.

Age-standardised death rates for suicide, by sex, 2012-2021 (a)(b)(c)(d)(e)



- a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- b. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- c. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.

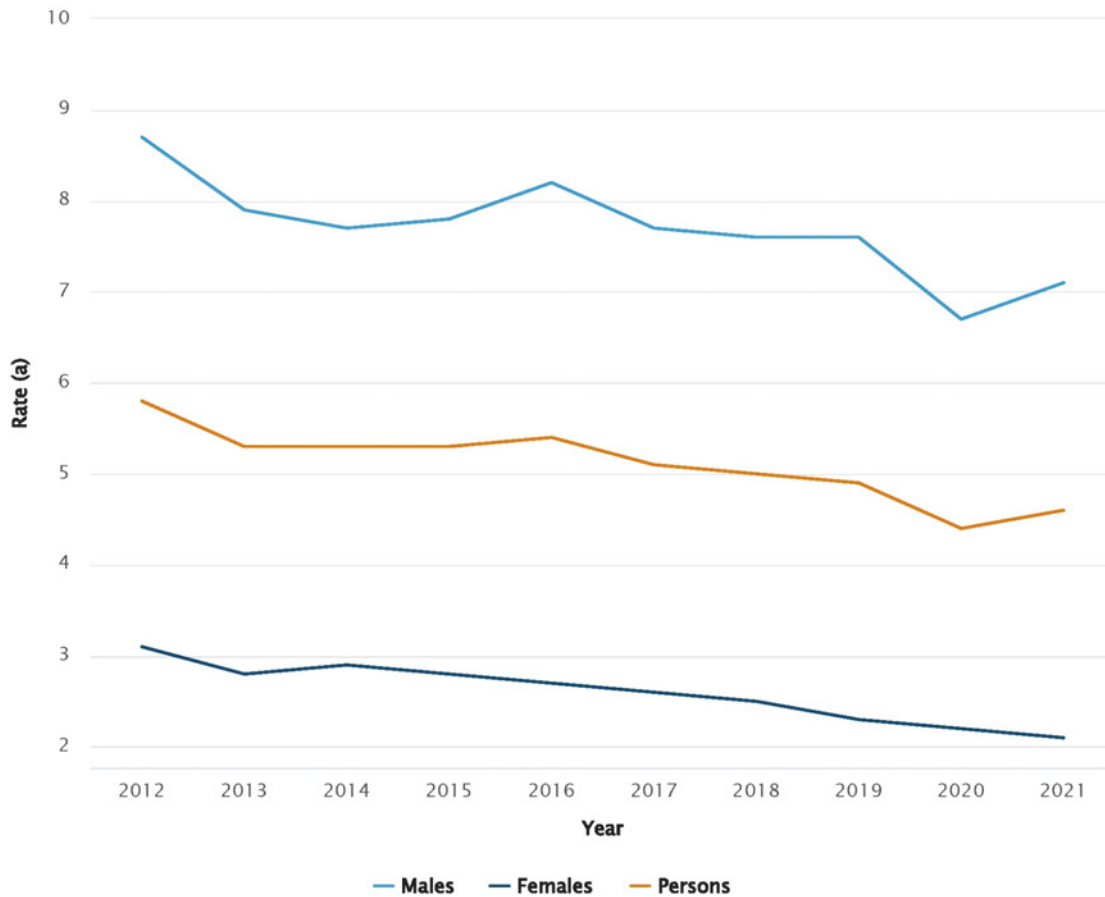
- d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Motor vehicle accidents

For people who died from a motor vehicle accident in 2021:

- There were 1,206 deaths from motor vehicle accidents (917 males and 289 females). This compares to 1,163 in 2020 (870 males and 293 females).
- The death rate from motor vehicle accidents increased by 2.9% from 2020, but remained 7.0% lower than the 2019 rate.
- The rate increased for males and decreased for females.
- For males, those aged under 25 had the largest numerical increase with 36 more deaths than in 2020.
- For females, the rate decrease was driven by those aged under 35, with 31 fewer deaths in this group than in 2020.

Age-standardised death rates for motor vehicle accidents, by sex, 2012-2021 (a)(b)(c)(d)(e)



a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.

b. The data presented for motor vehicle accidents includes ICD-10 codes V00-V79 and V89.2.

c. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.

d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of

Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Assaults

The following data is preliminary for 2021 and 2020 - interpretation should take into account that numbers of deaths due to assault are expected to increase when the ABS revisions process is applied. Revised data for deaths due to assault in 2021 will be published in early 2023. See Completeness of coroner referred deaths data in 2021 for further information.

For people who died due to assault in 2021:

- There were 213 deaths due to assault (152 males and 61 females). This was lower than the number of deaths in 2020 (241 deaths).
- The rate of assault mortality decreased slightly from 0.9 to 0.8 in 2021. This is the lowest rate seen in the ten-year time series.
- The number and rate of deaths due to assault decreased for both males and females.
- The largest numerical decrease was for males aged between 35 and 44 (16 fewer deaths than in 2020).

Age-standardised death rates for assault, by sex, 2012-2021 (a)(b)(c)(d)(e)



a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.

b. The data presented for assaults includes ICD-10 codes X85-Y09 and Y87.1.

c. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.

d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of

Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Drug-induced deaths

Drug-induced deaths are those which are directly attributable to drug use. They include deaths due to acute drug toxicity (e.g. overdose) and due to chronic drug use (e.g. drug-induced cardiac conditions).

On average, 97% of drug-induced deaths are certified by a coroner. There are multiple complex factors which need to be considered when a death is certified as drug induced. The timing between the death and toxicology testing can influence the levels and types of drugs detected, making it difficult to determine the true level of a drug at the time of death. Individual tolerance levels may also vary considerably depending on multiple factors, including sex, body mass and a person's previous exposure to a drug. Contextual factors around the death must also be considered such as pre-existing natural disease and reports from informants (e.g., friends and families) regarding the circumstances surrounding death. For these reasons, the certification of a death as being drug-induced can take significant time to complete, making these deaths particularly sensitive to the revisions process.

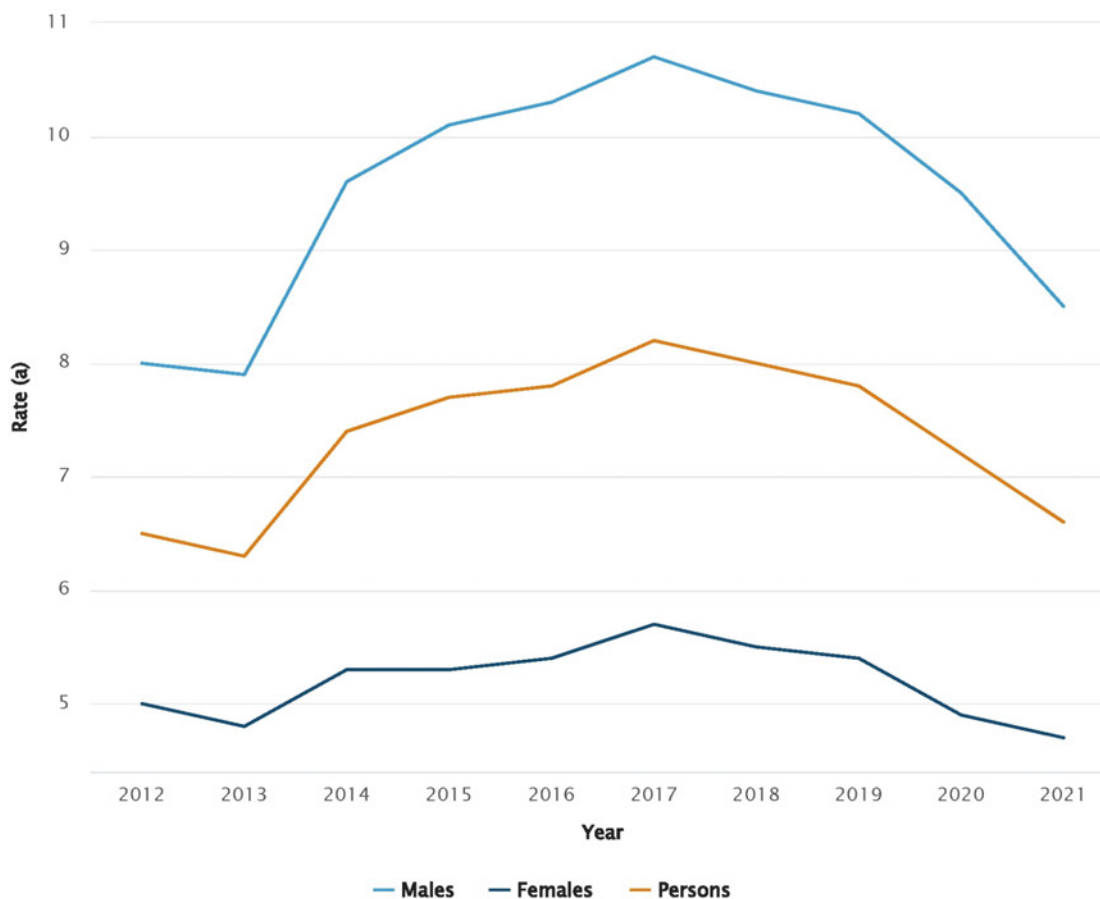
The following data is preliminary for 2021 and 2020 - interpretation should take into account that numbers of drug-induced deaths will increase when the ABS revisions process is applied. Revised data for drug-induced deaths in 2021 will be published in early 2023. See Completeness of coroner referred deaths data in 2021 for further information.

For people who died of a drug-induced death in 2021:

- There were 1,704 drug-induced deaths (1,069 males and 635 females). This compares to 1,842 in 2020 (1,187 males and 655 females).
- There was an 8.2% decrease in the rate of drug-induced deaths from 2020.
- Deaths registered in Victoria had the greatest rate decrease since 2020 (16.1%).
- The rate decrease from 2020 was greater for males than females (10.4% and 3.8% respectively).
- Opioids were the most common drug class identified in toxicology for drug-induced deaths.

Age-standardised death rates for drug-induced deaths, by sex, 2012-2021

(a)(b)(c)(d)(e)



- a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- b. The data presented for drug-induced deaths in this publication is based upon a tabulation with both acute and chronic effects of drugs. See the Mortality tabulations and methodologies section of the methodology for the complete tabulation.
- c. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019

(revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

Age-standardised death rates for drug-induced deaths, by state of registration, 2012-2021 (a)(b)(c)(d)(e)(f)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NSW	6.5	6.6	7.3	7.5	7.5	7.9	7.7	7.3	6.3	5.8
Vic.	5.2	5.6	7.1	7.2	7.5	8.5	7.6	7.7	8.0	6.7
QLD	7.2	6.9	7.6	8.4	7.7	7.8	8.2	7.3	6.6	6.5
SA	7.4	6.2	7.1	6.9	7.8	8.3	7.6	7.7	6.2	6.0
WA	8.1	6.7	8.7	9.1	9.5	10.0	10.1	10.6	8.9	8.5
Tas.	6.8	6.2	7.4	6.4	10.5	8.0	6.7	7.9	6.3	6.6
NT	np	np	np	np	np	np	np	np	np	np
ACT	np	5.5	7.8	np	7.3	8.0	9.0	9.0	12.6	11.1

np not available for publication

a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.

b. The data presented for drug-induced deaths in this publication is based upon a tabulation with both acute and chronic effects of drugs. See the Mortality tabulations and methodologies section of the methodology for the complete tabulation.

c. Data in this table are presented by the state in which the death was registered. Data for drug-induced deaths by state of usual residence can be found in the data downloads section of this publication.

d. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.

e. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

f. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

2021: Alcohol-induced deaths

Alcohol-induced deaths are those where the underlying cause can be directly attributed to alcohol use, including acute conditions such as alcohol poisoning or chronic conditions such

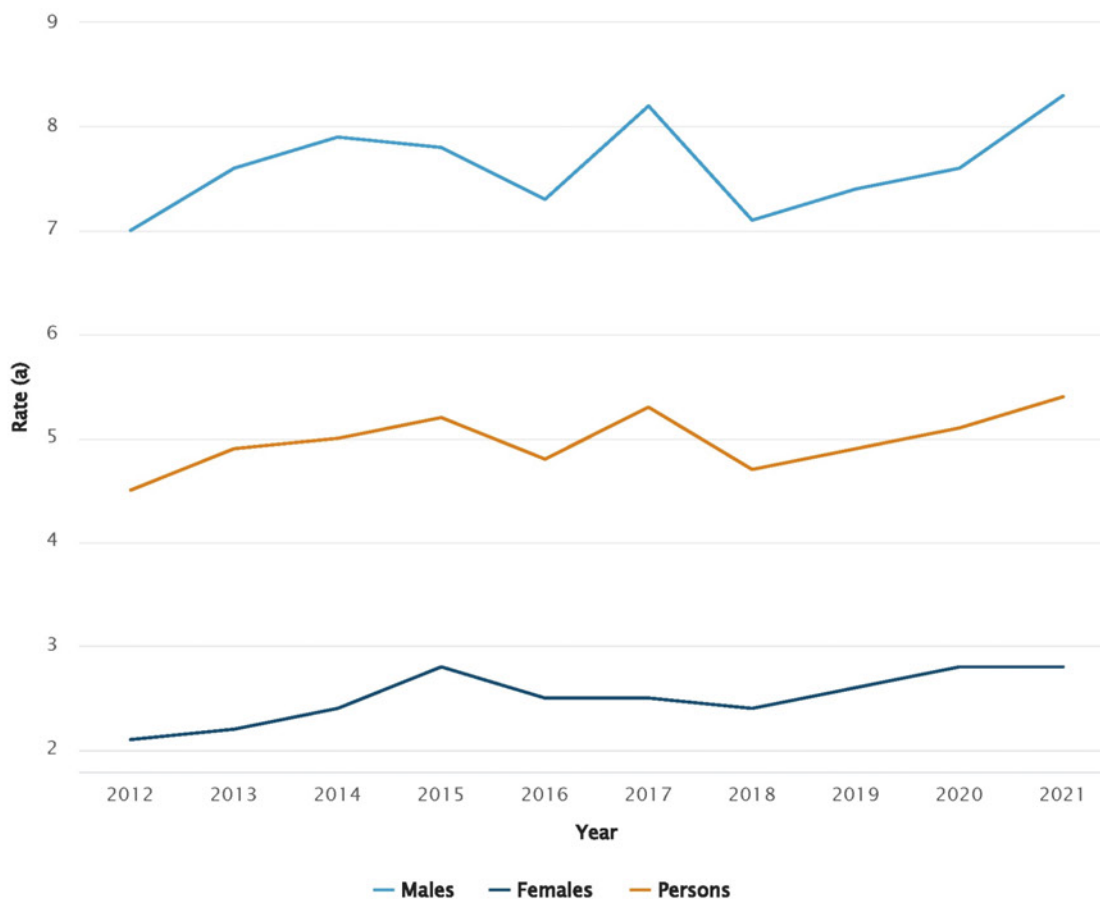
as alcoholic liver cirrhosis.

On average, 71% of alcohol-induced deaths are certified by a doctor. These deaths are primarily caused by chronic alcohol-induced conditions. As a result, alcohol-induced deaths data are less likely to be impacted by revisions than causes with a higher proportion of coroner referred deaths such as drug-induced deaths and suicides.

For people who died of an alcohol-induced death in 2021:

- There were 1,559 people who died of an alcohol-induced death (1,156 males and 403 females).
- There was a 5.8% increase in the rate of alcohol-induced deaths, with 107 additional deaths since 2020.
- For males, the rate is the highest in the ten year time series at 8.3 deaths per 100,000 people (8.1% increase since 2020).
- The rate for females remained the same as in 2020.
- The rate increase over the last 10 years is largely due to conditions associated with long term alcohol use including liver cirrhosis.

Age-standardised death rates for alcohol-induced deaths, by sex, 2012-2021 (a)(b)(c)(d)(e)



- a. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- b. Alcohol-induced deaths includes ICD-10 codes; E24.4, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, K86.0, F10, K70, X45, X65, Y15.
- c. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- d. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of

Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.

Australia's leading causes of death, 2021

- In 2021 there were 171,469 deaths, with an age-standardised death rate of 507.2 deaths per 100,000 people.
- Ischaemic heart disease was the leading cause of death, accounting for 10.1% of all deaths.
- The rank order of the top 5 leading causes has remained the same since 2018.
- Influenza and pneumonia did not appear in the 20 leading causes of death for the first time in the ten year time series.
- There were 1,122 deaths from COVID-19, ranking as the 34th leading cause of death.

Leading causes of death

There were 171,469 deaths registered in Australia in 2021.

In 2021 for people who died:

- 52.1% were male (89,401) and 47.9% were female (82,068).
- Their median age at death was 82.0 years (79.4 for males, 84.8 for females).
- The top five leading causes accounted for more than one-third of all registered deaths.

Identifying and comparing leading causes of death in populations is useful for tracking changes in patterns of mortality and identifying emerging trends. For more information related to the tabulation of leading causes, see the Methodology section of this publication.

In 2021:

- The leading cause of death was Ischaemic heart disease.
- Dementia, including Alzheimer's disease was the second leading cause of death. People who died from dementia had a high median age at death of 89.2.
- Cerebrovascular diseases, lung cancer and chronic lower respiratory diseases rounded out the top five leading causes.
- Deaths from the five leading causes all increased from 2020. This followed a decrease of all of the five leading causes in 2020, with many causes of death recording historical low mortality rates in the first year of the COVID-19 pandemic.

- The number of influenza and pneumonia deaths remained low in 2021. Influenza and pneumonia was not in the top 20 leading causes in 2021 (ranked 22nd).
- There were only 2 deaths recorded as being due to influenza, the lowest on record.
- Suicide was the 15th leading cause of death. People who died by suicide had a median age at death of 44.8.
- COVID-19 was the 34th leading cause of death, with 1,122 deaths recorded through the civil registration system.

From 2012 to 2021:

- Deaths due to Ischaemic heart diseases and Cerebrovascular diseases decreased by 13.8% and 9.1% respectively.
- Deaths due to Dementia, including Alzheimer's disease increased by 53.8% (5,573 deaths).

Leading causes of death, Australia - selected years, 2012, 2016, 2020, 2021 (a)(b)(c)(d)(e)(f)(g)(h)

Cause of death and ICD-10 code	2012		2016		2020		2021		Median Age (2021) years
	no.	Rank	no.	Rank	no.	Rank	no.	Rank	
Top 20 leading causes of death and ICD code									
Ischaemic heart diseases (I20-I25)	20,108	1	19,194	1	16,587	1	17,331	1	84.3
Dementia, including Alzheimer's disease (F01, F03, G30)	10,367	3	13,131	2	14,575	2	15,940	2	89.2
Cerebrovascular diseases (I60-I69)	10,785	2	10,466	3	9,470	3	9,800	3	86.2
Malignant neoplasm of trachea, bronchus and lung (C33, C34)	8,138	4	8,411	4	8,457	4	8,674	4	74.7
Chronic lower respiratory diseases (J40-J47)	6,647	5	8,066	5	7,102	5	7,805	5	80.6
Malignant neoplasm of colon, sigmoid, rectum and anus (C18-C21, C26.0)	5,124	6	5,466	6	5,483	6	5,473	6	78.2
Diabetes (E10-E14)	4,241	7	4,783	7	5,148	7	5,404	7	81.9
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)	4,001	8	4,374	8	4,754	8	5,081	8	78.7
Diseases of the urinary system (N00-N39)	3,712	9	3,369	10	4,019	9	4,257	9	87.4
Accidental falls (W00-W19)	2,017	17	2,729	16	3,395	11	3,747	10	87.3
Heart failure and complications and ill-defined	3,494	10	3,396	9	3,249	12	3,626	11	89.2

Cause of death and ICD-10 code	2012		2016		2020		2021		Median Age (2021) years
	no.	Rank	no.	Rank	no.	Rank	no.	Rank	
heart disease (I50-I51)									
Malignant neoplasm of prostate (C61)	3,078	11	3,251	12	3,568	10	3,620	12	83.3
Malignant neoplasm of pancreas (C25)	2,524	15	2,911	15	3,244	13	3,431	13	75.1
Malignant neoplasms of breast (C50)	2,819	12	3,006	13	3,144	14	3,159	14	73.0
Intentional self-harm [suicide] (X60-X84, Y87.0) (e) (f)	2,579	14	2,939	14	3,139	15	3,144	15	44.8
Cardiac arrhythmias (I47-I49)	1,721	19	2,332	17	2,401	16	2,637	16	89.7
Hypertensive diseases (I10-I15)	1,861	18	2,237	18	2,101	21	2,440	17	88.6
Cirrhosis and other diseases of liver (K70-K76)	1,549	20	1,791	21	2,186	19	2,325	18	65.2
Malignant neoplasm of liver and intrahepatic bile ducts (C22)	1,490	22	1,866	20	2,192	18	2,290	19	73.6
Parkinson's disease (G20)	1,392	25	1,763	22	1,998	22	2,258	20	84.0
Other selected causes not in Top 20 leading causes									
COVID-19 (U07.1, U07.2) (g)	n/a	n/a	n/a	n/a	898	38	1,122	34	79.1
Influenza and pneumonia (J09-J18)	2,723	13	3,347	11	2,287	17	2,073	22	89.6
All Causes	147,098	n/a	158,504	n/a	161,300	n/a	171,469	n/a	82.0

a. Causes listed are based on the WHO recommended tabulation of leading causes. See Mortality tabulations and methodologies for further information.

- b. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- c. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012, 2016 (final), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- d. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- e. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- f. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- g. n/a Not applicable. There are no deaths due to COVID-19 before 2020.
- h. Deaths due to suicide are presented by registration year throughout this publication. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year.

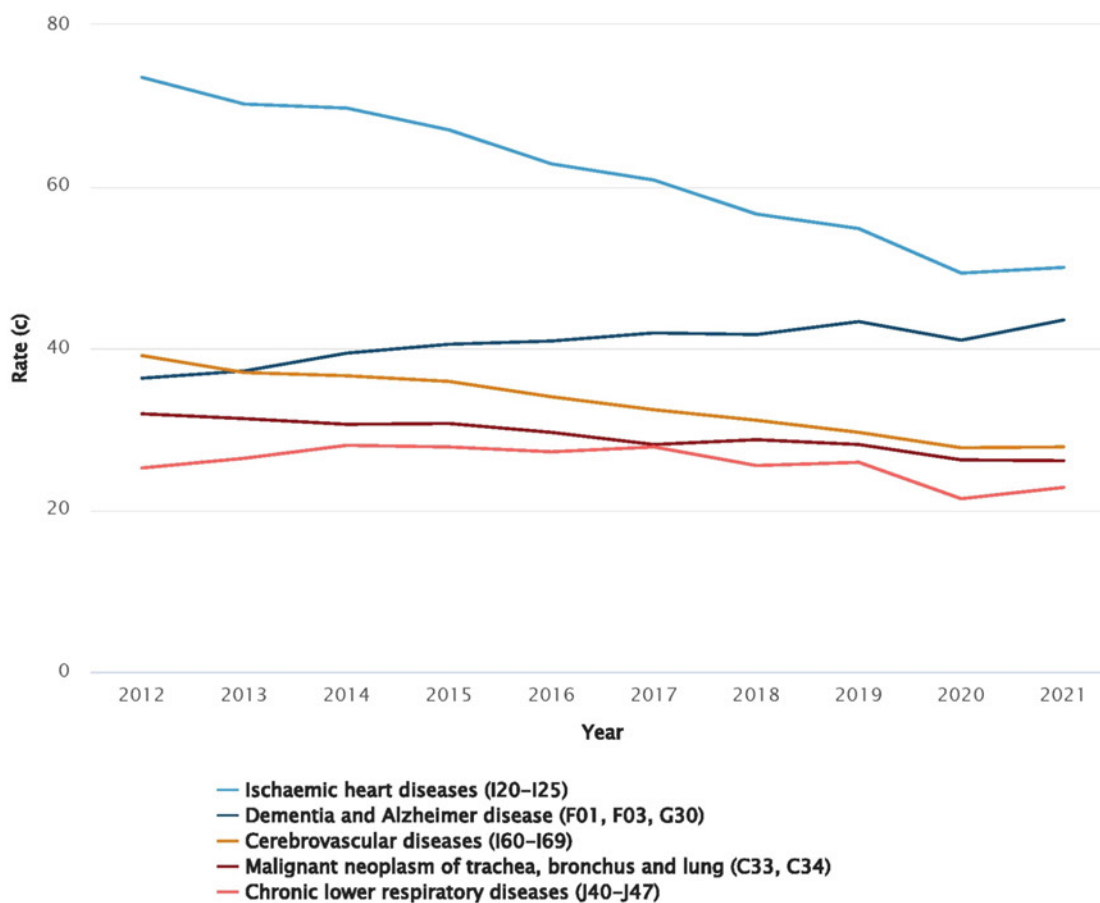
Age-standardised death rates

Age-standardised death rates enable the comparison of death rates over time as they account for changes in the size and age structure of the population. Refer to Mortality tabulations and methodologies, Age-standardised death rates (SDRs) in the Methodology section of this publication for more information.

For age-standardised death rates from 2012 to 2021:

- Ischaemic heart diseases decreased by 32.0%.
- The gap between ischaemic heart disease and dementia has narrowed.
- While the number of dementia deaths has increased over the 10 year period, the age-standardised death rate for dementia has been more stable. This reflects the ageing population in Australia.
- Cerebrovascular diseases decreased by 28.9%.
- Malignant neoplasms of trachea, bronchus and lung (lung cancer) and Chronic lower respiratory diseases decreased by 18.0% and 9.5%, respectively.

Leading causes of death, age-standardised death rates, 2012-2021 (a)(b)(c) (d)(e)(f)



- Causes listed are based on the WHO recommended tabulation of leading causes. See the Mortality tabulations and methodologies section of the methodology for further information.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- e. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- f. Deaths registered between 2017-2018 from Victoria that were lodged with the ABS in the 2019 reference year have been presented by registration year to enable more accurate time-series analysis. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.

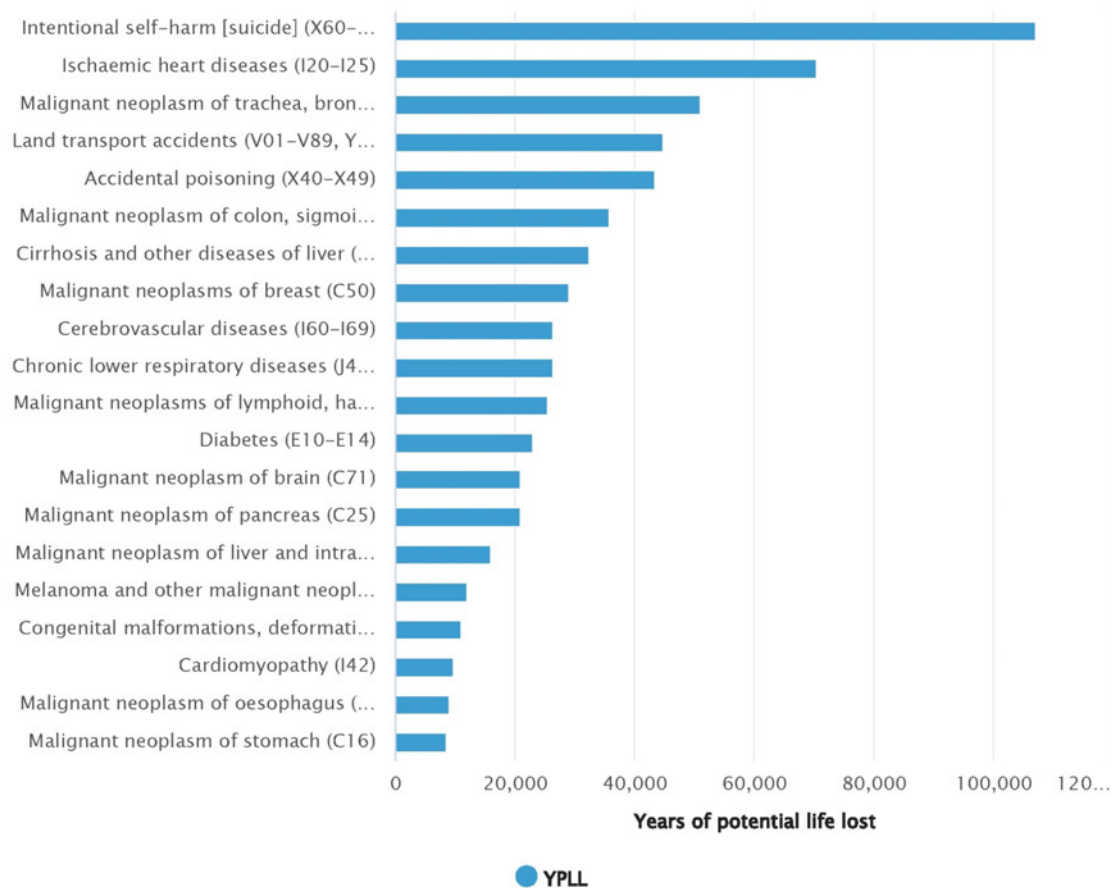
Years of potential life lost

Years of potential life lost (YPLL) is a measure of premature mortality which weights age at death to gain an estimate of how many years a person would have lived had they not died prematurely. Causes of death with a median age less than the life expectancy will have a higher number of YPLL. When considered in terms of premature mortality, the leading causes of death have a notably different profile. Refer to Mortality tabulations and methodologies - Years of potential life lost (YPLL) in the Methodology section of this publication for more information.

In 2021:

- Suicide was the leading cause of premature death with 107,068 YPLL. People who died by suicide had a median age at death of 44.8.
- Ischaemic heart disease had the highest number of premature deaths but had the second highest number of YPLL at 70,308 years. People who died from ischaemic heart disease had a median age at death of 84.3.
- People who died from Lung cancer, Motor vehicle crashes and Accidental poisoning had the 3rd, 4th and 5th highest YPLL, with median ages at 74.7, 45.9 and 45.4, respectively.

Years of Potential Life Lost (YPLL) for leading causes (a)(b)(c)(d)(e)



- For information on WHO leading causes and YPLL see the Mortality tabulations and methodologies section of the methodology.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- Causes of death data for 2021 are preliminary and subject to a revisions process. See Data quality, Revisions process in the methodology for more information.
- See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See Deaths due to intentional self-harm (suicide) in the methodology for more information.

Leading causes of death by sex - Males

For the 89,401 males who died in 2021:

- Ischaemic heart disease was the leading cause of death (10,371 deaths), remaining considerably higher than the second ranked cause (dementia at 5,664 deaths).
- Prostate cancer was the sixth leading cause of death and second leading cause of cancer deaths.
- Suicide was the 10th leading cause. Three-quarters of people who died by suicide were male.
- COVID-19 was the 33rd leading cause, accounting for 660 male deaths.
- Influenza and pneumonia was not in the top 20 leading causes for males in 2021 (ranked 23rd).

For males from 2012 to 2021:

- The age-standardised death rate (SDR) for Ischaemic heart diseases decreased by 29.2%.
- The SDR for Dementia, including Alzheimer's disease increased by 19.6%.
- The SDR for lung cancer decreased by 23.0%.

Leading causes of death, males, Australia - selected years - 2012, 2016, 2020, 2021 (a)(b)(c)(d)(e)(f)(g)(h)

Cause of death and ICD-10 code	2012		2016		2020		2021		Rank (2021)
	no.	Rate	no.	Rate	no.	Rate	no.	Rate	
Top 20 leading causes of death and ICD code									
Ischaemic heart diseases (I20-I25)	10,954	96.9	10,954	84.7	10,040	68.7	10,371	68.6	1
Dementia, including Alzheimer's disease (F01, F03, G30)	3,405	31.2	4,682	36.7	5,250	36.1	5,664	37.3	2
Malignant neoplasm of trachea, bronchus and lung (C33, C34)	4,883	41.8	5,024	38.2	4,751	31.8	4,968	32.2	3
Cerebrovascular diseases (I60-I69)	4,248	38.2	4,240	33.1	3,974	27.3	4,180	27.6	4
Chronic lower respiratory diseases (J40-J47)	3,539	31.6	4,170	32.4	3,706	25.1	3,951	25.8	5
Malignant neoplasm of prostate (C61)	3,078	27.6	3,251	25.3	3,568	24.1	3,620	23.6	6
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)	2,327	20.3	2,563	19.8	2,802	19.0	3,083	20.2	7
Diabetes (E10-E14)	2,200	19.5	2,586	20.1	2,870	19.5	2,953	19.4	8
Malignant neoplasm of colon, sigmoid, rectum and anus (C18-C21, C26.0)	2,794	24.2	2,976	23.0	2,899	19.7	2,893	19.2	9
Intentional self-harm [suicide] (X60-X84, Y87.0)	1,929	17.0	2,192	18.2	2,384	18.6	2,358	18.2	10

Cause of death and ICD-10 code	2012		2016		2020		2021		Rank (2021)
	no.	Rate	no.	Rate	no.	Rate	no.	Rate	
Diseases of the urinary system (N00-N39)	1,658	15.0	1,496	11.7	1,865	12.8	1,938	12.8	11
Accidental falls (W00-W19)	945	8.5	1,318	10.3	1,734	11.9	1,889	12.5	12
Malignant neoplasm of pancreas (C25)	1,331	11.4	1,500	11.4	1,694	11.4	1,783	11.6	13
Heart failure and complications and ill-defined heart disease (I50-I51)	1,505	13.6	1,502	11.7	1,472	10.1	1,604	10.6	14
Cirrhosis and other diseases of liver (K70-K76)	1,022	8.6	1,179	8.9	1,379	9.6	1,510	10.4	15
Melanoma and other malignant neoplasms of skin (C43-C44)	1,401	12.2	1,314	10.1	1,431	9.8	1,472	9.7	16
Malignant neoplasm of liver and intrahepatic bile ducts (C22)	976	8.3	1,232	9.3	1,468	9.7	1,471	9.5	17
Parkinson's disease (G20)	788	7.2	1,103	8.7	1,255	8.6	1,450	9.6	18
Cardiac arrhythmias (I47-I49)	661	6.0	900	7.0	943	6.5	1,062	7.0	19
Pulmonary oedema and other interstitial pulmonary diseases (J80-J84)	705	6.3	837	6.6	861	5.8	1,014	6.6	20
Other selected causes not in top 20 leading causes									
COVID-19 (U07.1, U07.2)	n/a	n/a	n/a	n/a	438	3.0	660	4.4	33

a. For information on WHO leading causes and age-standardised death rates see the Mortality tabulations and methodologies section of the methodology.

- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012, 2016 (final), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- c. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- e. Care needs to be taken in interpreting figures relating to intentional self-harm. See Deaths due to intentional self-harm (suicide) in the methodology for more information.
- f. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- g. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- h. Deaths due to suicide are presented by registration year throughout this publication. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year.

Leading causes of death by sex - Females

For the 82,068 females who died in 2021:

- Dementia including Alzheimer's was the leading cause of death (10,276 deaths).
- The death rate for dementia increased by 21.5% over the last decade. Close to two-thirds of people who died from dementia were female.
- Ischaemic heart disease was the second leading cause with 6,960 deaths.
- Breast cancer was the sixth leading cause overall and second leading cause of cancer deaths with 3,129 deaths.
- COVID-19 was the 32nd leading cause, accounting for 462 female deaths.
- Deaths due to falls are the most common external cause of death. Falls were the 12th leading cause of death for females.

Leading causes of death, females, Australia - selected years - 2012, 2016, 2020, 2021 (a)(b)(c)(d)(e)(f)(g)

Cause of death and ICD-10 code	2012		2016		2020		2021		Rank (2021)
	no.	Rate	no.	Rate	no.	Rate	no.	Rate	
Top 20 leading causes of death and ICD code									
Dementia, including Alzheimer's disease (F01, F03, G30)	6,962	39.2	8,449	43.3	9,325	44.2	10,276	47.6	1
Ischaemic heart diseases (I20-I25)	9,154	53.8	8,240	44.3	6,547	32.6	6,960	33.8	2
Cerebrovascular diseases (I60-I69)	6,537	39.0	6,226	33.9	5,496	27.6	5,620	27.6	3
Chronic lower respiratory diseases (J40-J47)	3,108	20.8	3,896	23.4	3,396	18.6	3,854	20.5	4
Malignant neoplasm of trachea, bronchus and lung (C33, C34)	3,255	23.7	3,387	22.5	3,706	21.6	3,706	21.0	5
Malignant neoplasms of breast (C50)	2,795	20.6	2,978	19.9	3,110	18.7	3,129	18.4	6
Malignant neoplasm of colon, sigmoid, rectum and anus (C18-C21, C26.0)	2,330	16.2	2,490	15.7	2,584	14.5	2,580	14.1	7
Diabetes (E10-E14)	2,041	13.0	2,197	12.9	2,278	12.1	2,451	12.6	8
Diseases of the urinary system (N00-N39)	2,054	12.3	1,873	10.0	2,154	10.6	2,319	11.1	9
Heart failure and complications and ill-defined heart disease (I50-I51)	1,989	11.3	1,894	9.7	1,777	8.5	2,022	9.4	10

Cause of death and ICD-10 code	2012		2016		2020		2021		Rank (2021)
	no.	Rate	no.	Rate	no.	Rate	no.	Rate	
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)	1,674	11.7	1,811	11.5	1,952	11.0	1,998	10.8	11
Accidental falls (W00-W19)	1,072	6.2	1,411	7.5	1,661	8.1	1,858	8.9	12
Malignant neoplasm of pancreas (C25)	1,193	8.4	1,411	9.0	1,550	8.8	1,648	9.1	13
Cardiac arrhythmias (I47-I49)	1,060	6.1	1,432	7.4	1,458	6.9	1,575	7.3	14
Hypertensive diseases (I10-I15)	1,197	6.7	1,357	7.0	1,321	6.4	1,474	6.8	15
Influenza and pneumonia (J09-J18)	1,581	9.1	1,916	10.0	1,194	5.8	1,101	5.1	16
Malignant neoplasm of ovary (C56)	933	6.7	939	6.2	944	5.6	1,053	6.1	17
Diseases of the musculoskeletal system and connective tissue (M00-M99)	782	4.9	921	5.2	799	4.2	1,001	5.1	18
Nonrheumatic valve disorders (I34-I38)	815	4.7	857	4.5	888	4.3	924	4.4	19
Malignant neoplasm of uterus (C53-C55)	646	4.8	786	5.4	770	4.7	846	5.0	20
Other selected causes not in top 20 leading causes									
COVID-19 (U07.1, U07.2)	n/a	n/a	n/a	n/a	460	2.3	462	2.5	32

a. For information on WHO leading causes and age-standardised death rates see the Mortality tabulations and methodologies section of the methodology.

b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012, 2016 (final), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions,

2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- c. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- e. Care needs to be taken in interpreting figures relating to intentional self-harm. See Deaths due to intentional self-harm (suicide) in the methodology for more information.
- f. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- g. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations and time series adjustments in Causes of Death, Australia 2019 methodology for detailed information on this issue.
- h. Deaths due to suicide are presented by registration year throughout this publication. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year.

Leading causes of death in Aboriginal and Torres Strait Islander people

Support services, 24 hours, 7 days

- [13YARN \(https://www.13yarn.org.au/\)](https://www.13yarn.org.au/): 13 92 76
- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [MensLine Australia \(https://mensline.org.au/\)](https://mensline.org.au/): 1300 789 978

For further information see [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services).

In 2021, there were 4,081 deaths of Aboriginal and Torres Strait Islander people (2,229 males and 1,852 females). The table below presents for Aboriginal and Torres Strait Islander people: numbers of deaths, crude death rates and age-standardised mortality rates for each jurisdiction in 2021. Age-standardised rates enable the comparison of populations with different age structures.

- Ischaemic heart disease was the leading cause of death (411 deaths).
- There were 17 deaths due to COVID-19 in Aboriginal and Torres Strait Islander people.
- The Northern Territory recorded the highest mortality rate.

Deaths, Crude and Age-standardised death rates of Aboriginal and Torres Strait Islander people, all jurisdictions, 2021 (a)(b)(c)(d)(e)

	Males			Females			Persons		
	No.	Crude Rate	ASDR	No.	Crude Rate	ASDR	No.	Crude Rate	ASDR
New South Wales	671	460.8	899.8	535	366.2	692.8	1,206	413.0	791.2
Victoria	145	np	np	111	np	np	256	np	np
Queensland	592	482.2	1,083.8	509	409.1	854.1	1,101	445.0	959.7
South Australia	134	581.7	1,201.2	106	451.2	887.3	240	515.8	1,031.3
Western Australia	321	580.8	1,214.1	283	515.0	992.5	604	548.0	1,094.4
Tasmania	47	np	np	55	np	np	102	np	np
Northern Territory	300	753.1	1,603.0	245	637.2	1,192.1	545	696.2	1,373.5
Australian Capital Territory	17	np	np	8	np	np	25	np	np

np not available for publication

- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. 2021 data is preliminary. See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- Crude death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. As a result, these rates may differ from those previously published. See the Mortality tabulations and methodologies section of the methodology for further information.

Leading causes of death for Aboriginal and Torres Strait Islander people by five jurisdictions: NSW, Qld, WA, SA, NT

Measures of mortality relating to Aboriginal and Torres Strait Islander people are key inputs into the Closing the Gap strategy. This strategy aims to enable Aboriginal and Torres Strait Islander people to overcome inequality and achieve life outcomes equal to all Australians across areas such as life expectancy, mortality, education and employment. In July 2020 all Australian governments committed to 17 targets under the National Agreement on Closing

the Gap (Australian Government, 2020). Mortality data will continue to be a key indicator to measure progress against these targets.

Methods for reporting on Aboriginal and Torres Strait Islander deaths: Data reported in the remainder of this article are compiled by jurisdiction of usual residence for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These jurisdictions have been found to have a higher quality of identification of Aboriginal and Torres Strait Islander origin allowing more robust analysis of data. Data for those with a usual residence in Victoria, Tasmania and the Australian Capital Territory is unsuitable for comparisons of changes over time, and have been excluded in the remainder of article. Data presented in this release may underestimate the number of Aboriginal and Torres Strait Islander people who died.

For further information see **Deaths of Aboriginal and Torres Strait Islander people in the Methodology** section of this publication.

In 2021 there were 3,696 Aboriginal and Torres Strait Islander people who died across the five jurisdictions.

- Their median age was 62.5 years.
- Ischaemic heart disease was the leading cause of death for males.
- Diabetes was the leading cause of death for females for the first time since 2013.
- Those who had a usual residence in the Northern Territory had the highest mortality rate.

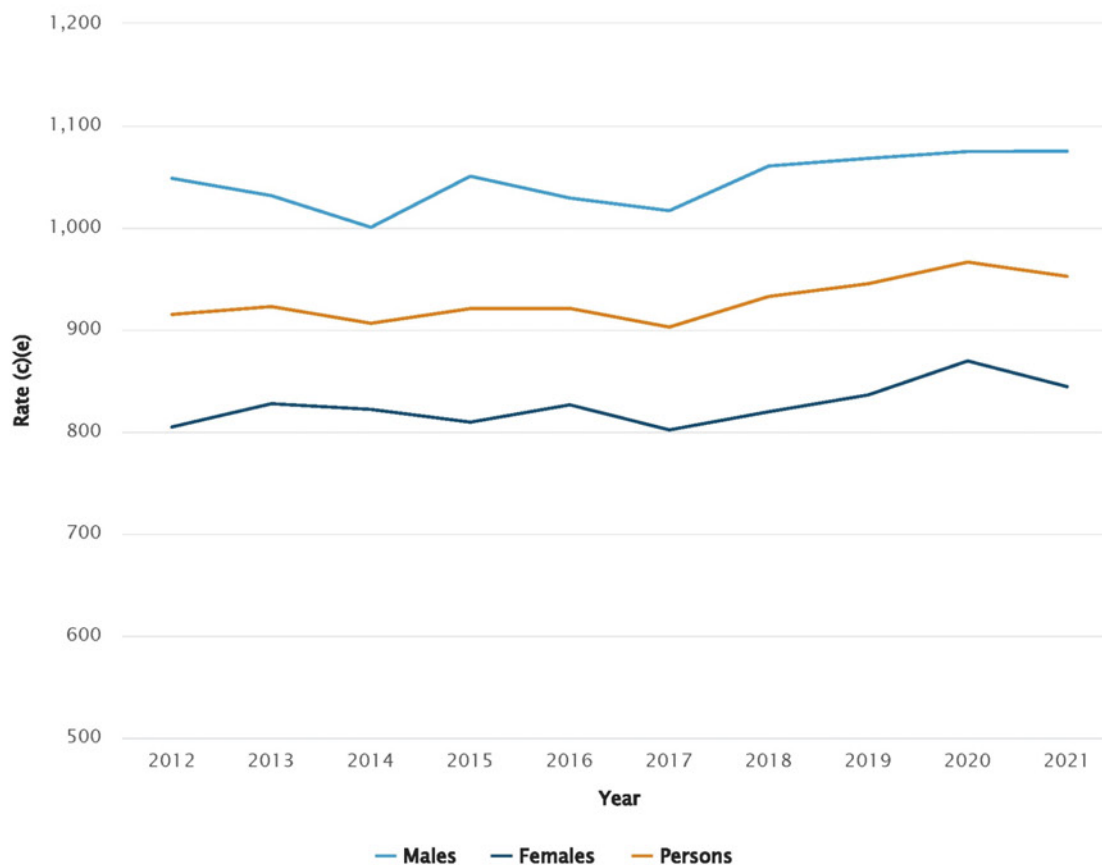
Age-standardised death rates over time

To measure changes over time for Aboriginal and Torres Strait Islander people, age-standardised death rates for males, females and all persons are presented in the graph below.

For Aboriginal and Torres Strait Islander people who died between 2012 and 2021:

- The highest age-standardised death rate (SDR) occurred in 2020 at 966.3 deaths per 100,000 people.
- The SDR is consistently higher for males compared to females.
- The rate ratio ranged between 1.2 to 1.3 male deaths for every female death.

All causes of death, age-standardised death rates, Aboriginal and Torres Strait Islander people, 2012-2021(a)(b)(c)(d)(e)(f)



- a. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- b. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- c. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- d. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait

identification is not considered to be as robust in these jurisdictions. For further information see Deaths of Aboriginal and Torres Strait Islander people in the Methodology section of this publication.

- e. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. As a result, these rates may differ from those previously published. See the Mortality tabulations and methodologies section of the methodology for further information.
- f. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Top five leading causes of death of Aboriginal and Torres Strait Islander people

For Aboriginal and Torres Strait Islander people who died between 2012 and 2021:

- The five leading causes of death (Ischaemic heart diseases, diabetes, chronic lower respiratory diseases, lung cancer and suicide) accounted for over one-third of all deaths.
- The five leading causes of death have remained the same between 2012-2016 and 2017-2021.
- The age-standardised death rate decreased for the first and second leading cause of death (Ischaemic heart disease and diabetes) between 2012-2016 and 2017-2021.
- Intentional self-harm remains the fifth leading cause of death in 2021. The age-standardised death rate increased from 2012-2016 to 2017-2021.

For Aboriginal and Torres Strait Islander males and females who died in 2021:

- Four of the five leading causes of death for males were the same compared to females.
- Suicide was the second leading cause of death for males in 2021, compared to 7th for females.
- Dementia, including Alzheimer's disease was the fifth leading cause of death for females and the 9th leading cause for males.

Top five leading causes of death, crude death rates, age-standardised death rates, Aboriginal and Torres Strait Islander people, 2012-2021 (a)(b)(c)(d)(e)(f)(g)(h)

Cause of death and ICD code	2012			2016			2021			20
	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	AS
Persons										
Ischaemic heart diseases (I20-I25)	340	52.4	133.4	374	53.1	114.0	383	49.5	105.5	12.
Diabetes mellitus (E10-E14)	201	31.0	86.4	228	32.4	81.1	273	35.3	71.3	81.
Chronic lower respiratory diseases (J40-J47)	123	19.0	60.4	203	28.8	76.8	260	33.6	73.1	69.
Malignant neoplasm of trachea, bronchus and lung (lung cancer) (C33, C34)	138	21.3	59.0	184	26.1	62.5	245	31.7	66.2	55.
Intentional self-harm (X60-X84, Y87.0)	120	18.5	18.9	160	22.7	23.5	196	25.3	27.1	22.
All causes	2,469	380.7	915.0	2,919	414.5	920.9	3,696	477.6	952.3	92.
Males										
Ischaemic heart diseases (I20-I25)	219	67.9	177.0	225	64.0	138.3	248	64.2	145.8	16.
Intentional self-harm (X60-X84, Y87.0)	82	25.4	26.9	117	33.3	36.4	134	34.7	38.6	33.

Cause of death and ICD code	2012			2016			2021			20
	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	AS
Malignant neoplasm of trachea, bronchus and lung (lung cancer) (C33, C34)	77	23.9	73.8	107	30.4	81.7	131	33.9	79.0	65.
Diabetes mellitus (E10-E14)	93	28.8	88.7	101	28.7	79.1	130	33.6	67.6	77.
Chronic lower respiratory diseases (J40-J47)	56	17.4	61.6	99	28.2	81.9	125	32.3	75.2	80.
All causes	1,351	418.7	1,048.4	1,571	446.9	1,029.1	2,018	522.1	1,075.0	1,0
Females										
Diabetes mellitus (E10-E14)	108	33.1	84.9	127	36.0	82.8	143	36.9	73.5	83.
Ischaemic heart diseases (I20-I25)	121	37.1	98.4	149	42.2	92.4	135	34.8	72.2	92.
Chronic lower respiratory diseases (J40-J47)	67	20.6	59.8	104	29.5	72.6	135	34.8	71.0	61.
Malignant neoplasm of trachea, bronchus and lung (lung cancer) (C33, C34)	61	18.7	47.8	77	21.8	47.9	114	29.4	56.0	47.
Dementia, including	32	9.8	43.0	41	11.6	43.8	91	23.5	75.4	47.

Cause of death and ICD code	2012		2016			2021			20	20
	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	No.	Crude rate (c)	ASDR(b)	AS
Alzheimer's disease (F01, F03, G30)										
All causes	1,118	343.2	804.7	1,348	382.1	826.4	1,678	433.1	844.2	82

- Causes listed are the top 5 leading causes of death for all Aboriginal and Torres Strait Islander deaths registered in 2021, based on WHO recommended tabulation of leading causes. See Mortality tabulations and methodologies for further information.
- Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- Crude death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the glossary and the Mortality tabulations and methodologies section for further information.
- Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. As a result, these rates may differ from those previously published. See the Mortality tabulations and methodologies section of the methodology for further information.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For further information see Deaths of Aboriginal and Torres Strait Islander people in the Methodology section of this publication.
- See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Leading causes of death by Indigenous status

Mortality data can provide important insights into population health concerns relevant to different groups within the Australian population. Patterns of death among Aboriginal and Torres Strait Islander people differ to those of non-Indigenous people. Mortality rates for Aboriginal and Torres Strait Islander people are generally higher than those for non-

Indigenous people. The median age at death for Aboriginal and Torres Strait Islander people in 2021 was 62.5, compared to 82.2 for the non-indigenous population.

Among the top 20 leading causes of death in 2021:

- Age-standardised death rates are higher in Aboriginal and Torres Strait Islander people for all 20 leading causes of death, except for blood cancers.
- Aboriginal and Torres Strait Islander people had rates 4.5 times higher than non-Indigenous people for diabetes, and three times higher for chronic lower respiratory diseases, liver diseases, transport accidents and accidental poisonings.

Top 20 leading causes of death, Aboriginal and Torres Strait Islander people and non-indigenous people, 2021 (a)(b)(c)(d)(e)(f)(g)(h)(i)(j)(k)

Cause of Death and ICD Code	Aboriginal and Torres Strait Islander No. deaths	Aboriginal and Torres Strait Islander Rate (b)(e)	Non-Indigenous No. deaths	Non-Indigenous Rate (b)(e)	Rate ratio (f)(k)	Rate difference (g)(k)
Ischaemic heart diseases (I20-I25)	383	105.5	12,050	53.0	2.0	52.6
Diabetes (E10-E14)	273	71.3	3,592	15.7	4.5	55.6
Chronic lower respiratory diseases (J40-J47)	260	73.1	5,319	22.9	3.2	50.1
Malignant neoplasm of trachea, bronchus and lung (C33, C34)	245	66.2	5,843	25.3	2.6	40.9
Intentional self-harm (X60-X84, Y87.0)	196	27.1	2,105	11.8	2.3	15.3
Dementia, including Alzheimer disease (F01, F03, G30)	141	65.6	11,560	50.0	1.3	15.5
Cerebrovascular diseases (I60-I69)	131	38.3	6,889	30.1	1.3	8.2

Cause of Death and ICD Code	Aboriginal and Torres Strait Islander No. deaths	Aboriginal and Torres Strait Islander Rate (b)(e)	Non-Indigenous No. deaths	Non-Indigenous Rate (b)(e)	Rate ratio (f)(k)	Rate difference (g)(k)
Symptoms, signs and ill-defined conditions (R00-R99)	121	20.2	2,177	10.3	2.0	9.9
Cirrhosis and other diseases of liver (K70-K76)	110	22.7	1,535	7.2	3.2	15.5
Land Transport Accidents (V01-V89, Y85)	104	14.9	842	4.7	3.2	10.2
Accidental poisoning (X40-X49)	86	14.3	732	4.3	3.3	10.1
Malignant neoplasm of colon, sigmoid, rectum and anus (C18-C21, C26.0)	75	22.2	3,821	17.0	1.3	5.2
Diseases of the urinary system (N00-N39)	75	24.6	2,703	11.7	2.1	12.9
Malignant neoplasm of liver and intrahepatic bile ducts (C22)	73	17.9	1,583	6.9	2.6	11.0
Malignant neoplasms of breast (C50)	56	13.7	2,172	9.9	1.4	3.7
Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)	55	15.4	3,559	15.6	1.0	-0.2
Malignant neoplasm of pancreas (C25)	47	11.5	2,360	10.3	1.1	1.2

Cause of Death and ICD Code	Aboriginal and Torres Strait Islander No. deaths	Aboriginal and Torres Strait Islander Rate (b)(e)	Non-Indigenous No. deaths	Non-Indigenous Rate (b)(e)	Rate ratio (f)(k)	Rate difference (g)(k)
Certain conditions originating in the perinatal period (P00-P96)	45	3.4	342	2.3	1.5	1.1
Hypertensive diseases (I10-I15)	42	14.1	1,756	7.6	1.8	6.5
Malignant neoplasm of oesophagus (C15)	37	8.8	917	4.0	2.2	4.8
Heart failure and complications and ill-defined heart disease (I50-I51)	37	13.2	2,342	10.2	1.3	3.0
All causes	3,696	952.3	117,657	523.7	1.8	428.6

- a. Causes listed are based on the WHO recommended tabulation of leading causes. See Mortality tabulations and methodologies for further information.
- b. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. The data presented for Land transport accidents includes ICD-10 codes V01-V89 and Y85. See Mortality tabulations and methodologies for further information.
- e. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. As a result, these rates may differ from those previously published. See the Mortality tabulations and methodologies section of the methodology for further information.
- f. The rate ratio is the death rate for Aboriginal and Torres Strait Islander persons divided by the non-Indigenous rate.
- g. The rate difference is the death rate Aboriginal and Torres Strait Islander persons less the non-Indigenous rate.
- h. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For further information see Deaths of Aboriginal and Torres Strait Islander people in the Methodology section of this publication.
- i. All causes of death data from 2006 onward are subject to a revisions process. See the Data quality section of the methodology for more information.

- j. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.
- k. Rate ratio and rate difference is calculated on unrounded data and may look inconsistent with the rounded rates presented.

Intentional self-harm deaths (Suicide) in Australia

Support services, 24 hours, 7 days

- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [Suicide Call Back Service \(https://www.suicidecallbackservice.org.au/\)](https://www.suicidecallbackservice.org.au/): 1300 659 467
- [MensLine Australia \(https://mensline.org.au/\)](https://mensline.org.au/): 1300 789 978
- [Kids Helpline \(https://kidshelpline.com.au/\)](https://kidshelpline.com.au/) (for young people aged 5 to 25 years): 1800 551 800
- [StandBy - Support After Suicide \(https://standbysupport.com.au/\)](https://standbysupport.com.au/): 1300 727 247
- National Alcohol and Other Drugs Hotline: 1800 250 015

For further information see [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services).

The ABS uses, and supports the use of, the [Mindframe guidelines \(https://www.mindframe.org.au/guidelines\)](https://www.mindframe.org.au/guidelines) on responsible, accurate and safe reporting on suicide, mental ill-health and alcohol and other drugs. The ABS recommends referring to these guidelines when reporting on statistics in this report.

During 2021:

- 3,144 people died by suicide.
- The age-standardised suicide rate was 12.0 per 100,000 people.
- Suicide was the 15th leading cause of death.

Additional Victorian registrations

Following a reconciliation exercise between the ABS and the Victorian Registry of Births, Deaths and Marriages (RBDM), 72 additional suicides from 2013 to 2016 were identified that had not previously been provided to the ABS. To reflect a more accurate time series, deaths due to suicide are presented by registration year

throughout this publication. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. See [Technical note: Victorian additional registrations \(2013-2016\) \(/methodologies/causes-death-australia-methodology/2021#technical-note-victorian-additional-registrations-2013-2016-\)](#) for detailed information on this issue.

Administrative factors

Deaths (such as those from suicide) that are referred to a coroner can take time to be fully investigated, which can influence what information is available to assign a cause of death code during the ABS coding process. Each year, some coroner cases are coded by the ABS before the coronial proceedings are finalised. Coroner cases that have not been closed or had all information made available can impact on data quality as less specific ICD-10 codes often need to be applied. At the time of coding 2021 data there was a higher proportion of open coroner cases at preliminary coding than seen in previous years (67.2% in 2021 versus a 5-year average for 2015-2019 of 56.2%). This is reflected in the 2021 dataset by a higher rate of deaths due to 'other ill-defined and unspecified causes of mortality' (R99).

Deaths due to other ill-defined and unspecified causes of mortality (R99) are in scope for revision and it is expected that deaths due to intentional self-harm will increase through the revisions process. For further information surrounding the revisions process, see Coding of suicide in the Deaths due to intentional self-harm (suicide) section in the Methodology of this publication.

Suicide by sex

In order to measure changes in suicide over time, age-standardised suicide rates for males, females and all persons are presented in the graph below. Upper and lower bounds (confidence intervals) are included to show the potential variability of the annual suicide rates and can be used in measuring statistical significance in annual rate change.

In 2021 there were 2,358 males who died by suicide.

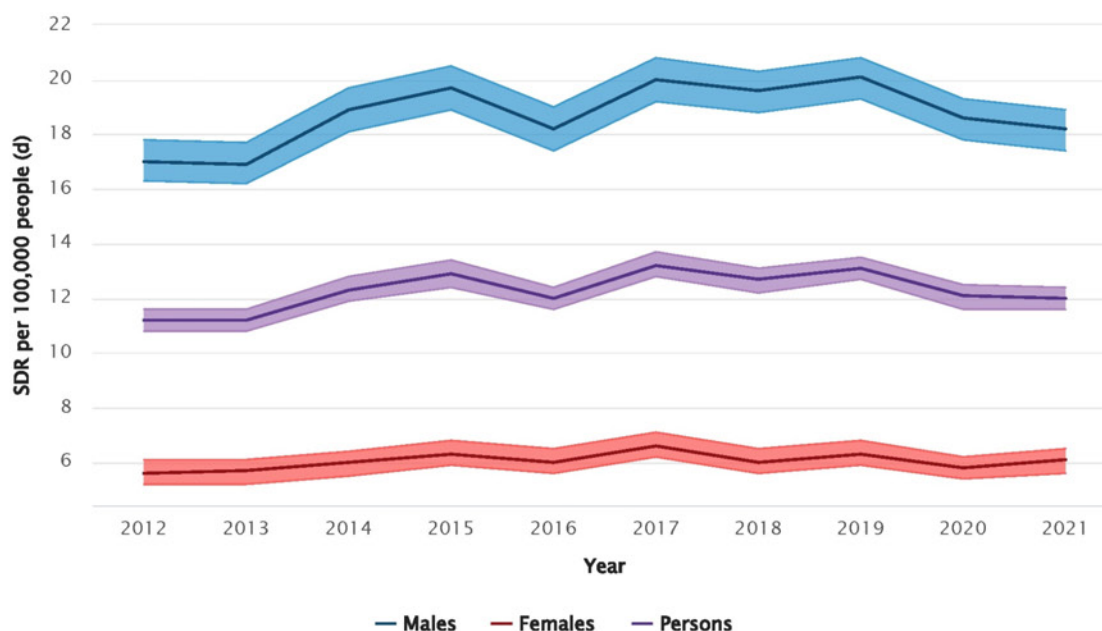
- Suicide was the 10th leading cause of death.
- Their median age at death was 45.8 years.
- Three quarters of people who died by suicide were male.
- The suicide rate for males decreased by 2.3% from 2020.

- The suicide rate for males increased between 2012 and 2021 from 17.0 to 18.2 deaths per 100,000.

In 2021 there were 786 females who died by suicide.

- Suicide was the 24th leading cause of death.
- Their median age at death was 42.9 years.
- The suicide rate for females increased by 5.0% from 2020.
- The suicide rate for females increased between 2012 and 2021 from 5.6 to 6.1 deaths per 100,000.

Age-standardised suicide rates (with confidence intervals), 2012-2021 (a)(b)
(c)(d)(e)(f)



- a. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of

Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.

- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- f. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide by state and territory of usual residence

Administrative factors

Deaths (such as those from suicide) that are referred to a coroner can take time to be fully investigated, which can influence what information is available to assign a cause of death code during the ABS coding process. These processes may differ across jurisdictions. Each year, some coroner cases are coded by the ABS before the coronial proceedings are finalised. Coroner cases that have not been closed or had all information made available can impact on data quality as less specific ICD codes often need to be applied. At the time of coding 2021 data, there was a higher proportion of open coroner cases at preliminary coding than seen in previous years (67.2% in 2021 versus a 5-year average for 2015-2019 of 56.2%). This is reflected in the 2021 dataset by a higher rate of deaths due to 'other ill-defined and unspecified causes of mortality' (R99).

Deaths due to other ill-defined and unspecified causes of mortality (R99) are in scope for revision and it is expected that deaths due to intentional self-harm will increase through the revisions process. For further information surrounding the revisions process, see Coding of suicide in the Deaths due to intentional self-harm (suicide) section in the Methodology of this publication.

- Almost three-quarters of people who died by suicide had a usual residence in New South Wales, Victoria and Queensland.
- Victoria, South Australia, Tasmania and the Northern Territory had decreases in the age-standardised suicide rate between 2020 and 2021.
- Queensland and the Australian Capital Territory both recorded an increase in the suicide rate between 2020 and 2021.

- Those living in the Northern Territory had the highest suicide rate at 18.4 per 100,000 people.

Number of suicide deaths, by state or territory of usual residence, 2012-2021 (a)(b)(c)(d)(e)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
NSW	727	718	832	839	822	929	940	960	876	880
Vic (a)	514	552	672	686	667	712	691	727	694	675
Qld	631	676	658	761	688	815	805	798	759	783
SA	197	203	244	233	221	226	209	249	234	226
WA	367	336	367	402	373	418	384	415	381	389
Tas.	71	74	69	84	93	79	78	106	87	80
NT	48	33	56	48	46	51	47	50	51	46
ACT	24	37	38	46	28	59	50	53	57	65
Australia	2,579	2,629	2,937	3,100	2,939	3,290	3,205	3,358	3,139	3,144

- a. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data
- e. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Age-standardised suicide rate, by state or territory of usual residence, 2012-2021 (a)(b)(c)(d)(e)(f)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
NSW	9.8	9.5	10.8	10.9	10.5	11.6	11.6	11.8	10.6	10.6
Vic (a)	9.0	9.2	11.1	11.2	10.5	11.1	10.6	11.0	10.2	10.1
Qld	13.9	14.6	14.0	16.0	14.2	16.5	16.1	15.7	14.7	14.9

	2012 Rate	2013 Rate	2014 Rate	2015 Rate	2016 Rate	2017 Rate	2018 Rate	2019 Rate	2020 Rate	2021 Rate
SA	11.7	11.9	14.5	13.2	13.0	12.9	11.7	13.7	13.0	12.3
WA	15.0	13.5	14.5	15.6	14.5	16.1	14.5	15.6	14.0	14.0
Tas.	13.7	14.2	12.8	16.2	17.1	15.1	14.1	18.5	15.1	13.5
NT	19.1	14.2	21.8	20.3	19.2	20.1	19.4	20.6	20.0	18.4
ACT	6.2	9.6	9.8	11.4	7.2	14.2	11.5	12.0	12.4	13.8
Australia	11.2	11.2	12.3	12.9	12.0	13.2	12.7	13.1	12.1	12.0

- To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data
- See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide by age

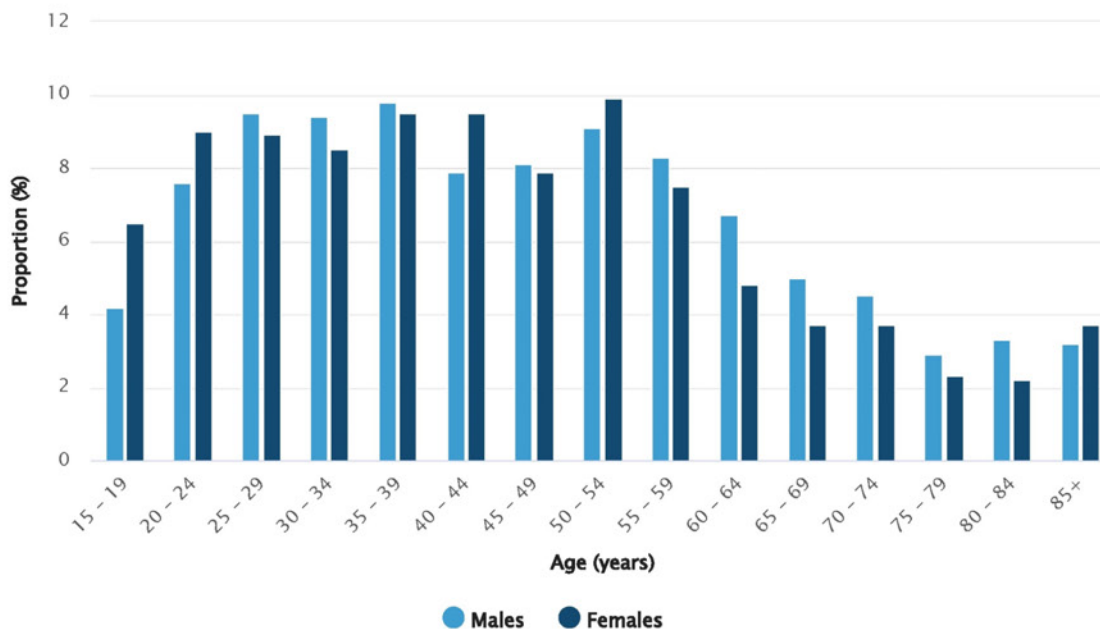
The following sections cover various age and sex breakdowns of suicide. Understanding how suicide manifests across these key demographics is important in helping to target policies and prevention activities.

The graph below shows the age distribution for those who died by suicide and provides an insight into the proportion of those deaths that occurred within each age cohort.

- Young and middle-aged people are more likely to die by suicide than those in older age cohorts.
- 81.9 percent of people who died by suicide are aged under 65 years.
- Almost one quarter of deaths in those aged 15-44 are due to suicide.
- People who died by suicide had a median age of 44.8 years compared to 82.0 years for all deaths.

- The proportional distribution of those aged under 25 who died by suicide differs for males and females. For females, 17.8% of suicides occur in those aged under 25 years. For males 12.5% of suicides occur in those aged under 25.

Suicide by age and sex as a proportion of total suicides, 2021 (a)(b)(c)(d)(e)



- Deaths due to suicide are presented by registration year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- Causes of death data for 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of males: age-specific death rates

Age-specific death rates show how suicide manifests across age cohorts by relating the number of deaths to the size and structure of the underlying population.

In 2021, males aged over 85 years:

- Had the highest age-specific suicide rate.
- Accounted for 3.2% of suicides of males.

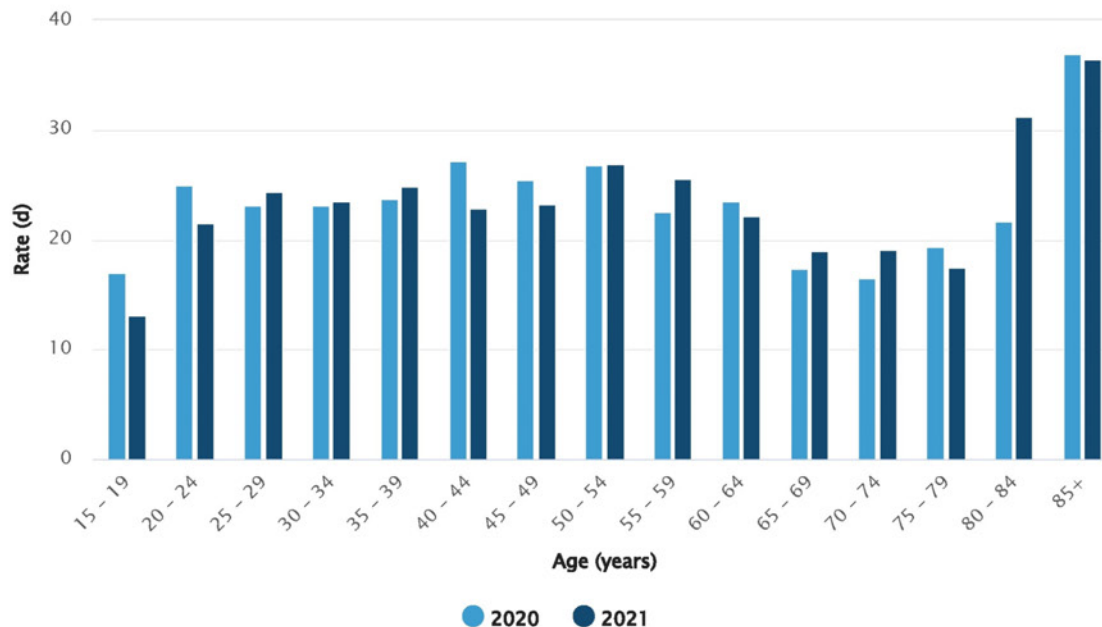
In 2021, males aged between 50-54 years:

- Have the highest age-specific suicide rates of those aged under 80 years.
- Accounted for 9.1% of suicides of males.

Between 2020 and 2021:

- Males aged 80-84 years had the largest increase in age-specific suicide rates.
- Those aged 80-84 years have the 2nd leading age-specific suicide rate. This is a change from 2020, where those aged 80-84 had the 11th age-specific suicide rate.
- Males aged 15-19 years had the largest proportional decrease in their age-specific suicide rate.

Male age-specific suicide rates, 2020-2021 (a)(b)(c)(d)(e)(f)(g)



- a. Deaths due to suicide are presented by registration year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- b. Causes of death data for 2020 and 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Age-specific death rates reflect the number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
- e. Suicide deaths in the 0-14 year age group have been excluded because of the small number of deaths that occur within this age group.
- f. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data
- g. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of females: age-specific death rates

Age-specific death rates show how suicide manifests across age cohorts by relating the number of deaths to the size and structure of the underlying population.

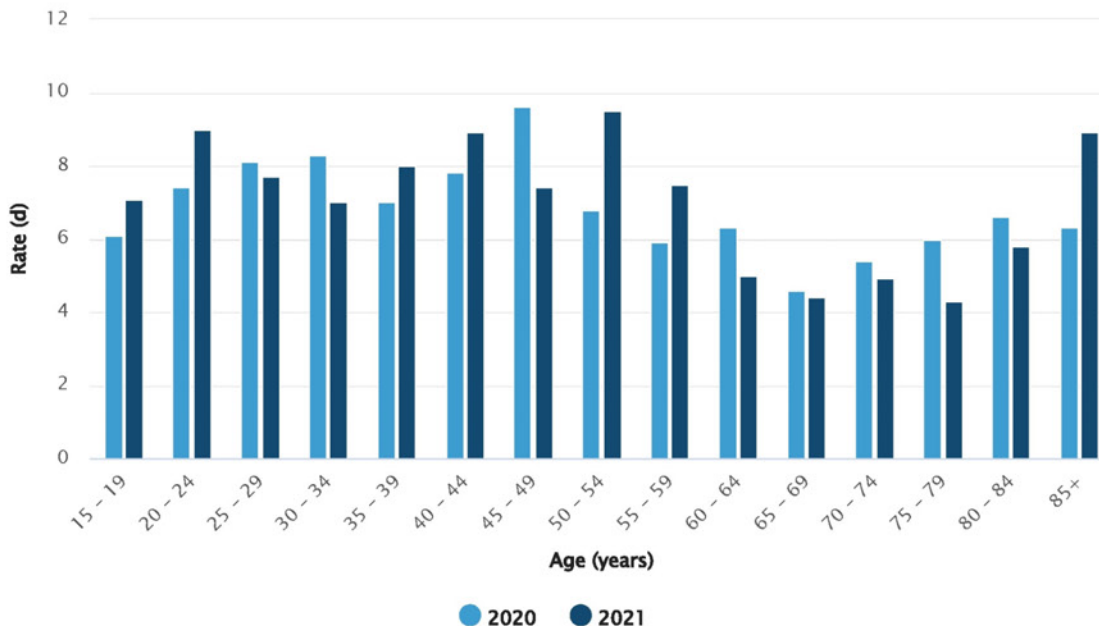
Females aged 50-54 years:

- Had the highest female age-specific suicide rate.
- Accounted for the highest proportion (9.9%) of suicides of females.

Between 2020 and 2021:

- Females aged 50-54 moved from the 7th to the leading age group of suicides in females.
- Those aged 85 years and older increased by the highest proportion.
- Females aged 45-49 had the largest proportional decrease in their age-specific suicide rate.

Female age-specific suicide rates, 2020-2021 (a)(b)(c)(d)(e)(f)(g)



a. Deaths due to suicide are presented by registration year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian

- additional registrations (2013-2016) in the methodology for more information.
- b. Causes of death data for 2020 and 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
 - c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
 - d. Age-specific death rates reflect the number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
 - e. Suicide deaths in the 0-14 year age group have been excluded because of the small number of deaths that occur within this age group.
 - f. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data
 - g. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide and premature mortality

Years of potential life lost (YPLL) measures the extent of 'premature' mortality, which is assumed to be any death between the ages of 1-78 years inclusive, and aids in assessing the significance of specific diseases or trauma as a cause of premature death. YPLL weights age at death to gain an estimate of how many years a person would have lived had they not died prematurely. See Mortality tabulations and methodologies section of methodology for further information.

Suicide accounted for the highest number of years of potential life lost among leading cause groups of conditions for both males and females. This is due to the high proportion of suicides that occur within younger age groups. Conditions such as coronary heart disease account for more premature deaths than suicide, but less years of potential life lost.

In 2021:

- Suicide was the leading cause of death for 15-44 year olds.
- Suicide was a leading cause of premature mortality with 107,068 years of life lost.
- A person who died by suicide lost on average 34.1 years of life.

For males who died in 2021:

- Suicide was the leading cause of premature mortality with 78,231 years of life lost.
- Suicide was the 10th leading cause of death.
- Those who died by suicide lost on average 33.2 years of life.

For females who died in 2021:

- Suicide was the leading cause of premature mortality with 28,874 years of life lost.
- Suicide was the 24th leading cause of death.
- Those who died by suicide lost on average 36.7 years of life.

Suicides of children

Deaths of children by suicide is an extremely sensitive issue. The number of deaths of children attributed to suicide can be influenced by coronial reporting practices. Reporting practices may lead to differences in counts across jurisdictions and this should be taken into account when interpreting tabulations and analysis of suicide deaths in children presented below. For more information on issues associated with the compilation and interpretation of suicide data, see Deaths due to intentional self-harm (suicide) section of the methodology in this publication. For the purposes of the following analysis, children are defined as those aged between 5 and 17 years of age. The ABS is not aware of any recorded suicides of children under the age of 5 years. The tabulation below shows the number and age-specific death rate for children who died by suicide over the last five years.

In 2021, for children who died by suicide:

- There were 112 suicides of children.
- Suicide remained the leading cause of death of children in Australia.
- Males had a suicide rate of 3.0 per 100,000 children (63 deaths).
- Females had a suicide rate of 2.4 per 100,000 children (49 deaths).
- Over half (56.3%) of children who died by suicide were aged 16 or 17 years.
- Suicides rates differed by jurisdiction of usual residence. Children in the Northern Territory had the highest suicide rate. See Datacube 11 for more information.

Suicide of children aged 5-17 years, 2017-2021 (a)(b)(c)(d)(e)(f)(g)(h)

Age group (years)		2017	2017	2018	2018	2021
		No./proportion	Rate(d)	No./proportion	Rate(d)	No./proportion
5-17 years						
Males	Suicide	67	3.3	64	3.1	3.3
	All causes	274	13.6	268	13.1	13.1
	Proportion(e)	24.5	n/a	23.9	n/a	23.9
Females	Suicide	35	1.8	39	2.0	2.0
	All causes	198	10.4	188	9.7	9.7
	Proportion(e)	17.7	n/a	20.7	n/a	20.7
Persons	Suicide	102	2.6	103	2.6	2.6
	All causes	472	12.0	456	11.4	11.4
	Proportion(e)	21.6	n/a	22.6	n/a	22.6
All persons, all ages(f)						
	Suicide	3,290	13.2	3,205	12.7	12.7

n/a Not Applicable

- a. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2017-2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Child rates are expressed as age-specific death rates. The number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
- e. Intentional self-harm deaths as a proportion of all deaths in the 5-17 year age group.
- f. All ages rates are expressed as age-standardised rates. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- g. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- h. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of children: Sex ratio

- The sex ratio for children aged 5-17 years was 1.3 males per female death. This compared to a sex ratio of 3.0 for people of all ages who died by suicide.
- The sex ratio for children has remained consistent over the last 10 years.

Sex ratios for child suicide (5-17 years) and all suicide at all ages, 2012-2021 (a)(b)(c)(d)(e)(f)

	5 - 17 years	All ages combined
2012	1.0	3.0
2013	1.7	2.9
2014	1.3	3.1
2015	1.2	3.1
2016	2.3	2.9
2017	1.9	2.9
2018	1.6	3.2
2019	1.9	3.1
2020	1.6	3.2
2021	1.3	3.0

- a. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Sex ratios for suicide, defined as the number of male suicides per female suicide.
- e. See the Data quality section of the methodology for further information on specific issues related to interpreting time-series and 2021 data.
- f. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Risk factors for intentional self-harm deaths (Suicide) in Australia

Support services, 24 hours, 7 days

- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [Suicide Call Back Service \(https://www.suicidecallbackservice.org.au/\)](https://www.suicidecallbackservice.org.au/): 1300 659 467
- [Kids Helpline \(https://kidshelpline.com.au/\)](https://kidshelpline.com.au/) (for young people aged 5 to 25 years): 1800 551 800
- [MensLine Australia \(https://mensline.org.au/\)](https://mensline.org.au/): 1300 789 978
- [StandBy - Support After Suicide \(https://standbysupport.com.au/\)](https://standbysupport.com.au/): 1300 727 247
- National Alcohol and Other Drugs Hotline: 1800 250 015

For further information see [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services).

Circumstances relating to a suicide are complex and multifaceted. It is the combination of multiple factors rather than a single reason that contribute to a person dying by suicide. Risk factors should not be considered in isolation.

The ABS codes causes of death from information contained on the National Coronial Information System (NCIS), including police, pathology, toxicology and coroners reports. These reports provide a breadth of information relating to these deaths, much of which is highly important from a public health perspective. As part of the investigative process for a suicide, risk factors are often mentioned in these reports. For suicide, a risk factor could be one of many factors including mental health conditions, lifestyle factors, or chronic diseases that can interact and increase the "risk" of suicide. While a risk factor may have been present in the life of a person who died by suicide it may not have been a direct cause. Risk factors provide important insights that can help guide prevention and intervention activities.

The risk factors mentioned in the reports on the NCIS are captured as part of the ABS coding process and assigned codes within the framework of the International Classification of Diseases, 10th revision. The capture of information on associated causes of death is reliant on the documentation available for any given death. This in turn can be affected by the length of the coronial process, the type of information available across different jurisdictions and administrative processes affecting report availability. As such, the information presented in this section reflects information contained within reports available on NCIS at the time of coding and does not necessarily reflect all causes associated with all

suicides that have occurred. Risk factors are included and made available as part of the associated causes in the national mortality dataset.

In 2021:

- Almost 90% of people who died by suicide had at least one risk factor reported.
- Psychosocial risk factors were the most commonly reported risk factor and were present in almost two-thirds of deaths of people who died by suicide.
- Mental and behavioural disorders were present in almost 63 percent of deaths of people who died by suicide.
- People who died by suicide had an average of 3 to 4 risk factors mentioned.

Risk factor prevalence, suicides, Australia, 2017-2021 (a)(b)(c)(d)(e)(f)(g)(h)

	2017 No.	2017 (%)	2018 No.	2018 (%)	2019 No.	2019 (%)	2020 No.	2020 (%)	2021 No.	2021 (%)
Total suicides	3,290	100.0	3,205	100.0	3,358	100.0	3,139	100.0	3,144	100.0
Total suicides with reported mental and behavioural disorder (e)	2,366	71.9	2,253	70.3	2,317	69.0	2,058	65.6	1,975	62.8
Total suicides with reported natural disease (f)	1,746	53.1	1,865	58.2	1,974	58.8	1,737	55.3	1,721	54.7
Total suicides with reported psychosocial risk factors (g)(h)	2,338	71.1	2,348	73.3	2,405	71.6	2,107	67.1	2,050	65.2
Total suicides with any associated cause reported	3,191	97.0	3,021	94.3	3,173	94.5	2,849	90.8	2,820	89.7

a. To best reflect a more accurate time series, deaths due to suicide are presented by registration year. As a result, some totals may not equal the sum of their components and suicide data presented in this publication may not match that previously published by reference year. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.

b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).

- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- e. Mental and behavioural disorder includes ICD-10 codes F00-F99.
- f. Natural disease includes all disease and health related conditions with the exclusion of mental and behavioural disorders, injuries, external causes and some terminal conditions (G93, J96, I46, I49). Includes ICD-10 codes A00-E90, G00-R99, U07.1-U07.2, U08-U09.
- g. Psychosocial risk factors include F41.8 as this code was identified as a COVID-19 pandemic related risk factor. See Intentional self-harm deaths (Suicide) in Australia 2020, and later in this section, for more information
- h. For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.

Suicide risk factors by age and sex

Risk factors can vary by socio-economic demographics including age and sex.

Understanding this can help target the implementation of suicide prevention and intervention initiatives. The ten most common risk factors for selected ages, males and females are presented in the tables.

Suicide risk factors by age

The types of risk factors experienced by a person can vary across their life. Risk factors more commonly seen in persons in older age groups, such as pain and limitation of activities due to chronic health conditions, are not as common in younger age groups. Similarly, problems related to employment and unemployment are most common in those included in the working age population (defined as 15-64 years).

In 2021:

- Mood disorders (including depression) were the most common risk factor to be mentioned in all age groups except those aged 85 years and older.
- Suicide ideation was mentioned as a risk factor for at least one fifth of deaths across all age groups. Suicide ideation can include thoughts or contemplation of suicide, and both direct and indirect discussions or comments surrounding the intention or wish to end their life.
- People aged under 44 years were more likely to have issues with psychoactive substance use (both acute use and intoxication, as well as chronic use) mentioned as a risk factor.
- For those aged 85 years and over, limitation of activities due to illness and disability was the most common risk factor.

- Older people had a higher proportion of chronic health conditions and pain as a risk factor than younger people.
- Factors relating to un/employment are more highly ranked as a risk factor for those aged 25-44 years and 45-64 years.

Acute alcohol use was a risk factor in just over one fifth (20.6%) of suicides. Acute alcohol use can affect a death due to suicide in a number of ways including causing respiratory depression (especially when used in combination with other drugs) or affecting judgement and decision making processes. For suicides not due to poisoning, acute alcohol use was present in 21% of deaths.

In 2021:

- Those aged 25-64 years were more likely to have issues with alcohol use (both acute use and intoxication, as well as chronic use) mentioned as a risk factor.
- Those aged under 45 years were more likely to have acute alcohol use and intoxication identified as a risk factor.

Psychoactive substance use was a risk factor in 15.2% of suicides. Similar to alcohol, acute use of psychoactive substances can affect a death due to suicide in a number of ways, including by impairing cognition, perception or moods, or by causing toxicity. People aged under 45 years were more likely to have psychoactive substances present at death.

For people aged under 45, in 2021:

- Acute psychoactive substance use and intoxication was identified as a risk factor in 20-23% of suicides.
- Acute psychoactive substance use and intoxication was present as a risk factor in a higher proportion of deaths due to suicide than acute alcohol use and intoxication for those aged under 45.
- For those aged over 45 acute alcohol use and intoxication was a more common risk factor than acute psychoactive substance use and intoxication.

Top 10 risk factors by age, proportion of total suicides, by age group, Persons, 2021 (a)(b)(c)(d)(e)(f)(g)(h)(i)(j)(k)

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Mood disorders (F30-F39)	31.8	38.5	42.1	34.8	19.0	37.5
Suicide ideation (R45.8)	27.4	26.1	23.1	20.3	27.6	24.6
Problems in spousal relationship circumstances (Z63.0, Z63.5)	21.2	32.1	24.3	10.8	0.0	24.0
Acute alcohol use and intoxication (F10.0, R78.0, T51)	17.3	25.5	21.7	12.1	5.7	20.6
Acute alcohol use and intoxication for suicides not due to drug and alcohol poisoning (g)	18.2	26.0	22.0	11.1	2.9	21.0
Personal history of self-harm (Z91.5)	24.4	22.4	21.0	13.6	7.6	20.5
Anxiety and stress related disorders (Z73.3, F40-F48) (e)	17.5	19.7	18.4	13.0	0.0	17.3
Acute psychoactive substance use and intoxication (f)	20.0	23.7	10.6	2.8	1.0	15.2
Acute psychoactive substance use and intoxication for suicides not due to drug and alcohol poisoning (g)(h)	22.1	27.8	14.0	5.0	1.4	18.9
Chronic psychoactive substance abuse disorders (f)	15.7	19.8	9.4	1.5	0.0	12.6
Chronic alcohol abuse disorders (f)	5.8	15.5	14.9	8.9	1.0	12.5
Problems related to legal circumstances (Z65.0-Z65.4)	6.7	13.9	8.6	4.3	0.0	9.3
Problems in relationships with family and friends (Z63.1-Z63.3, Z63.6-Z63.9)	11.3	8.7	8.5	8.9	4.8	8.9
Problems related to employment and unemployment (Z56)	4.6	8.9	12.1	2.6	1.0	8.1
Death of a family member (Z63.4, Z81.8)	9.0	5.7	7.4	11.9	14.3	7.9
Limitation of activities due to disability (Z73.6)	0.7	0.4	6.7	21.0	38.1	6.7
Pain (i)	0.9	4.1	8.8	10.6	20.0	6.6
Malignant neoplasms (C00-C97, D45-D46, D47.1, D47.3-D47.5)	0.0	0.2	3.4	12.8	17.1	3.6

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Ischaemic heart diseases (I20-I25)	0.0	0.6	3.1	11.5	16.2	3.4
Hypertensive diseases (I10-I15)	0.0	0.3	2.2	7.4	9.5	2.2
Other musculoskeletal disorders (M00-M99) (j)	0.2	0.9	2.1	4.8	12.4	2.1
Problems related to care-provider dependency (Z74)	0.0	0.1	1.0	3.9	10.5	1.3

- Causes of death data for 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- The top ten multiple causes were captured for each age group then combined into one list, therefore the number of causes listed in the table is more than 10.
- Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- Excludes F41.8 Other specified anxiety disorders (F41.8 is included in the pandemic related psychosocial risk factor grouping where data exists. See Suicide in the COVID-19 pandemic in this publication for more information) and F45.4 Persistent somatoform pain disorder (F45.4 is included in the Pain grouping where data exists).
- For a full list of ICD-10 codes in this grouping, see the Mortality tabulations and methodologies section in the Methodology of this publication
- Includes intentional self-harm deaths with an underlying cause X66-X84, Y87.0. Excludes deaths coded to X60-X65.
- Includes deaths where T36-T50 (Poisoning by drugs, medicaments and biological substances) is identified.
- Pain includes G43, G44, M25.5, M54, M79.6, N23, R07, R10, R51, R52.
- Excludes codes in this chapter captured in pain and chronic substance use groupings.
- For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.

Suicide risk factors for males

In 2021 for males who died by suicide:

- Mood disorders (including depression) were the most common risk factor to be mentioned in all age groups except those aged 85 years and older.
- Males aged 25-64 were more likely to have issues related to acute and chronic alcohol use than other older age groups.
- Acute psychoactive substance use was identified as a risk factor in over one quarter of deaths of those aged 25-44.

- Males aged under 44 years were more likely to have issues with chronic psychoactive substance abuse disorders.
- Issues in spousal relationships was the second most common risk factor for males.
- Males in younger age groups were more likely to have issues with spousal relationships than those in older age groups.
- A history of suicide ideation or self-harm was present as a risk factor across all age groups for males.

Top 10 risk factors by age, proportion of total suicides, by age group, Males, 2021 (a)(b)(c)(d)(e)(f)(g)(h)(i)(j)(k)

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Mood disorders (F30-F39)	30.6	37.9	39.5	33.6	17.1	36.2
Problems in spousal relationship circumstances (Z63.0, Z63.5)	21.1	33.1	25.4	11.7	0.0	24.7
Suicide ideation (R45.8)	26.5	25.4	21.5	19.2	25.0	23.3
Acute alcohol use and intoxication (F10.0, R78.0, T51)	18.7	26.1	22.7	11.7	3.9	21.2
Acute alcohol use and intoxication for suicides not due to drug and alcohol poisoning (e)	19.6	27.0	23.2	10.9	1.7	21.7
Personal history of self-harm (Z91.5)	16.3	18.9	16.1	11.9	6.6	16.2
Acute psychoactive substance use and intoxication (f)	19.7	25.8	11.6	3.3	1.3	16.2
Acute psychoactive substance use and intoxication for suicides not due to drug and alcohol poisoning (e)(g)	21.8	28.8	13.9	3.7	1.7	18.6
Anxiety and stress related disorders (Z73.3, F40-F48)(h)	15.3	17.2	15.2	12.2	0.0	15.0
Chronic psychoactive substance abuse disorders (f)	18.0	22.2	9.0	1.6	0.0	13.5
Chronic alcohol abuse disorders (f)	6.8	15.6	16.0	8.7	0.0	13.1
Problems related to legal circumstances (Z65.0-Z65.4)	8.2	15.0	10.0	4.9	0.0	10.5
Problems related to employment and unemployment (Z56)	5.8	9.4	13.7	2.2	1.3	8.9
Problems in relationships with family and friends (Z63.1-Z63.3, Z63.6-Z63.9)	10.2	8.4	7.5	8.1	2.6	8.1
Death of a family member or person in primary support network (Z63.4, Z81.8)	9.5	5.7	6.1	10.8	14.5	7.4
Limitation of activities due to disability (Z73.6)	0.3	0.2	5.9	21.4	40.8	6.7
Pain (i)	1.0	3.5	8.2	9.2	18.4	6.1

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Malignant neoplasms (C00-C97, D45-D46, D47.1, D47.3-D47.5)	0.0	0.0	3.6	13.8	21.1	4.0
Ischaemic heart diseases (I20-I25)	0.0	0.7	3.2	10.8	15.8	3.5
Hypertensive diseases (I10-I15)	0.0	0.3	2.4	6.2	9.2	2.2
Other musculoskeletal disorders (M00-M99)(j)	0.3	0.6	1.6	2.7	11.8	1.6
Problems related to care-provider dependency (Z74)	0.0	0.1	0.5	4.3	10.5	1.2

- Causes of death data for 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- The top ten multiple causes were captured for each age group then combined into one list, therefore the number of causes listed in the table is more than 10.
- Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- Includes intentional self-harm deaths with an underlying cause X66-X84, Y87.0. Excludes deaths coded to X60-X65.
- For a full list of ICD-10 codes in this grouping, see the Mortality tabulations and methodologies section in the Methodology of this publication
- Includes deaths where T36-T50 (Poisoning by drugs, medicaments and biological substances) is identified.
- Excludes F41.8 Other specified anxiety disorders (F41.8 is included in the pandemic related psychosocial risk factor grouping where data exists. See Suicide in the COVID-19 pandemic in this publication for more information) and F45.4 Persistent somatoform pain disorder (F45.4 is included in the Pain grouping where data exists).
- Pain includes G43, G44, M25.5, M54, M79.6, N23, R07, R10, R51, R52.
- Excludes codes in this chapter captured in pain and chronic substance use groupings.
- For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.

Suicide risk factors for females

In 2021 for females who died by suicide:

- Mood disorders (including depression) were the most common risk factor, being captured as a risk factor in over 40% of all female suicides.
- Over half of females aged 45-64 years had a mood disorder identified as a risk factor.
- Personal history of self-harm was the most common risk factor for those aged under 25 years.

- Suicide ideation was mentioned as a risk factor in over one third of suicides of those aged over 85.
- There was overall a higher proportion of acute substance abuse disorders than chronic abuse disorders identified.
- Acute psychoactive substance use was more likely to be identified as a risk factor in those aged under 44 than in older age groups.
- 15 percent of deaths for those aged 65-84 (where drugs or alcohol were not the mechanism of death) had acute psychoactive substance use identified as a risk factor. This compares to a proportion of 3.7% of males in the same age group.
- Pain was more likely to be identified as a risk factor for those aged over 65 years, with pain being identified in almost one quarter of suicides in those aged 85 years and older.

Top 10 risk factors by age, proportion of total suicides, by age group, Females, 2021 (a)(b)(c)(d)(e)(f)(g)(h)(i)(j)(k)

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Mood disorders (F30-F39)	34.3	40.4	50.2	39.8	24.1	41.6
Personal history of self-harm (Z91.5)	41.4	32.8	36.7	20.4	10.3	33.2
Suicide ideation (R45.8)	29.3	28.2	28.3	24.7	34.5	28.2
Anxiety and stress related disorders (Z73.3, F40-F48) (e)	22.1	27.2	28.7	16.1	0.0	24.4
Problems in spousal relationship circumstances (Z63.0, Z63.5)	21.4	29.3	21.1	7.5	0.0	21.8
Acute alcohol use and intoxication (F10.0, R78.0, T51)	14.3	23.7	18.6	14.0	10.3	18.8
Acute alcohol use and intoxication for suicides not due to drug and alcohol poisoning (f)	15.0	22.7	16.5	12.5	8.3	18.2
Acute psychoactive substance use and intoxication (g)	20.7	17.4	7.2	1.1	0.0	12.3
Acute psychoactive substance use and intoxication for suicides not due to drug and alcohol poisoning (f)(h)	22.8	24.5	14.6	15.0	0.0	20.1
Problems in relationships with family and friends (Z63.1-Z63.3, Z63.6-Z63.9)	13.6	9.8	11.4	11.8	10.3	11.2
Chronic alcohol abuse disorders (g)	3.6	15.3	11.4	9.7	3.4	10.9
Chronic psychoactive substance abuse disorders (g)	10.7	12.5	10.5	1.1	0.0	9.8
Death of a family member or person in primary support network (Z63.4, Z81.8)	7.9	5.9	11.8	16.1	13.8	9.5
Pain (i)	0.7	5.9	10.5	16.1	24.1	8.3
Limitation of activities due to disability (Z73.6)	1.4	1.0	9.3	19.4	31.0	6.9
Problems related to legal circumstances (Z65.0-Z65.4)	3.6	10.5	3.8	2.2	0.0	5.9
Other musculoskeletal disorders (M00-M99) (j)	0.0	1.7	3.8	12.9	13.8	3.8

Risk factor and ICD-10 code	5-24 years (%)	25-44 years (%)	45-64 years (%)	65-84 years (%)	85 years + (%)	All ages (%)
Diabetes mellitus (E10-E14)	0.7	1.7	2.5	15.1	6.9	3.6
Ischaemic heart diseases (I20-I25)	0.0	0.3	3.0	14.0	17.2	3.3
Chronic lower respiratory diseases (J40-J47)	0.7	1.0	2.5	8.6	13.8	2.8
Problems related to education and literacy (Z55)	12.9	1.0	0.0	0.0	0.0	2.7
Hypertensive diseases (I10-I15)	0.0	0.3	1.7	11.8	10.3	2.4
Heart failure and complications and ill-defined descriptions of heart disease (I50-I51)	0.0	1.0	1.7	7.5	10.3	2.2
Dementia, including Alzheimer's disease (F01, F03, G30)	0.0	0.0	0.8	5.4	13.8	1.4
Problems related to care-provider dependency (Z74)	0.0	0.0	2.5	2.2	10.3	1.4

- a. Causes of death data for 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- b. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- c. The top ten multiple causes were captured for each age group then combined into one list, therefore the number of causes listed in the table is more than 10.
- d. Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- e. Excludes F41.8 Other specified anxiety disorders (F41.8 is included in the pandemic related psychosocial risk factor grouping where data exists. See Suicide in the COVID-19 pandemic in this publication for more information) and F45.4 Persistent somatoform pain disorder (F45.4 is included in the Pain grouping where data exists).
- f. Includes intentional self-harm deaths with an underlying cause X66-X84, Y87.0. Excludes deaths coded to X60-X65.
- g. For a full list of ICD-10 codes in this grouping, see the Mortality tabulations and methodologies section in the Methodology of this publication
- h. Includes deaths where T36-T50 (Poisoning by drugs, medicaments and biological substances) is identified.
- i. Pain includes G43, M25.5, M54, M79.6, R10, R51, R52.
- j. Excludes codes in this chapter captured in pain and chronic substance use groupings.
- k. For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.

Suicide risk factor by year

Psychosocial risk factors have been coded by the ABS since 2017. The addition of psychosocial factors to the national mortality dataset added to information on risk factors

that were already captured such as mental health disorders and chronic diseases. Over these five years, there have been small changes to the capture of information for specific codes, mostly those relating to psychosocial risk factors. As many coronial investigations in 2017 and 2018 are now closed, data for those years are considered "final" (see revisions section in methodology for more information). Information on risk factors across the five years is presented below.

For suicides across 2017-2021:

- Risk factors were identified in 97.0% of suicides in 2017 and 94.3% in 2018, where the data is now final. The proportion of risk factors present for other years is likely to increase as coronial investigations are finalised.
- Mood disorders were the most common risk factor for each year.
- Problems in spousal relationship circumstances were the second most common risk factor from 2017-2019 and the third most common risk factor in 2020-2021.
- Suicide ideation was the second most common risk factor reported in 2020 and 2021.
- Collectively, acute use and intoxication of alcohol and psychoactive substances were identified in at least one third of suicides across each year.
- Similarly, chronic alcohol and psychoactive substance abuse disorders were identified in at least one quarter of suicides across all years.

Ranking of risk factors, number and proportion of suicides, 2017-2021 (a)(b)

Risk factor and ICD-10 code	2017 no.	2017 %	2017 rank	2018 no.	2018 %	2018 rank	2019 no.	2019 %	2019 rank	2020 no.	2020 %
Total suicides	3,290	100.0	-	3,205	100.0	-	3,358	100.0	-	3,139	100.0
Mood disorders (F30-F39)	1,607	48.8	1	1,491	46.5	1	1,484	44.2	1	1,265	40.3
Suicide ideation (R45.8)	749	22.8	4	769	24.0	5	851	25.3	3	739	23.5
Problems in spousal relationship circumstances (Z63.0, Z63.5)	867	26.4	2	873	27.2	2	947	28.2	2	727	23.2
Acute alcohol use and intoxication (F10.0, R78.0, T51)	685	20.8	6	770	24.0	4	760	22.6	5	647	20.6
Acute alcohol use and intoxication for suicides not due to drug and alcohol poisoning (d)	593	21.3	-	648	23.6	-	652	22.6	-	578	21.3
Personal history of self-harm (Z91.5)	813	24.7	3	802	25.0	3	806	24.0	4	714	22.7
Anxiety and stress related disorders (Z73.3, F40-F48)(e)	726	22.1	5	637	19.9	6	714	21.3	6	556	17.7
Acute psychoactive substance use and intoxication (f)	575	17.5	8	621	19.4	7	618	18.4	7	560	17.8

Risk factor and ICD-10 code	2017 no.	2017 %	2017 rank	2018 no.	2018 %	2018 rank	2019 no.	2019 %	2019 rank	2020 no.	2020 %
Acute psychoactive substance use and intoxication for suicides not due to drug and alcohol poisoning (d)(g)	632	22.7	-	682	24.9	-	662	22.9	-	585	21.6
Chronic psychoactive substance abuse disorders (f)	589	17.9	7	596	18.6	8	597	17.8	8	494	15.7
Chronic alcohol abuse disorders (f)	503	15.3	9	442	13.8	9	435	13.0	9	377	12.0
Problems related to legal circumstances (Z65.0-Z65.4)	339	10.3	13	305	9.5	13	382	11.4	10	352	11.2

- a. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2017 and 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- b. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- c. Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- d. Includes intentional self-harm deaths with an underlying cause X66-X84, Y87.0. Excludes deaths coded to X60-X65.
- e. Excludes F41.8 Other specified anxiety disorders (F41.8 is included in the pandemic related psychosocial risk factor grouping where data exists. See Suicide in the COVID-19 pandemic in this publication for more information) and F45.4 Persistent somatoform pain disorder (F45.4 is included in the Pain grouping where data exists)
- f. For a full list of ICD-10 codes in this grouping, see the Mortality tabulations and methodologies section in the Methodology of this publication.
- g. Includes deaths where T36-T50 (Poisoning by drugs, medicaments and biological substances) is identified.

- h. For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.
- i. Care needs to be taken when interpreting data derived from Victorian coroner referred deaths including suicide. See Technical note: Victorian additional registrations (2013-2016) in the methodology for more information.

Suicide in the COVID-19 pandemic

During the second year of the pandemic, the impact of COVID-19 on mortality continues to remain of high importance. This includes deaths from the virus itself as well as non-COVID-19 diseases, suicides, accidents and assaults. For some individuals the effects of COVID-19 on the economy (e.g., changes in employment), the health system (e.g., changes in access to the health system and temporary cessation of elective surgery) and social contact (e.g., social isolation) could lead to risk factors for ill health (including suicide) to increase. In 2021 there were 81 people who died by suicide, who had the COVID-19 pandemic mentioned in either a police, pathology or coronial finding report. This represents an 18.2% decrease in the number of suicides which mention the COVID-19 pandemic as risk factor between 2020 and 2021. For most people who died by suicide and had the COVID-19 pandemic mentioned as a risk factor, it did not appear as an isolated risk.

When COVID-19 was mentioned as a risk factor it manifested in different ways for individuals. For some people direct impacts from the pandemic such as job loss, lack of financial security, family and relationship pressures and not feeling comfortable with accessing health care were noted. For others, a general concern or anxiety about the pandemic and societal changes were stated or anxiety about contracting the virus itself. The ICD-10 codes assigned by the ABS were dependent on how the risk factor was described as part of the coronial investigation. The table below outlines the three ICD-10 codes used by the ABS to capture different scenarios where the COVID-19 pandemic was stated to be a risk factor for an individual.

ICD-10 codes for capture of COVID-19 pandemic as a risk factor

ICD-10 code	ICD-10 code name description	Description of use and inclusion terms
F41.8	Other specified anxiety disorders	<p>Pandemic related anxiety and stress.</p> <p>Includes: Pandemic and COVID-19 related anxieties, worries, fixations and other psychological manifestations.</p>
Z29.0	Isolation	<p>The individual was in isolation or quarantine (hotel or home).</p> <p>Excl: Social isolation (Z60.4)</p>
Z29.9	Prophylactic measure, unspecified	<p>Measures put in place through health directives.</p> <p>Includes: closure of business, stay at home measures.</p> <p>Note: Where other circumstances or risk factors were as a result of the health directive, both codes are captured and should be considered in combination e.g., Job loss due to closure of workplace as a result of lockdown, both Z56.2 (Threatened or actual job loss) and Z29.9 Prophylactic (measure, unspecified) are captured.</p> <p>Capture of lockdown only where information in reports explicitly states the lockdown contributed to the death, or as above where lockdown resulted in other risk factors (e.g., job loss or other work-related issues). Deaths where the region was in lockdown at the time of death, but the lockdown has not been stated in reports as contributing to the death, do not capture this code.</p>

COVID-19 as a risk factor for suicide

For the 81 people who died by suicide with issues relating to the COVID-19 pandemic as a risk factor:

- The pandemic was mentioned as a risk factor in 2.6% of all suicides. This is a reduction from 3.2% in 2020.
- They had on average 6 risk factors.
- They had on average 3 psychosocial risk factors.

The table below shows the frequency of co-occurring risk factors alongside the frequency of issues relating to the COVID-19 pandemic. Categories are not mutually exclusive, and an individual may appear in multiple categories.

For the 81 people who died by suicide with issues relating to the COVID-19 pandemic as a risk factor:

- Over 65% of people had both mood disorders (including depression) and issues related to the COVID-19 pandemic as a risk factor.
- Almost 40% of people had both problems related to un/employment and issues related to the COVID-19 pandemic as a risk factor.
- Over 30% of people had experienced suicide ideation.
- Over one quarter of people had a history of self-harm.
- Over one quarter of people had issues related to acute alcohol use and intoxication.
- There were 11 people who had both problems related to the social environment including social isolation and issues related to the COVID-19 pandemic as a risk factor.

Co-occurring risk factors for suicides with the COVID-19 pandemic identified as a risk factor, 2020-2021 (a)(b)(c)(d)(e)(f)(g)(h)(i)(j)

Risk factor and ICD-10 code	2020 no.	2020 % of suicides (d)	2021 no.	2021 % of suicides (d)
Suicides with COVID-19 identified as a risk factor (F41.8, Z29.0, Z29.9)	99	100.0	81	100.0
Mood disorders (F30-F39)	58	58.6	53	65.4
Problems related to employment and unemployment (Z56)	52	52.5	32	39.5
Suicide ideation (R45.8)	24	24.2	25	30.9
Problems in spousal relationship circumstances (Z63.0, Z63.5)	23	23.2	22	27.2
Acute alcohol use and intoxication (F10.0, R78.0, T51)	22	22.2	22	27.2
Acute alcohol use and intoxication for suicides not due to drug and alcohol poisoning(e)	19	21.6	19	26.8
Personal history of self-harm (Z91.5)	18	18.2	22	27.2
Anxiety and stress related disorders (Z73.3, F40-F48) (f)	24	24.2	21	25.9
Problems related to economic circumstances (Z59.4-Z59.8)	21	21.2	17	21.0
Problems in relationships with family and friends (Z63.1-Z63.3, Z63.6-Z63.9)	15	15.2	15	18.5
Chronic alcohol abuse disorders (g)	12	12.1	12	14.8
Problems related to social environment (Z60)	25	25.3	11	13.6
Death of a family member or person in primary support network (Z63.4, Z81.8)	14	14.1	10	12.3
Acute psychoactive substance use and intoxication (g)	13	13.1	8	9.9
Acute psychoactive substance use and intoxication for suicides not due to drug and alcohol poisoning (e)(h)	15	17.0	10	14.1
Problems related to legal circumstances (Z65.0-Z65.4)	5	5.1	7	8.6
Pain (i)	6	6.1	7	8.6

a. Causes of death data for 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.

b. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.

- c. Data in this table indicates the number of deaths with each specified risk factor recorded. Risk factors may not be mutually exclusive, and therefore people with multiple psychosocial factors recorded will be counted in more than one category.
- d. Proportion of number of suicides with COVID-19 identified as a risk factor. This includes suicides with an associated cause of F41.8, Z29.0, Z29.9
- e. Includes intentional self-harm deaths with an underlying cause X66-X84, Y87.0. Excludes deaths coded to X60-X65.
- f. Excludes F41.8 Other specified anxiety disorders (F41.8 is included in the pandemic related psychosocial risk factor grouping where data exists. See Suicide in the COVID-19 pandemic in this publication for more information) and F45.4 Persistent somatoform pain disorder (F45.4 is included in the Pain grouping where data exists)
- g. For a full list of ICD-10 codes in this grouping, see the Mortality tabulations and methodologies section in the Methodology of this publication.
- h. Includes deaths where T36-T50 (Poisoning by drugs, medicaments and biological substances) is identified.
- i. Pain includes G43, M54, R52
- j. For further information on psychosocial risk factors as associated causes, see Associated causes of death in mortality in Causes of Death, Australia, 2019.

COVID-19 as a risk factor for suicide, by jurisdiction

In 2021, for the 81 people who died by suicide with issues relating to the COVID-19 pandemic as a risk factor:

- The majority of people lived in New South Wales, Victoria, or Queensland.

Between 2020 and 2021:

- The number of those living in Victoria who had an identified pandemic related risk factor decreased by 50 percent.
- There were also small changes in other states and territories.

COVID-19 as a risk factor for suicide, number of deaths and percent of total suicide, state or territory of usual residence, 2020-2021 (a)(b)(c)(d)

	2020 no.	2020 % total jurisdiction suicides	2021 no.	2021 % total jurisdiction suicides
New South Wales	22	2.5	26	3.0
Victoria	40	5.8	20	3.0
Queensland	25	3.3	21	2.7
South Australia	2	np	2	np
Western Australia	8	2.1	7	1.8
Tasmania	4	np	1	np
Northern Territory	0	—	1	np
Australian Capital Territory	0	—	4	np

	2020 no.	2020 % total jurisdiction suicides	2021 no.	2021 % total jurisdiction suicides
Australia	99	3.2	81	2.6

np not available for publication

— nil or rounded to zero (including null cells)

- Cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. Cells with a zero value have not been affected by confidentialisation.
- Causes of death data for 2020 and 2021 are preliminary and subject to a revisions process. See the Data quality section of the methodology in this publication.
- Number of suicides with COVID-19 identified as a risk factor. This includes suicides with an associated cause of F41.8, Z29.0, Z29.9
- The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.

Intentional self-harm deaths (Suicide) in Aboriginal and Torres Strait Islander people

Support services, 24 hours, 7 days

- [13YARN \(https://www.13yarn.org.au/\)](https://www.13yarn.org.au/): 13 92 76
- [Lifeline \(https://www.lifeline.org.au/\)](https://www.lifeline.org.au/): 13 11 14
- [Suicide Call Back Service \(https://www.suicidecallbackservice.org.au/\)](https://www.suicidecallbackservice.org.au/): 1300 659 467

For further information see [Crisis support services \(/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services\)](/statistics/health/causes-death/causes-death-australia/2021#crisis-support-services).

Since 2009, Australian Governments have worked together through the Closing the Gap strategy to overcome inequality across areas such as life expectancy, mortality, education and employment. Measures of mortality relating to Aboriginal and Torres Strait Islander people are key inputs into this strategy. Targets set in 2008 were revised in July 2020, with a reduction in the suicide rate among Aboriginal and Torres Strait Islander people as a specific target area.

In 2021, there were 219 Aboriginal and Torres Strait Islander people who died by suicide across Australia.

- 26.0% had a usual residence in Queensland.

- Their median age of death was 30.2 years.
- The number of suicides of Aboriginal and Torres Strait Islander people increased across all jurisdictions except Western Australia, when comparing 2012-16 with 2017-21.

Number of suicides of Aboriginal and Torres Strait Islander people, by state usual residence, 2012-2021 (a)(b)(c)(d)

	2012 No.	2013 No.	2014 No.	2015 No.	2016 No.	2017 No.	2018 No.	2019 No.	2020 No.	2021 No.	2012- 2016 No.
New South Wales	21	25	23	41	40	44	48	52	54	54	150
Victoria	6	7	7	7	7	6	10	13	21	18	34
Queensland	31	52	40	53	51	53	64	74	70	57	227
South Australia	7	10	10	7	1	14	1	12	10	13	38
Western Australia	34	35	46	40	47	27	39	29	36	48	202
Tasmania	4	1	0	1	1	3	0	1	1	4	6
Northern Territory	27	18	29	13	18	27	21	30	27	24	105
Australian Capital Territory	3	4	3	4	3	1	1	3	2	1	6
Australia	128	151	157	164	169	174	186	216	223	219	769

- a. Data cells with small values have been randomly assigned to protect the confidentiality of individuals. As a result, some totals will not equal the sum of their components. Cells with a zero value have not been affected by confidentialisation.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of Aboriginal and Torres Strait Islander people by five jurisdictions: NSW, Qld, WA, SA, NT

Methods for reporting on Aboriginal and Torres Strait Islander suicides

Data reported in the remainder of this article are compiled by jurisdiction of usual residence for New South Wales, Queensland, Western Australia, South Australia and the Northern Territory only. These jurisdictions have been found to have a higher quality of identification of Aboriginal and Torres Strait Islander origin allowing more robust analysis of data. Data for those with a usual residence in Victoria, Tasmania and the Australian Capital Territory is unsuitable for comparisons of changes over time, and have been excluded in the remainder of article. Data presented in this release may underestimate the number of Aboriginal and Torres Strait Islander people who died by suicide.

For further information see Deaths of Aboriginal and Torres Strait Islander people in the Methodology section of this publication.

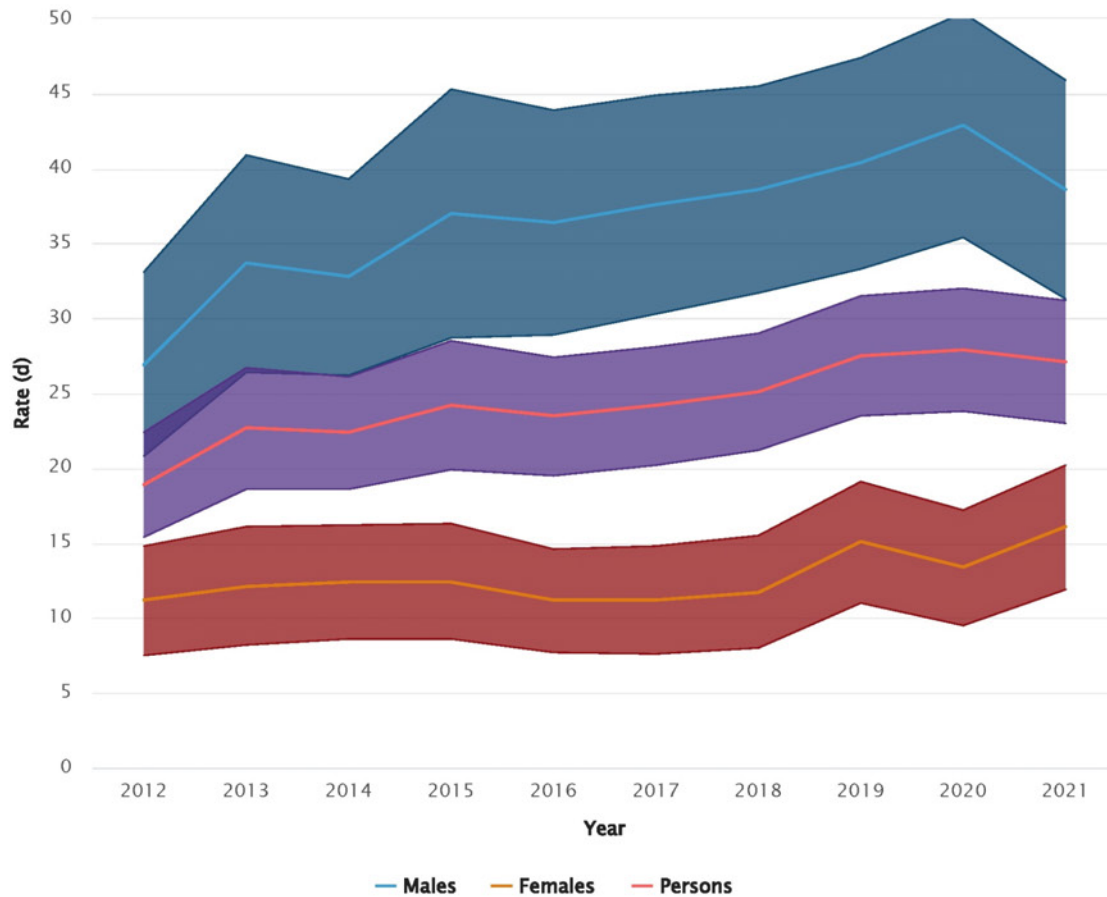
In 2021, 196 Aboriginal and Torres Strait Islander people died by suicide across the five jurisdictions.

- Their median age was 29.6 years.
- Suicide was the 5th leading cause of death.
- Those living in Western Australia had the highest age-standardised suicide rate.

To enable comparison of suicide rates over time for Aboriginal and Torres Strait Islander people, age-standardised death rates for males, females and all persons are presented in the graph below. Upper and lower bounds (confidence intervals) are included to show the potential variability of the annual suicide rates and can be used in measuring statistical significance in annual rate change.

- The age-standardised suicide rate was 27.1 deaths per 100,000 people.
- The suicide rate for males increased between 2012 and 2021 from 26.9 to 38.6 deaths per 100,000.
- The suicide rate for females is the highest in the 10 year time series (16.1 deaths per 100,000).

Age-standardised suicide rates (with confidence intervals), 2012-2021 (a)(b)(c)(d)(e)(f)



- a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-

harm (suicide) section of the methodology in this publication.

- d. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- e. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. See the Mortality tabulations and methodologies section of the methodology for further information.
- f. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of Aboriginal and Torres Strait Islander people by sex

In 2021 there were 134 Aboriginal and Torres Strait Islander males who died by suicide.

- Suicide was the 2nd leading cause of death.
- Their median age at death was 29.8 years.
- Over two thirds of Aboriginal and Torres Strait Islander people who died by suicide were male.

In 2021 there were 62 Aboriginal and Torres Strait Islander females who died by suicide.

- Suicide was the 7th leading cause of death.
- Their median age at death was 27.7 years.

Number of suicides of Aboriginal and Torres Strait Islander people, by sex, 2012-2021 (a)(b)(c)(d)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2012-2016	2017-2021
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Males	82	101	104	111	117	125	131	139	147	134	515	609
Females	38	39	44	43	43	40	43	58	50	62	207	242
Persons	120	140	148	154	160	165	174	197	197	196	722	851

a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.

b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).

- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of Aboriginal and Torres Strait Islander people by state and territory of usual residence

For Aboriginal and Torres Strait Islander people who died by suicide between 2012 and 2021:

- The suicide rate increased from 22.4 to 26.4 between 2012-16 and 2017-21.
- People with a usual residence in New South Wales had a lower suicide rate than those living elsewhere across both periods.
- Those with a usual residence in Western Australia recorded the highest suicide rate in both of the two five year periods, but the rates have decreased the most over the same time.
- Over one third of people who died by suicide during the 2017-21 time period had a usual residence in Queensland.

Age-standardised suicide rates for Aboriginal and Torres Strait Islander people, by state or territory of usual residence, 2012-2016 and 2017-2021 (a)(b)(c)(d)(e)(f)

	2012-2016 No.	2012-2016 Rate (d)	2017-2021 No.	2017-2021 Rate (d)
New South Wales	150	14.1	252	20.8
Queensland	227	22.8	318	28.1
South Australia	38	21.6	51	24.0
Western Australia	202	39.8	179	34.7
Northern Territory	105	26.2	129	30.9
Total	722	22.4	929	26.4

- a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of

Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).

- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- e. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. See the Mortality tabulations and methodologies section of the methodology for further information.
- f. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of Aboriginal and Torres Strait Islander people by age

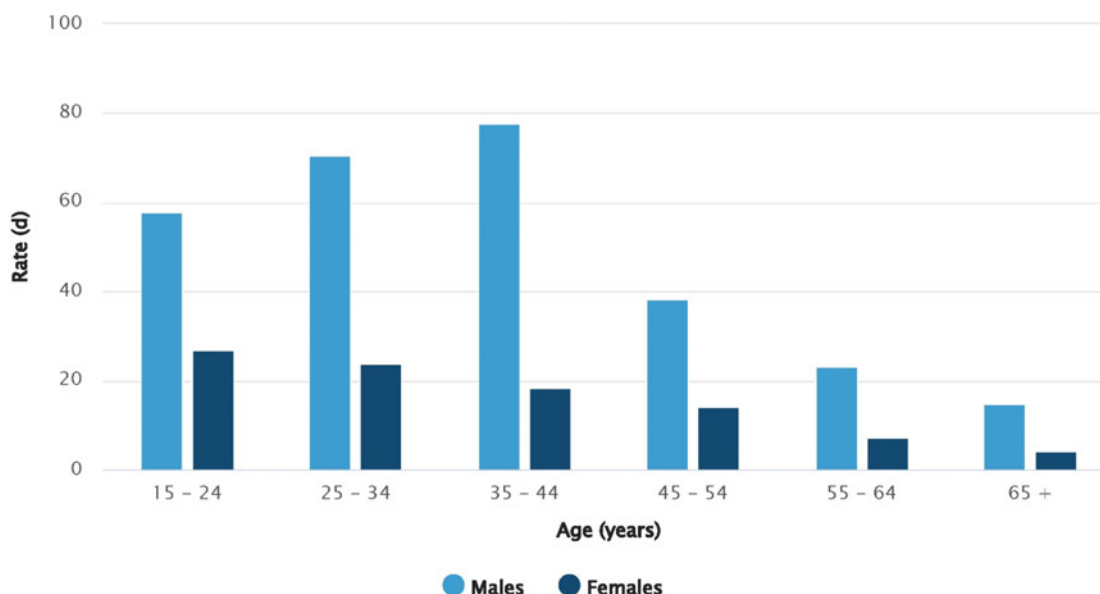
Age-specific suicide rates

Age-specific death rates provide insights into how suicide manifests across age cohorts by relating the number of deaths to the size and structure of the underlying population.

For Aboriginal and Torres Strait Islander people who died by suicide between 2017-2021:

- 83.7% were aged between 15-44 years.
- For males, the highest suicide rate was for those aged 35-44 years at 77.7 deaths per 100,000.
- For females, the highest suicide rate was for those aged 15-24 years at 26.9 deaths per 100,000.

Age-specific suicide rates for Aboriginal and Torres Strait Islander people, by sex, 2017-2021 (a)(b)(c)(d)(e)(f)(g)

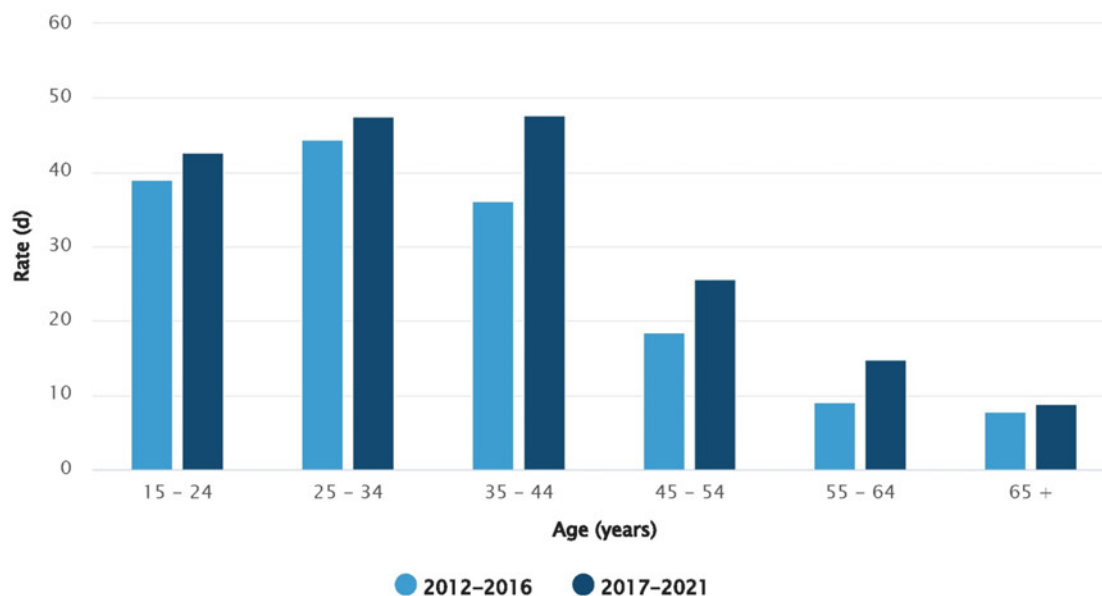


- a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Age-specific death rates reflect the number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
- e. Suicide deaths in the 0-14 year age group have been excluded because of the small number of deaths that occur within this age group.
- f. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. See the Mortality tabulations and methodologies section of the methodology for further information.
- g. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

For Aboriginal and Torres Strait Islander people who died by suicide between 2012 and 2021:

- The age-specific suicide rate for all Aboriginal and Torres Strait Islander people increased across all age groups.
- Those aged 35-44 years had the largest rate increase between the two periods.

Age-specific suicide rates for Aboriginal and Torres Strait Islander people, 2012-2016 and 2017-2021 (a)(b)(c)(d)(e)(f)(g)



- a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.

- d. Age-specific death rates reflect the number of deaths for a specific age group, expressed per 100,000 of the estimated resident population as at 30 June (mid year) of that same age group. See the Glossary section of the methodology for further information.
- e. Suicide deaths in the 0-14 year age group have been excluded because of the small number of deaths that occur within this age group.
- f. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. See the Mortality tabulations and methodologies section of the methodology for further information.
- g. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Suicide of Aboriginal and Torres Strait Islander children- 5-17 years

Deaths of children by suicide is an extremely sensitive issue. The number of deaths of children attributed to suicide can be influenced by coronial reporting practices. Reporting practices may lead to differences in counts across jurisdictions and this should be taken into account when interpreting analysis of suicide deaths in children. For more information on issues associated with the compilation and interpretation of suicide data, see Deaths due to intentional self-harm (suicide) and Deaths of Aboriginal and Torres Strait Islander people section of the methodology in this publication. For the purposes of the following analysis, children are defined as those aged between 5 and 17 years of age. The ABS is not aware of any recorded suicides of children under the age of 5 years.

During the period 2017-2021:

- Suicide was the leading cause of death for Aboriginal and Torres Strait Islander children.
- 29.7% of deaths of Aboriginal and Torres Strait Islander children were due to suicide.
- Over three quarters (75.3%) of Aboriginal and Torres Strait Islander children who died by suicide were aged between 15 and 17 years.
- Just over half (54.5%) of Aboriginal and Torres Strait Islander children who died by suicide were female.

For more information on suicides in Aboriginal and Torres Strait Islander children see Table 11.12 in Data Cube 11 in this publication.

Suicide by Indigenous status

Mortality data can provide important insights into population health concerns relevant to different groups within the Australian population. Patterns of death among Aboriginal and Torres Strait Islander people differ considerably to those of non-Indigenous people, as is the case with suicide.

For Aboriginal and Torres Strait Islander deaths due to suicide, in the two 5 year periods between 2012-16 and 2017-21:

- Aboriginal and Torres Strait Islander people had a suicide rate double that of non-Indigenous people.
- Aboriginal and Torres Strait Islander males have the largest rate increase across the two periods.
- The rate ratio increased slightly for both males and females across the two periods.

In 2021, for the five jurisdictions included in analysis (not including Victoria, Tasmania and Australian Capital Territory):

- Suicide was the 5th leading cause of death for Aboriginal and Torres Strait Islander people compared to 15th for non-Indigenous people.
- The median age for suicides was 29.6 years for Aboriginal and Torres Strait Islander people compared to 47.0 years for non-Indigenous people.

Age-standardised suicide rates by Indigenous status and sex, 2012-2021 (a) (b)(c)(d)(e)(f)(g)(h)

	Aboriginal and Torres Strait Islander Rate (d)(e)	Non- Indigenous Rate (d)(e)	Rate ratio (f)	Rate difference (g)
2012-2016				
Males	33.6	18.0	1.9	15.6
Females	11.9	5.8	2.0	6.1
Persons	22.4	11.8	1.9	10.6
2017-2021				
Males	39.8	19.1	2.1	20.7
Females	13.5	5.9	2.3	7.6
Persons	26.4	12.4	2.1	14.0

- a. Data are reported by jurisdiction of usual residence for NSW, Qld, WA, SA and the NT only. Data for Victoria, Tasmania and the Australian Capital Territory as data quality of Aboriginal and Torres Strait identification is not considered to be as robust in these jurisdictions. For information on issues with Aboriginal and Torres Strait Islander identification, see the Deaths of Aboriginal and Torres Strait Islander people section of the methodology.
- b. All causes of death data from 2006 onward are subject to a revisions process - once data for a reference year are 'final', they are no longer revised. Affected data in this table are: 2012 - 2018 (final), 2019 (revised), 2020 and 2021 (preliminary). See the Data quality section of the methodology and Causes of Death Revisions, 2018 Final Data (Technical Note) and 2019 Revised Data (Technical Note) in Causes of Death, Australia, 2020 (cat. no. 3303.0).
- c. The data presented for intentional self-harm includes ICD-10 codes X60-X84 and Y87.0. Care needs to be taken in interpreting figures relating to intentional self-harm. See the Deaths due to intentional self-harm (suicide) section of the methodology in this publication.
- d. Age-standardised death rate. Death rate per 100,000 estimated resident population as at 30 June (mid year). See the Mortality tabulations and methodologies and Glossary sections of the methodology for further information.
- e. Rates presented in this table have been calculated using Aboriginal and Torres Strait Islander population estimates and projections based on the 2016 Census. Non-Indigenous estimates have been derived by subtracting the 2016-census-based Aboriginal and Torres Strait Island population from the total 2021-census-based Estimated Resident Population (ERP). See the Mortality tabulations and methodologies section of the methodology for further information.
- f. The rate ratio is the rate for Aboriginal and Torres Strait Islander people divided by the non-Indigenous rate. Due to the effect of rounding, rates presented will not multiply exactly to ratio presented.
- g. The rate difference is the rate for Aboriginal and Torres Strait Islander people less the non-Indigenous rate.
- h. See the Classifications and Mortality coding sections of the methodology for further information on coding of 2021 data.

Crisis support services

Crisis support services, available 24 hours, 7 days

Organisation	About	Telephone number	Website
Lifeline (https://www.lifeline.org.au/)	Provides access to crisis support and suicide prevention services.	13 11 14	lifeline.org.au
Suicide Call Back Service (https://www.suicidecallbackservice.org.au/)	Provides immediate telephone counselling and support in a crisis.	1300 659 467	suicidecallbackservice.org.au
Beyond Blue (https://www.beyondblue.org.au/)	Supporting people affected by anxiety, depression and suicide.	1300 224 636	beyondblue.org.au
MensLine Australia (https://mensline.org.au/)	Telephone and online support, information and referral service for men with concerns about family and relationships, mental health, anger management, family violence (using and experiencing), substance abuse and wellbeing. The service is available from anywhere in Australia and is staffed by professional counsellors, experienced in men's issues.	1300 789 978	mensline.org.au
Kids Helpline (https://kidshelpline.com.au/)	Telephone and online counselling service for young people aged 5 to 25.	1800 551 800	kidshelpline.com.au
ReachOut (https://au.reachout.com/)	Online mental health service for under-25s and their parents.		au.reachout.com
National Alcohol and Other Drugs Hotline	Hotline for anyone affected by alcohol or other drugs. Support includes counselling, advice and referral to local services.	1800 250 015	
Family Drug Support (https://www.fds.org.au/)	Help for individuals and families dealing with drug and alcohol use. Also provide support groups, education programs, counselling and bereavement services for families.	1300 368 186	fds.org.au
1800RESPECT (https://www.1800respect.org.au/)	National domestic, family and sexual violence counselling, information and support service.	1800 737 732	1800respect.org.au
13YARN (https://www.13yarn.org.au/)	Aboriginal & Torres Strait Islander crisis support line for people feeling	13 92 76	13yarn.org.au

Organisation	About	Telephone number	Website
n.org.au/	overwhelmed or having difficulty coping.		
StandBy - Support After Suicide (https://standbysupport.com.au/)	Australia's leading suicide postvention program dedicated to assisting people and communities bereaved or impacted by suicide, including individuals, families, friends, witnesses, first responders and service providers.	1300 727 247	standbysupport.com.au

Data downloads

1. Underlying causes of death (Australia)

[Download XLSX](#)
[758.69 KB]

2. Underlying causes of death (New South Wales)

[Download XLSX](#)
[598.93 KB]

3. Underlying causes of death (Victoria)

[Download XLSX](#)
[564.06 KB]

4. Underlying causes of death (Queensland)

[Download XLSX](#)
[620.66 KB]

5. Underlying causes of death (South Australia)

[Download XLSX](#)
[539.25 KB]

6. Underlying causes of death (Western Australia)

[Download XLSX](#)
[563.75 KB]

7. Underlying causes of death (Tasmania)

[Download XLSX](#)
[546.84 KB]

8. Underlying causes of death (Northern Territory)

[Download XLSX](#)
[529.84 KB]

9. Underlying causes of death (Australian Capital Territory)

[↓ Download XLSX](#)

[519.66 KB]

10. Multiple causes of death (Australia)

[↓ Download XLSX](#)

[1.31 MB]

11. Intentional self-harm (suicide) (Australia)

[↓ Download XLSX](#)

[537.99 KB]

12. Deaths of Aboriginal and Torres Strait Islander Australians

[↓ Download XLSX](#)

[300.13 KB]

13. Drug and alcohol-induced deaths (Australia)

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[1.94 MB]

14. Causes of death by year of occurrence (Australia)

[↓ Download XLSX](#)

[2.71 MB]

15. Perinatal deaths (Australia)

[↓ Download XLSX](#)

[422.32 KB]

16. Causes of death revisions, 2017-2021 (Australia)

[↓ Download XLSX](#)

[973.47 KB]

17. Causes of death, updates to Western Australia data, 2012-2021

[↓ Download XLSX](#)

[1.18 MB]

All data cubes

[↓ Download ZIP](#)

[11.93 MB]

Revisions to causes of death

Deaths that are referred to a coroner can take time to be fully investigated. To account for this, the ABS has implemented a revisions process for those deaths where coronial investigations remained open at the time preliminary cause of death codes were assigned. Typically, the revisions process is commenced 12 and 24 months after data is first published. Data are deemed preliminary when first published, revised when published the following year and final when published after a second year.

This publication now contains materials including final 2019 data, revised 2020 data, and a preliminary revision of 2021 data. The following technical notes and data cubes can be found at the links below:

- [Technical note: Causes of death revisions methodology](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-methodology)
(<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-methodology>)
- [Technical note: Causes of death revisions, 2019 final data](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2019-final-data)
(<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2019-final-data>)
- [Technical note: Causes of death revisions, 2020 revised data](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2020-revised-data)
(<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2020-revised-data>)
- [Technical note: Causes of death revisions, 2021 preliminary revision](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2021-preliminary-revision)
(<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-causes-of-death-revisions-2021-preliminary-revision>)
- [Technical note: Updates to 2019, 2020 and 2021 suicide data](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-updates-to-2019-2020-and-2021-suicide-data)
(<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-updates-to-2019-2020-and-2021-suicide-data>)
- [Data download 16. 2017-2021 revisions](https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#data-downloads) (<https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#data-downloads>)

Cause of death data for doctor certified deaths registered in Western Australia between 2016 and 2020 has also been updated. A technical note and data cube containing these updates can be found at the links below:

- [Technical note: Updates to doctor certified causes of death data, Western Australia, 2016 to 2020](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-updates-to-doctor-certified-causes-of-death-data-western-australia-2016-to-2020) (<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#technical-note-updates-to-doctor-certified-causes-of-death-data-western-australia-2016-to-2020>)
- [Data download 17. 2012-2021 WA revisions](https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#data-downloads) (<https://abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#data-downloads>)

For more information surrounding the revisions process and scope, see the technical notes above and Revisions process in the [Data quality](https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#data-quality) (<https://abs.gov.au/methodologies/causes-death-australia-methodology/2021#data-quality>) section of the methodology in this publication.

Post release changes

14/04/2023 - New technical notes and data cubes added for 2019 final data, 2020 revised data, 2021 preliminary revised data and 2016-2020 WA doctor certified deaths data. See Revisions to causes of death for full list of materials and links.

Previous catalogue number

This release previously used catalogue number 3303.0

Methodology

[Causes of Death, Australia methodology, 2021](#)