



Provisional Mortality Statistics, January – September 2022

In the period from 1 January to 30 September 2022, there were 144,700 deaths in Australia. This was 12.5 per cent higher than in the same period in 2021, and 16.0 per cent above the historical average.¹

- The number of monthly deaths in Australia peaked in July at 18,200 deaths. Since July, deaths have slowly begun to decline, with 15,500 deaths recorded in September 2022.

The age-standardised death rate for September was 43.9 deaths per 100,000 people. This is the first month since the start of 2022 that the rate was below the historical average, suggesting that the increase in deaths in September was driven by changes in the size or age structure of the population.

COVID-19 was the underlying cause of 8,200 doctor-certified deaths during this period and remained significantly above levels seen during the same period of 2020 (800) and 2021 (400).

- While the number of monthly deaths due to COVID-19 peaked again in July at 1,300 deaths, this was still below the peak in January of 1,600 deaths. Since then, deaths have begun to decline again in September, falling to the lowest levels since March.

Deaths from COVID-19 that occurred up to 30 November 2022 were concentrated amongst those aged 80-89 years, while the median age of those who died from COVID-19 remained high at 85.4 years.

- Almost three-quarters of all deaths due to COVID-19 occurred in Victoria and New South Wales.
- Deaths due to COVID-19 were more prevalent in areas with greater socio-economic disadvantage.

Deaths due to dementia and diabetes remained elevated over the year to September 2022, 16.3 per cent and 19.2 per cent higher than the historical average.

- Dementia, including Alzheimer's disease, and diabetes are among the most commonly reported pre-existing chronic conditions that increase the risk of developing severe illness and dying from COVID-19 in Australia.

On 22 December 2022, the Australian Bureau of Statistics published two releases covering deaths in Australia in 2022: *Provisional Mortality Statistics, January - September 2022* and *COVID-19 Mortality in Australia* (covering COVID-19 deaths that occurred by 30 November 2022). On 24 January 2023, the Australian Bureau of Statistics also released limited summary information for the period covering 1 January to 31 October 2022.²

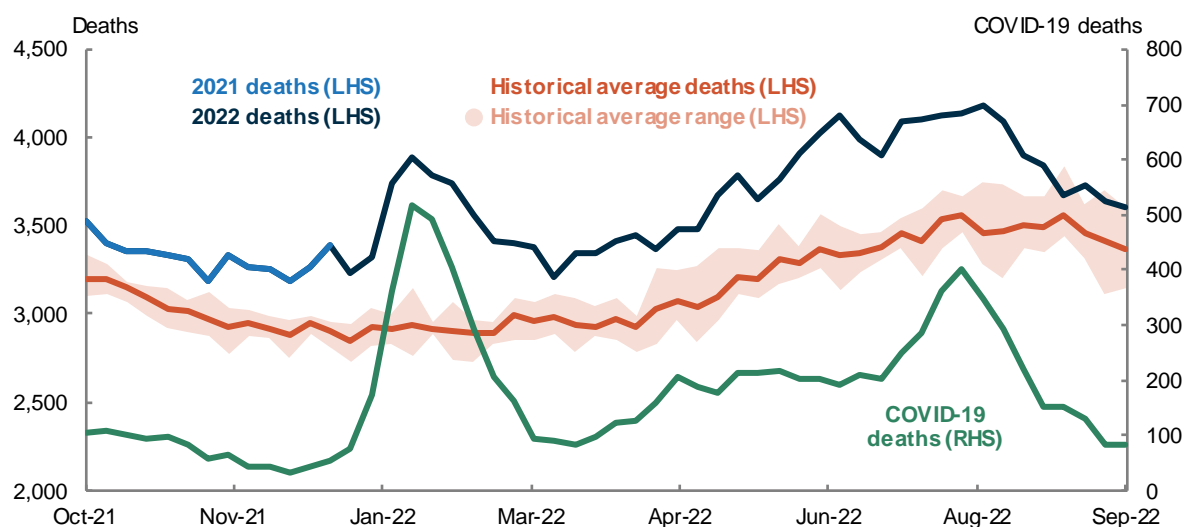
Weekly deaths

The number of weekly deaths peaked at 4,200 in the week ending 7 August 2022, overtaking the preceding weekly peaks in June, as well as the previous peak of 3,900 deaths in the week ending 23 January (Chart 1). Deaths have remained consistently above the historical average in all weeks over the period from January to September 2022, despite their volatility week to week.

¹ The historical average for 2022, which is the default used throughout this note, is calculated as the average number of deaths over the 2017-19 period and 2021. 2020 is not included as during that year there were periods when deaths were significantly lower than expected. If another historical average is used it will be noted in the text.

² Summary information for the period covering 1 January to 31 October 2022 indicates that deaths in October continued to fall to 15,300, bringing the total number of deaths for the first 10 months of 2022 to 160,000 deaths. The data downloads for this release were not made available, therefore the analysis in this publication only covers the period from January to September 2022.

Chart 1. WEEKLY DEATHS AND COVID-19 DEATHS, OCTOBER 2021 TO SEPTEMBER 2022



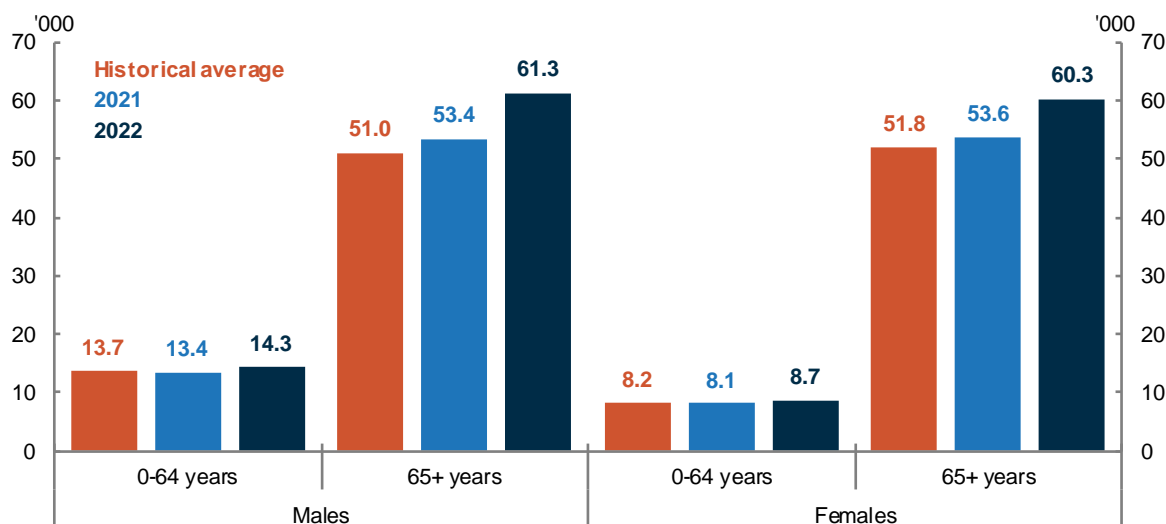
Note: COVID-19 deaths refer to deaths where COVID-19 is the underlying or contributory cause of death. Historical average used for 2022 is calculated as the average number of deaths over the 2017–2019 period and 2021. Historical average used for 2021 is calculated as the average number of deaths over 2015–2019.

Cumulative deaths

In 2022, there were 144,700 deaths that had occurred by 30 September and had been registered by 30 November. This was 16.0 per cent (20,000 deaths) higher than the historical average and 12.5 per cent (16,100) higher than the number of deaths over the same period in 2021.

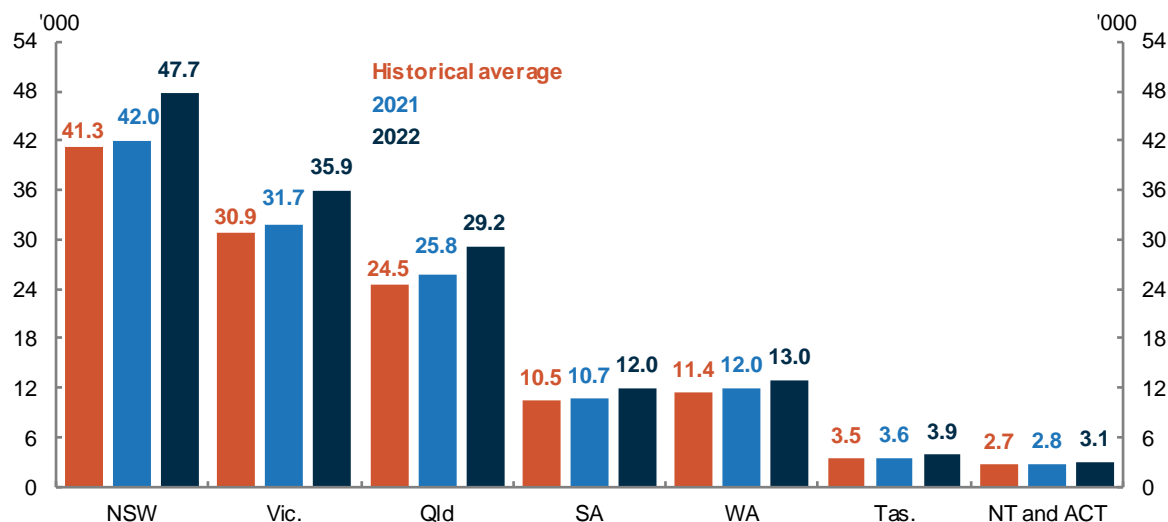
Compared to the historical average, there were more deaths in 2022 for males and females aged over 65 years (increasing by 20.2 and 16.4 per cent respectively) (Chart 2).

Chart 2. DEATHS BY AGE AND SEX, YEAR TO SEPTEMBER (2022, 2021, HISTORICAL AVERAGE)



In the period from January to September 2022, deaths were higher in all states and territories when compared with 2021 and the historical average (Chart 3). The Australian Capital Territory (19.6 per cent), Queensland (19.2 per cent) and Victoria (16.3 per cent) experienced the largest increase in deaths when compared to the historical average.

Chart 3. DEATHS BY STATE/TERRITORY OF REGISTRATION, YEAR TO SEPTEMBER (2022, 2021, HISTORICAL AVERAGE)

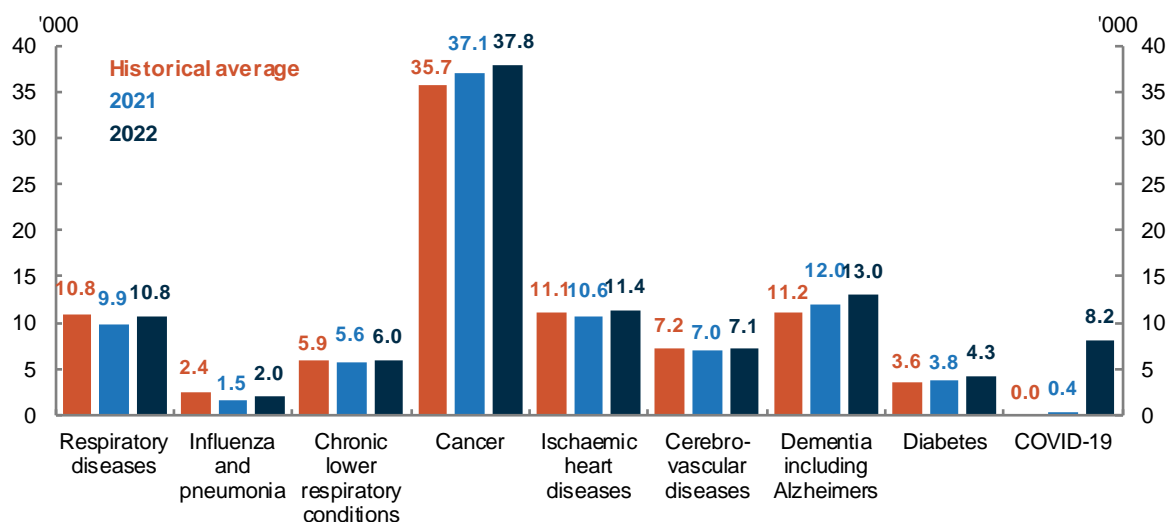


Cumulatively, up to September 2022, deaths from COVID-19 were 7 times higher than during the entirety of 2021, coinciding with the high rates of infection during the Omicron waves.

Deaths due to other causes were slightly above the historical average over the period from January to September. Notably, deaths due to dementia and diabetes increased substantially relative to the historical average (16.3 per cent and 19.2 per cent) (Chart 4). Dementia, including Alzheimer’s disease, and diabetes are among the most commonly reported pre-existing chronic conditions that increase the risk of developing severe illness and dying from COVID-19 in Australia.

In contrast, deaths due to influenza and pneumonia remained low during the same period, 15.4 per cent below the historical average.

Chart 4. DOCTOR-CERTIFIED DEATHS BY SPECIFIED CAUSE OF DEATH, YEAR TO SEPTEMBER (2022, 2021, HISTORICAL AVERAGE)



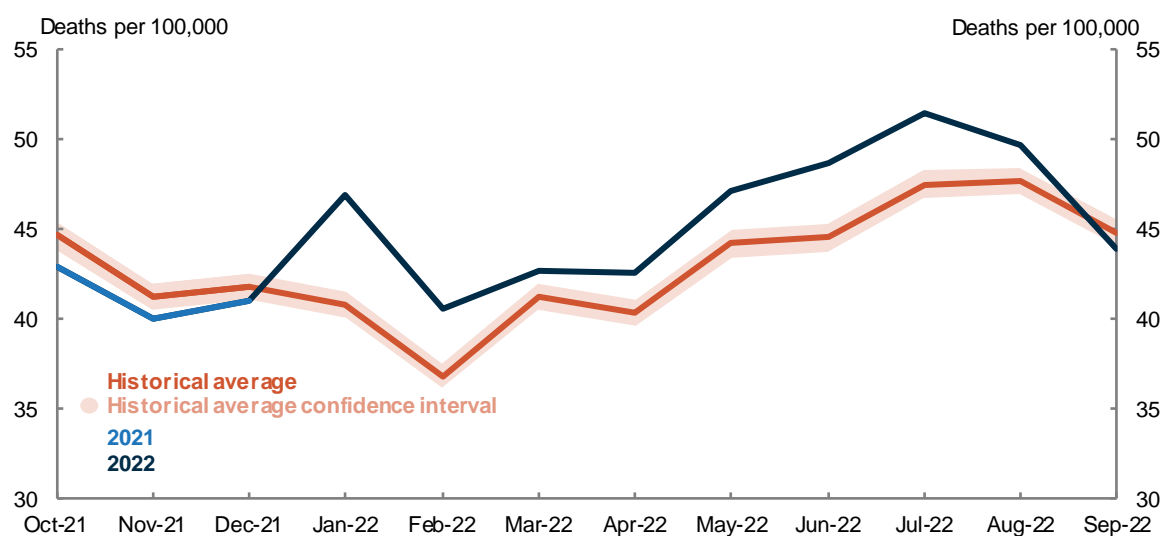
Age-standardised death rates

Age-standardised death rates allow for comparison of mortality trends across populations of different size and age structure. They are expressed as deaths per 100,000 population.

In September 2022, the age-standardised death rate (43.9 deaths per 100,000) fell below the historical average (44.8 deaths per 100,000) for the first time in 2022, suggesting that the deaths in that month were driven by

changes in the size and/or age structure of the population, rather than an increase in mortality (Chart 5). Prior to September, age-standardised death rates were above the historical average for the entirety of 2022, indicating a genuine increase in mortality during this period.³

Chart 5. MONTHLY AGE-STANDARDISED DEATH RATES, OCTOBER 2021 TO SEPTEMBER 2022



Note: Historical average used for 2022 is calculated as the average number of deaths over the 2017–2019 period and 2021. Historical average used for 2021 is calculated as the average number of deaths over 2015–2019.

COVID-19 mortality

For deaths that occurred and were registered by 30 November 2022, the median age of those who died from COVID-19 (85.4 years) was higher for females (87.4 years) than compared to males (83.6 years).

The majority of deaths due to COVID-19 occurred in Victoria (36.7 per cent of all COVID-19 deaths), followed by New South Wales (35.5 per cent) and Queensland (13.7 per cent).

The majority of people dying from COVID-19 were reported to have pre-existing chronic conditions (80.1 per cent). The most common pre-existing chronic conditions associated with deaths due to COVID-19 were chronic cardiac conditions (39.3 per cent), dementia (30.0 per cent), chronic respiratory conditions (17.8 per cent), cancer (16.5 per cent) and diabetes (16.7 per cent).

Of those who died from COVID-19, people who were born overseas had an age-standardised death rate nearly two times higher than that of people who were born in Australia (15.7 deaths per 100,000 people compared to 9.9 deaths).

Deaths where COVID-19 was the underlying cause were more prevalent in areas of greater socio-economic disadvantage. The number of people who died due to COVID-19 was over three times higher amongst those living in the most disadvantaged areas when compared to those living in the least disadvantaged areas.

³ The increase in the mortality observed over that time period could be due to an increase in COVID-19 deaths, potentially undiagnosed COVID-19 deaths, and other factors indirectly related to the pandemic (e.g., relating to social isolation or changed access to health care).

Table 1. UPCOMING MAJOR POPULATION RELEASES

Release	Former catalogue	Release date
National, state and territory population, September 2022	3101.0	16/03/2023
Regional population, 2021-22	3218.0	20/04/2023

NOTES

Data for **deaths 'due to' or 'from' COVID-19** used in this release refers to deaths where COVID-19 was the underlying cause of death. Data for **'COVID-19 deaths'** refers to deaths where COVID-19 was the underlying or contributory cause of death.

Data for **all-cause mortality** refers to all registered deaths (deaths certified by both a doctor and coroner) that occurred in the period up to 30 September 2022 and were registered by 30 November 2022. Data for **cause-specific mortality** only covers doctor certified deaths. Cause-specific information for coroner referred deaths could not be included because of the time required for coronial investigations to be completed.

On 24 January 2023, the Australian Bureau of Statistics also released [summary information](#) on deaths that were registered by 31 December 2022. Further information will be released in February 2023.