Social Health Atlas of Australia

Notes on the data

Published: December 2025

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Notes on the Data: Contents

General information

Copyright

Introductory information

The indicator information and data sources are presented below in the general order used by PHIDU in their products by the themes of **Demographic and social indicators**, **Health status, disability, carers and deaths** and **Use and provision of health and welfare services.**

Geographical presentation

All data are presented by the address of usual residence of the person/ client/ event, as recorded in the data provided to PHIDU (i.e., not according to the location of the event).

The geographical areas are designated as 'PHAs' - Population Health Areas, 'LGAs' - Local Government Areas, 'PHNs' - Primary Health Networks, 'Quintiles' - Quintiles of Socioeconomic Disadvantage of Area; 'Remoteness' - Remoteness Areas of Australia; and 'GCCSA' - Greater Capital Cities Statistical Areas.

The PHA data sheets include totals at the Statistical Areas Level 3 (SA3).

For further information regarding the geographies available, refer to the **geographical structures** information.

Statistical information

Except where otherwise stated, all age-standardised rates and ratios presented in the maps, data or graphs are indirectly standardised rates, based on the Australian standard. For further information on the statistics presented, refer to the **statistical information** available from the PHIDU website.

Calculation of measures for quintiles

Percentages and rates were calculated by allocating events (e.g., dwellings with no vehicle, deaths) to one of five groups of areas (quintiles) based on the 2021 Index of Relative Socio-Economic Disadvantage (IRSD1 [1]). To produce quintiles of socioeconomic disadvantage, the smallest geographic areas for which the data were available were ranked by their IRSD score and categorised into five population-equivalent groups, each comprising areas with 20% of the population. The percentage or rate for the event was then calculated for each quintile, with quintile 1 containing the highest socioeconomic status areas (Least Disadvantaged) and quintile 5 comprised of the lowest socioeconomic status areas (Most Disadvantaged). Note that this approach (as used in the social sciences) is different from that used by economists and in data released by the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare, where quintile 1 comprises the Most Disadvantaged areas and quintile 5 comprises the Least Disadvantaged areas.

Calculation of measures for Remoteness Areas

Percentages and rates were calculated using either the ABS Remoteness Structure, 2016 or 2021 [2].

References

1. Australian Bureau of Statistics (ABS). Socio-Economic Indexes for Areas (SEIFA), Australia, 2021. Available from **https://www.abs.gov.au/statistics/people/people-and-communities/socio-economic-indexes-areas-seifa-australia/latest-release**, accessed 3 May 2023.
2. Australian Bureau of Statistics (ABS). 1270.0.55.005 - Australian Statistical Geography Standard (ASGS): Edition 3 - Remoteness Structure, July 2021. Available from **https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/remoteness-structure**, accessed 31 July 2023.

[1] The IRSD is one of the Socio-Economic Indexes for Areas (SEIFA), produced by the Australian Bureau of Statistics (see reference [1], above).

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Demographic and social indicators

Age distribution

Estimated resident population (ERP) by sex, by 5-year age group (0-4 years to 85+ years), and broad age groups (0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years), 2024
– by PHA, LGA, PHN, Remoteness (broad age groups only for Remoteness Areas)

Policy context: The estimated resident population (ERP) is the official measure of Australia's population based on the concept of usual residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes usual residents who are overseas for less than 12 months. It excludes overseas visitors who are in Australia for less than 12 months. The ERP is based on the results of the Census of Population and Housing, adjusted for net undercount and Australian usual residents temporarily overseas on census night. The ERP is compiled as of 30 June of each year and updated quarterly for Australia, states and territories and annually for smaller areas [1].

Reference

1. Australian Bureau of Statistics (ABS). Population FAQs, accessed 21 September 2021. Available from: https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Population+FAQs.

Indicator detail: The ERP in June 2024 was derived by the Australian Bureau of Statistics (ABS) by applying the following adjustments to the usual residence Census counts:

- removing overseas visitors who were in Australia on Census night from the Census counts
- adjusting the Census counts for undercounting using results of the Post Enumeration Survey
- including Australian residents who were temporarily absent overseas on Census night
- backcasting the resulting estimates which relate to the earlier 9 August 2021 to 30 June 2024 using births, deaths and migration data.

In August each year the ABS issue an updated ERP by age and sex by Statistical Area Level 2 and Local Government Area, at 30 June of that year. These data are aggregated within PHIDU to Population Health Areas, Primary Health Networks and Remoteness Areas.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network and Remoteness Area.

Numerator: Male, female and total estimated resident population in 2024 by 5-year age group: 0-4 years to 65+ years and/or broad age group: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years.

Denominator: Total males, females or persons, estimated resident population in 2024.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on ABS 3235.0 Population by Age and Sex, Regions of Australia, 30 June 2024.

Aboriginal population

Aboriginal estimated resident population by sex, by broad age group (0-14, 15-24, 25-34, 35-44, 45-54, 55+ years); for Remoteness Areas only, by broad age group (0-4, 5-14, 15-24, 25-44, 45-64, 65+ years), 2021
– by PHA, LGA, PHN, Remoteness

Policy context: The proportions of the total estimated resident population in 2021 who were Aboriginal and/or Torres Strait Islander people (in this atlas collectively referred to as Aboriginal) varies greatly by location, from 30.7% in the Northern Territory to 1.2% in Victoria. Aboriginal people represent the largest proportion of the populations in Greater Darwin (13.2%) and in the remainder of the Northern Territory (56.9%). The next largest proportion was in Western Australia, at 11.4% outside of Perth [1].

However, the largest numbers of Aboriginal people in 2021 were in New South Wales (339,710, with 111,075 in Greater Sydney, 36,745 in Illawarra, Newcastle and Lake Macquarie and 191,890 in the remainder of New South Wales); and in Queensland (273,119, with 87,940 in Greater Brisbane, 40,284 in Gold Coast and Townsville, and 144,895 in the remainder of Queensland). The estimated resident populations in Darwin and in the remainder of the Northern Territory were 19,464 and 57,023, respectively [1].

The Aboriginal and Torres Strait Islander population is considerably younger than the non-Indigenous population. In 2021, the median age for this population was 24 years, 14.9 years less than the national median age of 38.9 years for the non-Indigenous population [2]. One in three (33.1%) Aboriginal people were estimated to be aged less than 15 years, while just 5.4% were aged 65 years and over (and although very low, this is higher than in 2011 or 2016, when the proportions were 3.8% and 5.1%, respectively) [2].

References

1. Australian Bureau of Statistics (ABS) estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.
2. Australian Bureau of Statistics, Estimates of Aboriginal and Torres Strait Islander Australians: Final 2021 Census-based estimated resident population of Aboriginal and Torres Strait Islander and non-Indigenous Australians for various geographies, accessed 29 November 2023. Available from **https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release**.

Indicator detail: The age group as a percentage of the total Aboriginal population for males, for females and for persons.

PHIDU publishes Aboriginal population by age and sex for Population Health Areas (PHAs), Local Government Areas (LGAs) and Indigenous Areas (IAREs), and also uses these populations as a denominator when calculating percentages and rates for a large number of indicators for PHAs and IAREs.

As the Australian Bureau of Statistics (ABS) does not publish ERP by age and sex for the Aboriginal population, or by Indigenous status, for PHAs, LGAs or IAREs, PHIDU entered into a contract with the ABS to produce these data.

Due to small populations in some areas, the ABS could only estimate the population by age and sex for Aboriginal people and by Indigenous status for the following age groups:

- PHA and LGA: 0-14, 15-24, 25-34, 35-44, 45-54 and 55+ years
- IARE: 0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64 and 65+ years.

The ‘all-age’ totals for LGAs and IAREs are consistent with those published by the ABS.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Aboriginal male, female and total estimated resident population (ERP) by broad age group: 0-14, 15-24, 25-34, 35-44, 45-54, 55+ years; or Remoteness Areas broad age group: 0-4, 5-14, 15-24, 25-44, 45-64, 65+ years.

Denominator: Total Aboriginal males, females or persons, ERP.

Detail of analysis: The age group as a percentage of the total Aboriginal population for males, for females and for persons.

Source: ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Aboriginal population as a proportion of the total population and Aboriginal population by age as a proportion of the total population

Aboriginal estimated resident population, all ages and by broad age group (0-14, 15-24, 25-34, 35-44, 45-54, 55+); and by 5-year age group (0-4 years to 65+ years) for Remoteness Areas only, as a proportion of the total estimated resident population (ERP), 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness Area

Policy context: The proportions of the total estimated resident population in 2021 who were Aboriginal and/or Torres Strait Islander people (in this atlas collectively referred to as Aboriginal) varies greatly by location, from 30.7% in the Northern Territory to 1.2% in Victoria. Aboriginal people represent the largest proportion of the populations in Greater Darwin (13.2%) and in the remainder of the Northern Territory (56.9%). The next largest proportion was in Western Australia, at 11.4% outside of Perth [1].

However, the largest numbers of Aboriginal people in 2021 were in New South Wales (339,710, with 111,075 in Greater Sydney, 36,745 in Illawarra, Newcastle and Lake Macquarie and 191,890 in the remainder of New South Wales); and in Queensland (273,119, with 87,940 in Greater Brisbane, 40,284 in Gold Coast and Townsville, and 144,895 in the remainder of Queensland). The estimated resident populations in Darwin and in the remainder of the Northern Territory were 19,464 and 57,023, respectively [1].

The Aboriginal and Torres Strait Islander population is considerably younger than the non-Indigenous population. In 2021, the median age for this population was 24 years, 14.9 years less than the national median age of 38.9 years for the non-Indigenous population [2]. One in three (33.1%) Aboriginal people were estimated to be aged less than 15 years, while just 5.4% were aged 65 years and over (and although very low, this is higher than in 2011 or 2016, when the proportions were 3.8% and 5.1%, respectively) [2].

References

1. Australian Bureau of Statistics (ABS) estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.
2. Australian Bureau of Statistics, Estimates of Aboriginal and Torres Strait Islander Australians: Final 2021 Census-based estimated resident population of Aboriginal and Torres Strait Islander and non-Indigenous Australians for various geographies, accessed 29 November 2023. Available from **https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release**.

Indicator detail: Aboriginal population as a percentage of the total population.

PHIDU publishes Aboriginal population by age and sex for Population Health Areas (PHAs), Local Government Areas (LGAs) and Indigenous Areas (IAREs), and also uses these populations as a denominator when calculating percentages and rates for a large number of indicators for PHAs and IAREs.

As the Australian Bureau of Statistics (ABS) does not publish ERP by age and sex for the Aboriginal population, or by Indigenous status, for PHAs, LGAs or IAREs, PHIDU entered into a contract with the ABS to produce these data.

Due to small populations in some areas, the ABS could only estimate the population by age and sex and Indigenous status for the following age groups:

- PHA and LGA: 0-14, 15-24, 25-34, 35-44, 45-54 and 55+ years
- IARE: 0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64 and 65+ years
- The all-age totals for LGAs and IAREs are consistent with those published by the ABS.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Total Aboriginal estimated resident population by broad age groups: 0-14, 15-24, 25-34, 35-44, 45-54, 55+ years or by 0-14, 15-24, 25-44, 45-64, 65+ years (Remoteness Areas only).

Denominator: Total Aboriginal estimated resident population ERP by broad age group: 0-14, 15-24, 25-34, 35-44, 45-54, 55+ years or by 5-year age group (Remoteness Areas only): 0-4 years to 65+ years.

Detail of analysis: Aboriginal population in each age group as a percentage of the total population.

Source: ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Population projections

Male/ female/ total population by broad age group: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, 2025 and 2030
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: The data presented here are projections, not predictions or forecasts, and are intended to illustrate the growth and change in population which would occur if certain assumptions about future levels of fertility, mortality, internal migration and overseas migration were to prevail over the projection period. Their value is in providing an estimate of what the population might look like in the future, in different geographic areas across the country. This is of particular relevance as Australia's population ages.

Indicator detail: These population projections were prepared by the Australian Bureau of Statistics (ABS) for Geoscience Australia and were derived from a combination of assumptions published in **Population Projections, Australia, 2022 (base) to 2071** on 23 November 2023, and historical patterns observed within each state/territory. The projections are not official ABS data and are owned by Geoscience Australia.

The projections are for Statistical Areas Level 2 (SA2s) and Local Government Areas (LGAs) and are projected out from a base population as at 30 June 2022, by age and sex. Projections are for 30 June 2023 to 2032, with results disaggregated by age and sex; however, only the projections for 2025 and 2030 are included in the atlas.

Projections – Statistical Areas Level 2
The base population for each SA2 is the estimated resident population in each area by single year of age and sex, at 30 June 2022, as published in **Regional population by age and sex, 2022** on 28 September 2023.

Projections – Local Government Areas
The base population for each LGA is the estimated resident population in each area by single year of age and sex, at 30 June 2022, as published in **Regional population by age and sex, 2022** on 28 September 2023.

The projections at SA2 and LGA levels are available from the Digital Atlas of Australia website: **https://digital.atlas.gov.au/datasets/digitalatlas::sa2-population-projections-2022-to-2032/about** (accessed: 05 August 2024).

The assumptions of fertility (birth rates), mortality (death rates) and migration underpinning the projections are primarily based on historical patterns and trends specific to each area.

Note that these projections do not consider any recent trends in migration patterns, both internal and external, or fertility rates.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area, and Remoteness Area.

Numerator: Male/ female/ total projected population by broad age groups for the selected period (2025 and 2030).

Denominator: Male/ female/ total projected population for the selected period (2025 and 2030).

Detail of analysis: Per cent.

Source: These data are based on customised projections prepared by the Australian Bureau of Statistics (ABS) for Geoscience Australia. The projections are not official ABS data and are owned by Geoscience Australia. PHA data were compiled by PHIDU based on these customised projections at the SA2 level for 2025, and 2030.

Birthplace & non-English-speaking residents

Australian-born population, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: At the Census in 2021, two thirds (65.3%) of the population gave Australia as their country of birth, consistent with the proportion in 2016, but down from almost three quarters (74%) at the 2011 Census. However, at recent Censuses, over a million Australians have not stated their birthplace. Therefore, their generation cannot be identified from Census data. In 2021 the 1.4 million people for whom the birthplace was not stated represented 5.3% of the population [1].

Reference

1. Data for 2021 Census from the Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022. For earlier Censuses, data from PHIDU workbooks, available from: **https://www.phidu.torrens.edu.au/social-health-atlases/data-archive.**

Indicator detail: In the data workbooks, the numerator excludes 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born in Australia.

Denominator: Total population.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People born (overseas) in predominantly English-speaking countries, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Although this indicator is far from precise, even in defining countries from which people coming to live in Australia will not face a language barrier, it is included in the absence of a better measure.

The 2021 Census of Population and Housing revealed that over 7 million people (29.3% of Australia's population, excluding those with a birthplace not stated) were born overseas, up from 25% in 2011 and 26.3% in 2016 [1,2]. This continues a trend that has seen an increase in the number of overseas-born people living in Australia since the first Census in 1911 (excluding periods during both World Wars where migration to Australia stagnated) [2]. Of the overseas-born population, 16.9% had arrived since the start of 2017 [1].

The 2,027,394 people reported as born overseas in countries designated as English-speaking were born in Canada, Ireland, New Zealand, South Africa, the United Kingdom or the United States of America. In 2021, the United Kingdom and New Zealand were the leading countries of birth for the overseas-born population from any country (at 16.4% and 7.5%, respectively) [1].

The impact of the pandemic on the population is most evident for people born in New Zealand and living in Australia, when the relatively small increase in this group between 2016 and 2021, of 16,000, is compared with the increase of 127,700 from 2001 to 2011. Whereas England continued to be the birthplace of the largest group of overseas born living in Australia, their number decreased, from just over a million to the ABS estimate of 967,400 in June 2021.

References

1. Data for 2021 Census from the Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022. For earlier Censuses, data from PHIDU workbooks, available from: **https://phidu.torrens.edu.au/social-health-atlases/data-archive**.
2. Australian Bureau of Statistics (ABS). Snapshot of Australia 2021. Available from: **https://www.abs.gov.au/statistics/people/people-and-communities/snapshot-australia/latest-release#culturally-and-linguistically-diverse-communities**; accessed 25 August 2022.

Indicator detail: Countries designated as predominantly English-speaking are Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

In the data workbooks, the numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born (overseas) in English speaking countries.

Denominator: Total population.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People born in predominantly non-English-speaking (NES) countries, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Although this indicator is far from precise, even in defining countries from which people coming to live in Australia will face a language barrier, it is included in the absence of a better measure. Other measures of relevance in this atlas are of the year in which people arrived (shown as recent or longer-term arrivals), language spoken at home and details of those arriving under Australia's Humanitarian Program, or the Migration Program for skilled and family entrants.

In the 2021 Census, 5,016,314 people (19.7% of the total population) were born in countries referred to as 'predominantly non-English-speaking [1]. Country of birth groups which increased the most between 2011 and 2021 were India (up 373,300 people) and China (208,200). Notably, the number of people born in China decreased by 52,000 people during the pandemic; there was a small decrease, of 13,000, of those born in India.

Two countries with relatively large increases over this ten-year period were Philippines (up by 117,600) and Nepal (by 102,100) [1].

In 2021, just over half (51.2%) of all Australians were either born overseas or had at least one parent who was born overseas:

- More than a quarter (29.3%) of the Australian population were first generation Australians (born overseas)
- 22.2% of the population were second generation Australians (born in Australia, but had one or both parents born overseas)
- Almost half (48.5%) of the population were at least third generation Australians (born in Australia, as were both of their parents) [1].

Reference

1. Data from PHIDU workbooks available at: **https://phidu.torrens.edu.au/social-health-atlases/data**.

Indicator detail: The data comprise people born in 'predominantly non-English-speaking countries' which comprise all but the following overseas countries, designated as 'English-speaking': Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

In the data workbooks, the numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born in predominantly non-English speaking countries.

Denominator: Total population.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People born in NES countries resident in Australia for five years or more, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Although this indicator is far from precise, even in defining countries from which people coming to live in Australia will face a language barrier, it is included in the absence of a better measure. Other measures of relevance in this atlas are of the year in which people arrived (shown as recent or longer-term arrivals), language spoken at home and details of those arriving under Australia's Humanitarian Program, or the Migration Program for skilled and family entrants.

In 2021, some 83% of Australia's population who were born in a predominantly non-English-speaking country had been in Australia for five years or more [1]. In the post-war period (in particular from the 1950s), the majority of immigrants from non-English-speaking countries came from Europe; in recent years the proportion of these immigrants from Europe has declined, with increasing numbers coming, in particular, from across Asia (South East Asia, North East Asia and Southern and Central Asia).

Reflecting this trend, the proportions arriving from countries in North-West Europe and Southern and Eastern Europe have, whereas those from Philippines, Nepal, Pakistan, Vietnam, Sri Lanka and Iraq, among others, have increased [2].

References

1. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
2. Australian Bureau of Statistics (ABS). Australia's Population by Country of Birth, 2021. Available from: **https://www.abs.gov.au/statistics/people/population/australias-population-country-birth/latest-release**; accessed 25 August 2022.

Indicator detail: The data comprise people born in predominantly non-English-speaking countries arriving before 2012. 'Predominantly non-English-speaking countries' comprise all but the following overseas countries, designated here as 'English-speaking': Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

In the data workbooks, the numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth, as well as the 2.4% of the population born overseas who did not state their year of arrival: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born in predominantly non-English speaking countries, and resident in Australia for five years or more.

Denominator: Total population.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People born in NES countries resident in Australia for less than five years, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Although this indicator is far from precise, even in defining countries from which people coming to live in Australia will face a language barrier, it is included in the absence of a better measure. Other measures of relevance in this atlas are of the year in which people arrived (shown as recent or longer-term arrivals), language spoken at home and details of those arriving under Australia's Humanitarian Program, or the Migration Program for skilled and family entrants.

In 2021, 16.9% of Australia's population who were born in a predominantly non-English-speaking country had been in Australia for less than five years [1]. People born in this population group face a number of difficulties. For many who arrive without proficiency in English, the combination of economic struggle with adjustment to a new language and a new cultural milieu can be expected to give rise to considerable stresses. Although a relatively small group, they also pose special challenges for deliverers of health, welfare and other community services [2]. This community is also not a homogeneous group, even though there are common experiences including those relating to migration and dislocation. There is great diversity in language, culture, religion, socioeconomic status, education and age structure [3]. Reflecting this trend, the most rapidly growing non-English-speaking groups are now from Asia, with their proportion in the population increasing from 24% of the overseas-born population in 2001, to 32.9% in 2011 and to 39.7% in 2016 [3,4].

References

1. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
2. Australian Institute of Health & Welfare (AIHW). Australia's welfare, 2011. (AIHW Cat. no. AUS 142). Canberra: AIHW; 2011.
3. Australian Bureau of Statistics (ABS). Cultural diversity in Australia - Reflecting a Nation: Stories from the 2011 Census, 2012-2013. (ABS Cat. no. 2071.0). Canberra: ABS; 2012.
4. Australian Bureau of Statistics (ABS). Cultural diversity in Australia - Reflecting Australia: Stories from the Census, 2016. (ABS Cat. no. 2071.0). Canberra: ABS; 2017 [accessed 10 August 2017]. Available from: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2071.0~2016~Main%20Features~Cultural%20Diversity%20Article~60**.

Indicator detail: The data comprise people born in predominantly non-English-speaking countries arriving from 2017 to 2021. The year 2021 is the period 1 January 2021 to 10 August 2021 (Census Night), therefore, the data presented represent a total time of approximately 4 years and 7 months.

Resident in Australia for less than five years: Data comprise NES residents arriving from 2017 to 2021. The year 2016 is the period 1 January 2021 to 10 August 2021 (Census Night), therefore, the data presented represent a total time of approximately 4 years and 7 months.

'Predominantly non-English-speaking countries' comprise all but the following overseas countries, designated as 'English-speaking': Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

In the data workbook, the numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth, as well as the 2.4% of the population born overseas who did not state their year of arrival: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born in predominantly non-English speaking countries, and resident in Australia for less than five years.

Denominator: Total population

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People aged 5 years and over who were born overseas and reported poor proficiency in English, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: For migrants born in predominantly non-English-speaking countries, the rate at which they adapt to live in the host country is directly related to the rate at which they achieve proficiency in English. Their proficiency in English has profound implications for the ease with which they are able to access labour markets, develop social networks, become aware of and utilise services, and participate in many aspects of Australian society. Those people who are not proficient in spoken English are less likely to be in full-time employment and more likely not to be in the labour force [1]. From a health service viewpoint, the location of this population group is most relevant in the provision of health services for women, and for older people, who may not have developed English language skills (especially females), or have returned to using the language of their birthplace as they have aged (both females and males).

In Australia, there were over 350 separately identified languages spoken at home in 2021. While English remained the main language spoken, Census data showed that more than one-fifth (21.7%) of Australians spoke a language other than English at home. The most commonly spoken languages were Mandarin (2.7% of the total population), Arabic (1.4 per cent), Vietnamese (1.3 per cent), Cantonese (1.2 per cent) and Punjabi (0.9 per cent) [2].

Of the overseas-born people who had arrived in in 2005, or later, 10.9% either did not speak English well, or at all in 2021. For earlier migrants (those arriving before 2005) this number was lower, at 9.0%. Of those aged 65 years and over, the proportion was higher, at 17.1%, increasing from 15.3% at ages 65 to 74 years, to 17.1% at ages 75 to 84 years and to 25.0% at ages 85 years and over [3].

References

1. Australian Bureau of Statistics (ABS). Perspectives on migrants, 2007. (ABS Cat. no. 3416.0). Canberra: ABS; 2008.
2. Australian Bureau of Statistics (ABS). Cultural diversity: Census 2021. Available from: **https://www.abs.gov.au/statistics/people/people-and-communities/cultural-diversity-census/latest-release**; accessed 25 August 2022.
3. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.

Indicator detail: The data comprise people born overseas who reported speaking English 'not well' or 'not at all'. In the data workbooks, the numerator excludes the 0.8% of the population (this percentage varies across States/Territories) aged five years and over born overseas who did not state their language (other than English) spoken, or their proficiency in English: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People aged 5 years and over who were born overseas and reported speaking English 'not well' or 'not at all'.

Denominator: Population aged 5 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Non-English-speaking countries of birth

Top ten birthplaces of people born in non-English-speaking countries, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In the post-war period (in particular from the 1950s) the majority of immigrants from non-English speaking countries came to Australia from Europe; in recent years, the proportion of these immigrants from Europe has declined [1]. The largest non-English speaking groups at the time of the 2021 Census were from India (710,400), China (595,600), Philippines (310,600), Vietnam (268,200), Malaysia (172,300), Italy (171,500), Sri Lanka (145,800), Nepal (129,900), Germany (170,900) and South Korea (106,600) [2].

Country of birth groups which increased the most between 2011 and 2021 were India (up 373,300 people), and China (208,200). Notably, the number of people born in China decreased by 52,000 people during the pandemic; there was a small decrease, of 13,000, of those born in India. Two countries with relatively large increases over this ten-year period were Philippines (up by 117,600) and Nepal (up by 102,100) [2].

References

1. Australian Bureau of Statistics (ABS). Cultural diversity in Australia - Reflecting a Nation: Stories from the 2011 Census, 2012-2013. (ABS Cat. no. 2071.0). Canberra: ABS; 2012.
2. Australia's Population by Country of Birth, 2021. Available from: https://www.abs.gov.au/statistics/people/population/australias-population-country-birth/latest-release; accessed 25 August 2022.

Indicator detail: The data comprise residents of Australia who were born overseas in one of the predominantly non-English speaking countries which are in the top ten for Australia in terms of high numbers of migrants. These are, from highest to lowest: India, China (excluding Special Administrative Regions of Hong Kong & Macau, and Taiwan), Philippines, Vietnam, Malaysia, Italy, Sri Lanka, Nepal, Germany and South Korea.

The numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not state their country of birth: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People born in the top ten non-English speaking countries:
India, China (excluding Special Administrative Regions of Hong Kong & Macau, and Taiwan), Philippines, Vietnam, Malaysia, Italy, Sri Lanka, Nepal, Korea, Republic of (South), and Germany.

Denominator: Total population.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Migration and humanitarian program

Humanitarian / family/ skilled / total migrants, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Alongside the USA, Canada and New Zealand, Australia is regarded as one of the world's leading immigration destinations. However, Australia, due to its geography, population and history, is one of the relatively few countries able to regulate, through policies and laws, which migrants should be admitted [1].

The Migration Program for skilled and family entrants and the Humanitarian Program for refuges and those in refugee-like situations make up the two formal programs that facilitate the arrival of permanent migrants into Australia. In August 2021 there were 3.0 million permanent migrants who had arrived in Australia since 2000 and were recorded in the 2021 Australian Census and Migrants Integrated Dataset; 59% (1,761,000) had migrated under the Skilled visa stream, 32% (962,400) under the Family stream, and 9% (283,600) under the Humanitarian visa stream [2].

Migrants other than those under the Humanitarian Program generally have better health than the Australian born population in terms of mortality, hospitalisation rates and prevalence of health risk factors associated with lifestyle. While this is largely attributed to the 'healthy migrant effect' – an eligibility requirement for migrants to be in good health in their migration application – this advantage is said to decline over time to levels similar to the Australian born population. In the 2021 Australian Census and Migrants Integrated Dataset the highest reported long-term health condition for all permanent migrants was Asthma (3.9%), which was also the highest for skilled visa migrants (3.9%), however mental health condition was highest for Family visa migrants (4.3%), and diabetes was highest for Humanitarian visa migrants (5.9%) [2.]. Nonetheless, the health status of migrants can vary depending on birthplace country, age, socioeconomic background, English language proficiency, education and income level [3].

Those from non-English speaking backgrounds could be prevented from accessing information and services relating to health due to language and cultural barriers resulting in lower health literacy rates. This is not too dissimilar for elderly migrants who also require culturally- and linguistically appropriate services [4].

References

1. Crock M and Parsons. Australia as a modern migration state: Past and present. Background paper to the World Development Report 2023: Migrants, Refugees, and Societies. April 2023. Available from: **https://thedocs.worldbank.org/en/doc/659cc1ee23366043a8581072c718b531-0050062023/original/Australia-and-Migration-2022-23-FORMATTED.pdf**, accessed 8 January 2024.
2. Australian Bureau of Statistics. Permanent migrants in Australia [Internet]. Canberra: ABS; 2021. Available from: **https://www.abs.gov.au/statistics/people/people-and-communities/permanent-migrants-australia/latest-release**, accessed 8 January 2024.
3. Australian Institute of Health and Welfare (AIHW). Australian health inequalities, 2012 (Bulletin no. 2). Available from: **https://www.aihw.gov.au/getmedia/d99c3ce2-2525-46db-82da-605d16ccf6d9/bulletin02.pdf.aspx?inline=true**, accessed 8 March 2019.
4. Smith L. The health outcomes of migrants: A literature review, 2015. Migration Council Australia. Available from: **http://migrationcouncil.org.au/wp-content/uploads/2016/06/2015_Smith.pdf**, accessed 8 March 2019.
5. Department of Home Affairs, Immigration and citizenship. Ending the COVID-19 Concession Period. Available from: **https://immi.homeaffairs.gov.au/news-media/archive/article?itemId=1147**, accessed 8 January 2024.
6. Department of Home Affairs. 2022-2023 Migration Program FAQ. Available from: **https://immi.homeaffairs.gov.au/programs-subsite/files/faq-2022-23-migration-program.pdf**, accessed 8 January 2024.

Note regarding impact of COVID-19:

From the 1st of February 2020 to the 25th of November 2023 the Australian Federal Government imposed international travel restrictions in response to the COVID-19 pandemic. [5] The COVID-19 restrictions prevented the entry of international arrivals and caused disruption to normal operations which prevented people from meeting visa requirements, such English language tests, biometric and health examinations, and obtaining police clearances [5].

During this time the Federal Government provided concessions for applicants of certain visa subclasses who were affected by the international travel restrictions, which included where the applicant must be located at the time of their application [5].

In 2022-23 the Permanent Migration Program allocated a total of 195,000 places with the majority 142,400 places to the Skill stream and 52,500 to the Family stream [6]. This is an increase from 160,000 in 2021-22, and is aimed at attracting additional offshore skilled migrants, to help ease critical skills and workforce shortages that have occurred due to COVID-19 related restrictions, illness, an ageing population, and an increase in the number of people reaching retirement age [6]. The larger Permanent Migration program in 2022-23 is also focused on retaining temporary migrants who are already part of the workforce and other temporary migrants to return, through the provision of more pathways to permanency [6].

There has been an increase in Parent visas from 4,500 in 2021-22 to 8,500 in 2022-23, to allow more parents to come into Australia to strengthen family and community bonds and provide childcare or other family responsibilities [6]. The Other Family (the Aged Dependent Relative, Remaining Relative and Carer programs) visa category was maintained at 500 places.

Indicator detail:
Humanitarian migrants: The data comprise permanent migrants entering Australia under the Offshore Humanitarian Program.

Family migrants: The data comprise permanent migrants entering Australia on a Child, Partner or Other Family stream visa. The family stream is designed for the migration of immediate family members of Australian citizens, permanent residents or New Zealand citizens.

Skilled migrants: The data comprise permanent migrants entering Australia on a Skill stream visa, which includes both primary and secondary applicants (i.e. dependents of the primary applicant).

Total migrants: The data comprise the total permanent migrants entering Australia on a Humanitarian Program, Family visa, Skill stream visa or other visa.

These data do not include asylum seekers who have left their country and are seeking protection.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area, and Remoteness Area.

Numerator: People arrived between: 1 January 2000 and 9th August 2011; 1 January 2000 and 9th August 2016; 1 January 2000 and 10 August 2021 under the Humanitarian Program/ Family stream/ Skill stream.

Denominator: Total population (ERP).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census and Migrants Integrated Dataset, 2021.

Fertility

Total fertility rate, 2024
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Fertility is an important component of population change (particularly population age-structure), and low fertility has implications for a population's ability to sustain itself [1]. Fertility levels vary between areas with different socioeconomic conditions, between metropolitan and regional areas, and among the States and Territories. Differences may exist for a variety of reasons, such as culture, social norms, employment, the economy, and socioeconomic status [1].

Fertility is measured by the total fertility rate (TFR) which represents the average number of children that a woman could expect to bear during her reproductive lifetime: it is calculated from details of the age of the female population, the number of births and the age of the mother at birth. Since 1974, Australia's TFR has been below the replacement level of 2.1 babies per woman. In 2024, Australia's TFR was 1.481 babies per woman, lower than in 2023 (1.499) and the rate 10 years ago (1.795 in 2014) [2]. Sustained periods of fertility below the replacement level are major drivers of population ageing. Given the potential economic impacts of an ageing population, fertility is of particular interest to policymakers.

References

1. Australian Bureau of Statistics (ABS). Year Book Australia, 2008. (ABS cat. no. 1301.0). Canberra: ABS; 2008.
2. Australian Bureau of Statistics (ABS). Births, Australia, 2024. Available from: **https://www.abs.gov.au/statistics/people/population/births-australia/latest-release**; accessed 27 October 2025.

Indicator detail: Fertility is measured by the total fertility rate (TFR) which represents the average number of children that a woman could expect to bear during her reproductive lifetime: it is calculated from details of the age of the female population, the number of births and the age of the mother at birth.

Total fertility rates are not shown for areas recording fewer than 5 births.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Live births.

Detail of analysis: Total fertility rate per woman, calculated from age-specific fertility rates.

Source: Compiled by PHIDU based on ABS data from Table 2: Births, Summary, Statistical Area Level 2 - 2011 to 2024, **Births, Australia 2024**.

Education

Children aged 4 years old, 5 years old, and 4 and 5 years old enrolled in a preschool program and children attending a preschool, 2023.
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Research has shown that positive educational and life outcomes for children, particularly those from more disadvantaged backgrounds are linked to participation in a quality preschool program [1]. Participation in high quality preschool supports school readiness as children were found to perform better at school with these benefits persisting over time. Children who attended preschool were found to outperform those who did not across all elements of national assessment results for Year 3 students, including numeracy, reading, spelling, writing and grammar [2].

References

1. Rosier K. & McDonald, M. Promoting positive education and care transitions for children. Child Family Community Australia Resource Sheet, November 2011. Australian Institute of Family Studies accessed 9 April 2018. Available from: **https://aifs.gov.au/cfca/publications/promoting-positive-education-and-care-transitions-children**.
2. Department of Education and Training. How is the Government supporting access to preschool education? Factsheet, July 2017. Available from: **https://docs.education.gov.au/system/files/doc/other/14._how_is_the_government_supporting_access_to_preschool_education.pdf**; accessed 9 April 2018.

Indicator detail: The data comprise children aged 4 years old, 5 years old, and 4 and 5 years old: enrolled in a preschool program; and attending a preschool program in both cases as a proportion of the estimated resident population (ERP) of children at those ages in 2022.

The data for 2023 have been limited to 'Preschool' under the 'Sector' category that ABS provide in the Preschool TableBuilder dataset: data published by PHIDU in previous years included children in a 'Preschool program within centre-based day care' and 'Children across more than one provider type'. In the 2023 Preschool Census there were 164,671 in centre-based day care program and 51,804 children across more than one provider type.

These data are generally not published as percentages, as the age at which children commence preschool and leave preschool to enter primary school varies between jurisdictions and includes children at age three and age six. As we cannot replicate the results published by the ABS to produce a denominator that reflects these different ages across the states and territories at which children are enrolled in preschool, we have calculated the percentage of children at age four in preschool against the percentage of children in the population at this age. Unfortunately, this results in some proportions of over 100% and also occurs with those aged five, although it occurs less frequently with the total of children aged four and five years, for which data are also published. The instances over 100% occur, in part, because of the difficulty in estimating the population in small geographic areas by single-year ages. However, in order to provide an understanding of variations between geographic areas, we have calculated and published percentages. More information, including details of the ABS **calculation**, can be found at **https://www.abs.gov.au/statistics/people/education/preschool-education/latest-release**, accessed 3rd December 2024.

As ERPs are not available by single year at the PHA level, the numbers of children at ages four and five were estimated by applying the proportion of children at these ages in the 0 to 4 and 5 to 9-year age groups at the 2021 Census to the 2023 ERP in the 0 to 4 and 5 to 9-year age groups.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The indicators presented are:

- Children aged 4 years, 5 years and 4 and 5-years enrolled in a preschool program
- Children aged 4 years, 5 years and 4 and 5-years attending a preschool program.

Denominator: Children aged 4 years, 5 years or 4 and 5 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the Australian Bureau of Statistics Preschool Education, Australia, 2023; data extracted from TableBuilder.

People who left school at Year 10 or below, or did not go to school, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Education increases opportunities for choice of occupation and for income and job security and equips people with the skills and ability to control many aspects of their lives – key factors that influence wellbeing throughout the life course. Young people completing Year 12 are more likely to make a successful initial transition to further education, training and work than early leavers. There is greater risk of poor transitions or mixed outcomes for those who have disabilities, lower levels of literacy or numeracy, or come from a family with a lower socioeconomic status [1]. Participation in schooling is also a major protective factor across a range of risk factors, including substance misuse, unemployment and homelessness.

At the 2021 Census, 25.4 persons per 100 population stated that they had left school at Year 10 or below, or did not go to school [2]. This was lower than the rate of 34.3 per 100 population at the 2011 Census and 30.4 at the 2016 Census. The data are presented as an age-standardised rate, to adjust for the changing rates of educational opportunity and participation faced by subsequent generations of the population. For example, the proportions covered by this indicator increase with age, as follow: 25-34 (12.4%), 35-44 (14.7%), 45-54 (24.2%), 55-64 (37.1%), 65-74 (45.2%), 75-84 (53.6%) and 85 years and over (56.5%) [2].

References

1. Dale R. Early school leaving - lessons from research for policy makers. (Report on behalf of the Network of Experts in Social Sciences and Education (NESSE)). Paris, France: European Commission; 2010.
2. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.

Indicator detail: The numerator excludes the 6.8% of the population aged 15 years and over whose highest year of school was not stated: however, these records are included in the denominator.

The extent to which those who have left school at this age to enter the labour force is not accounted for in these data - see **Learning or Earning at ages 15 to 24**.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People who left school at Year 10 or below, or did not go to school.

Denominator: Usual resident population aged 15 years and over.

Detail of analysis: The data comprise people who left school at Year 10 or below, or did not go to school, expressed as an indirectly standardised rate per 100 people aged 15 years and over (usual resident population), based on the Australian standard.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Full-time participation in secondary school education at age 16, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Education increases opportunities for choice of occupation and for income and job security and equips people with the skills and ability to control many aspects of their lives - key factors that influence wellbeing throughout the life course. Young people completing Year 12 are more likely to make a successful initial transition to further education, training and work than early leavers. There is greater risk of poor transitions or mixed outcomes for those who have disabilities, lower levels of literacy or numeracy, or come from a family with a lower socioeconomic status [1]. Participation in schooling is also a major protective factor across a range of risk factors, including substance misuse, unemployment and homelessness.

A majority (85.3%) of the population aged 16 years at the time of the 2021 Census were reported as being in full-time secondary education; this was an increase from 79.1% at the 2016 Census [2]. The intention of this variable is to show the extent of variation in participation geographically and between population groups.
As data covering all sectors (government, non-government, Catholic and independent) are not available at the small area level from State and Territory education authorities, the data used in this analysis are from the 2021 Australian Bureau of Statistics (ABS) Population Census. As such they are not official estimates of participation at age 16 in full-time secondary education. However, they are useful in showing the extent of variations between areas, by socioeconomic status and by remoteness.

References

1. Dale R. Early school leaving - lessons from research for policy makers. (Report on behalf of the Network of Experts in Social Sciences and Education (NESSE)). Paris, France: European Commission; 2010.
2. 2021 data from PHIDU workbooks, data release November 2022, available from: **https://phidu.torrens.edu.au/social-health-atlases/data**; 2016 data from PHIDU workbooks, data release December 2017, available from the **Data archive**.

Indicator detail: As data covering all sectors (government, non-government, Catholic and independent) are not available at the small area level from State and Territory education authorities, the data used in this analysis are from the 2021 ABS Population Census. As such they are not official estimates of participation at age 16 in full-time secondary education. However, they are useful in showing the extent of variations between areas, by socioeconomic status and by remoteness.

Note that: the extent to which those who have left school at this age to enter the labour force is not accounted for in these data - see Learning or Earning at ages 15 to 24; the numerator excludes the small proportion of the population aged 16 whose participation in secondary school education, or full-time/part-time status, was not stated: however, these records are included in the denominator; and percentages may be more than 100% due to the ABS' randomisation of both the numerator and denominator for confidentiality purposes.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: 16-year-olds in full-time secondary school education.

Denominator: Population aged 16 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Participation in vocational education and training, 2023
Aboriginal/ total population
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Vocational education and training (VET) is post-compulsory education and training that provides people with occupational or work-related knowledge and skills [1]. VET programs may be government-funded or delivered on a fee-for-service basis by public or private providers. Courses are practical and skills-based, and many study areas include work placements or work-based learning [2]. Accredited VET programs cover a wide range of activities, including part-day employer-specific training, general use courses such as first aid training, year-long employment-related certificates, multi-year apprenticeships, and postgraduate diplomas, including those provided at Australian Qualifications Framework (AQF) levels 1 to 6, and level 8, as well as non-award courses [3].

Nationally accredited VET courses are designed and taught by industry experts and are delivered by government-owned technical and further education (TAFE) institutes, independent registered training providers (RTOS), and dual sector universities that offer VET and higher education programs [2]. VET programs offer industry-specific skills and pathways to initial employment opportunities in a wide range of occupations, including many trades. An Australian VET qualification can also be a stepping stone towards further study or a higher education degree.

In 2023, 27% of the Australian resident population aged 15 to 64 years participated in nationally recognised vocational education and training (3.5% of whom identified as Indigenous), with the highest participation among students aged 15 to 19 years (46.2%) [4].

References

1. NCVER. Terms and Definitions: National VET Provider and VET in Schools Collections. National Centre for Vocational Education Research, Adelaide 2023. Available from: **https://www.voced.edu.au/content/ngv%3A97660.**
2. Vocational Education and Training (VET). Study Australia, Australian. Government. Available from: **https://www.studyaustralia.gov.au/en/plan-your-studies/vocational-education-and-training#ref0**; accessed 12 March 2024.
3. The Vocational Education and Training Sector: A Quick Guide. Parliament of Australia. Available from: **https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2324/Quick_Guides/VocationalEducationandTraining**; accessed 12 March 2024.
4. NCVER. Total VET students and courses 2023. Statistical Report. Available from: **https://www.ncver.edu.au/research-and-statistics/publications/all-publications/total-vet-students-and-courses-2023**; accessed 14 April 2025.

Indicator detail: Vocational education and training (VET) data includes all VET activity delivered in Australia to Australian residents by government providers (TAFE institutes, Universities and other government providers), community education providers, enterprise providers, private training providers and schools.

NCVER uses an ABS coding index (click **here** for more information) to allocate data with partial address information to a single SA2 area. Coding indexes are tables that list a geographic area against its most appropriate match; data for addresses not in this index are included in the Australia total only (approximately 9% of NCVER records are affected).

Separate data are presented for:

- Aboriginal population participation in VET
- Total population participation in VET.

Note: Non-Indigenous data for VET can now be found in the **Indigenous status comparison atlas**. The difference between the total population figures and the sum of Aboriginal and non-Indigenous figures arises from unknown Indigenous status and data compilation issues.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Aboriginal or total students participating in vocational education and training.

Denominator: Aboriginal (2021: Aboriginal population data for 2023 not available) or total (2023) estimated resident population.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source:

- Aboriginal students: Compiled by PHIDU based on data from the National Centre for Vocational Education Research DataBuilder (**https://www.ncver.edu.au/research-and-statistics/data/databuilder**), 2023; and the Aboriginal estimated resident population, 2021.
- Total students: Compiled by PHIDU based on data from the National Centre for Vocational Education Research DataBuilder (**https://www.ncver.edu.au/research-and-statistics/data/databuilder**), 2023; the ABS estimated resident population, 30 June 2023.

Subject completion rates in vocational education and training, 2023
Government-funded hours / Private-funded hours / Aboriginal students / Total students
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Vocational education and training (VET) is post-compulsory education and training that provides people with occupational or work-related knowledge and skills [1]. VET programs may be government-funded or delivered on a fee-for-service basis by public or private providers. Courses are practical and skills-based, and many study areas include work placements or work-based learning [2].

Accredited VET programs cover a wide range of activities, including part-day employer-specific training, general use courses such as first aid training, year-long employment-related certificates, multi-year apprenticeships, and postgraduate diplomas, including those provided at **Australian Qualifications Framework** (AQF) levels 1 to 6, and level 8, as well as non-award courses [3].

Subject completion rates are referred to by NCVER as 'load pass rates'. As subjects are of different lengths, the load pass rate is weighted and is the ratio of hours studied by students who passed their subject(s) to the total hours committed to by all students who passed, failed or withdrew from the corresponding subject(s). A detailed description of the calculation is shown under 'Definitions', below.

In 2023, there were 2.9 million enrolments in nationally recognised programs, the majority (91.0%) were in qualifications, of which 84.7% were in training package qualifications and 6.3% in accredited qualifications [4].

Indicator detail: Vocational education and training (VET) data include all VET activity delivered in Australia to Australian residents by government providers (TAFE institutes, Universities and other government providers), community education providers, enterprise providers, private training providers and schools.

Duplicate records arising from students attending multiple training providers within the data collection period have been removed.

NCVER uses an ABS coding index (click **here** for more information) to allocate data with partial address information to a single SA2 area. Coding indexes are tables that list a geographic area against its most appropriate match; data for addresses not in this index are included in the Australia total only (approximately 9% of NCVER records are affected).

Definitions
Funding source: VET activity is reported as government-funded if the activity received Commonwealth and state funding, and privately-funded if domestic fee-for-service. Funding source is attributed irrespective of VET provider.

Load pass rate: The load pass rate (LPR) is the ratio of hours, or full-year training equivalents (FYTEs), attributed to students who gain competencies/passed assessment in an assessable module or unit of competency to all students who were assessed and either passed, failed or withdrew. The calculation is based on the annual hours (or FYTEs) for each assessable module or unit of competency and includes competencies achieved/units passed through recognition of prior learning (RPL) [5].

The calculation for LPR is as follows:
Competency achieved passed + RPL granted, as a proportion of
Competency achieved passed + Competency not achieved failed + Withdrawn discontinued + RPL not granted + RPL granted.

References

1. NCVER. Terms and Definitions: National VET Provider and VET in Schools Collections. National Centre for Vocational Education Research, Adelaide 2023.
2. Vocational Education and Training (VET). Study Australia, Australian Government. Available from: **https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/1216.0.55.004Main%20Features42012?opendocument&tabname=Summary&prodno=1216.0.55.004&issue=2012&num=&view**; accessed 12 March 2025.
3. The Vocational Education and Training Sector: A Quick Guide. Parliament of Australia. Available from: **https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2324/Quick_Guides/VocationalEducationandTraining**; accessed 12 March 2025.
4. NCVER. Total VET students and courses 2023. Statistical Report. Available from: **https://www.ncver.edu.au/research-and-statistics/publications/all-publications/total-vet-students-and-courses-2023**; accessed 14 April 2025.
5. National Centre for Vocational Education Research (NCVER), Australian vocational education and training statistics: the likelihood of completing a government-funded VET program, NCVER, Adelaide, 2016.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Government-funded and private-funded vocational education and training subjects passed, expressed in hours.

Denominator: Government-funded and private-funded assessable vocational education and training subject hours.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the National Centre for Vocational Education Research DataBuilder (**https://www.ncver.edu.au/research-and-statistics/data/databuilder**), 2023.

School leavers enrolled at a university, 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Education increases opportunities for choice of occupation and for income and job security and also equips people with the skills and ability to control many aspects of their lives – key factors that influence wellbeing throughout the life course. Young people who complete Year 12 are more likely to make a successful initial transition to further education, training and work than early leavers [1].

The acquisition of a non-school qualification increases work and employment opportunities and increases the likelihood of a financially secure future. Despite the Global Financial Crisis and the end of the mining boom impacting on the earning of early career graduates, bachelor's degree holders continue to enjoy a significant income premium over Year 12 holders [2].

References

1. McMillan J, Marks GN. School leavers in Australia: profiles and pathways. (Research report no. 31). Camberwell, Victoria: Australian Council for Educational Research, 2003.
2. Norton A, Cherastidtham, I and Mackey W. Mapping Higher Education 2018. Grattan Institute, 2018 [accessed 19 February 2019]. Available from: **https://grattan.edu.au/wp-content/uploads/2018/09/907-Mapping-Australian-higher-education-2018.pdf**.

Indicator detail: The data comprise school leavers who are identified as enrolled at an Australian university at 31 March 2023. 'School leavers' are students who attained an Australian Year 12 qualification in 2022 in any State/ Territory through the completion of one or more Year 12 courses; may include (unless noted otherwise below) adult students, part time students and students doing one or more subjects to improve their overall score (repeating students).

The estimated resident population is the population aged 17 years in 2022, as this is the age of the majority of Year 12 students at 30 June 2022. As age data at the small geographical area level are not available by single years, the number at age 17 was estimated from the number in the five-year age group 15 to 19 years. Data have been provided by individual State and Territory tertiary admission centres. As these data were collected from each State and Territory, they may exclude people who live in one State/Territory and were enrolled in another.

The data show areas as having proportions in excess of 100%; these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the school leaver data being a postcode which is not allocated to the correct Population Health Area or Local Government Area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population aged 17 years), as the population is an estimate, based on a proportion of the those at age 17 years in the five-year age group 15 to 19 years from the Population Census.

Direct enrolments to universities were not included in the data collected: in 2022, these represented a small proportion of total enrolments, other than in the ACT.

Variations in data between States
Definitions vary across the States and Territories; however, the impact of any difference is considered to be small.

South Australian data represent the number of school leavers that have received and accepted an offer to a university in South Australia and the Northern Territory; however, this is not necessarily indicative of the enrolment status as they may not have enrolled at the institution by 31 March 2023.

The University of Notre Dame (NSW and WA) did not provide data for the 2023 time period and were not included in the final data published.

For more information, please consult the relevant admissions centre as listed in the Source below.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: School leavers who are identified as enrolled at an Australian university at 31 March 2023.

Denominator: Estimated resident population aged 17 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the:

1. Universities Admissions Centre (NSW & ACT), Victorian Tertiary Admissions Centre (Vic.), Queensland Tertiary Admissions Centre (Qld), South Australian Tertiary Admission Centre (SA & NT), Tertiary Institutions Service Centre (WA), The University of Notre Dame Australia (WA & NSW), and the University of Tasmania (Tas.).
2. ABS estimated resident population, 30 June 2022.

Early childhood development

Australian Early Development Census (AEDC) Indicators, 2024
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The Australian Early Development Census (AEDC) is a population census measuring the development of children in Australia in their first year of full-time school. It provides a picture of early childhood development outcomes and was first conducted nationwide in 2009, as the Australian Early Development Index. The AEDC has been conducted nationally every three years since then (2012, 2015, 2018, 2021 and 2024), with 95 per cent of children in their first year of full-time school participating in 2024[2] [1, 2].

The results from the AEDC provide communities, schools, government and non-government agencies and policy makers with information about how children have developed by the time they start school, measured across five areas of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based), and communication skills and general knowledge. The AEDC domains have been shown to predict later health, wellbeing and academic success [1].

In 2024, 52.9% of children assessed were considered to be on track on all five domains of the AEDC and 23.5% developmentally vulnerable on one or more domains of the AEDC [3].

The 2024 AEDC shows clear equity gaps in children's development, both by remoteness and socio-economic disadvantage [3].

- Children in Very Remote areas are 40% less likely to be on track compared with those in Major Cities.
- Twice as many children in Very Remote areas are developmentally vulnerable compared with those in Major Cities.
- Children in the most disadvantaged areas are 30% less likely to be on track, and almost twice as likely to be vulnerable compared with those in the least disadvantaged areas.

References

1. Australian Early Development Census (AEDC). AEDC National Report 2015 (A snapshot of early childhood development in Australia). Canberra: Department of Education and Training; 2016.
2. Australian Early Development Census (AEDC). AEDC National Report 2024 ISSN 2206-284X (Online).
3. Data from PHIDU workbooks, data release December 2025, available from: **https://phidu.torrens.edu.au/social-health-atlases/data**.

Indicator detail: The AEDC results report on the number of children scoring in the following percentile ranges: below the 10th percentile (developmentally vulnerable), 10th to 25th percentile (developmentally at risk) and above the 25th percentile (developmentally on track).

The PHIDU data are presented for children who were assessed as being:

- Developmentally vulnerable (below 10th percentile) on one or more domains
- Developmentally vulnerable (below 10th percentile) on two or more domains
- Developmentally on track (above the 25th percentile) on all five domains.

Also reported are data for children who were assessed as being developmentally vulnerable (below the 10th percentile), at risk (10th to 25th percentile), and on track (above the 25th percentile) in the following domains:

- Physical health and wellbeing domain
- Social competence domain
- Emotional maturity domain
- Language and cognitive skills (school-based) domain
- Communication skills and general knowledge domain.

[2] Children are those from in-scope schools. PHIDU estimate that 91.3% of all children (attending in-scope and out-of-scope schools) participated.

Summary measures are reported for children who were assessed as being developmentally vulnerable (below the 10th percentile) in the following areas:

- Physical readiness for school day
- Physical independence
- Gross and fine motor skills.

The following suppression rules have been applied to the data to preserve confidentiality:

- AEDC data are not reported for locations in which three or fewer children had been assessed
- Suppression of AEDC data also occurs when one or more of the following have not been met:
  - less than fifteen children had valid AEDC scores
  - less than two teachers had completed the AEDC instrument for children in that location
  - the AEDC instrument was completed for less than 80% of all non special needs children
  - the number of vulnerable children represented at least 90% of valid AEDC scores
- additional minor suppressions have occurred where necessary to preserve confidentiality of related suppressed cells (consequential suppression).

Notes

- Unless specified (footnoted) in the data workbooks, the data do not include external territories
- AEDC scores are invalid for children who are less than 4 years old, with special needs, where teachers have completed less than 75% of the items in any given domain and where the teacher has known the child for less than one month and feels as though they do not know the child well enough to complete the instrument.
- Children with special needs are not included within domain indicators/categories because of the already identified substantial developmental needs of this group.
- Definition of "*on track*" on 0-5 domains:
  - that the base includes children with missing data,
  - children not on track on five domains may not be 'vulnerable' on any domain i.e., they could be at risk on that domain or could be missing a domain score. For example: "*The percentage of children not on track on five domains includes children developmentally vulnerable, at risk or missing a domain score due to the teacher not being able to answer at least 75% of items in any domain".*
- The Social Health Atlas of Australia uses data from the Australian Early Development Census (AEDC). The AEDC is funded by the Australian Government Department of Education. The findings and views reported are those of PHIDU and should not be attributed to the Department or the Australian Government.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Children who were assessed as being developmentally vulnerable on one or more/ two or more domains; and children in each domain/ subdomain who were assessed as being developmentally vulnerable, developmentally at risk or developmentally on track.

Denominator: Children assessed in AEDC, with valid results.

Detail of analysis: Percent.

Source: Compiled by PHIDU based on data from the 2024 Australian Early Development Census (an Australian Government Initiative), provided by the Social Research Centre, who host and manage the AEDC data on behalf of the Australian Government Department of Education.

Learning or Earning

Learning or Earning at ages 15 to 24, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Young people who fail to engage in school, work or further education/ training run a significant risk of school failure, unemployment, risky health behaviours and mental health problems, social exclusion, and economic and social disadvantage over the longer term [1]. The data comprise the number of 15 to 24-year-old people who, at the time of the Census, were engaged in school, work or further education/ training, expressed as a proportion of the population aged 15 to 24 years. At the 2021 Census, the proportion was 85.4% [2].

References

1. Taylor J. Stories of early school leaving: pointers for policy and practice. Fitzroy: Brotherhood of St Laurence; 2009.
2. Data from PHIDU workbooks, data release November 2022, available from: **https://phidu.torrens.edu.au/social-health-atlases/data**.

Indicator detail: The data comprise the number of 15- to 24-year-old people who were engaged in school, work or further education/ training, expressed as a proportion of all those aged 15 to 24 years. Note that the data published by PHIDU for this indicator from the 2011 Census was for the 15 to 19-year age group.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: 15- to 24-year-olds engaged in school, work or further education/ training.

Denominator: 15- to 24-year-olds.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Families

Single parent families with children aged less than 15 years, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In the 2021 Census, of the families in Australia, 43.7% were couple families with children, 38.8% were couple families without children and 15.9% (1,068,268 families) were one parent families: 79.8% of single parents were female and 20.2% were male [1,2]. Compared with other family types, one parent families are considered to be at a higher risk of disadvantage, with respect to income, housing, employment and social participation [2].

The number of single parent families (increased by over 100,000 between 2016 and 2021, compared with an increase of 50,000 more families in 2016 when compared with 2011). As a result, many children spend at least some of their childhood with a lone parent; and many women and some men experience sole parenting, often in difficult financial circumstances. The economic and social wellbeing of one-parent families is a focus of social policy, as many single parent families also experience poorer health, and are major users of publicly funded services [3]. Details of their location are, therefore, relevant to policy makers and those providing health, education, welfare and housing and transport services.

References

1. Labour Force Status of Families. Available from: **https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-status-families/latest-release**; accessed 7 September 2022.
2. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
3. ABS. Australian Social Trends, 2007 - Article: One-parent families. (ABS Cat. no. 4102). Canberra: ABS; 2007 [cited 2013 Oct 18]. Available from: **http://www.abs.gov.au/ausstats/subscriber.nsf/0/3A8D1AA0F3AB7D66CA25732F001C94E6/$File/41020_One-parent%20families_2007.pdf**.

Indicator detail: Single parent families with children under 15 years, as a proportion of all families with children under 15.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Single parent families with children under 15 years.

Denominator: All families with children under 15 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Jobless families with children aged less than 15 years, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Families with no employed parent ('jobless families') not only experience substantial economic disadvantage but may also have reduced social opportunities that affect their wellbeing and health. Children who live without an employed parent may be at higher risk of experiencing financial hardship and other disadvantage in the short to medium term. They may not have a role model of employment to follow, and so the joblessness of the parent(s) may mean that such children are more likely to have outcomes such as welfare dependency in the long-term. In some families, the reason the parent is without a job may be to care for children or to undertake study to try to improve the future economic prospects of the household. However, most of the children living without an employed parent live in lone-parent households with limited resources [1].

At the 2021 Census, 11.4% of families with children under 15 years of age met this definition [2].

References

1. Australian Bureau of Statistics (ABS). Children without an employed parent [Internet]. In: Measures of Australia's Progress, 2010. (ABS Cat. no. 1370.0). Canberra: ABS; 2010 [cited 2013 Oct 18]. Available from: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1370.0~2010~Chapter~Children%20without%20an%20employed%20parent%20%284.5.2%29**.
2. Data from PHIDU workbooks, data release November 2022, available from **https://phidu.torrens.edu.au/social-health-atlases/data**.

Indicator detail: Families with children under 15 years in which no parent is employed, as a proportion of all families with children under 15.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Families with children under 15 years in which no parent is employed.

Denominator: Total families with children under 15 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU, Torrens University Australia based on the ABS Census of Population and Housing, August 2021.

Children aged less than 15 years in jobless families, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Families with no employed parent ('jobless families') not only experience substantial economic disadvantage but may also have reduced social opportunities that affect their wellbeing and health.

Children who live without an employed parent may be at higher risk of experiencing financial hardship and other disadvantage in the short to medium term. They may not have a role model of employment to follow, and so the joblessness of the parent(s) may mean that such children are more likely to have outcomes such as welfare dependency in the long-term [1]. In some families, the reason the parent is without a job may be to care for children or to undertake study to try to improve the future economic prospects of the household. However, most of the children living without an employed parent live in lone-parent households with limited resources [2].

In August 2021 there were 196,009 children aged 0–14 years in jobless couple families and a further 327,197 children at these ages in jobless one parent families [3].

References

1. Hancock K, Edwards B, Zubrick S. Echoes of disadvantage across the generations? The influence of long-term joblessness and separation of grandparents on grandchildren. Melbourne, Victoria: Australian Institute of Family Studies, 2013.
2. Australian Bureau of Statistics (ABS). Labour Force, Australia: labour force status and other characteristics of families, June 2011. (ABS Cat. no. 6224.0.55.001). Canberra: ABS, 2011.
3. Australian Bureau of Statistics (ABS). Labour Force, Australia: labour force status and other characteristics of families, June 2017. (ABS Cat. no. 6224.0.55.001). Canberra: ABS, 2017.

Indicator detail: Children aged less than 15 years in jobless families.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Children under 15 years in families in which no parent is employed.

Denominator: Total children under 15 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021 (unpublished data).

Children in families where the mother has low educational attainment, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Strong relationships between education and health outcomes exist in many countries, favouring the survival and health of children born to educated parents, especially mothers; but the pathways are culturally and historically complex and vary between and within countries [1,2,3]. A lack of successful educational experiences of parents may lead to low aspirations for their children; and may be related to parents' attitudes, their ability to manage the complex relationships which surround a child's health and education, and their capacity to control areas of their own lives [4,5,6,7].

In August 2021, some 14.1% of children aged under 15 years were in such a family, 196,009 children in jobless couple families and a large number (327,197 children) at these ages in jobless one parent families. This was well down on the proportion in 2011 (23.5%) and also below that in 2016 (17.0%).
Although, under this measure, one in seven children remains at risk from a poorer outcome, the reduction over the past ten years is heartening.

References

1. Cleland JG. Maternal education and child survival: further evidence and explanations. In: Caldwell J et al. (Eds.), What we know about the health transition (Vol. 1). Canberra: Health Transition Centre, Australian National University; 1990.
2. Ewald D, Boughton B. Maternal education and child health: an exploratory investigation in a Central Australian Aboriginal Community. (Occasional paper series, no. 7). Casuarina, NT: Cooperative Research Centre for Aboriginal and Tropical Health; 2002.
3. Hobcraft J. Women's education, child welfare and child survival: a review of the evidence. Health Transition Review 1993; 3(2):159-73.
4. Graetz B. Socio-economic status in education research and policy. In: Ainley J et al. (Eds.), Socio-economic status and school education. Canberra: Department of Education, Employment and Training (DEET) and Australian Council for Educational Research (ACER); 1995.
5. Williams T, Long M, Carpenter P, Hayden M. Year 12 in the 1980's: report of a study supported by the Commonwealth EIP program. Canberra: AGPS; 1993.
6. Considine G, Zappala G. Factors influencing the educational performance of students from disadvantaged backgrounds. In: Eardley T, Bradbury B (Eds.), Competing visions: refereed Proceedings of the National Social Policy Conference 2001. (SPRC Report 1/02). Sydney: Social Policy Research Centre, University of New South Wales; 2002.
7. Ryan C, Sartbayeva S. Young Australians and social inclusion. Canberra: Social Policy Evaluation, Analysis, and Research (SPEAR) Centre, Australian National University; 2011.

Indicator detail: The data presented are of children aged less than 15 years living in families where the female parent's highest level of schooling was year 10 or below, or where the female parent did not attend school, expressed as a proportion of all children aged less than 15 years.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Children in families where the mother has low educational attainment.

Denominator: Total children under 15 years.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021 (unpublished data).

Child care: unpaid

Child care to own child/children (unpaid), provided by people aged 15 years and over;
Child care to other child/children (unpaid), provided by people aged 15 years and over;
Total (unpaid) child care, provided by people aged 15 years and over, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Unpaid work fulfils many important functions that directly affect the wellbeing and quality of people's lives; and also contributes substantially to the economy. The Australian Bureau of Statistics estimated that if unpaid household work and volunteer and community work were included within the definitions of the national accounts, GDP for 2006 would have increased by a minimum of 41.6% (using the housekeeper replacement cost method) and a maximum of 58.7% (using the gross opportunity cost method based on a person wage rate) [1].

In the 2021 Census, 26.3% of people aged 15 years and over had provided some kind of unpaid child care in the previous two weeks [2]. This includes people caring for their own children, whether they usually live with them or not. It also includes people looking after other children, such as grandchildren, the children of other relatives, or the children of friends or neighbours. Care for a child given through an organisation or club is excluded.

These data are useful in the planning of local facilities and services such as day-care and occasional care, and in understanding the way individuals and families balance paid work with other important aspects of their lives, such as family commitments.

References

1. Australian Bureau of Statistics (ABS). Spotlight on National Accounts: Unpaid work and the Australian economy, May 2014. (ABS Cat. no. 5202.0). ABS: Canberra; 2014, accessed 11 August 2017. Available from: **http://www.abs.gov.au/ausstats/abs@.nsf/mf/5202.0?OpenDocument**.
2. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**.

Indicator detail: The data includes unpaid child care provided by people aged 15 years and over who, in the two weeks prior to Census Night, spent time caring for a child/children (under 15 years of age).

The data presented are:

- Unpaid child care provided by people aged 15 years and over to their own child/ children (under 15 years of age)
- Unpaid child care provided by people aged 15 years and over to other child/ children (under 15 years of age)
- Total (unpaid) child care provided by people aged 15 years and over to children (under 15 years of age) - this includes the categories of people caring for:
    - their own child/ children only
    - other child/ children only
    - both their own child/ children and other/ children combined (the data for this final group are not shown separately).

The numerator excludes the 6.4% of the population aged 15 years and over whose engagement in unpaid child care was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Persons aged 15 years and over who spent time caring for a child/ children (under 15 years of age) without pay (for individual indicators, refer to the *indicator detail* above).

Denominator: Population aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Volunteering

Voluntary work for an organisation or group – people aged 15 years and over, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Volunteering can improve the health and wellbeing of individual volunteers by enhancing support networks, self-esteem and quality of life. The most recent estimate of the value of voluntary work in Australia was estimated at $46 billion in 2006 [1].

In the year before the 2021 Census, 14.1% of the population reported undertaking voluntary work through an organisation or a group [2]. This was below the level in both 2016 (19.0%) and 2011 (17.8%) [3].

The COVID-19 pandemic has had a substantial impact on volunteering in Australia, as reflected in these figures from recent censuses. A study for Volunteering Australia found that 'The decline in volunteering during COVID-19 was substantial with nearly two thirds of volunteers (66%) estimated to have stopped volunteering between February and April 2020. They also reported that:

- This reduction in volunteering across Australia is equivalent to 12.2 million hours per week
- Volunteers over the age of 65 were more likely to have stopped volunteering than other age groups
- Female volunteers were also more likely to have stopped volunteering compared to male volunteers
- This reduction occurred across the country in every state and territory [4].

These data are useful in the planning of local facilities and services, and in understanding the way individuals and families balance paid work with other important aspects of their lives, such as community commitments.

References

1. Australian Bureau of Statistics (ABS). SPOTLIGHT ON THE NATIONAL ACCOUNTS: UNPAID WORK AND THE AUSTRALIAN ECONOMY. Available from: **https://www.abs.gov.au/ausstats/abs@.nsf/mf/5202.0**; accessed 9 September 2022.
2. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
3. ABS. 2016 Census QuickStats. Canberra: ABS; 2017 Jan, accessed 11 August 2017. Available from: **http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/036**.
4. Volunteering Australia. Volunteering and the ongoing impact of COVID-19 (May 2021), Available from: **https://www.volunteeringaustralia.org/wp-content/uploads/VA-Volunteering-and-the-Ongoing-Impact-of-COVID19-14-May-2021.pdf**; accessed 9 September 2022.

Indicator detail: The variable 'Voluntary work for an organisation or group' records people who spent time doing unpaid voluntary work through an organisation or group in the twelve months prior to Census night. The numerator excludes the 6.4% of the population aged 15 years and over whose participation in voluntary work was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People aged 15 years and over who participated in voluntary work for an organisation or group.

Denominator: Population aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Housing, rent assistance and vehicle access

People living in crowded dwellings; People living in 'severely' crowded dwellings, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: For Australian agencies such as State/Territory housing authorities and the Australian Bureau of Statistics (ABS), household crowding is defined according to the Canadian National Occupancy Standard (CNOS), a widely-used guideline for assessing whether a household has a sufficient number of bedrooms for household members The CNOS is based on measuring the number of people per bedroom in each dwelling in the context of the 'norms' of sleeping and living associated with the culture of a western nuclear family. Rather than a simple 'crowding' definition based on how many people are living in each bedroom, it is based on a nuanced understanding of the social and family relationships of those in the dwelling, including the number of usual residents, their relationships, age and sex [1]. At the 2021 Census, 6.6% of the population were assessed as living in a crowded dwelling (17.2% of the Aboriginal population, compared with 6.2% of the non-Indigenous population) [4].

A 'severely' crowded dwelling requires four or more extra bedrooms to adequately accommodate its usual residents according to the principles of the CNOS. The ABS categorises people living in 'severely' crowded dwellings in one of six ABS homeless groups [2]. People living in severe overcrowding are considered to lack control of and access to space for social relations (one of the key elements of the ABS definition of homelessness) and are considered not to have accommodation alternatives when remaining in such extreme living arrangements [3]. At the 2021 Census, 20.4 people per 10,000 population were assessed as living in a severely crowded dwelling (197.6 Aboriginal people per 10,000 Aboriginal population compared with 14.4 per 10,000 non-Indigenous people for the non-Indigenous population [4]. The health and safety of occupants may not be compromised in instances of slight overcrowding or short-term overcrowding; severe and sustained overcrowding can however put their health and safety at risk [3].

People living in 'severely' crowded dwellings have been the largest homeless group in each of the last four Censuses. Although the number of people in this group fell slightly between 2001 and 2006, increases of 31% and 23% of people living in 'severely' crowded dwellings in 2011 and 2016, respectively accounted for the majority of the rise in homelessness in these periods. Moreover, New South Wales contributed to most of the increase in 2016 with an 74% increase to 16,821 people from 9,655 people in 2011 [3].

References

1. Australian Housing and Urban Research Initiative (AHURI). When is a dwelling considered 'crowded' and 'severely crowded', AHURI Brief, 2019 (May). Available from: **https://www.ahuri.edu.au/policy/ahuri-briefs/when-is-a-dwelling-considered-crowded-and-severely-crowded**; accessed 8 August 2019.
2. Australian Bureau of Statistics (ABS). Information Paper - Methodology for Estimating Homelessness from the Census of Population and Housing 2012. Cat no. 2049.0.55.001. Available from: **https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2049.0.55.0012012?OpenDocument**; accessed 8 August 2019.
3. Australian Bureau of Statistics (ABS). Census of Population and Housing: Estimating Homelessness, 2016. Cat no. 2049.0, available from: **https://www.abs.gov.au/ausstats/abs@.nsf/7d12b0f6763c78caca257061001cc588/54e0338cb1f6c896ca257a7500148dfe!OpenDocument**; accessed 8 August 2019.
4. Data from PHIDU workbooks, data release November 2022, available from: **https://phidu.torrens.edu.au/social-health-atlases/data**.

Indicator detail: The Canadian National Occupancy Standard assesses the bedroom requirements of a household, accounting for both household size and composition, specifying that:

- there should be no more than two people per bedroom
- children less than five years of age of different sexes may reasonably share a bedroom
- children less than 18 years of age and of the same sex may reasonably share a bedroom
- single household members 18 years and over should have a separate bedroom, as should parents or couples and a lone person household may reasonably occupy a bed-sitter.

'Severely' crowded dwellings are those assessed as needing four or more additional bedrooms to accommodate all people currently living in the household, according to the Canadian National Occupancy Standard (see People living in crowded dwellings above).

Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People living in private dwellings requiring extra bedrooms.

Denominator: People living in all occupied private dwellings.

Detail of analysis:

- People living in crowded dwellings: Per cent
- People living in severely crowded dwellings: Rate per 10,000.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Aboriginal people living in crowded dwellings; Aboriginal people living in 'severely' crowded dwellings, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: For Australian agencies such as State/Territory housing authorities and the Australian Bureau of Statistics (ABS), household crowding is defined according to the Canadian National Occupancy Standard (CNOS), a widely-used guideline for assessing whether a household has a sufficient number of bedrooms for household members The CNOS is based on measuring the number of people per bedroom in each dwelling in the context of the 'norms' of sleeping and living associated with the culture of a western nuclear family. Rather than a simple 'crowding' definition based on how many people are living in each bedroom, it is based on a nuanced understanding of the social and family relationships of those in the dwelling, including the number of usual residents, their relationships, age and sex [1].

At the 2021 Census, 17.2% of the Aboriginal population were assessed as living in a crowded dwelling; compared with 6.2% for the non-Indigenous population [4]. A 'severely' crowded dwelling requires four or more extra bedrooms to adequately accommodate its usual residents according to the principles of the CNOS. The ABS categorise people living in 'severely' crowded dwellings in one of six ABS homeless groups [2]. People living in severe overcrowding are considered to lack control of and access to space for social relations (one of the key elements of the ABS definition of homelessness) and are considered not to have accommodation alternatives when remaining in such extreme living arrangements [3]. At the 2021 Census, 197.6 Aboriginal people per 10,000 Aboriginal population were assessed as living in a severely crowded dwelling; compared with 14.4 per 10,000 non-Indigenous people for the non-Indigenous population [4].

The health and safety of occupants may not be compromised in instances of slight overcrowding or short-term overcrowding; severe and sustained overcrowding can however put their health and safety at risk [3].

People living in 'severely' crowded dwellings have been the largest homeless group in each of the last four Censuses. Although the number of people in this group fell slightly between 2001 and 2006, increases of 31% and 23% of people living in 'severely' crowded dwellings in 2011 and 2016, respectively accounted for the majority of the rise in homelessness in these periods. Moreover, New South Wales contributed to most of the increase in 2016 with an 74% increase to 16,821 people from 9,655 people in 2011 [3].

Although Aboriginal and Torres Strait Islander peoples comprised 3.4% of the Australian population in 2021, they accounted for one-fifth (20%) of all people who were homeless on Census night in 2016 (data for 2021 were not available at the time of updating this indicator). Of all Indigenous people, who were homeless, 70% were living in 'severely' crowded dwellings compared to 42% of non-Indigenous homeless people [5].

However, it must be noted that ABS's definition of homelessness has been developed for application to the general population in Australia. While Aboriginal and Torres Strait Islander people are over-represented when measuring homelessness, their perceptions of homelessness are not adequately captured by the ABS's definition [6]. This partly contributes to under enumeration of the Indigenous population (17.4%) in the 2016 Census, and in turn impacts the underestimations of homelessness among this population group [7].

References

1. Australian Housing and Urban Research Initiative (AHURI). When is a dwelling considered 'crowded' and 'severely crowded', AHURI Brief, 2019 (May). Available from: **https://www.ahuri.edu.au/policy/ahuri-briefs/when-is-a-dwelling-considered-crowded-and-severely-crowded**, accessed 8 August 2019.
2. Australian Bureau of Statistics (ABS). Information Paper - Methodology for Estimating Homelessness from the Census of Population and Housing 2012. Cat no. 2049.0.55.001 Available from: **https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/2049.0.55.0012012?OpenDocument**, accessed 8 August 2019.
3. Australian Bureau of Statistics (ABS). Census of Population and Housing: Estimating Homelessness, 2016. Cat no. 2049.0. Available from: **https://www.abs.gov.au/ausstats/abs@.nsf/7d12b0f6763c78caca257061001cc588/54e0338cb1f6c896ca257a7500148dfe!OpenDocument**, accessed 8 August 2019.
4. Data from PHIDU workbooks, data release November 2022 (Indigenous Status Comparison: Social Health Atlas of Australia), available from **https://phidu.torrens.edu.au/social-health-atlases/data**.
5. Australian Bureau of Statistics (ABS). Key Findings, Census of Population and Housing: Estimating Homelessness, 2016. Cat no. 2049.0. Available from: **https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/2049.0Main%20Features12016?opendocument&tabname=Summary&prodno=2049.0&issue=2016&num=&view=**, accessed 27 August 2019.
6. Australian Bureau of Statistics (ABS). Aboriginal and Torres Strait Islander Homelessness, Census of Population and Housing: Estimating Homelessness, 2016. Cat no. 2049.0. Available from: **https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/2049.0Main%20Features502016?opendocument&tabname=Summary&prodno=2049.0&issue=2016&num=&view=**, accessed 27 August 2019.
7. Australian Bureau of Statistics (ABS). 3.5 Aboriginal and Torres Strait Islander peoples 3.5.6 Net undercount. Available from: **https://www.abs.gov.au/census/about-census/census-statistical-independent-assurance-panel-report/35-aboriginal-and-torres-strait-islander-peoples#3-5-6-net-undercount**, accessed 24 October 2022.

Indicator detail: The Canadian National Occupancy Standard assesses the bedroom requirements of a household, accounting for both household size and composition, specifying that:

- there should be no more than two people per bedroom
- children less than five years of age of different sexes may reasonably share a bedroom
- children less than 18 years of age and of the same sex may reasonably share a bedroom
- single household members 18 years and over should have a separate bedroom, as should parents or couples
- a lone person household may reasonably occupy a bed-sitter.

'Severely' crowded dwellings are those assessed as needing four or more additional bedrooms to accommodate all people currently living in the household, according to the Canadian National Occupancy Standard (see People living in crowded dwellings above).

Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Aboriginal people in private dwellings requiring extra bedrooms.

Denominator: Total Aboriginal people living in private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Housing Suitability - dwellings requiring extra bedrooms, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: This variable, which was new in the 2016 Census of Population and Housing, can be used to identify if a dwelling is either under or over utilised. The indicator published is of the number of dwellings requiring extra bedrooms, taking into account a series of household demographics, such as the number of usual residents, their relationship to each other, age and sex [1].

At the 2021 Census of Population and Housing, 3.4% of dwellings were assessed as requiring extra bedrooms. The proportion of dwellings varies widely around this measure, from 2.0% in Western Australia to 9.9% in the Northern Territory (and 19.0% outside of Darwin, with proportions of 29.4% in Daly -Tiwi - West Arnhem, 29.6% in Alice Springs - Remote, 31.0% in Anindilyakwa/ East Arnhem/ Nhulunbuy and 43.3% in Elsey/ Gulf/ Victoria [2].

References

1. Australian Bureau of Statistics, Housing suitability (HOSD), Canberra: ABS; 2017, accessed 11 August 2017. Available from: **www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/2900.0~2016~Main%20Features~HOSD%20Household%20Suitability~10123.**
2. Data from PHIDU workbooks, data release November 2022, available from **https://phidu.torrens.edu.au/social-health-atlases/data.**

Indicator detail: The criteria used to derive the variable are based on the Canadian National Occupancy Standard for housing appropriateness and are sensitive to both household size and composition. The measure assesses the bedroom requirements of a household by specifying that:

- there should be no more than two persons per bedroom
- children less than five years of age of different sexes may reasonably share a bedroom
- children less than 18 years of age and of the same sex may reasonably share a bedroom
- single household members 18 years and over should have a separate bedroom, as should parents or couples
- a lone person household may reasonably occupy a bed-sitter.

Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

The numerator excludes the 6.0% of dwellings for which the indicator could not be calculated, or was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Private dwellings requiring extra bedrooms.

Denominator: All occupied private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Households receiving rent assistance from the Australian Government, June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Affordable, secure and safe housing is fundamental to one's health and wellbeing, employment, education and other life opportunities. Commonwealth Rent Assistance (CRA) is a subsidy paid to people in receipt of an eligible Department of Human Services (Centrelink) payment who are paying rent in the private market (including non-government organisations such as community housing providers).

Of the 1.3 million income units receiving CRA in 2022, most were single with no dependent children (46%), had a non-Indigenous reference person (93%), and were aged 45 years or over (55%). The primary payment type that the households received in 2022 were JobSeeker Payment (24%), the Age Pension (23%) and the Disability Support Pension (20%) [1]. In 2022, around 582,400 (44%) income units were in rental stress with CRA. By contrast, an extra 372,600 income units or almost three-quarters of income units (72%) would have been rental stress without receiving CRA in 2022 [1].

The Rental Affordability Index report found that by June 2023:

- A single person solely reliant on JobSeeker Payment and CRA, with an estimated gross annual income of $22,108, experienced severely unaffordable to extremely unaffordable rents across all metropolitan and regional areas in renting a one-bedroom dwelling.
- The situation was similar for single-pensioner households seeking to rent a one-bedroom dwelling, with extremely unaffordable to severely unaffordable in metropolitan areas, and severely unaffordable to unaffordable in regional areas.
- Even a single person employed as a full-time teacher on an estimated income of $104,500 a year was destined to face moderately unaffordable to affordable rental stress in both metropolitan and regional areas [2].

References

1. Australian Institute of Health and Welfare. Housing Assistance in Australia. Web report [cited: 20224, Mar 8]. Available from: **https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/financial-assistance**.
2. SGS Economics and Planning. Rental Affordability Index, November 2023. [cited: 2024 Mar 8]. Available from: **https://sgsep.com.au/projects/rental-affordability-index**.

Indicator detail: The denominator chosen to calculate the percentage of income units (approximately equivalent to households) receiving CRA is the number of dwellings at the most recent Census of Population and Housing. The rent assistance data are provided for individual income units, and in a small number of instances there may be multiple individual income units in a household: to the extent that this occurs, the proportion will be understated. In addition, in a small number of instances, recipients may live in non-private dwellings, which are not included in the denominator: again, to the extent that this occurs, the proportion will be overstated. Note that the denominator is from the 2021 Census, as private dwellings data are not available other than in Census years.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Renters receiving assistance from the Department of Human Services (Centrelink) at June 2023.

Denominator: All occupied private dwellings (2021 Census: 2021 as dwellings data not available other than for Census years).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Department of Social Services, June 2023; and Australian Bureau of Statistics Census: Dwellings, 2021.

Aboriginal households receiving rent assistance from the Australian Government, June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Affordable, secure and safe housing is fundamental to one's health and wellbeing, employment, education and other life opportunities. Commonwealth Rent Assistance (CRA) is a subsidy paid to people in receipt of an eligible Department of Human Services (Centrelink) payment who are paying rent in the private market (including non-government organisations such as community housing providers).

Indigenous-specific financial assistance programs include CRA, private rent assistance (PRA) and home purchase assistance (HPA). As at the end of June 2022, 89,500 CRA recipients reported having an Indigenous member; this was almost three (2.9) times the figure in June 2009, of 37,200 units [1]. For Indigenous income units, around 2 in 5 (37%) were in rental stress with CRA [2].

References

1. Australian Institute of Health and Welfare. Indigenous Housing. Available from: **https://www.aihw.gov.au/reports/australias-welfare/indigenous-housing**; [cited: 2024, Mar 8].
2. Australian Institute of Health and Welfare. Housing Assistance in Australia. Web report [cited: 20224, Mar 8]. Available from: **https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/financial-assistance**.

Indicator detail: The denominator chosen to calculate the percentage of income units (approximately equivalent to households) receiving CRA is the number of dwellings at the most recent Census of Population and Housing. The rent assistance data are based on income units with an Indigenous identifier receiving CRA. An income unit comprises a single person (with or without dependent children) or a couple (with or without dependent children). Single social security recipients living together in the same household are regarded as separate income units. An income unit is classified as Indigenous if at least one adult partner in the unit has indicated to Centrelink that he/she identifies as an Aboriginal or Torres Strait Islander. It is optional for individuals to identify as Indigenous. These data may therefore represent an undercount. In addition, in a small number of instances, recipients may live in non-private dwellings, which are not included in the denominator: to the extent that this occurs, the proportion will be overstated. Note: The denominator - private dwellings - is from the 2021 Census as private dwellings data are not available other than in Census years.

Data cells with counts of less than 5 were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Aboriginal income units receiving assistance from the Department of Human Services (Centrelink) at June 2023.

Denominator: Total private dwellings with Aboriginal households (2021 Census: 2021 as dwellings data not available other than for Census years).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Department of Social Services, June 2023; and ABS Census: Dwellings, 2021.

Privately-owned rental dwellings, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The size and nature of the private rental market has grown and evolved over the last three decades. In 2021, over one-quarter (26.7%) of all households, or 2.5 million people rented privately [1]. Further, more than one million low-income households rented privately in 2018 – a figure which had doubled in the previous 20 years. Once considered a short-term housing choice for young people, many are now renting for longer periods with the ratio renting in the private market increasing across all age groups, families with and without children and low and middle incomes [2].

In 2011, over half of Aboriginal people (56.0 per cent) and migrants arriving in Australia in the last ten years from predominantly non-English-speaking countries (58.2 per cent) lived in a rented home; these proportions were close to twice that for the population overall (30.6 per cent). The proportion of the population living in rental housing was lowest among older people, at 11.9 per cent. Nationally, some 45.3 per cent of single parent families lived in a rented house. While this was 66 per cent higher than the proportion for all families (29.8 per cent), it was below the proportion in 2016, when more than half (58.6 per cent) of single parent families were renting [3].

References

1. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
2. Productivity Commission. Vulnerable Private Renters: Evidence and Options, Commission Research Paper, Canberra, 2019, accessed 30 September 2019. Available from: **https://www.pc.gov.au/research/completed/renters**.
3. Public Health Information Development Unit (PHIDU). Housing experiences and suitability as determinants of health: population patterns of housing experiences and correlated health risk factors and outcomes, Adelaide: PHIDU, 2019, accessed 30 September 2019. Available from: **https://phidu.torrens.edu.au/pdf/2015-onwards/housing-atlas/housing-atlas-report.pdf**.

Indicator detail: This indicator is comprised of private dwellings rented from a real estate agent, person not in the same household, other landlord type and landlord type 'not stated'. The data include households in occupied private dwellings only.

Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

The numerator excludes the 2.7% of dwellings or 2.2% of persons living in dwellings for which tenure type was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs and Remoteness Area.

Numerator: Privately-owned private dwellings that are rented.

Denominator: Total occupied private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Social housing: dwellings, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Social housing includes all rental housing owned and managed by government or non-government organisations (including non-profit); social housing rents in general are set below market levels and determined by household income [1]. The social housing services system seeks to provide low income people with access to social housing assistance; supporting their wellbeing and contributing to their social and economic participation by providing services that are timely and affordable, safe, appropriate (meeting the needs of individual households), high quality and sustainable [2]. The distribution of public rental housing remains an indicator of socioeconomic disadvantage. Public housing tenants are increasingly welfare-dependent (especially single parents; those who are unemployed, aged or with a disability; and Aboriginal and Torres Strait Islander peoples) and public housing stocks have declined substantially since 1996.

There is a clear link between cold homes and ill-health, where existing conditions such as respiratory illnesses or mental health conditions are exacerbated [3].

The AIHW reported that:

- At June 2021, there were 417,800 households in the four main social housing programs, increasing from 378,600 in June 2008
- The number of households living in public housing decreased from 331,100 in 2008 to 288,300 in 2021
- The proportion of households living in social housing in Australia decreased from 4.8% in 2011 to 4.2%, in 2021
- In 2021, over 4 in 10 (44%) households in public housing had been in their tenancies for 10 years or more [4].

At June 2021, the number of households on the waiting list (excluding transfers) were:
163,500 households on a waiting list for public housing (up from 154,600 at June 2014).
12,100 households on a waiting list for State owned and managed Indigenous housing dwellings (up from 8,000 at June 2014) [4].

Of those applicants on the waiting list at June 2021:

- There were 67,700 greatest need households on the waiting list for public housing; an increase from 43,200 at June 2014
- There were over 6,500 greatest need households waiting for State owned and managed Indigenous housing dwellings, up from 3,800 at June 2014 [4].

Moreover, housing affordability has declined in Australia as increases in median income has not kept pace with growth in median mortgage and rental payments. From 2001-2011, median mortgage and rental payments increased by 100 Per cent whereas median household income increased by only 60 Per cent in the same period [5]. At the 2021 Census of Population and Housing, the largest number of social housing rentals were rented from a State or Territory housing authority (274,535 dwellings), with a further 73,483 rented from a community housing provider (e.g., a housing co-operative, community or church group), or 12.2% of all rented dwellings [6]. Notably there were some 25,000 fewer of these dwellings rented from a State or Territory housing authority in 2021, when compared with 2016 – and over 22,000 more rented from a community housing provider [7].

References

1. Australian Institute of Health and Welfare (AIHW) (2017) Housing Assistance in Australia 2017, accessed 5 December 2017. Available from: **https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia-2017/contents/social-housing-tenants**.
2. Productivity Commission (2017) Housing and Homelessness in 2017 Report on Government Services, accessed 5 December 2017. Available from: **https://www.pc.gov.au/research/ongoing/report-on-government-services/2017/housing-and-homelessness/housing**.
3. Public Health England (2014) Local action on health inequalities: Fuel poverty and cold home-related health problems.

4. Australian Institute of Health and Welfare (AIHW) (2022) Housing assistance in Australia. Households and waiting lists, accessed 9 September 2022. Available from: **https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/households-and-waiting-lists**.
5. Muir, K. et al. (2017) The opportunities, risks and possibilities of social impact investments for housing and homelessness, AHURI Final Report No.288. Melbourne: Australian Housing and Urban Research Institute.
6. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
7. ABS. 2016 Census Community Profiles. Canberra: ABS; 2017 Mar, accessed 8 August 2017. Available from: **http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/036?opendocument**.

Indicator detail: The data include households in occupied private dwellings only.
Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

Social housing: Occupied private dwellings rented from the government housing authority, or community housing provider (housing co-operative, community or church group).

The numerator excludes the 1.5% of dwellings for which tenure type was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Social housing dwellings.

Denominator: Total occupied private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

People living in rented social housing dwellings; People living in privately-owned rental dwellings, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: See the notes above for '*privately-owned rental dwellings*' and '*social housing dwellings*'.

Indicator detail: The data comprise people living in rental housing, either social housing or privately-owned housing. The data include households in occupied private dwellings only.

Private dwelling: A private dwelling can be a house, flat or even a room. It can also be a caravan, houseboat, tent, or a house attached to an office, or rooms above a shop.

Social housing: Occupied private dwellings rented from the government housing authority or, a community housing provider (housing co-operative, community or church group).

The numerator excludes the 1.5% of dwellings for which tenure type was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People living in rented social housing dwellings or people living in privately-owned rental dwelling.

Denominator: Total people living in private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Low-income households with mortgage stress, rental stress, under financial stress from mortgage or rent; and low income households as a proportion of all households, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: A family or individual can be considered to be in housing stress if they are in a low-income bracket and pay more than 30% of their income on mortgage repayments or rent.

Housing stress in Australia is increasing, with the cost to purchase or to rent a house or other dwelling rising rapidly. The Australian Bureau of Statistics report that in the two decades, from 1999–00 to 2019–20, housing costs (adjusted for inflation) for major tenure and landlord types have increased by:

- 50% for home owners without a mortgage
- 40% for home owners with a mortgage
- 27% for state or territory housing tenants
- 50% for private renters
- Costs have continued to rise since 2020 [1].

Reference

1. Australian Bureau of Statistics. Housing Occupancy and Costs, accessed 22 February 2023. Available from **https://www.abs.gov.au/statistics/people/housing/housing-occupancy-and-costs/latest-release**.

Indicator detail: The data comprise households in the bottom 40% of income distribution (those with less than 80% of median equivalised income), spending more than 30% of income on mortgage repayments, as a proportion of mortgaged private dwellings; or spending more than 30% of income on rent, as a proportions of rented private dwellings.

Income is equivalised; equivalised household income per week can be viewed as an indicator of the economic resources available to a standardised household. For a lone person household it is equal to household income. For a household comprising more than one person, it is an indicator of the household income that would be needed by a lone person household to enjoy the same level of economic wellbeing.

Income varies by State/ Territory: NSW, $902; Vic, $901; Qld, $877; SA, $755; WA, $910; Tas, $736; NT, $1,101; ACT, $1,347.

The data exclude the population in the 6.8% of private dwellings for which mortgage stress data was not calculated (6.4% for rental dwellings) (the proportion excluded were calculated based on the Australian data). The State/Territory totals do not sum to the Australian total as the 40th Per centile income used for Australia is $901, whereas that for States/Territories varies, from $736 for dwellings in Tasmania to $1347 for dwellings in the ACT. A small part of the variation may also be due to data perturbation.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles with PHNs and Remoteness Area.

Numerator: Households in the bottom 40% of income distribution (those with less than 80% of median equivalised income), spending more than 30% of income on a) mortgage repayments; b) rental payments: or c) mortgaged and rented private dwellings; d) households in the bottom 40% of income distribution (those with less than 80% of median equivalised income).

Denominator: Number of a) mortgage repayments; b) rental payments; or c) mortgaged and rented private dwellings; d) all households in private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021 (unpublished data).

Private dwellings with no motor vehicle, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In the 2021 Census, 673,969 private dwellings (7.3% of all dwellings) reported having no motor vehicle [1]. While some of these households may represent more affluent, inner city dwellings, the majority are more likely to be disadvantaged households. A household can be considered to be disadvantaged if it lacks the resources to participate fully in society [2]. Ready access to transport provides a link with social and work-related activities. While public transport can adequately provide this link for some households, for others this access is achieved through owning a car. People living in households without a car face many disadvantages in gaining access to jobs, services and recreation, especially if they are in low-density outer suburbia, or in rural or remote areas, or in a country town. The ability to afford to run and maintain a vehicle in reliable condition to meet their transport needs, and the costs of registering and insuring a vehicle, are other important factors.

References

1. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.
2. Townsend P. Deprivation. J Soc Policy. 1987;16:125-46.

Indicator detail: The numerator excludes the dwellings for which the number of motor vehicles was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Occupied private dwellings with no motor vehicle garaged or parked there on Census night.

Denominator: All occupied private dwellings.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Homelessness

Estimated number of people experiencing homelessness, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Access to safe, adequate housing is central to the health and wellbeing of individuals and families. Secure and affordable housing is the basis for social connectedness and a contributor to the social determinants of health and wellbeing [1]. The physical and mental health of people who are homeless is generally worse than that of the general population and they are more likely to have higher rates of emergency re-admission, hospital usage, and more frequent emergency department visits [2].

References

1. Australia's welfare 2023: data insights. Available from: **https://www.aihw.gov.au/reports/australias-welfare/australias-welfare-2023-data-insights/contents/homelessness-and-housing-affordability**; accessed 11 September 2023.

2. Mitchell, E., Waring, T., Ahern, E. et. al. Predictors and consequences of homelessness in whole-population observational studies that used administrative data: a systematic review. BMC Public Health, 23, 1610 (2023). Available from: http://doi.org/10.1186/s12889-023-16503-z.

Indicator detail: The data presented are estimates for people experiencing homelessness on Census night, expressed as a standardised rate per 10,000 people, based on the Australian standard. The data include people:

- living in improvised dwellings, tents or sleeping out
- living in supported accommodation for the homeless
- staying temporarily with other households
- living in boarding houses
- in other temporary lodgings
- living in 'severely' crowded dwellings.

The number of people experiencing homelessness may be affected by measures put in place by Local and State Governments in response to the COVID-19 pandemic, which include:

- assisting people to access emergency accommodation in hotels / motels
- additional short-term or emergency accommodation
- additional programs and accommodation for women and children at risk of / or experiencing homelessness, from family and domestic violence
- supporting safe housing exits for individuals and families who received short-term hotel / motel accommodation.

COVID-19 lockdown restrictions also made data collection difficult in a number of regions, so data was collected from other sources, or at other times.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Estimated number of people experiencing homelessness.

Denominator: Total population, place of enumeration.

Detail of analysis: Standardised rate per 10,000 population, based on the Australian Standard.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Income support recipients

Age pensioners, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: People who are described as 'age pensioners' are those who receive either an Age Pension from the Department of Human Services (Centrelink) or a Service Pension (Age) from the Department of Veterans' Affairs (data not included: this group comprised 1.7% of all age pensioners in 2022). An Age Pension is an income paid by the Australian Government to those who generally do not have (or do not have much) income from other sources and who have reached the qualifying age, with the amount paid subject to income and asset tests.

Although older people today, on average, are wealthier than they were in previous generations, these averages mask significant variation in economic circumstances. There are large differences in the distribution of income, wealth and home ownership between older people, with the most disadvantaged being those who live alone and do not own their own home. Those people who enter older age as renters, low paid workers, or who have been out of the labour market for long periods of time (due to unemployment, disability or family responsibilities among other reasons) are the most likely to be exposed to financial vulnerability in older age. Financial limitations may lead to social exclusion, which can result in reduced quality of life, preventable illness and disability, premature institutionalisation and death [1].

Reference

1. The Benevolent Society. A roadmap for ageing well: position paper. Sydney: The Benevolent Society; 2010.

Indicator detail: The Age Pension is a support payment paid by the Department of Human Services (Centrelink) for people who have reached the qualifying age, with the amount paid subject to income and asset tests. The Age Pension age depends on a person's date of birth, as follows:

- 65 years and 6 months, if you were born between 1 July 1952 and 31 December 1953
- 66 years, if you were born between 1 January 1954 and 30 June 1955
- 66 years and 6 months, if you were born between 1 July 1955 and 31 December 1956
- 67 years, if you were born on or after 1 January 1957.

Data for those receiving the Service Pension (Age) from the Department of Veterans' Affairs are not included: this group comprised 1.7% of all age pensioners in 2022.

A very small number of Local Government Areas (LGAs) have proportions in excess of 100%: these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the beneficiary not being allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population), as population estimates at the small area level for age groups can be unreliable, in particular for areas with proportionately high numbers of Aboriginal and Torres Strait Islander people (as is the case for this income support payment). It also indicates that it is possible that percentages of less than 100% may also be overstated. For areas with proportions in excess of 100% we publish only the numbers (the numerator and denominator) and not the proportion.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of an Age Pension from Department of Human Services (Centrelink) at June 2023.

Denominator: Persons aged 65 years and over at June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**, accessed 20 December 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Disability support pensioners, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: People who are described as 'disability support pensioners' are those who receive a Disability Support Pension from the Department of Human Services (Centrelink). The Disability Support Pension (DSP) provides an income to people who meet strict criteria under non-medical and medical rules. Non-medical rules include restrictions around age, residence status and income and assets. Medical rules, described as 'manifest medical rules' and general medical rules, can be viewed **here**. Receipt of the DSP is strongly age-related, mainly because the incidence of disability rises with age [1].

Reference

1. Whiteford P. The rise and fall of "welfare dependency" in Australia. Melbourne: Brotherhood of St Laurence; 2013.

Indicator detail: People eligible for a Disability Support Pension (DSP), paid by The Department of Human Services (Centrelink). Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a Disability Support Pension from Centrelink at June 2022.

Denominator: People aged 16 to 64 years at June 2021 (population data at June 2022 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Department of Social Services Payment Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**; December 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Female sole parent pensioners, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Sole parent families who are on income support are likely to experience substantial socioeconomic disadvantage. Among different family types, sole parent families generally have the highest poverty rate. In 2013, there was a sharp rise in poverty among households with sole parents who were unemployed, reflective of the transfer of approximately 80,000 unemployed sole parents from Parenting Payment Single (PPS) to Newstart Allowance and other payments, once their child turned 8 years. From 20 September 2023, the age of the youngest child to qualify for PPS was changed from under 8 years to under 14 years.

These families continue to suffer high rates of relative income poverty, deprivation and financial stress related to low household income and net worth [1]. Their opportunities for employment or further education and training may be further diminished if they are also caring for a child who has a disability.

Reference

1. Summerfield T, Young L, Harman J, Flatau P. Child support and Welfare to Work reforms: the economic consequences for single-parent families. Fam Matters. 2010;84:68-78.

Indicator detail: People eligible for a Parenting Payment (single) paid by The Department of Human Services (Centrelink) comprise female and male sole parents with at least one child under 8 years of age (who meet certain qualifications). Only females receiving this payment have been mapped because females comprise the majority of sole parent pensioners (and to map females and males over the total population would distract from the figures for females receiving this payment).

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Females in receipt of a Parenting Payment Single from the Department of Human Services (Centrelink) at June 2023.

Denominator: Females aged 15 to 54 years at June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Department of Social Services, June 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

People receiving an unemployment benefit, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Those people who do not have access to secure and satisfying work are less likely to have an adequate income; and unemployment and underemployment are generally associated with reduced life opportunities and poorer health and wellbeing. Although the relationship between unemployment and health and wellbeing is complex and varies for different population groups, there is consistent evidence from research that unemployment is associated with adverse health outcomes; and unemployment has a direct effect on physical and mental health over and above the effects of socioeconomic status, poverty, risk factors, or prior ill-health [1,2,3].

Unemployment and its accompanying health effects are not distributed evenly through the population. Unemployment rates in Australia are highest among people aged less than 25 years, and are generally higher in rural and remote areas than in urban areas.

References

1. Mathers CD, Schofield DJ. The health consequences of unemployment: the evidence. Med J Aust. 1998;168(4):178-82.
2. Dollard MF, Winefield AH. Mental health: overemployment, underemployment, unemployment and healthy jobs. Aust e-J Adv Mental Hlth. 2002;1(3).
3. World Health Organization (WHO). Promoting mental health: concepts, emerging evidence, practice. Geneva: WHO; 2005.

Indicator detail: People receiving an 'unemployment benefit' - which includes the JobSeeker Payment or Youth Allowance (other) paid by The Department of Human Services (Centrelink) - are shown as a proportion of the eligible population (of people aged 16 to 21 years for the Youth Allowance (other), 22 to 64 years for the JobSeeker Payment). JobSeeker Payment replaced Newstart allowance from the 20th of March 2020. Youth Allowance (other) is largely comprised of unemployed people aged 16 to 21 looking for full-time work or undertaking approved activities. Such as part-time study or training. It excludes Youth Allowance customers who are full-time students or undertaking an apprenticeship/traineeship.

For total unemployment, this is the sum of Youth Allowance (other) and JobSeeker Payment as a proportion of the population aged 15 to 64 years.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised). In addition, where two indicators are added together to produce total unemployment, the sum of JobSeeker Payment and Youth Allowance (other), if one has been suppressed, this could also result in an undercount.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of the JobSeeker Payment or Youth Allowance (other) from the Department of Human Services (Centrelink).

Denominator: People aged 16 to 64 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from https://data.gov.au/data/dataset/dss-payment-demographic-data, accessed 20 December 2023 for PHAs and data supplied by the Department of Social Services, June 2023 for LGAs; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

People receiving a JobSeeker Payment, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: see "*People receiving an unemployment benefit*" above.

Indicator detail: People receiving a JobSeeker Payment paid by The Department of Human Services (Centrelink) are shown as a proportion of the population aged 22 to 64 years.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of the JobSeeker Payment from the Department of Human Services (Centrelink).

Denominator: People aged 22 to 64 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from https://data.gov.au/data/dataset/dss-payment-demographic-data, accessed 20 December 2023 for PHAs and data supplied by the Department of Social Services, June 2023 for LGAs; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Young people receiving an unemployment benefit, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Unemployment and its accompanying health effects are not distributed evenly through the population. The experience of unemployment harms a young person's financial and psychological wellbeing, and these effects are felt more severely by those who experience long-term unemployment [1]. Furthermore, those who experience unemployment while young are more likely to be unemployed, have poor health and have lower educational attainment when they are older, than those who are not affected by unemployment while young [1].

Reference

1. Brotherhood of St Laurence (BSL). On the treadmill: young and long-term unemployed in Australia. Melbourne: BSL; 2014.

Indicator detail: People receiving an 'unemployment benefit' those receiving the Youth Allowance (other) paid by the Department of Human Services (Centrelink) are shown as proportion of the population aged 16 to 21 years. Youth Allowance (other) is comprised of unemployed people aged 16 to 21 years who are looking for full-time work, studying part-time and looking for work, or temporarily unable to work. It excludes full-time students and those undertaking an apprenticeship/traineeship.

A very small number of Local Government Areas (LGAs) have proportions in excess of 100%: these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the beneficiary not being allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population), as population estimates at the small area level for age groups can be unreliable, in particular for areas with proportionately high numbers of Aboriginal and Torres Strait Islander people (as is the case for this income support payment). It also indicates that it is possible that percentages of less than 100% may also be overstated.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People aged 16 to 21 years in receipt of the Youth Allowance (other) from the Department of Human Services (Centrelink).

Denominator: People aged 16 to 21 years at 30 June 2022 (population data at June 2022 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from https://data.gov.au/data/dataset/dss-payment-demographic-data, accessed 20 December 2023 for PHAs and data supplied by the Department of Social Services, June 2023 for LGA data; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

People receiving an unemployment benefit short-term, June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Long-term jobless people are much more likely than employed people or short-term unemployed people to have low education and skill levels, a chronic illness or disability, to live in a region of high unemployment, and to have an unstable employment history [1]. Increasing casualisation of the work force and decreasing numbers of full-time jobs for low skilled workers have contributed to the difficulties of many who have been unemployed for longer than 6 months (180 days or more).

Long-term unemployment can have negative effects on health and wellbeing, especially on the emotional and mental health of those who are unemployed and their families [2,3].

References

1. Australian Council of Social Service (ACOSS). Measuring long term unemployment in Australia. (ACOSS Information Paper 379). Strawberry Hills, NSW: ACOSS; 2005.
2. Dollard MF, Winefield AH. Mental health: overemployment, underemployment, unemployment and healthy jobs. Aust e-J Adv Mental Hlth. 2002;1(3).
3. Gray M, Taylor M, Edwards B. Unemployment and the wellbeing of children aged 5-10 years. Aust. J Labour Econ. 2011;14(2):153-72.

Indicator detail: People receiving an 'unemployment benefit' – which includes the JobSeeker or Youth Allowance (other) paid by The Department of Human Services (Centrelink) – for less than 183 days (approximately 6 months) are shown as the proportion of the eligible population (of people aged 16 to 64 years).

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a JobSeeker Payment or Youth Allowance (other) from the Department of Human Services (Centrelink) for less than 180 days (approximately 6 months).

Denominator: People aged 16 to 64 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from https://data.gov.au/data/dataset/dss-payment-demographic-data, accessed 20 December 2023 for PHAs and data supplied by the Department of Social Services, June 2023 for LGAs; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

People receiving an unemployment benefit long-term, June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Long-term jobless people are much more likely than employed people or short-term unemployed people to have low education and skill levels, a chronic illness or disability, to live in a region of high unemployment, and to have an unstable employment history [1]. Increasing casualisation of the work force and decreasing numbers of full-time jobs for low skilled workers have contributed to the difficulties of many who have been unemployed for longer than 6 months (180 days or more).

Long-term unemployment can have negative effects on health and wellbeing, especially on the emotional and mental health of those who are unemployed and their families [2,3].

References

1. Australian Council of Social Service (ACOSS). Measuring long term unemployment in Australia. (ACOSS Information Paper 379). Strawberry Hills, NSW: ACOSS; 2005.
2. Dollard MF, Winefield AH. Mental health: overemployment, underemployment, unemployment and healthy jobs. Aust e-J Adv Mental Hlth. 2002;1(3).
3. Gray M, Taylor M, Edwards B. Unemployment and the wellbeing of children aged 5-10 years. Aust. J Labour Econ. 2011;14(2):153-72.

Indicator detail: People receiving an 'unemployment benefit' – which includes the JobSeeker or Youth Allowance (other) paid by The Department of Human Services (Centrelink) – for 183 days (approximately 6 months) or more are shown as the proportion of the eligible population (of people aged 16 to 64 years).
A very small number of Local Government Areas (LGAs) have proportions in excess of 100%: these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the beneficiary not being allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population), as population estimates at the small area level for age groups can be unreliable, in particular for areas with proportionately high numbers of Aboriginal and Torres Strait Islander people (as is the case for this income support payment). It also indicates that it is possible that percentages of less than 100% may also be overstated.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a JobSeeker Payment or Youth Allowance (other) from the Department of Human Services (Centrelink) for 180 days or more.

Denominator: People aged 16 to 64 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from DSS Payment Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**, accessed 20 December 2023 for PHAs and data supplied by the Department of Social Services, June 2023 for LGAs; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Low income, welfare-dependent families (with children), June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Families either solely or largely dependent on government for their income have the least access to income and other resources and are more likely to have lower achievements in education, experience housing stress, and have poorer physical and mental health [1]. For children living in such families, there is an increased likelihood of limited opportunity and poorer outcomes in terms of wellbeing and learning [2].

For this indicator, to present the distribution of families on the lowest incomes, the Department of Social Services provided data for families:

- with two children under 16 years of age
- with the household head not in the workforce
- with incomes under $30,596 p.a.
- in receipt of the Family Tax Benefit (A).

These families would all receive the Family Tax Benefit (A) at the maximum level. For further details see under 'Notes', below.

References

1. Barnett M. Economic disadvantage in complex family systems: expansion of family stress models. Clin Child Fam Psych Rev. 2008;11(3):145-61.
2. Smart D, Sanson A, Baxter J, Edwards B, Hayes A. Home-to-school transitions for financially disadvantaged children. Sydney: The Smith Family; 2008.

Indicator detail: The level of income used for these data was based on Poverty Lines: Australia, June Quarter 2023, which contains a weekly income for a single parent with two children, excluding housing costs. Poverty Lines: Australia is a quarterly newsletter that updates the Henderson Poverty Line as defined in the 1973 Commonwealth Commission of Inquiry into Poverty. Poverty lines are presented for a range of family sizes, in order to avoid the situation of poverty. The updated Poverty Lines takes account of changes in the average income level of all Australians, reflecting the idea that poverty is relative.

Data cells with less than 5 counts were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Low income families receiving welfare payments from the Department of Human Services (Centrelink): families included are those with children under 16 years of age and with incomes under $30,596 p.a. in receipt of the Family Tax Benefit (A).

Denominator: Total families, 2021 (as data on families only available at the Census).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data supplied by Department of Social Services, June 2023; and Australian Bureau of Statistics Census of Population and Housing (families), 2022.

Children in low income, welfare-dependent families, June 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Children living in families either solely or largely dependent on government for their income have the least access to financial and other resources, and are more likely to have lower achievements in education and poorer health outcomes than their more advantaged peers [1]. They also face an increased likelihood of limited opportunity and poorer outcomes in terms of wellbeing and learning [2]. In particular, extreme stressful events, such as homelessness, victimisation or abuse, can have long-term effects on children's outcomes [1].

For this indicator, to present the distribution of families on the lowest incomes, the Department of Social Services provided data for families:

- with two children under 16 years of age
- with the household head not in the workforce
- with incomes under $30,596 p.a.
- in receipt of the Family Tax Benefit (A).

The families these children are living in would all receive the Family Tax Benefit (A) at the maximum level. For further details see under 'Notes', below.

References

1. Jones E, Gutman L, Platt L. Family stressors and children's outcomes. (Report for UK Department for Education). London, UK: Childhood Wellbeing Research Centre; 2013.
2. Smart D, Sanson A, Baxter J, Edwards B, Hayes A. Home-to-school transitions for financially disadvantaged children. Sydney: The Smith Family; 2008.

Indicator detail: Families included are those with children under 16 years of age, with the household head not in the workforce, and with incomes under $31,297 p.a. in receipt of the Family Tax Benefit (A) (whether receiving income support payments or not). These families would all receive the Family Tax Benefit (A) at the maximum level. The level of income used for these data was based on **Poverty Lines: Australia**, June Quarter 2022, which contains a weekly income for a single parent with two children, including housing costs. Poverty Lines: Australia is a quarterly newsletter that updates the Henderson Poverty Line as defined in the 1973 Commonwealth Commission of Inquiry into Poverty. Poverty lines are presented for a range of family sizes, in order to avoid the situation of poverty. The updated Poverty Lines takes account of changes in the average income level of all Australians, reflecting the idea that poverty is relative.

A very small number of Local Government Areas (LGAs) have proportions in excess of 100% for the indicator of children in low income, welfare-dependent families: these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the beneficiary not being allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population), as population estimates at the small area level for age groups can be unreliable, in particular for areas with proportionately high numbers of Aboriginal and Torres Strait Islander people (as is the case for this income support payment). It also indicates that it is possible that percentages of less than 100% may also be overstated.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Children under 16 years of age in low income families receiving welfare payments from the Department of Human Services (Centrelink): families included are those with incomes under $30,596 p.a. in receipt of the Family Tax Benefit (A).

Denominator: All children under 16 years of age at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Department of Social Services, June 2023; Australian Bureau of Statistics (ABS) Census of Population and Housing, August 2021 (families), and ABS estimated resident population 30 June 2022 (children under 16 years.

Pensioner Concession Card holders, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Entitlement to an Australian Government Pensioner Concession Card (PCC) is used here as a proxy for low socioeconomic status. People who hold a PCC include those in receipt of a number of pension and benefit types, with the largest group being those who are receiving the Age Pension. Other groups include people with disabilities, carers and sole parents. As PCC cardholders have some of the lowest incomes in the population, they are also likely to have poorer health. Compared with those who have social and economic advantages, disadvantaged Australians are more likely to have shorter lives, experience higher levels of disease risk factors and use fewer preventive health services [1].

Reference

1. Australian Institute of Health and Welfare (AIHW). Australia's health 2008. (AIHW Cat. no. AUS 99). Canberra: AIHW; 2008.

Indicator detail: You can get a Pensioner Concession Card if you receive any of the following payments:

- Age Pension
- Carer Payment
- Disability Support Pension
- JobSeeker Payment or Youth Allowance and are single, caring for a dependent child and looking for work
- Parenting Payment Single.

The data exclude details of Health Care Card holders and Commonwealth Seniors Health Card holders. Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a Pensioner Concession Card from the Department of Human Services (Centrelink) at June 2022.

Denominator: People aged 15 years and over at June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the DSS Payment Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**; accessed December 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Health Care Card holders, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Entitlement to an Australian Government Health Care Card (HCC) is used here as a proxy for low socioeconomic status. The HCC provides access to prescription medicines for cardholders and their dependants at greatly reduced cost, and free after a cost threshold is reached; access to bulk-billed GP appointments, at the discretion of the doctor (the Government provides financial incentives for GPs to bulk-bill concession card holders); and a reduction in the cost of out-of-hospital medical expenses, through the Medicare Safety Net threshold. The cards may also attract educational, recreational, transport or other concessions from state and local governments and third party providers.

People who have an HCC are, together with those with a Pensioner Concession Card, generally among the lowest income earners, and, as such, they are likely to also have poorer health. In 2003, it was reported that HCC holders were more likely to suffer chronic health problems (most chronic diseases and poorer oral health), including psychosocial problems (such as sleep disturbances, anxiety and depression), have more medications prescribed and receive less preventive care [1].

Reference

1. Charles J, Valenti L, Britt H. GP visits by health care card holders: a secondary analysis of data from Bettering the Evaluation and Care of Health (BEACH), a national study of general practice activity in Australia. Aust Fam Physician. 2003;32(1/2):85-88,94.

Indicator detail: The Health Care Card is automatically issued to people who are not qualified for a Pensioner Concession Card, and are receiving:

- JobSeeker Payment, Partner Allowance, Sickness Allowance, Widow Allowance, Youth Allowance, Austudy, ABSTUDY Living Allowance, Mobility Allowance, Special Benefit, or Parenting Payment Partnered
- Carer Allowance (child)
- Carer Payment (child) on a short-term or episodic basis
- Exceptional Circumstances Relief Payment, Farm Household Allowance, Family Tax Benefit Part A (by fortnightly instalments and whose family income is below the Family Tax Benefit Part A lower income free area).

A very small number of Local Government Areas (LGAs) have proportions in excess of 100%: these are clearly not accurate. The reason for this is not clear, although it may be the result of the address of the beneficiary not being allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population), as population estimates at the small area level for age groups can be unreliable. It also indicates that it is possible that percentages of less than 100% may also be overstated.

Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a Health Care Card from the Department of Human Services (Centrelink).

Denominator: People aged 0 to 64 years at 30 June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the DSS Payment Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**; accessed December 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Seniors Health Card holders, June 2023
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The Commonwealth Seniors Health Card (SHC) entitles older Australians to access cheaper prescription medicines, Australian government funded medical services, and certain other concessions [1]. To qualify for the SHC, a person must have reached Age Pension age but not qualify for a payment from the Department of Human Services (Centrelink) or the Department of Veterans' Affairs; meet an income test (in September 2023, earning no more than the following: $95,400 a year for a single person; $152.640 a year for couples; and $190,800 a year for couples separated by illness, respite care or prison; and be an Australian resident or have a special category visa.

Those receiving this card are, therefore, substantially better off and have better health than those receiving a Pensioner Concession Care (PCC) or a Health Care Card (HCC). For example, the correlation between reporting in the 2021 Census as having three or more long-term health conditions was a very strong 0.7 for those with a PCC, 0.5 for those with a HCC and -0.6 for those with a SHC. The comparable correlation coefficients for those having one or two or more long-term health conditions were, for PCC holders, 0.4 and 0.7, respectively; for HCC holders, 0 and 0.3, respectively; and for SHC holders, -0.1 and -0.5, respectively.

Correlations that are as strong as, or stronger, between these different types of card holders and premature mortality can be seen **here**, in particular when selecting 'All Greater Capital City areas' under 'Filter to an area'. Other indicators of use of health services, cancer screening and incidence etc. can also be viewed at the link, above.

Reference

1. Australian Government Department of Human Services (DHS). Commonwealth Seniors Health Card [Internet] [cited 2018 Nov 16]. Available from: **https://www.humanservices.gov.au/individuals/services/centrelink/age-pension/eligibility**.

Indicator detail: The data exclude details of holders of Pensioner Concession Cars and Health Care Cards. Population Health Area (PHA) data were derived from already suppressed Statistical Area Level 2 (SA2) data. Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA.

As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Data cells with counts of less than five were suppressed (confidentialised).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People in receipt of a Seniors Health Card from the Department of Human Services (Centrelink) at June 2023.

Denominator: People aged 65 years and over at June 2022 (population data at June 2023 not available at time of publication).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the DSS Demographic Data, June 2023, available from **https://data.gov.au/data/dataset/dss-payment-demographic-data**; accessed December 2023; and Australian Bureau of Statistics estimated resident population, 30 June 2022.

Labour force

Unemployment, June 2025
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Those who do not have access to secure and satisfying work are less likely to have an adequate income; and unemployment and underemployment are generally associated with reduced life opportunities and poorer health and wellbeing. Although the relationship between unemployment and health is complex and varies for different population groups, there is consistent evidence from research that unemployment is associated with adverse health outcomes; and unemployment has a direct effect on physical and mental health over and above the effects of socioeconomic status, poverty, risk factors, or prior ill-health [1] [2].

Persistent disadvantage can also come from periods of long-term unemployment. Long periods of unemployment can have significant economic and social consequences for people, including the loss of skills and networks, social stigma, and financial insecurity. Employment provides an important pathway to break the cycle of entrenched disadvantage. Strong labour market conditions in recent years have been widespread and benefited many communities. In 2022–23, the unemployment rate was at or below 4 per cent in over three-quarters of all regions, compared to around 10 per cent of regions in 2020–21 [3].

Readers should note that the official measure of unemployment, which this indicator is designed to emulate for small geographical areas, does not take account of hidden unemployment (measured by the labour force participation rate) or underemployment (resulting from the loss of full-time jobs and the creation of part-time jobs).

References

1. Mathers CD, Schofield DJ. The health consequences of unemployment: the evidence. Med J Aust. 1998;168(4):178-82.
2. Dollard MF, Winefield AH. Mental health: overemployment, underemployment, unemployment and healthy jobs. Aust e-J Adv Mental Hlth. 2002:1(3).
3. The Commonwealth of Australia, Intergenerational Report 2023: Australia's future to 2063.

Indicator detail: These estimates of unemployment, from the *Small Area Labour Markets - Australia* data series [1], are based on the Structure Preserving Estimation (SPREE) methodology which enables the generation of small area unemployment, unemployment rate and labour force estimates. They differ from the figures both for people receiving an unemployment benefit (as different rules are applied to eligibility for a welfare payment) and being considered as unemployed in the labour force statistics produced by the Australian Bureau of Statistics (ABS). The unemployment estimates presented are based on the 'smoothed' data series, where the data have been averaged over four quarters to minimise the variability inherent in small areas estimates: this also apples to the estimates of the labour force used as the denominator to calculate the unemployment rate. The estimates presented are derived from two primary data sources:

- Current recipients of Youth Allowance (other) and current recipients of Newstart Allowance who are not on a zero rate of payment, by SA2
- ABS Labour Force Survey data by ABS Statistical Area Level 4 (SA4). The ABS Labour Force Survey samples private and non-private dwellings (approximately 26,000 households) across Australia and covers about 0.32 per cent of the population. More details about the methodology underpinning this survey are included in the ABS publication, Labour Force, Australia (cat. no. 6202.0).

There are currently concerns that the SALM estimates for the SA2 and LGA of Aurukun may not be providing an accurate indication of the labour market conditions within the region. Accordingly, the publication of figures for both the SA2 and the LGA will be suspended while the issue is under investigation.

Note that mutual obligation requirements may also be suspended in regions that are affected by natural disasters or other major disruptive events. The ABS has advised that the natural disasters in New South Wales and Queensland earlier this year, including ex-Tropical Cyclone Alfred and other major flooding events, resulted in disruptions to the collection of the LFS data in some regions in both February and March 2025. There may also be a minor impact on smoothed estimates for affected SA2s and LGAs for the June and March quarter 2025 figures [1].

Reference

1. Department of Employment and Workplace Relations. Small Area Labour Markets – June quarter 2025. Available from: https://www.dewr.gov.au/employment-research/small-area-labour-markets. Accessed 10 October 2025.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Unemployed people aged 15 years and over.

Denominator: People in the labour force aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Economics Branch, Australian Government Department of Employment and Workplace Relations, June Quarter 2025.

Labour force participation, June 2025
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: There is a strong correlation between skill level and labour force participation, with labour force participation rates increasing with education level [1]. Some of the benefits to society of higher participation include reduced poverty and inequality, greater social harmony and reduced crime, as well as lesser burdens on the charitable sector and social welfare budgets, and higher tax receipts to support the provision of government services like education and health [2].

There are three broad groups of strategies where policy change can contribute to improved labour force participation outcomes: those aimed at improving the capacity of people to work through policy measures that improve health, education and training; those enhancing incentives to work, including measures directed at tax and income support arrangements; and those creating more flexible institutional arrangements, including work arrangements and childcare [2].

More people are participating in paid work than ever before. The labour force participation rate remains near record highs. The increase in participation over the past 40 years has largely been driven by women entering the workforce. Employed people are, however, working fewer hours on average. This reflects an increase in part-time work, especially for women and older Australians. As the population ages, the participation rate is expected to gradually decline from 66.6 per cent in 2022−23 to 63.8 per cent by 2062−63. This is slightly higher than the 2021 IGR projection. Average hours worked per employed person is also expected to decline slightly from around 32 to around 31 hours per week as the share of part-time workers increases [3].

References

1. Treasury. House of Representatives Standing Committee on Employment and Workplace Relations, Inquiry into employment: increasing participation in paid work. (Submission no. 73.) Canberra: Standing Committee on Employment, Workplace Relations and Workforce Participation; 2003.
2. Productivity Commission (PC). Enhancing labour force participation: issues and challenges, Annual report 2006-07. Canberra: Productivity Commission; 2008.
3. The Commonwealth of Australia, Intergenerational Report 2023: Australia's future to 2063.

Indicator detail: These estimates, from the Small Area Labour Markets - Australia data series [1], are based on the Structure Preserving Estimation (SPREE) methodology which enables the generation of small area estimates of unemployment and labour force participation. They differ from the figures both for people receiving an unemployment benefit (as different rules are applied to eligibility for a welfare payment) and being considered as unemployed in the official labour force statistics produced by the Australian Bureau of Statistics (ABS).

For areas with proportions in excess of 100% we publish only the numbers (the numerator and denominator) and not the proportion. Please note that areas with proportions of 100% or lower in the affected series may also be incorrect.

There are currently concerns that the SALM estimates for the SA2 and LGA of Aurukun may not be providing an accurate indication of the labour market conditions within the region. Accordingly, the publication of figures for both the SA2 and the LGA will be suspended while the issue is under investigation.

Note that mutual obligation requirements may also be suspended in regions that are affected by natural disasters or other major disruptive events. The ABS has advised that the natural disasters in New South Wales and Queensland earlier this year, including ex-Tropical Cyclone Alfred and other major flooding events, resulted in disruptions to the collection of the LFS data in some regions in both February and March 2025. There may also be a minor impact on smoothed estimates for affected SA2s and LGAs for the June and March quarter 2025 figures [2].

References

1. National Skills Commission. Small Area Labour Markets - June quarter 2021. Available from: **https://labourmarketinsights.gov.au/our-research/small-area-labour-markets-methodology/**; accessed 4 February 2020.
2. Department of Employment and Workplace Relations. Small Area Labour Markets – June quarter 2025. Available from: **https://www.dewr.gov.au/employment-research/small-area-labour-markets**; accessed 10 October 2025.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People aged 15 years and over participating in the labour force.

Denominator: People aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Economics Branch, Australian Government Department of Employment and Workplace Relations, June Quarter 2025; and the ABS estimated resident population, 30 June 2024.

Female labour force participation; Male labour force participation, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The Population Census conducted by the Australian Bureau of Statistics (ABS) provides information as to participation of females and males in the labour force for small geographic areas. The labour force comprises all persons counted in the Census aged 15 years and over, excluding overseas visitors. The participation rate is the number of people who were employed (working full-time, part-time or were away from work) or unemployed (and looking for full-time or part-time work), as a proportion of the labour force.

In 2022-23, of the 18 million people aged 18 to 75 years:

- there were 9.1 million people who did not work full-time
- there were 3.1 million people not participating in the labour force (excluding retirees and those unable to work), of whom 28% wanted a job
- there were 1.0 million people working less than 16 hours, of whom 26% would like to work more hours.

The most significant change in labour force participation over the past 50 years has been women's participation in paid work. Women made up almost half the paid workforce in Australia in 2020, compared to around 30% in 1966. In addition to participating in paid work at much greater levels than in the past, women are also working longer. This has changed across the generations - particularly at the ages when women usually have children. These changes have occurred in conjunction with changes in employment opportunities, greater access to paid parental leave, access to more flexible working arrangements and changes in the structure of the economy, and in particular the growth in service industries [1]. The latest Intergenerational Report also notes that there has been a significant increase in women's participation across the age distribution, and the total participation rate for women has also reached a record high [2].

In comparison, male employment across time, and across the generations, has seen much smaller changes although current rates are lower than those 40 years ago and there have been substantial changes in the industries in which males have traditionally been employed [1].

References

1. Australian Bureau of Statistics (ABS). Changing female employment over time. Available from: **https://www.abs.gov.au/articles/changing-female-employment-over-time**: accessed 26 October 2021.
2. The Commonwealth of Australia, Intergenerational Report 2023: Australia's future to 2063.

Indicator detail: The other labour force measures in this atlas (for unemployment and labour force participation) have been compiled from data provided by the Jobs and Skills Australia, as those data are more closely aligned with the official unemployment data published by the ABS from the Labour Force Survey. However, as the small area estimates are not available for female or male labour force participation, these indicators have been sourced from data in the ABS Population Census.

As the data are based on self-reported information, and not subject to the criteria for labour force participation applied by the ABS in the Labour Force Survey and used in the estimates from Jobs and Sills Australia, they will not necessarily be consistent with the official estimates of labour force participation published by the ABS for the States, Territories and other regional areas (Statistical Areas Level 4).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Females/ males aged 15 years and over in the labour force.

Denominator: All females/ males aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Private health insurance

People aged 20 years and over with private health insurance, 2022-23 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Having private health insurance (PHI) increases access to a range of health services, both in-hospital services and services provided by private practitioners, including medical and dental practitioners, psychologists, physiotherapists, chiropractors and so on. From 1996, an increasing proportion of federal government expenditure was directed into Australia's health care system via private health insurance subsidies, in preference to Medicare and the direct funding of public health and hospital services. A central rationale for this policy shift was to increase the use of private hospital services and thereby reduce pressure on public inpatient facilities.

Private health insurance as a vehicle for mainstream federal health financing has potential structural failures that disadvantage regional Australians due to the limited availability of local private inpatient facilities [1].

Furthermore, as there is a positive association between private health insurance and income, it can also be argued that subsidising health fund contributions from government revenue means that many people on low incomes are being required to meet part of the costs of more affluent people using private hospitals [2]. There is also a perceived inequity arising out of the payment by health fund members of substantial premiums, and of a proportion of their taxation to support public hospitals that they may never use [2]. The public health system, however, also provides considerable opportunities for the training for health professionals and for clinical research which ultimately benefit the whole community.

References

1. Lokuge, B, Denniss, R & Faunce, TA 2005. 'Private health insurance and regional Australia', Medical Journal of Australia, vol. 182, no. 6, pp. 290-293.
2. Palmer, GR 2000. 'Government policymaking, private health insurance and hospital-efficiency issues', Medical Journal of Australia, vol. 172, no. 9, pp. 413-414.

Indicator detail: The data are sourced from Table 6: Individuals, Taxation Statistics 2022–23 under the heading 'People with PHI'. The data only relate to those submitting an individual tax return, and count the income unit and not dependants covered under the policy. Therefore, if an individual with PHI submitted an income tax return but didn't complete the PHI section, they wouldn't be counted. In addition, the data exclude people receiving the Age Pension, as they are not required to lodge a tax return as Centrelink is withholding tax from their pension.

Income units with a post box address are excluded from the analysis i.e. of different concordances.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People with private health insurance (hospital) cover.

Denominator: Average of population aged 20 years and over in 2022 and 2023.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Australian Taxation Office and the average of the estimated resident population, 30 June 2022 and 30 June 2023, Australian Bureau of Statistics.

Summary measure of disadvantage

Index of Relative Socio-Economic Disadvantage (IRSD), 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The Index of Relative Socio-economic Disadvantage (IRSD) is one of four Socio-Economic Indexes for Areas (SEIFAs) compiled by the Australian Bureau of Statistics (ABS) after the Census of Population and Housing. The aim is to represent the socioeconomic status (SES) of Australian communities and identify areas of advantage and disadvantage. The IRSD scores each area by summarising attributes of the population, such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. It reflects an area's relative disadvantage and lack of disadvantage. Being an average, the score is likely to reduce apparent differences between individuals in an area, and between areas: this is of particular importance for areas with larger populations.

The IRSD is a useful summary measure. However, if you are studying a particular population, then there may be more appropriate indicators. For example, if interested in children in disadvantaged families, you can use the indicator of the number of children in families where no parent has a job ('jobless' families); or the number of children in families where the mother is receiving welfare benefits at the maximum level, due to having no other income.

Indicator detail: The Index has a base of 1000 for Australia: scores above 1000 indicate relative lack of disadvantage and those below 1000 indicate relatively greater disadvantage.

For further information see the information provided by the Australian Bureau of Statistics (ABS) at: http://www.abs.gov.au/websitedbs/censushome.nsf/home/seifa or download the ABS Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011 (Cat. no. 2033.0.55.001) technical paper at: http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001.

The LGA data were re-produced from the ABS originals. Data for other geographic levels were constructed using population weighted averages, based on the published ABS SA2 data.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Index of Relative Socio-economic Disadvantage, derived by ABS from 2021 Census data.

Note: The Local Government Area (LGA) data were re-produced from the ABS originals. Data for other geographic areas were constructed using population weighted averages, based on the published ABS Statistical Areas Level 2 (SA2) data.

Denominator: Not applicable.

Detail of analysis: The Index has a base of 1000 for Australia: scores above 1000 indicate relative lack of disadvantage (referred to as least disadvantaged) and those below indicate relatively greater disadvantage (referred to as most disadvantaged).

Source: Compiled by PHIDU based on the ABS Socio-Economic Indexes for Areas (SEIFA), 2021 data.

Health status, disease prevention, disability, carers and deaths

Mothers and babies

Low birthweight babies, 2019 to 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The weight of a baby at delivery (birthweight) is widely accepted as a key indicator of infant health and can be affected by several factors, including the age, size, health and nutritional status of the mother, pre-term birth, and tobacco smoking during pregnancy [1]. A baby is defined as having a low birthweight if they are born weighing less than 2,500 grams. Low birthweight is generally associated with poorer health outcomes, including increased risk of illness and death, longer periods of hospitalisation after birth, and increased risk of developing significant disabilities [2]. The country of birth of the mother may also be an important risk factor for outcomes such as low birthweight and perinatal mortality [3].

References

1. Laws PJ, Grayson N, Sullivan EA. Australia's mothers and babies, 2004. (AIHW Cat. no. PER 34). Sydney: Australian Institute of Health and Welfare (AIHW), 2006.
2. Australian Institute of Health and Welfare (AIHW). A picture of Australia's children, 2012. Canberra: AIHW, 2012.
3. Li Z, McNally L, Hilder L, Sullivan EA. Australia's mothers and babies 2009. (Perinatal statistics series no. 25, AIHW Cat. no. PER 52). Sydney: Australian Institute of Health and Welfare (AIHW), 2011.

Indicator detail: The data comprise all live born babies weighing less than 2500 grams at birth, expressed as a proportion of all live births (data over 3 years).

Data are not shown for areas where there were fewer than 20 births.

Data published prior to 2015 to 2017 were collected from each State and Territory health agency and are likely to have excluded people who live in one State/Territory and used a service in another. This data release uses data, provided to the Australian Institute of Health and Welfare by each State and Territory, in which residents of another jurisdiction were generally coded to their correct usual address. This change will affect the time series published for quintiles and Remoteness Areas.

Data for many remote areas, particularly in Western Australia and Northern Territory, should be treated with caution, as the Australian Bureau of Statistics rate the quality of the population correspondence from SA2 to LGA in some LGAs as 'Poor'.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: All liveborn babies weighing less than 2,500 grams at birth (data over 3 years).

Denominator: Total live births (data over 3 years).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Australian Institute of Health and Welfare, on behalf of the States and Territories.

Women who reported smoking at any time during pregnancy, 2019 to 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Maternal smoking during pregnancy is a major risk factor that can adversely affect infant health, increasing the likelihood of low birth weight, pre-term birth, fetal and neonatal death, and SIDS [1]. In 2016–18 in Australia, one in ten women (9.6%) smoked during pregnancy, with rates over four times as high among Aboriginal and Torres Strait Islander women (43.4%) and those living in remote areas (34.6%, compared with 7.2% for those living in Major Cities) and over six times as high as those living in socioeconomically disadvantaged areas (17.7% in the most disadvantaged areas, compared with 2.8% in the least disadvantaged areas).

Reference

1. Laws PJ, Grayson N, Sullivan EA. Smoking and pregnancy. (AIHW Cat. no. PER 33). Sydney: Australian Institute of Health and Welfare (AIHW), 2006.

Indicator detail: The data comprise the women who reported that they smoked during a pregnancy, expressed as a proportion of the total women who gave birth in the time period (data over 3 years), whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more. Includes women with not stated or missing number of antenatal visits and 'Unknown number of visits'.

Data published prior to 2015 to 2017 were collected from each State and Territory health agency and are likely to have excluded people who live in one State/Territory and used a service in another. This data release uses data, provided to the Australian Institute of Health and Welfare by each State and Territory, in which residents of another jurisdiction were generally coded to their correct usual address. This change will affect the time series published for quintiles and Remoteness Areas.

Note that as the data are aggregated over three years, they may include women who gave birth more than once during the time period.

Data for many remote areas, particularly in Western Australia and Northern Territory, should be treated with caution, as the Australian Bureau of Statistics rate the quality of the population correspondence from SA2 to LGA in some areas as 'Poor'.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Women who reported that they smoked during pregnancy (data over 3 years).

Denominator: Total women who gave birth in the time period (data over 3 years), whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more. Includes women with not stated or missing number of antenatal visits and 'Unknown number of visits'.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Australian Institute of Health and Welfare, on behalf of the States and Territories.

Women who gave birth and did not attend antenatal care within the first 10 weeks, 2019 to 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Antenatal care is associated with positive child and maternal health outcomes, with regular antenatal care visits in the first trimester (before 14 weeks' gestational age), leading to fewer interventions in late pregnancy and positive outcomes for child health [1]. The Australian Antenatal Guidelines recommend that the first antenatal visit occur within the first 10 weeks of pregnancy and that first-time mothers with an uncomplicated pregnancy attend 10 visits [2]. Although almost all mothers (99.9%) who gave birth in 2015 had at least one antenatal visit, fewer than half (47%) of mothers did so in the first 10 weeks of pregnancy and 10% did not start antenatal care until after 20 weeks' gestation [1].

References

1. Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16, 4.12 Antenatal risk factors.
2. AHMAC 2012. Quoted in AIHW, Australia's health 2018, 4.12 Antenatal risk factors.

Indicator detail: The data comprise the number of women who gave birth and who did not attend their first antenatal visit before 10 weeks gestation, expressed as a proportion of total women who gave birth in the time period (data over 3 years), whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more. Includes women with not stated or missing number of antenatal visits and 'Unknown number of visits'.

Note that as the data are aggregated over three years, they may include women who gave birth more than once during the time period.

Data for many remote areas, particularly in Western Australia and Northern Territory, should be treated with caution, as the Australian Bureau of Statistics rate the quality of the population correspondence from SA2 to LGA in some areas as 'Poor'.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The number of women who gave birth and who did not attend their first antenatal visit before 10 weeks gestation (data over 3 years).

Denominator: Total women who gave birth in the time period (data over 3 years), whether resulting in a live or stillbirth, if the birthweight is at least 400 grams or the gestational age is 20 weeks or more. Includes women with not stated or missing number of antenatal visits and 'Unknown number of visits'.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Australian Institute of Health and Welfare, on behalf of the States and Territories.

Child and youth health

See also Long-term health conditions, by age and Long-term health conditions, by condition and age in the Selected long-term health conditions section below.

Children fully immunised at 1 year of age, 2 years of age and 5 years of age, 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Immunisation coverage among Australian children is a significant public health issue. If a sufficiently large proportion of children are immunised against a particular infectious disease, then the potential for that disease to spread in the community is greatly reduced. Another important implication of immunisation is the decrease in human suffering, disability and cost of health care through preventing an infectious disease and its consequences.

Australia has an aspirational target of 95% childhood immunisation coverage due to measles needing 92% to 94% of children to be immunised to achieve herd immunity [1].

Reference:

1. Department of Health (DoH) 2016. Immunisation coverage targets. Canberra: DoH. Available from: https://www.health.gov.au/news/immunisation-coverage-targets; accessed 15 May 2023.

Indicator detail: The data presented are of children on the Australian Childhood Immunisation Register (ACIR) who are fully immunised at 1 year of age (a child aged 12 months to less than 15 months), 2 years of age (a child aged 24 to less than 27 months) and 5 years of age (a child aged 60 to less than 63 months).

The definitions of fully immunised are shown on the National Immunisation Program Schedule, which is available at https://www.health.gov.au/resources/publications/national-immunisation-program-schedule.

Data are not shown for areas where there were 0 to 9 children immunised.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Children fully immunised at 1 year of age, 2 years of age and 5 years of age.

Denominator: Children on the Australian Childhood Immunisation Register (ACIR) at 1 year of age, 2 years of age and 5 years of age.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the Australian Childhood Immunisation Register, 2023 calendar year.

Human Papillomavirus (HPV) vaccine coverage: females/ males aged 15 years as at mid June 2023, who received 1 dose or more of the vaccine, 2023 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Australia was the first country to introduce a fully funded, population-based HPV vaccination program, the National Human Papillomavirus (HPV) Vaccination Program. aiming to prevent HPV infection and HPV-related diseases.

The National Immunisation Program (NIP) introduced the HPV vaccination in 2007. Between 2007 and 2009, all females aged 12 to 26 years were offered vaccination against HPV through schools and a community-based program. In 2013, the program was extended to include males.

As of February 2023, the routine 2-dose HPV vaccine schedule provided to young people aged 12 to 13 years became a single dose schedule using the Gardasil®9 vaccine [1].

Reference:

1. Preventing HPV infection and HPV-related diseases: News. Available from: https://www.cdc.gov.au/newsroom/news-and-articles/preventing-hpv-infection-and-hpv-related-diseases; accessed 3 February 2025.

Indicator detail: The data presented are for females and males who were aged 15 years as at 30 June 2023, and who had received one dose or more of the HPV vaccination, as reported on the Australia Immunisation Register for HPV as at 4 October 2024.

The data include only vaccinations administered to consumers whose residential address is located in Australia, including unknown postcodes, and excludes consumers who do not wish their details to be recorded on the Australia Immunisation Register for HPV.

Where there were 0-9 participants or residents in an area, the data are not shown. Services Australia have advised that information held by the National HPV Vaccination Program Register is provided to the Register from immunisation providers. The accuracy of the information is dependent on the quality and timeliness of the data provided. Every effort is made to ensure that the information recorded on the Register is up to date and correct.

Population Health Area (PHA) data were derived from data already suppressed Statistical Area Level 2 (SA2). Therefore, if a PHA includes an SA2 with suppressed data, there could be an undercount in the PHA. As State and territory totals were also provided, data in the 'Unknown' data row in the Excel data workbooks are calculated from the difference between the sum of the PHA or LGA data and the State/Territory totals; these figures therefore include the sum of the suppressed SA2 cells.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of females/ males aged 15 years as at 30 June 2023, who had received 1 dose or more of the HPV vaccine.

Denominator: Number of females/ males aged 15 years at mid-year 2023 on the Australia Immunisation Register.

Detail of analysis: Per cent.

Source: Compiled by PHIDU using data supplied by Services Australia from the Australia Immunisation Register for HPV, 4 October 2024.

Infant mortality, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The survival of infants in their first year of life is viewed as an indicator of general health and wellbeing of a population. Infant mortality refers to deaths of infants under one year of age and is measured by the infant mortality rate (IMR), the rate of infant deaths per 1000 births in a calendar year. The IMR for Indigenous infants is significantly higher than that for non-Indigenous infants, indicating their overall poorer health and wellbeing and the levels of socioeconomic disadvantage of their families, much of which represent the legacy of colonisation, cultural dispossession, discriminatory policies and social exclusion.
Australia has one of the lowest IMR in the world: in 2022 it was 3.2 infant deaths per 1,000 live births, compared with 4.1 deaths per 1,000 live births in 2010 [1].

However, the five state/territory (New South Wales, Queensland, South Australia, Western Australia and the Northern Territory) IMR for Aboriginal and Torres Strait Islander Australians was 63 per cent above the rate for non-Indigenous Australians (5.2 and 3.2 per 1,000 live births, respectively) [2].

References

1. 3302.0 - Infant deaths. Deaths, Australia, 2018. Available from: **https://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/3302.0Main%20Features52018**: accessed 2 December 2019.
2. Australian Bureau of Statistics (ABS) Deaths, Australia, 2022. Available from: **https://www.abs.gov.au/statistics/people/population/deaths-australia/latest-release#aboriginal-and-torres-strait-islander-people**: accessed 29 November 2023.

Indicator detail: The data presented are of deaths that occurred before 12 months of age, as a rate per 1,000 live births. Data are not shown for areas where there were fewer than 20 births.

For detailed data released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3303.0Explanatory%20Notes12015?OpenDocument**.

Data published here are from the following releases: 2018, 2019 and 2020 final; 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths that occurred before 12 months of age.

Denominator: Live births.

Detail of analysis: Infant mortality rate; infant deaths per 1,000 live births.

Source: Data compiled by PHIDU from deaths data based on the 2017 to 2021 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The births data for 2017 to 2021 were compiled from the **ABS Births, Australia 2020 (ABS Cat. no. 3301.0)**.

Youth mortality: total deaths, persons aged 15 to 24 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In 2022 the leading cause of deaths for 15-24 years of age was suicide, followed by land transport accidents [1]. For Aboriginal and Torres Strait Islander youth, significantly higher rates of suicide are experienced compared to non-Indigenous youth [1]. Risk factors for youth suicide include social determinants of health such as educational disadvantage, exposure to adverse life events, social and cultural disadvantage [1].

The number of suicides should be interpreted with caution, as they are likely to increase as the ABS revisions process is applied (see 'Notes', below).

Additional information: Although it is not possible to present data for deaths at these ages by specific causes, the following information may be of interest. In 2021, just over one third (34.0%) of male deaths and over one third (35.6%) of female deaths between 15 and 24 years of age were from intentional self-harm (suicide). The proportion for males was lower than the 37.8% in 2021; and for females it was higher than the 32.3% in 2021. The next highest proportion for females was deaths as an occupant of a car injured in a transport accident (15.8%), with a higher proportion for males (23.8%). The number of suicides should be interpreted with caution, as they will increase when the ABS revisions process is applied (see 'Notes', below) [1].

Reference

1. Australian Institute of Health and Welfare. Deaths in Australia. Available at: **https://www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/summary**; accessed 5th of September 2024.

Indicator detail: The data presented are the average annual indirectly age-standardised rates per 100,000 population (aged 15 to 24 years); and/or indirectly age-standardised ratios, based on the Australian standard.

For detailed data files released since 2007, the ABS has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the Australian Bureau of Statistics (ABS) revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020 final; 2021 and 2022, preliminary. Some causes of death, including drug-induced deaths, suicide and assault, are more sensitive to the revisions process than others: as a result, data in the files designated as preliminary should be treated with caution.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: All deaths of people aged 15 to 24 years.

Denominator: Total population aged 15 to 24 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 15 to 24 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information system. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Screening programs

Total males / females / persons who participated in the National Bowel Cancer Screening Program (NBCSP), 2020 and 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Colorectal cancer (CRC), also known as bowel cancer, is the third most common type of newly diagnosed cancer in Australia, with around 100 Australians dying each week from the disease [1]. The National Bowel Cancer Screening Program, commenced in 2006, aims to reduce deaths from bowel cancer by detecting early signs of the disease. If found early, more than 90% of cases can be successfully treated. Eligible Australians aged 50 (45 from 1 July 2024) to 74 can do a free test at home every 2 years [2].

References

1. Bowel Cancer Australia. Available from: **https://www.bowelcanceraustralia.org/facts**.
2. National Bowel Cancer Screening Program. Available from: **https://www.health.gov.au/our-work/national-bowel-cancer-screening-program**.

Indicator detail: The data comprise the number of males/ females/ persons aged 50-74 years who were invited to participate in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021 and who returned a completed screening test within that period, or by 30 June 2022, expressed as a proportion of those invitees.

Where there are one to five events (invitees, participants) in an area, the data are suppressed to protect confidentiality.

As addresses have not been geocoded, counts of events for geographic areas (e.g., Population Health Areas (PHAs)) are derived from a postcode to geographic area correspondence. The correspondence file apportions events in a postcode to a single or to multiple PHAs on the basis of the total population, and not on the specific age range applicable to those being screened. The PHA data are, therefore, estimates.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Males/ females/ persons aged 50-74 years who participated in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021.

Denominator: Males/ females/ persons aged 50-74 years who were invited to participate in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021.

Detail of analysis: Per cent.

Source: AIHW analysis of the National Cancer Screening Register as at 14 January 2023 (NCSR RDE 14/01/2023).

National Bowel Cancer Screening Program: positive test result, males, females and persons, 2020 and 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Colorectal cancer (CRC), also known as bowel cancer, is the third most common type of newly diagnosed cancer in Australia, with around 100 Australians dying each week from the disease [1]. The national Bowel Cancer Screening Program, commenced in 2006, aims to reduce deaths from bowel cancer by detecting early signs of the disease. If found early, more than 90% of cases can be successfully treated. Eligible Australians aged 50 (45 from 1 July 2024) to 74 can do a free test at home every 2 years [2].

The outcome indicator presented here is referred to as a 'positive test result'; a positive FOBT result indicates that blood has been found in the sample provided. About one in 14 people will have a positive FOBT result. Bleeding may be caused by a number of conditions, including polyps, haemorrhoids or inflammation, and may not necessarily be cancer related [3].

References

1. Towler B, Irwig L, Glasziou P, et al. A systematic review of the effects of screening for colorectal cancer using the faecal occult blood test, hemoccult. BMJ. 1998;317:559-65.
2. Atkin WS, Edwards R, Kralj-Hans I, et al; UK Flexible Sigmoidoscopy Trial Investigators. Once-only flexible sigmoidoscopy screening in prevention of colorectal cancer: a multicentre randomised controlled trial. Lancet. 2010;375:1624-33.
3. Cancer Council. Understanding your FOBT results. Available from: **https://www.cancer.org.au/cancer-information/causes-and-prevention/early-detection-and-screening/understanding-your-fobt-results**.

Indicator detail: The outcome indicator presented is referred to as a 'positive test result'; a positive Faecal Occult Blood Test (FOBT) result indicates that blood has been found in the sample provided.

The data comprise the number of males, females and persons aged 50-74 years who received a positive test result from the FOBT in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021, expressed as a proportion of those who returned a valid screening test between 1 January 2020 and 31 December 2021.

Where there are one to five events (positive test results) in an area, the data are suppressed to protect confidentiality.

As addresses have not been geocoded, counts of events for geographic areas (e.g., Population Health Areas (PHAs)) are derived from a postcode to geographic area correspondence. The correspondence file apportions events in a postcode to a single or to multiple PHAs on the basis of the total population, and not on the specific age range applicable to those being screened. The PHA data are, therefore, estimates.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Males, females or persons aged 50-74 years who received a positive test result from the Faecal Occult Blood Test (FOBT) in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021.

Denominator: Males, females or persons aged 50-74 years who had a valid returned test in the National Bowel Cancer Screening Program between 1 January 2020 and 31 December 2021.

Detail of analysis: Per cent.

Source: AIHW analysis of the National Cancer Screening Register as at 14 January 2023 (NCSR RDE 14/01/2023).

Breast screening participation, females aged 50 to 74 years, 2021 and 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The data presented here are for women screened for breast cancer as a result of screening programs [1]. Breast cancer is a major health issue for Australian women. Currently, few scientifically proven strategies are available for preventing the development of breast cancer. However, research has shown that screening mammography is currently the most effective tool for the early detection of breast cancer in asymptomatic women in the target age group of women aged 50 to 74 years; and, that having a screening mammogram every two years, reduces the chance of dying from breast cancer by up to 40%. Participation in breast screening in South Australia is associated with a reduction in breast cancer mortality of between 30% and 41% [2].

BreastScreen Australia is the national breast cancer screening program with services provided by state-based organisations - in this case by BreastScreen NSW, BreastScreen Victoria, BreastScreen Queensland, BreastScreen SA, BreastScreen WA, BreastScreen Tasmania, BreastScreen NT, and BreastScreen ACT. The program provides screening and assessment services on a state-wide basis at no cost to eligible women, using fixed and mobile clinics. The target age group is asymptomatic women aged 50 to 69 years; asymptomatic women aged 40 to 49 and 75 years and older are also able to attend [3]. Women who are eligible because of a strong family history of breast cancer are invited annually.

Screening mammograms are different from diagnostic mammograms, which are not provided by BreastScreen Australia. Diagnostic mammograms are for women who have breast symptoms and include views that target the symptomatic area. Screening mammograms are not suitable for women with breast symptoms.

References

1. The data do not include women who undergo private screening; the impact of such services is estimated to be quite small – see: Department of Health and Ageing (DoHA). BreastScreen Australia evaluation: Medicare Benefits Schedule (MBS) Mammography Analysis Project. (Screening monograph no. 11/2009.) Canberra: Commonwealth of Australia; 2009.
2. Roder D, Houssami N, Farshid G, Gill G, Luke C, Downey P, Beckmann K, Iosifidis P, Grieve L, Williamson L. Population screening and intensity of screening are associated with reduced breast cancer mortality: evidence of efficacy of mammography screening in Australia. Breast Cancer Res Tr. 2008;108(3):409-16.
3. Australian Government Department of Health. BreastScreen Australia program: About the program [Internet]. [cited 2014 May 22, updated 2016 Mar 15]. Available from: **http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/about-the-program**.

Indicator detail: The participation rate for the 24-month period to the end of each calendar year is based on the actual number of women screened as a percentage of the average of the ABS estimated resident population (ERP) at 30 June for each year in the for the two corresponding calendar years. If a woman has attended more than once in the 24 months, she is counted once only, and the age is for the last screening episode attended in the 24-month period.

The data do not include women who undergo private screening; the impact of such services is estimated to be quite small – see *Department of Health and Ageing (2009) BreastScreen Australia evaluation: Medicare Benefits Schedule (MBS) Mammography Analysis Project. Screening monograph no. 11/2009. Canberra: Commonwealth of Australia*.

Data for South Australia, Tasmania and Australian Capital Territory have not been geocoded; counts of events for geographic areas (e.g., Population Health Areas (PHAs)) for these states/ territory are derived from a postcode to geographic area correspondence. The correspondence file apportions events in a postcode to a single or to multiple PHAs on the basis of the total population, and not on the specific age range applicable to those being screened. The PHA data for these states/ territory are, therefore, estimates. Due to the quality of the correspondence in some areas, it has resulted in a small number of areas with a percentage in excess of 100%.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of individual women aged 50 to 74 years screened over a 24 month period ending 31 December 2022.

Denominator: Females aged 50 to 74 years (estimated resident population (ABS): average of 30 June 2021 and 30 June 2022.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from:

1. The Australian Institute of Health and Welfare from BreastScreen NSW, BreastScreen Victoria, BreastScreen Queensland, BreastScreen SA, BreastScreen WA, BreastScreen Tasmania, BreastScreen NT, and BreastScreen ACT.
2. ABS estimated resident population, average of 30 June 2021 and 30 June 2022.

Breast screening outcomes - cancer, females aged 50 to 74 years, 2021 and 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The data presented here are for women screened for breast cancer as a result of screening programs [1].

Breast cancer is a major health issue for Australian women. Currently, few scientifically proven strategies are available for preventing the development of breast cancer. However, research has shown that screening mammography is currently the most effective tool for the early detection of breast cancer in asymptomatic women in the target age group of women aged 50 to 69 years; and, that having a screening mammogram every two years, reduces the chance of dying from breast cancer by up to 40%. Participation in breast screening in South Australia is associated with a reduction in breast cancer mortality of between 30% and 41% [2].

BreastScreen Australia is the national breast cancer screening program with services provided by state and territory-based organisations. The program provides screening and assessment services on a state-wide basis at no cost to eligible women, using fixed and mobile clinics. The target age group is asymptomatic women aged 50 to 74 years; asymptomatic women aged 40 to 49 and 75 years and older are also able to attend [3]. Women who are eligible because of a strong family history of breast cancer are invited annually.

Screening mammograms are different from diagnostic mammograms, which are not provided by BreastScreen Australia. Diagnostic mammograms are for women who have breast symptoms and include views that target the symptomatic area. Screening mammograms are not suitable for women with breast symptoms.

References

1. Department of Health and Ageing (DoHA). BreastScreen Australia evaluation: Medicare Benefits Schedule (MBS) Mammography Analysis Project. (Screening monograph no. 11/2009.) Canberra: Commonwealth of Australia; 2009.
2. Roder D, Houssami N, Farshid G, Gill G, Luke C, Downey P, Beckmann K, Iosifidis P, Grieve L, Williamson L. Population screening and intensity of screening are associated with reduced breast cancer mortality: evidence of efficacy of mammography screening in Australia. Breast Cancer Res Tr. 2008;108(3):409-16.
3. Australian Government Department of Health. BreastScreen Australia program: About the program [Internet]. [cited 2014 May 22, updated 2016 Mar 15]. Available from: http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/about-the-program.

Indicator detail: The breast screening outcomes for the 24-month period to the end of each calendar year are based on the actual number of women with cancer outcomes as an age-standardised rate of the actual number of women screened for the two corresponding calendar years. If a woman has attended more than once in the 24 months, they are counted once only, and the age is for the last screening episode attended in the 24-month period. Breast cancers include invasive breast cancers only.

The data do not include women who undergo private screening; the impact of such services is estimated to be quite small – for reference, see ***Breast screening participation*** note above.

Data for South Australia, Tasmania and Australian Capital Territory have not been geocoded; counts of events for geographic areas (e.g., Population Health Areas (PHAs)) for these states/ territory are derived from a postcode to geographic area correspondence. The correspondence file apportions events in a postcode to a single or to multiple PHAs on the basis of the total population, and not on the specific age range applicable to those being screened. The PHA data for these states/ territory are, therefore, estimates.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of individual women aged 50 to 74 years diagnosed with screen-detected breast cancers over a 24-month period ending 31 December 2022.

Denominator: Women aged 50 to 74 years screened over a 24 month period ending 31 December 2022.

Detail of analysis: Indirectly age-standardised rate per 10,000 women screened.

Source: Compiled by PHIDU based on data provided by the Australian Institute of Health and Welfare from BreastScreen NSW, BreastScreen Victoria, BreastScreen Queensland, BreastScreen SA, BreastScreen WA, BreastScreen Tasmania, BreastScreen NT, and BreastScreen ACT.

Cervical screening, 2018 to 2022
Cervical screening participation, females aged 25 to 74 years, 2018 to 2022
– by PHA, PHN, LGA, Quintiles, Remoteness

Policy context: Cervical cancer is a largely preventable disease in Australia. This is mainly due to primary prevention measures through the National Cervical Screening Program (NCSP), previously the National HPV Vaccination Program. The NCSP is a Government-funded initiative established in 1991. Its aim is to reduce cases of deaths from cervical cancer in Australian women. Women aged 25–74 can have a Cervical Screening Test (CST) every 5 years. The CST looks for HPV (the human papillomavirus, a common infection spread during sexual activity) which can lead to cell changes in the cervix [1].

A **HPV vaccine** is available and protects against up to 9 types of HPV, including those that cause around 70% of cervical cancers. Since the HPV vaccine does not protect against all types of HPV that can cause cervical cancer, vaccinated people still need to have regular cervical screening.

Over the 5 years 2018–2022, more than 4.7 million participants aged 25–74 had a screening HPV test (primary screening or 12-month repeat HPV test). This represented 68% of the eligible population over this 5-year period [2].

References

1. Australian Government Department of Health and Aged Care, About the national Cervical Screening program. Available from: **https://www.health.gov.au/our-work/national-cervical-screening-program/about-the-national-cervical-screening-program#cervical-screening-saves-lives**; accessed 26 February 2025.
2. Australian Institute of Health and Welfare (2023) National Cervical Screening Program monitoring report 2023, Cat. no. CAN 157, AIHW, Australian Government. Available from **https://www.aihw.gov.au/reports/cancer-screening/ncsp-monitoring-2023/summary**; accessed 24 February 2025.

Indicator detail: The participation rate for the 5-year period is based on the actual number of women screened as a percentage of the average of the ABS estimated resident population of females aged 25-74 in 2018, 2019, 2020, 2021, and 2022, excluding an estimate of those who had undergone a full hysterectomy. If a woman has attended more than once in the 5-year period, she is counted once only, and the age is taken from the first visit.

The data presented here report, for the first time, 5-year participation. The data previously published by PHIDU were for the three years 2018 to 2020 and cannot be directly compared. For further information on changes over time, see 'Progression towards 5-year participation in the 5 years 2018—2022' and Figure 3.1.4, in the National Cervical Program monitoring report, 2023 available at **https://www.aihw.gov.au/reports/cancer-screening/ncsp-monitoring-2023/summary**.

Impact on screening during COVID-19 pandemic: The AIHW report that data show a decline in the number of cervical screening tests from the second half of March 2020. The number of tests remained low throughout April, during which there were fewer than 30,000 cervical screening tests carried out. The number of cervical screening tests increased in May and June, with a slight decrease in July and August, before increasing again in September 2020. Even with these differences, the number of cervical screening tests appear to have levelled off in July to September 2020 (see **Did fewer people screen for cancer during the COVID-19 pandemic?**). While there were fewer cervical screening tests in 2020 compared with 2019, the impact of COVID-19 cannot be quantified without further years of data (as 2020 is the first year impacted by the transition to 5-yearly screening).

Confidentiality of data: To protect confidentiality the following data have been suppressed:

- Number of participants count less than 20 are suppressed.
- Number of women aged 25 to 74 years based on average of five years' populations (denominator) less than 100 are suppressed.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of individual women aged 25 to 74 years screened over a 5-year period ending 31 December 2022.

Denominator: The average ABS estimated resident population for females aged 25–74 in 2018, 2019, 2020, 2021, and 2022, adjusted to exclude the estimated number of participants who have had a hysterectomy.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the AIHW analysis of NCSR data (NCSR RDE 4.7 07/07/2023).

Cervical screening outcomes: high grade abnormality, females aged 25 to 74 years, 2018 to 2022 – by PHA, PHN, LGA, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cervical cancer is a largely preventable disease in Australia, mainly due to primary prevention measures through the National HPV Vaccination Program, which vaccinates women against the oncogenic HPV (human papillomavirus) types that cause the majority of cervical cancer. Secondary prevention of cervical cancer is through the National Cervical Screening Program (NCSP) which aims to detect and treat precancerous abnormalities before any possible progression to cervical cancer [1]. It is estimated that up to 90% of the commonest type of cervical cancer may be prevented, if cell changes are detected and treated early [2].

Cervical cancer is a rare outcome of persistent infection with human papillomavirus (HPV), and infection with a high-risk HPV type is necessary, although not sufficient, for the development of cervical cancer [3]. On screening, high-grade abnormalities can occur after persistent infection with HPV [1]. The probability of a high-grade abnormality (as detected on histology) progressing to cancer increases with age and extent of abnormality [4], but is still a very rare outcome, with regression rates for high-grade abnormalities estimated to be at least 80% [5].

Diagnosis with high-grade abnormalities
Detection of high-grade abnormalities provides an opportunity for treatment before possible progression to cervical cancer [6]. In 2022, there were 14.2 participants aged 25–74 with a high-grade abnormality detected by histology per 1,000 participants screened. This means that for every 1,000 participants screened, 14 had a high-grade cervical abnormality detected, providing an opportunity for treatment before possible progression to cervical cancer [6]. In contrast, for every 1,000 participants screened, 1 had a cervical cancer detected. This reflects that the aim of cervical screening is not to detect cervical cancer, but to prevent it through the detection of high-grade abnormalities [6].

Incidence and mortality of cervical cancer in Australia remain low, consistent with the NCSP's aim to reduce incidence and mortality. In 2018, there were 11 new cases of cervical cancer diagnosed, and 2 deaths, per 100,000 women (aged 25-74). Similarly, there were 916 new cases of cervical cancer, which is 11 new cases per 100,000 women in the population in 2020 [7] and between 2 and 3 deaths per 100,000 women aged 25-74 in 2022 [7]. These rates have remained steady from previous years, although it must be noted that both incidence and mortality have halved between the introduction of the NCSP in 1991 to 2002 [1,8]. However, incidence for Aboriginal and Torres Strait Islander women has been estimated to be double, and mortality to be nearly four times, that of non-Indigenous Australian women [8,7].

References

1. Australian Institute of Health and Welfare (AIHW). Cervical screening in Australia 2018. Cat. no. CAN 111. Canberra: AIHW; 2018. Available from: **https://www.aihw.gov.au/getmedia/8a26b34d-a912-4f01-b646-dc5d0ca54f03/aihw-can-111.pdf.aspx?inline=true**; accessed 17 December 2019.
2. Australian Institute of Health and Welfare (AIHW). Cervical screening in Australia 2010-2011. Cat. no. CAN 72. Canberra: AIHW; 2013.
3. Bosch FX, Lorincz A, Muñoz N, Meijer CJ, Shah KV. The causal relation between human papillomavirus and cervical cancer. J Clin Pathol. 2002;55(4):244-65.
4. National Health and Medical Research Council (NHMRC). Screening to prevent cervical cancer: guidelines for the management of asymptomatic women with screen detected abnormalities. (Reference no. WH39). Canberra: NHMRC; 2005 [cited 2013 Oct 18]. Available from: **http://www.nhmrc.gov.au/guidelines/publications/wh39**.
5. Raffle AE, Alden B, Quinn M, Babb PJ, Brett MT. Outcomes of screening to prevent cancer: analysis of cumulative incidence of cervical abnormality and modelling of cases and deaths prevented. BMJ. 2003;326(7395):901.
6. Australian Institute of Health and Welfare (2023) National Cervical Screening Program monitoring report 2023, Cat. no. CAN 157, AIHW, Australian Government. Available from: **https://www.aihw.gov.au/reports/cancer-screening/ncsp-monitoring-2023/summary**; accessed 24 February 2025.

7. Australian Institute of Health and Welfare (2024) National Cervical Screening Program monitoring report 2024, catalogue number CAN 163, AIHW, Australian Government. Available from: **https://www.aihw.gov.au/reports/cancer-screening/ncsp-monitoring-2024/summary**; accessed 24 February 2025.
8. Australian Institute of Health and Welfare (AIHW). National Cervical Screening Program monitoring report 2022. Cat. no. CAN 149. Canberra: AIHW; 2022. Available from: **https://www.aihw.gov.au/reports/cancer-screening/ncsp-monitoring-2022/summary**; accessed 9 December 2022.

Indicator detail: Cervical screening outcomes for the 5-year period to the end of each calendar year are based on the number of women with a high-grade abnormality, detected on histology, as an age-standardised rate of the number of women screened in the corresponding calendar years. Where a woman has more than one high-grade abnormality detected, the most serious is counted. Where a woman has more than one high-grade abnormality of equal seriousness, the last is counted. If a woman has attended more than once in the 5-year she is counted once only, and her age is taken from the first visit. High grade abnormalities are cervical intraepithelial neoplasia (CIN) that has been graded as moderate (CIN 2) or severe (CIN 3), or for which the grade has not been specified, as well as endocervical dyspepsia and adenocarcinoma in situ.

Impact on screening during COVID-19 pandemic: The AIHW report that data show a decline in the number of cervical screening tests from the second half of March 2020. The number of tests remained low throughout April, during which there were fewer than 30,000 cervical screening tests carried out. The number of cervical screening tests increased in May and June, with a slight decrease in July and August, before increasing again in September 2020. Even with these differences, the number of cervical screening tests appear to have levelled off in July to September 2020 (see **Did fewer people screen for cancer during the COVID-19 pandemic?**). While there were fewer cervical screening tests in 2020 compared with 2019, the impact of COVID-19 cannot be quantified without further years of data (as 2020 is the first year impacted by the transition to 5-yearly screening).

Confidentiality of data: Data cells with counts of 1-5 were suppressed.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of individual women aged 25 to 74 years with a high-grade abnormality detected by histology over a 5-years period ending 31 December 2022.

Denominator: Number of women aged 25 to 74 years screened over a 5-years period ending 31 December 2022.

Detail of analysis: Indirectly age-standardised rate per 1,000 women screened; the standard population is the population of each respective jurisdiction.

Source: Compiled by PHIDU based on data from the AIHW analysis of the NCSR (NCSR RDE 7/07/2023).

Screening ages by place of birth

Ages for targeted screening programs: persons born in Australia, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Australia has three national cancer screening programs which aim to detect signs of cancer or pre-cancerous conditions. Each program is targeted to specific populations and/or age groups where evidence shows screening to be most effective [1]. The National Bowel Cancer Screening Program, provides (via postal service) a free home faecal occult blood test (FOBT), every 2 years to persons aged 50 to 74 years of age. BreastScreen Australia is a joint initiative of the Australian and State and Territory Governments, which provides a free mammogram every 2 years to women over 40 years of age. This program also actively invites women aged 50 to 74 years to participate in their preventative screening program. The National Cervical Screening

Program, every 5 years invites women and persons with a cervix, aged 25 to 74 years through their health care provider, to have a Cervical Screening Test.

These age data can be compared in the Double Map Atlases with the data for screening participation and outcomes to show variations by geographical area for those born in predominantly non-English-speaking countries (subsequent indicators) and those born in Australia.

Reference

1. AIHW. Cancer Screening. Last updated 27/4/2023 v32.0 **http://www.aihw.gov.au/reports-data/health-welfare-services/cancer-screening/overview**.

Indicator detail: The data are the Australian born population who are targeted for each of the Australian Federal, State and Territory Government national cancer screening programs (The National Bowel Cancer Screening Program, BreastScreen Australia, and The National Cervical Screening Program).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Persons born in Australia, limited to ages as noted above for the specified screening programs.

Denominator: Total population, limited to ages as noted above for the specified screening programs.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Ages for targeted screening programs: persons born in predominantly non-English-speaking countries (NES), by length of residence (less than 5 years, and 5 years or more) by selected age groups and sex, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Australia has three national cancer screening programs which aim to detect signs of cancer or pre-cancerous conditions. Each program is targeted to specific populations and/or age groups where evidence shows screening to be most effective [1]. The National Bowel Cancer Screening Program, provides (via postal service) a free home faecal occult blood test (FOBT), every 2 years to persons aged 50 to 74 years of age.

BreastScreen Australia is a joint initiative of the Australian and State and Territory Governments, which provides a free mammogram every 2 years to women over 40 years of age. This program also actively invites women aged 50 to 74 years to participate in their preventative screening program.

The National Cervical Screening Program, every 5 years invites women and persons with a cervix, aged 25 to 74 years through their health care provider, to have a Cervical Screening Test.

These age data can be compared in the Double Map Atlases with the data for screening participation and outcomes to show variations by geographical area for those born in Australia (previous indicator) and those born in predominantly non-English-speaking countries.

Reference

1. AIHW. Cancer Screening. Last updated 27/4/2023 v32.0 **http://www.aihw.gov.au/reports-data/health-welfare-services/cancer-screening/overview**.

Indicator detail: The data are of people born in 'predominantly non-English-speaking countries' who are targeted for each of the Australian Federal, State and Territory Government national cancer screening programs (The National Bowel Cancer Screening Program, BreastScreen Australia, and The National Cervical Screening Program).

The data comprise persons born in 'predominantly non-English-speaking countries which comprise all but the following overseas countries, designated as 'English-speaking': Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

Resident in Australia for five years or more: Data comprise NES residents arriving before 2017.

Resident in Australia for less than five years: Data comprise NES residents arriving from 2017 to 2021. The year 2021 is the period 1 January 2021 to 10 August 2021 (Census Night), therefore, the data presented represent a total time of approximately 4 years and 7 months.

In the data workbooks, the numerator excludes the 5.3% of the population (this percentage varies across States/Territories) who did not provide their country of birth: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Persons born in predominantly non-English speaking countries (total); Persons born in predominantly non-English speaking countries, and resident in Australia for five years or more; Persons born in predominantly non-English speaking countries, and resident in Australia for less than five years – in all cases limited to ages as noted above for the specified screening programs.

Denominator: Total population, limited to ages as noted above for the specified screening programs.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Cancer incidence

Cancer incidence by type, male, female and persons, 2014 to 2018
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cancer is a broad term representing a number of different diseases. Cancer occurs when cells of the body grow and multiply abnormally, becoming dangerous when they spread to surrounding or different areas of the body. Abnormal cell growth can arise from almost any type of tissue cell [1].

Incidence of all types of cancers combined has increased in recent decades, although the rate has declined slightly since 2008 [1]. Over the same period, five-year survival rates have improved and the death rate has declined [2]. In 2019 the estimated number of new cases was 144,713, of which 54.0% were for males and 46.0% for females. The most common cancer for males was prostate cancer, and for females was breast cancer. The next most common cases for both males and females were colorectal (bowel) cancer, melanoma of the skin and lung cancer [1].

Cancer was the leading cause of death in 2016 and remains a major cause of illness [1].

The National Cancer Prevention Policy recommends population measures for reducing the incidence of preventable cancers focusing on prevention, early detection and immunisation. Preventable risk factors include tobacco and alcohol consumption, overweight and obesity, physical inactivity and diet, ultraviolet radiation exposure and occupational hazards. Population-based screening programs in Australia target breast, cervical and bowel cancers. Population-immunisation programs reduce the incidence of cancer-causing infections, namely human papillomavirus (HPV) which is responsible for almost all cervical cancer, and hepatitis B virus (HBV), which is a major cause of liver cancer [3].

References

1. Australian Institute of Health and Welfare 2019. Cancer in Australia 2019. Cancer series no. 119. Cat. no. CAN 123. Canberra: AIHW.
2. Australian Institute of Health and Welfare and Australasian Association of Cancer Registries 2014. Cancer in Australia: in brief 2014. Cancer series no. 91. Cat. no. CAN 89. Canberra: AIHW.
3. Cancer Council Australia. National Cancer Prevention Policy. Last updated 15 April 2015. Available from: **http://www.cancer.org.au/policy-and-advocacy/prevention-policy/national-cancer-prevention-policy.html**; accessed: 6 Jan 2017.

Indicator detail: To protect confidentiality the following data have been suppressed:

- all data where there are fewer than five events in an area
- rates/ratios where there are from five to nine events in an area, though the number itself is shown
- data for the indicator, All other cancer incidence, where this could consequentially reveal other suppressed data
- These data exclude all cases of basal cell carcinoma (BCC) of the skin and squamous cell carcinoma (SCC) of the skin.

There may be slight differences between the data presented and other published data sources due to the data being derived from different base geographies.

Separate data are presented for the following cancers:

1. Males:
   - Bladder cancer incidence
   - Colorectal cancer incidence
   - Head and neck cancer incidence
   - Kidney cancer incidence
   - Leukaemia cancer incidence
   - Lung cancer incidence
   - Lymphoma cancer incidence
   - Melanoma of the skin incidence
   - Pancreatic cancer incidence
   - Prostate cancer incidence
   - Stomach cancer incidence
   - All other cancer incidence
   - All cancer incidence.

2. Females:
   - Breast cancer incidence
   - Colorectal cancer incidence
   - Leukaemia cancer incidence
   - Lung cancer incidence
   - Lymphoma cancer incidence
   - Melanoma of the skin incidence
   - Ovarian cancer incidence
   - Pancreatic cancer incidence
   - Thyroid cancer incidence
   - Uterine cancer incidence
   - All other cancer incidence
   - All cancer incidence.

3. Persons:
- Colorectal cancer incidence
- Leukaemia cancer incidence
- Lung cancer incidence
- Lymphoma cancer incidence
- Melanoma of the skin incidence
- Pancreatic cancer incidence
- All other cancer incidence
- All cancer incidence.

Additional data about these and other cancers are available from the Australian Institute of Health and Welfare website, **https://www.aihw.gov.au/reports/cancer/cancer-in-australia-2019/contents/table-of-contents**.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of new cases of cancer, by type, among male, female or total population.

Denominator: Male, female or total population.

Detail of analysis: Indirectly age-standardised rate per 100,000 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU from an analysis by the Australian Institute of Health and Welfare (AIHW) of the Australian Cancer Database (ACD). The ACD is compiled at the AIHW from cancer data provided by state and territory cancer registries: for further information on the ACD see **https://www.aihw.gov.au/about-our-data/our-data-collections/australian-cancer-database**.

Selected long-term health conditions, by age (ABS Census)

Long-term health conditions, by age, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The rationale for including the long-term health conditions topic in the 2021 Census was to:
- allow for cross-classification with other Census topics
- enable output for sub-populations (e.g., culturally and linguistically diverse or Aboriginal and Torres Strait Islander populations)
- enable data outputs at finer geographies than what can be achieved through existing health collections.

Apart from this new question in the Census, the ABS have multiple instruments to collect information about health conditions. These are in the form of the National Health Survey, National Aboriginal and Torres Strait Islander Health Survey and the Patient Experience Survey. Each instrument can be used to estimate rate of long-term health conditions across the Australian population. To understand the methodological differences in the creation of these estimates, the ABS have created a web document “Comparing ABS long-term health conditions data sources: Exploring the purpose, collection and concept of health data”, available at: **https://www.abs.gov.au/statistics/detailed-methodology-information/information-papers/comparing-abs-long-term-health-conditions-data-sources**.

The document compares the purposes, the collection methods, and advantages and disadvantages of each of the instruments in defining estimates and provides a comparison of the derived Australian estimates for each long-term health conditions from their various collections. They highlight that the key point of difference is that the 2021 Census asks only a single long-term health conditions question while their targeted health surveys provide more detailed data about the health status of the populations under investigation. The ABS states that the “long-term health conditions data from the Census is not intended to provide prevalence estimates” and recommends that their health survey instruments should be used for national and state/territory level long-term health condition prevalence rates.

The benefit of asking the long-term health conditions question in the Australian Census context, as quoted by the ABS, is “that it allows for the analysis of long-term health conditions data at more detailed geographic and sub-population levels than ABS health surveys can support, and across a range of socio-economic and demographic dimensions”. Given PHIDU’s remit to publish small area statistics for monitoring inequality in health and wellbeing and for supporting opportunities to improve population health outcomes.

PHIDU have published the reported responses (albeit as standardised rates per 100 population) at the small area level as they can highlight variations across Australia from the national and state/ territory rates, a major purpose of the Social Health Atlas. However, given the comments above, the rates of long-term health conditions reported here at the national and state/ territory level should be used with caution, and the other caveats in the linked ABS document should also be borne in mind.

Definition of a long-term health condition:
Long-term health conditions are those conditions diagnosed by a doctor or nurse, last six months or longer and include health conditions that:

- May recur from time to time, or
- Are controlled by medication, or
- Are in remission.

This variable records the type of selected long-term health condition(s) a person has reported. Respondents can record multiple long-term health conditions including:

- arthritis
- asthma
- cancer (including remission)
- dementia (including Alzheimer’s)
- diabetes (excluding gestational diabetes)
- heart disease (including heart attack or angina)
- kidney disease
- lung condition (including COPD) or emphysema)
- mental health condition (including depression or anxiety)
- stroke
- and other long-term health conditions.

As respondents can select multiple conditions, the count of components for this variable will not equal the total number of people.
Multiple variables are created from multiple responses from one or more long-term health conditions questions. Therefore, some variables do not have a non-response rate calculated. The non-response rate derived for the “Count of long-term health conditions (CLTHP)” in the 2021 Census was 8.1%.

Indicator detail: Long-term health conditions, by age (People of all ages; People aged 15 years and over; and Children and young people aged 0 to 14 years); People who reported they had:

- one long-term health condition, 2021
- two long-term health conditions, 2021
- one or more long-term health conditions, 2021
- no long-term health condition, 2021.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Number of people who had no long-term health conditions/ one condition/ two conditions or one or more conditions on the list above, or any other long-term health conditions, by age.

Denominator: Total population (People of all ages; People aged 15 years and over; and Children and young people aged 0 to 14 years).

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Selected long-term health conditions, by condition (ABS Census)

Long-term health conditions, by condition and age, 2021
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The rationale for including the long-term health conditions topic in the 2021 Census was to:

- allow for cross-classification with other Census topics
- enable output for sub-populations (e.g., culturally and linguistically diverse or Aboriginal and Torres Strait Islander populations)
- enable data outputs at finer geographies than what can be achieved through existing health collections.

Apart from this new question in the Census, the ABS have multiple instruments to collect information about health conditions. These are in the form of the National Health Survey, National Aboriginal and Torres Strait Islander Health Survey and the Patient Experience Survey. Each instrument can be used to estimate rate of long-term health conditions across the Australian population. To understand the methodological differences in the creation of these estimates, the ABS have created a web document "Comparing ABS long-term health conditions data sources: Exploring the purpose, collection and concept of health data", available at: **https://www.abs.gov.au/statistics/detailed-methodology-information/information-papers/comparing-abs-long-term-health-conditions-data-sources**.

The document compares the purposes, the collection methods, and advantages and disadvantages of each of the instruments in defining estimates and provides a comparison of the derived Australian estimates for each long-term health conditions from their various collections. They highlight that the key point of difference is that the 2021 Census asks only a single long-term health conditions question while their targeted health surveys provide more detailed data about the health status of the populations under investigation. The ABS states that the "long-term health conditions data from the Census is not intended to provide prevalence estimates" and recommends that their health survey instruments should be used for national and state/territory level long-term health condition prevalence rates.

The benefit of asking the long-term health conditions question in the Australian Census context, as quoted by the ABS, is "that it allows for the analysis of long-term health conditions data at more detailed geographic and sub-population levels than ABS health surveys can support, and across a range of socio-economic and demographic dimensions." Given PHIDU's remit to publish small area statistics for monitoring inequality in health and wellbeing and for supporting opportunities to improve population health outcomes.

PHIDU have published the reported responses (albeit as standardised rates per 100 population) at the small area level as they can highlight variations across Australia from the national and state/ territory rates, a major purpose of the Social Health Atlas. However, given the comments above, the rates of long-term health conditions reported here at the national and state/ territory level should be used with caution, and the other caveats in the linked ABS document should also be borne in mind.

Definition of a long-term health condition
Long-term health conditions are those conditions diagnosed by a doctor or nurse, last six months or longer and include health conditions that:

- May recur from time to time, or
- Are controlled by medication, or
- Are in remission.

This variable records the type of selected long-term health condition(s) a person has reported. Respondents can record multiple long-term health conditions including:

- arthritis
- asthma
- cancer (including remission)
- dementia (including Alzheimer's)
- diabetes (excluding gestational diabetes)
- heart disease (including heart attack or angina)
- kidney disease
- lung condition (including COPD) or emphysema)
- mental health condition (including depression or anxiety)
- stroke
- and other long-term health conditions.

As respondents can select multiple conditions, the count of components for this variable will not equal the total number of people. Multiple variables are created from multiple responses from one or more long-term health conditions questions. Therefore, some variables do not have a non-response rate calculated. The non-response rate derived for the "Count of long-term health conditions (CLTHP)" in the 2021 Census was 8.1%.

Indicator detail: Long-term health conditions, by condition and age (People of all ages; People aged 15 years and over; and Children and young people aged 0 to 14 years).

People who reported they had:

- arthritis
- asthma
- cancer (including remission)
- dementia (including Alzheimer's)
- diabetes (excluding gestational diabetes)
- heart disease (including heart attack or angina)
- kidney disease
- lung condition (including COPD) or emphysema)
- mental health condition (including depression or anxiety)
- stroke
- and other long-term health conditions.

For children and young people only 'asthma', 'mental health conditions (including depression and anxiety)' and 'any other long-term conditions' were reported.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of people who been told by a doctor or nurse that they have one of the conditions listed above, by age.

Denominator: Total population (People of all ages; People aged 15 years and over; and Children and young people aged 0 to 14 years). The variables are derived from responses to the long-term health conditions question and count the number of people who marked a condition listed on the Census form, or who reported a long-term health condition in addition to those listed.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021.

Prevalence of 12-month mental health disorders (estimates)

Modelled estimates and direct estimates:
In the absence of data from other sources, modelled estimates are provided for data at the **Population Health Area (PHA)** and **Primary Health Network (PHN)** level for 12-month mental health disorders from the 2020–2022 National Study of Mental Health and Wellbeing (NSMHW), conducted by the Australian Bureau of Statistics (ABS). The modelled estimates at the **PHA** level were produced by the ABS, as a consultancy.

Estimates for quintile of socioeconomic disadvantage of area and Remoteness Area are, however, not modelled but direct estimates from the NSMHW, extracted using the ABS TableBuilder.

Users of these modelled estimates should note that they do not represent data collected in administrative or other data sets. As such, they should be used with caution and treated as indicative of the likely social dimensions present in an area with these demographic and socioeconomic characteristics.

The numbers are estimates for an area, not measured events as are, for example, death statistics. As such, they should be viewed as a tool that, when used in conjunction with local area knowledge and taking into consideration the prediction reliability, can provide useful information that can assist with decision making for small geographic regions. Of particular note is that the true value of the published estimates is also likely to vary within a range of values as shown by the upper and lower limits published in the data (xlsx) and viewable in the column chart in the single map atlases.

What the modelled estimates do achieve, however, is to summarise the various demographic, socioeconomic and administrative information available for an area in a way that indicates the expected level of each health indicator for an area with those characteristics. In the absence of accurate, localised information about the health indicator, such predictions can usefully contribute to policy and program development, service planning and other decision-making processes that require an indication of the geographic distribution of the health indicator.

The overall response rate was 52.0% (of the in-scope population); further, the response rate among some groups is lower than among other groups, e.g., those living in the most disadvantaged areas had a 27% lower response rate than those living in less disadvantaged areas. To this extent, the data are likely to understate the overall extent of these disorders and the differences between population groups.

Although the sample includes the majority of people living in households in private dwellings, it excludes those living in the Very Remote areas of Australia and discrete Aboriginal and Torres Strait Islander communities; whereas these areas comprise less than 3% of the total population, Aboriginal people comprise up to one third of the population. The survey does not include persons usually resident in non-private dwellings (hospitals, gaols, nursing homes - and also excludes members of the armed forces). However, as the initial modelling (at the PHN level) was weighted to the whole population at the request of the client for this work – the Department of Health and Aged Care – to ensure consistency PHIDU requested the same approach to weighting the PHA estimates.

This and other limitations of the method mean that estimates have not been published for PHAs with populations under 1,000 and for PHAs with more than 20% of their population residing in SA1s classified as very remote or as discrete Aboriginal and Torres Strait Islander Communities.

The ABS used a number of methods to measure the quality of the estimates, one of which is the relative root mean squared error (RRMSE) of the modelled estimates. The RRMSEs are included with the data. Users are advised that:

- estimates with RRMSEs less than 25% are considered reliable for most purposes
- estimates with RRMSEs from 0.25 and to 0.50 have been marked (~) to indicate that they should be used with caution
- those greater than 0.50 but less than 1 are marked (~~) to indicate that the estimate is considered too unreliable for general use.

Differences from data published by the Australian Bureau of Statistics (ABS):

Data by quintile of socioeconomic disadvantage and Remoteness will differ to the extent that data extracted from TableBuilder have been randomised, whereas those published by the ABS are not. In addition, rates published by the ABS for modelled estimates are generally crude rates; rates published by PHIDU are age-standardised.

Estimated number of males, females and persons aged 16 to 85 years with a 12-month mental health disorder, by disorder group, severity and comorbidity with any physical condition[3], 2020–22 – by PHA, PHN, Quintiles, Remoteness

Policy context: Mental health is a key component of overall health and wellbeing. A mental disorder is characterised by a 'clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour' [1]. The term itself covers a range of disorders including Anxiety, Affective and Substance Use disorders.

A person may be negatively affected by symptoms of mental health concerns without necessarily meeting the criteria for a mental disorder. Mental health affects and is affected by multiple socioeconomic factors, including a person's access to services, living conditions and employment status, and impacts not only the individual but also their families and carers [1].

The Productivity Commission reported in 2020 that the treatment of mental illness has been tacked on to a health system that has been largely designed around the characteristics of physical illness. They commented on a number of issues of concern arising from this approach, one of which was that, in contrast to many physical health conditions, mental illness tends to first emerge in younger people (75% of those who develop mental illness, first experience mental ill-health before the age of 25 years) raising the importance of identifying risk factors and treating illness early where possible [3]. They estimated that the cost to the Australian economy of mental ill-health and suicide is, conservatively, in the order of $43 to $51 billion per year. Additional to this is an approximately $130 billion cost associated with diminished health and reduced life expectancy for those living with mental ill-health [3].

In 2020–22, the ABS conducted the NSMHW, the main aims of which were to provide information in five key areas:

- How many Australians have mental disorders?
- What is the impact of these disorders?
- How many people have used services and what are the key factors affecting this?
- Are services making a difference to the lives of people experiencing problems with their mental health?
- How many Australians have a lived experience of suicide and what services have they used?

Key topics included:

- lifetime and 12-month prevalence of selected mental disorders
- level of impairment for these disorders
- health services used for mental health problems, such as consultations with health practitioners or visits to hospital
- suicidality and self-harm behaviours
- demographic and socio-economic characteristics of people.

In 2020–22, an estimated 4.3 million Australians (21.5%) reported having Any 12-month mental disorder; this was an increase from 19.5% in 2007 [2]. The most common 12-month mental disorders were Anxiety disorders (17.2% of the population aged 16–85 years and 80.1% of those with any 12-month mental disorder); Affective disorders (7.5% and 35.1%) and Substance Use disorders (3.3% and 15.2%).

[3] Physical conditions defined as arthritis, osteoporosis, asthma, cancer (including remission), dementia, diabetes (excluding during pregnancy), heart disease, effects of a stroke, chronic kidney disease, and bronchitis or emphysema.

The data published in the atlas show that, of the population aged 16–85 years, females (24.6%) are more likely than males (18.3%) to have had Any 12-month mental health disorder. Over one fifth (21.1%) of females had an Anxiety disorder, 8.6% an Affective disorder and 2.1% Substance Use disorder. For males, the proportions were lower for Anxiety disorders (13.3%) and Affective disorders (6.5%), but higher for Substance Use disorders (4.4%). The highest prevalence was recorded for those aged 16 to 24 years, at 38.8%, comprising a higher 45.6% for females and 32.4% for males.

References

1. Australian Bureau of Statistics (ABS). National Study of Mental Health and Wellbeing. Available from: **https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release**; accessed 4 November 2024.
2. Australian Bureau of Statistics (ABS). Data for 2007 from the 2007 National Survey of Mental Health and Wellbeing, as adjusted by ABS to be consistent with definitions from the 2020–22 NSMHW. Information provided to PHIDU by ABS.
3. Productivity Commission, Mental Health, Inquiry Report. Available from: **https://www.pc.gov.au/inquiries/completed/mental-health/report**; accessed 4 November 2024.
4. Australian Bureau of Statistics (ABS). National Study of Mental Health and Wellbeing methodology. Available from: **https://www.abs.gov.au/methodologies/national-study-mental-health-and-wellbeing-methodology/2020-2022**, accessed 13 November 2024.

Indicator detail: Estimated number of males, females and persons aged 16 to 85 years with a 12-month mental health disorder, by disorder group, severity and comorbidity with any physical condition.

People who reported they had:

- Anxiety disorders
- Affective (mood) disorders
- Substance Use disorders
- Any 12-month mental disorder
- Any 12-month mental disorder by mild, moderate or severe severity
- Comorbidity of any 12-month mental disorder and any physical condition.

Note that in the NSMHS, physical conditions is defined as arthritis, osteoporosis, asthma, cancer (including remission), dementia, diabetes (excluding during pregnancy), heart disease, effects of a stroke, chronic kidney disease, and bronchitis or emphysema.

More details about these disorders and other information available from the Study are available from the ABS at **https://www.abs.gov.au/methodologies/national-study-mental-health-and-wellbeing-methodology/2020-2022**.

Geography: Data available by Population Health Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 16 to 85 years with Any 12-month disorder, Any 12-month disorder by severity (mild/ moderate/ severe), Anxiety disorders, Affective disorders, Substance Use disorders and Comorbidity of any 12-month mental disorder and any physical condition.

Denominator: Male, female or persons aged 16 to 85 years.

Detail of analysis: Indirectly age-standardised rate per 100 population aged 16 to 85 years; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA & PHN: Age-standardised rates are based on Australian Bureau of Statistics' data, produced as a consultancy for PHIDU, from the 2020–2022 National Study of Mental Health and Wellbeing.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2020–2022 National Study of Mental Health and Wellbeing, ABS TableBuilder.

Self-assessed health status (estimates)

Modelled estimates and direct estimates:
In the absence of data from administrative data sets, modelled estimates are provided at the **Population Health Area (PHA)** level for selected indicators from the 2022 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS). The modelled estimates were produced by the ABS as a consultancy.

Estimates at the Local Government Area (LGA) and Primary Health Network (PHN) level were derived from the PHA estimates. Estimates for quintile of socioeconomic disadvantage of area and Remoteness Area are, however, direct estimates, extracted using the ABS TableBuilder.

Users of these modelled estimates should note that they do not represent data collected in administrative or other data sets. As such, they should be used with caution and treated as indicative of the likely social dimensions present in an area with these demographic and socioeconomic characteristics.

The numbers are estimates for an area, not measured events as are, for example, death statistics. As such, they should be viewed as a tool that, when used in conjunction with local area knowledge and taking into consideration the prediction reliability, can provide useful information that can assist with decision making for small geographic regions. Of particular note is that the true value of the published estimates is also likely to vary within a range of values as shown by the upper and lower limits published in the data (xlsx) and viewable in the column chart in the single map atlases.

What the modelled estimates do achieve, however, is to summarise the various demographic, socioeconomic and administrative information available for an area in a way that indicates the expected level of each health indicator for an area with those characteristics. In the absence of accurate, localised information about the health indicator, such predictions can usefully contribute to policy and program development, service planning and other decision-making processes that require an indication of the geographic distribution of the health indicator.

The relatively high survey response rate in the NHS provides a high level of coverage across the population; however, the response rate among some groups is lower than among other groups, e.g., those living in the most disadvantaged areas have a lower response rate than those living in less disadvantaged areas. Although the sample includes the majority of people living in households in private dwellings, it excludes those living in the Very Remote areas of Australia and discrete Aboriginal and Torres Strait Islander communities; whereas these areas comprise less than 3% of the total population, Aboriginal people comprise up to one third of the population. The survey does not include persons usually resident in non-private dwellings (hospitals, gaols, nursing homes - and also excludes members of the armed forces serving in Australia).

This and other limitations of the method mean that estimates have not been published for PHAs with populations under 1,000 and for PHAs with more than 20% of their population residing in SA1s classified as very remote or as discrete Aboriginal and Torres Strait Islander Communities.

The ABS used a number of methods to measure the quality of the estimates, one of which is the relative root mean squared error (RRMSE) of the modelled estimates. The RRMSEs are included with the data. Users are advised that:

- estimates with RRMSEs less than 25% are considered reliable for most purposes;
- estimates with RRMSEs from 0.25 and to 0.50 have been marked (~) to indicate that they should be used with caution; and
- those greater than 0.50 but less than 1 are marked (~~) to indicate that the estimate is considered too unreliable for general use.

Differences from data published by the Australian Bureau of Statistics (ABS):
Data by quintile of socioeconomic disadvantage and Remoteness will differ to the extent that data extracted from Survey TableBuilder have been randomised, whereas those published by the ABS are not. In addition, rates published by the ABS for modelled estimates are generally crude rates; rates published by PHIDU are age-standardised.

Estimated number of people aged 15 years and over, who reported their self-assessed health status as fair or poor, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Self-assessed health status is commonly used as a proxy measure of actual health status; and how people rate their health is strongly related to their experience of illness and disability [1,2]. This measure is therefore an important indicator of key aspects of quality of life [3].

Australians generally consider themselves to be healthy. In 2022, over half (56.5%) of Australians aged 15 years and over rated their health as 'very good' (36.3%) or 'excellent' (20.2%), while only 3.8% rated it as 'poor'; a further 11.3% rated it as 'fair' [4]. Older Australians generally rated themselves as having poorer health than younger people, with persons aged 75 years and over recording the highest proportions of fair or poor health, at 31.7% [4]. There was little difference in the way men and women assessed their overall health, with men slightly more likely to report their health as fair or poor other than at ages 85 years and over, where almost one third more women than men reported poorer health [4].

References

1. Australian Bureau of Statistics (ABS). Profiles of health, Australia, 2011-13. (ABS Cat. no. 4338.0). Canberra: ABS; 2013.
2. Doiron D, Fiebig DG, Johar M, Suziedelyte A. Does self-assessed health measure health? Sydney, NSW: UTS; 2014.
3. McCallum J, Shadbolt B, Wang D. Self-assessed health and survival: a seven-year follow-up study of Australian elderly. Am J Public Health. 1994;84(7):1100-5.
4. Australian Bureau of Statistics (ABS). Table 13.3 Self assessed health status, by age and sex(a) — Persons aged 15 years and over, Proportion. Available by Google search of 'abs self-assessed health 2022'; accessed 11 November 2024.

Indicator detail: Differences from data published by the Australian Bureau of Statistics (ABS): data by quintile of socioeconomic disadvantage and Remoteness will differ to the extent that data extracted from TableBuilder have been randomised, whereas those published by the ABS have not been. In addition, rates published by the ABS for modelled estimates are generally crude rates; rates published by PHIDU are age-standardised.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of people aged 15 years and over reporting their health as 'fair' or 'poor' (and not 'good', 'very good' or 'excellent').

Denominator: Population aged 15 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 15 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Prevalence of selected health risk factors (estimates)

Modelled estimates and direct estimates:
In the absence of data from administrative data sets, estimates have been produced from the 2022 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS), for selected health risk factors. For further details on the production of these estimates (referred to as modelled estimates) and caveats, see **Modelled estimates and direct estimates**, above.

Estimates for quintile of socioeconomic disadvantage of area and Remoteness Area are, however, not modelled but direct estimates from the 2022 NHS, extracted using the ABS TableBuilder.

Adults

Estimated number of males, females and persons aged 18 years and over with High or Very high psychological distress based on the Kessler 10 Scale (K10), 2022 – by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Mental health is fundamental to the wellbeing of individuals, their families and the population as a whole. One indication of the mental health and wellbeing of a population is provided by measuring levels of psychological distress using the Kessler Psychological Distress Scale-10 items (K10). The K10 questionnaire was developed to yield a global measure of psychological distress, based on ten questions about people's level of nervousness, agitation, psychological fatigue and depression in the four weeks prior to interview, asked of respondents 18 years and over [1]. Based on previous research, a very high K10 score may indicate a need for professional help [2].

In 2022, 14.3% of Australians 18 years and over reported experiencing 'high' or 'very high' levels of psychological distress, compared with 13.0% in 2017–18, 11.7% in 2014–15, 10.8% in 2011–12, 12.0% in 2007–08 and 12.6% in 2001. Proportionally more females than males experienced 'high' or 'very high' psychological distress in 2022 (16.7% and 11.8%, respectively) [3]. The figure for females in 2022 is 15% higher than in 2017–18, whereas that for males has hardly changed [4]. The National Study of Mental Health and Wellbeing reported around 17% of people aged 16-85 years experienced high or very high levels of psychological distress during the COVID-19 pandemic in 2020-22 [5].

References

1. Coombs T. Australian Mental Health Outcomes and Classification Network: Kessler-10 Training Manual. Sydney: NSW Institute of Psychiatry; 2005.
2. Australian Bureau of Statistics (ABS). National health survey: users' guide - electronic publication, 2007-08. (ABS Cat. no. 4364.0). Canberra: ABS; 2009.
3. Australian Bureau of Statistics (ABS) Psychological distress. National Health Survey: First results, 2017–18 — Australia. Canberra: ABS; 2018. Available from: **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey/2017-18**; accessed 4 December 2024: 2022 data from the atlas.
4. 2022 data from PHIDU workbooks, data release December 2024, available from **https://phidu.torrens.edu.au/social-health-atlases/data**.
5. ABS. National Study of Mental Health and Wellbeing, 2020-2022. Available from: **National Study of Mental Health and Wellbeing, 2020-2022 | Australian Bureau of Statistics**. Accessed on: 18 February 2025

Indicator detail: Information was collected from respondents aged 18 years and over using the Kessler Psychological Distress Scale-10 (K10). This ten-item questionnaire yields a measure of psychological distress based on questions about negative emotional states (with different degrees of severity) experienced in the four weeks prior to interview. For each question, there is a five-level response scale based on the amount of time that a respondent experienced those particular feelings. The response options are ‘none of the time’; ‘a little of the time’; ‘some of the time’; ‘most of the time’; or ‘all of the time’. Each of the items are scored from 1 for ‘none’ to 5 for ‘all of the time’. Scores for the ten items are summed, yielding a minimum possible score of 10 and a maximum possible score of 50, with low scores indicating low levels of psychological distress and high scores indicating high levels of psychological distress.

K10 results are commonly grouped for output. Results are grouped into the following four levels of psychological distress: ‘low’ (scores of 10-15, indicating little or no psychological distress); ‘moderate’ (scores of 16-21); ‘high’ (scores of 22-29); and ‘very high’ (scores of 30-50). Based on research from other population studies, a ‘very high’ level of psychological distress shown by the K10 may indicate a need for professional help. For the indicator in this Atlas, data are for respondents aged 18 years and over who scored in the ‘high’ and ‘very high’ levels of psychological distress.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Male, female or total population aged 18 years and over assessed as having a high or very high level of psychological stress under the K10.

Denominator: Population aged 18 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 18 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of people aged 18 years and over who had high blood pressure, 2022 – by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: A person was defined as having high blood pressure if their systolic/diastolic blood pressure was equal to or greater than 120/80 mm Hg [1]. Hypertension or high blood pressure is persistently high pressure in the arteries that can, over time, cause damage to organs such as the kidneys, brain, eyes, and heart. High blood pressure is a risk factor for chronic conditions, including stroke, coronary heart disease, dementia and chronic kidney disease [2]. It is estimated that high blood pressure contributed 63% of hypertensive heart disease total burden, 42% of coronary heart disease burden, 39% of stroke burden, 37% of chronic kidney disease burden, and 31% of atrial fibrillation and flutter burden in 2018 [2].

Factors that increase the risk of developing hypertension include obesity, being sedentary, smoking, excessive intake of alcohol and of salt, and the use of some pharmaceuticals (e.g., oral contraceptives, steroids) and drugs (e.g., cocaine, amphetamines). In many cases, the cause of hypertension is not known. In others, it is due to an identifiable condition such as pregnancy, diabetes, thyroid and kidney disease, and a number of rare tumours and hormone abnormalities.

Respondents to the 2022 National Health Survey aged 18 years and over who consented had their blood pressure measured. The number of people with high blood pressure presented in this section is based on these measurements and does not include people who have high blood pressure but are managing their condition through the use of blood pressure medications.

In 2022, 23.3% of all Australians aged 18 years and over (4.6 million people) had measured high blood pressure. This was 58% above the level of people who reported having hypertension. Overall, men were more likely to have high blood pressure than women (25.4% and 20.3% respectively), while the proportion of Australians with high blood pressure increased with age with 45.2% of all people aged 75 years and over having measured high blood pressure in 2017–18 [3].

References

1. Heart Foundation, Blood pressure. Available from **https://www.heartfoundation.org.au/your-heart/blood-pressure-and-your-heart** ; accessed 19 February 2025
2. AIHW. Social determinants of health, biomedical risk factors. Available from: **Biomedical risk factors - Australian Institute of Health and Welfare** Accessed on: 18 February 2025
3. Australian Bureau of Statistics (ABS). High blood pressure. National Health Survey: First Results, 2017–18 — Australia. Canberra: ABS; 2018. Available from: **https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012017-18?OpenDocument**; accessed 14 October 2019.

Indicator detail: Information was collected in the National Health Survey using two methods. These were:

- a question on whether respondents had ever been told by a doctor or nurse they had any circulatory conditions (including hypertension or high blood pressure)
- for adults aged 18 years and over, the taking of blood pressure measurements.

These results are based on the latter definition and relate to the 61.0% of respondents aged 18 years and over who had their blood pressure measured. For those who did not have their blood pressure measured, blood pressure was imputed.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated population with measured blood pressure.

Denominator: Population aged 18 years or over.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of males, females and persons aged 18 years and over who were overweight (but not obese) or obese, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Each increment in a person's body weight above their optimal level is associated with an increase in the risk of ill health. Overweight arises through an energy imbalance over a sustained period of time. While many factors may influence a person's weight, weight gain is essentially due to the energy intake from the diet being greater than the energy expended through physical activity. The energy imbalance need only be minor for weight gain to occur, and some people, due to genetic and biological factors, may be more likely to gain weight than others. Overweight is associated with higher mortality and morbidity, and those who are already overweight have a higher risk of becoming obese.

Being obese has significant health, social and economic impacts, is more prevalent among disadvantaged populations and is closely related to lack of exercise and diet [1]. Obesity increases the risk of suffering from a range of health conditions, including coronary heart disease, type 2 diabetes, some cancers, knee and hip problems, and sleep apnoea [1].

Over nearly three decades from 1995 to 2022, the proportion of the Australian population aged 18 years and over who were overweight or obese increased by 16.9%, from 56.3% to 65.8% (slightly below the figure of 67.0% in 2017–18): the increase was greater for females (28.5%) than for males (12.1%[4]) [2]. In 2022, 2 in 3 (66%) of adults were overweight or obese, and 34% were overweight but not obese and 32% were obese [3].

A fact sheet on obesity and overweight rates can be accessed **here.**

[4] Note that the increase to 2017–18 was greater, at 17.0%, as the proportion of males who were overweight or obese in that year was estimated to be 74.3%, cf. 71.2% in 2022 [2]. This difference was not reflected in the figures for females [2].

References

1. Australian Bureau of Statistics (ABS). Measures of Australia's progress, 2010. (ABS Cat. no. 1370.0). Canberra: ABS; 2010.
2. Calculated in PHIDU from various data sources.
3. AIHW. Overweight and obesity. Available from: **Overweight and obesity, About - Australian Institute of Health and Welfare** Accessed on: 18 February 2025.

Indicator detail: The Body Mass Index (BMI) (or Quetelet's index) is a measure of relative weight based on an individual's mass and height. The height (cm) and weight (kg) of respondents, as measured during the NHS interview, were used to calculate the BMI as follows:

- Overweight (but not obesity) was determined where a person's BMI was between 25 and less than 30.
- Obesity was determined where a person's BMI was 30 or greater.

The BMI is a useful tool at a population level for measuring trends in body weight, and helping to define population groups who are at higher risk of becoming obese, and therefore developing long-term medical conditions associated with a high BMI, such as type 2 diabetes and cardiovascular disease.

Note that the modelled estimates are based on the 59.2% of persons 18 years and over in the sample who had their height and weight measured (this is below the figure of 66.2% for 2017–18). For respondents who did not have their height and weight measured, imputation was used to obtain height, weight and BMI scores. For more information refer to **Appendix 2: Physical measurements** in the ABS publication National Health Survey: First Results, 2017–18 (Cat. no. 4364.0.55.001).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 18 years and over who were assessed as being overweight (not obese) or obese, based on their measured height and weight.

Denominator: Male, female or total population aged 18 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 18 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of males, females and persons aged 18 years and over with a waist measurement indicating an increased/ substantially increased risk of developing chronic diseases, 2022 – by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Overweight (including obesity) became the leading risk factor contributing to disease burden in 2024, overtaking tobacco use. It increased from the 4th highest risk factor in 2003 and the second highest risk factor in 2018. However, it should be noted that the rate of total burden attributable to overweight (including obesity) has been relatively stable over time [1]. The Australian Burden of Disease Study estimates that Australians will lose 5.8 million years of healthy life this year due to living with obesity related disease and resulting premature death [1]. Waist circumference is a commonly used measure of whether a person is of a healthy weight or not. In particular, it provides a good estimate of body fat and can indicate a person's potential risk of developing chronic diseases such as heart disease and Type 2 diabetes.

In 2022, the average waist measurement for men aged 18 years and over was 99.3 cm (up from 98.0cm in 2017–18), while for women of the same age it was 91 cm (up from 87.9cm). Both averages are above the measurements indicating increased risk (94cm and 80cm respectively), particularly for women [2].

Almost two thirds (63.5%) of all men aged 18 years and over had a waist circumference that put them at an increased risk of developing chronic diseases, while almost three quarters (72.1%) of women at these ages had an increased level of risk [2] [3].

Between 2007-08 and 2022 the proportions of men and women at increased risk rose, from 55.4% to 63.5% respectively for men, and 63.8% to 72.1% respectively for women. However, in recent years the proportions have remained stable. This corresponds with the slowing of the trend in increases in the proportion of Australians who are overweight or obese based on Body Mass Index [3].

References

1. Australian Institute of health and Welfare (AIHW), Australian Burden of Disease Study 2024. Available from **https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2024/contents/key-findings#changes-in-lead:** accessed 18 February 2025.
2. Australian Bureau of Statistics (ABS). Waist circumference and Body Mass Index. Available from **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/waist-circumference-and-bmi/latest-release**; accessed 8 November 2024.
3. Australian Bureau of Statistics (ABS). National Health Survey Table 8 Body Mass Index, waist circumference, height and weight, by age and sex — Persons aged 15 years and over. Available from: **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey/latest-release**; accessed 8 November 2024.

Indicator detail: Waist circumference is a commonly used measure of whether a person is of a healthy weight or not. A waist measurement of 94cm or more for men or 80cm or more for women indicates that a person is at increased risk of developing chronic disease; see World Health Organisation, 2000, Obesity: preventing and managing the global epidemic. Report of a WHO Consultation, 2000, available from: **http://libdoc.who.int/trs/WHO_TRS_894.pdf**; accessed 13 January 2018.

Note that the modelled estimates are based on the 60.4% of persons 18 years and over in the sample who had their waist measured (this was below the level in 2017–18, of 66.2%). For respondents who did not have their height and weight measured, imputation was used to obtain height, weight and BMI scores. For more information refer to **National Health Survey methodology**.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 18 years and over who had a waist circumference increasing risk or substantially increasing risk of developing chronic disease.

Denominator: Male, female or total population aged 18 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 18 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of males, females and persons aged 18 years and over who were current smokers, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Tobacco smoking is recognised one of the largest causes of preventable death and disease in Australia. It is associated with an increased risk of heart disease, stroke, cancer, emphysema, bronchitis, asthma, renal disease and eye disease [1]. There has been a substantial fall (41%) in the age-standardised rate of total burden attributable to tobacco use between 2003 and 2024. This change is largely a result of declines in smoking prevalence and the major linked diseases. However, while smoking prevalence has decreased in recent years, the burden attributable to tobacco use remains high due to the long lag times between smoking and developing diseases such as cancers and chronic respiratory conditions and the remaining risk of developing these diseases in people who have smoked in the past, although this risk continues to fall with prolonged abstinence [2]. The negative effects of passive smoking indicate that the risks to health of smoking affect more than just the smoker. Passive smoking increases the risk of heart disease, asthma, and some cancers. It may also increase the risk of Sudden Infant Death Syndrome (SIDS) and may predispose children to allergic sensitisation [3].

Rates of smoking have decreased substantially over time, down from 22.4% in 2001 to 10.6% in 2022 for those aged 18 years and over. Decreases are evident for both males and females; in 2022, 12.6% of males and 8.7% of females aged 18 years and over were current daily smokers [4].

In addition, 4% reported currently using e-cigarette and vaping devices (5.2% of males and 2.9% of females) [2]. Of those adults who were current daily smokers in 2022, one in eight (12.7%) reported current use of e-cigarette and vaping devices [4].

In 2022, young adults aged 18-24 years were more likely to have never smoked than any other age group, with more than three quarters of men (77.7%) and more than four in five women (82.2%) in this age group reporting they have never smoked. These proportions have increased from 64.0% and 64.9%, respectively since 2007–08 [4,5]. Tobacco use was the second highest risk factor contributing to the total disease burden (DALY) in 2024 and it has contributed the most to fatal burden [6].
References

1. Australian Medical Association (AMA). Tobacco smoking - Position statement, November 2005. Available from: **https://ama.com.au/position-statement/tobacco-smoking-2005**; accessed 29 July 2014.
2. Australian Institute of health and Welfare (AIHW), Australian Burden of Disease Study 2024. Available from **https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2024/contents/key-findings#changes-in-lead**: accessed 18 February 2025.
3. National Public Health Partnership (NPHP). National response to passive smoking in enclosed places and workplaces: a background paper. Canberra: NPHP; 2000.
4. Australian Bureau of Statistics (ABS). Smoking and vaping, Table 14.3. Available from: **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/smoking-and-vaping/latest-release**; accessed 8 November 2022.
5. Australian Bureau of Statistics (ABS). Smoking. National Health Survey: First Results, 2017–18 - Australia. Canberra: ABS; 2018. Available from: **Smoking, 2017-18 financial year | Australian Bureau of Statistics**; accessed 15 October 2019.
6. AIHW. Burden of disease Study 2024. Available from: **Australian Burden of Disease Study 2024, Key findings - Australian Institute of Health and Welfare** Accessed on: 18 February 2025

Indicator detail: The data on which the estimates are based are self-reported responses, reported to interviewers in the 2022 NHS. A current smoker is an adult who reported at the time of interview that they smoked manufactured (packet) cigarettes, roll-your-own cigarettes, cigars, and/or pipes at least once per week. It excludes chewing tobacco, electronic cigarettes (and similar) and smoking of non-tobacco products. As part of the NHS, respondents aged 18 years and over were asked to describe their smoking status at the time of interview as:

- current smokers: daily, weekly, other
- ex-smokers
- never smoked (those who had never smoked 100 cigarettes, nor pipes, cigars or other tobacco products at least 20 times, in their lifetime).

For the indicator in this Atlas, data are for respondents aged 18 years and over who responded that they were a current smoker daily, current smoker weekly (at least once a week, but not daily) and current smoker less than weekly.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 18 years and over who reported being a current, daily or at least once weekly smoker.

Denominator: Male, female or total population aged 18 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 18 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of males, females and persons aged 15 years and over who currently use an electronic cigarette (e-cigarette) or vaping device, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: E-cigarettes, also known as vapes, are battery-operated devices that deliver an aerosol by heating a liquid that users breathe in. People commonly refer to this aerosol as 'vapour', and to using an e-cigarette as 'vaping' [1].

Most e-cigarettes in Australia contain nicotine – even when the packaging says it doesn't. Nicotine is a highly addictive and toxic drug that can harm brain development in young people and impact attention, learning, memory and changes in mood. All e-cigarettes, even those that don't contain nicotine, can contain dangerous substances in the liquids and the aerosol [2].

Vapes have been designed to appeal to young people using colourful packaging and flavourings. They can lead to lung damage and can be harmful for young brains, which are still developing until about 25 years of age [3].

The 2022 Australian Bureau of Statistics National Health Survey has estimated that 864,300 (or 4.2%) Australians aged 15 years and over are currently using an e-cigarette/ vaping device. Of particular concern is that young people have the highest rate of using an e-cigarette/ vaping device, with 9.3% of 18 to 24 year olds, followed by 6.8% of 15 to 17 year olds [4]. Note that 61.9% of respondents aged 15 to 17 years had a parent\ guardian present during the interview and may have been reluctant to respond 'yes' to these questions and as such the rate of 15-17 year olds currently vaping may be undercounted [5].

The increasing popularity (especially in young people) of using e-cigarettes or vaping devices has prompted new laws for their regulation. On 1 July 2024 the law changed so that all vapes and vaping products, regardless of whether they contain nicotine or not, can only be sold in a pharmacy for the purpose of helping people quit smoking or manage nicotine dependence [2].

References

1. Department of Health and Aged Care, 'About e-cigarettes'. Available from: **https://www.health.gov.au/health-topics/smoking-and-tobacco/about-smoking-and-tobacco/about-e-cigarettes**; accessed 20/02/2025.
2. Department of Health and Aged Care, 'About vaping and e-cigarettes'. Available from: **https://www.health.gov.au/topics/smoking-vaping-and-tobacco/about-vaping**; accessed 24/02/2025.

3. Department of Health and Aged Care, 'Young people and vaping'. Available from: https://www.health.gov.au/topics/smoking-vaping-and-tobacco/audiences/young-people-vaping; accessed 24/02/2025.
4. Australian Bureau of Statistics, National Health Survey 2022. TABLE 14: Smoking and vaping, by age and sex.
5. Australian Bureau of Statistics, 'Smoking and vaping'. Available from: https://www.abs.gov.au/statistics/health/health-conditions-and-risks/smoking-and-vaping/latest-release; accessed 24/02/2025.

Indicator detail: The data on which the estimates are based are self-reported responses, reported to interviewers in the 2022 NHS.

E-cigarette and vaping use refer to the frequency of using e-cigarette or vaping devices including devices that use non-nicotine products and nicotine products. Respondents were categorised as:

- Currently uses an e-cigarette or vaping device: daily, weekly or less than weekly
- Formerly used an e-cigarette or vaping device: did not currently use an e-cigarette or vaping device, but had used a device in the last twelve months, or in their lifetime
- Never used an e-cigarette or vaping device in their lifetime.

Note that this data includes children aged 15 to 17 years who may answer for themselves if a parent or guardian gives permission, or the parent or guardian may answer the survey questions on the child's behalf. Under-reporting of smoking rates and e-cigarette or vaping device use in young people may have occurred because responses were provided by an adult living in the same household (for 61.9% of young people aged 15 to 17 years). Reporting rates may also have been impacted by reluctance to report smoking and e-cigarette or vaping device use when other household members were present.

For the indicator in this Atlas, data are for respondents aged 15 years and over who responded that they had used an e-cigarette or vaping device daily, weekly (at least once a week, but not daily) and less than weekly.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 15 years and over who reported to be currently using an e-cigarette or vaping device, daily or at least once weekly.

Denominator: Male, female or total population aged 15 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 15 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of males, females and persons aged 15 years and over who consumed 5 or more standard alcoholic drinks on any day in the last 12 months at least monthly, 2022 – by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Excessive alcohol consumption is a major risk factor for morbidity and mortality; and the harmful use of alcohol is the world's third largest risk factor for disease burden [1]. Harmful drinking is a major determinant of neuropsychiatric disorders, such as alcohol use disorders and epilepsy and other noncommunicable diseases such as cardiovascular diseases, cirrhosis of the liver and various cancers. The harmful use of alcohol is also associated with several infectious diseases as alcohol consumption weakens the immune system [1].

\Excessive alcohol consumption also causes harm beyond the physical and psychological health of the drinker in that it can harm the wellbeing and health of people around the drinker. A significant proportion of the disease burden attributable to harmful drinking arises from unintentional and intentional injuries, including those due to road traffic accidents, violence, and suicides [1]. As a result, alcohol is associated with many serious social and developmental issues, including many forms of violence, child neglect and abuse, and absenteeism in the workplace.

More than one in four (26.8% or 5.2 million) adults aged 18 years and over exceeded the Australian Adult Alcohol guideline in 2022[5]. This includes those who consumed 5 or more drinks on any day at least monthly in the last 12 months (i.e., on at least 12 occasions per year) [2]. While risky consumption of alcohol was consistent between 2019 and 2022-23 across almost all population groups, reductions occurred between almost all population groups between 2010 and 2022-2023 [3]. Of those adults who consumed alcohol in the last 12 months and exceeded the guidelines, 61.9% had reported that their consumption had stayed the same, 25.8% reported a decreased consumption, and 12.4% reported an increased consumption [4].

Note: this is a different measure to that available in 2017–18, when 16.1% of people aged 18 years and over consumed more than two standard drinks per day on average, exceeding the lifetime risk guideline [5]. In addition, the age group has been changed to 15 years and over.

References

1. World Health Organization (WHO). Alcohol - Fact sheet. 2011 Feb. Available from: **http://www.who.int/mediacentre/factsheets/fs349/en/**; accessed 18 October 2013.
2. Australian Bureau of Statistics (ABS) Alcohol consumption. Available from **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/alcohol-consumption/latest-release**; accessed 11 November 2024.
3. AIHW. National alcohol consumption in the National Drug Strategy Household Survey 2022-2023. Available from: **National Drug Strategy Household Survey 2022–2023: Risky alcohol consumption in the NDSHS - Australian Institute of Health and Welfare** Accessed on: 18 February 2025
4. Australian Bureau of Statistics (ABS) Alcohol consumption, 2022. Available from: **Alcohol consumption, 2022 | Australian Bureau of Statistics** Accessed on: 18 February 2025
5. Australian Bureau of Statistics (ABS) National Health Survey: First Results, 2017–18 — Australia. Canberra: ABS; 2018. Available from: **National Health Survey: First results, 2017-18 financial year | Australian Bureau of Statistics** accessed 14 January 2020.

Indicator detail: The data on which the estimates are based are self-reported responses, reported to interviewers in the 2022 NHS that they had who consumed 5 or more drinks on any day at least monthly in the last 12 months (i.e., on at least 12 occasions per year), exceeding the Australian Adult Alcohol guideline in 2022.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males/ females/ persons aged 15 years and over who consumed 5 or more standard alcoholic drinks on any day in the last 12 months at least monthly.

Denominator: Male, female or total population aged 15 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 15 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

[5] Alcohol consumption risk levels have been assessed using guidelines from the National Health and Medical Research Council (NHMRC) released from 2009 and updated in 2020.

Estimated number of adults aged 18 years and over with adequate fruit consumption, 2022 – by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: A balanced diet, including sufficient fruit and vegetables, reduces a person's risk of developing conditions such as heart disease and diabetes. The National Health and Medical Research Council's (NHMRC) 2013 Australian Dietary Guidelines recommend a minimum number of serves of fruit and vegetables each day, depending on a person's age and sex, to ensure good nutrition and health. The data described here are modelled estimates of fruit consumption only, as the number of survey respondents meeting the recommended guideline for consumption of vegetables was too small to allow modelling [1].

In 2022, based on self-reported daily consumption data from the ABS 2022 NHS, 56% of people aged 18 years and over did not meet the recommendation for consumption of fruit [1].

Reference

1. Australian Bureau of Statistics (ABS). Dietary behaviour. Available from: https://www.abs.gov.au/statistics/health/health-conditions-and-risks/dietary-behaviour/2022; accessed 11 November 2024.

Indicator detail: Adequate fruit consumption as shown here is equivalent to the minimum number of serves recommended in the 2013 NHMRC Australian Dietary Guidelines, of 2 serves for people aged 18 years and over. The data on which the estimates are based are self-reported responses, reported to interviewers in the 2022 NHS. For more information, refer to the ABS **Dietary behaviour**.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated population aged 18 years and over who had an adequate fruit intake.

Denominator: Total population aged 18 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 persons (aged 18 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Estimated number of people aged 15 years and over who did not meet the physical activity guidelines, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: The benefits of regular physical activity include reductions in the risk of health conditions such as heart disease, Type 2 diabetes, certain forms of cancer, depression and some injuries. In addition, physical activity is an important element for achieving and maintaining a healthy body mass which is of particular focus given the high rates of overweight and obesity in Australia and the role of this risk factor in chronic disease.

In 2022, over three quarters (76.1%) of people aged 18 years and over 63.1% of males and 69.0% of females aged 15 years and over did not meet the physical activity guidelines for fitness, recreation or sport in the last week.

Note: this is a different measure to that available in 2017–18, when around two thirds of people aged 18 years and over were estimated to have undertaken low, very low or no level of exercise for fitness, recreation or sport in the last week. In addition, the age group has been changed to 15 years and over.

Indicator detail: The indicator is based on self-reported responses, reported to interviewers in the 2022 NHS, as to exercise undertaken for fitness, sport or recreation in the week prior to being interviewed. The types of exercise covered were walking for fitness, recreation and sport, walking for transport, moderate exercise and vigorous exercise: workplace activity is not included in these estimates. Data presented here are for persons aged 15 years and over who did not meet Australia's Physical Activity and Sedentary Behaviour Guidelines 2014.

The 2014 Guidelines recommend that:

- Children and young people (5–17 years) accumulate at least 60 minutes of moderate to vigorous physical activity every day, from a variety of activities including some vigorous, and do muscle strengthening activities on at least three days each week
- Adults (18–64 years) should be active most days of the week, accumulate 150 to 300 minutes of moderate intensity physical activity or 75 to 150 minutes of vigorous intensity physical activity (or an equivalent combination each week), and do muscle strengthening activities on at least two days each week
- Older Australians (65 years and over) should accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number persons aged 15 years and over who did not meet the 2014 Guideline recommendation.

Denominator: Population aged 15 years and over.

Detail of analysis: Indirectly age-standardised rate per 100 population (aged 15 years and over); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Children and young people

Estimated number of males, females and persons aged 2-17 years who were overweight (but not obese), or obese, 2022
– by PHA, LGA, PHN, Quintiles, Remoteness

Policy context: Overweight and obesity in childhood and adolescence can cause a range of physical and emotional health problems; and obesity increases the risk of chronic disease and premature death in adulthood.

In 2022, over a quarter (27.7%) of children and young people aged 2-17 years were overweight or obese, comprised of 19.5% overweight and 8.2% obese [1]. This represents an increase in the proportion of overweight children from 16.7% in 2017–18 [2].

References

1. Australian Bureau of Statistics (ABS). Waist circumference and BMI: Children and Body Mass Index (BMI). Available from **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/waist-circumference-and-bmi/2022**; accessed 11 November 2024.
2. Australian Bureau of Statistics (ABS). Table 16: Children's Body Mass Index, waist circumference, height and weight. National Health Survey: First Results, 2017–18. Canberra: ABS; 2018. Available from: **https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4364.0.55.0012017-18?OpenDocument**; accessed 13 December 2019.

Indicator detail: Body Mass Index (BMI) (or Quetelet's index) is a measure of relative weight based on an individual's mass and height. The height (cm) and weight (kg) of respondents, as measured during the NHS interview, were used to calculate the BMI.

Note that the modelled estimates are based on the 43.2% of children and young people aged 2 to 17 years in the sample who had their height and weight measured: this is markedly below the level in 2017–18 when it was 56.1%. For respondents who did not have their height and weight measured, imputation was used to obtain height, weight and BMI scores.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Estimated number of males, females or persons aged 2 to 17 years who were assessed as being overweight (not obese) or obese, based on their measured height and weight.

Denominator: Male, female or total population aged 2 to 17 years.

Detail of analysis: Indirectly age-standardised rate per 100 males, females or persons (aged 2 to 17 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: PHA, LGA & PHN: Age-standardised rates are based on Australian Bureau of Statistics data, produced as a consultancy for PHIDU, from the 2022 National Health Survey.
Quintiles & Remoteness: Compiled by PHIDU based on direct estimates from the 2022 National Health Survey, ABS TableBuilder.

Disability (see also *Disability – National Disability Insurance Scheme*, below)

The information in the Social Health Atlas of people living with disability, their carers and their access to services comprises:

- Data from the 2021 Census of the number of people providing unpaid assistance to people with a disability and the number of people with a profound or severe disability, by age and whether living in long-term residential accommodation, or in households (immediately below).
- Modelled estimates of people by the severity of their disability, based on the Australian Bureau of Statistics' 2018 Survey of Disability, Ageing and Carers (located **here**).
- Participants in the National Disability Insurance Scheme (located **here**).

Unpaid assistance provided by people aged 15 years and over to people living with disability, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Those with informal caring responsibilities provide a crucial role in society, because the absence of an informal carer is a significant risk factor contributing to institutionalisation [1]. Some people with a disability provide unpaid care to others in their family or community. For example, many older spouses care for their partners even though they have significant disabilities themselves [1].

During the two weeks before the Census, 11.9% of the population assisted family members or others due to a disability, long-term illness or problems related to old age [2]. These data can be used in the planning of local facilities and disability and aged care respite services, and in the provision of information and support to carers. They can also assist in understanding the way individuals and families balance paid work with other important aspects of their lives, such as family and community commitments.

References

1. Australian Institute of Health and Welfare (AIHW). Australia's welfare 2011. (AIHW Cat. no. AUS 93). Canberra: AIHW; 2011.
2. Australian Bureau of Statistics (ABS) 2021 Census of Population and Housing General community profile Australia Canberra ABS 2022. Available from: **https://www.abs.gov.au/census/guide-census-data/about-census-tools/community-profiles**; accessed 25 August 2022.

Indicator detail: The 'Unpaid Assistance to a Person with a Disability' variable records people who, in the two weeks prior to Census Night, spent time providing unpaid care, help or assistance to family members or others because of a disability, a long-term health condition or problems related to old age. This includes people who are in receipt of a Carer Allowance or Carer Payment. It does not include work done through a voluntary organisation or group.

The numerator excludes the 6.7% of the population aged 15 years and over whose unpaid assistance to people with a disability was not stated: however, these records are included in the denominator.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: People aged 15 years and over who provided unpaid assistance to people living with disability.

Denominator: Population aged 15 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing, August 2021 (unpublished data).

People with a profound or severe disability, by living arrangements, All ages, 0-64 and 65+ years, 2021 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The likelihood of disability generally increases with age, but can also reflect people's life cycle, their changing environments and the risks they encounter [1]. Focusing on the age-specific prevalence rates of a severe or profound limitation, the peak in early childhood and school years may reflect the effects of early intervention services and the school environment on the identification of disability [1]. Young adulthood may see the onset of psychiatric disabilities. From age 35, disability prevalence rates increase with age, as risk of injury, including work-related injuries, becomes relatively high. Late working age years may also see the onset of musculoskeletal and other conditions such as arthritis and heart disease associated with physical disabilities. For people at older ages, limitations in functioning are more likely to be associated with diseases and long-term conditions such as cardiovascular diseases, cancers, dementia, arthritis, and hearing and vision impairments [1].

Community-based services provide support for older people with additional needs who live at home or with their family. Such services, if effective, enable these people to remain in the community - an important alternative to institutional care.

The 'Core Activity Need for Assistance' variable was developed by the Australian Bureau of Statistics (ABS) for use in the five-yearly population Census to measure the number of people with a profound or severe disability, and to show their geographic distribution. A person with profound or severe limitation needs help or supervision always (profound) or sometimes (severe) to perform activities that most people undertake at least daily, that is, the core activities of self-care, mobility and/or communication, as the result of a disability, long-term health condition (lasting six months or more), and/or older age. Fewer people are reported under this measure as having a profound or severe disability as are measured in the ABS Survey of Disability, Ageing and Carers (SDAC). The reasons for this are definitional (the SDAC approach, which uses a filtering approach to determine whether the respondent has a disability, and the severity) as compared to the self-report approach in the Census; and the large not-stated category in the Census data, with more people not responding to this set of questions than are reported as having a profound or severe disability. While the SDAC figures should be used as the measure for this concept, the Census data are appropriate for getting an understanding of the geographic distribution of this population group.

Reference

1. Australian Institute of Health and Welfare (AIHW). Australia's welfare 2007. (AIHW Cat. no. AUS 93). Canberra: AIHW; 2007.

Indicator detail: The ABS published figures are of people of all ages, including those living in long-term residential accommodation in nursing homes, accommodation for the retired or aged (not self-contained), hostels for the disabled and psychiatric hospitals: the 'total' figure in this atlas includes people living in these accommodation types, whereas the figure for 'living in households' excludes them.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator:

- People with a profound or severe disability (includes people in long-term accommodation), All ages
- People with a profound or severe disability and living in households, All ages
- People aged 0 to 64 years with a profound or severe disability (includes people in long-term accommodation)
- People aged 0 to 64 years with a profound or severe disability and living in households
- People aged 65 years and over with a profound or severe disability (includes people in long-term accommodation)
- People aged 65 years and over with a profound or severe disability and living in households.

Denominator:

- Population aged 15 years and over
- Population aged 0 to 64 years
- Population aged 65 years and over.

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Census of Population and Housing data, August 2021 (unpublished data).

Profound or severe, or moderate or mild core activity limitation (modelled estimates)

Profound or severe, or a moderate or mild core activity limitation and living in households by sex and broad age group: 0-14, 15-64, 65 years and over, and all ages (modelled estimates), 2018 – by PHA, LGA, PHN

Policy context: Over 1.2 million people (5.0%) in Australia are estimated to have a profound or severe disability and were living in households and over 2.1 million people (8.6%) living in households are estimated to have a moderate or mild disability in the 2018 Survey of Disability, Ageing and Carers [1].

The likelihood of disability generally increases with age, but can also reflect people's life cycle, their changing environments and the risks they encounter [2]. Focusing on the age-specific prevalence rates of a severe or profound limitation, the peak in early childhood and school years may reflect the effects of early intervention services and the school environment on the identification of disability [2]. Young adulthood may see the onset of psychiatric disabilities. From age 35, disability prevalence rates increase with age, as risk of injury, including work-related injuries, becomes relatively high. Late working-age years may also see the onset of musculoskeletal and other conditions such as arthritis and heart disease associated with physical disabilities. For people at older ages, limitations in functioning are more likely to be associated with diseases and long-term conditions such as cardiovascular diseases, cancers, dementia, arthritis, and hearing and vision impairments [2].

Community-based services provide support for older people with additional needs who live at home or with their family. Such services, if effective, enable these people to remain in the community (in these estimates, shown as living in households) - an important alternative to institutional care.

References

1. Australian Bureau of Statistics (ABS). Disability, Ageing and Carers, Australia: Summary of Findings, 2018. (ABS Cat. No. 4430.0). Canberra: ABS; 2019.
2. Australian Institute of Health and Welfare (AIHW). Australia's welfare 2007. (AIHW Cat. no. AUS 93). Canberra: AIHW; 2007.

Modelled estimates

Modelled estimates were produced by the Australian Bureau of Statistics (ABS) by Statistical Areas Level 2 (SA2s) and were then grouped to produce Population Health Areas (PHAs) by the Population Health Information Development Unit (PHIDU). The ABS also published these estimates by Local Government Area (LGA).

The modelled estimates can be used for getting a picture of the likely distribution of people with the characteristics of interest, across areas. Users should not expect the modelled counts and proportions to be appropriate for every area. Some regions will differ in prevalence from modelled estimates because of local effects that are not captured by the models. The modelled estimates are a tool which when used in conjunction with an understanding of local area characteristics and their quality limitations, they can assist in making decisions on issues, such as the requirement for services, relevant to disability and aged care at the small area level.

Modelled estimates in this workbook are for usual residents, living in households in Australia, excluding foreign diplomats and their families. Areas have not been published if more than 20% of their total population were living in the Very Remote areas of Australia or Indigenous Communities. Areas with populations under 100 were also not published.

The ABS used a number of methods to measure the quality of the estimates, one of which is the relative root mean squared error (RRMSE) of the modelled estimates. The RRMSEs are included with the data published in the Social Health Atlas. Users are advised that:

- estimates with RRMSEs less than 0.25 are considered reliable for most purposes;
- estimates with RRMSEs from 0.25 and to 0.50 have been marked (~) to indicate that they should be used with caution;
- estimates with RRMSEs from 0.50 and to 1 are marked (~~) to indicate that the estimate is considered too unreliable for general use; and
- those greater than 1 have been replaced with (≠) and the estimate confidentialised to indicate that the estimate is considered too unreliable for use.

Indicator detail: These data refer to persons with a profound or severe, or a moderate or mild core activity limitation living in households in private dwellings and self-care units in retirement villages.

Profound or severe core activity limitation refers to a person who:

- is unable to or will sometimes require help with a core activity task
- has difficulty understanding/being understood by family or friends
- can communicate more easily using sign language or other non-spoken forms of communication.

Moderate or mild core activity limitation refers to a person who has difficulty with a core activity task but doesn't require help, or:

- uses aids or equipment for core tasks, or has one or more of the following limitations
- cannot easily walk 200 metres
- cannot walk up and down stairs without a handrail
- cannot easily bend to pick up an object from the floor
- cannot use public transport
- can use public transport, but has difficulty or needs help or supervision.

For more information refer to the Disability, Ageing and Carers, Australia: Summary of Findings methodology, **explanatory notes**.

Geography: Data available by Population Health Area, Local Government Area and Primary Health Network.

Numerator:

- Estimated number of male, female or total population, living in households, with profound or severe core activity limitation by all ages and broad age group: 0-14, 15-64, 65+ years.
- Estimated number of male, female or total population, living in households, with moderate or mild core activity limitation by all ages and broad age group: 0-14, 15-64, 65+ years.

Denominator: Male, female or total population by all ages and broad age group: 0-14, 15-64 and 65+ years.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU based on the Australian Bureau of Statistics 2018 Survey of Disability, Ageing and Carers modelled estimates data (ABS cat. no. 4430.0).

Primary carers (modelled estimates)

Primary carers by sex and broad age group: 15-24, 25-64, 65+ and 15+ years (modelled estimates), 2018 – by PHA, LGA, PHN

Policy context: Broadly speaking, primary carers are the main source of ongoing assistance to people in the community who are unable to adequately care for themselves because of a severe or profound restriction in performing core activities of daily living. This level of activity restriction can be associated with early- and late-onset disability and/or age-related frailty. The assistance received from a primary carer helps many such people to avoid or delay long-term care in an institutional setting [1].

Over 860,000 (4.4%) people in Australia are estimated to be primary carers providing informal assistance to people with a disability or older people in the 2018 Survey of Disability Ageing and Carers [2]. Primary carers were mostly females (618,880 females compared to 241,900 males) and aged 25 to 64 years (149,000 males and 464,300 females).

References

1. Australian Institute of Health and Welfare (AIHW). Carers in Australia: assisting frail older people and people with a disability. (AIHW Cat. No. AGE 41). Canberra: AIHW; 2007.
2. Australian Bureau of Statistics (ABS). Disability, Ageing and Carers, Australia: Summary of Findings, 2018. (ABS Cat. No. 4430.0). Canberra: ABS; 2019.

Indicator detail: A primary carer is a person who is aged 15 years or over and provides the most informal assistance to a person with one or more disabilities or to people aged 65 years or over. The assistance must be ongoing, or likely to be ongoing, for at least six months. Primary carers and the people they care for may live in different households, but information about primary carers was only collected if they lived in households (i.e. not providing care to person in a care facility).

These data form part of the information in the Social Health Atlas of people living with disability, and their access to services. This data set is from the Australian Bureau of Statistics' 2018 Survey of Disability, Ageing and Carers; the associated data set is data from the 2021 Census (of the number of people providing unpaid assistance to people with a disability in households). For more information refer to the **Disability, Ageing and Carers, Australia: Summary of Findings methodology: Appendix - carers**.

Geography: Data available by Population Health Area, Local Government Area and Primary Health Network.

Numerator: Estimated number of males, females or persons who are primary carers by broad age group: 15-24, 25-64, 65+ and 15+ years.

Denominator: Male, female or total population by broad age group: 15-24, 25-64, 65+ and 15+ years.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU based on the Australian Bureau of Statistics 2018 Survey of Disability, Ageing and Carers modelled estimates data (ABS cat. no. 4430.0).

Median age at death by sex

Median age at death of males, females and persons, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The median age at death is an indicator of premature mortality. It is the age at which exactly half the deaths registered in a given time period were deaths of people above that age and half were deaths below that age. Over the years 2018 to 2022, the median age at death was 79.0 years for males and 84.0 years for females [1]. The range in median age for males is from 66.0 years in the Northern Territory to 80.0 years in South Australia; for females it is from 67.0 years in the Northern Territory to 85.0 years in New South Wales, Victoria, and South Australia [1].

Variations in the median age at death at the small geographical level are impacted by many factors, including socioeconomic disadvantage, as influenced by unemployment, education, housing and income. In addition, events like deaths from road traffic accidents among young people living in an area lower the median age; and the location in an area of residential aged care facilities raises the median age. In using these data, viewing the indicator for residential aged care places in the Double Map atlas can assist in understanding the influence of people dying in nursing homes.

Reference

1. PHIDU (**www.phidu.torrens.edu.au**), based on Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System; 2018 to 2022.

Indicator detail: For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are preliminary, the second latest are revised and the data for the earlier years are final. In this way, the majority of records are released earlier than would be the case than were no data released until files had been returned from Coroners' offices. For further information about the Australian Bureau of Statistics (ABS) revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019, and 2020, final; and 2021 and 2022, preliminary.

The ages, as presented, have been rounded to the nearest 0.5 of a year – i.e., are presented as xx.5 or xx.0 years.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Median age at death of males, females or persons.

Denominator: ..

Detail of analysis: Median age at death (years)

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System.

Premature mortality by sex

Deaths of males, females and persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Deaths before 75 years of age can be classified as 'premature'. The upper age limit of 74 years reflects current life expectancy in OECD countries of around 81 years (83.6 years for females and 78.3 years for males) [1]. It also reflects a decision to set a limit in the analysis to reduce the proportion of the population who will have moved to an area with a different level of socioeconomic disadvantage to that in which they lived over their lifetime: this is an important consideration for these data when viewed for small geographic areas. Australian males who were born during the period 2020 to 2022 had a life expectancy of 81.2 years, while at 75 years of age they could expect to live an average of an additional 12.6 years [2].

Some 39.5% of all male deaths over the years 2018 to 2022 occurred before 75 years of age, although the proportion varies by cause, with the highest proportions recorded for suicide (91.8%) and road traffic injuries (88.9%), and the lowest for COVID-19 (20.4%), cerebrovascular disease (25.1%) and respiratory system diseases (27.4%). These and other details are **here**.

References

1. OECD Data, Health. Available from **https://www.oecdbetterlifeindex.org/topics/health** accessed 31 January 2025.
2. Australian Bureau of Statistics (ABS). Life Tables, 2018-2020. Available from: **https://www.abs.gov.au/statistics/people/population/life-tables/latest-release**: accessed 23 March 2022.

Indicator detail: The data presented are the average annual indirectly age-standardised rates per 100,000 males/ females/ population (aged 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

For detailed data files released since 2007, the ABS has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the Australian Bureau of Statistics (ABS) revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019, and 2020, final; and 2021 and 2022, preliminary. Some causes of death, including drug-induced deaths, suicide and assault, are more sensitive to the revisions process than others: as a result, data in the files designated as preliminary should be treated with caution.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths (all causes) of males, females or persons aged 0 to 74 years.

Denominator: Population of males, females or persons aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information system. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Premature mortality by selected cause

Deaths from cancer, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cancer is a general term used to describe the group of diseases where cells grow in an uncontrolled and purposeless way inside the body [1]. Some cancers can be cured, others can be controlled by medical treatment and some are diagnosed too late for medical treatment to be effective. Although the causes of many cancers are not fully understood, some of the factors that place people at greater risk of developing cancer are well recognised. They include: biomedical factors (e.g., genetic susceptibility, hormonal factors), behavioural factors (e.g., smoking - cause of around 20-30% of all cancers, alcohol consumption, physical inactivity and obesity, chronic infections, diet) and environmental factors (e.g., sunlight, radiation, occupational exposures, pollution) [2]. Some risk factors cannot be changed while others, especially those related to behaviours, are modifiable. The risk of many cancers increases as people age.

Cancer is a leading cause of death, with lung cancer (malignant neoplasm of trachea, bronchus and lung) and bowel cancer (malignant neoplasm of colon, sigmoid, rectum and anus) and blood cancers (malignant neoplasm of lymphoid, haematopoietic and related tissue) ranked fifth, eighth and ninth, respectively in the leading causes of death in Australia [3]. Cancer is also the leading cause of premature mortality, or deaths before 75 years of age as presented in the Social Health Atlas.

From 1968 to 2018, although the number of deaths from all cancers combined increased, age-standardised (all age) mortality rates decreased, from 213.1 per 100,000 population in 1994 to 156.0 per 100,000 in 2018 [2]. From 2000 to 2024, age-adjusted cancer mortality rates decreased from 255 deaths per 100,000 people to an estimated 194 deaths per 100,000 people [4].

Socioeconomic disparities are evident in premature deaths from cancer, both for all cancers (with rates of cancer-related mortality 57% higher in areas of lower socioeconomic status (SES) than those in higher SES areas over the period 2018 to 2022), 56% higher for colorectal cancer and almost two and a half (2.46) times higher for lung cancer [5].

For 2018 to 2022, 45.8% of deaths from cancer were premature, with closely similar proportions for males and females – these and other details are available **here**.

References

1. Cancer Council Australia (CCA). About cancer: FAQ [Internet]. Available from: **http://www.cancer.org.au/aboutcancer/FAQ.htm#491**; accessed 18 October 2013.
2. Cancer mortality, National Cancer Control Indicators. Available from: **https://ncci.canceraustralia.gov.au/outcomes/cancer-mortality/cancer-mortality**; accessed 9 September 2024.
3. Causes of Death, Australia. Top 5 leading causes of death for selected years, 1968-2022. Available from: **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release**; accessed 9 September 2024.
4. Cancer data in Australia, Overview of cancer in Australia, 2024. Available from: **https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/overview**; accessed 9 September 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: C00-D48.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019, 2020 final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from cancer at ages 0 to 74 years.

Denominator: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from colorectal cancer, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Colorectal cancer refers to cancer of the colon, rectum and anal canal and is more commonly referred to as bowel cancer [1]. Most bowel cancers are thought to develop from non-malignant growths on the lining of the wall of the bowel. These non-malignant growths are called adenomas or polyps. While the causes of bowel cancer are not fully understood, there are a number of factors associated with the risk of developing the disease. These factors include: increasing age; a personal history of bowel cancer or polyp; a family history of bowel cancer, adenoma or gynaecological cancer; and a personal history of inflammatory bowel disease [1].

The Australian Institute of health and Welfare found that bowel cancer accounted for 2.0% of the total disease burden in Australia, making it the 15th most burdensome disease overall (13th in males and 15th in females). Bowel cancer was the second most burdensome cancer in 2018, behind lung cancer [2].

Age-standardised mortality rates for colorectal cancer increased from 1968 (31.1 per 100,000 population) to 1985 (32.8 per 100,000 population), after which they decreased to 18.7 per 100,000 in 2016 [3]. The trends were similar for males and females, although the male rate in 2016 was 47.4% higher than the female rate [3]. For 2018 to 2022, 43.2% of all deaths from colorectal cancer were premature – these and other details are available **here**.

References

1. National Cancer Institute (NCI). Colon cancer treatment (PDQ) – patient version [Internet]. Available from: **http://www.cancer.gov/cancertopics/pdq/treatment/colon/Patient**; accessed 18 October 2013.
2. Australian Institute of Health and Welfare (2022) National Bowel Cancer Screening Program monitoring report 2022, catalogue number CAN 148, AIHW, Australian Government.
3. Cancer mortality, National Cancer Control Indicators. Available from: **https://ncci.canceraustralia.gov.au/outcomes/cancer-mortality/cancer-mortality**; Accessed 23 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: C18-C20, C26.0.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from colorectal cancer at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from lung cancer, persons aged 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Lung cancer was the leading cause of cancer-related death in Australia at all ages in 2022 and was estimated to represent the fifth most commonly diagnosed cancer in both men and women in 2023 [1,2]. In 2020, there were 8,457 deaths from lung cancer, 4,855 males and 3,809 females at all ages [3]. While the incidence rate for lung cancer in men has been decreasing, there has been a marked increase in the incidence rate in females. Similarly, while the five-year relative survival from lung cancer has increased for both sexes, survival from this disease remains low (2014 to 2018), at 22% (18% for males and 26% for females [3]. The different pattern of incidence rates in males and females reflect historical differences in the take-up of smoking.

In Australia, tobacco smoking is the largest single cause of lung cancer, responsible for about 90% of lung cancers in males and 65% in females. The risk of lung cancer among smokers is strongly related to duration of smoking and the number of cigarettes smoked [4]. Exposure to second-hand smoke (also known as passive smoking) is also a cause of lung cancer. Other potential causes include radon gas, exposure to industrial and chemical carcinogens, air pollution, family history of lung cancer and previous lung diseases [4].

Age-standardised mortality rates for lung cancer increased from 31.1 per 100,000 population in 1968 to 42.9 per 100,000 population 1989, after which they decreased to 28.1 per 100,000 in 2019 [5]. The trends for males and females differed: the rate for males increased sharply to 1981 and then declined relatively steadily to a rate of 35.6 deaths per 100,000 males in 2019, when it was 64.1% above the female rate (which is the smallest gap); the female rate increased steadily over most of this period, although has declined in recent years, to a low of 21.7 deaths per 100,000 females [5].

For 2018 to 2022, over half (52.0%) of deaths from lung cancer were premature, with 51.9% for males and 52.1% for females – these and other details are available **here**.

References

1. Australian Bureau of Statistics (ABS). 3303.0 Causes of Death, Australia, 2022. Available from: **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2022#overview-of-leading-causes-of-death**; accessed 4 December 2023.
2. Australian Institute of Health and Welfare (AIHW). Cancer data in Australia. Available from: **https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/overview-of-cancer-in-australia-2023** ; accessed 4 December 2023.
3. Cancer Australia. Lung cancer in Australia statistics. Available from: **https://www.canceraustralia.gov.au/cancer-types/lung-cancer/statistics**; accessed 18 March 2022.
4. Australian Institute of Health and Welfare (AIHW) & Australasian Association of Cancer Registries (AACR). Cancer in Australia 2010: an overview. Cancer series no. 60. (AIHW Cat. no. CAN 56). Canberra: AIHW; 2010.
5. Australian Institute of Health and Welfare (AIHW). Cancer mortality by age visualisation. Available from: **https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/cancer-mortality-by-age-visualisation**; accessed 18 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: C33, C34.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from lung cancer at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from breast cancer, females aged 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In 2020, breast cancer was the fifth-most common cause of cancer-related death in Australia and the most commonly diagnosed cancer in females at all ages [1].

Age-standardised mortality rates for breast cancer of females increased from 29.5 per 100,000 female population in 1968 to 31.6 per 100,000 female population 1989; there were small variations to 1994, after which rates decreased markedly to 18.2 per 100,000 in 2021 [2].

For 2018 to 2022, over half (55.8%) of all female deaths from breast cancer were premature - these and other details are available **here**.

References

1. Breast cancer in Australia statistics. Cancer Australia. Available from: **https://www.canceraustralia.gov.au/cancer-types/breast-cancer/statistics**; accessed 4 December 2023.
2. Australian Institute of Health and Welfare (AIHW). Cancer mortality by age visualisation. Available from: **https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/cancer-mortality-by-age-visualisation**; accessed 4 December 2023.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: C50.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Female deaths from breast cancer at ages 0 to 74 years.

Denominator: Females aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 females (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from pancreatic cancer, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Pancreatic cancer occurs when malignant cells develop in part of the pancreas, which may affect how the pancreas works, including the functioning of the exocrine or endocrine glands [1]. Pancreatic cancer is cancer that starts in any part of the pancreas, with approximately 70% of pancreatic cancers being found in the head of the pancreas [1]. Pancreatic cancer usually shows little or no symptoms until it has advanced and spread, therefore up to 80% of cases are diagnosed at later, more difficult-to-treat stages [2]. The number of Australians diagnosed with pancreatic cancer has more than tripled over the last forty years, which has initiated investment by the federal government to create a coordinated approach to improve outcomes and survival for Australian affected by the disease [3].

For 2018 to 2022, almost half (49.7%) of deaths from pancreatic cancer were premature, with 53.8% for males and 45.1% for females – these and other details are available **here**.

References

1. Cancer Council. Types of pancreatic cancer. Available from: https://cancer.org.au/cancer-information/types-of-cancer/pancreatic-cancer; accessed: 29 August 2024.
2. He, J. Pancreatic Cancer Prognosis. John Hopkins Medicine. Available from: https://www.hopkinsmedicine.org/health/conditions-and-diseases/pancreatic-cancer/pancreatic-cancer-prognosis#:~:text=The%20earlier%20pancreatic%20cancer%20is,difficult%2Dto%2Dtreat%20stages; accessed: 30 August 2024.
3. Department of Health and Aged Care. New hope for Australians affected by pancreatic cancer. Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/new-hope-for-australians-affected-by-pancreatic-cancer; accessed: 30 August 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: C25.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from pancreatic cancer at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from lymphoid, haematopoietic and related tissue cancer, persons aged 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cancers of the lymphoid, hematopoietic, and related tissues are also known as blood cancers, which are often characterized by the uncontrolled proliferation of abnormal blood cells, which reduces the production of normal blood cells and impairs blood function [1]. Inconsistencies in Australia's healthcare system directly impact people with blood cancer, with around 13% of people waiting more than two months from their first appointment to obtain a referral to a specialist [2]. Between 2018 and 2022, more than a third of people diagnosed with blood cancer waited more than a month for a haematologist appointment [2]. First Nations people, those of culturally and linguistically diverse backgrounds, and regional and remote patients face additional challenges due to location, language and cultural factors [2]. It is estimated that 18 Australians die from blood cancer each day, but if everyone were to receive what is already considered best practice, 5 lives could be saved every day [2].

For 2018 to 2022, 38.2% of deaths from lymphoid, haematopoietic and related tissue cancer were premature, with 40.6% for males and 34.8% for females – these and other details are available **here**.

References

1. Molinares, D., Parke, S., Gupta, E. (2020). Cancer of the Lymphoid, Hematopoietic, and Related Tissue. In: Baima, J., Khanna, A. (eds) Cancer Rehabilitation. Springer, Cham. Available from: https://doi.org/10.1007/978-3-030-44462-4_7; accessed: 30 August 2024.
2. Insight Economics. State of the Nation Blood Cancers in Australia Report 2023. Final report to the Leukaemia Foundation. February 2023. Available from: https://www.leukaemia.org.au/how-we-can-help/advocacy-and-policy/state-of-the-nation/; accessed: 30 August 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: C81-C96.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from lymphoid, haematopoietic and related tissue cancer at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from diabetes, persons aged 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Diabetes is a serious complex condition which can affect the entire body. Diabetes requires daily self-care and, if complications develop, can have a significant impact on quality of life and can reduce life expectancy. The three main types of diabetes are type 1, type 2 and gestational diabetes: type 2 diabetes, the most common of all cases of diabetes, is one of the major consequences of the obesity epidemic. The combination of massive changes to diet and the food supply, combined with massive changes to physical activity, with more sedentary work and less activity, means most populations are seeing more type 2 diabetes [1].

Aboriginal and Torres Strait Islander people and others who are socioeconomically disadvantaged are at higher risk of developing diabetes mellitus and have much greater hospitalisation and death rates from diabetes than other Australians [2].

While diabetes death rates remained relatively stable between 2000 and 2021, there has been a 10.2% increase between 2021 and 2022, which is likely due to COVID-19 [3]. The data show that, for 2018 to 2022, almost one third (31.6%) of deaths from diabetes were premature – these and other details are available here.

References

1. Diabetes Australia, 2018, What is diabetes? Available from: **https://www.diabetesaustralia.com.au/what-is-diabetes/**; accessed 4 March 2019.
2. Australian Institute of Health and Welfare (AIHW). Multiple causes of death. (AIHW Cat. no. AUS 159). Canberra: AIHW; 2012.
3. Australian Institute of Health and Welfare (AIHW). Diabetes: Australian Facts. Available from: **https://www.aihw.gov.au/reports/diabetes/diabetes/contents/summary**; accessed 2 September 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: E10-E14.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022 preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from diabetes at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from circulatory system diseases, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Circulatory system diseases encompass abnormalities of the heart and blood vessel system. They include cardiovascular diseases, such as heart disease and stroke, and hypertensive diseases [1]. Circulatory system diseases can be genetic or acquired. The leading conditions contributing to circulatory system disease burden and mortality are hypertension (high blood pressure), stroke, and ischaemic heart disease (coronary heart disease). These diseases are mainly caused by a damaged blood supply to the heart, brain and/or limbs, and share a number of risk factors. Behavioural risk factors, such as poor diet, physical inactivity and tobacco smoking, contribute significantly to the likelihood of developing a circulatory system disease [2]. Modifiable biomedical factors include hypertension, high blood cholesterol, overweight and obesity, and depression. Certain related health conditions, particularly diabetes and chronic kidney disease, can also increase the risk of developing these diseases [3]. Non-modifiable risk factors that can influence risk include, age, sex, family history, and ethnicity [3]. Circulatory system diseases are also largely age-related. In 2022, 5.2% (1.3 million) people had heart, stroke and vascular disease [1].

Circulatory system diseases (mainly from ischaemic heart disease and cerebrovascular diseases, the first and fourth leading causes of death at all ages, respectively) remain Australia's biggest killer, mostly because of the deaths caused among older people [2]. Forty per cent more males die from CVD compared to females, while people in the lower socioeconomic groups, Aboriginal and Torres Strait Islander peoples and those living in regional and remote areas, generally have higher rates of death resulting from CVD than other Australians [3].

For 2018 to 2022, over one fifth (23.7%) of deaths from circulatory system diseases were premature, 28.7% for ischaemic heart disease and 18.9% for cerebrovascular disease, although with over twice the proportion for males (32.4%) than females (14.6%) – these and other details are available **here**.

References

1. Australian Bureau of Statistics (ABS) National Health survey, Canberra: ABS; 2022. Available from: **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey/2022**; accessed: 15 December 2023.
2. Australian Bureau of Statistics (ABS) **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2022#overview-of-leading-causes-of-death**.accessed 21 March 2022.
3. Heart Foundation. Key statistics: Cardiovascular Disease. Available from: **https://www.heartfoundation.org.au/bundles/for-professionals/key-stats-cardiovascular-disease**; accessed: 15 December 2023.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: I00-I99.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from circulatory system diseases at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from ischaemic heart disease, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Ischaemic heart disease (also known as coronary heart disease) includes angina, blocked arteries (heart) and heart attacks. In 2022, ischaemic heart disease was the leading underlying cause of death in Australia (9.8% of registered deaths at all ages, 11.3% of all male deaths and 8.1% of all female deaths) [1]. Ischaemic heart disease has been the leading cause of death in Australia since 2000; and remains the leading cause of death amongst Aboriginal and Torres Strait Islander Australians, accounting for 11.5% of all Indigenous deaths [2].

For 2018 to 2022, just over one quarter (28.7%) of all deaths from ischaemic heart disease were premature, although with two and a half (2.5 times) the proportion for males (37.5%) than females (15.6%) – these and other details are available **here**.

Reference

1. Australian Bureau of Statistics (ABS). 3303.0 Causes of Death, Australia, 2022. Available from:https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2022#overview-of-leading-causes-of-death; accessed: 4 December 2023.
2. Australian Bureau of Statistics (ABS). Cause of death, Australia, 2022. Available from: https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release#leading-causes-of-death-in-aboriginal-and-torres-strait-islander-people; accessed 4 December 2023.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: I20-I25.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from ischaemic heart disease at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from cerebrovascular disease, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cerebrovascular diseases include any disorder of the blood vessels which supply the brain and its covering membranes. Most cases of cerebrovascular death are due to stroke. Stroke occurs when a blood vessel to the brain is suddenly blocked (ischaemic stroke) or bleeds (haemorrhagic stroke) [1]. This may cause the part of the brain which was supplied by that vessel to be damaged or to die, leading to a loss of brain function and/or difficulty in movement, thinking and communication. Ischaemic strokes are more common but haemorrhagic strokes have a higher fatality rate [1]. Strokes can also be temporary, where symptoms disappear within 24 hours (transient ischaemic attacks).

In 2018, an estimated 387,000 people - 214,000 males and 173,000 females - had had a stroke at some time in their lives, based on self-reported data from the Australian Bureau of Statistics 2018 Survey of Disability, Ageing and Carers [2].

For 2018 to 2022, 18.9% of deaths from cerebrovascular diseases were premature, although with a higher proportion for males (25.1%) than females (14.4%) – these and other details are available **here**.

References

1. Australia Institute of Health and Welfare (AIHW). Australia's health 2010. (AIHW Cat. no. AUS 122). Canberra: AIHW; 2010.
2. Australia Institute of Health and Welfare (AIHW). Stroke. Available from: **https://www.aihw.gov.au/reports/australias-health/stroke**; accessed 21 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: I60-I69.

For detailed data released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022 preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from cerebrovascular diseases at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from respiratory system diseases, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Respiratory system diseases are those that affect the respiratory tract (upper airway, trachea, bronchus and lung). They include cancers of the respiratory system, chronic respiratory diseases such as asthma and chronic obstructive pulmonary disease (COPD), pneumonia, influenza and other respiratory diseases. Some may persist over many years and, if severe, may require a wide range of treatments and medications from specialised health practitioners. Some diseases result from exposures to environmental pollutants such as tobacco smoke or asbestos, or toxic emissions from industry or transport. Others are the result of genetic conditions which affect people from birth, such as cystic fibrosis. Many of these diseases can cause those affected to die prematurely.

Self-reported data in 2022 estimated that 34% of Australians have chronic respiratory conditions, including 11% with asthma and 2.5% living with COPD [1]. In 2022, chronic lower respiratory disease was the third leading cause of death overall for Aboriginal and Torres Strait Islander people living in NSW, QLD, WA, SA and the NT [2].

For 2018 to 2022, a quarter (25.3%) of deaths from respiratory system diseases were premature, with a slightly higher proportion for males (27.4%) than females (23.1%) – these and other details are available **here**.

References

1. Australian Institute of Health and Welfare. Chronic respiratory conditions. Available from: **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/chronic-respiratory-conditions/contents/summary**. Accessed: 3 September 2024.
2. Australian Bureau of Statistics (2023). Causes of death, Australia 2022. Available from: **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2022**. Accessed: 3 September 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: J00-J99.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.
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Numerator: Deaths from respiratory system diseases at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from chronic obstructive pulmonary disease, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Chronic obstructive pulmonary disease (COPD) limits airflow in the lungs and covers those long-term lung conditions which are characterised by shortness of breath, such as chronic bronchitis and emphysema [1]. Whilst each condition can occur on its own, many people have a mixture of the two problems. COPD usually occurs in people who have smoked or continue to smoke cigarettes. Exposure to irritants like dust and fumes can also increase the risk of developing COPD; and there is also a rare genetic cause of COPD [2].

For 2018 to 2022, 31.9% of deaths from chronic obstructive pulmonary disease were premature, with proportions for both males (32.6%) and females (31.2%) being similar – these and other details are available **here**.

References

1. Australian Institute of Health and Welfare (AIHW). COPD - chronic obstructive pulmonary disease [Internet] [cited 2013 Oct 18]. Available from: **http://www.aihw.gov.au/copd/**.
2. The Australian Lung Foundation. COPD [Internet] [cited 2013 Oct 18]. Available from: **http://lungfoundation.com.au/patient-area/lung-diseases/copd/**.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: J40-44.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from chronic obstructive pulmonary disease at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from cirrhosis and other diseases of the liver, persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Cirrhosis means scarring of the liver which is a result of long-term liver damage [1]. Cirrhosis is an important cause of morbidity and mortality in people with chronic liver disease world-wide [2]. Cirrhosis can be caused by:

- infection with a virus such as hepatitis B or C
- metabolic dysfunction (a result of being overweight or obese, having diabetes, poor diet, or not enough exercise)
- an autoimmune condition
- an inherited or genetic disease such as haemochromatosis or Wilson's disease, alpha-1antitrypsin deficiency, galactosemia and glycogen storage disorders
- severe reactions to prescription or over-the-counter drugs or long-term exposure to environmental toxins
- severe heart disease that leads to liver congestion [1].

A liver with cirrhosis can have problems producing substances to clot the blood, digesting sugar and vitamins, or getting rid of toxins and bacteria [1]. Liver cancer can also develop in a liver with cirrhosis [1]. The number of deaths from cirrhosis is projected to increase in the next decade so there is a greater need for primary prevention, early detection, improved access to care and treatment of liver disease [2].

For 2018 to 2022, 74.5% of deaths from digestive system diseases – deaths from cirrhosis and other diseases of the liver were premature, with the proportion for males (77.3%) being higher than that for females (69.6%) – these and other details are available **here**.

References

1. Liver foundation. Cirrhosis. Available from: **https://liver.org.au/your-liver/liver-diseases/cirrhosis/#:~:text=It is estimated that cirrhosis affects at least 1 in 200 Australians**. Accessed: 3 September 2024.
2. Huang, D.Q., Terrault, N.A., Tacke, F. et al. Global epidemiology of cirrhosis — aetiology, trends and predictions. Nat Rev Gastroenterol Hepatol 20, 388–398 (2023). Available from: **https://doi.org/10.1038/s41575-023-00759-2**. Accessed: 3 September 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: K70-K76.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from cirrhosis and other diseases of the liver at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from external causes, people aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Deaths from external causes, commonly described as deaths from accidents and injury, are deaths caused by environmental events and circumstances that are external to the body. External causes of death can be classified as 'unintentional', such as transport accidents (the largest number in this category), falls, and accidental drowning or poisoning; 'intentional', such as suicides (the largest number in this category) and homicides; and those which occur due to the complications of medical and surgical care (commonly referred to as 'adverse events') [1].

Deaths from external causes as a proportion of deaths from all causes vary between age and sex groups. Males are more likely to die prematurely from external causes than females: in 2018 to 2022, almost two thirds (61.1%) of deaths from external causes were premature - 70% for males and 45.1% for females – these and other details are available **here**.

The indicator Potential Years of Life Lost (PYLL) adds a further dimension to the data on premature deaths, in particular from these causes, which include deaths of many young people, adding to the number of PYLL; click **here** for information on that indicator.

Reference

1. Australian Bureau of Statistics (ABS). Causes of death, Australia, 2007. (ABS Cat. no. 3303.0). Canberra: ABS; 2009.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: V01-Y98.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from external causes at ages 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from road traffic injuries, people aged 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Road trauma is a significant contributor to the high rates of death from injury. In 2021, there were 1,130 road deaths, a rate of 4.4 deaths per 100,000 population [1]. The number of deaths from road traffic crashes per 100,000 persons fell from 6.8 in 2009 to 6.1 in 2010 and to 4.3 in 2020, before a small increase to 4.4, in 2021 [1]. As a result, although over the decade to 2021 the annual rate of fatalities per population declined by 23.7%, the decline over the decade to 2023, at 10.4% was less than half that [1]. This compares to a rate of 30.4 in 1970 [3]. It is of note that there has been slow progress in reducing the number of injuries.

People living in the most socioeconomically disadvantaged areas of Australia were almost three and a half (3.44) times likely to die prematurely from traffic injuries than were those from the most advantaged areas. Over this period (2018 to2022), death rates also increased with increasing remoteness, from 2.6 premature deaths per 100,000 population for those living in the Major Cities areas, to 7.0 in the Inner Regional areas, 9.4 in Outer Regional, 12.0 in Remote and 19.3 in the Very Remote areas. These data can be accessed **here**.

For 2018 to 2022, 87% of deaths from road traffic injuries were premature – 88.9% for males and 81.3% for females: these and other details are available **here**.

The indicator Potential Years of Life Lost (PYLL, click **here**) adds a further dimension to the data on premature death, in particular from these causes, which include deaths of many young people, adding to the number of PYLL.

References

1. Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2018, Road trauma. Australia 2017 statistical summary, BITRE, Canberra ACT.
2. Department of Infrastructure, Transport, Regional Development and Communications. Available from: **https://www.bitre.gov.au/statistics/safety**; accessed 28 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: V00-V06.[1], V09.2, V09.3, V10-V18.[4,5,9], V19.[4,5,6,9], V20-V28.[4,5,9], V29.[4,5,6,9], V30-V38.[5,6,7,9], V39.[4,5,6,9], V40-V48.[5,6,7,9], V49.[4,5,6,9], V50-V58.[5,6,7,9], V59.[4,5,6,9], V60-V68.[5,6,7,9], V69.[4,5,6,9], V70-V78.[5,6,7,9], V79.[4,5,6,9], V81.1, V82.1, V82.9, V83-V86.[0,1,2,3], V87, V89.2, V89.3.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from road traffic injuries at ages 0 to 74 years.
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Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from suicide and self-inflicted injuries, people aged 0 to 44, 45 to 74 and, 0 to 74 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Suicide is a major public health issue and the 15th leading cause of death in 2022 within Australia. Although death by suicide is relatively uncommon (3,249 people died by suicide in 2022), the human costs are substantial and can impact broadly across communities [1]. As such, suicide prevention is a key focus for both government agencies and non-government organisations [2].

The age-standardised suicide rate in 2010 was 10.5 deaths per 100,000 population; by 2022 it was higher, at 12.6 deaths per 100,000 population.

In 2022 death by suicide was the 11th leading cause of death for males and the 26th leading cause of death for females [1]. Suicide rates for males increased in 2022 by 2.6% from 2021, but decreased by 2.3% for females, over the same time period [1]. The median age of death by suicide for males in 2022 was 46 years and slightly younger for females at 44.1 years of age [1]. In 2022, young and middle-aged people (aged 15-44 years) were more likely to die by suicide, loosing on average 35.6 years of life [1].

For 2018 to 2022, 91.7% of deaths from suicide were premature – 91.8% for males and 91.4% for females: these and other details are available here. The indicator Potential Years of Life Lost (click here) adds a further dimension to the data on premature death, in particular from these causes, which include deaths of many young people, adding to the number of PYLL.

References

1. Australian Bureau of Statistics (ABS). Cause of death, Australia, 2022. Available from: **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release**; accessed 4 December 2023.
2. Australian Bureau of Statistics (ABS). Suicides, Australia, 2010. (ABS Cat. no. 3309.0). Canberra: ABS; 2012.

Indicator detail: There are concerns regarding the quality of data on suicides, some of which may have been counted as deaths from other accidental, ill-defined or unspecified causes rather than suicide; and numbers are subject to revision as coronial enquires are completed.

International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: X60-X84, Y87.0.

For detailed data files released since 2007, Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from suicide and self-inflicted injuries at ages 0 to 44 years, 45 to 74 years or 0 to 74 years.

Denominator: Population aged 0 to 44 years, 45 to 74 years or 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 44 years, 45 to 74 years or 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from accidental poisoning, people aged 0 to 44, 45 to 74 and, 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Accidental poisoning is caused by exposure to a substance in an amount that harms the body, which in most cases involves pharmaceutical drugs (those prescribed by a health practitioner and those obtained by other means) [1]. Pharmaceutical substances, such as over-the counter and prescription medications, cause most unintentional poisonings in Australia [2].

In 2020-21, harmful exposure to pharmaceutical drugs made up 85% of accidental poisoning hospitalisations, and a rate of 5.3 per 100,000 population [1]. In 2021-22, the rate of death for males was 1.3 times higher as for females [1]. In 2021-22 rates of death by accidental poisoning increased with remoteness, with major cities and inner regional areas having an age-standardised rate of 32 per 100,000, outer regional 45 per 100,000, remote 47 per 100,000, and very remote 49 per 100,000 [1].

For 2018 to 2022, 97.1% of deaths from accidental poisoning were premature – 98.5% for males and 96.5% for females: these and other details are available **here**.

References

1. Australian Institute of Health and Welfare. Injury in Australia: Accidental poisoning. Available from: https://www.aihw.gov.au/reports/injury/accidental-poisoning; accessed 4 September 2024.
2. Tovell A, McKenna K, Bradley C, et al. Hospital separations due to injury and poisoning, Australia 2009–10. Canberra: Australian Institute of Health and Welfare, 2012. Cat. no. INJCAT 145.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: X40-X49.

For detailed data files released since 2007, Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Deaths from accidental poisoning, people aged 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Deaths from COVID-19, people aged 0 to 44, 45 to 74 and, 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Australia reported its first cases of COVID-19 on the 25th of January 2020, with the first death from COVID-19 occurring on the 1st of March 2020 [1].

Australia had high vaccination rates, but still saw significant cases and deaths caused by COVID-19 [1]. COVID-19 has highlighted the fragility of health care provision and the importance of the social determinants of health [2]. It has highlighted the vulnerability of our ageing populations, not just from the biological effects of the virus, but also from social isolation, socioeconomic vulnerability, and concurrent chronic illnesses [2]. The pandemic continues to have direct and indirect health impacts for people, as well as the health system (and its workforce) [1]. Australia experienced increased mortality during 2022 which was the third year of the COVID-19 pandemic [3].

The number of deaths in the 2018 to 2022 data in this publication include 124 premature deaths in 2020 (out of a total of 900 deaths at all ages from COVID-19), 442 in 2021 (out of a total of 1,122) and 1,863 in 2022 (out of a total of 9,859).

People living in the most socioeconomically disadvantaged areas of Australia were over two and a half (2.78) times likely to die prematurely from COVID-19 than were those from the most advantaged areas [4]. Over this period (2018 to 2022), death rates within Australia varied with remoteness, from the highest in the Major Cities to the lowest in the Remote areas, with the second highest rate in Very Remote areas. The rates were 2.4 premature deaths per 100,000 population for those living in the Major Cities areas, 1.4 in both the Inner and Outer Regional areas, 1.3 in Remote areas and 2.0 in the Very Remote areas [4].

For 2018 to 2022, 20.4% of deaths from COVID-19 were premature – 23.4% for males and 16.7% for females: these and other details are available **here**.

References

1. Parliament of Australia. The Australian Health System, COVID-19: impacts on health and the Australian health system. Available from: **https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/BriefingBook47p/PandemicHealthSystem#:~:text=The COVID-19 pandemic continues, numbers of cases and deaths**; accessed 18 September 2024.
2. Blecher, G. Blashki, GA, and Judkins, S. Crisis as opportunity: how COVID-19 will reshape the Australian Health system. Med J Aust. 2020. Available from: **https://doi.org/10.5694/mja2.50730**; accessed 18 September 2024.
3. Australian Bureau of Statistics. Causes of Death, Australia. Available from: **https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release**; accessed 18 September 2024.
4. PHIDU (**www.phidu.torrens.edu.au**) based on Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System; 2018 to 2022.

Indicator detail: Deaths due to COVID-19 are coded to newly-introduced International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes U07.1, U07.2 and U10.9 using rules in accordance with the most current advice from the World Health Organization.

For detailed data files released since 2007, Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Deaths from COVID-19, people aged 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Avoidable mortality by selected cause and sex

Deaths from all avoidable causes, males, females and persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In 2010, the National Healthcare Agreement (NHA) included a performance indicator called Potentially Avoidable Deaths (PI-20). The specification for this indicator was endorsed by the Australian Health Ministers' Advisory Council in 2009 based on advice from the National Health Information Standards and Statistics Committee (NHISSC).

On 4 December 2013, NHISSC agreed to the re-establishment of the Potentially Preventable Hospitalisations/Potentially Avoidable Deaths (PPH/PAD) Working Group to finalise specification of this performance indicator for the 2015 NHA report. Throughout 2014, work was done by the PPH/PAD Working Group, with further revisions by the Australian Institute of Health and Welfare (AIHW), with additional NHISSC comments from several states. It also included an examination of the international work in avoidable mortality. This list is updated annually for any cause of death code changes: the latest list is shown below.

Deaths determined to be avoidable are limited to those before 75 years of age, other than for Acute lymphoid leukaemia/Acute lymphoblastic leukaemia, where the limit is 0 to 44 years.

More than one quarter (28.4%) of premature deaths from all causes over the period from 2018 to 2022 were determined to be avoidable.

Indicator detail: Deaths are defined as avoidable in the context of the present health system, based on the **PI-16 Potentially avoidable deaths, 2020**.

Not all of the causes of avoidable mortality are shown in this atlas as some have too few cases to be reliable indicators at the small area level. However, PHIDU has made an addition to the indicators, to show Suicide and self-inflicted injuries for those aged 0 to 44, and 45 to 74 years, in addition to those aged 0 to 74 years.

Note: Some of the avoidable mortality indicators comprise the same condition(s)/ ICD codes as the selected premature mortality indicators presented in the data/ maps.

Potentially avoidable mortality (deaths at ages 0-74 years) ICD-10 codes/ specifications in scope are as specified below:

Cause of death group	ICD-10 codes	Limits (age*, sex)
Infections		
Selected invasive infections	A38-A41 A46, A48.1, G00, G03, J02.0, J13-J16, J18, L03	
Viral pneumonia and influenza	J10-J12	
HIV/AIDS	B20-B24	
Cancer		
Colorectal	C18-C21, C26.0	
Skin	C43, C44	
Breast	C50	Female
Cervix	C53	
Prostate	C61	
Kidney	C64	
Thyroid	C73	
Hodgkin's disease	C81	
Acute lymphoid leukaemia/Acute lymphoblastic leukaemia	C91.0	0-44 years
Diabetes	E10-E14	
Diseases of the circulatory system		
Rheumatic and other valvular heart disease	I00-I09, I33-I37	
Hypertensive heart and renal disease	I10-I13	
Ischaemic heart disease	I20-I25	
Cerebrovascular diseases	I60-I69	
Heart failure	I50, I51.1, I51.2, I51.4, I51.5	
Pulmonary embolism	I26	
Diseases of the genitourinary system		
Renal failure	N17-N19	

Diseases of the respiratory system		
COPD	J40-J44	
Asthma	J45, J46	
Diseases of the digestive system		
Peptic ulcer disease	K25-K27	
Maternal & infant causes		
Complications of perinatal period	P00-P96	
Other conditions		
Complications of pregnancy, labour or the puerperium	O00-O99	
Selected external causes of morbidity and mortality		
Falls	W00-W19	
Fires, burns	X00-X09	
Suicide and self-inflicted injuries	X60-X84, Y87.0	0-44, 45-74, and 0-74 years
Misadventures to patients during surgical and medical care	Y60-Y69	
Medical devices associated with adverse incidents in diagnostic and therapeutic use	Y70-Y82	
Surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Y83-Y84	
Other external causes of morbidity and mortality		
Transport accidents	V01-V99	
Exposure to inanimate mechanical forces	W20-W49	
Exposure to animate mechanical forces	W50-64	
Accidental drowning and submersion	W65-W74	
Other accidental threats to breathing	W75-W84	
Exposure to electric current, radiation and extreme ambient air temperature and pressure	W85-W99	
Contact with heat and hot substances	X10-X19	
Contact with venomous animals and plants	X20-X29	
Exposure to forces of nature	X30-X39	
Accidental poisoning by and exposure to noxious substances	X40-X49	
Overexertion, travel and privation	X50-X57	
Accidental exposure to other and unspecified factors	X58-X59	
Assault	X85-Y09	
Event of undetermined intent	Y10-Y34	
Legal interventions and operations of war	Y35-Y36	
Drugs, medicaments and biological substances causing adverse effects in therapeutic use	Y40-Y59	
Selected external causes of morbidity and mortality	Y85, Y86, Y87.1-Y89	

*Age is 0 to 74 years, unless otherwise noted.
Source: National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2022. Available from: **https://meteor.aihw.gov.au/content/740864**, accessed 9 September 2024.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are designated preliminary, the second latest as revised and the data for the remaining years as final. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Avoidable deaths defined above, aged 0 to 74 years.

Denominator: Population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Potential years of life lost, by sex

Potential years of life lost from deaths of males, females and persons aged 0 to 74 years, 2018 to 2022 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Potential years of life lost from deaths can be used to estimate the burden of mortality, which is the loss associated with early death [1]. As noted for premature mortality, above, some 33.4% of deaths over the years 2018 to 2022 occurred before 75 years of age, although the proportion varies by sex and by cause, as shown **here**.

However, depending on the age at which a person dies, the number of years of life lost had they lived until, say, 74 years of age will vary. Potential years of life lost (PYLL) is a measure of the sum of the potential years of life lost from deaths at 15 years (59 years), 45 years (29 years) and so on, assuming they had all lived to 74 years of age.

The Australian Institute of Health and Welfare note that, on this measure, a particular PYLL value will be higher if mortality among children or young people is high; chronic diseases causing death among older people, on the other hand, have little effect on these values [1].

In 2022, there were 944,599 PYLLs in Australia, a 90% drop from 382 per 1,000 people (in 1907) to 39 per 1,000 people (in 2022) [1]. Males are more likely to experience premature death, however over time the difference between the sexes is narrowing as:

- In 1980, there were 109 PYLLs per 1,000 males and 58 PYLLs per 1,000 females (a difference of 51 PYLL per 1,000)
- In 2022, there were 49 PYLLs per 1,000 males and 30 PYLLs per 1,000 females (a difference of 19 PYLLs per 1,000).

Some notable variations shown by the data for the five years 2018 to 2022 [2] are:

- the range between the States and Territories was from 32.7 PYLLs per 1,000 population in the Australian Capital Territory and 35.7 in Victoria, to 43.4 PYLLs per 1,000 population in Tasmania and 78.8 in the Northern Territory
- the capital cities in these two latter jurisdictions had the highest rates, with the lowest in Sydney, Melbourne and Canberra
- Hobart had the second highest rate for females, after Darwin
- the rate of PYLLs for people who lived in the most disadvantaged areas was over twice that in the least disadvantaged areas across Australia (25.0 PYLLs per 1,000 for least disadvantaged, and 53.6 PYLLs for most disadvantaged
- for those living in the Very Remote areas, PYLL rates were over two and a half (2.6) times those in the Major Cities [2].

References

1. Australian Institute of Health and Welfare (AIHW), Deaths in Australia. Available from **https://www.aihw.gov.au/reports/web/152/deaths/deaths-in-australia/contents/age-at-death**; accessed 3 February 2020.
2. PHIDU (**www.phidu.torrens.edu.au**), based on Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System; 2018 to 2022.

Indicator detail: For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are preliminary, the second latest are revised and the data for the earlier years are final. In this way, the majority of records are released earlier than would be the case than were no data released until files had been returned from Coroners' offices. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020 final; and 2021 and 2022 preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The sum of the number of years between the actual age at death and 75 years of age for all deaths of each of males, females, persons aged 0 to 74 years over the years 2018 to 2022.

Denominator: Males, females, persons aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate of potential years of life lost per 1,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Potential years of life lost, by age and sex

Potential years of life lost from deaths of males, females and persons by broad age groups: 0 to 14, 15 to 24, 25 to 44, 45 to 64 and 65 to 77 years, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: As noted for premature mortality, above, some 33.4% of deaths over the years 2018 to 2022 occurred before 75 years of age, although the proportion varies by sex and by cause, as shown **here**.

However, depending on the age at which a person dies, the number of years of life lost, had they lived until, say, 74 years of age, will vary. Potential years of life lost (PYLL) is a measure of the sum of the potential years of life lost from deaths at 15 years (59 years), 45 years (29 years) and so on, assuming they had all lived to 74 years of age.

The Australian Institute of Health and Welfare note that, on this measure, a particular PYLL value will be higher if mortality among children or young people is high; chronic diseases causing death among older people, on the other hand, have little effect on these values [1].

In 2022, there were 944,599 PYLLs in Australia, a 90% drop from 382 per 1,000 people (in 1907) to 39 per 1,000 people (in 2022) [1]. Males are more likely to experience premature death, however over time the difference between the sexes is narrowing as:

- In 1980, there were 109 PYLLs per 1,000 males and 58 PYLLs per 1,000 females (a difference of 51 PYLL per 1,000, or down by 53.2%);
- In 2022, there were 49 PYLLs per 1,000 males and 30 PYLLs per 1,000 females (a difference of 19 PYLLs per 1,000, or down by 61.2%).

Some notable variations in the data sex by age and for the five years 2018 to 2022 [2] are:

- rates for males were above those for females in all age groups studied
- all of the states had rates for males around 70% above those for females, with a smaller gap in the Australian Capital Territory (where the male rate was 55% above the female rate and the Northern Territory (where the male rate was 44% above the female rate).

References

1. Australian Institute of Health and Welfare (AIHW), Deaths in Australia: Life expectancy and deaths. Available from: **https://www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/about**; accessed 5 September 2024.
2. PHIDU (**www.phidu.torrens.edu.au**), based on Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System; 2018 to 2022.

Indicator detail: For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are preliminary, the second latest are revised and the data for the earlier years are final. In this way, the majority of records are released earlier than would be the case than were no data released until files had been returned from Coroners' offices. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The sum of the number of years between the actual age at death and 75 years of age for all deaths of each of males, females or persons aged 0 to 14, 15 to 24, 25 to 44, 45 to 64, and 65 to 74 years over the years 2018 to 2022.

Denominator: Males, females or persons aged 0 to 14, 15 to 24, 25 to 44, 45 to 64, and 65 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate of potential years of life lost per 1,000 population (aged 0 to 14, 15 to 24, 25 to 44, 45 to 64, and 65 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2018 to 2022 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the average of the ABS estimated resident population (ERP) for Australia, 30 June 2018 to 30 June 2022.

Potential years of life lost, by selected cause

Potential years of life lost from deaths of persons aged 0 to 74 years of age, by selected cause, 2018 to 2022
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: As noted for the indicator of premature mortality, some 33.4% of deaths over the years 2018 to 2022 occurred before 75 years of age, although the proportion varies by sex and by cause, as shown **here.** However, depending on the age at which a person dies, the number of years of life lost had they lived until, say, 74 years of age will vary. Potential years of life lost (PYLL) is a measure of the sum of the potential years of life lost from deaths at 15 years (59 years), 45 years (29 years) and so on, assuming they had all lived to 74 years of age.

The Australian Institute of Health and Welfare note that, on this measure, a particular PYLL value will be higher if mortality among children or young people is high; chronic diseases causing death among older people, on the other hand, have little effect on these values [1].

Some notable variations between causes shown by the data for the five years 2018 to 2022 [2] are:

- at the chapter level, the highest rates were recorded for cancer (with total cancers accounting for 11.6 PYLL per 1,000 population), with the range between the States and Territories from 9.5 PYLL per 1,000 population in the Australian Capital Territory, to 15.1 PYLL per 1,000 population in the Northern Territory;
- the second highest rates at the chapter level were from external causes (9.4 PYLL per 1,000 population), ranging from 8.2 in New South Wales to 19.9 in the Northern Territory;
- there is a clear pattern of increasing PYLL across all causes of premature death with increasing disadvantage, particularly for diabetes where the least disadvantaged have 0.3 PYLLs per 1,000 population compared to 1.6 PYLLs for the most disadvantaged; and
- for those living in the Very Remote areas, PYLL rates were 2.60 times those in the Major Cities areas for all causes of premature death and 7.77 times for diabetes and 7.78 times for road traffic injuries.

References

1. Australian Institute of Health and Welfare (AIHW), Deaths in Australia. Available from **https://www.aihw.gov.au/reports/web/152/deaths/deaths-in-australia/contents/age-at-death**; accessed 3 February 2020.
2. PHIDU (**www.phidu.torrens.edu.au**), based on Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System; 2018 to 2022.

Indicator detail: Data are presented for the following (note that bracketed numbers below refer to codes in the **International Classification of Diseases (ICD-10-AM) chapters**):

- Potential years of life lost from cancer (C00-D48)
- Potential years of life lost from colorectal cancer (C18-C20, C26.0)
- Potential years of life lost from lung cancer (C33, C34)
- Potential years of life lost from breast cancer (C50)
- Potential years of life lost from diabetes (E10 to E14)
- Potential years of life lost from circulatory system diseases (I00-I99)
- Potential years of life lost from ischaemic heart disease (I20-I25)
- Potential years of life lost from cerebrovascular disease (I60-I69)
- Potential years of life lost from respiratory system diseases (J00-J99)
- Potential years of life lost from chronic obstructive pulmonary disease (COPD) (J40-J44)
- Potential years of life lost from external causes (V01-Y98)
- Potential years of life lost from road traffic injuries (V00-V06.[1], V09.2, V09.3, V10-V18. [4,5,9], V19.[4,5,6,9], V20-V28.[4,5,9], V29.[4,5,6,9], V30-V38. [5,6,7,9], V39.[4,5,6,9], V40-V48[5,6,7,9], V49[4,5,6,9], V50-V48.[5,6,7,9], V59.[4,5,6,9], V60-V68.[5,6,7,9], V69.[4,5,6,9], V70-V78.[5,6,7,9], V79.[4,5,6,9], V81.1, V82.1, V82.9, V83-V86.[0,1,2,3], V87, V89.2, V89.3)
- Potential years of life lost from suicide and self-inflicted injuries (X60-X84, Y87.0).

The data presented are the sum of the number of years between the actual age at death and 75 years of age for all deaths of each of the selected causes, for people, over the years 2017 to 2021.

For detailed data files released since 2007, the Australian Bureau of Statistics (ABS) has applied a staged approach to the coding of cause of death which affects the number of records available for release at any date. In general, the latest year's data are preliminary, the second latest are revised and the data for the earlier years are final. In this way, the majority of records are released earlier than would be the case than were no data released until files had been returned from Coroners' offices. For further information about the ABS revisions process see the following and related sites: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3303.0Explanatory+Notes12012**.

Data published here are from the following releases: 2018, 2019 and 2020, final; and 2021 and 2022, preliminary.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The sum of the number of years between the actual age at death and 75 years of age for deaths by selected cause of persons aged 0 to 74 years over the years 2018 to 2022.

Denominator: Persons aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate of potential years of life lost per 1,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Data compiled by PHIDU from deaths data based on the 2017 to 2021 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population is the ABS estimated resident population (ERP) for Australia, 30 June 2017 to 30 June 2021.

Use and provision of health and welfare services

Residential aged care places

Residential aged care places, June 2025
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Residential aged care in Australia is subsidised by the Commonwealth Government and is governed by the Aged Care Act 1997. A residential aged care facility (sometimes known as a nursing home) is for older people who can no longer live at home and need ongoing help with everyday tasks or health care. The data shown here are of the number of places in such facilities.

The national standards are for operational residential places per 1,000 people aged 70 years or over, and Aboriginal and Torres Strait Islander people aged 50 to 69 years [1]. However, as data are only available for total places (and not by Indigenous status), the rates shown here are per 1,000 total population.

Note: Some of the rates per 1,000 population are very high. This can occur when a facility is located in a Local Government Area or Population Health Area with a relatively low population, as people often access these facilities from a wide catchment, wider than the area in which they are located.

Reference

1. Australian Institute of Health and Welfare (AIHW). Meteor (Metadata Online Registry). Available from: **https://meteor-uat.aihw.gov.au/content/740826**; accessed 14 April 2023.

Indicator detail: Residential aged care in Australia is subsidised by the Commonwealth Government and is governed by the Aged Care Act 1997 (the Act). A residential aged care facility (sometimes known as a nursing home) is for older people who can no longer live at home and need ongoing help with everyday tasks or health care. The data shown here are of the number of places in such facilities as a rate per 1,000 population aged 70 years and over at 30 June 2025 (population data at June 2025 not available at time of publication).

The number of places includes transition care, short-term restorative care, multi-purpose service and NATSIFAC places (aged care services to older Aboriginal and Torres Strait Islander people).

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Residential aged care places.

Denominator: Population aged 70 years and over at June 2024 (population data at June 2025 not available at time of publication).

Detail of analysis: Rate per 1,000 population aged 70 years and over.

Source: Compiled by PHIDU based on data from GEN Aged Care Data, available from **https://www.gen-agedcaredata.gov.au/resources/access-data/2025/october/aged-care-service-list-30-june-2025**, accessed 15 October 2025; and Australian Bureau of Statistics, estimated resident population 30 June 2024.

Disability – National Disability Insurance Scheme (NDIS)

The information in the Social Health Atlas of people living with disability, their carers and their access to services comprises:

- Participants in the National Disability Insurance Scheme (immediately below).
- Data from the 2021 Census of the number of people providing unpaid assistance to people with a disability and the number of people with a profound or severe disability, by age and whether living in long-term residential accommodation, or in households (located **here**).
- Modelled estimates of people by the severity of their disability, based on the Australian Bureau of Statistics' 2018 Survey of Disability, Ageing and Carers (located **here**).

National Disability Insurance Scheme participants by broad age groups, December 2024 – by PHA, PHN, Quintiles, Remoteness

Policy context: The National Disability Insurance Scheme (NDIS) takes a lifetime approach, investing early in people with disability and children with developmental delay to improve their outcomes later in life. Every person living with a disability has different needs and the NDIS provides funds to provide participants with the supports needed for their disability and help working towards their goals [1].

The NDIS, with over 692,000 active participants at 31 December 2024, also connects anyone with disability to services in their community. This includes connections to doctors, community groups, sporting clubs, support groups, libraries and schools, as well as providing information about what support is provided by each state and territory government [1].

More detail as to the types of funding and support are available from **https://www.ndis.gov.au/participants/creating-your-plan/plan-budget-and-rules**.

The rate of participation in the NDIS rises steeply from birth and peaks approximately at the age of 6. At 31 December 2024, there were 159,356 children younger than 9 with a NDIS plan, and a further 23,679 accessing early connections [2]. The number of NDIS participants then declines steadily by age 35, before rising gradually by age 55 [2]. Overall, over half of all NDIS participants were aged 18 years or under [2].

References

1. National Disability Insurance Agency (NDIA). National Disability Insurance Scheme [Internet]. URL: https://www.ndis.gov.au/; accessed 9 September 2025.
2. National Disability Insurance Agency (NDIA). National Disability Insurance Scheme [Internet]. URL: https://www.ndis.gov.au/publications/quarterly-reports/archived-quarterly-reports-2024-25; accessed on 9 September 2025.

Indicator detail: The data presented are of the number of NDIS participants active as at 31 December 2024 by broad age group. Population Health Area (PHA), Primary Health Network (PHN), Quintiles and Remoteness Areas were derived from NDIS participants' data coded to the Statistical Area Level 2 (SA2).

Data are not shown for areas with fewer than 11 NDIS participants.

Geography: Data available by Population Health Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of active NDIS participants by age groups – 0 to 8 years, 9 to 14 years, 15 to 18 years, 19-24 years, 25 to 34 years, 35 to 44 years, 45 to 54 years, 55 to 64 years and 65+ years.

Denominator: Total estimated resident population.

Detail of analysis: Indirectly age-standardised rate per 100 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU based on data from the National Disability Insurance Agency, December 2024 and ABS estimated resident population, 30 June 2024.

Community Mental Health Care Services

Community Mental Health Care Service patients, by sex and Community Mental Health Care Service contacts, by principal diagnosis, 2023/21
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Mental health is a key component of overall health and wellbeing [1]. In any year in Australia, an estimated one in five people aged 16–85 will experience a mental disorder [2]. A person's mental health affects and is affected by multiple factors, including lower (by socioeconomic status) access to services (health and/or other services), living conditions and employment status, and affects not only the individual but also their families and carers [2].

Mental illness is often treated in specialised community and hospital-based outpatient psychiatric services provided by state and territory governments. Collectively, these services are referred to as specialised community mental health care (CMHC) services [3].

CMHC service contacts can be conducted as either individual or group sessions and can also be face-to-face, via telephone, or using other forms of direct communication such as video link. They can be conducted in the presence of the patient, with a third party (such as a carer or family member) and/or other professionals or mental health workers [3]. The majority of service contacts reported in 2020/21 involved individual contact sessions (96%) and 4% of contacts were group sessions. Just over half of all contacts were individual sessions (52%), where the patient participated in the service contact (termed 'patient present') [4].

In 2005/06, almost 5.7 million CMHC service contacts took place across Australia, and this has increased to 10.2 million in 2020-21 [4]. Around 10.2 million community mental health care service contacts were provided to mental health patients in 2020/2021 [4]. In 2020/21, a slightly higher proportion of CMHC patients were females (a rate of 25.9 females per 1,000 female population, cf. 23.2 per 1,000 for males, and females accessed services at a higher rate than males [4,5].

Mental disorder not otherwise specified (in the table below, included in the category 'All other codes not specified') was the most frequently recorded mental health-related principal diagnosis for service contacts, with 2,085,158 contacts in 2020/21. This diagnosis may be used when a patient presents to a service for care, but further investigation is required by clinical staff to make a formal diagnosis [3]. The highest rates of CMHC patients were at younger ages, with rates of 44.7 patients per 1,000 population at ages 15 to 19 years, 31.0 at ages 20 to 24 years, 26.3 at ages 25 to 29 years and 25.8 at 10 to 14 years [6]. Females comprised 64.0% of patients at ages 15 to 19 years, 59.7% at ages 10 to 14 years and 56.6% at ages 20 to 24 years [6].

References

1. Australian Bureau of Statistics (ABS). National Study of Mental Health and Wellbeing, 2020-2022. Available from: **https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release**; accessed 4 September 2024.
2. Australian Institute of Health and Welfare (AIHW). Australia's mental health system. Available from: **https://www.aihw.gov.au/mental-health/overview/australias-mental-health-services**; accessed 4 September 2024.
3. Australian Institute of Health and Welfare (AIHW). Community mental health care services. Available from: **https://www.aihw.gov.au/mental-health/topic-areas/community-services**; accessed 4 September 2024.
4. Australian Institute of Health and Welfare (AIHW). Community mental health care services, 2020-21. Available from: **https://www.aihw.gov.au/getmedia/7f40c0f7-e0ba-4e4f-97da-08cdb23b545f/community-mental-health-care-2020-21.pdf**; accessed 4 September 2024.
5. PHIDU (**www.phidu.torrens.edu.au**) based on community mental health care services, 2020/21 data from the Australian Institute of Health and Welfare, as supplied by state and territory health authorities.
6. Calculated by PHIDU from data supplied by Australian Institute of Health and Welfare, as per 'Source', below.

Indicator detail: The data presented are the number of males, females and persons patients who accessed the community mental health service, or the number of service contacts by mental health-related principal diagnosis.

Details of data presented:

- Community Mental Health Care Service patients, by sex
- Community mental health care patients, males
- Community mental health care patients, females
- Community mental health care patients, persons
- Community Mental Health Care Service contacts, by principal diagnosis
  Note: Bracketed numbers below refer to codes in the International Classification of Diseases (**ICD-10-AM**) chapters.
- Schizophrenia, schizotypal and delusional disorders (F20-F29)
- Bipolar affective disorders (F31)
- Depressive episode (F32)
- Other anxiety disorders (F41)
- Reaction to severe stress and adjustment disorders (F43)
- Specific personality disorders (F60)
- Other codes (F90-F99)
- Total Community Mental Health Care Service contacts (includes codes F50, F84 and 'not reported')

For more information refer to the **Community mental health care services**.

Caveat: As a result of the relatively small number of services for many diagnoses when analysed at the small geographic level, it has only been possible to publish data for some of the diagnostic codes. Further details as to the large number of contacts in the 'All other codes' sub-total can be found in Table CMHC.15 in the MS Excel workbook **here**.

Confidentiality of data: The number of patients or service contacts have not been published for values between 1 and 4.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: The indicators presented are:

- Number of males, females or persons patients who accessed the community mental health service
- Number of service contacts by principal diagnosis.

Denominator: Total population.

Detail of analysis: Indirectly age-standardised rate per 1,000 population; and/or indirectly age-standardised ratio, based on the Australian standard.

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare 2020/21, as supplied by state and territory health authorities; and the average of the ABS estimated resident population, 30 June 2020 and 30 June 2021.

Commonwealth Home Support Programme (CHSP)

Commonwealth Home Support Programme, 2023/24
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The Commonwealth Home Support Programme (CHSP) is an entry-level home support program, funded by the Australian Government, that helps frail older people to live independently in their homes and communities. It also provides respite services to give carers a break.

The program aims to:

- Help people live as independently as possible
- Focus on working with them, rather than doing things for them
- Give a small amount of help to a large number of people.

Most people in the CHSP only need 1 or 2 services to help them stay independent [1].

CHSP services may be offered in the home or local community. Services include centre-based and other respite; social support and counselling; personal care; home modification and maintenance; transport; meals and other food services; information, advocacy and assessment; support for carers; allied health services; domestic assistance; and community nursing [1].

Further information on the CHSP, including key figures on the characteristics of people using CHSP, as well as information on the programs provided under the CHSP including financial and time expenditure, is available **here**.

Reference

1. DHAC (Australian Government Department of Health and Aged Care). About the Commonwealth Home Support Programme (CHSP). Available from: **https://www.health.gov.au/initiatives-and-programs/commonwealth-home-support-programme-chsp/about-the-commonwealth-home-support-programme-chsp#what-is-the-chsp**; accessed 21 November 2022.

Indicator detail: The Commonwealth Home Support Programme (CHSP) replaced the Home and Community Care (HACC) program in mid-2015. The proportion of CHSP-funded agencies that submitted Home and Community Care (HACC) MDS data differed across jurisdictions. In 2020/21 this ranged from 75 per cent to 100 per cent. Actual client numbers will be higher than those reported here.

For some client types there are considerable differences in rates between the states and territories. In many cases, this is due to design legacies of jurisdictionally-based HACC programmes. For example, many Victorian Transport clients would be recorded as Social support clients. For more information see: **Commonwealth Home Support Programme Data Study**.

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All data are derived from Population Health Area (PHA) data that had values less than 5 suppressed. As a result, the number of clients and corresponding rates for areas derived from PHAs may be slightly underestimated. The indicators include the following:

Assistance type	Definition	Measure
Clients living alone	Clients whose status is recorded as living alone at the date of most recent assessment.	Percentage of total clients
Clients with carer	Clients whose status is recorded as having a carer at the date of most recent assessment. The carer may be living with the client or not.	Percentage of total clients
Indigenous clients (per total clients)	Clients whose status is recorded as Indigenous at the date of most recent assessment.	Percentage of total clients
Indigenous clients (per Indigenous population)	Clients whose status is recorded as Indigenous at the date of most recent assessment.	Percentage of Indigenous population
Non-English-speaking clients	Clients whose main language spoken at home at the date of most recent assessment is not English.	Percentage of total clients
Total clients	All clients that recorded at least one instance of assistance for the time period.	Indirectly age-standardised rate and ratio (of the total population)
Allied health therapy clients	Includes physiotherapy, occupational therapy, podiatry, advice from a dietician or nutritionist, or speech therapy.	Indirectly age-standardised rate and ratio (of the total population)
Domestic assistance clients	House cleaning, washing and ironing, help with shopping, transport to and from banks and appointments etc., and general household support.	Indirectly age-standardised rate and ratio (of the total population)
Flexible respite clients	In-home day and overnight respite, host family day and	Indirectly age-standardised rate and ratio (of the total population)

	overnight respite, mobile respite, other planned respite, and community access – individual respite.	
Goods and equipment clients	Medical care aids, reading aids, self-care aids, support and mobility aids, other goods and equipment, car modification, and communication aids.	Indirectly age-standardised rate and ratio (of the total population)
Home maintenance clients	Assistance with the maintenance and repair of the client's home, garden or yard to keep their home in a safe and habitable condition. This also includes minor modifications such as grab rails, hand rails, ramps, and shower rails to reduce the impact of disability on the activities of daily living.	Indirectly age-standardised rate and ratio (of the total population)
Home modification clients	Assistance with the maintenance and repair of the client's home, garden or yard to keep their home in a safe and habitable condition. This also includes minor modifications such as grab rails, hand rails, ramps, and shower rails to reduce the impact of disability on the activities of daily living.	Indirectly age-standardised rate and ratio (of the total population)
Meals clients	Provision of meals prepared and delivered to the client’s home or provided in a community centre.	Indirectly age-standardised rate and ratio (of the total population)
Nursing clients	Health care provided to a client by a registered or enrolled nurse. This care can be provided from a community centre or in the client’s home.	Indirectly age-standardised rate and ratio (of the total population)
Personal care clients	May include help with bathing, toilet use, eating, dressing and personal grooming.	Indirectly age-standardised rate and ratio (of the total population)
Social support (group) clients	Assistance provided by a companion either within the home or while accessing community services, whose primary purpose is to meet the person’s need for social contact and/or accompaniment in order to participate in community life. This includes friendly visiting.	Indirectly age-standardised rate and ratio (of the total population)
Social support (individual) clients	Assistance provided by a companion either within the home or while accessing community services, whose primary purpose is to meet the person’s need for social contact and/or accompaniment in order to	Indirectly age-standardised rate and ratio (of the total population)

	participate in community life. This includes friendly visiting.	
Specialised support services clients	Assistance to provide or coordinate individual or group transport services.	Indirectly age-standardised rate and ratio (of the total population)
Transport clients	Assistance to provide or coordinate individual or group transport services.	Indirectly age-standardised rate and ratio (of the total population)

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Number of clients for the respective indicator.

Denominator: Total clients, Total population or Total Indigenous population, as appropriate - refer to 'Indicator details' above.

Detail of analysis: Indirectly age-standardised rate per 1,000 population; and/or indirectly age-standardised ratio; or percentage - refer to 'Indicator details' above.

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, 2023/24; and the average of the ABS estimated resident population, 30 June 2023 and 2024 (for the indicator `Indigenous clients per Indigenous population', the population used is the ABS Indigenous ERP, produced as a consultancy for PHIDU, 30 June 2021).

Health workforce

Health workforce, medical, nursing and dental professionals, 2023 – by LGA, PHN, Remoteness

Policy context: Access to a range of health practitioners is important for the population's health. The data presented here show geographic variations in the number and rate of registered general, hospital and specialist medical practitioners, nurses, and dental practitioners, as extracted from the National Health Workforce Data Set (NHWDS) [1]. The NHWDS consists of de-identified registration and survey data for health practitioners from the fourteen health professions regulated by the Australian Health Practitioner Regulation Agency (AHPRA) under the National Registration and Accreditation Scheme (NRAS). Data are available by Primary Health Network (PHN), Local Government Area (LGA) and Remoteness Area.

Reference

1. National Health Workforce Data Set (NHWDS). Available from: https://hwd.health.gov.au/datatool/; accessed 27 February 2025.

Indicator detail: The data presented are the number and rate of general, specialist and other medical practitioners, nurses and dental practitioners, as extracted from the National Health Workforce Data Set (NHWDS) [available from **https://hwd.health.gov.au/datatool**: accessed 23 January 2024]. The NHWDS consists of de-identified registration and survey data for health practitioners from the fourteen health professions regulated by the Australian Health Practitioner Regulation Agency (AHPRA) under the National Registration and Accreditation Scheme (NRAS). The following health workforce professions are included:

- General Medical Practitioners
- Hospital Practitioners non-specialist
- Specialist Practitioners
- Specialist Practitioners in training
- Total Medical Practitioners
- Registered Nurses only
- Registered Nurses who are also Midwives
- Total Registered Nurses
- Enrolled Nurses
- Midwives (may also be a Registered Nurse or Enrolled Nurse)
- Total Nurses (Registered Nurses, Enrolled Nurses or Midwives, each person only counted once)
- Dentists
- Total Dental Practitioners (includes Dentists, Oral health therapists, Dental hygienists, Dental therapists and Dental prosthetists)
- Total Psychologists
- Total Psychiatrists

Geography: Data available by Local Government Area, Primary Health Network and Remoteness Area.

Numerator: Numbers for each profession or group of professions.

Denominator: Total population.

Detail of analysis: Number of medical professionals per 100,000 people.

Source: Compiled by PHIDU based on data from the National Health Workforce Dataset (NHWDS), 2023; and ABS estimated resident population, 30 June 2023.

Selected Medicare-subsidised services

Mental health-related Medicare-subsidised services, 2022–23 – by SA3

Policy context: Primary health care is often the first contact a person has with the health system and can be delivered in various settings, by a range of providers. It may be provided by general practitioners (GPs) within general practice or in an aged care or community setting, by public or private service providers. Nursing care, midwifery, pharmacy, dentistry, Aboriginal health services, and allied health care are also examples of primary care services [1].

This atlas includes details of Medicare-subsidised services for mental health provided by a range of health professionals, as described below under Indicator detail.

Reference

1. Australian Institute of Health and Welfare (AIHW). General practice, allied health and other primary care services. Available from **https://www.aihw.gov.au/reports/primary-health-care/general-practice-allied-health-primary-care**; accessed 20 November 2024.

Indicator detail: The data presented are for Medicare-subsidised services for mental health and show, for the providers specified in the box below, the

- number of people who had the service and the
- number of services per 100 population.

The specific groups, subgroups and items included in the '**GP Mental Health**' category of our report can be found in the **Description of non-hospital Medicare-subsidised services** section of the AIHW web report. In short, the GP Mental Health (Level 3) category includes the preparation and review of a mental health treatment plan, as well as treatment and advice of a mental disorder by a GP. It should be noted that it's possible for a GP to provide mental health treatment to a patient under the standard GP attendance items (for example, item 23). These cases will not be captured under this group.

Psychologists – separately for Clinical Psychologists and Other Psychologists.
Data for **Clinical Psychologists** include psychological therapy services provided by eligible clinical psychologists. Includes individual attendances, group therapy, and telehealth video consultations. Note: Clinical psychologists may also claim services included in the 'Other Psychologists' and 'Other Allied Mental Health' categories.
Data for **Other psychologists**, include focussed Psychological Strategies and enhanced primary care services provided by any eligible psychologist, including clinical and other psychologists (that is, fully registered psychologists in the relevant jurisdiction regardless of any specialist clinical training). Includes individual attendances, group therapy, and telehealth video consultations. Items 80126, 80136, 80146, 80151, 80161 and 80171 refer to telehealth services provided to people located in eligible areas.

Under **Other Allied Mental Health**, the data include mental health services provided by professionals such as occupational therapists, mental health nurses, Aboriginal health workers and some social workers. Psychologists (clinical or other) may also provide some of these services, however, they cannot be readily separated from the other mental health workers included in the group. These services cover Focussed Psychological Strategies – allied mental health (occupational therapist and social worker items) and enhanced primary care – allied health (mental health worker item). Includes individual attendances, group therapy, and telehealth video consultations.

The '**Psychiatry**' (Specialist Level 3) category includes professional attendance items for patients appropriately referred to a psychiatrist, as well as participation in a multidisciplinary case conference by a psychiatrist. However, there is no requirement that a patient have a GP mental health treatment plan in place for these items, so there is no way of knowing how many of these services relate specifically to patients with GP mental health treatment plans. Electroconvulsive therapy (item 14224) is also included within this category.

Source: AIHW, Medicare-subsidised GP, allied health and specialist health care across local area. Available from **https://www.aihw.gov.au/reports/primary-health-care/medicare-subsidised-gp-allied-health-specialist/contents/technical-notes/technical-information**: accessed 26 may 2025.

Confidentiality of data
Information about an SA3 was suppressed (marked with a #) if any of the following conditions were met:

- there were fewer than six patients or fewer than six providers in the area
- one provider provided more than 85% of services or two providers provided more than 90% of services
- one patient received more than 85% of services or two patients received more than 90% of services
- the number of attendances/services was greater than 0 but less than 20 for an area
- the total population of an area was fewer than 1,000, or the population of the reported age group or sex group in an area was fewer than 300.

Geography: Data available by Statistical Areas Level 3.

Numerator: People and services.

Denominator: For each provider type, the:

- Number of people who had the service and their proportion of the population (%) in the area
- Number of services and the number of services per population in the area.

Detail of analysis: Per cent.

Source: Australian Institute of Health and Welfare, Medicare-subsidised GP, allied health and specialist health care across local areas: 2022–23. Available from **https://www.aihw.gov.au/reports/primary-health-care/medicare-subsidised-care-2022-23/contents/technical-notes/summary**; accessed 20 November 2024.

Hospital admissions (excluding same-day renal dialysis)

Admissions by hospital type and sex, by principal diagnosis, by procedure and for potentially preventable conditions, 2022/23
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Admission to hospital is a formal process, and follows a decision made by an accredited medical practitioner at that hospital that a patient needs to be admitted for appropriate management or treatment of their condition, or for appropriate care or assessment of needs [1].

Patients are usually admitted to hospital either as an emergency or as a booked admission. Emergency admission patients are usually admitted through the Accident and Emergency Department: these are seriously injured or ill patients who need immediate treatment. Most patients receive hospital-based services as a booked (elective) admission, either as a same-day patient or an inpatient. A same-day patient comes to hospital for a test or treatment and returns home the same day. An overnight admission is recorded where a patient receives hospital treatment for a minimum of 1 night (that is, the patient is admitted to and separated from the hospital on different dates) or longer in the hospital.

The majority of people who have had an episode of care in a hospital express satisfaction with the service when they leave [2]. In 2022–23, among people aged 15 and over who used hospital services as an admitted patient, most reported that:

- hospital doctors and specialists spent enough time with them (71%), listened carefully (74%) and always showed respect (78%).
- hospital nurses spent enough time with them (74%), listened carefully (78%) and always showed respect (80%) [3].

However, admission to hospital per se carries at risk of adverse events, in addition to those related to any medical treatment undertaken. These include a risk of cross-infection, injury, or rarely, death [3].

References

1. Australian Institute of Health and Welfare (AIHW). Australian hospital statistics 2012-13. Health services series no. 54. (Cat. no. HSE 145.) Canberra: AIHW; 2014.
2. Australian Bureau of Statistics (ABS). Patient experiences in Australia: Summary of Findings, 2016-17. ABS; 2017 [cited: 2018 Nov 16]. Available from: **http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4839.0~2016-17~Main%20Features~Hospital%20admissions%20and%20emergency%20department%20visits~5**; accessed 7 December 2023.
3. Australian Institute of Health and Welfare (AIHW). Hospital safety and quality. Available from: **https://www.aihw.gov.au/reports-data/myhospitals/themes/hospital-safety-and-quality**; accessed 7 December 2023.

Indicator detail: The data presented are of the number of separations, or completions of the episode of care of a patient in hospital, where the completion can be the discharge, death or transfer of the patient, or a change in the type of care (e.g., from acute to rehabilitation). In this atlas the term ‘admission’ is used in place of the more technical ‘separation’. As these data relate to short-term episodes of care, and not to long-stay episodes, the number of admissions is similar to the number of separations in any year.

Note that the data are based on the count of all admissions. As such, repeat admissions for one person are counted as separate admissions. In addition, patients admitted to one hospital and transferred to another hospital are also counted as separate admissions. The impact of these hospital transfers is likely to result in a higher rate of admissions of people living in regional areas compared to the capital cities, as well as for certain conditions which are more likely to result in transfers.

In some instances results are not comparable between jurisdictions due to the variations in scope of hospitals for individual states and territories.

Details as to the impact of COVID-19 on hospitalisations since 2020 have been documented here: Australian Institute of Health and Welfare (AIHW). AIHW media releases. Available from: **https://www.aihw.gov.au/news-media/media-releases/2023/may/hospitalisation-numbers-continued-to-be-affected-b** accessed 21 May 2025.

Exclusions
The national data published by the Australian Institute of Health and Welfare exclude well babies (i.e., babies not admitted for acute care) who are nine days older or less, other than the second or subsequent live born infant of a multiple birth whose mother is currently an admitted patient.

Same-day admissions for dialysis for kidney disease have also been excluded from this indicator for the categories of admissions for males, females and total people, and admissions by hospital sector, as they represent many repeat visits by a relatively small number of patients, who may have multiple admissions in a week: their inclusion can dramatically alter the geographic distribution of other categories of admissions (see the separate presentation of data and the note for **Same-day admissions for dialysis for kidney disease** for further details). Same-day admissions for all other conditions other are included.

Details of data presented
Data are presented for acute hospitals for the following categories:

1. Admissions by hospital type and sex (excluding same-day admissions for renal dialysis - Z491 to Z492):
- Male total admissions - Public hospitals/ All hospitals
- Female total admissions - Public hospitals/ All hospitals
- Total admissions - Public/ Private/ All hospitals
- Also see note re hospital type under *Confidentiality of Data.*

2. Admissions by principal diagnosis:
Note: Bracketed numbers below refer to codes in the **International Classification of Diseases (ICD-10-AM) chapters**.
- Infectious and parasitic diseases (A00-B99), males/ females/ persons - Public hospitals
- All cancers (C00-D48), males/ females/ persons - Public hospitals
- Endocrine, nutritional and metabolic diseases (E00-E90), males/females/persons - Public hospitals/All hospitals
- Mental health related conditions (F00-F99), males/ females/ persons - Public hospitals
- Mood affective disorders (F30-F39), males/females/persons - Public hospitals
- Nervous system diseases (G00-G99), males/ females/ persons - Public hospitals
- Eye and adnexa diseases (H00-H59), males/ females/ persons - Public hospitals
- Ear and mastoid process diseases (H60-H95), males/ females/ persons - Public hospitals
- Circulatory system diseases (I00-I99), males/ females/ persons - Public hospitals
- Ischaemic heart disease (I20-I25), males/females/persons - Public hospitals
- Heart failure (I50), males/females/persons - Public hospitals
- Stroke (I60-I64), males/females/persons - Public hospitals
- Respiratory system diseases (J00-J99), males/ females/ persons - Public hospitals
- Asthma (J45-J46), males/females/persons - Public hospitals
- Chronic obstructive pulmonary disease (COPD) (J40-J44), males/females/persons - Public hospitals
- Digestive system diseases (K00-K93), males/ females/ persons - Public hospitals
- Skin and subcutaneous tissue diseases (L00-L99), males/ females/ persons - Public hospitals

- Musculoskeletal system and connective tissue diseases (M00-M99), males/ females/ persons - Public hospitals
- Genitourinary system diseases (N00-N99), males/ females/ persons - Public hospitals
- Chronic kidney disease (Z49.0, E10.2, E11.2, E13.2, E14.2, I12, I13, I15.0, I15.1, N00-N07, N08, N11, N12, N14, N15, N16, N18, N19, N25-N28, N39.1, N39.2, E85.1, D59.3, B52.0, Q60-Q63, T82.4, T86.1), males/females/persons - Public hospitals
- Certain conditions originating in the perinatal period (P00-P96), persons - Public hospitals
- Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99), males/ females/ persons - Public hospitals
- Pregnancy, childbirth and the puerperium (O00-O99), females aged 15 to 44 years - Public hospitals
- Injury, poisoning and certain other consequences of external causes (S00-T98), males/ females/ persons - Public hospitals.

3. Admissions by principal diagnosis of injury or poisoning, by external cause:
Note: Bracketed numbers below refer to codes in the **International Classification of Diseases (ICD-10-AM) chapters**.

- Transport crash Injury (V00-V99), males/ females/ persons - Public hospitals
- Accidental poisoning (X40-X49), persons - Public hospitals
- Falls (W00-W19), males/ females/ persons - Public hospitals
- Injury due to exposure to inanimate mechanical forces (W20-W49), males/ females/ persons - Public hospitals
- Injury due to exposure to animate mechanical forces (W50-W64), males/ females/ persons - Public hospitals
- Intentional self-harm (X60-X84), males/ females/ persons - Public hospitals
- Assault (X85-Y09), males/ females/ persons - Public hospitals
- All diagnosis of injury or poisoning, by external cause, males/ females/ persons - Public hospitals.

4. Admissions by procedure:
Note: Bracketed numbers below refer to codes in the **International Classification of Diseases (ICD-10-AM)/ Australian Classification of Health Interventions (ACHI)** for all procedures except hip fracture codes that are from the **International Classification of Diseases (ICD-10-AM)**.

- Tonsillectomy, (41789-00, 41789-01, 41787-01 and/or 41786-01) - Public/ Private/ All hospitals
- Myringotomy, children aged 0 to 9 years (41632-02 (Insertion of myringotomy tube, unilateral), 41632-03 (Insertion of myringotomy tube, bilateral), 41626-00 (Myringotomy, unilateral) and/or 41626-01 (Myringotomy, bilateral)) - Public/ Private/ All hospitals
- Hysterectomy, females aged 30 to 59 years (block 1268 or 1269 or a reported procedure code of 90450-00, 90450-01 and/or 90450-02) - Public/ Private/ All hospitals
- Caesarean section, females aged 15 to 44 years (1340) - Public/ Private/ All hospitals
- Hip fracture (M84.45, S72.01, S72.02, S72.04, S72.05, S72.08, S72.03, S72.10, S72.11, S72.2 or S72.00) - Public/ Private/ All hospitals
- Fibre optic colonoscopy (block 905 (32090-00, 32084-00, 32084-02 and/or 32090-02)) - Public/ Private/ All hospitals
- Fibre optic colonoscopy with excision (block 911 (32090-01, 32093-00, 32087-00 and/or 32084-01)) - Public/ Private/ All hospitals.

Confidentiality of data
Counts of less than 6 admissions have been suppressed. The Population Health Areas of 30057 Brisbane Inner - North - Central and 30051 Fortitude Valley/Spring Hill have been combined at the request of Queensland Health; data displayed is the combination of values and rates for these areas.

Data were not provided to PHIDU by hospital type (i.e., separate data for public hospitals and private hospitals) in Queensland, Tasmania, the Northern Territory or the Australian Capital Territory. As a result, where data are published for 'public' and 'all hospitals' for other jurisdictions, only the 'public hospitals' data are available for these jurisdictions. The 'all hospitals' data in other jurisdictions have been confidentialised where publication of public and all hospitals data would allow identification of private hospital data due to small cell sizes. The decision was made to confidentialise the 'all hospitals' rather than the 'public hospitals' figures as admissions to public hospitals, which comprise the majority of admissions, both overall and from the most disadvantaged areas, were considered to be the most relevant in the context of this atlas.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Admissions for the above categories.

Denominator:

- Admissions by hospital type and sex (excluding same-day admissions for renal dialysis): Total population, or total males/ females, where appropriate
- Admissions by principal diagnosis: For pregnancy, childbirth and the puerperium, denominator is the number of females aged 15 to 44 years; for certain conditions originating in the perinatal period, the denominator is the number of live births; for all other admissions, the denominator is the total population
- Admissions by principal diagnosis of injury or poisoning, by external cause: The denominator is the total population
- Admissions by procedure: For myringotomy, is children aged 0 to 9 years; for Hysterectomy, is females aged 30 to 59 years; for Caesarean section, is women aged 15 to 44 in hospital to give birth; for birth with an outcome of delivery, is women aged 15 to 44 years; and for all other admissions the denominator is the total population.

Detail of analysis: Indirectly age-standardised rate per 100,000 (respective population); and/or indirectly age-standardised ratio, based on the Australian standard.

Note the following indicators are expressed as a rate per 100 live births:

- Admissions for certain conditions originating in the perinatal period, Persons - Public hospitals, All hospitals
- Admissions for a Caesarean section, females aged 15 to 44 years - Public hospitals, All hospitals

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2022/23; and the ABS estimated resident population, average of 30 June 2022 and 2023 (ERP).

Same-day hospital renal dialysis

Same-day admissions for dialysis for kidney disease by public hospital and all hospitals, 2022/23 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: In 2022-23, the most common reason for the hospitalisation of Aboriginal and Torres Strait Islander people in Australia was for conditions in the ICD 'Factors influencing health status and contact with health services', mostly for care involving dialysis, responsible for 46% of Aboriginal and Torres Strait Islander hospital separations (301,049 of 656,760 separations). Many of these separations involved repeat admissions for the same people [1].

Reference

1. Australian Institute of Health and Welfare (AIHW). Admitted patients, quoted in Australian Indigenous Health*InfoNet*, Hospitalisation: Causes of hospitalisation. Available from: https://healthinfonet.ecu.edu.au/learn/health-facts/latest-information-and-statistics/hospitalisation/; accessed 11 November 2024.

Indicator detail: The data presented are of the number of same-day admissions for dialysis for kidney disease, including both haemodialysis and peritoneal dialysis, International Classification of Disease (ICD-10-AM) codes Z49.1 and Z49.2. There are two main types of dialysis: peritoneal, which occurs inside the body and can be performed almost anywhere, usually in the home setting; and haemodialysis, which occurs outside the body and is most often conducted in a hospital or satellite setting. The reason for presenting these data separately from overnight admissions is that they represent many repeat visits by a relatively small number of patients, who may have multiple admissions in a week. Their inclusion with other (overnight) admissions can dramatically alter the geographic distribution of these other categories of admissions. This is particularly evident in regional and remote areas, where dialysis facilities are located, and where those using them may have moved to live to be near the facility.

Note results may not comparable between jurisdictions due to the variations in scope of hospitals for individual states and territories.

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Confidentiality of data
Counts of fewer than 6 admissions have been suppressed. The Population Health Areas of 30057 Brisbane Inner - North - Central and 30051 Fortitude Valley/Spring Hill have been combined at the request of Queensland Health; data displayed is the combination of values and rates for these areas.

Data were not available for private dialysis units in Queensland, Tasmania, the Northern Territory or the Australian Capital Territory, to protect the confidentiality of the small number of private facilities in these jurisdictions. As a result, where data are published for public dialysis units and all dialysis units, the ‘all units’ data for these jurisdictions have also been confidentialised, as their publication would allow identification of the confidentialised private dialysis units. The ‘all units’ data in other jurisdictions have also been confidentialised where publication of public and all units data would allow identification of private hospital data confidentialised due to small cell sizes. The decision was made to confidentialise the ‘all units’ rather than the ‘public’ figure as admissions to public dialysis units comprise the majority of admissions, both overall and from the most disadvantaged areas.

All hospital admissions where addresses were unknown are included in the Australian total and are not represented by State/Territory.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Remoteness Area.

Numerator: Same-day admissions for same-day dialysis for kidney disease (Z491 to Z492).

Denominator: Total population, average of 30 June 2022 and 2023 (ERP).

Detail of analysis: Indirectly age-standardised rate per 100,000 population; and/or indirectly age-standardised ratio, based on the Australian standard. A standardised ratio (SR) provides a comparison to the Australian rate which is assigned a value of 100. Ratios below 100 are proportionally less than the national rate, while ratios above 100 are proportionally higher than the national rate. The SR is the ratio of the observed value to the expected value (the expected value is age-standardised).

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2022/23; and the average of the ABS estimated resident population, 30 June 2022 and 30 June 2023.

Potentially preventable hospitalisations

Potentially preventable hospitalisations data are currently unavailable for 2022/23. We expect to publish 2022/23 data in 2026.

ERRATA: Note that the populations used to calculate rates in the 2020/21 dataset were inaccurate. Revised data with corrected rates were published in December 2025.

Admissions for potentially preventable conditions, 2020/21 – by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Potentially preventable hospitalisations are admissions from a specified range of conditions where hospitalisation could have potentially been prevented through the provision of appropriate individualised preventative health interventions and early disease management, usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and allied health professionals).

Data definitions for potentially preventable hospitalisations are in the National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations available through METeOR **(METeOR ID: 630028)**. The indicator potentially preventable hospitalisations is described as a 'progress measure' under the National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2021 available through METeOR (**METeOR: 725793**).

Indicator detail: The data presented are of the number of separations, or completions of the episode of care of a patient in hospital, for the specified condition or disease. Where the completion can be the discharge, death or transfer of the patient, or a change in the type of care (e.g., from acute to rehabilitation). In this atlas the term 'admission' is used in place of the more technical 'separation'. As these data relate to short-term episodes of care, and not to long-stay episodes, the number of admissions is similar to the number of separations in any year.

Note that the data are based on the count of all admissions. As such, repeat admissions for one person are counted as separate admissions. In addition, patients admitted to one hospital and transferred to another hospital are also counted as separate admissions. The impact of these hospital transfers is likely to result in a higher rate of admissions of people living in regional areas compared to the capital cities, as well as for certain conditions which are more likely to result in transfers.

The impact of the COVID-19 pandemic on the rates of potentially preventable hospitalisations is not known.

Admissions for potentially preventable conditions:

1. All potentially preventable hospitalisations - Vaccine-preventable, Acute and Chronic conditions

- Potentially preventable conditions by broad age groups- Public hospitals
- Potentially preventable conditions - Public hospitals

2. Potentially preventable hospitalisations - Vaccine-preventable

- Vaccine preventable conditions - pneumonia and influenza - Public hospitals
- Total vaccine preventable conditions - Public hospitals

3. Potentially preventable hospitalisations - Acute conditions

- Acute cellulitis - Public hospitals
- Acute convulsions and epilepsy - Public hospitals
- Acute dental conditions - Public hospitals
- Acute ear, nose and throat infections - Public hospitals
- Acute gangrene - Public hospitals
- Acute urinary tract infections, including pyelonephritis - Public hospitals
- Total acute conditions - Public hospitals

4. Potentially preventable hospitalisations - Chronic conditions

- Chronic angina - Public hospitals
- Chronic asthma - Public hospitals
- Chronic congestive cardiac failure - Public hospitals
- Chronic COPD - Public hospitals
- Chronic diabetes complications - Public hospitals
- Chronic hypertension - Public hospitals
- Chronic iron deficiency anaemia - Public hospitals
- Total chronic conditions - Public hospitals.

Confidentiality of data
Counts of less than 5 admissions have been suppressed. The Population Health Areas of 30057 Brisbane Inner - North - Central and 30051 Fortitude Valley/Spring Hill have been combined at the request of Queensland Health; data displayed is the combination of values and rates for these areas.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Admissions for the above categories.

Denominator: The total population.

Detail of analysis: Indirectly age-standardised rate per 100,000 population; and/or indirectly age-standardised ratio, based on the Australian standard. A standardised ratio (SR) provides a comparison to the Australian rate which is assigned a value of 100. Ratios below 100 are proportionally less than the national rate, while ratios above 100 are proportionally higher than the national rate. The SR is the ratio of the observed value to the expected value (the expected value is age-standardised).

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2020/21; and the ABS estimated resident population, 30 June 2020 and 30 June 2021.

Emergency department presentations

Emergency department presentations, by triage category, by principal diagnosis, by sex, by board age groups, 2022/23
– by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: Public hospital emergency departments (ED) are accessible 24 hours a day, seven days a week, to provide acute and emergency care to patients arriving either by ambulance or by other means. While some people require immediate attention for life threatening conditions or trauma, most require less urgent care.

Timely access to care is a high priority for patients, health care providers and the public at large. Although there needs to be an appropriate balance between primary and acute care, EDs play an important role as a safety net in the health system, providing care to people who are unable to access services elsewhere (especially after hours) including care from general practitioners [1]. Young children and people aged 65 years and over are over-represented among those accessing EDs, as are people who are homeless or transient.

The Australian Institute of Health and Wellbeing report that in 2023 there were 293 public hospitals that have purpose-built emergency departments which responded to 8.8 million presentations [2].

An ED service event can be commenced by a doctor, nurse, mental health practitioner or other health professional, when investigation, care and/or treatment is provided in accordance with an established clinical pathway defined by the ED [3]. The data include both presentations at formal EDs and emergency occasions of service provided through other arrangements, particularly in smaller hospitals located in regional and remote areas.

References

1. Ford G. The role of the Emergency Department as a 'safety net'. Health Issues 2002;73:29-32.
2. Australian Institute of Health and Welfare (AIHW). Australia's hospitals at a glance Available from: **https://www.aihw.gov.au/reports/hospitals/australias-hospitals-at-a-glance/contents/hospital-activity; accessed 7 December 2023**.
3. Australian Institute of Health and Welfare (AIHW). Australian hospital statistics 2011-12. Health services series no. 50. (Cat. no. HSE 134.) Canberra: AIHW; 2013.

Indicator detail: The data include presentations to emergency departments (EDs) between 1 July 2022 and 30 June 2023. The data presented are sourced from the AIHW's National Non-admitted Patient Emergency Department Care Database (NNAPEDCD), which is based on the Non-admitted Patient Emergency Department Care (NAPEDC) National Minimum Data Set/National Best Endeavours Data Set (NMDS/NBEDS). The NNAPEDCD provides information on the care provided for non-admitted patients registered for care in EDs in public hospitals where the ED meets the following criteria:

- a purposely designed and equipped area with designated assessment, treatment, and resuscitation areas
- the ability to provide resuscitation, stabilisation, and initial management of all emergencies
- availability of medical staff in the hospital 24 hours a day
- designated emergency department nursing staff 24 hours per day 7 days per week, and a designated emergency department nursing unit manager.

The coverage of the NNAPEDCD was considered complete for public hospitals which meet the above criteria. The collection does not include all emergency services provided in Australia; for example, emergency service activity provided by private hospitals, or by public hospitals which do not have an ED that meets the above criteria are excluded (however, data may have been provided for some of these services by some States and Territories). This should be taken into account, particularly when comparing data between urban and regional areas, or by Remoteness Area. States and Territories provided ED diagnosis information in several classifications, including SNOMED CT-AU, International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM); and various editions of ICD-10-AM. For the purpose of reporting principal diagnoses, the AIHW mapped the provided information to ICD-10-AM 10th edition codes, where necessary.

The provision of these services varies between the States and Territories, with the greatest geographical coverage in New South Wales. This can be seen in the maps of these data, by clicking on the button, in the map legend, labelled 'Public hospital emergency departments'.

The Australian Institute of Health and Welfare provides comment as to the impact of COVID-19 on presentations to public hospital emergency departments. For example see **https://www.aihw.gov.au/hospitals/topics/emergency-departments/emergency-department-care-over-time** accessed 21 May 2025.

In particular, two new codes were introduced to capture data about COVID-19 presentations – one where COVID 19 has been confirmed by laboratory testing and another when COVID-19 has been clinically diagnosed, but laboratory testing is inconclusive, not available or unspecified.

In the PHIDU data workbooks and maps emergency department presentation data is presented by the following principal diagnosis and triage categories:

Triage category definitions:

- Resuscitation: immediate (within seconds)
- Emergency: within 10 minutes
- Urgent: within 30 minutes
- Semi-urgent: within 60 minutes
- Non-urgent: within 120 minutes.

Chapter ICD-10-AM definitions:
Any of the reported principal diagnosis as per the below:

- A00–B99 (Certain infectious and parasitic diseases)
- F00–F99 (Mental and behavioural disorders)
- I00–I99 (Diseases of the circulatory system)
- J00–J99 (Diseases of the respiratory system)
- K00–K93 (Diseases of the digestive system)
- M00–M99 (Diseases of the musculoskeletal system and connective tissue)
- N00–N99 (Diseases of the genitourinary system)
- S00–T98 (Injury, poisoning and certain other consequences of external causes)
- Z00–Z99 (Factors influencing health status and contact with health services)
- C00–D48, D50–D89, E00–E90, G00–G99, H00–H59, H60–H95, L00–L99, O00–O99, P00–P96, Q00–Q99, R00–R99, U50–Y98 (Other).

Confidentiality of data: Counts of less than 6 presentations have been suppressed. The Population Health Areas of 30057 Brisbane Inner - North - Central and 30051 Fortitude Valley/Spring Hill have been combined at the request of Queensland Health; data displayed is the combination of values and rates for these areas.

Geography: Data available by Population Health Area, Local Government Area, Primary Health Network, Quintile of socioeconomic disadvantage of area and Quintiles within PHNs, and Remoteness Area.

Numerator: Presentations to emergency departments by ICD-10-AM Chapter, Triage, and ICD-10-AM Chapter by sex and selected age-group categories (where available).

Denominator: Male, female or total populations where applicable.

Detail of analysis: Indirectly age-standardised rate per 100,000 population; and/or indirectly age-standardised ratio, based on the Australian standard. A standardised ratio (SR) provides a comparison to the Australian rate which is assigned a value of 100. Ratios below 100 are proportionally less than the national rate, while ratios above 100 are proportionally higher than the national rate. The SR is the ratio of the observed value to the expected value (the expected value is age-standardised).

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2022/23; and ABS estimated resident population, average of 30 June 2022 and 2023.