Aboriginal and Torres Strait Islander Social Health Atlas of Australia

Notes on the data

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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 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).

Data are presented for Indigenous Areas, Primary Health Networks, 'Quintiles' - Quintiles based on Indigenous Relative Socioeconomic Outcomes index (derived from 2021 Census data); and 'Remoteness' - Remoteness Areas of Australia (derived from 2021 Census data).

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 information on the statistics presented, refer to the **statistical information** available from the PHIDU website.

Modelled estimates

Overview

National surveys like the 2018–19 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) are designed to measure population characteristics for Australia or for a large proportion of the Australian population such as for a state or territory. Due to sample size limitations, it is not possible to provide accurate measures of population characteristics at lower geographic levels. The survey sample size is often too small, resulting in high margins of error. To meet user demands for information at lower geographic levels, the Australian Bureau of Statistics (ABS) can produce modelled estimates. Modelled estimates use both the survey responses for NATSIHS, together with other information about the population of a geographic area gained from the Population Census and administrative data sources to build a predictive model that estimates a given characteristic for a small area. The term "small area" refers to a geographical area that is smaller than a state or territory, such as Indigenous Areas, Indigenous Regions and Primary Health Networks. Strictly speaking modelled estimates are not as reliable as directly estimated survey measures from the NATSIHS. Measures of error are provided with these estimates (in the data) and the **Technical Appendix** explains what types of error are present.

Modelled estimates can be used for observing national trends by using the complete set of modelled data for IAREs across Australia or a state/territory to support program evaluation or resource allocation or looking at trends across a range of IAREs. For example, looking at a range of areas in remote Australia or along the Eastern seaboard with high or low number or proportion of people with the selected characteristic. A modelled estimate for a single area on its own should be used with extreme caution. Models are limited by the input data. Often significant local information about particular small areas exists but has not been collected for all areas and cannot be incorporated into the models.

The ABS has 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.

Modelled Estimates: Indigenous Areas and Indigenous Regions

Small area modelled estimates are produced by the ABS to provide users reliable estimates at a lower geographic level than State or Territory. Initially, the ABS produced a set of estimates from the 2018–19 NATSIHS for Indigenous Regions. PHIDU raised the possibility of having similar estimates for a selection of the variables at the (smaller) Indigenous Area level, for Indigenous Areas where the population was large enough and the particular variable had a sufficiently high proportion in the population. The ABS agreed, and it is the result of their further work that is presented here.

Modelled estimates use both the survey responses from the NATSIHS, together with other information about the population of a geographic area gained from the Population Census and administrative data sources to build a predictive model that estimates a given characteristic for a small area. Details of the method used and accuracy of results are available from the ABS **Explanatory Notes: Modelled estimates for small areas** based on the 2018–19 National Aboriginal and Torres Strait Islander Health Survey.

Where estimates could not be made for an Indigenous Area, as a result of its population size, the data for that Indigenous Area have been grouped with other, unpublished Indigenous Areas within the over-arching Indigenous Region, and a rate for the combined group calculated and published. A list of the grouped areas is included in the MS Excel worksheets, below the Australian and State/ Territory totals.

For the Indigenous Regions of Tasmania (IREG601) and Australian Capital Territory (IREG801), direct estimates were published instead of modelled estimates. Estimates for States and Territories, Greater Capital City Statistical Areas (GCCSA) and Remoteness Areas are also direct estimates, extracted using the ABS TableBuilder.

Terminology

‘Aboriginal’ and ‘Indigenous Australians’ refer to Aboriginal and Torres Strait Islander people.

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Demographic and social indicators

Age distribution

Aboriginal estimated resident population (ERP) by sex, by 5-year age groups (0-4 years to 65+ years), by broad age group (0-4, 5-14, 15-24, 25-44, 45-64, 65+ years), 2021
- by IARE, PHN, Quintile, 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 proportion was 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 data presented are the age/ sex group total as a per cent of the total Aboriginal male/ female/ total population in each age/sex group.

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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal male, female and total estimated resident population (ERP) by 5-year age group: 0-4 years to 65+ years or by 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 as a proportion of the total estimated resident population (ERP) all ages and by 5 year age groups, 2021
- by IARE, PHN, Quintile, Remoteness Area

Policy context: see *Age Distribution* above.

Indicator detail: The data presented are the number of Aboriginal people as a proportion of the total Australian 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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Total Aboriginal population, estimated resident population (ERP) by 5-year age group: 0-4 years to 65+ years.

Denominator: Total population, ERP.

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.

Fertility

Aboriginal total fertility rate, 2020-22
– by IARE, PHN, Quintile, Remoteness Area

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].

Aboriginal fertility is measured by the Aboriginal total fertility rate (TFR) which represents the number of births an Aboriginal 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.

In 2023, the total fertility rate for Aboriginal and Torres Strait Islander mothers was 2.17 births per woman, higher than for all Australian women (1.50) [2]. There were 24,737 births registered (8.6 per cent of all births) where at least one parent was an Aboriginal and Torres Strait Islander Australian [2].

While the total fertility rate for all Australian continued to decline for all women from 2022-23, it remained stable for Aboriginal and Torres Strait Islander women [3]. Conversely, the fertility rates for Aboriginal and Torres Strait Islander women in their thirties were slightly lower than those of all women of the same age [3].

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, 2023. Available from: https://www.abs.gov.au/statistics/people/population/births-australia/latest-release, accessed 22 September 2025.
3. Australian Institute of Family Studies (AIFS), Facts and Figures, Births in Australia 2024. Available from: https://aifs.gov.au/research/facts-and-figures/births-australia-2024#footnote-001, accessed 26 August 2025.

Indicator detail: Aboriginal fertility is measured by the Aboriginal total fertility rate (TFR) which represents the number of births an Aboriginal 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.

Note: The 2020-22 Aboriginal total fertility rate (TFR) was not supplied for state and territory totals. Figures published for these areas are the 2021 Aboriginal total fertility rate (based on a single year of births) published on the Australian Bureau of Statistics website, Births, Australia (2021).

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: 2020-22 births (average) to Aboriginal mothers.

Detail of analysis: Total fertility rate (average of 3 years birth data, using mid-point (2021 estimated resident population) per Aboriginal woman, calculated from age-specific fertility rates.

Source: Compiled by PHIDU based on Table 1: 2020-2022 Births, Indigenous status of Mother, Indigenous Areas, produced by the Australian Bureau of Statistics for PHIDU.

Education

Aboriginal children aged four or five years enrolled in a preschool program and Aboriginal children attending a preschool, 2023

- by IARE, PHN, Quintile, Remoteness Area

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].

The educational trajectories of Aboriginal and Torres Strait Islander peoples are different from non-Indigenous Australians. The Australian Government has, over many years, increasingly recognised the importance of quality early childhood education to be fundamental in improving the future educational outcomes for Indigenous children and how this could help in closing the gap in later educational outcomes as measured compared with non-Indigenous children [3].

The 2023 Commonwealth Closing the Gap Implementation Plan notes that work is underway to increase First Nations children's preschool enrolments and attendance. Access to culturally appropriate quality early childhood education and care is critical for preparing First Nations children to participate in and enjoy life-long learning, assisting them to build language, cognitive, social and emotional skills, and engage with their peers [4]. The Plan further states that implementing the Commonwealth's early childhood reforms, including the Plan for Cheaper Child Care, and the Preschool Reform Agreement with states and territories, will drive improved engagement in early learning for First Nations children. In addition, the Productivity Commission will conduct a comprehensive review of the early childhood education and care sector.

Nationally in 2022, 99.2 per cent of Aboriginal and Torres Strait Islander children in the Year Before Full time Schooling (YBFS) age cohort were enrolled in a preschool program. This is an increase from 76.7 per cent in 2016 (the baseline year). Nationally, based on progress from the baseline, the target shows good improvement and is on track to be met [5].

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; accessed 9 April 2018. Available from: **https://docs.education.gov.au/system/files/doc/other/14._how_is_the_government_supporting_access_to_preschool_education.pdf**.
3. Moyle K. Literature review: Indigenous early childhood education, school readiness and transition programs into primary school 2019. Camberwell, Australia: Australian Council for Education Research.2019. Available from: **https://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=littlejbigcuz**.
4. 2023 Commonwealth Closing the Gap Implementation Plan; accessed: 22 April 2024. Available from **https://www.niaa.gov.au/2023-commonwealth-closing-gap-implementation-plan/delivering-outcomes-and-targets/outcome-3-aboriginal-and-torres-strait-islander-children-are-engaged-high-quality-culturally-appropriate-early-childhood-education-their-early-years**.
5. Productivity Commission, Closing the Gap Targets and Outcomes; accessed 22 April 2024. Available from: **https://www.pc.gov.au/closing-the-gap-data/dashboard/se/outcome-area3**.

Indicator detail: The data comprise children aged 4 and 5 years old (combined) enrolled in a preschool program and attending a preschool program; as a proportion of the estimated resident population (ERP produced as a consultancy for PHIDU by ABS) of children at those ages in 2021.

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 9,367 in centre-based day care program and 2,975 children across more than one provider type.

Note that the choice of the population (the sum of four and five-year old children) as the denominator does not replicate the results published by the ABS for Aboriginal children. This occurs because the ABS have used a **calculation** (which we cannot replicate at the IARE level), to produce a denominator that reflects the different ages across the states and territories at which children are enrolled in preschool. In addition, had we published the data separately for children aged four and five years, a majority of IAREs would have had over 100% of the population aged four as enrolled in a preschool program; and for those aged five years, the data for a majority of IAREs would have been suppressed, due to small numbers. Despite combining the ages there is, however, a small number of areas with percentages in excess of 100%. In addition, in 2023 there were some 2,239 Aboriginal children aged three or six enrolled in a preschool program.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal children aged 4 or 5 years enrolled in a preschool program, and those attending a preschool program, June 2023.

Denominator: Aboriginal children aged 4 or 5 years at 30 June 2021 (data not available for 2023).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on the ABS Preschool Education, Australia, 2023 (data extracted from Survey TableBuilder) and estimated resident population (ERP), 2021 (produced as a consultancy for PHIDU by ABS).

Aboriginal people who left school at Year 10 or below, or did not go to school, 2021 - by IARE, PHN, Quintile, Remoteness Area

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, 42.7 Aboriginal persons per 100 population stated that they had left school at Year 10 or below, or did not go to school. This was lower than the rates of 53.4 per 100 population at the 2011 Census and 48.4 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 (36.3%), 35-44 42.4%), 45-54 (51.0%), 55-64 (66.7%), 65 years and over (72.8%) [2].

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.

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. PHIDU (www.phidu.torrens.edu.au/data) based on the ABS Census of Population and Housing, August 2021.

Indicator detail: 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.

The data presented are the number of Aboriginal people who left school at Year 10 or below, or did not go to school as a proportion of all Aboriginal people aged 15 years and over.

The numerator excludes the 9.5% of the population aged 15 years and over whose highest year of school was not stated: however, these records are included in the denominator.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total Aboriginal Population, 2021 Usual Resident Population aged 15 years and over.

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.

Participation of Aboriginal people at age 16 in full-time secondary school education, 2021 - by IARE, PHN, Quintile, Remoteness Area

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 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 (71.4%) of the Aboriginal population aged 16 years at the time of the 2021 Census were reported as being in full-time secondary education; the proportion for all 16 year old Australians was 85.3% [2]. The intention of this variable is to show the extent of variation in participation geographically and between population groups.

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.

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. PHIDU (**www.phidu.torrens.edu.au/data**) based on the ABS Census of Population and Housing, August 2021.

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 2016 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.

The data presented are the number of Aboriginal young people aged 16 years in full-time secondary school education, as a proportion of all Aboriginal people 16 years of age. Secondary school education comprises either Government, Catholic or other non-Government schools.

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 whose participation in secondary school education at age 16 was not stated, or whose full-time or 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 Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Aboriginal 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 of Aboriginal people in vocational education and training, 2023
- by IARE, PHN, Quintile, Remoteness Area

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]. An Australian VET qualification can be a stepping stone towards further study or a higher education (university level) degree [2]. VET programs offer industry-specific skills and pathways to initial employment opportunities [4].

In 2023, 3.5% of the 5.1 million students enrolled in nationally recognised VET programs identified as Indigenous [5]. There were similar rates of participation by Indigenous status, with an age-standardised participation rate of 16.9 per 100 population for the Aboriginal and Torres Strait Islander population and 17.6 per 100 population for the non-Indigenous population [6].

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#ref**; 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. Gørgens T, Ryan C. The impact of additional educational qualifications for early school leavers. Canberra: Department of Education, Science and Training; 2006.
5. 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 12 May 2025.
6. PHIDU (**www.phidu.torrens.edu.au/data**) based on based on data from the National Centre for Vocational Education Research DataBuilder.

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.

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).

Note: Non-Indigenous data for VET can now be found in the (click **Indigenous status comparison atlas** for more information) 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 Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal students participating in vocational education and training.

Denominator: Aboriginal estimated resident population, June 2021 (Aboriginal population data for 2023 not available).

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 Centre for Vocational Education Research DataBuilder (**https://www.ncver.edu.au/research-and-statistics/data/databuilder**), 2023; and the Aboriginal estimated resident population, 2021.

Subject completion rates in vocational education and training for Aboriginal students, 2023 - by IARE, PHN, Quintile, Remoteness Area

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.

For Aboriginal and Torres Strait Islander peoples commencement in a VET program increases the likelihood of achieving sustainable employment compared to those who had not commenced at VET program, irrespective of whether students complete the program or not [4].

In 2023, 3.5% of the 5.1 million students enrolled in a nationally recognised VET program identified as Indigenous [5]. In 2023, there were higher completion rates for non-Indigenous students (84.3%) for all VET qualifications who began in 2019 and were completed by 2023, than for Indigenous students 78.1% [6].

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. NCVER. 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. From VET to Sustainable Employment for Aboriginal and Torres Strait Islander Peoples. NCVER, Adelaide 2023. Available from: **https://www.ncver.edu.au/research-and-statistics/publications/all-publications/from-vet-to-sustainable-employment-for-aboriginal-and-torres-strait-islander-peoples**; accessed 11 June 2024.

5. NCVER. Total VET students and courses 2023. Available from: https://www.ncver.edu.au/research-and-statistics/publications/all-publications/total-vet-students-and-courses-2023; accessed 12 May 2025.
6. PHIDU (www.phidu.torrens.edu.au), based on NCVER Load pass rates; 2023

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.

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

Subject completion rates are referred to by NCVER as 'load pass rates'. 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).

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 granted.

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 Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Vocational education and training subjects passed, expressed in hours.

Denominator: Total assessable vocational education and training subjects, expressed in 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, Aboriginal students, 2023
- by IARE, PHN, Quintile, Remoteness Area

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 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 Aboriginal 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 population is the population aged 17 years, as this is the age of the majority of Year 12 students at 30 June 2021. As age data at the small geographical area level are not available by single years, the number at age 17 was estimated by applying the proportion of children at age 17 in the 15 to 19-year age group at the 2021 Census.

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.

Direct enrolments to universities were not included in the data collected. Currently these represent a small proportion of total enrolments, other than in the ACT. An indication of these numbers can be found at **University applications and offers**; please limit table to 'Current Year 12'.

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.

The estimated resident population used here is the population aged of 17 years in 2021 (produced as a consultancy for PHIDU by ABS), as this is the age of the majority of Year 12 students at 30 June 2022.

Additional notes:

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 Indigenous Area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population aged 17), as the population is an estimate, based on a proportion of those at age 17 years in the five-year age group 15 to 19 years from the 2021 Population Census (produced as a consultancy for PHIDU by ABS).

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal 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 2021 (population data not available for 2023).

Detail of analysis: Per cent.

Source: Compiled by PHIDU based on data from the:

- 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), and the University of Tasmania (Tas.)
- Estimated resident population (ERP), 2021 (produced as a consultancy for PHIDU by ABS), 30 June 2021.

Early childhood development

Australian Early Development Census indicators (AEDC), 2024
- by IARE, PHN, Quintile, Remoteness Area

Policy context:

Initiated in 2007, the Indigenous Australian Early Development Index (Indigenous-AEDI) project adapted the AEDI (see History of the AEDC) to take into account Aboriginal cultural differences in the influences on child development [1]. An adapted Early Development Instrument was integrated into the national Early Development Instrument in 2009 with the following modifications:

- use of Indigenous school personnel to work as cultural consultants with teachers in completing the Early Development Instrument for Indigenous children
- inclusion of contextual information in the online teacher guide so that cultural considerations can be taken into account on certain Early Development Instrument questions
- inclusion of additional Early Development Instrument items of relevance to understanding the particular circumstances of Indigenous children that may affect attendance and performance (cultural, sickness or other)
- use of home language, history of otitis media or hearing difficulties.

These modifications were included for all children in the 2009 and later (2012, 2015, 2018, 2021 and 2024) data collections. In 2024, an estimated 96.5% of Aboriginal children in their first year of full-time school participated; in comparison, an estimated 91.3% of non-Indigenous children participated[1],

The results from the AEDC provide communities, schools, government and non-government agencies and policy makers with information about how Aboriginal 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 [2].

In 2024, 33.9% of Aboriginal and Torres Strait Islander children assessed were considered to be on track on all five domains of the AEDC and 42.5% developmentally vulnerable on one or more domains of the AEDC. The corresponding figures for all children were 52.9% and 23.5% [3].

Aboriginal and Torres Strait Islander children in Very Remote areas are particularly disadvantaged where 65.6% are vulnerable on one or more domains, compared with 38.9% in Major Cities. Outside of capital cities, Aboriginal and Torres Strait Islander children in the most disadvantaged areas are 73% more likely to be vulnerable compared with those in the least disadvantaged areas.

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[1] The 96.5% is of children participating as an estimated proportion of all Aboriginal children (regardless of school participation in the AEDC) in their first year of school in 2024, where the denominator is the count from the Australian Bureau of Statistics 2023 Preschool Census, of Aboriginal children in their year before full-time schooling, the best estimate available of this cohort; the 91.3% for non-Indigenous children was similarly calculated. Under this approach, and using only valid results, the data for Aboriginal children represents 83.8% of their population; for non-Indigenous children, the proportion is similar, at 84.8%.

References

1. Australian Early Development Census (AEDC). The AEDI and Indigenous children. [Internet]. 2015 [cited 7 June 2017]. Available from: **http://www.aedc.gov.au/about-the-aedc/history/validation-and-trial-of-the-aedi/the-aedi-and-indigenous-children**.
2. Australian Early Development Census (AEDC). AEDC National Report 2015 (A snapshot of early childhood development in Australia). Canberra: Department of Education and Training; 2016.
3. PHIDU (**www.phidu.torrens.edu.au/data**) based on the 2024 Australian Early Development Census.

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 identified as being of Aboriginal and Torres Strait Islander origin who were:

- Developmentally vulnerable (below the 10th percentile) on one or more domains
- Developmentally vulnerable (below the 10th percentile) on two or more domains
- Developmentally on track (below the 10th percentile) on 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

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 Indigenous Area and Remoteness Area.

Numerator: Aboriginal children, as listed above, in 'Notes'.

Denominator: Aboriginal 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 website on behalf of the Australian Government Department of Education.

Learning or earning

Aboriginal people 15 to 24 years engaged in school, work or further education/training, 2021 - by IARE, PHN, Quintile, Remoteness Area

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 were engaged in school, work or further education/ training, expressed as a proportion of all those aged 15 to 24 years.

Reference

1. Taylor J. Stories of early school leaving: pointers for policy and practice. Fitzroy: Brotherhood of St Laurence; 2009.

Indicator detail: The data presented are of Aboriginal people aged 15 to 24 years engaged in school, work or further education/training, as a proportion of all Aboriginal people aged 15 to 24 years.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Aboriginal 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

Aboriginal single parent families with children aged less than 15 years, 2021 - by IARE, PHN, Quintile, Remoteness Area

Policy context: Obligation and connection to family plays an important role in Aboriginal and Torres Strait Islander culture. This support can be in the form of sharing accommodation. For example, in the 2016 Census, households in which an Aboriginal and/or Torres Strait Islander lived were more likely than other households to be family households (79% compared with 70%) or group households (5.4% compared with 3.8%). They were less likely to be a person living alone (16% compared with 26%) [1].

Of all Aboriginal families, not just those with children, 30.9% were one parent families, 37.5% were couple families with children and 22.5% were couple families without children. 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 [1].

Although the number of Aboriginal single parent families with children under 15 years has increased since the 2011 Census (from 51,018 families in 2011 to 70,448 in 2021), there has been greater growth in the total number of Aboriginal families with children under 15 years. As a result, the proportion of single parent families has declined, from 47.2% in 2011 to 45.9% in 2016 and 44.7% in 2021. In this context, it is important to note that 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. Details of their location are, therefore, relevant to policy makers and those providing health, education, welfare and housing and transport services [2].

References

1. Australian Bureau of Statistics, Aboriginal and/or Torres Strait Islander Peoples Profile, ABS 2021, accessed 3 February 2023. Available from: https://abs.gov.au/census/find-census-data/community-profiles/2021/AU.
2. Australian Bureau of Statistics, Australian Social Trends, 2007 - Article: One-parent families. (ABS Cat. no. 4102). Canberra: ABS; 2007, accessed 18 October 2013. Available from: www.abs.gov.au/ausstats/subscriber.nsf/0/3A8D1AA0F3AB7D66CA25732F001C94E6/$File/41020_One-parent%20families_2007.pdf.

Indicator detail: The data presented are one parent families with children under 15 years where at least one family member at home on Census night was an Aboriginal or Torres Strait Islander person (may include families with dependent students and non-dependents), as a proportion of all Aboriginal families with children under 15 years.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal single parent families with children under 15 years.

Denominator: Total Aboriginal 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.

Aboriginal jobless families with children aged less than 15 years, 2021
- by IARE, PHN, Quintile, Remoteness Area

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].

There were 50,374 Aboriginal jobless families with children aged less than 15 years at the 2021 Census, or 32.0% of all Aboriginal families with children aged less than 15 years. The proportion for the whole population was 11.4% [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. PHIDU (**www.phidu.torrens.edu.au/data**) based on the ABS Census of Population and Housing, August 2021.

Indicator detail: The data presented are families with at least one Aboriginal person counted at home on Census night and either couple families with children under 15 years in which two people whose relationship in the household was "husband, wife or partners (including same-sex partners)" reported their labour force status as "unemployed" or "not in the labour force"; or in which the lone parent in the family reported their labour force status as "unemployed" or "not in the labour force".

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total Aboriginal 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 (unpublished data).

Children aged less than 15 years in Aboriginal jobless families, 2021
- by IARE, PHN, Quintile, Remoteness Area

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].

There were 90,629 children aged less than 15 years in Aboriginal jobless families at the 2021 Census, or 34.1% of all children aged less than 15 years in Aboriginal families. The proportion for the non-Indigenous population was 10.5% [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. PHIDU (**www.phidu.torrens.edu.au/data**) based on the ABS Census of Population and Housing, August 2021.

Indicator detail: The data presented are children aged less than 15 years in families with at least one Aboriginal person counted at home on Census night and either couple families with children under 15 years in which two people whose relationship in the household was "husband, wife or partners (including same-sex partners)" reported their labour force status as "unemployed" or "not in the labour force"; or in which the lone parent in the family reported their labour force status as "unemployed" or "not in the labour force".

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total Aboriginal 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).

Aboriginal children in Aboriginal families where the mother has low educational attainment, 2021 - by IARE, PHN, Quintile, Remoteness Area

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].

At the 2021 Census, there were 92,843 Aboriginal children aged less than 15 years in families where the mother had low educational attainment, or 35.0% of these families. The proportion for the whole population was 14.1% [8].

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.
8. PHIDU (www.phidu.torrens.edu.au/data) based on the ABS Census of Population and Housing, August 2021.

Indicator detail: The data presented are of children aged less than 15 years living in families where the mother was an Aboriginal or Torres Strait Islander person and whose highest level of schooling was year 10 or below, or where the mother did not attend school, expressed as a proportion of all children aged less than 15 years.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total Aboriginal 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).

Housing and rent assistance

Aboriginal people living in crowded dwellings, and 'severely' crowded dwellings, 2021 - by IARE, PHN, Quintile, Remoteness Area

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 persons from 9,655 persons in 2011 [3].

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

Housing suitability – Private dwellings with Aboriginal households requiring one or more bedrooms, 2021 - by IARE, PHN, Quintile, Remoteness Area

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 families 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, 8.9% of dwellings with Aboriginal households were assessed as requiring extra bedrooms. The comparable proportion for all dwellings (regardless of Indigenous status of the household) was 3.4% [2].

Reference

1. Australian Bureau of Statistics, Housing suitability (HOSD), Canberra: ABS; 2021, accessed 8 March 2023. Available from: **https://www.abs.gov.au/census/guide-census-data/census-dictionary/2021/variables-topic/housing/housing-suitability-hosd**.

Indicator detail: The criteria used to derive this 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 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.

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.

An Aboriginal household is any household where at least one usual resident was an Aboriginal or Torres Strait Islander person.

The data presented are of dwellings rented by Aboriginal households requiring extra bedrooms, as a proportion of all private dwellings with Aboriginal households.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Private dwellings, with Aboriginal households, requiring extra bedrooms.

Denominator: All private dwellings with Aboriginal households.

Detail of analysis: Per cent.

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

Aboriginal households receiving rent assistance from the Australian Government, June 2023 - *by IARE, PHN, Quintile, Remoteness Area*

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 rent assistance data are based on records of income units receiving Commonwealth Rent Assistance which have an Indigenous identifier. 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 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: to the extent that this occurs, that is, the proportion, which is based on the number of private dwellings, will be understated. However, dwellings are the most appropriate denominator available for this dataset. In addition, some recipients live in non-private dwellings, which are not included in the denominator: to the extent that this occurs, the proportion will be overstated. The denominator – occupied private dwellings with Aboriginal households - is based on 2021 Census data, as private dwellings data are not available other than in Census years.

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.

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

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) 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 rented dwellings: Aboriginal people living in privately rented dwellings and privately rented dwellings with Aboriginal households, 2021
- by IARE,* PHN, *Quintile, Remoteness Area

Policy context: Housing is a fundamental requirement for one's health and well-being [1]. From 2001 to 2016, Indigenous home ownership as a proportion of Indigenous households steadily increased from 32% in 2001 to 38% in 2016; and while Indigenous households remain twice as likely to rent compared to non-Indigenous households, the data show an increase in the proportion of Indigenous households renting privately and a decrease in social housing rentals [2].

Although the proportion of Indigenous households renting privately increased from 27% in 2001 to 37% in 2021, issues relating to poverty, discrimination, unemployment and a lack of suitable housing stock continue to limit access to the private rental market [2,3].

References

1. Bailie R. and Wayte, K. Housing and health in Indigenous communities: Key issues for housing and health improvement in remote Aboriginal and Torres Strait Islander communities. Australian Journal of Rural Health 2006; 14:178-183.
2. Australian Institute of Health and Welfare (AIHW). Aboriginal and Torres Strait Islander people: a focus report on housing and homelessness 2019. Cat. no. HOU 301. Canberra: AIHW; 2019. Available from: https://www.aihw.gov.au/getmedia/1654e011-dccb-49d4-bf5b-09c4607eecc8/aihw-hou-301.pdf.aspx?inline=true; accessed 16 December 2019.
3. Australian Bureau of Statistics, Aboriginal and/or Torres Strait Islander Peoples Profile, ABS 2021, accessed 3 February 2023. Available from: https://abs.gov.au/census/find-census-data/community-profiles/2021/AUS.

Indicator detail: The data presented are of privately-owned private dwellings that are rented by Aboriginal households (counting dwellings), as a proportion of total occupied private dwellings with Aboriginal households.

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 private dwellings only. 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.

Aboriginal household: If a household has at least one Indigenous person who is a usual resident and who was present on Census night it will be classified as a Household with Indigenous persons.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal households renting privately-owned houses; and Aboriginal persons renting privately-owned dwellings (counting persons).

Denominator: All private dwellings with Aboriginal households; and Aboriginal persons living in private dwellings.

Detail of analysis: Per cent.

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

Aboriginal households renting from a government housing authority, community housing group, and total number of Aboriginal households renting social housing, 2021
- by IARE, PHN, Quintile, Remoteness Area

Policy context: 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.

Social housing is a very significant tenure for Aboriginal people and Torres Strait Islander people in Australia, with three in ten Indigenous households living in social housing. Demand for social housing from Indigenous applicants is also high due to population and household growth, the lower average incomes in this group, the significant numbers of homeless Indigenous people, and barriers faced by many Indigenous people in accessing private rental and home ownership, including affordability and discrimination [1].

On Census night 2021, 18.0% of dwellings rented by Aboriginal households were rented from a government housing authority or a community housing provider. This was over five times the proportion for non-Indigenous families, at 3.2% [2].

See also the indicator *Aboriginal people living in rented social housing dwellings* below.

References

1. Australian Institute of Health & Welfare, Social housing wait lists shorten, Canberra: AIHW; 2016, accessed 15 August 2017. Available from: **www.aihw.gov.au/media-release-detail/?id=60129555349**.
2. Australian Bureau of Statistics, Aboriginal and/or Torres Strait Islander Peoples Profile, ABS 2021, accessed 3 February 2023. Available from: **https://abs.gov.au/census/find-census-data/community-profiles/2021/AUS**.

Indicator detail:
The data presented are of private dwellings rented by Aboriginal households from a:

- government housing authority
- community housing provider (a housing co-operative, community or church group)

as a proportion of all private dwellings with Aboriginal households.

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.

Aboriginal household: If a household has at least one Indigenous person who is a usual resident and who was present on Census night it will be classified as a Household with Indigenous persons

The numerator excludes the 3.9% of dwellings for which tenure type was not stated: however, these records are included in the denominator.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Private dwellings rented by Aboriginal households from a government housing authority; Private dwellings rented by Aboriginal households from a community housing provider (a housing co-operative, community or church group); and the total of these.

Denominator: All private dwellings with Aboriginal households.

Detail of analysis: Per cent.

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

Aboriginal people living in rented social housing dwellings, 2021
- by IARE, PHN, Quintile, Remoteness Area

Policy context: Housing is a fundamental requirement for one's health and wellbeing. The Aboriginal and Torres Strait Islander population experiences higher rates of homelessness and is over-represented among people that seek homelessness and social housing services than non-Indigenous Australians [1,2].

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 [3]. 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 [4]. The distribution of public rental housing remains an indicator of socioeconomic disadvantage.

There is a clear link between cold homes and ill-health, where existing conditions such as respiratory illnesses or mental health conditions are exacerbated. Renters in public housing, particularly those living in older public housing buildings, are less able to moderate temperatures in extreme weather conditions as these homes were built without insulation or passive cooling and heating features [5,6].

Since 2001, Indigenous home ownership as a proportion of Indigenous households has increased from 32% to 41% in 2021, with Indigenous households almost twice as likely to rent compared to non-Indigenous households [2, 6]. Even though the proportion of households in social housing in this period decreased for both Indigenous and non-Indigenous Australians, the proportion of Indigenous households (18%) in social housing remains significantly higher than other households (3%) [6]. While the proportion of Indigenous households in social housing decreased from 31.3% in 2001 to 18.0% in 2021, the proportion in private rental housing increased from 25% to 37% over the same period [2, 6]. This increase in renting privately-owned dwellings comes at a considerable cost and added stress to Aboriginal households.

References

1. Bailie R. and Wayte, K. Housing and health in Indigenous communities: Key issues for housing and health improvement in remote Aboriginal and Torres Strait Islander communities. Australian Journal of Rural Health 2006; 14:178-183.
2. Australian Institute of Health and Welfare (AIHW). Aboriginal and Torres Strait Islander people: a focus report on housing and homelessness 2019. Cat. no. HOU 301. Canberra: AIHW; 2019. Available from: **https://www.aihw.gov.au/getmedia/1654e011-dccb-49d4-bf5b-09c4607eecc8/aihw-hou-301.pdf.aspx?inline=true**; accessed 16 December 2019.
3. Australian Institute of Health and Welfare (AIHW). Housing Assistance in Australia 2017. Canberra: AIHW; 2017. Available from: **https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia-2017/contents/social-housing-tenants**; accessed 5 December 2017.
4. Productivity Commission. Housing and Homelessness in Report on Government Services 2017. Available from: **https://www.pc.gov.au/research/ongoing/report-on-government-services/2017/housing-and-homelessness/housing**; accessed 5 December 2017.
5. Public Health England. Local action on health inequalities evidence review 7: Fuel poverty and cold home-related health problems. Public Heath England; 2014.
6. Tehan B. Extreme heat and vulnerable Victorian households. Victorian Council of Social Service; 2016. Available from: https://vcoss.org.au/analysis/extreme-heat-and-vulnerable-victorian-households-2/#_ftnref2; accessed 14 January 2020.

Indicator detail: The data include persons in households in 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 a government housing authority, or a community housing group (a housing co-operative, community or church group).

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal persons living in rented social housing dwellings (counting persons).

Denominator: Total Aboriginal persons 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 Aboriginal households with mortgage stress, 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.

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 Aboriginal 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 proportion of mortgaged 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.

Note: The income levels used here have been calculated from the 2021 Census for all Australians, and not specifically for the Indigenous population.

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 proportions excluded were calculated based on the Australian data).

Note: For caveats regarding these data, please refer to the **Housing Costs Caveats**.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal 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) mortgage and rent.

Denominator: Number of a) mortgaged private dwellings; b) rented private dwellings; or c) mortgaged and rented private dwellings – all with Aboriginal households.

Detail of analysis: Per cent.

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

Low income Aboriginal households as a proportion of all households, 2021
- by PHA, LGA, PHN, Quintiles, Quintiles within PHNs, Remoteness

Policy context: The previous indicators shows the proportion of all low income Aboriginal households who are under financial stress as a result of mortgage or rental payments. This indicator shows the proportion of all Aboriginal households which are low income households.

Indicator detail: The data comprise low income Aboriginal households (as defined above) as a proportion of all Aboriginal households.

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.

Note: For caveats regarding these data, please refer to the **Housing Costs Caveats**.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal households in the bottom 40% of income distribution (those with less than 80% of median equivalised income).

Denominator: All Aboriginal 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).

Labour force

Aboriginal unemployment, 2021
- by IARE, PHN, Quintile, Remoteness Area

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 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].

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).

Indicator detail: This indicator is based on self-reported information in the ABS Population Census. Those employed in the Community Development Program are counted as being in the labour force.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal unemployed people aged 15 years and over.

Denominator: Aboriginal people in the labour force 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.

Aboriginal labour force participation, by sex, 2021
- by IARE, PHN, Quintile, Remoteness Area

Policy context: Just over half (54.1% - 56.2% for males and 52.2% for females) of the Aboriginal population aged 15 years and over at the 2021 Census were in the labour force (including employment in the Community Development Program); this compares with almost two thirds (64.3%) for non-Indigenous Australians [1].

Reference

1. Australian Bureau of Statistics, Aboriginal and/or Torres Strait Islander Peoples Profile, ABS 2021, accessed 3 February 2023. Available from: **https://abs.gov.au/census/find-census-data/community-profiles/2021/AUS**.

Indicator detail: This indicator is based on self-reported information in the ABS Census of Population and Housing.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal females, males or persons aged 15 years and over in the labour force.

Denominator: All Aboriginal females, males or persons 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.

Summary measure of Indigenous outcomes

Indigenous Relative Socioeconomic Outcomes Index, 2021
- by IARE, PHN, Remoteness Areas

Policy context: The Indigenous Relative Socioeconomic Outcomes index (IRSEO) is an Indigenous specific index derived by the Centre for Aboriginal Economic Policy Research (CAEPR), now the Centre for Indigenous Policy Research (CIPR), from the 2021 Census of Population and Housing.

The IRSEO is composed of 9 socioeconomic outcomes of the usual resident population. These are:
- population 15 years and over employed
- population 15 years and over employed as a manager or professional
- population 15 years and over employed full-time in the private sector
- population 15 years and over who have completed Year 12
- population 15 years and over who have completed a qualification
- population 15 to 24 years old attending an educational institution
- population who live in a household with equivalised with an income above on-half the Australian median
- population who live in a house that is owned or being purchased
- population who live in a household not identified as overcrowded based on the Canadian National Occupancy Standard.

For further information, refer to the **Socioeconomic outcomes paper**, produced by the Centre for Aboriginal Economic Policy Research (CAEPR), now the Centre for Indigenous Policy Research (CIPR), following the first release of this measure.

Indicator detail: The IRSEO reflects relative advantage or disadvantage at the Indigenous Area level. The Index ranges from 1 to 100, where a score of 1 represents the most advantaged area and a score of 100 represents the most disadvantaged area.

Geography: Data available by Indigenous Area, Primary Health Network and Remoteness Area.

Note: Greater Capital City Statistical Areas, major urban centres, State/ Territory and Australian totals were constructed using population-weighted averages.

Numerator: The Indigenous Relative Socioeconomic Outcomes index.

Denominator: ..

Detail of analysis: The Index ranges from 1 to 100, where a score of 1 represents the most relatively advantaged and a score of 100 represents the most relatively disadvantaged.

Source: Compiled by PHIDU based on the CAEPR (now the Centre for Indigenous Policy Research, CIPR) **Indigenous Relative Socioeconomic Outcomes Index**, 2021 data. The Greater Capital City Statistical Areas, major urban centres, State/ Territory and Australian totals were constructed using population-weighted averages.

Health status, disease prevention, disability and deaths

Mothers and babies

Data quality: As is the case in most statistical collections in Australia, Indigenous status is under-reported in the National Perinatal Data Collection, from which these data are compiled. However, the level of completeness of coverage (the extent to which the identification of Indigenous Australians occurs) in these collections is generally higher than in other data collections, such as those reporting deaths or hospital admissions. It should also be noted that coverage is likely to vary between geographical areas. Data for many remote areas, particularly in Western Australia and Northern Territory, should be treated with caution as the quality of the population correspondence provided by the Australian Bureau of Statistics is rated as 'Poor'.

Low birthweight babies, 2019 to 2021
- by IARE, Quintile, Remoteness Area

Policy context: A baby's birthweight is a key indicator of health status. Low birthweight babies are those weighing less than 2500 grams at birth. An infant may be small when it is born for two reasons: it may be born early (premature), or it may be small for its gestational age (intra-uterine growth restriction). Risk factors include socioeconomic disadvantage; maternal size, age and nutritional status; the number of babies previously born; illness, and alcohol, tobacco and drug use during pregnancy; and duration of the pregnancy. Low birthweight increases the risk of death and disability in infancy and of serious health problems in childhood and possibly later in life.

According to data from the National Perinatal Data Collection, 3.9% of all births in 2011 were to Indigenous mothers. Excluding multiple births, 11.2% of liveborn singleton babies born to Indigenous mothers were of low birthweight — 2.5 times the rate for non-Indigenous mothers (4.6%). Between 2000 and 2011, there was a statistically significant decline in the low birthweight rate among Indigenous mothers, and the gap in birthweight between babies born to Indigenous and non-Indigenous mothers declined significantly over this period [2].

References

1. Australian Institute of Health and Welfare 2020. Australia's children. Available from **https://www.aihw.gov.au/reports/children-youth/australias-children/contents/health/birthweight**; accessed 6 June 2022.
2. Birthweight of babies born to Indigenous mothers (AIHW). Available from: **https://www.aihw.gov.au/reports/indigenous-australians/birthweight-of-babies-born-to-indigenous-mothers/summary**; accessed 26 April 2024.

Indicator detail: The data comprise all Aboriginal and Torres Strait Islander babies (live born) weighing less than 2,500 grams at birth, expressed as a proportion of all Aboriginal and Torres Strait Islander live births (data over 3 years).

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

Data published previous 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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total live births to Aboriginal women (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.

Aboriginal women who reported smoking at any time during pregnancy 2019 to 2021 - by IARE, Quintile, Remoteness Area

Policy context: Tobacco smoking during pregnancy is the most common preventable risk factor for pregnancy complications [1]. Smoking during pregnancy is associated with poorer perinatal outcomes including low birthweight, being small for gestational age, pre-term birth and perinatal death [3]. Indigenous Australians are more than twice as likely as non-Indigenous Australians to be current daily smokers (after adjusting for differences in age structure between populations) [2].

Over half of Indigenous mothers reported smoking during pregnancy (50.9%), compared with 14.4% of pregnant non-Indigenous women [2]. Smoking rates for Indigenous mothers varied by region and age, with highest rates for those living in Outer Regional (56.0%) areas and lowest for those living in Major Cities (49.3%) [1]. Smoking rates were highest among younger Indigenous mothers, with 53.6% of those aged under 20 years smoking during pregnancy [2]. Proportions of women smoking during pregnancy gradually decline with increasing age [2].

In New South Wales, Aboriginal and Torres Strait Islander mothers smoked during pregnancy at around four times the rate of non-Indigenous mothers. In Western Australia, South Australia and the Australian Capital Territory, Indigenous mothers smoked at three times the rate of non-Indigenous mothers. Indigenous mothers in the Northern Territory smoked during pregnancy at twice the rate of non-Indigenous mothers [3].

References

1. Australian Institute of Health and Welfare 2015. Australia’s mothers and babies 2013—in brief. Perinatal statistics series no. 31. Cat no. PER 72. Canberra: AIHW.
2. Australian Institute of Health and Welfare 2011. Substance use among Aboriginal and Torres Strait Islander people. Cat. no. IHW 40. Canberra: AIHW.
3. AIHW (Australian Institute of Health and Welfare): Laws PJ & Sullivan EA 2004. Report on the Evaluation of the Perinatal National Minimum Data Set. Perinatal Statistics Series no. 14. AIHW cat. no. PER 27. Sydney: AIHW National Perinatal Statistics Unit.

Indicator detail: The data comprise Aboriginal and Torres Strait Islander women who reported that they smoked during a pregnancy, expressed as a proportion of the number of pregnancies of Aboriginal and Torres Strait Islander women.

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.

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’.

Data quality
As is the case in most statistical collections in Australia, Indigenous status is under-reported in the midwives data collections from which these data are compiled. However, the level of completeness of coverage (the extent to which the identification of Indigenous Australians occurs in data collections) in these collections is generally higher than in other administrative data collections, such as those for deaths or hospital inpatients. It should also be noted that coverage is likely to vary between geographical areas.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Number of Aboriginal women who gave birth (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.

Aboriginal women who gave birth and did not have an antenatal visit in the first 10 weeks of pregnancy, 2019 to 2021

- by IARE, Quintile, Remoteness Area

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].

In 2018, the age-standardised proportion of Aboriginal and Torres Strait Islander women attending antenatal care in the first trimester was 61%, a substantial increase from 2010, when it was 41% [3]. A lower proportion (65%) of Indigenous mothers had received antenatal care in the first trimester, compared with 73% of non-Indigenous mothers [3].

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.
3. AIHW. Tracking progress against the Implementation Plan goals for the Aboriginal and Torres Strait Islander Health Plan 2013–2023. Available from: https://www.aihw.gov.au/reports/indigenous-health-welfare/tracking-progress-against-ipg-2013-2023/contents/maternal-health-and-parenting-domain/goal-1-antenatal-care-first-trimester; accessed 23 December 2020.

Indicator detail: The data comprise Aboriginal and Torres Strait Islander women who gave birth and did not have an antenatal visit in the first 10 weeks of pregnancy, expressed as a proportion of the total number of Aboriginal and Torres Strait Islander women who gave birth in the time period, 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 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.

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’.

Data quality
As is the case in most statistical collections in Australia, Indigenous status is under-reported in the midwives data collections from which these data are compiled. However, the level of completeness of coverage (the extent to which the identification of Indigenous Australians occurs in data collections) in these collections is generally higher than in other administrative data collections, such as those for deaths or hospital inpatients. It should also be noted that coverage is likely to vary between geographical areas.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Total Aboriginal 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.

Immunisation for children and young people

Aboriginal children fully immunised at 1 year of age, 2 years of age and 5 years of age, 2023 calendar year - by IARE, PHN, Quintile, Remoteness Area

The data presented are of registered* Aboriginal children fully immunised at 1 year of age, 2 years of age and 5 years of age.

For the purposes of reporting the data, fully immunised means a child receives the vaccinations due at or immediately prior to the age at which the measurement occurs. It is assumed that all previous vaccinations were received.

The definitions of fully immunised are:

- **Children aged 1 year:** Fully immunised at 1 year means that a child aged 12 months to less than 15 months received three doses of a diphtheria, tetanus and whooping cough-containing vaccine, three doses of polio vaccine, two or three doses of Haemophilus influenzae type b vaccine (dependent of the type of vaccine used), three doses of hepatitis B vaccine, and three doses pneumococcal vaccine, all prior to the age of 1 year.
- **Children aged 2 years:** Fully immunised at 2 years means that a child aged 24 to less than 27 months received three doses of a diphtheria, tetanus and whooping cough-containing vaccine, three doses of polio vaccine, three or four doses of Haemophilus influenzae type b vaccine (dependent of the type of vaccine used), three doses of hepatitis B vaccine, one dose of a measles, mumps and rubella-containing vaccine, one dose of meningococcal C vaccine, and one dose of varicella (chicken pox) vaccine, all prior to the age of 2 years.
- **Children aged 5 years:** Fully immunised at 5 years means that a child aged 60 to less than 63 months received four doses of a diphtheria, tetanus and whooping cough-containing vaccine, four doses of polio vaccine, and two doses of a measles, mumps and rubella-containing vaccine, all prior to the age of 5 years.

For further information, refer to coverage information produced by the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS).

*Registered on the Australian Childhood Immunisation Register (ACIR). The ACIR is a national register that records vaccinations given to children under seven years old. It also provides immunisation history statements to parents or guardians.

Data are not shown for areas where there were fewer than 10 registered Aboriginal children or fewer than 10 Aboriginal children immunised.

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

Human Papillomavirus (HPV) vaccine coverage: Indigenous females / Indigenous males aged 15 years as at mid June 2023, who received 1 dose or more of the vaccine, 2023
– by IARE, PHN, Quintile, Remoteness Area

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].

Aboriginal and Torres Strait Islander children who have missed a routine vaccination can get it for free up until they turn 25 years of age.

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 Indigenous females and Indigenous 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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

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

Denominator: Number of Indigenous females / Indigenous 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.

Long-term health conditions

Number of long-term health conditions, by age, 2021
- by IARE, PHN, Quintile, Remoteness Area

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.

Indicator detail: 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 (including osteoarthritis and rheumatoid)
- 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%.

Details of data presented
Long-term health conditions, by age (Aboriginal people of all ages; Aboriginal people aged 15 years and over; and Aboriginal children and young people aged 0 to 14 years).

Aboriginal people who reported they had:

- one long-term health condition
- two long-term health conditions
- three long-term health conditions
- one or more long-term health conditions
- no long-term health condition

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Number of Aboriginal 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 Aboriginal population (Aboriginal people of all ages; Aboriginal people aged 15 years and over; and Aboriginal 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 Aboriginal 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.

Selected long-term health conditions, by conditions

Long-term health conditions, by condition and age, 2021
- by IARE, PHN, Quintile, Remoteness Area

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.

Indicator detail: 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.

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%.

Details of data presented
Long-term health conditions, by condition and age (Aboriginal people of all ages; Aboriginal people aged 15 years and over; and Aboriginal children and young people aged 0 to 14 years).

Aboriginal people all ages and adults (15 years and over) who reported they had:

- arthritis (including osteoarthritis and rheumatoid)
- 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
- any other long-term health conditions (not 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).

Aboriginal children (0-14 years) who reported they had:

- asthma
- mental health condition (including depression or anxiety)
- any other long-term health conditions (not 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).

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Number of Aboriginal people who been told by a doctor or nurse that they have one of the conditions listed above, by age.

Denominator: Total Aboriginal population (Aboriginal people of all ages; Aboriginal people aged 15 years and over; and Aboriginal 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 Aboriginal 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.

Self-assessed health (modelled estimates)

In the absence of data from administrative data sets, estimates were produced for self-assessed health from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), conducted by the Australian Bureau of Statistics (ABS). For further details on the production of these estimates (referred to as modelled estimates) and caveats, see *Modelled estimates*, above.

Estimated number of people aged 15 years and over, who reported their self-assessed health as fair or poor/ good/ excellent or very good, 2018–19
- by IARE (and IARE groups), Remoteness Areas

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]. However, it has long been known that cultural factors can affect reporting of self-assessed health status. Data for the Aboriginal and Torres Strait Islander population can be similarly impacted. The Australian Institute of Health and Welfare note that many Indigenous Australians rate their health as good or excellent despite significant health problems, which may reflect differences in the social and cultural constructs of health [4]. The data at the state and territory level, when compared with the responses for the whole population in the 2017–18 National Health Survey, show Aboriginal and Torres Strait Islander people in the Northern Territory and New South Wales to have the highest rates of reporting their health as excellent or very good: they are also the jurisdictions with the smallest gap in reporting this item when viewed by Indigenous status.

In 2018–19, 44.5% of Aboriginal and Torres Strait Islander people aged 15 years and over reported their health as excellent or very good, 31.5% reported their health as good and 23.9% rated their health as fair or poor [5].

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-rated health and survival: a seven-year follow-up study of Australian elderly. Am J Public Health. 1994;84(7):1100-5.
4. Australian Institute of health and Welfare (AIHW). Available from: **https://www.indigenoushpf.gov.au/measures/1-17-perceived-health-status**; accessed 16 May 2022.
5. PHIDU (**www.phidu.torrens.edu.au**), based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

Indicator detail: The data on which the estimates are based are self-reported data, reported to interviewers in the NATSIHS. Respondents aged 15 years and over were asked to assess their health on a scale from 'poor' to 'excellent' (the scale was 'poor', 'fair', 'good', 'very good', or 'excellent'). Data reported are the sum of responses categorised as 'poor or fair', 'good' and 'very good or excellent'.

Geography: Data available by Indigenous Area (including Indigenous Region) and Remoteness Area.

Numerator: Estimated number of Aboriginal people aged 15 years and over with fair or poor/good/excellent or very good self-assessed health.

Denominator: Aboriginal 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:
Indigenous Areas: Age-standardised rates are based on Australian Bureau of Statistics data, produced for PHIDU, from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey.

Indigenous Regions: Age-standardised rates are based on Australian Bureau of Statistics data from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey: Small Area Estimates, Australia (ABS Cat. no. 4715.0).

Remoteness Areas: Compiled by PHIDU based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

Estimated Aboriginal population, aged 18 years and over with psychological distress, based on the modified Kessler Psychological Distress 5 Scale (K5, 2018–19)

- by IARE (and IARE groups), Remoteness Areas

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]. The Kessler 5 (K5) score is used in the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) and is derived from a modified version of the K10. It uses five questions (instead of 10), and is designed for use in surveys of Aboriginal and Torres Strait Islander peoples [3].

In 2018–19, 30.8% of Aboriginal people reported experiencing ‘high’ or ‘very high’ levels of psychological distress, proportionally more females than males (35.0% and 25.9% respectively). Two thirds (66.3%) of Aboriginal people reported experiencing ‘low’ or ‘moderate’ psychological distress [4].

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). National Aboriginal and Torres Strait Islander Health Survey methodology. Canberra: ABS; 2019. Available from: **https://www.abs.gov.au/methodologies/national-aboriginal-and-torres-strait-islander-health-survey-methodology/2018-19**; accessed 10 May 2022.
4. Australian Bureau of Statistics (ABS). National Aboriginal and Torres Strait Islander Health Survey, Australia, 2018–19. (ABS Cat. no. 4715.0). Canberra: ABS; 2019. Accessed 10 May 2022.

Indicator detail: Information was collected from respondents aged 18 years and over using the Kessler Psychological Distress Scale-5 (K5), a modified version of the Kessler Psychological Distress Scale-10 (K10) designed for use in surveys of Aboriginal and Torres Strait Islander people. This modified 5 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 five items are summed, yielding a minimum possible score of 5 and a maximum possible score of 25, with low scores indicating low levels of psychological distress and high scores indicating high levels of psychological distress.

K5 results from the 2018–19 NATSIHS are grouped into the following two levels of psychological distress: 'low/moderate' (scores of 5-11, indicating moderate, little or no psychological distress) and 'high/very high' (scores of 12-25). 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. In this atlas, data are published for respondents aged 18 years and over who scored in the ‘low/moderate’ or ‘high/very high’ levels of psychological distress.

Geography: Data available by Indigenous Area (including Indigenous Region) and Remoteness Area.

Numerator: Total Aboriginal population aged 18 years and over assessed as having a low or moderate/ high or very high level of psychological stress under the K5.

Denominator: Aboriginal 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:
Indigenous Areas: Age-standardised rates are based on Australian Bureau of Statistics data, produced for PHIDU, from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey.

Indigenous Regions: Age-standardised rates are based on Australian Bureau of Statistics data from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey: Small Area Estimates, Australia (ABS Cat. no. 4715.0).

Remoteness Areas: Compiled by PHIDU based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

Estimated Aboriginal population, aged 15 years and over, who were underweight or in a normal weight range, overweight or obese, 2018–19
- by IARE (and IARE groups), Remoteness Areas

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].

In 2018–19, 71.2% of Aboriginal people aged 15 years and over were overweight or obese (28.5% overweight (but not obese), 42.7% obese) and 28.9% were underweight or in a normal weight range [2].

References

1. Australian Bureau of Statistics (ABS). Measures of Australia’s progress, 2010. (ABS Cat. no. 1370.0). Canberra: ABS; 2010.
2. PHIDU (**www.phidu.torrens.edu.au**), based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

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 National Aboriginal Torres Strait Islander Health Survey (NATSIHS) interview, were used to calculate the BMI. The BMI categories are as follows:

- underweight (less than 18.5)
- normal range (18.5 to less than 25.0)
- overweight (25.0 to less than 30)
- obese (30 or over).

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 60.1% of Aboriginal people 15 years and over in the sample who had their height and weight measured. 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 the ABS National Aboriginal and Torres Strait Islander Health Survey methodology.

Geography: Data available by Indigenous Area (including Indigenous Region) and Remoteness Area.

Numerator: Estimated number of Aboriginal people aged 15 years and over who were assessed (based on their measured height and weight) as being:

- underweight or in the normal weight range
- overweight (not obese)
- obese
- overweight or obese.

Denominator: Total Aboriginal 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: Estimates for Indigenous Areas (IAREs) are modelled estimates compiled by PHIDU based on Australian Bureau of Statistics data, produced for PHIDU, from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey.

Estimates for Indigenous Regions (IREGs) are modelled estimates compiled by PHIDU based on Australian Bureau of Statistics data from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey: Small Area Estimates, Australia (ABS Cat. no. 4715.0).

Estimates for Remoteness Areas were compiled by PHIDU based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

Estimated Aboriginal population, aged 15 years and over, who were current daily smokers or other smokers (weekly or less than weekly, ex-smokers or have never smoked, 2018–19
- by IARE (and IARE groups), Remoteness Areas

Policy context: Tobacco smoking is recognised as the largest single preventable cause of 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].

In 2018–19, the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) estimated that approximately 41% of Aboriginal people aged 15 years and over smoked every day and 3% smoked but not every day [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].

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 Bureau of Statistics (ABS). National Aboriginal and Torres Strait Islander Health Survey, 2018–19. Canberra: ABS; 2019. Available from: https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/national-aboriginal-and-torres-strait-islander-health-survey/latest-release; accessed 16 May 2022.
3. National Public Health Partnership (NPHP). National response to passive smoking in enclosed places and workplaces: a background paper. Canberra: NPHP; 2000.

Indicator detail: The data on which the estimates are based are self-reported data, reported to interviewers in the 2018–19 NATSIHS. A current daily smoker is an Aboriginal person aged 15 years or over who reported at the time of interview that they smoked manufactured (packet) cigarettes, roll-your-own cigarettes, cigars, pipes or other tobacco products at least once a day. It excludes chewing tobacco and smoking of non-tobacco products. An 'other' smoker is an Aboriginal person aged 15 years or over who reported at the time of interview that they smoked weekly or less than weekly, were ex-smokers or have never smoked.

Geography: Data available by Indigenous Area (including Indigenous Region) and Remoteness Area.

Numerator: Estimated number of Aboriginal persons aged 15 years and over who reported being a current daily smoker or an 'other' smoker (weekly or less than weekly, ex-smokers or have never smoked).

Denominator: Total Aboriginal 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:

Indigenous Areas: Age-standardised rates are based on Australian Bureau of Statistics data, produced for PHIDU, from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey.

Indigenous Regions: Age-standardised rates are based on Australian Bureau of Statistics data from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey: Small Area Estimates, Australia (ABS Cat. no. 4715.0).

Remoteness Areas: Compiled by PHIDU based on direct estimates from the 2018–19 National Aboriginal and Torres Strait Islander Health Survey, ABS TableBuilder.

Disability

Aboriginal people aged 15 years and over who provided unpaid assistance to people with a disability, 2021 - by IARE, PHN, Quintile, Remoteness Area

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.

During the two weeks before the 2016 Census, 13.7% of Aboriginal people aged 15 years and over assisted family members or others due to a disability, long term illness or problems related to old age: this was an increase on the 12.9% at the 2011 Census. 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.

Reference

1. Australian Institute of Health and Welfare (AIHW). Australia’s welfare 2011. (AIHW Cat. no. AUS 93). Canberra: AIHW; 2011.

Indicator detail: The 'Assistance to a Person with a Disability (unpaid)' 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 illness (lasting six months or more) and/or problems related to older age.

The data presented are Aboriginal people aged 15 years and over who provided unpaid assistance to people with a disability, as a proportion of the total Aboriginal population aged 15 years and over.

The numerator excludes the 10.0% of the population whose provision of unpaid assistance was not stated: however, these records are included in the denominator.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal people aged 15 years and over who provided unpaid assistance to persons with a disability.

Denominator: Aboriginal 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).

Aboriginal people with a profound or severe disability, by living arrangements, all ages 0-64 and 65 years and over, 2021

- by IARE, PHN, Quintile, Remoteness Area

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.

Reference

1. Australian Institute of Health and Welfare (AIHW). Australia’s welfare 2007. (AIHW Cat. no. AUS 93). Canberra: AIHW; 2007.

Indicator detail: 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.

The ABS published figures are of Aboriginal 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.

The data shown are of Aboriginal people – of all ages/ aged 0 to 64 years/ aged 65 years and over, as appropriate – 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 Aboriginal people living in these accommodation types, whereas the figure for ‘living in the households’ excludes them.

Details of the total number of people with a disability – including those with a moderate or mild disability – are not available.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator:

- Aboriginal people with a profound or severe disability (includes people in long-term accommodation), All ages
- Aboriginal people with a profound or severe disability and living in households, All ages
- Aboriginal people aged 0 to 64 years with a profound or severe disability (includes people in long-term accommodation)
- Aboriginal people aged 0 to 64 years with a profound or severe disability and living in households
- Aboriginal people aged 65 years and over with a profound or severe disability (includes people in long-term accommodation)
- Aboriginal people aged 65 years and over with a profound or severe disability and living in households.

Denominator:

- Aboriginal population aged 15 years and over
- Aboriginal population aged 0 to 64 years
- Aboriginal 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).

Median age at death

Median age at death of Aboriginal people by sex, 2018 to 2022 (NSW, Qld, SA, WA & NT only) - by IARE, PHN

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 five years 2018 to 2022, the median age at death of Aboriginal and Torres Strait Islander people for the combined jurisdictions of New South Wales, Queensland, South Australia, Western Australia and the Northern Territory was 59.0 years for males and 64.0 years for females [1]. The range in median age for males is from 55.0 years in the Northern Territory to 62.0 years in New South Wales; for females it is from 61.0 years in Western Australia and the Northern Territory to 67.0 years in New South Wales [1].

Reference

1. PHIDU, 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: Median age of 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.

Death data
For the detailed data files on which this analysis relies, in releases 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 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%20Notes12015?OpenDocument.
However, data published here are from the following releases: 2018, 2019 and 2020 final; and 2021 and 2022, preliminary.

Almost all deaths in Australia are registered. However, Indigenous status is not always recorded, or recorded correctly. The incompleteness of Indigenous identification (referred to as completeness of coverage) means that the number of deaths registered as Indigenous is an underestimate of the actual number of deaths which occur in the Indigenous population. It should also be noted that completeness of coverage is likely to vary between geographical areas.

While there is incomplete coverage of Indigenous deaths in all state and territory registration systems, some jurisdictions have been assessed by the Australian Bureau of Statistics (ABS) as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced. Those jurisdictions are New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Median age at death - Aboriginal 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 age and sex

Deaths of Aboriginal people by sex and broad age groups (0 to 54, 0 to 64, 0 to 74 years), 2018 to 2022 - by IARE, PHN, Quintile, Remoteness Area

Policy context: Deaths before 75 years of age can be classified as 'premature'. However, for Aboriginal and Torres Strait Islander people a substantially higher proportion of deaths of males occurs before 75 years of age, 81.3% compared with 33.4% for the whole population (i.e., including Aboriginal people); as a result, we have included data for deaths before 65 years and before 55 years.

External causes of death (largely road traffic injuries and suicide and self-inflected injuries) and chronic diseases are responsible for a majority of the premature deaths among Aboriginal and Torres Strait Islander people: details **here**.

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: The data presented are the average annual indirectly age-standardised rates per 100,000 males/ females/ population (aged 0 to 54 years/ 0 to 64 years /0 to 74 years, as appropriate); and/or indirectly age-standardised ratios, based on the Australian standard.

See *Median Age of Death* above for more information on the death data.

Denominator population

There is a substantial difference between the Census counts of Aboriginal and Torres Strait Islander Australians and the estimated resident population (ERP), adjusted for net undercount as measured by the Post Enumeration Survey undertaken by the ABS; the ERP is 21.1% higher. Given this large difference, and as the ABS has not released Aboriginal ERP by age at the Indigenous Area level as used in the Social Health Atlases, PHIDU has calculated an estimated resident population for 30 June and 2020 and has used this population (erp (PHIDU)p) for the calculation of percentages. Further detail can be obtained by contacting PHIDU.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Deaths of Aboriginal males, females or persons aged 0 to 54 years, 0 to 64 and 0 to 74 years.

Denominator: Male, female or total Aboriginal population aged 0 to 54 years, 0 to 64 and 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal male population (aged 0 to 54, 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Premature mortality by selected cause

Deaths from cancer, Aboriginal people aged 0 to 54 years, 0 to 64 years, 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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.

Indigenous Australians have a slightly higher rate of cancer diagnosis and are approximately 40 per cent more likely to die from cancer than non-Indigenous Australians [3]. Indigenous Australians also had a lower likelihood of being treated for and surviving cancer [4]. Almost a quarter (24.4%) of all deaths of Aboriginal people occurring before 75 years of age were due to cancer; this was the largest cause of premature death.

The data show that, for 2018 to 2022, almost four fifths (76.8%) of deaths of Aboriginal and Torres Strait Islander people from cancer occurred before 75 years of age, 47.8% before 65 years and 20.3% before 55 years [5] – details here. This was over one and a half times (1.68) the proportion for the total population at ages 0 to 74 years (76.8% c.f. 45.8%).

References

1. Cancer Council Australia (CCA). About cancer: FAQ [Internet]. [cited 2013 Oct 18]. Available from: http://www.cancer.org.au/aboutcancer/FAQ.htm#491.
2. 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.
3. Australian Government, Cancer Australia. Available from: https://www.canceraustralia.gov.au/key-initiatives/aboriginal-and-torres-strait-islander-health; accessed 25 March 2022.
4. Australian Health Minister's Advisory Council. Aboriginal and Torres Strait Islander health performance framework 2014 Report. AHMAC, Canberra.
5. 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: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: C00-D48.

See *Median age at death* above for more information on the death data.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from cancer at ages 0 to 54, 0 to 64 and 0 to 74 years.

Denominator: Aboriginal population aged 0 to 54, 0 to 64 and 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal population (aged 0 to 54, 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from lung cancer, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only) - by IARE, PHN, Quintile, Remoteness Area

Policy context: Lung cancer was the leading cause of cancer death among Aboriginal and Torres Strait Islander people living in New South Wales, Queensland, South Australia, Western Australia or the Northern Territory in the years 2014 and 2018, and was also the most commonly diagnosed cancer in 2011 to 2015 [1].

Indigenous Australians are 1.9 times as likely to develop and die from lung cancer as non-Indigenous Australians. A contributing factor may be the higher prevalence of smoking among Indigenous Australians than non-Indigenous Australians (38% compared with 18%) [2].

Some 6.5% of all deaths of Aboriginal people occurring before 75 years of age were due to lung cancer.

The data show that, in 2018 to 2022, over four fifths (79%) of deaths of Aboriginal and Torres Strait Islander people from lung cancer occurred before 75 years of age, 45.1% before 65 years and 13.4% before 55 years – details **here**. This was over one and a half times the proportion for the total population at ages 0 to 74 years (79% compared with 52%).

References

1. Australian Government, Cancer Australia. Available from: **https://www.canceraustralia.gov.au/affected-cancer/indigenous/cancer-statistics**; accessed 25 March 2022.
2. Australian Institute of Health and Welfare (AIHW). Cancer in Aboriginal and Torres Strait islander peoples of Australia: an overview. Available from: **https://www.aihw.gov.au/reports/cancer/cancer-in-indigenous-australians-overview/summary**; accessed 25 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: C33, C34.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from lung cancer at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from diabetes, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only) - by IARE, PHN, Quintile, Remoteness Area

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 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].

Some 7.0% of all deaths of Aboriginal people occurring before 75 years of age were due to diabetes.

The data show that, for 2018 to 2022, more than three quarters (76%) of deaths from diabetes among Aboriginal and Torres Strait Islander people were premature (over two and a half (2.56) times the proportion for the total population at ages 0 to 74 years) – details **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.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: E10-E14.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from diabetes at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from circulatory system diseases, Aboriginal people aged 0 to 54 years, 0 to 64 years, 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only) - by IARE, PHN, Quintile, Remoteness Area

Policy context: Diseases of the circulatory system include all diseases and conditions that affect the heart and blood vessels and include cardiovascular diseases. They represent a significant burden for Aboriginal and Torres Strait Islander people in terms of prevalence, hospitalisation, and mortality [1]. Coronary heart disease (or ischaemic heart disease), cerebrovascular disease (including stroke), hypertension (high blood pressure), and rheumatic heart disease (RHD) are of particular importance to Indigenous people [1].

Modifiable behavioural factors include tobacco use, physical inactivity, dietary behaviour, and excessive alcohol consumption [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 [2].

One fifth (20.5%) of all deaths of Aboriginal people occurring before 75 years of age were due to diseases of the circulatory system; this was the second largest cause of premature death.

The data show that, for 2018 to 2022 almost three quarters (72.6%) of deaths of Aboriginal people from circulatory system diseases occurred before 75 years of age, 52.3% before 65 years and 31.0% before 55 years – details here. This was over three times the proportion for the total population at ages 0 to 74 years (72.6% c.f. 23.7%).

References

1. Australian Indigenous Health*InfoNet*. Overview of Australian Indigenous health status, 2014. [Internet] 2014. [cited 2015 May 7]. Available from: http://www.healthinfonet.ecu.edu.au/health-facts/overviews
2. Australian Institute of Health and Welfare (AIHW). Cardiovascular disease: Australian facts 2011. Canberra: AIHW; 2011.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: I00-I99.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from circulatory system diseases at ages 0 to 54, 0 to 64 and 0 to 74 years.

Denominator: Aboriginal population aged 0 to 54, 0 to 64 and 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal population (aged 0 to 54, 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from ischaemic heart disease, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

Policy context: Ischaemic heart disease (also known as coronary heart disease) includes angina, blocked arteries (heart) and heart attacks [1]. In 2022, ischaemic heart disease was the leading underlying cause of death for Aboriginal and Torres Strait Islander people in Australia (586 deaths) [2].

Some 11.4% of all deaths of Aboriginal people occurring before 75 years of age were due to lung cancer.

For 2018 to 2022, almost four fifths (76.8%) of deaths from ischaemic heart disease were premature, although with a higher proportion for males (80.9%) than females (69.8%) – details here. This was three times the proportion for the non-Indigenous population at ages 0 to 74 years (76.8% c.f. 28.7%).

References

1. Deaths in Australia. Available from: **https://www.aihw.gov.au/reports/life-expectancy-death/deaths-in-australia/contents/leading-causes-of-death**; accessed 18 January 2021.
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**; accessed 12 September 2024.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: I20-I25.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from ischaemic heart disease at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from respiratory system diseases, Aboriginal people aged 0 to 64 years, 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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 [1]. They include chronic lower respiratory diseases, the third leading cause of death for Aboriginal and Torres Strait Islander people in 2022 [2].

Respiratory system diseases are associated with a number of contributing factors, including poor environmental conditions, socioeconomic disadvantage, risky behaviour (particularly tobacco smoking, alcohol use, and substance use) and some previous medical conditions [3][4]. Infants and children are particularly susceptible to developing respiratory conditions, due to factors such as exposure to tobacco smoke, poor environmental conditions, and poor nutrition [3,4].

Some 8.5% of all deaths of Aboriginal people occurring before 75 years of age were due to respiratory system diseases; this was the fourth largest cause of premature death, just ahead of diabetes (7.0%).

The data show that, for 2018 to 2022, over two thirds (69.7%) of deaths of Aboriginal and Torres Strait Islander people from respiratory system diseases occurred before 75 years of age, 37.3% before 65 years and 12.1% before 55 years – details **here**. This was almost three times the proportion for the total population at ages 0 to 74 years (69.7.% c.f. 25.3.%).

References

1. Australia Institute of Health and Welfare (AIHW). Australia's health 2010. (AIHW Cat. no. AUS 122). Canberra: AIHW; 2010.
2. Australian Bureau of Statistics (ABS). Causes of Death, Australia. 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 September 2024.
3. Pierce R, Antic R, Chang A, Howard M, James A, Maguire G et al. Respiratory and sleep health in Indigenous Australians. Sydney: Thoracic Society of Australia and New Zealand; 2010.
4. Janu EK, Annabattula BI, Kumariah S, Zajaczkowska M, Whitehall JS, Edwards MJ et al. Paediatric hospitalisations for lower respiratory tract infections in Mount Isa. MJA 2014;200(10):591-4.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: J00-J99.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from respiratory system diseases at ages 0 to 64 and 0 to 74 years.

Denominator: Aboriginal population aged 0 to 64 and 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal population (aged 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from chronic obstructive pulmonary disease, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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].

Some 5.8% of all deaths of Aboriginal people occurring before 75 years of age were due to chronic obstructive pulmonary disease.

Over 2018 to 2022, 69.7% of deaths from chronic obstructive pulmonary disease were premature – details **here**. This was over twice the proportion for the non-Indigenous population at ages 0 to 74 years (69.7% c.f. 31.9%).

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-J44.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from chronic obstructive pulmonary disease (COPD) at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from cirrhosis and other diseases of the liver, Aboriginal people aged 0 to 74 years, 2018 to 2022 - by IARE, PHN, Quintile, Remoteness Area

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]. Aboriginal and Torres Strait Islander people have a substantially higher prevalence of liver disease than non-Indigenous Australians, with cirrhosis and its complications being the sixth leading cause of mortality for Aboriginal and Torres Strait Islanders in 2020 [3]. Among chronic diseases, liver disease accounts for 11% of the mortality gap between Aboriginal and Torres Strait Islander people and non-Indigenous people [3].

The data show that, for the period 2018 to 2022, almost all deaths of Aboriginal and Torres Strait Islander people from digestive system diseases – deaths from cirrhosis and other diseases of the liver – were premature, with 95.1% before 75 years of age, 82.3% before 65 years and 52.8% before 55 years – details here. This was higher than the proportion for the total population at ages 0 to 74 years (95.1% c.f. 74.5%).

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**.
3. Tashkent, Yasmina; Olynyk, John K.; and Wigg, Alan J. (2022) "Liver Disease in Aboriginal and Torres Strait Islander People," Journal of the Australian Indigenous HealthInfoNet: Vol. 3 : Iss. 4 , Article 5. Available from: **https://doi.org/10.14221/aihjournal.v3n4.5**.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: K70-K76.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from cirrhosis and other diseases of the liver at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal population (aged 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from external causes, Aboriginal people aged 0 to 54 years, 0 to 64 years, 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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, falls, and accidental drowning or poisoning; 'intentional', such as suicides and homicides; and those which occur due to the complications of medical and surgical care (commonly referred to as 'adverse events') [1].

In 2017, deaths from external causes (for example injury and suicide) accounted for 15% of deaths of Aboriginal people living in the combined areas of NSW, Qld, WA, SA and the NT) [1].

Some 17.5% of all deaths of Aboriginal people occurring before 75 years of age were due to external causes (largely road traffic injuries and suicide and self-inflected injuries); this was the third largest cause of premature death.

The data show that, for 2018 to 2022 almost all (96.2%) deaths of Aboriginal and Torres Strait Islander people from external causes occurred before 75 years of age (one and a half times the proportion for non-Indigenous Australians), 92.1% before 65 years and 83.7% before 55 years – details **here**. This was over one and a half times the proportion for the total population at ages 0 to 74 years (96.2% c.f. 61.1%).

Reference

1. Australian Institute of Health and Welfare (AIHW). 1.23 Leading causes of mortality. Available from: **https://www.indigenoushpf.gov.au/measures/1-23-leading-causes-mortality**; accessed 28 March 2022.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (**ICD-10**) codes: V01-Y98.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from external causes at ages 0 to 54, 0 to 64 and 0 to 74 years.

Denominator: Aboriginal population aged 0 to 54, 0 to 64 and 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal population (aged 0 to 54, 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from road traffic injuries, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

Policy context: In 2021 to 2022, Indigenous Australians were 1.7 times more likely to be hospitalised due to a transport accident than non-Indigenous Australian, and 2.8 times more likely to die in a transport accident than non-Indigenous Australians [1]. Over 90% of Aboriginal and Torres Strait Islander land transport fatalities and about 66% of serious injury cases occurred in traffic [2].

Some 3.1% of all deaths of Aboriginal people occurring before 75 years of age were due to road traffic injuries.

The data show that, for 2018 to 2022, almost all (99%) deaths of Aboriginal and Torres Strait Islander people from external causes occurred before 75 years of age (one and a half times the proportion for non-Indigenous Australians), 96.1% before 65 years and 88.4% before 55 years – details here. This was higher than the proportion for the non-Indigenous population at ages 0 to 74 years (94.4% c.f. 87.0%).

References

1. Australian Institute of Health and Welfare (AIHW). Transport Accidents. Available from: https://www.aihw.gov.au/reports/injury/transport-accidents. Accessed: 13 September 2024.
2. Australian Institute of health and Welfare (AIHW): Henley G & Harrison JE 2019. Injury of Aboriginal and Torres Strait Islander people due to transport, 2010–11 to 2014–15. Injury research and statistics series no. 103. Cat. no. INJCAT 179. Canberra: AIHW.

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-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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from road traffic injuries at aged 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from suicide and self-inflicted injuries, Aboriginal people aged 0 to 44 years / 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

Policy context: In many First Nations communities, reducing suicide rates and suicidal behaviour is a serious concern, and it is a public health priority for all Australian governments. In 2018 to 2022, among Aboriginal and Torres Strait Islander people 975 deaths were due to suicide, a rate of 20.1 deaths per 100,000 population. Over the period 2018 to 2022, suicide accounted for 5.3% of all deaths among First Nations people, with males experiencing a greater proportion of suicide deaths out of all causes of deaths compared to females (7.0% and 3.2% respectively) [2].

Some 6.9% of all deaths of Aboriginal people occurring before 75 years of age were due to suicide.

The data show that, for 2018 to 2022, almost all (99.7%) deaths of Aboriginal and Torres Strait Islander people from external causes occurred before 75 years of age (one and a half times the proportion for non-Indigenous Australians), 98.0% before 65 years and 93.2% before 55 years – details here. This was higher than the proportion for the non-Indigenous population at ages 0 to 74 years (99.7% c.f. 91.7%).

References

1. Australian Institute of Health and Welfare (AIHW). Suicide and self-harm monitoring, Suicide among First Nations People. Available from: https://www.aihw.gov.au/suicide-self-harm-monitoring/data/populations-age-groups/suicide-indigenous-australians; accessed: 13 September 2024.
2. Data calculated by PHIDU from data cited in Source, below.

Indicator detail: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes: X60-X84, Y87.0.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from suicide and self-inflicted injuries at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Deaths from accidental poisoning, Aboriginal people aged 0 to 74 years, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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 to 2022 Indigenous Australians were 3.1 times more likely to be hospitalised due to accidental poisoning, and 3.0 times to die than non-Indigenous Australians [1].

The data show that, for the period from 2018 to 2022, almost all deaths of Aboriginal and Torres Strait Islander people from accidental poisoning were premature: 99.6% before 75 years of age, 96.8% before 65 years and 86.1% before 55 years – details here. This was slightly higher than the proportion for the non-Indigenous population at ages 0 to 74 years (99.6% c.f. 97.9%).

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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Aboriginal deaths from accidental poisoning at ages 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Avoidable mortality by sex

Deaths from all avoidable causes, Aboriginal people by sex, by cause, 2018 to 2022 (NSW, Qld, SA, WA & NT only)
- by IARE, PHN, Quintile, Remoteness Area

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. The data presented in this dataset are those listed in the PI-16 Potentially avoidable deaths, 2018.

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. In 2018 to 2022, there were 8,397 deaths from potentially avoidable causes among Aboriginal and Torres Strait Islanders; this is over half the number of premature deaths.

Indicator detail: 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.

Death data
For deaths data 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 is preliminary, the second latest is revised and the data for the remaining years is 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. However, data published here are from the following releases: 2018, 2019 and 2020 final; and 2021 and 2022 preliminary.

Deaths are defined as avoidable in the context of the present health system, based on the NHA PI-16 Potentially avoidable deaths, 2022.

Note: Some of the selected avoidable mortality indicators comprise the same condition(s)/ ICD codes as the selected premature mortality indicators presented in the data/ maps.

Data quality
Almost all deaths in Australia are registered. However, Indigenous status is not always recorded or recorded correctly. The incompleteness of Indigenous identification (referred to as completeness of coverage) means that the number of deaths registered as Indigenous is an underestimate of the actual number of deaths which occur in the Indigenous population. It should also be noted that completeness of coverage is likely to vary between geographical areas.

While there is incomplete coverage of Indigenous deaths in all state and territory registration systems, some jurisdictions have been assessed by the Australian Bureau of Statistics (ABS) as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced. Those jurisdictions are New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Potentially avoidable mortality (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	
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	
Sequelae of external causes of morbidity and mortality	Y85, Y86, Y87.1-Y89	

Source: National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2022. Available from: https://meteor.aihw.gov.au/content/740864. Accessed 9 September 2024.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Avoidable deaths for the above categories, Aboriginal population aged 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: The data presented are the average annual indirectly age-standardised rates per 100,000 males, females or persons aged 0 to 74 years; and/or indirectly age-standardised ratios, 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Avoidable mortality by selected cause

Avoidable deaths by sex and cause, Aboriginal people aged 0 to 74 years, 2018 to 2022
- by IARE, PHN, Quintile, Remoteness Area

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. The data presented in this dataset are those listed in the PI-16 Potentially avoidable deaths, 2020.

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.

In 2018 to 2022, there were 8,397 deaths from potentially avoidable causes among Aboriginal and Torres Strait Islanders; this is over half the number of premature deaths.

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.

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.

Causes that are included:

- Diabetes
- circulatory system diseases
- ischaemic heart disease
- respiratory system diseases
- chronic obstructive pulmonary disease
- selected external causes of mortality (Falls; fires, burns; Suicide and self-inflicted injuries; etc.)
- suicide and self-inflicted injuries
- other external causes of mortality (Transport accidents; Accidental drowning and submersion; etc.)
- transport accidents.

Source*:* National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2022. Available from: **https://meteor.aihw.gov.au/content/740864**. Accessed 9 September 2024.

For more information on the death data see **Avoidable mortality by sex** above.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Avoidable deaths for the above categories, Aboriginal population aged 0 to 74 years.

Denominator: Aboriginal population aged 0 to 74 years.

Detail of analysis: Average annual indirectly age-standardised rate per 100,000 Aboriginal 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Potential years of life lost by age and sex

Potential years of life lost, Aboriginal males/ females/ persons by broad year age group (0 to 54, 0 to 64 and 0 to 74 years), 2018 to 2022
- by IARE, PHN, Quintile, Remoteness Area

Policy context: Over the years 2018 to 2022, almost four in five (76.7%) deaths of Aboriginal and Torres Strait Islander people occurred before 75 years of age, over twice (2.30 times) the proportion for all Australians, of 33.4%: details **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 (60 years), 45 years (30 years) and so on, assuming they had all lived to 74 years of age. Note that in this Atlas we have also included data for deaths of Aboriginal and Torres Strait Islander people before 55 years and 65 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 the elderly, on the other hand, have little effect on these values [1].

There were 68,272 PYLL per year by Aboriginal and Torres Strait Islander people aged 0 to 74 years on average over the five years 2018 to 2022 in the five jurisdictions (combined) for which data are available – New South Wales, Queensland, South Australia, Western Australia and the Northern Territory. Of the PYLLS in these jurisdictions, 60.1 per cent were for males and 39.9 per cent were for females [2].

Some notable variations shown by the data among those aged 0 to 74 years for the five years 2018 to 2022 [2] are:

- the range between the states and territories was from 60.0 PYLLs per 1,000 population in New South Wales, to 104.5 PYLLs per 1,000 population in Western Australia and 142.5 PYLLs per 1,000 population in the Northern Territory;
- in all states and territories rates for males were around 20 to 40 per cent higher than those for females;
- the rate of PYLL for those living in the most disadvantaged areas was over twice (2.83) times that in the least disadvantaged areas across Australia – in Western Australia this inequality gap was 1.86 and in the Northern Territory, with the smallest gap, it was still 1.69 times; and
- for those living in the Very Remote areas in the combined jurisdictions, PYLL rates were more than twice (2.48 times) those in the Major Cities areas – the variation in rates between the Major Cities and Very Remote areas of New South Wales was the largest, at 2.54 times, and that in Queensland, the smallest, at 1.35 times.

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: 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 Aboriginal and Torres Strait Islander males, females, persons aged 0 to 54, 0 to 64 and 0 to 74 years over the years 2016 to 2020, expressed as an average annual indirectly age-standardised rates per 1,000 Aboriginal males/ females/ population (aged 0 to 54, 0 to 64 and 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

Deaths data

For deaths data 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 is preliminary, the second latest is revised and the data for the remaining years is 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**.

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

Data quality

Almost all deaths in Australia are registered. However, Indigenous status is not always recorded, or recorded correctly. The incompleteness of Indigenous identification (referred to as completeness of coverage) means that the number of deaths registered as Indigenous is an underestimate of the actual number of deaths which occur in the Indigenous population. It should also be noted that completeness of coverage is likely to vary between geographical areas.

While there is incomplete coverage of Indigenous deaths in all state and territory registration systems, some jurisdictions have been assessed by the Australian Bureau of Statistics (ABS) as having a sufficient level of coverage to enable statistics on Aboriginal and Torres Strait Islander mortality to be produced. Those jurisdictions are New South Wales, Queensland, South Australia, Western Australia and the Northern Territory.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) 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 Aboriginal and Torres Strait Islander males, females, persons; also calculated for deaths before age 55 years and 65 years.

Denominator: Aboriginal and Torres Strait Islander males, females, persons aged 0 to 54, 0 to 64 and 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 54, 0 to 64 and 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Potential years of life lost by selected cause

Potential years of life lost from deaths of Aboriginal and Torres Strait Islander persons aged 0 to 74 years, by selected cause, 2018 to 2022.
- by IARE, PHN, Quintile, Remoteness Area

Policy context: Over the years 2018 to 2022, almost four in five (76.7%) deaths of Aboriginal and Torres Strait Islander people occurred before 75 years of age, over twice (2.30) the proportion for all Australians, of 33.4%: details 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 (60 years), 45 years (30 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 the elderly, on the other hand, have little effect on these values [1].

Some notable variations shown by the data for the five years 2018 to 2022 [2] are:

- the range between the selected causes was from 2.1 PYLLs per 1,000 population for chronic obstructive pulmonary disease (COPD), to 11.9 PYLLs per 1,000 population for circulatory system diseases and 20.1 PYLLs per 1,000 population for external causes;
- for each of the selected causes the rates were highest in the Northern Territory;
- the rate of PYLLs from each selected cause increased with increasing disadvantage;
- deaths from diabetes had a rate almost five times (4.84) times that in the least disadvantaged areas across Australia – in South Australia , with the largest gap, it was 6.29 times; and
- for those living in the Very Remote areas in the combined jurisdictions, PYLL rates for diabetes were 5.6 times those in the Major Cities areas – the variations in rates between the Major Cities and Very Remote areas were over five times higher for road traffic injuries (5.36 and over three and a half times higher for ischaemic heart disease (3.64)).

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: 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 by selected cause of Aboriginal and Torres Strait Islander people aged 0 to 74 years over the years 2018 to 2022, expressed as an average annual indirectly age-standardised rates per 1,000 Aboriginal people (aged 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

Causes that are included:

- Cancer ICD-10 codes: C00-D48
- Lung cancer ICD-10 codes: C33, C34
- Diabetes ICD-10 codes: E10-E14
- Circulatory system diseases ICD-10 codes: I00-I99
- Ischaemic heart disease ICD-10 codes: 20-25
- Respiratory system diseases ICD-10 codes: J00-J99
- Chronic obstructive pulmonary disease ICD-10 codes: J40-J44
- External causes ICD-10 codes: V01-Y98
- Road traffic injuries 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-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
- Suicide and self-inflicted injuries ICD-10 codes: X60-X84, Y87.0.

See *Median age at death* above for more information on the death data.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) 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 by selected causes of each of Aboriginal and Torres Strait Islander persons aged 0 to 74 years.

Denominator: Aboriginal and Torres Strait Islander 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. ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Use and provision of health services

Commonwealth Home Support Programme (CHSP)

Commonwealth Home Support Programme, 2023/24
– by IARE, PHN, Quintile, Remoteness Area

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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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**.

All data had values 1 to 4 suppressed. The indicators include the following:

Assistance type	Definition	Measure
Indigenous clients living alone	Indigenous clients whose status is recorded as living alone at the date of most recent assessment.	Percentage of total Indigenous clients
Indigenous clients with carer	Indigenous 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 Indigenous clients
Total Indigenous clients	All Indigenous clients that recorded at least one instance of assistance for the time period.	Indirectly age-standardised rate and ratio (of the total Indigenous population)

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Number of Indigenous clients for the respective indicator.

Denominator: Total Indigenous clients, 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 ABS Indigenous ERP, produced as a consultancy for PHIDU, 30 June 2021.

Hospital admissions

Aboriginal admissions by selected principal diagnosis (including by sex and by broad age group); and from potentially preventable conditions (including by vaccine-preventable, acute and chronic, and by broad age group), 2019/20 to 2022/23

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.

In 2019/20 to 2022/23, Aboriginal and Torres Strait Islander people had higher separation rates than those for non-Indigenous Australians. Excluding same-day admissions for dialysis for kidney disease, separation rates for Indigenous Australians were 35% above the rates for non-Indigenous Australians. For same-day admissions for dialysis, the rate was ten times the rate for non-Indigenous Australians. For the majority of diseases and conditions at the chapter or block level in the International Classification of Diseases, rates for Indigenous Australians were well above those for non-Indigenous Australians; the largest disparities were found for chronic obstructive pulmonary disease (5.9 times), chronic kidney disease (2.8 times), heart failure (2.6 times), self-harm (suicide) (2.5 times), endocrine, nutritional and metabolic diseases (largely diabetes) (2.1 times) and injury, poisoning and other external causes (1.8 times). A major exception was cancer, with the admission rate in the non-Indigenous population 28% above that for the Indigenous population [2].

Reference

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. PHIDU (download the Indigenous Status Comparison workbook **here**).

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 technically-correct '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.

Where used, the terms ‘Aboriginal’ and ‘Indigenous’ refer to Aboriginal and Torres Strait Islander people.

Data have been aggregated over a period of four years to increase the number of admissions at the Indigenous Area level, thereby allowing data for more indicators to be published.

Potentially preventable hospitalisations are admissions from a specified range of conditions where hospitalisation could have been potentially 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, 2017 available through METeOR (**METeOR ID: 630028**).

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 counted as separate admissions. Although such transfers occur in all areas, they are likely to be more prevalent from regional to metropolitan areas, thereby resulting in a higher rate of admissions in regional areas compared to the metropolitan areas; in addition, certain conditions are more likely to result in transfers.

Caution should be used in the interpretation of these data because of jurisdictional differences in data quality as well as under-identification of Aboriginal and Torres Strait Islander people. The AIHW found that nationally, about 88% of Indigenous Australians were identified correctly in hospital admissions data in the 2011–12 study period, and the ‘true’ number of separations for Indigenous Australians was about 9% higher than reported (for further information see item at *Reference [1]*, above).

Note that for reports and publications that results are not comparable between jurisdictions due to the variations in scope of hospitals for individual states and territories.

Exclusions

The national data exclude well babies (i.e., babies not admitted for acute care) who are nine days old or less, other than the second or subsequent live born infant of a multiple birth whose mother is currently an admitted patient (for further information see item at *Reference [1]*, above).

Same-day admissions for dialysis for kidney disease have been excluded from the data in this atlas for the categories of admissions for males, females and total persons, and admissions by age. These admissions have been excluded 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 note for **Same-day hospital admissions for renal dialysis, Aboriginal persons** for further details); these data are presented separately. All other same-day admissions are included.

Publishing of Queensland data by Indigenous Area

As requested by Queensland Health, the Indigenous Area (IAREs) below were combined to ensure confidentiality.

Table 1: The codes and names of Queensland Indigenous Areas which have been combined to form the adjusted Indigenous areas.

Indigenous Area Code	Indigenous Area Name	Indigenous Area Name - Adjusted
305001	Banana	Banana - North Burnett
305008	North Burnett	Banana - North Burnett
304001	Boulia - Diamantina - Winton	Boulia - Diamantina - Winton - Cloncurry - McKinlay
304003	Cloncurry - McKinlay	Boulia - Diamantina - Winton - Cloncurry - McKinlay
309002	Cairns	Cairns - Yarrabah
309003	Cairns - Far North Coast	Cairns - Yarrabah
309004	Cairns - Southern Hinterlands	Cairns - Yarrabah
309012	Yarrabah	Cairns - Yarrabah
305002	Barcaldine - Blackall - Longreach	Central Capricorn - Barcaldine - Blackall - Longreach - Nebo - Clermont
305004	Central Capricorn	Central Capricorn - Barcaldine - Blackall - Longreach - Nebo - Clermont
305007	Nebo - Clermont	Central Capricorn - Barcaldine - Blackall - Longreach - Nebo - Clermont
306003	Cherbourg	Murgon - Cherbourg - South Burnett
306013	South Burnett	Murgon - Cherbourg - South Burnett
306009	Murgon	Murgon - Cherbourg - South Burnett
301005	Esk - Kilcoy	Esk - Kilcoy - Nanango - Kilkivan
306011	Nanango - Kilkivan	Esk - Kilcoy - Nanango - Kilkivan
310003	Charters Towers	Flinders - Richmond - Dalrymple - Charters Towers
310004	Flinders - Richmond - Dalrymple	Flinders - Richmond - Dalrymple - Charters Towers
310005	Ingham - Hinchinbrook	Ingham - Hinchinbrook - Tully - Cardwell - Jumbun - Innisfail - Johnstone - Palm Island
309007	Innisfail - Johnstone	Ingham - Hinchinbrook - Tully - Cardwell - Jumbun - Innisfail - Johnstone - Palm Island
310009	Palm Island	Ingham - Hinchinbrook - Tully - Cardwell - Jumbun - Innisfail - Johnstone - Palm Island
309010	Tully - Cardwell - Jumbun	Ingham - Hinchinbrook - Tully - Cardwell - Jumbun - Innisfail - Johnstone - Palm Island
309001	Atherton	Atherton - Eacham - Herberton - Ravenshoe
309005	Eacham	Atherton - Eacham - Herberton - Ravenshoe
309006	Herberton - Ravenshoe	Atherton - Eacham - Herberton - Ravenshoe
309008	Kuranda - Croydon	Kuranda - Croydon - Mareeba
309009	Mareeba	Kuranda - Croydon - Mareeba
310006	Mackay	Mackay - Sarina - Mirani
310007	Mackay - Surrounds	Mackay - Sarina - Mirani
310008	Mirani	Mackay - Sarina - Mirani
310011	Sarina	Mackay - Sarina - Mirani
306001	Balonne	Maranoa - Roma - Mitchell - Balonne
306008	Maranoa - Roma - Mitchell	Maranoa - Roma - Mitchell - Balonne
306002	Bulloo - Quilpie - Barcoo	Murweh - Paroo - Bulloo - Quilpie - Barcoo
306010	Murweh	Murweh - Paroo - Bulloo - Quilpie - Barcoo
306012	Paroo	Murweh - Paroo - Bulloo - Quilpie - Barcoo

306004	Cooloola - Gympie	Noosa - Cooloola - Gympie
301011	Noosa	Noosa - Cooloola - Gympie
304002	Carpentaria - Burke - Mornington	Northern Peninsula Area - Cape York - Carpentaria
303001	Aurukun	Northern Peninsula Area - Cape York - Carpentaria
303002	Cape York	Northern Peninsula Area - Cape York - Carpentaria
303003	Cooktown	Northern Peninsula Area - Cape York - Carpentaria
303004	Hope Vale	Northern Peninsula Area - Cape York - Carpentaria
307001	Kaiwalagal - Inner Islands	Northern Peninsula Area - Cape York - Carpentaria
307002	Kalakawal - Top Western Islands	Northern Peninsula Area - Cape York - Carpentaria
307003	Kalalagal - Western Islands	Northern Peninsula Area - Cape York - Carpentaria
303005	Kowanyama	Northern Peninsula Area - Cape York - Carpentaria
307004	Kulkalgal - Central Islands	Northern Peninsula Area - Cape York - Carpentaria
303006	Lockhart River	Northern Peninsula Area - Cape York - Carpentaria
303007	Mapoon - Napranum - Weipa	Northern Peninsula Area - Cape York - Carpentaria
307005	Meriam - Eastern Islands	Northern Peninsula Area - Cape York - Carpentaria
303008	Northern Peninsula Area	Northern Peninsula Area - Cape York - Carpentaria
303009	Pormpuraaw	Northern Peninsula Area - Cape York - Carpentaria
309011	Wujal Wujal and Outstations	Northern Peninsula Area - Cape York - Carpentaria
310001	Bowen (Qld)	Proserpine - Whitsunday - Bowen (Qld)
310010	Proserpine - Whitsunday	Proserpine - Whitsunday - Bowen (Qld)
301012	Pine Rivers	Redcliffe - Pine Rivers
301013	Redcliffe	Redcliffe - Pine Rivers
301001	Beaudesert - Boonah	Southern Downs - Beaudesert - Boonah
306014	Southern Downs	Southern Downs - Beaudesert - Boonah
301006	Gatton - Laidley	Toowoomba - Jondaryan - Oakey - Gatton - Laidley
306007	Jondaryan - Oakey	Toowoomba - Jondaryan - Oakey - Gatton - Laidley
306015	Toowoomba - Central	Toowoomba - Jondaryan - Oakey - Gatton - Laidley
306016	Toowoomba - North	Toowoomba - Jondaryan - Oakey - Gatton - Laidley
306017	Toowoomba - South	Toowoomba - Jondaryan - Oakey - Gatton - Laidley
310002	Burdekin - Ayr	Townsville - Burdekin - Ayr
310013	Townsville	Townsville - Burdekin - Ayr
310014	Townsville - Surrounds	Townsville - Burdekin - Ayr
306005	Dalby	Western Downs - Dalby - Goondiwindi - Stanthorpe
306006	Goondiwindi - Stanthorpe	Western Downs - Dalby - Goondiwindi - Stanthorpe
306018	Western Downs	Western Downs - Dalby - Goondiwindi - Stanthorpe

Details of data presented.
Refer to separate note for Same-day hospital admissions for renal dialysis, Aboriginal persons.

Separate data are presented for:
1. Admissions by sex (excluding same-day admissions for renal dialysis - (Z491 to Z492)):

- Male total admissions
- Female total admissions
- Total admissions

2. Admissions by age (excluding same-day admissions for renal dialysis - (Z491 to Z492)):

- Total admissions, people aged 0 to 14 years
- Total admissions, people aged 15 to 24 years
- Total admissions, people aged 25 to 44 years
- Total admissions, people aged 45 to 64 years
- Total admissions, people aged 65 years and over

3. Admissions by selected 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)
- Cancer (C00-D48)
- Endocrine, nutritional and metabolic diseases (E00-E90)
- Diabetes (E10 to E14.9)
- Mental health related conditions (F00-F99)
- Affective (mood) disorders (F30-F39)
- Nervous system diseases (G00-G99)
- Eye and adnexa diseases (H00-H59)
- Ear and mastoid process diseases (H60-H95)
- Circulatory system diseases (I00-I99)
- Ischaemic heart disease (I20-I25)
- Heart failure (I50)
- Respiratory system diseases (J00-J99)
- Asthma (J45-J46)
- Chronic obstructive pulmonary disease (COPD) (J40-J44)
- Digestive system diseases (K00-K93)
- Skin and subcutaneous tissue diseases (L00-L99)
- Musculoskeletal system and connective tissue diseases (M00-M99)
- Genitourinary system diseases (N00-N99)
- 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)
- Pregnancy, childbirth and the puerperium (O00-O99), females aged 15 to 44 years
- Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
- Injury, poisoning and other external causes (S00-T98).

4. Admissions by selected principal diagnosis and age:

Note: Bracketed numbers below refer to codes in the **International Classification of Diseases (ICD-10-AM) chapters.**

- Infectious and parasitic diseases (A00-B99), aged 0 to 14/ 15 years and over
- Respiratory system diseases (J00-J99), aged 0 to 14/ 15 years and over
- Digestive system diseases (K00-K93), aged 0 to 14/ 15 years and over
- Skin and subcutaneous tissue diseases (L00-L99), aged 0 to 14/ 15 years and over
- Injury, poisoning and other external causes (S00-T98), aged 0 to 14/ 15 years and over.

5. 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)
- Falls (W00-W19)
- Injury due to exposure to inanimate mechanical forces (W20-W49)
- Injury due to exposure to animate mechanical forces (W50-W64)
- Intentional self-harm (X60-X84)
- Assault (X85-Y09)
- Total diagnosis of injury or poisoning, by external cause (S00-T98)

6. Potentially preventable conditions by age (Vaccine-preventable, Acute and Chronic conditions):

- Potentially preventable conditions aged 0 to 14 years
- Potentially preventable conditions aged 15 to 24 years
- Potentially preventable conditions aged 25 to 44 years
- Potentially preventable conditions aged 45 to 64 years
- Potentially preventable conditions aged 65 years and over
- Potentially preventable conditions, total.

7. Potentially preventable hospitalisations – Vaccine-preventable conditions:

- Vaccine-preventable conditions - pneumonia and influenza
- Total vaccine-preventable conditions.

8. Potentially preventable hospitalisations – Acute conditions:

- Acute cellulitis
- Acute convulsions and epilepsy
- Acute dental conditions
- Acute ear, nose and throat infections
- Acute urinary tract infections, including pyelonephritis
- Total acute conditions.

9. Potentially preventable hospitalisations – Chronic conditions:

- Chronic angina
- Chronic asthma
- Chronic congestive cardiac failure
- Chronic obstructive pulmonary disease (COPD)
- Chronic diabetes complications
- Chronic iron deficiency anaemia
- Total chronic conditions.

***Note:* Potentially preventable hospitalisations data are currently unavailable for 2019/20 to 2022/23. In the interim, data for 2017/18 to 2020/21 have been published. We expect to receive this dataset in 2026.**

Confidentiality of data
Counts of less than 6 admissions have been suppressed. For potentially preventable hospitalisations admissions, counts of less than 5 admissions have been suppressed.

Where data are published by age and either the age groups 0 to 14 years or 15 years and over has been confidentialised, the alternate age group has also been confidentialised for the same area, as their publication would allow identification of the confidentialised age group.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Admissions for the above categories.

Denominator: Estimated resident Aboriginal population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

Detail of analysis: Indirectly age-standardised rate per 100,000 (respective population); and/or indirectly age-standardised ratio, based on the Indigenous ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2019/20 to 2022/23 (potentially preventable hospitalisations, 2017/18 to 2020/21); ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Same-day hospital admissions for renal dialysis, Aboriginal people, 2019/20 to 2022/23 - by IARE, PHN, Quintile, Remoteness Area

Policy context: Same-day admissions for dialysis for kidney disease, which comprise some two thirds of all same-day admissions of Aboriginal people, result in multiple admissions per week. As a result, they are shown separately account to avoid affecting data showing the distribution of admissions from any diagnosis. In 2019/20 to 2022/23, Indigenous Australians were admitted for dialysis for kidney disease at ten times the rate for other Australians [1].

Reference

1. PHIDU (download the Indigenous Status Comparison workbook **here**).

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, for example, admissions of males, or of females 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.

Data definitions for potentially preventable hospitalisations are in *the National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2017* available through METeOR (**METeOR ID: 630028**).

Note that for reports and publications that results are not comparable between jurisdictions due to the variations in scope of hospitals for individual states and territories.

Publishing of Queensland data by Indigenous Area
As requested by Queensland Health, the Indigenous Area (IAREs) were combined to ensure confidentiality, see *Table 1* above for the full list of regions.

Confidentiality of data
Counts of less than 6 admissions have been suppressed.

Data are not available for private dialysis units in 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.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Same-day admissions for dialysis for kidney disease - (Z491 to Z492).

Denominator: Estimated resident Aboriginal population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

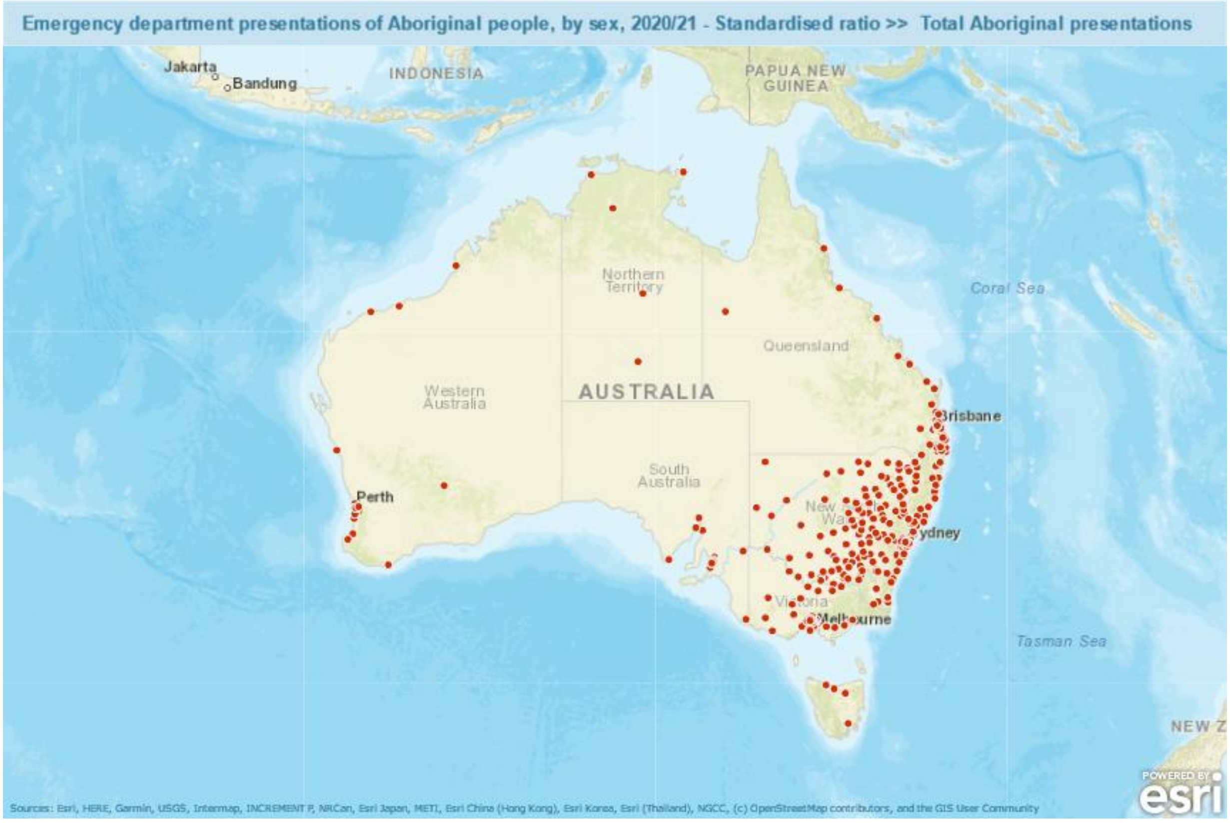
Detail of analysis: Indirectly age-standardised rate per 100,000 (respective population); and/or indirectly age-standardised ratio, based on the Indigenous ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2019/20 to 2022/23; ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021.

Emergency department presentations

Emergency Department presentations, 2022/23
- by IARE, PHN, Quintile, Remoteness Area

Policy context: There are 293 public hospitals that have purpose-built emergency departments (ED) that have purpose-built emergency departments that are staffed 24 hours a day, seven days a week, to provide acute and emergency care to patients arriving either by ambulance or by other means [1]. However, relatively few of these are available in regional (other than in New South Wales) or remote areas where many Aboriginal people live; see map, below.



Source: **https://phidu.torrens.edu.au/current/maps/atsi-sha/iare-single-map/atlas.html** (with ‘Public Hospital emergency departments’ selected, and ‘Indigenous Areas’ turned off, in ‘Legend’ box.)

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, such as care from general practitioners [2]. Examples include people who are homeless or transient, and Aboriginal and Torres Strait Islanders, or the need for care after hours.

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.

The Australian Institute of Health and Welfare report [4] that the average access to General Practitioners relative to need decreases with remoteness for the Indigenous population. This is due to the worsening access to General Practitioners from metropolitan to remote areas and the increasing predicted need for primary health care based on the Indigenous population’s demographic structure which also varies across the remoteness gradient. This trend poses health care issues for the Indigenous population since a large proportion of the population live outside metropolitan areas. These factors lead to hospitals, particularly Emergency Departments, becoming the primary health service provider for many in the Indigenous population, although such services are not always available to Indigenous communities.

Of note, is that the quality of the data reported for Indigenous status in emergency departments has not been formally assessed—therefore, caution should be exercised when interpreting these data. In addition, the AIHW’s National Non-admitted Patient Emergency Department Care Database (NNAPEDCD) does not include all emergency department activity in remote areas and this is likely to affect reporting of data for Indigenous Australians who account for a higher proportion of the population in these areas [5]. Given this statement, all states and territories consider the Indigenous status data to be of a quality appropriate for publication.

In 2022/23, Aboriginal and Torres Strait Islander people had a rate of presentations to an emergency department of 2.3 times that for non-Indigenous Australians; the disparity was greater for females (2.5 times) than for males (2.1 times). The greatest disparity by age was in the 45 to 64 and 25 to 44 year age groups, at 3.3 and 3.2 times, respectively.

For the majority of diseases and conditions at the chapter or block level in the International Classification of Diseases, rates for Indigenous Australians were well above those for non-Indigenous Australians; the largest disparities were found for presentations for mental and behavioural disorders (4.3 times), factors influencing health status and contact with health services (3.8 times), diseases of the digestive system (2.6 times), diseases of the musculoskeletal system and connective tissue (2.5 times), diseases of the respiratory system (2.4 times), diseases of the circulatory system (2.3 times), injury, poisoning and other external causes (1.9 times) and certain infectious and parasitic diseases (1.7 times) [6].

References

1. Australian Institute of Health and Welfare Australia's hospitals at a glance. Available from **https://www.aihw.gov.au/hospitals/overview/hospitals-at-a-glance**; accessed 18 June 2025.
2. Ford G. The role of the Emergency Department as a 'safety net'. Health Issues 2002;73:29-32.
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.
4. Australian Institute of Health and Welfare (AIHW). Access to primary health care relative to need for Indigenous Australians. Cat. no. AIHW 128. Canberra: AIHW; 2014.
5. Australian Institute of Health and Welfare (AIHW). Emergency department care 2017–18: Australian hospital statistics. Health services series no. 89. Cat. no. HSE 216. Canberra: AIHW; 2018.
6. PHIDU (download the Indigenous Status Comparison workbook **here**).

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.

Emergency departments (including 'accident and emergency' or 'urgent care centres') that do not meet the criteria above are not in scope for the NMDS, but data may have been provided for some of these by some states and territories.

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.

Emergency department presentation data are presented by the following principal diagnosis and triage categories:

Triage category definitions:

- Resuscitation and Emergency presentations
- Urgent presentations
- Semi-urgent presentations
- Non-urgent presentations

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: Specific Indigenous Areas within Queensland have been aggregated on the request of Queensland Health; data displayed are the combination of values and rates for these aggregated areas, see *Table 1* in the indicator Error! Reference source not found., above for the full list of Indigenous Areas which were combined. Counts o f less than 6 presentations have been suppressed.

Geography: Data available by Indigenous Area, Primary Health Network, Quintile of socioeconomic outcomes (based on IRSEO) and Remoteness Area.

Numerator: Presentations by Aboriginal people to Emergency Departments for above categories.

Denominator: ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

Detail of analysis: Indirectly age-standardised rate per 100,000 (respective population); and/or indirectly age-standardised ratio, based on the Indigenous ABS estimated resident population (produced as a consultancy for PHIDU), 30 June 2021 (data not available for later years).

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 (produced as a consultancy for PHIDU), 30 June 2021.