

# Social Health Atlas of Australia

Notes on the data

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## General information

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### Geographical structures

For information regarding the geographies available, refer to the [geographical structures](#) information.

### Statistical information

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

## Notes on the Data: Indicators and Data sources

### Introductory information

Whilst PHIDU's aim is to present all indicators in the latest releases to provide a full set of available data, with the current transition to the new geographical structure, including the [Population Health Areas](#), there are some exceptions as to what is available by each [geographical structure](#). For each indicator, the geography available is included under the indicator heading.

Note: The geographical structure acronyms are defined as follows:

'PHAs' - Population Health Areas, 'LGAs' - Local Government Areas, 'PHNs' - Primary Health Networks, 'Quintiles' - Quintiles of Socioeconomic Disadvantage of Area; 'Remoteness' - Remoteness Areas of Australia; and 'GCCSA' - Greater Capital Cities Statistical Areas

The 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](#).

### Demographic and social indicators

#### Age distribution: Total population, 2015 Estimated Resident Population (ERP)

- Male population by a) 5 year groups: 0-4 years to 85+ years and b) Broad age groups: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, 2015 Estimated Resident Population (ERP)  
– by PHA, LGA, PHN, Remoteness
- Female population by a) 5 year groups: 0-4 years to 85+ years and b) Broad age groups: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, 2015 ERP  
– by PHA, LGA, PHN, Remoteness
- Total population by a) 5 year groups: 0-4 years to 85+ years/ b) Broad age groups: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, 2015 ERP  
– by PHA, LGA, PHN, Remoteness

**Indicator detail:** The ERP has been derived by the Australian Bureau of Statistics by applying the following adjustments to the Usual Residence Census counts:

- removing overseas visitors who were in Australia on Census night from the Census counts;
- adjusting the Census counts for undercounting using results of the Post Enumeration Survey;
- including Australian residents who were temporarily absent overseas on Census night; and
- back casting the resulting estimates which relate to 9 August 2011 to 30 June 2011 using births, deaths and migration data.

**Source:** Compiled by PHIDU based on the (Australian Bureau of Statistics (ABS) Estimated Resident Population, 30 June 2015.

## Population projections: Total population, Projected 2020 and 2025 ERP

- Male/ female/ total population by 5 year groups: 0-4 years to 85+ years, Projected 2020, 2025 Estimated Resident Population (ERP)– by PHA, LGA

**CONDITIONS OF USE: Specific Conditions of Use apply in respect of the use of these data and information. These include that you have read, understood and accept the [AIHW's Explanatory Notes](#) before accessing or using the material.**

**Indicator detail:** These data are based on Statistical Areas Level 2 (SA2) population projections that were prepared by the ABS as consultant to the Australian Government Department of Social Services. The projections are not official ABS data and the assumptions have been set by the Department of Social Services.

The base Estimated Resident Population (ERP) used is the 30 June 2012 ERP as published in Australian Demographic Statistics, December 2012 (ABS cat. no. 3101.0) and released on 20 June 2013. ERP age/sex cells have been confidentialised through perturbation, though this does not affect SA2 totals. SA2s with total ERP under 1,000 have generally been held constant as reliable projections are not possible for the very small age/sex cells involved.

Later years (2013 to 2027) are projected using a combination of assumptions from Population Projections, Australia, 2012 (base) to 2101 (ABS cat. no. 3222.0) and historical patterns observed in each state/territory.

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

**Source:** These are customised projections prepared for the Australian Government Department of Social Services by the Australian Bureau of Statistics and published by the Australian Institute of Health and Welfare. PHA data were compiled by PHIDU based on these customised projections 2015, 2020 and 2025 (2012 base).

## Age distribution: Aboriginal population, 2016 ERP (non-ABS)

'Aboriginal' as used in the Social Health Atlas, the Social Health Atlas Data workbook and Notes on the Data refers to Aboriginal and Torres Strait Islander people.

- Male Aboriginal population by 5 year groups: 0-4 years to 65+ years, 2016 estimated resident population (ERP) (non-ABS)  
– by PHA, LGA, PHN, Remoteness
- Female Aboriginal population by 5 year groups: 0-4 years to 65+ years, 2016 ERP (non-ABS)  
– by PHA, LGA, PHN, Remoteness
- Total Aboriginal population by 5 year groups: 0-4 years to 65+ years, 2016 ERP (non-ABS)  
– by PHA, LGA, PHN, Remoteness

**Indicator detail:** The data presented are the age and sex group total as a percentage of the total Aboriginal male/female/total population, as appropriate.

For information about the estimated resident population (ERP) (non-ABS) developed by Prometheus Information on behalf of the Australian Government Department of Health, refer to the [Indigenous estimates](#) information page.

**Source:** Compiled by PHIDU based on data developed by Prometheus Information Pty Ltd, under a contract with the Australian Government Department of Health.

## Indigenous status, 2016 ERP (non-ABS)

- Aboriginal population as a percentage of the total population, estimated resident population (ERP), 2016 (non-ABS)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are the Aboriginal population as a percentage of the total population.

For information about the estimated resident population (ERP) (non-ABS) developed by Prometheus Information on behalf of the Australian Government Department of Health, refer to the [Indigenous estimates](#) information page.

**Source:** Compiled by PHIDU based on data developed by Prometheus Information Pty Ltd, under a contract with the Australian Government Department of Health.

- Aboriginal population as a percentage of the total population by 5 year age groups: 0-4 years to 65+ years, estimated resident population (ERP), 2016 (non-ABS)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are the Aboriginal population as a percentage of the total population within each age group.

For information about the estimated resident population (ERP) (non-ABS) developed by Prometheus Information on behalf of the Australian Government Department of Health, refer to the [Indigenous estimates](#) information page.

**Source:** Compiled by PHIDU based on data developed by Prometheus Information Pty Ltd, under a contract with the Australian Government Department of Health.

## Birthplace & non-English speaking residents, 2011

- Australian-born population, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People born (overseas) in predominantly English speaking countries, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People born in predominantly non-English speaking (NES) countries, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People born in NES countries resident in Australia for five years or more, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People born in NES countries resident in Australia for less than five years, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The following countries are designated as 'predominantly ES': Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America; the remaining countries are designated as 'predominantly NES'.

*Resident in Australia for five years or more:* Data comprise NES residents arriving prior to 2007.

*Resident in Australia for less than five years:* Data comprise NES residents arriving from 2007 to 2011. The year 2011 is the period 1 January 2011 to 9 August 2011 (Census Night), therefore, the data presented represents a total time of approximately 4 years and 7 months.

The data exclude the 5.6% of the population who did not state their country of birth. In addition, the '*Resident in Australia for five years or more/ less than five years*' data exclude the 4.5% of people born overseas who did not state their year of arrival. (The proportions excluded were calculated based on the Australian data.)

- People aged 5 years and over who were born overseas and reported poor proficiency in English, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data comprise people born overseas who reported speaking English 'not well' or 'not at all'.

The data exclude the 0.5% of people born overseas who did not state their proficiency in English, as well as the 5.6% of the population who did not state their country of birth (the proportions excluded were calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Non-English speaking countries of birth, 2011

- Top ten birthplaces of people born in non-English speaking countries, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Total fertility rate, 2011

- Total fertility rate, 2011  
– by LGA, Quintiles, Remoteness

**Indicator detail:** Total fertility rates are not shown for areas recording fewer than 5 births.

**Note:** These data are currently only available by LGA, Quintiles and Remoteness.

**Source:** Compiled by PHIDU based on the ABS data in *Table 4: Births, Summary, Local Government Areas—2006 to 2011: Births, Australia, 2011*.

## Child care: unpaid, 2011

- Child care to own child/children (unpaid), provided by people aged 15 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Child care to other child/children (unpaid), provided by people aged 15 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Total (unpaid) child care, provided by people aged 15 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

The indicators presented are:

- Unpaid child care provided by people aged 15 years and over to their own child/ children (aged under 15 years)
- Unpaid child care provided by people aged 15 years and over to other child/ children (aged under 15 years); and

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

The data exclude the 7.8% of people aged 15 years and over whose engagement in unpaid child care was not stated (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Education, 2011, 2015 and 2016

- [Participation in full-time secondary school education at age 16, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**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 2011 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 exclude the 4.1% of people whose participation in secondary school education at age 16 was not stated (the proportion excluded was calculated based on the Australian data).

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 19*.

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- [Participation in vocational education and training, 2015](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:**

### Inclusions

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.

### Details of data presented

Separate data are presented for:

- Aboriginal population participation in VET
- Non-Indigenous population participation in VET
- Total population participation in VET

**Source:** Compiled by PHIDU based on data from the National Centre for Vocational Education Research Ltd., 2015; and the ABS Estimated Resident Population, 30 June 2015.

- [Load Pass Rates of vocational education and training subjects, 2015](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:**

### Inclusions

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.

### Definitions

Funding source

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

Load Pass Rate

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

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.



## Details of data presented

Separate data are presented for:

- LPR of VET subjects, government-funded hours
- LPR of VET subjects, private-funded hours
- Aboriginal LPR of VET subjects
- Non-Indigenous LPR of VET subjects
- Total LPR of VET subjects

**Source:** Compiled by PHIDU based on data from the National Centre for Vocational Education Research Ltd., 2015; and the ABS Estimated Resident Population, 30 June 2015.

- [Government-funded vocational education and training subjects, 2015](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

### **Indicator detail:**

#### **Inclusions**

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.

#### **Definitions**

Funding source

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

## Details of data presented

Separate data are presented for:

- Aboriginal students undertaking government-funded VET subjects
- Non-Indigenous students undertaking government-funded VET subjects
- Total students undertaking government-funded VET subjects

**Source:** Compiled by PHIDU based on data from the National Centre for Vocational Education Research Ltd., 2015; and the ABS Estimated Resident Population, 30 June 2015.

- [School leavers enrolled in higher education, 2016](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data comprise school leavers identified as enrolled at an Australian university at 31 March 2016, expressed as a proportion of the Estimated Resident Population aged 17 years at 30 June 2015. 'School leavers' are students who attained a Year 12 qualification in 2015 in any State/ Territory through the completion of one or more Year 12 courses; may include (unless noted otherwise below) adult students, part-time students and students doing one or more subjects to improve their overall score (repeating students).

The Estimated Resident Population is based on the number of 17 year olds in 2015, as this is the age of the majority of Year 12 students at 30 June 2015.

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.

### **Variations in data between States:**

Definitions vary across the States, however, the impact of any differences is considered to be small: differences of note are:

- Data for The University of Notre Dame Australia campuses in WA and NSW comprise all students who used their high school results for entry; hence, numbers include some school leavers from 2014. Data are accurate for the date of extraction rather than enrolment at 31 March 2016.

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

**Estimates for Quintiles and Remoteness Areas have not yet been updated; estimates for these areas from the previously published data are available at <http://www.phidu.torrens.edu.au/social-health-atlases/graphs>**

**Source:** Compiled by PHIDU based on data from the:

- 1) Universities Admissions Centre (NSW & ACT), Victorian Tertiary Admissions Centre, South Australian Tertiary Admission Centre (SA & NT), Tertiary Institutions Service Centre (WA), The University of Notre Dame Australia (WA & NSW), the University of Tasmania; and
- 2) ABS Estimated Resident Population, 30 June 2015.

- [People who left school at Year 10 or below, or did not go to school, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

The data comprise people who left school at Year 10 or below, or did not go to school, expressed as an indirectly standardised rate per 100 people aged 15 years and over (Usual Resident Population), based on the Australian standard.

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Early childhood development: Australian Early Development Census, 2015

- Developmentally vulnerable on one or more domains, 2015
- Developmentally vulnerable on two or more domains, 2015
- Physical health and wellbeing domain - developmentally vulnerable/ at risk/ on track, 2015
- Social competence domain - developmentally vulnerable/ at risk/ on track, 2015
- Emotional maturity domain - developmentally vulnerable/ at risk/ on track, 2015
- Language and cognitive (school based) domain - developmentally vulnerable/ at risk/ on track, 2015
- Communication skills and general knowledge domain - developmentally vulnerable/ at risk/ on track, 2015

**Indicator detail:** The AEDC results report on the number of children scoring in the following percentile ranges: 0 to 10th percentile (developmentally vulnerable), 11th to 25th percentile (developmentally at risk) and above the 25th percentile (developmentally on track).

The PHIDU data are presented for children who were:

- Developmentally vulnerable (0 to 10th percentile) on one or more domains
- Developmentally vulnerable (0 to 10th percentile) on two or more domains

and who were assessed as being developmentally vulnerable (0 to 10th percentile), at risk (11th 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

Data were extracted from the AEDC data available online at the SA2 and LGA level. This method of data collection introduced a potential for error in the data through the employment of a concordance transforming the data from 'AEDC communities' back into their component SA2s ahead of concordance to larger geographic areas.

Furthermore, some data had been suppressed according to the confidentiality rules detailed below. As a result, numbers for within-state/territory geographical areas will not add up to state/territory totals in many cases and proportions for vulnerable and at risk children are liable to be under-reported in areas with small populations.

Data are not shown for areas where one or more of the following have been met:

- three or fewer children had been assessed;
- 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; and
- the number of vulnerable or at risk children represented at least 90% of valid AEDC scores.

Additional minor suppressions not further specified have occurred where necessary to preserve confidentiality of related suppressed cells.

**Source:** Compiled by PHIDU based on data from the 2015 Australian Early Development Census (an Australian Government Initiative) at <http://www.aedc.gov.au/resources/2015-aedc-results>.

## Learning or Earning, 2011

- Learning or Earning at ages 15 to 19, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data comprise the number of 15 to 19 year olds who are engaged in school, work or further education/ training, expressed as a proportion of all those aged 15 to 19 years.

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Families, 2011

- Single parent families with children aged less than 15 years, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The denominator for this indicator has changed from the data PHIDU published for the 2006 Census. The denominator is now 'Families with children under 15 years', not 'Total families'.

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

- Jobless families with children aged less than 15 years, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- Children aged less than 15 years in jobless families, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- [Children in families where the mother has low educational attainment, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

## Housing/ Transport, 2011 and 2016

- [Households in dwellings receiving rent assistance from the Australian Government, June 2016](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The Australian Government rent assistance data are provided for individual recipients, and there may be multiple individual recipients in a household: to the extent that this occurs, the proportion 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.

**Source:** Compiled by PHIDU based on data from the Department of Human Services, June 2016; and the ABS Census: Dwellings, 2011.

- [Dwellings rented from the government housing authority, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data exclude the population in the 2.5% of dwellings for which the tenure type was not stated (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

- [Low income households with mortgage stress, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

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, \$633; Vic, \$640; Qld, \$649; SA, \$551; WA, \$699; Tas, \$488; NT, \$853; ACT, \$987.

The data exclude the population in the 10.8% of private dwellings for which mortgage stress data was not recorded (the proportion excluded was calculated based on the Australian data).

**NB:** For caveats regarding this data, please refer to the attached [Housing Costs caveats](#) (.pdf).

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- [Low income households with rental stress, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

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

Income varies by State/ Territory: NSW, \$633; Vic, \$640; Qld, \$649; SA, \$551; WA, \$694; Tas, \$488; NT, \$853; ACT, \$987.

The data exclude the population in the 9.3% of private dwellings for which rental stress data was not recorded (the proportion excluded was calculated based on the Australian data).

**NB:** For caveats regarding this data, please refer to the attached [Housing Costs caveats](#) (.pdf).

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- [Low income households under financial stress from mortgage or rent, 2011](#)  
– by PHA, LGA, PHN

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

Refer to the notes on the above two indicators for the specific income levels and other information.

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

- [Private dwellings with no motor vehicle, 2011](#)  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data exclude the population in the 3.0% of dwellings for which the number of motor vehicles was not stated (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Income support recipients, June 2016

- Age pensioners, June 2016  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The Age Pension is available from Centrelink for people who have reached Age Pension age. The Age Pension age depends on a person's date of birth, as follows:

- If born before 1/7/52, Age Pension age is 65
- If born between 1/7/52 and 31/12/53, Age Pension age is 65.5
- If born between 1/1/54 and 30/6/55, Age Pension age is 66
- If born between 1/7/55 and 31/12/56, Age Pension age is 66.5
- If born from 1/1/57 or later, Age Pension age is 67.

The Department of Veterans' Affairs (DVA) provides a Service Pension (Age) to eligible people who have reached 60 years.

*Additional notes:*

The data show a number of 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 pension recipient data being a postcode which is not allocated to the correct small geographical area by the correspondence files available; it may also reflect inaccuracies in the denominator (the population of pensionable age), as population estimates at the small area level for age groups can be unreliable, in particular where the populations are small. It also indicates that it is possible that percentages of less than 100% may also be overstated.

The Centrelink data were provided at the Population Health Area (PHA) and Local Government Area (LGA) levels and data cells with less than 20 counts were removed (confidentialised). Due to the confidentialisation of data cells, there may be undercounting of some of the final numbers presented, where the final data are based on combining two indicator sub-sets, which may include the aggregation of confidentialised and non-confidentialised cells.

The 'Unknown' data are calculated from the difference between the sum of the PHA or LGA data to the State/Territory totals, and include the sum of these confidentialised data.

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- Disability support pensioners, June 2016  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People eligible for a Disability Support Pension (DSP) paid by Centrelink, must be aged 16 years or over and have not reached age-pensionable age; be permanently blind or have a physical, intellectual or psychiatric impairment level of 20% or more and a continuing inability to work for at least 15 hours per week.

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- Female sole parent pensioners, June 2016  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People eligible for a Parenting Payment (single) paid by Centrelink comprise female and male sole parents with at least one child under 16 years of age (who meet certain qualifications, or whose child attracts a child disability allowance). Only female sole parent pensioners have been included because females comprise the majority of sole parent pensioners.

Single parent payment female data may also not be published even if it is over 5 if it can reveal confidential data from total persons single parent payment data available from DSS at the SA2 or LGA levels

**Source:** Compiled by PHIDU based on data from Centrelink as agent for the Department of Education, Employment and Workplace Relations, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **People receiving an unemployment benefit, June 2016**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People receiving an ‘unemployment benefit’ – which includes the Newstart Allowance or Youth Allowance (other)<sup>1</sup> paid by Centrelink – are shown as the proportion of the eligible population (of people aged 16 to 64 years).

For total unemployment, this is the maximum of either youth allowance (other) plus newstart allowance or newstart allowance (180 days)/youth allowance (other)(<180 days) plus newstart allowance (180 days plus)/youth allowance (other)(<180 days plus)

Note that these figures can be undercounted by up to 4 people if one of the cells is confidentialised.

**Source:** Compiled by PHIDU based on data from the Department of Human Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **People receiving an unemployment benefit long-term, June 2016**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People receiving an ‘unemployment benefit’ – which includes the Newstart Allowance or Youth Allowance (other) paid by Centrelink – for more than 182 days (approximately 6 months) are shown as the proportion of the eligible population (of people aged 16 to 64 years).

**Source:** Compiled by PHIDU based on data from the Department of Human Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **Young people aged 16 to 24 receiving an unemployment benefit, June 2016**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Young people receiving an ‘unemployment benefit’ – which includes the Newstart Allowance (people aged 16 to 24 years) or Youth Allowance (other) paid by Centrelink – are shown as the proportion of the population aged 16 to 24 years.

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Human Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **Low income, welfare-dependent families (with children), June 2016**

– by PHA, LGA, PHN, Quintiles, Remoteness

- **Children in low income, welfare-dependent families, June 2016**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** For 2016, a) families included are those with children under 16 years; or b) children under 16 years in families – with incomes under \$37,378 p.a. in receipt of the Family Tax Benefit (A) (whether receiving income support payments or not). These families would all receive the Family Tax Benefit (A) at the maximum level.

The level of income used for these data was based on the *Poverty Lines: Australia, June Quarter 2016*, which contains a weekly income for a single parent with two children, including housing costs. *Poverty Lines: Australia* is a quarterly newsletter that updates the Henderson Poverty Line as defined in the 1973 Commonwealth Commission of Inquiry into Poverty. Poverty lines are presented for a range of family sizes, in order to avoid the situation of poverty. The updated Poverty Lines take into account changes in the average income level of all Australians, reflecting the idea that poverty is relative.

[For further information, see: *Poverty Lines: Australia* (ISSN 1448-0530), Melbourne Institute of Applied Economic and Social Research, available from: <http://melbourneinstitute.com/miaesr/publications/indicators/poverty-lines-australia.html>]

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Census 2011.

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<sup>1</sup> Youth Allowance (other) is largely comprised of unemployed people aged 16 to 21 looking for full-time work or undertaking approved activities, such as part-time study or training. It excludes Youth Allowance customers who are full-time students or undertaking an apprenticeship/ traineeship.

- **Health Care Card holders, June 2016**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People eligible for a Health care card (HCC) issued by Centrelink are those aged 0 to 64 years who do not hold a Pensioner Concession Card and receive one of the following Centrelink payments: Carer Allowance; Carer Payment (child) (short term or episodic); Exceptional Circumstances Relief Payment; Family Tax Benefit A (maximum rate only); Mobility Allowance (if not receiving a Disability Support Pension); Newstart Allowance; Parenting Payment (partnered); Partner Allowance; Special benefit; Widow Allowance; and Youth Allowance (job seekers only). People may also be eligible for a HCC if they are a foster carer; ex-holder of a Carer Allowance (child) Health Care Card; or are a low income earner.

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **Pensioner Concession Card holders, June 2016**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** People eligible for a Pensioner Concession Card issued by Centrelink comprise people aged 15 years and over who receive one of the following Centrelink payments: Age Pension; Bereavement Allowance; Carer Payment (adult); Carer Payment (child); Disability Support Pension; Newstart Allowance and Youth Allowance (job seeker) if single and caring for a dependent child; and Parenting Payment (single). People aged over 60 years may receive a Pensioner concession card if they have been receiving income support payments for more than nine months and receive: Newstart Allowance; Parenting Payment (partnered); Partner Allowance; Sickness Allowance; Special Benefit; and Widow Allowance. People may also be eligible for a Pensioner Concession Card if they have a partial capacity to work and are receiving any of the following payments: Newstart Allowance; Parenting Payment (partnered); and Youth Allowance (job seeker).

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

- **Seniors Health Card holders, June 2016**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The Seniors Health Card gives older Australians access to cheaper prescription medicines, Australian government funded medical services, and other government concessions. People eligible for a Seniors Health Card must have reached Age Pension age but do not qualify for a payment by the Department of Human Services or the Department of Veterans' Affairs.

PHA data may be the sum of freely available SA2 data if the publication of PHA data could reveal the value of confidentialised cells at the SA2 level. For these indicators, the number of people receiving this payment may be undercounted by up to four persons or either persons if two indicators are added together such as total unemployment which is the sum of Newstart and Youth allowance.

**Source:** Compiled by PHIDU based on data from the Department of Social Services, June 2016; and the ABS Estimated Resident Population, 30 June 2015.

## Internet access at home, 2011

- **Private dwellings with no Internet connection, 2011**  
– by PHA, LGA, PHN, Quintiles, Remoteness
- **Total private dwellings with an Internet connection, 2011**  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Private dwellings with a Broadband Internet connection, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Private dwellings with a Dial-up Internet connection, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Private dwellings with an 'other' Internet connection, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data include Internet access at private dwellings only; the data for the population in the 3.5% of dwellings for which Internet access was not stated are excluded (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Labour force, 2011 and 2016

- Unemployment, June 2016  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** These estimates, from the Department of Employment's *Small Area Labour Markets – Australia* data series, are based on the Structure Preserving Estimation (SPREE) methodology which enables the generation of small area unemployment, unemployment rate and labour force estimates. They differ from the figures for people receiving an unemployment benefit as different rules are applied to eligibility for a welfare payment and being considered as unemployed in the DoE data. The estimates presented are derived from three primary data sources:

1. Centrelink data on people in receipt of Newstart or Youth Allowance (other) by Statistical Areas Level 2 (SA2);
2. Australian Bureau of Statistics (ABS) Labour Force Survey data by Statistical Areas Level 4; and
3. 2011 Census of Population and Housing participation rate data at the SA2 level.

The unemployment/ labour force estimates presented are based on the 'smoothed' data series, where the data have been averaged over four quarters to minimise the variability inherent in the small area estimates.

**Source:** Compiled by PHIDU based on the *Small Area Labour Markets - Australia*, Department of Employment, June Quarter 2016.

- Labour force participation, June 2016  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** See above **Indicator detail** for *Unemployment, September 2014*

**Source:** Compiled by PHIDU based on the *Small Area Labour Markets - Australia*, Department of Employment, June Quarter 2016; and the ABS Estimated Resident Population, 30 June 2015.

- Female labour force participation, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** As the DoE does not produce small area estimates of female labour force participation, this indicator has been calculated from data in the ABS Population Census. As it is based on self-reported information, and not subject to the criteria for labour force participation applied by the ABS in the Labour Force Survey and used in the DoE estimates, it will not necessarily be consistent with the data for total labour force participants.

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Summary measure of disadvantage, 2011

- Index of Relative Socio-economic Disadvantage (IRSD), 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

For further information see the information provided by the Australian Bureau of Statistics (ABS) at:

<http://www.abs.gov.au/websitedbs/censushome.nsf/home/seifa>

or download the ABS *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011* (Cat. no. 2033.0.55.001) technical paper at: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001>.

**NB:** The 2011 IRSD differs from earlier IRSD releases in that the Indigenous variable has been removed – refer to the technical paper (see above) for further information.

**Source:** Compiled by PHIDU based on ABS Socio-economic Indexes for Areas (SEIFA), 2011 data. Note: The LGA data were re-produced from the ABS originals. Data for other geographic levels were constructed using population weighted averages, based on the published ABS SA2 data.

## Community strengths, personal and financial stressors and barriers to accessing financial and transport services

### Community strengths, 2011 and 2014

#### ABS Census data, 2011

- Voluntary work for an organisation or group - people aged 15 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The 'Voluntary work for an organisation or group' variable records people who spent time doing unpaid voluntary work through an organisation or group in the twelve months prior to Census Night.

The data exclude the 8.2% of people aged 15 years and over whose participation in voluntary work was not stated (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

## Modelled estimates

In the absence of such data from administrative data sets, these modelled estimates were produced at the Population Health Area (PHA) level for selected indicators from the 2014 General Social Survey (GSS), conducted by the ABS. Estimates at the LGA and PHN level were derived from the PHA estimates; estimates for Quintiles and Remoteness are direct estimates from the 2014 General Social Survey, extracted using the ABS Survey TableBuilder.

The GSS survey was conducted by personal interview and collected information about personal and household characteristics for people aged 15 years and over resident in private dwellings across Australia (excluding very remote and people living in discrete Aboriginal and Torres Strait Islander communities), from March to June 2014.

The main purpose of the survey was to provide an understanding of the multi-dimensional nature of relative advantage and disadvantage across the population, and to facilitate reporting on and monitoring of people's opportunities to participate fully in society. For further information on the survey see

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4159.02014?OpenDocument> .

Through the use of synthetic estimation techniques it is possible to produce estimates from survey data at the small area level. Synthetic estimation predicts a value for an area with a small population based on modelled survey data and known characteristics of the area. These modelled estimate can be interpreted as the likely value for a 'typical' area with those characteristics. The model used for predicting small area data is determined by analysing data at a higher geographic level, in this case Australia. The relationship observed at the higher geographic level between the characteristic of interest and known characteristics is assumed to also hold at the small area level. The estimates are made by applying the model to data on the known characteristics that can be reliably estimated at the small area level. This modelling technique can be considered as a sophisticated prorating of Australian estimates to the small area level.

The ABS has used various methods to produce small area predictions from a number of surveys. The methods are described in the *Small Area Estimates Manual version 1.0* which was released in May 2006 and is available on the National Statistical Service website at:

<http://www.nss.gov.au/nss/home.NSF/pages/Small+Areas+Estimates?OpenDocument>

**Users of these modelled estimates should note that they do not represent data collected in administrative or other data sets. As such, they should be used with caution, and treated as indicative of the likely social dimensions present in an area with these demographic and socioeconomic characteristics.**

As noted above, the numbers are estimates for an area, not measured events. As such, they should be viewed as a tool that, when used in conjunction with local area knowledge and taking into consideration the prediction reliability, can provide useful information that can assist with decision making for small geographic regions. Of particular note is that the true value of the published estimates is also likely to vary within a range of values as shown by the upper and lower limits published in the data (xls) and viewable in the bar chart in the single map atlases.

What the estimates do achieve, however, is to summarise the various demographic, socioeconomic and administrative information available for an area in a way that indicates the expected social dimensions for a typical area in Australia with the same characteristics. In the absence of accurate, localised information about these indicators, such predictions can usefully contribute to policy and program development, service planning and other decision-making processes that require an indication of the geographic distribution of the social indicator.

The published GSS data and these small area estimates differ in scope. The 2014 GSS covered people living in private dwellings in urban and rural areas and excluded people in very remote areas and people living in discrete Aboriginal and Torres Strait Islander communities. As such estimates were not produced for PHAs with more than 50% of their populations residing in Very Remote CDs. Due to the exclusion of people living in CDs in Very Remote areas of Australia, survey estimates for the majority of PHAs in the Northern Territory are unreliable.

This and other limitations of the method mean that predictions have not been published for areas:

- 1) with populations under 1,000;
- 2) in which 50% or more of the population lives in Very Remote areas, as determined by ABS;
- 3) in which Aboriginal people comprise 75% or more of the population; and
- 4) where the relative root mean square errors (RRMSEs) on the predictions was 1 or more.

**Note:** Estimates with RRMSEs from 0.25 and to 0.50 have been marked (~) to indicate that they should be used with caution; and those greater than 0.50 but less than 1 are marked (~~) to indicate that the prediction is considered too unreliable for general use.

- [Estimated number of people aged 18 years and over who did unpaid voluntary work in the last 12 months through an organisation \(modelled estimates\), 2014](#)  
– by PHA, LGA, PHN, Quintiles and Remoteness
- [Estimated number of people aged 18 years and over who are able to get support in times of crisis from people outside the household \(modelled estimates\), 2014](#)  
– by PHA, LGA, PHN, Quintiles and Remoteness
- [Estimated number of people aged 18 years and over \(or their partner\) who provide support to other relatives living outside the household \(modelled estimates\), 2014](#)  
– by PHA, LGA, PHN, Quintiles and Remoteness
- [Estimated number of people aged 18 years and over who disagree/strongly disagree with acceptance of other cultures \(modelled estimates\), 2014](#)  
– by PHA, LGA, PHN, Quintiles and Remoteness



- Estimated number of people aged 18 years and over who, in the past 12 months, felt that they had experienced discrimination or have been treated unfairly by others (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS from the 2014 General Social Survey; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014 General Social Survey, ABS Survey TableBuilder.

## Personal and financial stressors (modelled estimates), 2014

- Estimated number of people aged 18 years and over whose household could raise \$2,000 within a week (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who had government support as their main source of income in the last 2 years (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who had government support as their main source of income, for 13 months or more, within the past 24 months (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS from the 2014 General Social Survey; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014 General Social Survey, ABS Survey TableBuilder.

## Barriers to accessing financial and transport services (modelled estimates), 2014

- Estimated number of people aged 18 years and over who often have a difficulty or cannot get to places needed with transport, including housebound (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who experienced a barrier to accessing healthcare when needed it in the last 12 months, with main reason being cost of service (modelled estimates), 2014  
– by PHA, LGA, PHN, Quintiles and Remoteness

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS from the 2014 General Social Survey; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014 General Social Survey, ABS Survey TableBuilder.

## Health status, disease prevention, disability and deaths

### Mothers and babies, 2012 to 2014 and 2014-15

- Low birth weight babies, 2012 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

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

As these data were collected from each State and Territory health agency, they may exclude people who live in one State/Territory and used a service in another. The main occurrences are for people living near State/Territory borders such as in Albury (NSW) and Wodonga (Vic), Tweed (NSW) and Gold Coast (Qld) and from the APY Lands (SA) using services in Alice Springs (NT).

**Source:** Compiled by PHIDU based on data from: NSW Department of Health; Consultative Council on Obstetric and Paediatric Mortality and Morbidity, Victoria; Perinatal Data Collection, Department of Health, Queensland; Department of Health and Ageing SA; WA Department of Health; Tasmanian Perinatal Database; NT Department of Health; ACT Health.

- **Smoking during pregnancy, 2012 to 2014**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data comprise the women who reported that they smoked during a pregnancy, expressed as a proportion of the number of pregnancies. Note that the data may include women who were pregnant more than once during the time period (3 years).

As these data were collected from each State and Territory health agency, they may exclude people who live in one State/Territory and used a service in another. The main occurrences are for people living near State/Territory borders such as in Albury (NSW) and Wodonga (Vic), Tweed (NSW) and Gold Coast (Qld) and from the APY Lands (SA) using services in Alice Springs (NT).

**Source:** Compiled by PHIDU based on data from: NSW Department of Health; Consultative Council on Obstetric and Paediatric Mortality and Morbidity, Victoria; Perinatal Data Collection, Department of Health, Queensland; Department of Health and Ageing SA; WA Department of Health; Tasmanian Perinatal Database; NT Department of Health; ACT Health.

- **Breastfeeding (modelled estimates), 2014–15**

In the absence of data from administrative data sets, estimates have been produced for breastfeeding from the 2014–15 National Health Survey (NHS), conducted by the ABS. For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

**Note:** The modelled estimates for the following indicators are based on models containing a small number of predictor variables than available for other modelled estimates. The ABS advise that reasons for this may include a low sample count for the outcome variable and/or small variation/similar characteristics within the sample for the outcome variable. Caution should be applied when interpreting the modelled estimates for these outcome variables, as it is possible that the sample is not representative of the total population with these characteristics of interest.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

- **Fully breastfed babies at 3 months, 2014–15**

– by PHA, LGA, PHN

**Indicator detail:** The data comprise the estimated number of children aged 3 to 24 months who were fully breastfed at 3 months of age.

- **Fully breastfed babies at 6 months, 2014–15**

– by PHA, LGA, PHN

**Indicator detail:** The data comprise the estimated number of children aged 3 to 24 months or under who were fully breastfed at 6 months of age.

- **Children who first ate soft, semi-solid or solid food before 4 months of age, 2014-15**

– by PHA, LGA, PHN

**Indicator detail:** The data comprise the estimated number of children aged 3 years or under who first ate soft, semi-solid or solid food before 4 months of age.

**Estimates for this indicator differ from estimates presented on the ABS website which comprise children who first ate soft, semi-solid or solid food before 5 months of age.**

## Child and youth health, 2010 to 2014, 2015 and 2016

- **Children fully immunised at 1 year of age, 2 years of age and 5 years of age, 2015**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are of registered\* 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.

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

\*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.

**Source:** Compiled by PHIDU based on data provided by the Australian Childhood Immunisation Register, Medicare Australia, 2015.

- HPV vaccine coverage: females aged 12-13 years in mid-2013, who received Dose 3 of the vaccine by 2016 – by PHA, LGA, PHN, Quintiles, Remoteness
- HPV vaccine coverage: males aged 12-13 years in mid-2013, who received Dose 3 of the vaccine by 2016 – by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are for females and males who were aged 12 to 13 years as at 30 June 2013, and who received three doses of the HPV vaccination by 29 February 2016. Females and males receiving all three doses represent those fully vaccinated.

Where there were fewer than ten participants in an area, the data are not shown.

Where there were fewer than ten participants in an area, the data are not shown. In addition, data for LGAs with fewer than 26 females aged 12 to 13 years in their population in 2011 have been suppressed.

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.

There are a number of instances in which percentages calculated for an area show as greater than 100% in the data. These may occur as a result of the numerator (the number of females vaccinated) being inaccurate where:

- the data have not been geo-coded, and the geographic area at which the data are available is the postcode; postcode data are allocated to a PHA on the basis of the proportion of the postcode which falls into a PHA, which can result in allocation to the wrong PHA; the conversion is undertaken using approximate allocations of postcode populations (based on the best fit of Census Collection Districts (CDs) to postcode areas) to LGAs, derived from data at the previous Census. In many instances this conversion represents a crude allocation of the population of any LGA. For example, in many cases the boundaries of CDs do not match the boundaries of postcodes, and whole CDs are allocated to the postcode into which the population largely falls;
- a person's address is recorded on the register as the place where an event occurred (e.g., a school, GP or immunisation clinic), rather than the person's home address; or
- a client is recorded twice on a database or register. This may occur if inadequate information is provided to the register to allow the appropriate matching processes to occur.

**Source:** Compiled by PHIDU using data from the National HPV Vaccination Program Register (NHVPR), July 2016; and the ABS Census Estimated Resident Population (ERP) 2013.

- Infant deaths, 2010 to 2014 – by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are of deaths that occurred before 12 months of age.

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

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. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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%20Notes12013?OpenDocument>.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The births data for 2010 to 2014 were compiled from the [ABS National Regional Profile, 2010-14 \(ABS Cat. no. 1379.0.55.001\)](#).

- Child mortality: Deaths of children aged 1 to 4 years, 2010 to 2014 – by PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are of deaths between 1 and 4 years of age. These data have not been mapped at finer geographies as the numbers are relatively small.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level is the ABS Estimated Resident Population (ERP), 30 June 2010 to 30 June 2014, Statistical Areas Level 2; the population standard is the ABS ERP for Australia, 30 June 2010 to 30 June 2014.

- **Youth mortality: Deaths of persons aged 15 to 24 years, 2010 to 2014**  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

For 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. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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%20Notes12013?OpenDocument>.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level is the ABS Estimated Resident Population (ERP), 30 June 2010 to 30 June 2014, Statistical Areas Level 2; the population standard is the ABS ERP for Australia, 30 June 2010 to 30 June 2014.

## Screening programs, 2007 to 2011 and 2012/13

### Bowel screening, 2012/13

**Conditions of Use for all *Bowel screening* data:** Users of the National Bowel Cancer Screening Program (NBCSP) data must acknowledge the Department of Health as the original source of the data and include the following disclaimer:

1. *Formal publication and reporting of the NBCSP data is undertaken by the Australian Institute of Health and Welfare on behalf of the Department of Health. NBCSP data included in this report provided by the Department of Health are not part of the formal publication and reporting process for NBCSP data.*
2. *Cautionary note about small numbers - Due to a larger degree of statistical fluctuation in small numbers, great care should be taken when assessing apparent differences involving small numbers and measures based on small numbers.*

**Source:** Compiled by PHIDU based on data provided by the Department of Health from the National Bowel Cancer Screening Program, 2012/13.

- **Total males who participated in the National Bowel Cancer Screening Program, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness
- **Total females who participated in the National Bowel Cancer Screening Program, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness
- **Total people who participated in the National Bowel Cancer Screening Program, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data comprise the number of males/ females/ people aged 50, 55 or 65 years who participated in the National Bowel Cancer Screening Program between July 2012 and June 2013, expressed as a proportion of the number of males/ females/ people aged 50, 55 or 65 years who were invited to participate in the National Bowel Cancer Screening Program between July 2012 and June 2013.

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

- **National Bowel Cancer Screening Program: positive test result, males, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness
- **National Bowel Cancer Screening Program: positive test result, females, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness
- **National Bowel Cancer Screening Program: positive test result, people, 2012/13**  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

Where there are fewer than five people with a positive test result in an area, the data have been suppressed to protect confidentiality.

The data comprise the number of males/ females/ people aged 50, 55 or 65 years who received a positive test result from the Faecal Occult Blood Test (FOBT) in the National Bowel Cancer Screening Program between July 2012 and June 2013, expressed as a proportion of the number of males/ females/ people aged 50, 55 or 65 years who participated in the National Bowel Cancer Screening Program between July 2012 and June 2013.

## Breast screening, 2007 and 2008, and 2010 and 2011

- Breast screening participation, females aged 50 to 69 years, 2010 and 2011 (NSW, Vic, Qld, SA & WA), 2007 and 2008 (ACT)  
– by LGA, Quintiles, Remoteness

**Indicator detail:** The participation rate for the 24-month period to the end of each calendar year is based on the actual number of women screened as a percentage of the average of the ABS Estimated Resident Population for the two corresponding calendar years. If a woman has attended more than once in the 24 months, she is counted once only, and the age is taken from the first visit.

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

The data for the Western Australian SLAs of Fremantle (C) - Inner and Fremantle (C) - Remainder have been pooled together; as have data for Narrogin (S) and Narrogin (T); and Perth (C) - Inner and Perth (C) - Remainder.

In some instances, percentages are calculated at greater than 100%; this may be the result of:

- the address data being a postcode which is not allocated to the correct area by the concordances available; or
- the address of the facility where the consultation is held or the service is provided being used, rather than the address of the client/ patient.

In time, with more reliable recording of address details, these occurrences should be reduced.

Data are not available for Tasmania or the Northern Territory.

As these data were collected from each State and Territory health agency, they may exclude people who live in one State/Territory and used a service in another. The main occurrences are for people living near State/Territory borders such as in Albury (NSW) and Wodonga (Vic), Tweed (NSW) and Gold Coast (Qld) and from the APY Lands (SA) using services in Alice Springs (NT).

**Source:** Compiled by PHIDU based on data from:

1) BreastScreen NSW, BreastScreen Vic, BreastScreen Qld, BreastScreen SA, BreastScreen WA - 2010 and 2011; and BreastScreen ACT - 2007 and 2008; and

2) average of the ABS Estimated Resident Population, 30 June 2010 and 30 June 2011 (NSW, Vic, Qld, SA & WA); 30 June 2007 and 30 June 2008 (ACT).

- Breast screening outcomes - cancer, females aged 50 to 69 years, 2010 and 2011 (NSW, Vic, Qld & WA), 2007 and 2008 (ACT)  
– by LGA, Quintiles, Remoteness

**Indicator detail:** The breast screening outcomes for the 24-month period to the end of each calendar year is based on the actual number of women diagnosed with breast cancer as an age-standardised rate of the actual number of women screened for the two corresponding calendar years. If a woman has attended more than once in the 24 months, she is *counted* once only, and the age is taken from the first visit.

Breast cancers include both invasive and ductal carcinoma in situ (DCIS).

The indirectly age-standardised rate per 10,000 women screened is based on the standard population of each respective jurisdiction.

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

The data for the Western Australian SLAs of Fremantle (C) - Inner and Fremantle (C) - Remainder have been pooled together; as have data for Narrogin (S) and Narrogin (T); and Perth (C) - Inner and Perth (C) - Remainder.

Data are not available for South Australia, Tasmania and the Northern Territory.

As these data were collected from each State and Territory health agency, they may exclude people who live in one State/Territory and used a service in another. The main occurrences are for people living near State/Territory borders such as in Albury (NSW) and Wodonga (Vic) and Tweed (NSW) and Gold Coast (Qld).

**Source:** Compiled by PHIDU based on data from BreastScreen NSW, BreastScreen Vic, BreastScreen Qld, BreastScreen WA - 2010 and 2011; and BreastScreen ACT - 2007 and 2008.

## Cervical screening, 2013 and 2014

- Cervical screening participation, females aged 20 to 69 years, 2013 and 2014 (NSW, Vic, SA, WA & ACT)  
– by PHA, PHN, LGA, Quintiles, Remoteness

**Indicator detail:** The participation rate for the 24-month period to the end of each calendar year is based on the actual number of women screened as a percentage of the average of the ABS Estimated Resident Population for the two corresponding calendar years, excluding an estimate of those who had undergone a full hysterectomy. If a woman has attended more than once in the 24 months, she is counted once only, and the age is taken from the first visit.

In some instances, percentages are calculated at greater than 100%; this may be the result of:

- the address data being a postcode which is not allocated to the correct geographical area by the concordances available; or

- the address of the facility where the consultation is held or the service is provided being used, rather than the address of the client/ patient.

In time, with more reliable recording of address details, these occurrences should be reduced.

ACT totals include all of postcode 2618, although approximately 50% of the population in this postcode reside in NSW.

Cervical screening participation numbers within geographic areas along the Victorian and New South Wales borders, specifically the Murray PHN and the Albury Local Government Authority, may be under estimated because women screened in Victoria but who reside in New South Wales may not be fully allocated to the New South Wales geographic area.

Data are not available for Queensland (to be available later in 2017), Tasmania or the Northern Territory.

**Source:** Compiled by PHIDU based on data from the:

1) NSW Department of Health and NSW Central Cancer Registry, 2013 and 2014; Victorian Cervical Cytology Registry, 2013 and 2014; SA Cervix Screening Program, 2013 and 2014; Western Australia Cervical Cytology Register, 2013 and 2014; and ACT Cytology Register, 2013 and 2014; and  
2) the average of the ABS Estimated Resident Population, 30 June 2013 and 30 June 2014 (NSW, Vic, WA, SA and ACT); with hysterectomy fraction data derived from the AIHW analysis of the National Hospital Morbidity Database. Available at Australian Institute of Health and Welfare 2016. Cervical screening in Australia 2013-14. Cancer series no. 97. Cat. no. CAN 95. Canberra: AIHW. Appendix C.

- Cervical screening outcomes: low grade abnormality, females aged 20 to 69 years, 2013 and 2014 (NSW, Vic, SA, WA & ACT)  
– by PHA, PHN, LGA, Quintiles, Remoteness
- Cervical screening outcomes: high grade abnormality, females aged 20 to 69 years, 2013 and 2014 (NSW, Vic, SA, WA & ACT)  
– by PHA, PHN, LGA, Quintiles, Remoteness

**Indicator detail:** Cervical screening outcomes for the 24-month period to the end of each calendar year are based on the number of women with an abnormal pap smear as an age-standardised rate of the number of women screened in the corresponding calendar years. If a woman has attended more than once in the 24 months with both low and high grade abnormality results, she is counted once only in the high-grade abnormality category, being the most serious result.

Low grade abnormalities are cytology test results S2, S3 and E2 according to the national cytology coding schedule.

High grade abnormalities are cytology test results S4, S5, S6, E3, E4 and E5 according to the national cytology coding schedule.

ACT totals include all of postcode 2618, although approximately 50% of the population in this postcode resides in NSW.

Rates of low and high grade abnormality within geographic areas along the Victorian and New South Wales borders, specifically the Murray PHN and the Albury Local Government Authority, may be under estimated because women tested in Victoria but who reside in New South Wales may not be fully allocated to the New South Wales geographic area.

The indirectly age-standardised rate per 1,000 women screened is based on the standard population of women screened in each respective jurisdiction.

Data are not available for Tasmania, Queensland and the Northern Territory.

**Source:** Compiled by PHIDU based on data from the NSW Department of Health and NSW Central Cancer Registry, 2013 and 2014; Victorian Cervical Cytology Registry, 2013 and 2014; SA Cervix Screening Program, 2013 and 2014; Western Australia Cervical Cytology Register, 2013 and 2014; and ACT Cytology Register, 2013 and 2014.

## Cancer incidence, 2006 to 2010

### Males

- Prostate cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Colorectal cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Melanoma of the skin incidence, 2006 to 2010 – by PHA, LGA, PHN and quintiles, remoteness
- Lung cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Head and neck cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Lymphoma cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Leukaemia cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Bladder cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Kidney cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Pancreatic cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- Stomach cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- All other cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- All cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness

### Females

- Breast cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Colorectal cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Melanoma of the skin incidence, 2006 to 2010 – by PHA, LGA, PHN and quintiles, remoteness
- Lung cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Uterine cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Lymphoma cancer incidence, 2006 to 2010 – by PHA, LGA, PHN, quintiles and remoteness
- Thyroid cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- Leukaemia cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- Ovarian cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- Pancreatic cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- All other cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness
- All cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness

### Persons

- All cancer incidence, 2006 to 2010 – by PHN, quintiles and remoteness

**Indicator detail:** These data exclude all cases of basal cell carcinoma (BCC) of the skin and squamous cell carcinoma (SCC) of the skin.

Calculation of standardised rates of cancer incidence used age group data from the Australian Cancer Database (ACD) 2012, maintained by the Australian Institute of Health and Welfare (AIHW). The following data were not available in time for inclusion in the 2012 ACD: (1) 2009 provisional death-certificate-only (DCO) data for NSW and ACT; (2) 2010 provisional DCO data for ACT. In order to be able to present national data for these years the AIHW calculated estimates for these missing data. For details, see the data quality statement at <http://meteor.aihw.gov.au/content/index.phtml/itemId/624388>

The standardised rates presented will differ from those available on the AIHW website. The AIHW calculated directly age-standardised rates using the 2001 Australian Standard Population, compared to the indirectly age-standardised rates herein that were calculated using the Estimated Resident Population for 2006 through 2010. This is of particular relevance for rates for Primary Health Networks and the 'all cancer' rates for Population Health Areas.

To protect confidentiality, the following data have been suppressed:

- all data where there are fewer than five events in an area; however, where there were no cases, zero is shown
- rates/ratios where there are from five to nine events in an area, though the number itself is shown

Additional data about these and other cancers are available from the Australian Institute of Health and Welfare website, including at <http://www.aihw.gov.au/acim-books/>

**Detail of analysis:** Indirectly age-standardised rate per 100,000 population; or indirectly age-standardised ratio, based on the Australian standard.

**Source:** Compiled by PHIDU from an analysis by the Australian Institute of Health and Welfare (AIHW) of the Australian Cancer Database (ACD) 2012. The ACD is compiled at the AIHW from cancer data provided by state and territory cancer registries: for further information on the ACD see <http://www.aihw.gov.au/australian-cancer-database/>.

## Self-assessed health (modelled estimates), 2014–15

In the absence of data from administrative data sets, estimates were produced for selected health risk factors from the 2014–15 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS). For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

- [Estimated number of people aged 15 years and over, who reported their self-assessed health as fair or poor, 2014–15– by PHA, LGA, PHN, Quintiles and Remoteness](#)

**Indicator detail:** The data on which the estimates are based are self-reported responses, reported to interviewers in the 2014–15 NHS. 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'). The data reported are the sum of responses categorised as 'poor' or 'fair'.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014–15 Australian Health Survey, ABS Survey TableBuilder.

## Prevalence of selected chronic diseases and conditions (modelled estimates), 2011–12

**Note:** These indicators have not been updated to reflect information in the 2014–15 National Health Survey; however, estimates of selected health risk factors, presented below, have been updated. The modelling of these estimates has been held over until a final decision is made as to access by PHIDU to small area data considered to be highly relevant for use as small area predictors in the production of these estimates. For example, for the indicator of diabetes type 2, the MBS item for HbA1c and, for mental health conditions, anti-depressant medications from PBS both add strength to the available predictors. If the data continue to be unavailable, work will proceed with the current predictors.

In the absence of data from administrative data sets, estimates were produced for selected health risk factors from the 2011–12 Australian Health Survey (AHS), conducted by the Australian Bureau of Statistics (ABS). For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2011–12 Australian Health Survey, ABS Survey TableBuilder.

- [Estimated population, aged 18 years and over with diabetes mellitus, 2011–12 – by PHA, LGA, PHN, Quintiles, Remoteness](#)

**Indicator detail:** The prevalence of diabetes mellitus was measured by a glycosylated haemoglobin test (commonly referred to as HbA1c), derived from tests on blood samples from volunteering participants selected as part of the AHS: people with an HbA1c level of greater than or equal to 6.5% were recorded as having diabetes mellitus (6.5% is the World Health Organization's recommended diagnostic cut-off point for diabetes mellitus).

- [Estimated population aged 18 years and over with high blood cholesterol, 2011–12 – by PHA, LGA, PHN, Quintiles, Remoteness](#)

**Indicator detail:** Total cholesterol results were obtained for selected people aged 12 years and over, who agreed to participate in the NHMS component of the AHS and provided a blood sample. The total cholesterol test measures the combined amount of lipid (fat) components circulating in the blood at the time of the test. Fasting was not required. In the NHMS, the following definition for high serum total cholesterol was used: abnormal total cholesterol indicated by levels  $\geq 5.5$  mmol/L. This was based on epidemiological data and publications of major clinical trials, and advice from the National Heart Foundation Australia and the Cardiac Society of Australia and New Zealand. The data therefore refer to people with a total blood cholesterol level  $\geq 5.5$  mmol/L.

- [Estimated male population with mental and behavioural problems, 2011–12 – by PHA, LGA, PHN, Quintiles, Remoteness](#)

**Indicator detail:** Mental health and behavioural problems were identified through self-reported information on long-term conditions as part of the AHS. When respondents aged 15 years and over reported a long-term mental or behavioural problem, the conditions were treated in a similar manner to other long-term conditions, such as diabetes and asthma. Up to six long-term mental and behavioural problems could be recorded. Some possible conditions were behavioural or emotional disorders; dependence on drugs or alcohol; feeling anxious or nervous; and depression, and feeling depressed. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.



- **Estimated female population with mental and behavioural problems, 2011–12**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Mental health and behavioural problems were identified through self-reported information on long-term conditions as part of the AHS. When respondents aged 15 years and over reported a long-term mental or behavioural problem, the conditions were treated in a similar manner to other long-term conditions, such as diabetes and asthma. Up to six long-term mental and behavioural problems could be recorded. Some possible conditions were behavioural or emotional disorders; dependence on drugs or alcohol; feeling anxious or nervous; and depression, and feeling depressed. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with mental and behavioural problems, 2011–12**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Mental health and behavioural problems were identified through self-reported information on long-term conditions as part of the AHS. When respondents aged 15 years and over reported a long-term mental or behavioural problem, the conditions were treated in a similar manner to other long-term conditions, such as diabetes and asthma. Up to six long-term mental and behavioural problems could be recorded. Some possible conditions were behavioural or emotional disorders; dependence on drugs or alcohol; feeling anxious or nervous; and depression, and feeling depressed. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population aged 2 years and over with circulatory system diseases, 2011–12**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** As part of the AHS, respondents aged two years and over were asked if they had ever been told by a doctor or nurse that they had one or more heart or other circulatory system conditions and if they considered they currently have one or more such conditions. The following conditions, however, were assumed to be current long-term conditions:

- rheumatic heart disease;
- heart attack;
- heart failure;
- stroke;
- angina.

A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with respiratory system diseases, 2011–12**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** In the AHS, these data refer to respondents ever having been told by a doctor or nurse that they have asthma, bronchitis, emphysema or other respiratory system disease; or not diagnosed but who consider their condition to be current and long-term. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with asthma, 2011–12**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** In the AHS, these data refer to respondents ever having been told by a doctor or nurse that they have asthma, and whose asthma is current and long-term. Whether a person's asthma is current or not was determined by whether they had had any symptoms of asthma or taken treatment for asthma in the last 12 months. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with chronic obstructive pulmonary disease, 2011–12**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** In the AHS, these data refer to respondents ever having been told by a doctor or nurse that they have bronchitis or emphysema (chronic obstructive pulmonary disease [COPD]); or not diagnosed but who consider their condition to be current and long-term. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with musculoskeletal system diseases, 2011–12**

– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** In the AHS, these data refer to respondents ever having been told by a doctor or nurse that they have a disease of the musculoskeletal system and connective tissue; or not diagnosed but who consider their condition to be current and long-term. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

- **Estimated population with arthritis, 2011–12**  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** In the AHS, these data refer to respondents who were asked whether they have, or had ever had:

- gout;
- rheumatism;
- arthritis;
- osteoarthritis;
- rheumatoid arthritis;
- other types of arthritis.

If they reported either gout or rheumatism, they were then asked whether their condition was expected to last for six months or more. If they identified an arthritis condition, other than gout or rheumatism, they were asked whether they had ever been told by a doctor or nurse that they have the condition. Only people whose arthritis was current and long-term were recorded as having arthritis. People who reported having arthritis, which was not current and long-term, were recorded as not having arthritis. A long-term condition is defined as a condition that is current and has lasted, or is expected to last, for 6 months or more.

## Prevalence of selected health risk factors for adults (modelled estimates), 2014–15

In the absence of data from administrative data sets, estimates have been produced for selected health risk factors from the 2014–15 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS). For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014–15 Australian Health Survey, ABS Survey TableBuilder.

## Psychological distress (modelled estimates), 2014–15

- Estimated number of people aged 18 years and over with high or very high psychological distress based on the Kessler 10 Scale (K10), 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** Information was collected from respondents aged 18 years and over using the Kessler Psychological Distress Scale-10 (K10). This ten-item questionnaire yields a measure of psychological distress based on questions about negative emotional states (with different degrees of severity) experienced in the four weeks prior to interview. For each question, there is a five-level response scale based on the amount of time that a respondent experienced those particular feelings. The response options are ‘none of the time’; ‘a little of the time’; ‘some of the time’; ‘most of the time’; or ‘all of the time’. Each of the items are scored from 1 for ‘none’ to 5 for ‘all of the time’. Scores for the ten items are summed, yielding a minimum possible score of 10 and a maximum possible score of 50, with low scores indicating low levels of psychological distress and high scores indicating high levels of psychological distress.

K10 results are commonly grouped for output. Results are grouped into the following four levels of psychological distress: ‘low’ (scores of 10-15, indicating little or no psychological distress); ‘moderate’ (scores of 16-21); ‘high’ (scores of 22-29); and ‘very high’ (scores of 30-50). Based on research from other population studies, a ‘very high’ level of psychological distress shown by the K10 may indicate a need for professional help. For the indicator in this atlas, data are for respondents aged 18 years and over who scored in the ‘high’ and ‘very high’ levels of psychological distress.

## Blood pressure (modelled estimates), 2014–15

- Estimated number of people aged 18 years and over who had high blood pressure, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The modelled estimates are based on details of people in the sample who had their blood pressure measured in the 2014–15 NHS. High blood pressure is defined as measured systolic BP of 140 mmHg or more or diastolic BP of 90 mmHg or more, irrespective of the use of BP medication.

## Overweight, obesity and waist measurement (modelled estimates), 2014–15

- Estimated number of males aged 18 years and over who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of males aged 18 years and over who were obese, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of females aged 18 years and over who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

- Estimated number of females aged 18 years and over who were obese, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who were obese, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The Body Mass Index (BMI) (or Quetelet's index) is a measure of relative weight based on an individual's mass and height. The height (cm) and weight (kg) of respondents, as measured during the NHS interview, were used to calculate the BMI as follows:

- Overweight (but not obesity) was determined where a person's BMI was between 25 and less than 30.
- Obesity was determined where a person's BMI was 30 or greater.

The BMI is a useful tool at a population level for measuring trends in body weight, and helping to define population groups who are at higher risk of becoming obese, and therefore developing long-term medical conditions associated with a high BMI, such as type 2 diabetes and cardiovascular disease.

Note that the modelled estimates are based on the 73.2% of adults in the sample who had their height and weight measured.

- Estimated number of males aged 18 years and over with a waist measurement indicating an increased/substantially increased risk of developing chronic diseases, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of females aged 18 years and over with a waist measurement indicating an increased/substantially increased risk of developing chronic diseases, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over with a waist measurement indicating an increased/substantially increased risk of developing chronic diseases, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** Waist circumference is a commonly used measure of whether a person is of a healthy weight or not. In particular, it provides a good estimate of body fat, and can indicate a person's potential risk of developing chronic diseases such as heart disease and Type 2 diabetes.

A waist measurement of 94cm or more for men or 80cm or more for women indicates that a person is at increased risk of developing chronic disease; see World Health Organisation, 2000, Obesity: preventing and managing the global epidemic. Report of a WHO Consultation, 2000, <[http://libdoc.who.int/trs/WHO\\_TRS\\_894.pdf](http://libdoc.who.int/trs/WHO_TRS_894.pdf)>; last accessed 30 January 2017

Note that the modelled estimates are based on the 71.2% of adults in the sample who had their waist circumference measured.

## Smoking (modelled estimates), 2014–15

- Estimated number of males aged 18 years and over who were current smokers, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of females aged 18 years and over who were current smokers, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness
- Estimated number of people aged 18 years and over who were current smokers, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The data on which the estimates are based are self-reported responses, reported to interviewers in the 2014–15 NHS. A current smoker is an adult who reported at the time of interview that they smoked manufactured (packet) cigarettes, roll-your-own cigarettes, cigars, and/or pipes at least once per week. It excludes chewing tobacco and smoking of non-tobacco products. As part of the AHS, respondents aged 18 years and over were asked to describe their smoking status at the time of interview as:

1. current smokers: daily, weekly, other;
2. ex-smokers;
3. never smoked (those who had never smoked 100 cigarettes, nor pipes, cigars or other tobacco products at least 20 times, in their lifetime).

For the indicator in this atlas, data are for respondents aged 18 years and over who responded that they were “a current, daily or at least once weekly smoker”.

800.

## Alcohol: lifetime risky drinking (modelled estimates), 2014–15

- Estimated number of people aged 15 years and over who consumed more than two standard alcoholic drinks per day on average, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The data on which the estimates are based are self-reported responses, reported to interviewers in the 2014–15 NHS. The National Health and Medical Research Council guidelines for lifetime risk state that, for healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.

## Fruit consumption (modelled estimates), 2014–15

- Estimated number of adults aged 18 years and over with adequate fruit intake, 2014–15  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Adequate fruit consumption as shown here is equivalent to the minimum number of serves recommended in the 2013 NHMRC Australian Dietary Guidelines, of 2 serves for people aged 18 years and over. The data on which the estimates are based are self-reported responses, reported to interviewers in the 2014–15 NHS.

## Exercise (modelled estimates), 2014–15

- Estimated number of people aged 18 years and over who undertook no or low exercise in the week prior to the survey, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The data on which the estimates were based are self-reported responses, reported to interviewers in the 2014–15 NHS. The modelled estimates were based on data for exercise undertaken for fitness, sport or recreation in the week prior to being interviewed. Exercise level was calculated 'Duration of exercise (minutes) x Intensity factor (walking for fitness = 3.5, moderate = 5, vigorous = 7.5): low exercise refers to scores of less than 800.

## Prevalence of selected health risk factors for children (modelled estimates), 2014–15

In the absence of data from administrative data sets, estimates have been produced for selected health risk factors from the 2014–15 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS). For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

## Overweight and obesity (children) (modelled estimates), 2014–15

- Estimated number of male children aged 2-17 years who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN
- Estimated number of male children aged 2-17 years who were obese, 2014–15  
– by PHA, LGA, PHN
- Estimated number of female children aged 2-17 years who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN
- Estimated number of female children aged 2-17 years who were obese, 2014–15  
– by PHA, LGA, PHN
- Estimated number of children aged 2-17 years who were overweight (but not obese), 2014–15  
– by PHA, LGA, PHN
- Estimated number of children aged 2-17 years who were obese, 2014–15  
– by PHA, LGA, PHN

**Indicator detail:** The Body Mass Index (BMI) (or Quetelet's index) is a measure of relative weight based on an individual's mass and height. The height (cm) and weight (kg) of respondents, as measured during the NHS interview, were used to calculate the BMI – details at

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/4363.0.55.001Appendix402011-13?opendocument&tabname=Notes&prodno=4363.0.55.001&issue=2011-13&num=&view=>

Note that the modelled estimates are based on the 62.3% of children in the sample who had their height and weight measured.

## Fruit consumption (children) (modelled estimates), 2014–15

- Estimated number of children aged 4-17 years with adequate fruit intake, 2014–15  
– by PHA, LGA, PHN

**Indicator detail:** Adequate fruit consumption as shown here is equivalent to the minimum number of serves recommended in the 2013 NHMRC Australian Dietary Guidelines, of 1.5 serves for children aged 4 to 8 years and 2 for children aged 9 to 17 years. The data on which the estimates are based are self-reported responses, reported to interviewers in the 2014–15 NHS.

## Selected composite indicators (modelled estimates), 2014–15

- Estimated number of males, females and persons aged 18 years and over with at least one of four risk factors (current smokers, high risk alcohol, obese, no or low exercise in the previous week), 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

**Indicator detail:** The four risk factors are: current smokers; consuming alcohol at levels considered to be a high risk to health over their lifetime; obese from measured height and weight; and no or low exercise in the week prior to interview. See each indicator for definitions.

## Disability, 2011

- Assistance to people with a disability (unpaid), 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The 'Assistance to persons 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 exclude the 8.5% of people aged 15 years and over whose unpaid assistance to people with a disability was not stated (the proportion excluded was calculated based on the Australian data).

**Source:** Compiled by PHIDU based on ABS Census 2011 data.

- People with a profound or severe disability (includes people in long-term accommodation), All ages, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People with a profound or severe disability and living in the community, All ages, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People with a profound or severe disability (includes people in long-term accommodation), 0 to 64 years, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People with a profound or severe disability and living in the community, 0 to 64 years, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People with a profound or severe disability (includes people in long-term accommodation), 65 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness
- People with a profound or severe disability and living in the community, 65 years and over, 2011  
– by PHA, LGA, PHN, Quintiles, Remoteness

**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 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 people living in these accommodation types, whereas the figure for 'living in the community' excludes them.

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

**Source:** Compiled by PHIDU based on the ABS Census 2011 (unpublished) data.

## Median age at death, 2010 to 2014

- Median age at death of males, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

- Median age at death of females, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Median age at death of persons, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** 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, with data being released as preliminary, revised, or final. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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>.

**LGA data only:** The Local Government Area (LGA) data are based on a concordance allocating deaths coded to Statistical Areas Level 2 (SA2). However, where an SA2 is split across multiple LGAs, the data for the whole SA2 have been assigned to the LGA with the largest proportion of the SA2s population. As a result, some LGAs were not allocated any deaths; where this occurred, these LGAs were assigned the median age at death of the SA2 from which the LGA was split. A check of the median age at death for a majority of these cases has shown that there is little difference in the end result.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System.

### Premature mortality by sex, 2010 to 2014

- Deaths of males aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Deaths of females aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Total deaths, 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

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

For 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, with data being released as preliminary, revised, or final. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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>.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level is the ABS Estimated Resident Population (ERP), 30 June 2010 to 30 June 2014, Statistical Areas Level 2; the population standard is the ABS ERP for Australia, 30 June 2010 to 30 June 2014.

### Premature mortality by selected cause, 2010 to 2014

- Deaths from cancer, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** C00-D48

- Deaths from colorectal cancer, persons aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** C18-C20

- Deaths from lung cancer, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** C33, C34

- Deaths from breast cancer, females aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** C50

- Deaths from diabetes, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** E10-E14

- Deaths from circulatory system diseases, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** I00-I99

- Deaths from ischaemic heart disease, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** I20-25

- Deaths from cerebrovascular disease, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** I60-I69

- Deaths from respiratory system diseases, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** J00-J99

- Deaths from chronic obstructive pulmonary disease, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** J40-J44

- Deaths from external causes, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** V01-Y98

- Deaths from road traffic injuries, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**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

- Deaths from suicide and self-inflicted injuries, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10 codes:** X60-X84, Y87.0

**Indicator detail:** For all indicators, the data presented are the average annual indirectly age-standardised rates per 100,000 total population (aged 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard. The exception is for 'Deaths from breast cancer (females)', where the rates are limited to the female population.

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, with data being released as preliminary, revised, or final. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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>.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level is the ABS Estimated Resident Population (ERP), 30 June 2010 to 30 June 2014, Statistical Areas Level 2; the population standard is the ABS ERP for Australia, 30 June 2010 to 30 June 2014.

## Avoidable mortality, 2010 to 2014

**Background:** 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), and including additional NHISSC comments from several states. It also included an examination of the international work in avoidable mortality.

As a result of this work, the [National Healthcare Agreement \(NHA\) \(2015\)](#) Health, Standard 14/01/2015 now includes the [PI-16 Potentially avoidable deaths, 2015](#), and these are presented in this dataset. Further revisions of this NHA Potentially avoidable deaths standard are proposed.

**Indicator detail:** Deaths are defined as avoidable in the context of the present health system, based on the [PI-16 Potentially avoidable deaths, 2015](#).

The data presented are the average annual indirectly age-standardised rates per 100,000 males/ females/ people (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.

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, with data being released as preliminary, revised, or final. This release is comprised of preliminary data for 2014, revised data for 2013 and final data for 2010, 2011 and 2012. 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>.

**Additional note for all Avoidable mortality data:** Some of the selected avoidable mortality indicators may comprise the same condition(s)/ ICD codes as the selected premature mortality indicators presented in the data/ maps.

**Source:** Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level is the ABS Estimated Resident Population (ERP), 30 June 2010 to 30 June 2014, Statistical Areas Level 2; the population standard is the ABS ERP for Australia, 30 June 2010 to 30 June 2014.

## Avoidable mortality by sex, 2010 to 2014

- Deaths from all avoidable causes, males aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Deaths from all avoidable causes, females aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Deaths from all avoidable causes, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

## Avoidable mortality by selected cause, 2010 to 2014

- Avoidable deaths from cancer, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from colorectal cancer, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from breast cancer, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Avoidable deaths from diabetes, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Avoidable deaths from circulatory system diseases, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from ischaemic heart disease, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from cerebrovascular diseases, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Avoidable deaths from respiratory system diseases, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from chronic obstructive pulmonary disease, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Avoidable deaths from selected external causes of mortality (Falls; fires, burns; Suicide and self-inflicted injuries; etc.), people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from suicide and self-inflicted injuries, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Avoidable deaths from other external causes of mortality (Transport accidents; Accidental drowning and submersion; etc.), people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness
  - Avoidable deaths from transport accidents, people aged 0 to 74 years, 2010 to 2014  
– by PHA, LGA, PHN, Quintiles, Remoteness

## Use and provision of health and welfare services

### Aged care places, June 2016

**Indicator detail:** These data exclude residents in state-funded facilities (also known as *Long Stay or Nursing Home Type Patients*) in country areas.

This data includes: Multi-Purpose Services; National Aboriginal and Torres Strait Islander Aged Care Program; and Consumer Directed Care.

Data for the Transition Care Program (TCP), which provides short-term support and active management for older people after a hospital stay in either a residential or community aged care setting, are not included here.

The data show a number of areas as having rates that are very high: these are areas with relatively high proportions of Indigenous population. As ageing and disability affect Aboriginal and Torres Strait Islander people earlier than they do non-Indigenous Australians, planning for services is based on the number of people aged 50 years and over, instead of 70 years and over as used for the rest of the population.

**Source:** Compiled by PHIDU based on data from the Department of Health and Ageing, 30 June 2016; and the ABS Estimated Resident Population, 30 June 2015.



- Residential aged care – high-level care places, June 2016  
– by LGA, Quintiles, Remoteness

**Indicator detail:** High-level care is nursing home care provided when health deteriorates to such a degree that a person becomes very frail or ill and can no longer be cared for adequately in their present accommodation. It provides 24-hour nursing and personal care for the very frail or ill, with support for the activities of daily living – dining, showering, continence management, rehabilitation, medications etc. Allocation is based on availability and the assessment of an individual's needs, as compared with other residents.

- Residential aged care – low-level care places, June 2016  
– by LGA, Quintiles, Remoteness

**Indicator detail:** Low-level care is hostel accommodation, offering a greater quality of life for people who benefit significantly from supportive services, companionship and activities, and for whom living without assistance is difficult. Independence is encouraged in maintaining daily living skills. Services provided may include showering, dressing, bed making, room cleaning, supervision of medication, provision of all meals and laundry.

This data includes: Multi-Purpose Services; National Aboriginal and Torres Strait Islander Aged Care Program; and Consumer Directed Care.

- Total residential aged care places, June 2016  
– by LGA, Quintiles, Remoteness

**Indicator detail:** These data comprise both residential high-level and low-level care places. See above **Indicator detail** for **Residential aged care – high-level care places** and **Residential aged care – low-level care places** for further information.

- Community aged care places, June 2016  
– by LGA, Quintiles, Remoteness

**Indicator detail:** Community Aged Care Packages offer low dependency level care for older people who are frail and/or disabled, in their own home, whether they live with their spouse, family or on their own. Trained staff provide flexible and coordinated support, which may include assistance with personal care (e.g., showering, grooming); household help (e.g., shopping, cleaning); linking with activities and pursuits in the community; and other assistance as negotiated according to individual need.

**Note:** The data shows the geographical area of the location of the agency funded, which is not necessarily the address of the person receiving the package of care.

## Home and Community Care Program, 2012/13

**Source:** Compiled by PHIDU using data from the Department of Health and Ageing, 2012/13; and the average of the ABS Estimated Resident Population, 30 June 2012 and 30 June 2013.

- Home and Community Care Program: Clients living alone, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Clients whose status is recorded as living alone at the date of most recent assessment.

- Home and Community Care Program: Clients with carer, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** 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.

- Home and Community Care Program: Indigenous clients (as a proportion of total clients) , 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Clients whose status is recorded as Indigenous at the date of most recent assessment.

- Home and Community Care Program: Indigenous clients (as a proportion of the Indigenous population) , 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Clients whose status is recorded as Indigenous at the date of most recent assessment.

- Home and Community Care Program: Non-English speaking clients, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Clients whose main language spoken at home at the date of most recent assessment is not English.

- Home and Community Care Program: Total clients, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** All clients that recorded at least one instance of assistance for the time period.

- Home and Community Care Program: Allied health care instances at home, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Includes physiotherapy, occupational therapy, podiatry, advice from a dietician or nutritionist, or speech therapy. Can be provided from a community centre or in the client's home.

- Home and Community Care Program: Allied health care instances at centre, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

- Indicator detail:** Includes physiotherapy, occupational therapy, podiatry, advice from a dietician or nutritionist, or speech therapy. Can be provided from a community centre or in the client's home.
- **Home and Community Care Program: Care counselling instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance with understanding and managing situations, behaviours and relationships associated with the person's need for care and/or the caring role, including the provision of information, advice and training.
  - **Home and Community Care Program: Case management instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** The active assistance received by a client from a formally identified agency worker who coordinates the planning and delivery of a suite of services to the individual clients.
  - **Home and Community Care Program: Centre based day care instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Attendance/participation in structured group activities designed to develop, maintain or support the capacity for independent living and social interaction which are conducted in a centre-based setting. It includes group excursions/activities conducted by centre staff but held away from the centre.
  - **Home and Community Care Program: Client care coordination instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance which focuses on facilitating access to HACC services and includes implementing, monitoring and reviewing the care plan, liaison with service providers and advocacy to ensure the client has access to the range of services required.
  - **Home and Community Care Program: Domestic assistance instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** House cleaning, washing and ironing, help with shopping, transport to and from banks and appointments et cetera, and general household support.  
**NB:** The reporting of Victorian data differs from other States and Territories for this type of assistance. For Victoria, the instances of meals at home are reported under this 'Domestic assistance instances' category (rather than in the 'Meals at centre plus meals at home instances' category).
  - **Home and Community Care Program: Home maintenance and modification instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance with the maintenance and repair of the client's home, garden or yard to keep their home in a safe and habitable condition. This also includes minor modifications such as grab rails, hand rails, ramps, and shower rails to reduce the impact of disability on the activities of daily living.
  - **Home and Community Care Program: Meals at centre plus meals at home instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Provision of meals prepared and delivered to the client's home or provided in a community centre.  
**Note:** The reporting of Victorian data differs from other States and Territories for this type of assistance. For Victoria, the instances of meals at home are reported as part of the 'Domestic assistance instances' category.
  - **Home and Community Care Program: Nursing care at centre plus nursing care at home instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Health care provided to a client by a registered or enrolled nurse. This care can be provided from a community centre or in the client's home.
  - **Home and Community Care Program: Personal care instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** May include help with bathing, toilet use, eating, dressing and personal grooming.
  - **Home and Community Care Program: Respite care instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance to carers by provision of a substitute carer. Can include centre-based, in-home, host family and peer support respite care.
  - **Home and Community Care Program: Social support instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance provided by a companion either within the home or while accessing community services, whose primary purpose is to meet the person's need for social contact and/or accompaniment in order to participate in community life. This includes friendly visiting.  
**Note:** The reporting of Victorian data differs from other States and Territories for this type of assistance. For Victoria, 'Transport instances' are reported under this 'Social support instances' category.
  - **Home and Community Care Program: Transport instances, 2012/13**  
– by LGA, PHN, Quintiles, Remoteness  
**Indicator detail:** Assistance to provide or coordinate individual or group transport services.  
**Note:** The reporting of Victorian data differs from other States and Territories for this type of assistance. For Victoria, 'Transport instances' are reported as part of the 'Social support instances' category.

- Home and Community Care Program: Total instances of assistances, 2012/13  
– by LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Includes all the above types of support plus:

- other food services
- provisions of goods and equipment such as self-care and support and mobility aids, and
- formal linen service

## Hospital admissions (excluding same-day hospital admissions for dialysis for kidney diseases), 2012/13

**Indicator detail:** The data presented are of the number of separations, or completions of the episode of care of a patient in hospital, where the completion can be the discharge, death or transfer of the patient, or a change in the type of care (e.g., from acute to rehabilitation). In this atlas the term 'admission' is used in place of the more technical 'separation'. As these data relate to short-term episodes of care, and not to long-stay episodes, the number of admissions is similar to the number of separations in any year.

**Exclusions:** The national data published by the Australian Institute of Health and Welfare exclude well babies (i.e., babies not admitted for acute care) who are nine days older or less, other than the second or subsequent live born infant of a multiple birth whose mother is currently an admitted patient. [For further information see Australian Institute of Health and Welfare. Australian hospital statistics 2012-13. Health services series no. 54. (Cat. no. HSE 145.) Canberra: AIHW; 2014.]

Same-day admissions for dialysis for kidney disease have also been excluded from the data in this atlas for the categories of admissions for males, females and total people, and admissions by hospital sector, as they represent many repeat visits by a relatively small number of patients, who may have multiple admissions in a week: their inclusion can dramatically alter the geographic distribution of other categories of admissions (see the separate note for [Same-day admissions for dialysis for kidney disease](#) for further details); these data are presented separately. All other same-day admissions are included.

For details of the data indicators presented, refer to the list of indicators in the following sections:

- [Admissions by hospital type and sex](#);
- [Admissions by principal diagnosis](#);
- [Admissions by procedure](#); and
- [Admissions for same-day dialysis for kidney disease](#)

**Confidentiality of data:** Counts of less than ten admissions have been suppressed.

Data were not available for private hospitals in Tasmania, the Northern Territory or the Australian Capital Territory, to protect the confidentiality of the small number of private hospitals in these jurisdictions. As a result, where data are published for public and all hospitals, the 'all hospitals' data for these jurisdictions have also been confidentialised, as their publication would allow identification of the confidentialised private hospital data. The 'all hospitals' data in other jurisdictions have also been confidentialised where publication of public and all hospitals data would allow identification of private hospital data confidentialised due to small cell sizes. The decision was made to confidentialise the 'all hospitals' rather than the 'public hospitals' figure as admissions to public hospitals comprise the majority of admissions, both overall and from the most disadvantaged areas.

Note: Given the above, remoteness/ quintile data for both private hospitals and all hospitals are also not published for these areas or for the whole of Australia.

**Source:** Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2012/13; and the average of the ABS Estimated Resident Population, 30 June 2012 and 2013.

### Admissions by hospital type and sex, 2012/13

- Total admissions (excluding dialysis) - Public hospitals/ Private/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Male total admissions (excluding dialysis) - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Female total admissions (excluding extracorporeal dialysis) - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

### Hospital admissions by principal diagnosis and sex, 2012/13

- Admissions for infectious and parasitic diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness  
**ICD-10-AM codes:** A00-B99
- Admissions for all cancers, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** C00-D48

- Admissions for mental health related conditions, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** F00-F99

- Admissions for circulatory system diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** I00-I99

- Admissions for respiratory system diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** J00-J99

- Admissions for digestive system diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** K00-K93

- Admissions for musculoskeletal system and connective tissue diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** M00-M99

- Admissions for genitourinary system diseases, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** N00-N99

- Admissions for pregnancy, childbirth and the puerperium, females - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** O00-O99

- Admissions for injury, poisoning and other external causes, males/ females/ persons - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM codes:** S00-T98

## Hospital admissions by procedure, 2012/13

- Admissions for a tonsillectomy, all ages - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ Australian Classification of Health Interventions (ACHI) codes:** 41789-00, 41787-01, 41786-01, 41789-01

- Admissions for a myringotomy, 0 to 9 years - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** 309

- Admissions for a hysterectomy, females aged 30 to 59 years - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** Procedure flag–Block [1268], [1269]; Codes 90450-00 [989], 90450-01 [989] and 90450-02 [989]

- Admissions for a Caesarean section, females aged 15 to 44 years - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** 1340

- Admissions for a birth with an outcome of delivery, females aged 15 to 44 years - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

- Admissions for a coronary artery bypass graft - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** 627-679

- Admissions for a coronary angioplasty - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** 669-671

- Admissions for a cardiac catheterisation - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**ICD-10-AM/ ACHI codes:** 667-668

- Admissions for a hip fracture - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness  
**ICD-10-AM:** M84.45, S72.00-S72.05, S72.08, S72.10-S72.11, S72.2
- Admissions for a knee replacement - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness  
**ICD-10-AM/ ACHI codes:** 1518-1519, 1523-1524
- Admissions for a knee arthroscopy - Public hospitals/ All hospitals,, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness  
**ICD-10-AM/ ACHI codes:** 1501, 1503, 1505, 1517

## Same-day hospital admissions for renal dialysis, 2012/13

- Same-day admissions for dialysis for kidney disease - Public hospitals/ All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness
- Same-day admissions for dialysis for kidney disease - All hospitals, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** The data presented are of the number of same-day admissions for dialysis for kidney disease, including both haemodialysis and peritoneal dialysis, International Classification of Disease (ICD-10-AM) codes Z49.1 and Z49.2. There are two main types of dialysis: peritoneal, which occurs inside the body and can be performed almost anywhere, usually in the home setting; and haemodialysis, which occurs outside the body and is most often conducted in a hospital or satellite setting. The reason for presenting these data separately from overnight admissions is that they represent many repeat visits by a relatively small number of patients, who may have multiple admissions in a week. Their inclusion with other (overnight) admissions can dramatically alter the geographic distribution of these other categories of admissions. This is particularly evident in regional and remote areas, where dialysis facilities are located, and where those using them may have moved to live to be near the facility.

**Confidentiality of data:** Counts of fewer than ten admissions have been suppressed.

Data were 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.

**Source:** Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2012/13; and the average of the ABS Estimated Resident Population, 30 June 2012 and 2013.

## Emergency department presentations, 2012/13

- Emergency department presentations, 2012/13  
– by PHA, LGA, PHN, Quintiles, Remoteness

**Indicator detail:** Counts of fewer than ten admissions have been suppressed to meet data confidentiality requirements.

**Source:** Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2012/13; and the average of the ABS Estimated Resident Population, 30 June 2012 and 2013.

## Private health insurance hospital cover (modelled estimates), 2014–15

- Estimated number of people, aged 18 years and over, with private health insurance hospital cover, 2014–15  
– by PHA, LGA, PHN, Quintiles and Remoteness

In the absence of private health insurance data from administrative data sets, estimates have been produced from the 2014–15 National Health Survey (NHS), conducted by the Australian Bureau of Statistics (ABS). These data are based on self-reported responses, reported to interviewers in the 2014–15 NHS. For further details on the production of modelled estimates and caveats on these estimates, see [Modelled estimates](#), above.

**Indicator detail:** Private health insurance is additional health cover to that provided under Medicare, to reimburse all or part of the cost of hospital and/or ancillary services incurred by an individual. In the 2014–15 NHS, respondents were asked if they had private health insurance, and whether the insurance provided hospital cover (with or without ancillary cover); it is this population with hospital cover that is reflected in these data. Health cover provided or arranged through employers was included. Ambulance only cover, and cover arranged under Veterans' Affairs or other government health benefits cards, were excluded.

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

**Source:** Estimates for Population Health Areas (PHAs) are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

Estimates for Quintiles and Remoteness Areas were compiled by PHIDU based on direct estimates from the 2014–15 Australian Health Survey, ABS Survey TableBuilder.