Social Health Atlas of Australia: Notes on the Data
Published: 2014

Notes on the Data: Contents

General information

Copyright

Geographical structures

Information regarding the PHIDU geographical structures is available at: **http://www.adelaide.edu.au/phidu/help-info/about-our-data/geographical/**

Statistical information

Except where otherwise stated, all indirectly age-standardised rates and ratios presented in the maps or data are based on the Australian standard. Additional statistical information is available at: **http://www.adelaide.edu.au/phidu/help-info/about-our-data/statistics/**

Notes on the Data: Indicators and Data sources

Introductory information

With the current transition to the new geographical structure, including the **Population Health Areas**, there are variations as to what is available by each **geographical structure**. For each indicator, the geography available is included under the indicator heading.

The geographical structure acronyms are defined as follows:
'PHA' - Population Health Areas, **'SLA' - Statistical Local Areas**, **'LGA' - Local Government Areas**, **'PHN' - Primary Health Networks**, **'ML' - Medicare Locals**, **'LHN' - Local Hospital Networks**, **'SA2' - Statistical Areas Level 2**; **'Quintiles' - Quintiles of Socioeconomic Disadvantage of Area**; and **'Remoteness' - Remoteness Area**.

The PHIDU data archive for the 2014 period contains data by **Statistical Local Area**, **Local Government Area**, **Medicare Local**, **Local Hospital Network** and **Statistical Area Level 2.** For earlier release data and graphs by **Quintile of Socioeconomic Disadvantage of Area** or **Remoteness Area**, please **contact us**.

Note: Data by **Population Health Area** and/or **Primary Health Networks** (and referenced in this document) have not yet been archived – these data are available via the **Maps** or **Data** sections of the PHIDU website.

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 – Males/ Females/ Persons, 2013 ERP

- Age in 5 year groups: 0-4 years to 85+ years/ Broad age groups: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, Estimated Resident Population (ERP), 2013
  – by LGA, PHN, Remoteness (Broad age groups only)

  Notes: The ERP is derived 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
  - backcasting 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 ABS Estimated Resident Population, 30 June 2013

Age distribution – Males/ Females/ Persons, 2012 ERP

- Age in 5 year groups: 0-4 years to 85+ years/ Broad age groups: 0-14, 15-24, 25-44, 45-64, 65+, 70+, 75+, 85+ years, Estimated Resident Population (ERP), 2012
  – by SLA, ML, LHN

  Notes: The ERP is derived 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
  - backcasting 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 ABS Estimated Resident Population, 30 June 2012

Age distribution – Males/ Females/ Persons, 2011 URP

- Age in 5 year groups: 0 to 85+ years/ 65+ years sub-total, Usual Resident Population (URP)
  – by PHA, SA2

  Notes: The URP is the population in each area on Census night who usually live in that area (i.e. excluding visitors, people away from home etc).

  Source: Compiled by PHIDU from ABS Census Usual Resident Population (URP), 2011

Age distribution – Aboriginal males/ females/ persons, 2011 URP

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

- Age in 5 year groups: 0-4 years to 65+ years, Usual Resident Population (URP), 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Remoteness (Broad age groups)

  Notes: The data exclude the 4.9% of people (5.3% for males; 4.5% for females) whose Indigenous status was not recorded the proportion excluded was calculated based on the Australian data).

  The data presented is the age group total as a per cent of the total Aboriginal male/female/total population, as appropriate.

  Source: Compiled by PHIDU based on ABS Census Usual Resident Population, 2011

Age distribution – Aboriginal males/ females/ persons, 2011 ERP

- Age in 5 year groups: 0-4 years to 65+ years, Estimated Resident Population, 2011
  - by ML

  The data presented is the age group total as a per cent of the total Aboriginal male/female/total population, as appropriate.

  Source: Compiled by PHIDU based on Australian Bureau of Statistics data (available on request) for the National Health Performance Authority, 2011

Indigenous status, 2011

- Aboriginal population as per cent of total population, Usual Resident Population, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: This estimate of the Usual Resident Population is from the 2011 Census; the ABS has not produced an Estimated Resident Population at the SLA level from the 2011 Census.

  The data exclude the 4.9% of people whose Indigenous status was not recorded, based on Australian totals (the proportion excluded was calculated based on the Australian data).

  Source: Compiled by PHIDU based on ABS Census Usual Resident Population, 2011

Birthplace & non-English speaking residents, 2011

Source for all *Birthplace & non-English speaking residents* data: Compiled by PHIDU based on ABS Census 2011 data

- Australian-born population, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness
- People born (overseas) in predominantly English speaking countries, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness
- People born in predominantly non-English speaking (NES) countries, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness
- People born in NES countries resident in Australia for five years or more, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness
- People born in NES countries resident in Australia for less than five years, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes for all *People born in predominantly English speaking (ES) / non-English speaking (NES) countries* data: 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, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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).

Non-English speaking countries of birth, 2011

- Top ten birthplaces of people born in non-English speaking countries, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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, 2005 to 2007 and 2011

- Total Fertility Rate, 2005 to 2007
  – by SLA, ML, LHN

  Notes: Data are not shown for areas recording fewer than 20 births.

  Source: Compiled by PHIDU based on births data, 2005 to 2007 (ABS unpublished); and ABS Estimated Resident Population, 30 June 2005 to 30 June 2007

- Total Fertility Rate, 2011
  – by SLA (excluding SLA groups), LGA, Quintiles, Remoteness

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

  NB: These data are currently only available by Statistical Local Area (SLA), Local Government Area (LGA), Quintiles and Remoteness. Note: Data are not available for PHIDU SLA groups which include areas in Brisbane, Gold Coast, Townsville, Darwin and Canberra. If you wish to view the 2011 SLA data for these grouped areas, see *Table 3: Births, Summary, Statistical Local Area—2006 to 2011*: **Births, Australia, 2011**. For Medicare Local, Local Hospital Network and SLA groups, see PHIDU's 2005 to 2007 data.

  Source: Compiled by PHIDU based on ABS data in *Table 3: Births, Summary, Statistical Local Area—2006 to 2011* and *Table 4: Births, Summary, Local Government Areas—2006 to 2011:* **Births, Australia, 2011**

Education, 2011, 2012 and 2013

- Full-time participation in secondary school education at age 16, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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 ABS Census 2011 (unpublished) data

- Participation in vocational education and training, 2012
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Source: Compiled by PHIDU based on data from the National Centre for Vocational Education Research Ltd., 2012; and ABS Estimated Resident Population, 30 June 2012

- School leavers enrolled in higher education, 2013
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: The data comprise school leavers who are identified as enrolled at an Australian university at 31 March 2013, expressed as a proportion of the Estimated Resident Population aged 17 years at 30 June 2012.

  'School leavers' are students who attained a Year 12 qualification in 2012 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 2012, as this is the age of the majority of Year 12 students at 30 June 2012.

Data have been provided by individual States and Territories, other than Queensland. The exclusion of Queensland will under-represent participation in other State and Territories to the extent that students from those jurisdictions enrol in Queensland universities.

Variations in data between States:

Definitions vary across the States, however, the impact of any differences is considered to be small, other than for WA data which include school leavers who have accepted an offer to enrol although such 'acceptances' may not necessarily translate to 'enrolments' (other States and Territories count enrolments). Other differences of note are:

- WA data comprise normal school leavers and those who are repeaters, but exclude mature age students; and, for The University of Notre Dame Australia campuses in WA and NSW, comprise students who are under 20 years of age on 1 March in their year of admission and who have not attempted any post-secondary (TAFE or University) study.
- Tasmanian data include those who apply and are assessed as a Year 12 student (whether in previous year, or earlier).
- School leaver applicants and enrolees self-identify as being of Aboriginal and Torres Strait Islander descent or not. Those of 'unknown' Indigenous status have been included in the non-Indigenous counts. WA universities also admit some Aboriginal and Torres Strait Islander school leavers directly and data from the Tertiary Institutions Service Centre may therefore under-represent their participation.

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

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 2012

- People who left school at Year 10 or below, or did not go to school, 2011
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  The data comprise people who left school at Year 10 or below, or did not go to school, expressed as a rate per 100 people aged 15 years and over (Usual Resident Population)

  Source: Compiled by PHIDU based on ABS Census 2011 data

Early child development: AEDI, 2009

- Developmentally vulnerable on 1 or more domains, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Developmentally vulnerable on 2 or more domains, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Physical health and wellbeing domain - developmentally vulnerable, at risk and on track, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Social competence domain - developmentally vulnerable, at risk and on track, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Emotional maturity domain - developmentally vulnerable, at risk and on track, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Language and cognitive (school based) domain - developmentally vulnerable, at risk and on track, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Communication skills and general knowledge domain - developmentally vulnerable, at risk and on track, 2009
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

Notes for all *Early child development* data: In 2009, the Australian Early Development Index (AEDI), which provides a picture of early childhood development outcomes for Australia, was undertaken nationwide. In the 2009 data collection, information was collected on 261,147 Australian children (97.5% of the estimated five-year-old population) in their first year of full-time school between 1 May and 31 July. A follow-up data collection occurred in some small areas in 2010. In addition, small numbers of children were combined so that more communities could have their results released.

The initial results from the AEDI provide communities and schools with information about how local children have developed by the time they start school across five areas of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (schools-based), and communication skills and general knowledge.

The AEDI 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), 26th to 50th (on track lower range) and above the 50th percentile (on track higher range).

The data shown include children who were developmentally vulnerable (0 to 10th percentile) in one or more/ two or more domains; children in each domain who were assessed as being developmentally vulnerable (0 to 10th percentile), developmentally at risk (11th to 25th percentile) or developmentally on track (above the 25th percentile).

Data are not shown for areas where there were fewer than 15 children tested.

Source for all *Early child development* data: Compiled by PHIDU based on data from the AEDI 2009 Research CURF Version 1, Released August 2011, DEEWR

Learning or Earning, 2011

- Learning or Earning at ages 15 to 19, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Source: Compiled by PHIDU based on ABS Census 2011 (unpublished) data
- Children aged less than 15 years in jobless families, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Source: Compiled by PHIDU based on ABS Census 2011 (unpublished) data
- Children in families where the mother has low educational attainment, 2011
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: The data presented are 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 ABS Census 2011 (unpublished) data

Housing/ Transport, 2011 and 2013

- Households in dwellings receiving rent assistance from the Australian Government, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: The Australian Government rent assistance data is 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 2013; and ABS Census: Dwellings, 2011
- Households in dwellings receiving rent assistance from Centrelink, June 2012
  – by SLA, ML, LHN

  Notes: The Centrelink rent assistance data is 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.

  The Centrelink data were provided at the Statistical Local Area (SLA) level 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 geographies (Local Government Area or Medicare Local) were aggregated based on confidentialised (SLA) cells. The 'Unknown' data cells in the worksheets are calculated from the difference between the sum of the SLA data to the State/Territory totals, and include the sum of these confidentialised data.

  Source: Compiled by PHIDU based on data from Centrelink as an agent for Families, Housing, Communities and Indigenous Affairs, June 2012; and ABS Census: Dwellings, 2011
- Dwellings rented from the government housing authority, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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.

  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 ABS Census 2011 (unpublished data)

- Low income households with rental stress, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: The data comprise households in the bottom 40% of the income distribution (those with less than 80% of median income), spending more than 30% of their income on rent.

  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 ABS Census 2011 (unpublished) data

- Low income households with financial stress from mortgage or rent, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2

  Notes: The data comprise households in the bottom 40% of the income distribution (those with less than 80% of median income), spending more than 30% of their income on rent mortgage repayments or rent.

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

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

- Private dwellings with no motor vehicle, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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 2013

- Age pensioners, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: The Age Pension is available from Centrelink for persons 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 before 31/12/48, Age Pension age is 64.5
  - If born between 1/1/49 and 30/6/52, Age Pension age is 65

  For men and women:

  - If born between 1/7/52 and 31/12/53, Age Pension age is 65.5
  - If born between 1/1/54 and 30/06/55, 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 persons who have reached 60 years.

  Centrelink pays the vast majority of Age Pensions. Age pensioners who also receive a Disability Pension from the Department of Veterans' Affairs (DVA) have the choice of having their Age Pension paid by either DVA or Centrelink.

  1. The DVA data were provided at the Population Health Area level and data cells with less than 4 counts (including zeros) were removed (confidentialised). Due to the confidentialisation of data cells, there may be minimal undercounting of some of the final numbers presented, where:
  2. The final data presented is based on combining two indicator sub-sets (DHS/ DVA), which may include some aggregation of non-confidentialised (DHS data) cells and confidentialised (DVA data); and

     The geographies (e.g., LGA, GCCSA) were aggregated based on confidentialised DVA (PHA) cells.

     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 concordances 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. It is unlikely to be the result of people claiming both the Age Pension and a DVA Service Pension (Age), as checks are made each year to ensure that such events do not occur.

  Source: Compiled by PHIDU based on data from the Department of Social Services, June 2013; Department of Veterans' Affairs, 1 July 2013; and ABS Estimated Resident Population, 30 June 2013

- Disability support pensioners, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: 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. Details of people under 60 years of age receiving the Department of Veterans' Affairs (DVA) Service Pension (permanently incapacitated) – an income support pension – have been combined with the Centrelink DSP data; people above these ages receive an Age Pension or DVA Service Pension (Age).

  The DVA data were provided at the Population Health Area level and data cells with less than 4 counts (including zeros) were removed (confidentialised). Due to the confidentialisation of data cells, there may be minimal undercounting of some of the final numbers presented, where:

  - the final data presented is based on combining two indicator sub-sets (DHS/ DVA), which may include some aggregation of non-confidentialised (DHS data) cells and confidentialised (DVA data); and
  - the geographies (e.g., LGA, GCCSA) were aggregated based on confidentialised DVA (PHA) cells.

  Source: Compiled by PHIDU based on data from the Department of Social Services, June 2013; Department of Veterans' Affairs, 1 July 2013; and ABS Estimated Resident Population, 30 June 2013

- People receiving an unemployment benefit, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: People receiving an 'unemployment benefit' – which includes the Newstart Allowance or Youth Allowance (other)[1] paid by Centrelink – are shown as proportion of the eligible population (of persons aged 16 to 64 years).

  Source: Compiled by PHIDU based on data from the Department of Human Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

- People receiving an unemployment benefit long-term, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: People receiving an 'unemployment benefit' – which includes the Newstart Allowance or Youth Allowance (other)2 paid by Centrelink – for more than 182 days (approximately 6 months) are shown as proportion of the eligible population (of persons aged 16 to 64 years).

  Source: Compiled by PHIDU based on data from the Department of Human Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

- Young people aged 16 to 24 receiving an unemployment benefit, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: Young people receiving an 'unemployment benefit' – which includes the Newstart Allowance (people aged 16 to 24 years) or Youth Allowance (other)2 paid by Centrelink – are shown as proportion of the population aged 16 to 24 years.

  Source: Compiled by PHIDU based on data from the Department of Human Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

- Low income, welfare-dependent families (with children), June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

- Children in low income, welfare-dependent families, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes for both *Low income, welfare-dependent families* and *Children in low income, welfare-dependent families* data (above):

  For 2013, a) families included are those with children under 16 years; or b) children under 16 years in families – with incomes under $34,912 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 this data was based on the *Poverty Lines: Australia, June Quarter 2013, 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 for both *Low income, welfare-dependent families* and *Children in low income, welfare-dependent families* data (above): Compiled by PHIDU based on data from the Department of Social Services, June 2013; and ABS Census 2013

- Health Care Card holders, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

[1] 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.

Notes: 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.

Source: Compiled by PHIDU based on data from the Department of Social Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

- Pensioner Concession Card holders, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: 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).

  Source: Compiled by PHIDU based on data from the Department of Social Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

- Seniors Health Card holders, June 2013
  – by PHA, LGA, PHN, Quintiles, Remoteness

  Notes: 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.

  Source: Compiled by PHIDU based on data from the Department of Social Services, June 2013; and ABS Estimated Resident Population, 30 June 2013

Income support recipients, June 2012

Note for *all Income support recipients* data: The Centrelink data were provided at the Statistical Local Area (SLA) level 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:

a) the geographies (Local Government Area, Medicare Local or Local Hospital Network) were aggregated based on confidentialised (SLA) cells; and/ or

b) the final data presented is 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 SLA data to the State/Territory totals, and include the sum of these confidentialised data.

- Age pensioners, June 2012
  – by SLA, ML, LHN

  Notes: The Age Pension is available from Centrelink for persons 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 before 31/12/48, Age Pension age is 64.5

  - If born between 1/1/49 and 30/6/52, Age Pension age is 65

  For men and women:

  - If born between 1/7/52 and 31/12/53, Age Pension age is 65.5

  - If born between 1/1/54 and 30/06/55, 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 persons who have reached 60 years.

  Centrelink pays the vast majority of Age Pensions. Age pensioners who also receive a Disability Pension from the Department of Veterans' Affairs (DVA) have the choice of having their Age Pension paid by either DVA or Centrelink.

  In some instances, percentages are calculated at greater than 100%; this may be the result of the address of the pension recipient data being a postcode which is not allocated to the correct SLA by the concordances available; it may also reflect inaccuracies in the denominator (the population of pensionable age), as population estimates at the SLA level for age groups can be unreliable, in particular where the populations are small. In time, with more reliable recording of address details, these occurrences should be reduced. Note that it is unlikely to be the result of people claiming both the Age Pension and a DVA Service Pension (Age), as checks are made each year to ensure that such events do not occur.

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; Department of Veterans' Affairs, 1 July 2012; and ABS Estimated Resident Population, 30 June 2012

- Disability support pensioners, June 2012
  – by SLA, ML, LHN

  Notes: 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. Details of people under 60 years of age receiving the Department of Veterans' Affairs (DVA) Service Pension (permanently incapacitated) – an income support pension – have been combined with the Centrelink DSP data; people above these ages receive an Age Pension or DVA Service Pension (Age).

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; Department of Veterans' Affairs, 1 July 2012; and ABS Estimated Resident Population, 30 June 2012

- Female sole parent pensioners, June 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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.

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Education, Employment and Workplace Relations, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Unemployment beneficiaries, June 2012
  – by SLA, ML, LHN

  Notes: People receiving an 'unemployment benefit' – which includes the Newstart Allowance or Youth Allowance (other)[2] paid by Centrelink – are shown as proportion of the eligible population (of persons aged 16 to 64 years).

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Education, Employment and Workplace Relations, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Long-term unemployment beneficiaries, June 2012
  – by SLA, ML, LHN

  Notes: People receiving an 'unemployment benefit' – which includes the Newstart Allowance or Youth Allowance (other)2 paid by Centrelink – for more than 182 days (approximately 6 months) are shown as proportion of the eligible population (of persons aged 16 to 64 years).

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Education, Employment and Workplace Relations, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Youth unemployment beneficiaries, June 2012
  – by SLA, ML, LHN

  Notes: Young people receiving an 'unemployment benefit' – which includes the Newstart Allowance (people aged 15 to 24 years) or Youth Allowance (other)2 paid by Centrelink – are shown as proportion of the population aged 15 to 24 years.

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Education, Employment and Workplace Relations, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Low income, welfare-dependent families (with children), June 2012
  – by SLA, ML, LHN

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Children in low income, welfare-dependent families, June 2012
  – by SLA, ML, LHN

  Source: Compiled by PHIDU based on data from Centrelink as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; and ABS Census 2012

  Notes for both *Low income, welfare-dependent families* and *Children in low income, welfare-dependent families* data (above):

  For 2012, a) families included are those with children under 16 years; or b) children under 16 years in families –and with incomes under $33,761 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 this data was based on the *Poverty Lines: Australia, June Quarter 2012*, 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**]

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2 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 2012
  – by SLA, ML, LHN

  Notes: 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.

  Source: Compiled by PHIDU based on data from Centrelink, as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; and ABS Estimated Resident Population, 30 June 2012

- Pensioner Concession Card holders, June 2012
  – by SLA, ML, LHN

  Notes: 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).

  Source: Compiled by PHIDU based on data from Centrelink, as agent for the Department of Families, Housing, Community Services and Indigenous Affairs, June 2012; and ABS Estimated Resident Population, 30 June 2012

Internet access at home, 2011

- Private dwellings with no Internet connection, 2011
  – by SLA, PHN, ML, LHN, Quintiles, Remoteness
- Total private dwellings with an Internet connection, 2011
  – by SLA, PHN, ML, LHN, Quintiles, Remoteness
  - Private dwellings with a Broadband Internet connection, 2011
    – by SLA, PHN, ML, LHN, Quintiles, Remoteness
  - Private dwellings with a Dial-up Internet connection, 2011
    – by SLA, PHN, ML, LHN, Quintiles, Remoteness
  - Private dwellings with an 'other' Internet connection, 2011
    – by SLA, PHN, ML, LHN, Quintiles, Remoteness

Notes for all *Internet access at home* data: 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 for all *Internet access at home* data: Compiled by PHIDU based on ABS Census 2011 data

Labour force, 2011, 2012 and 2013

- Unemployment, June 2013
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: These estimates, from the *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. The estimates presented are derived from three primary data sources:

  1. Centrelink data on people in receipt of Newstart or Youth Allowance (other)[See 1 above],by postcode
  1. ABS Labour Force Survey data at the ABS Labour Force Region level; and
  2. ABS Census of Population and Housing labour force data at the Statistical Local Area (SLA) level.

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

  Source: Compiled by PHIDU based on *Small Area Labour Markets - Australia*, Department of Education, Employment and Workplace Relations, June Quarter 2013

- Labour force participation, June 2012
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: See above **Notes** for ***Unemployment***.

  Source: Compiled by PHIDU based on *Small Area Labour Markets - Australia*, Department of Education, Employment and Workplace Relations, June Quarter 2012; and ABS Estimated Resident Population, 30 June 2012

- Female labour force participation, 2011
  – by PHA, SLA, LGA, ML, LHN, SA2, Quintiles, Remoteness

  Notes: Other labour force measures in this atlas (unemployment, labour force participation) have been compiled from data provided by DEEWR. As DEEWR do 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-report, and not subject to the criteria for labour force participation applied by the ABS in the Labour Force Survey and utilised by DEEWR in their 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, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: The Index has a base of 1000 for Australia: scores above 1000 indicate relative lack of disadvantage and those below 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 SLA and LGA data were re-produced from the ABS originals. The PHIDU Statistical Local Area group, Statistical Subdivision, Local Hospital Network, Medicare Local, State/ Territory and Australian totals were constructed using population weighted averages, based on the published ABS SLA data (which was compiled by the ABS from population weighted SA1s).

Child care: unpaid, 2011

- Child care to own child/children (unpaid), provided by people aged 15 years and over, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness
- Child care to other child/children (unpaid), provided by people aged 15 years and over, 2011
  – by PHA, SLA, LGA, *PHN,* ML, LHN, SA2, Quintiles, Remoteness
- Total (unpaid) child care, provided by people aged 15 years and over, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes for all *Child care: unpaid* data: 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 data indicators presented are:

  - Unpaid child care provided by peopled 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 persons 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 for all *Child care: unpaid* data: Compiled by PHIDU based on ABS Census 2011 data

Community strengths, 2010 and 2011

ABS Census data, 2011

- Voluntary work for an organisation or group - people aged 15 years and over, 2011
  – by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness

  Notes: 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 persons 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, 2010

- Persons aged 18 years and over who did unpaid voluntary work in the last 12 months through an organisation (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who are able to get support in times of crisis from persons outside the household (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over (or their partner) who provide support to other relatives living outside the household (modelled estimates), 2010
  – by SLA, LGA, ML, LHN

- Persons aged 18 years and over who feel very safe/safe walking alone in local area after dark (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who disagree/strongly disagree with acceptance of other cultures (modelled estimates), 2010
  – by SLA, LGA, ML, LHN

Notes for all *Community strengths (modelled estimates)* data: The ABS 2010 General Social Survey (GSS) includes a range of questions which aim to assess community strength, both in terms of its positive aspects (such as volunteering, tolerance of other cultures and availability of personal supports) and the negative effects on people when community strength is less apparent (such as feeling unsafe in the community, social isolation and the consequences of financial stress and disadvantage). The GSS collected data on the range of social dimensions from the same individual to enable analysis of the interrelationships in social circumstances and outcomes, including the exploration of multiple advantage and disadvantage experienced by that individual. For further information on the indicators, please refer to the *General Social Survey: User Guide, Australia, 2010 (ABS Cat. No. 4159.0.55.002) - Glossary*, available at: **http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4159.0.55.002Glossary12010?OpenDocument**.

The ABS survey was conducted by personal interview (using a Computer Assisted Interviewing questionnaire) and included people aged 18 years and over resident in private dwellings, throughout the not very remote areas of Australia, from August to November 2010.

The 2010 GSS achieved a response rate of 87.6%, with a total sample from the survey of 15,028 dwellings. Approximately 2,551 respondents (15%) did not provide one or more required answers but were deemed to have responded adequately to be included in the survey.

The modelled estimates presented have been synthetically predicted at the Statistical Local Area (SLA) level from the 2010 GSS.

Through the use of synthetic estimation techniques it is possible to produce SLA level statistics. Synthetic estimation predicts a value for an area with a small population based on modelled survey data and known characteristics of the area. A 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.

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 2010 GSS covered persons residing in urban and rural areas and excluded persons residing in collection districts (CDs) in Very Remote areas under the ABS remoteness classification. As such estimates were not produced for SLAs with more than 50% of their populations residing in Very Remote CDs. Due to the exclusion of persons living in CDs in Very Remote areas of Australia, survey estimates for the majority of SLAs in the Northern Territory are unreliable.

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

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.

NB: 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.

Note re additional data (Victoria only): In Victoria, indicators of community strength are collected via computer-assisted telephone interviewing as part of the Victorian Population Health Survey conducted by the Department of Health. Data estimates are available at the Local Government Area. See: **http://www.health.vic.gov.au/healthstatus/survey/vphs.htm**

Source for all *Community strengths (modelled estimates)* data: Compiled by PHIDU based on modelled estimates from the 2010 General Social Survey, ABS (unpublished); and ABS Estimated Resident Population, 30 June 2010

Personal and financial stressors (modelled estimates), 2010

- Persons aged 18 years and over whose household could raise $2,000 within a week (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over whose household had at least one cash flow problem in the last 12 months (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over whose household took at least one dissaving action[3] in the last 12 months (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who had government support as their main source of income in the last 2 years (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who had government support as their main source of income, for 12 months or more, within the past 24 months (modelled estimates), 2010
  – by SLA, LGA, ML, LHN

  Notes for all *Personal and financial stressors (modelled estimates)* data: Refer to above **Notes on the Data** for ***Community strengths – Modelled estimates***.

  Source for all *Personal and financial stressors (modelled estimates)* data: Compiled by PHIDU based on modelled estimates from the 2010 General Social Survey, ABS (unpublished); and ABS Estimated Resident Population, 30 June 2010

Access to services: financial and transport barriers (modelled estimates), 2010

- Persons aged 18 years and over who delayed medical consultation because they could not afford it (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who delayed purchasing prescribed medication because they could not afford it (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who often has a difficulty or can't get to places needed with transport (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who had difficulty accessing services (modelled estimates), 2010
  – by SLA, LGA, ML, LHN
- Persons aged 18 years and over who accessed the Internet at home in the past 12 months (modelled estimates), 2010
  – by SLA, LGA, ML, LHN

  Notes for all *Access to services: financial and transport barriers (modelled estimates)* data: Refer to above **Notes on the Data** for ***Community strengths – Modelled estimates***.

  Source for all *Access to services: financial and transport barriers (modelled estimates)* data: Compiled by PHIDU based on modelled estimates from the 2010 General Social Survey, ABS (unpublished); and ABS Estimated Resident Population, 30 June 2010

Health Status, Disability and Deaths

Mothers and babies, late 2000s

- Low birth weight babies, 2008 to 2010 (NSW, Qld, SA & ACT), 2009 to 2011 (Vic, WA & Tas), 2006 to 2008 (NT)
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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.

  Source: Compiled by PHIDU based on data from NSW Department of Health (2008 to 2010), Vic Health (2009 to 2011), SA Health (2008 to 2010), WA Department of Health (2009 to 2011), NT Department of Health and Families (2006 to 2008), the Tasmanian Perinatal Database (2009 to 2011), and ACT Health (2008 to 2010)
- Smoking during pregnancy, 2008 to 2010 (NSW, Qld, SA & ACT), 2009 to 2011 (Vic, WA & Tas), 2006 to 2008 (NT)
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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).

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3 Any action where spending is greater than income thereby reducing already accumulated savings or leading to borrowing to finance the expenditure. Examples of dissaving actions include: reducing home loan repayments, increasing balance owed on credit cards, selling shares or other assets, taking out a personal loan etc.

Source: Compiled by PHIDU based on data from NSW Department of Health (2008 to 2010), Vic Health (2009 to 2011), SA Health (2008 to 2010), WA Department of Health (2009 to 2011), NT Department of Health and Families (2006 to 2008), the Tasmanian Perinatal Database (2009 to 2011), and ACT Health (2008 to 2010)

Child and youth health, late 2000s

- Children fully immunised at 1 year of age, 2 years of age and 5 years of age, 2011/12
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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 their third vaccination for diphtheria, tetanus, whooping cough and polio and either their second or third vaccination (dependent on the type of vaccine used) for hepatitis B and Haemophilus influenzae type b, all prior to the age of 1 year. It is assumed that all previous vaccinations were received.
  - **Children aged 2 years:** Fully immunised at 2 years means that a child aged 24 to less than 27 months received their third or fourth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus, whooping cough and Haemophilus influenzae type b, their third vaccination for polio and hepatitis B and their first vaccination for measles, mumps and rubella, all prior to the age of 2 years. It is assumed that all previous vaccinations were received.
  - **Children aged 5 years:** Fully immunised at 5 years means that a child aged 60 to less than 63 months received their fourth or fifth vaccination (dependent on the type of vaccine used) for diphtheria, tetanus and whooping cough, their fourth vaccination for polio and their second vaccination for measles mumps and rubella, all prior to the age of 5 years. It is assumed that all previous vaccinations were received.

  Data are not shown for areas where there were fewer than 26 registered children or fewer than 6 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, 2011/12

- HPV vaccine coverage for females aged 12 to 13 years in 2007: Dose 1, Dose 2 and Dose 3 received between 2007 and 2011
  – by SLA, Quintiles, Remoteness

  Notes: The data presented are of females who were aged 12 to 13 years in 2007, and received one, two or three doses of the HPV vaccine between 2007 and 2011. Females receiving all three doses represent those fully vaccinated.

  Where there were fewer than five participants in an area, the data are not shown. In addition, data for SLAs with fewer than 26 females aged 12 to 13 years in 2007 have been suppressed at the request of the Department of Health.

  Information held by the National HPV Vaccination Program Register (NHVPR) 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 are coded to an SLA based on the postcode of a person's address, rather than geo-coded from the full address, which can result in allocation to the wrong SLA;
  - SLAs are generally larger than postcode areas, and the conversion frequently allocates a whole postcode (or more than one postcode) area to an SLA, together with a part of another postcode (or parts of more than one postcode). The conversion is undertaken using approximate allocations of postcode populations (based on the best fit of Census Collection Districts (CDs) to postcode areas) to SLAs, derived from data at the previous Census. In many instances this conversion represents a crude allocation of the population of any SLA. 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;
  - 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.

  They may also result from inaccuracies in the denominator (the population of females aged 12 to 13 years in 2007), as population estimates at the SLA level for this narrow age group can be unreliable, in particular where the populations are small.

  Note that these data were provided to PHIDU with the agreement of the State, Territory and the Australian Government health departments.

  Source: Compiled by PHIDU using data from the National HPV Vaccination Program Register (NHVPR), December 2011

- Infant deaths, 2006 to 2010
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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.

Source: Compiled by PHIDU based on deaths data supplied by ABS on behalf of State and Territory Registrars of Deaths for 2006 to 2010; and ABS Births, 2006 to 2010

- Child mortality: Deaths of children aged 1 to 4 years, 2006 to 2010
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: The data presented are of deaths between 1 and 4 years of age.

  Source: Compiled by PHIDU based on deaths data supplied by ABS on behalf of State and Territory Registrars of Deaths for 2006 to 2010; and ABS Estimated Resident Population, 30 June 2006 to 30 June 2010

Screening programs, mid to late 2000s

Bowel screening, 2011/12

Conditions of Use for all *bowel screening* : 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 is 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 for all *bowel screening* data: Compiled by PHIDU based on data provided by the Department of Health from the National Bowel Cancer Screening Program, 2011/12

- Total males who participated in the National Bowel Cancer Screening Program, 2011/12
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Total females who participated in the National Bowel Cancer Screening Program, 2011/12
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness
- Total persons who participated in the National Bowel Cancer Screening Program, 2011/12
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes for all *Bowel screening participation* data: The data comprise the number of males/ females/ persons aged 50, 55 or 65 years who participated in the National Bowel Cancer Screening Program between July 2011 and June 2012, expressed as a proportion of the number of males/ females/ persons aged 50, 55 or 65 years who were invited to participate in the National Bowel Cancer Screening Program between July 2011 and June 2012.

  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, persons, 2011/12
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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. It is estimated that around 2% of positive test results have been confidentialised.

  The data comprise the number of 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 2011 and June 2012, expressed as a proportion of the number of people aged 50, 55 or 65 years who participated in the National Bowel Cancer Screening Program between July 2011 and June 2012.

Breast screening

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

  Notes: 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 Narrrogin (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 SLA 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 and the Northern Territory.

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) ABS Estimated Resident Population, average of 30 June 2010 and 30 June 2011 (NSW, Vic, Qld, SA & WA); and average of 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 SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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 Narrrogin (T); and Perth (C) - Inner and Perth (C) - Remainder.

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

  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, 2011 and 2012

- Cervical screening participation, females aged 20 to 69 years, 2011 and 2012 (NSW, Vic, Qld, SA, WA & ACT)
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: 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 per cent 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 SLA 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.

  Data are not available for Tasmania and the Northern Territory.

  Source: Compiled by PHIDU based on data from the:
  1) NSW Department of Health and NSW Central Cancer Registry, 2011 and 2012; Victorian Cervical Cytology Registry, 2011 and 2012; Queensland Health Cancer Services Screening Branch, 2011 and 2012; SA Cervix Screening Program, 2011 and 2012; Western Australia Cervical Cytology Register, 2011 and 2012; and ACT Cytology Register, 2011 and 2012; and
  2) ABS Estimated Resident Population, average of 30 June 2011 and 30 June 2012 (NSW, Vic, Qld, WA, SA and ACT); with hysterectomy fraction data derived from the 2007-08 National Health Survey

- Cervical screening outcomes: low grade abnormality, females aged 20 to 69 years, 2011 and 2012 (NSW, Vic, Qld, SA, WA & ACT)
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

- Cervical screening outcomes: high grade abnormality, females aged 20 to 69 years, 2011 and 2012 (NSW, Vic, Qld, SA, WA & ACT)
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes for all C*ervical screening outcomes* data: 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.

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

  Data are not available for Tasmania and the Northern Territory.

Source for *Cervical screening outcomes* data: Compiled by PHIDU based on data from the NSW Department of Health and NSW Central Cancer Registry, 2011 and 2012; Victorian Cervical Cytology Registry, 2011 and 2012; Queensland Health Cancer Services Screening Branch, 2011 and 2012; SA Cervix Screening Program, 2011 and 2012; Western Australia Cervical Cytology Register, 2011 and 2012; and ACT Cytology Register, 2011 and 2012.

Modelled estimates of prevalence of certain chronic diseases and risk factors etc., 2011-13

Notes for all 2011-13 *Modelled estimates of prevalence of certain chronic diseases, risk factors*:

PHA, LGA, PHN, ML: The estimates have been estimated at the **Population Health Area (PHA)** level from the 2011–13 **Australian Health Survey (AHS)**, conducted by the ABS: refer to the additional note on **modelled estimates**.

Quintiles, Remoteness: The data are direct estimates from the 2011–13 **Australian Health Survey (AHS)**, ABS Survey TableBuilder, and standardised using the ABS Estimated Resident Population, average of 30 June 2011 and 30 June 2012.

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

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

The AHS' response rate of around 85% provides a high level of coverage across the population; however, the response rate among some groups, e.g., those living in the most disadvantaged areas, is lower than among those in less disadvantaged areas. Although the sample includes the majority of people living in households in private dwellings, it excludes those living in the most remote areas of Australia; whereas these areas comprise less than 3% of the total population, Aboriginal people comprise up to one third of the population in these areas. This and other limitations of the method mean that estimates have not been published for PHAs with populations under 1,000, or with a high proportion of their population in:

1. non-private dwellings (hospitals, gaols, nursing homes - and also excludes members of the armed forces);
2. in Very Remote areas;
3. in discrete Aboriginal communities; and
4. where the relative root mean square errors (RRMSEs) on the estimates was 1 or more (estimate replaced with ≠).

NB:

1. Estimates with RRMSEs from 0.25 and to 0.50 have been marked (~) to indicate that they should be used with caution; and se greater than 0.50 but less than 1 are marked (~~) to indicate that the estimate is considered too unreliable for general use.
2. For the Primary Health Network (PHN), differences between the PHN totals and the sum of LGAs within PHNs result from the use of different concordances.

Source for all 2011-13 *Modelled estimates of prevalence of certain chronic diseases, risk factors etc.*:

PHA, LGA, PHN, ML: Compiled by PHIDU based on modelled estimates from the 2011–13 Australian Health Survey, ABS (unpublished); and the ABS Estimated Resident Population, average of 30 June 2011 and 30 June 2012.

Quintiles, Remoteness: Compiled by PHIDU based on direct estimates from the 2011–13 Australian Health Survey, ABS Survey TableBuilder; and standardised using the ABS Estimated Resident Population, average of 30 June 2011 and 30 June 2012

Self-assessed health (modelled estimates), 2011–13

- Estimated population, aged 15 years and over, with fair or poor self-assessed health, 2011–13 *– by PHA, LGA, PHN, ML, Quintiles, Remoteness*

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: The data on which the estimates are based are self-reported data, reported to interviewers in the 2011–13 AHS. 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'.

Chronic disease and conditions (modelled estimates), 2011–13

- Estimated population, aged 18 years and over, with diabetes mellitus, 2011–13 *– by PHA, LGA, PHN, ML, Quintiles, Remoteness*

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: Total cholesterol results were obtained for selected persons 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 ≥ 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 persons with a total blood cholesterol level ≥ 5.5 mmol/L.
- Estimated male population with mental and behavioural problems, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 hypertensive disease, 2011–13
    – by PHA, LGA, PHN, ML, Quintiles, Remoteness

    Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
    Indicator detail: In the AHS, people with hypertensive disease are defined as those persons who reported having been told by a doctor or nurse that they had hypertension and that it was current and long-term; that is, their condition was current at the time of interview and had lasted, or was expected to last, 6 months or more.
- Estimated population with respiratory system diseases, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: In the AHS, these data refer to persons ever 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, 2011–13
    – by PHA, LGA, PHN, ML, Quintiles, Remoteness

Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
Indicator detail: In the AHS, these data refer to persons ever 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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: In the AHS, these data refer to persons ever 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, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: In the AHS, these data refer to persons ever 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, 2011–13
    – by PHA, LGA, PHN, ML, Quintiles, Remoteness

    Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
    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 persons whose arthritis was current and long-term were recorded as having arthritis. Persons 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.

Psychological distress (modelled estimates), 2011–13

- Estimated population, aged 18 years and over, with high or very high psychological distress based on the Kessler 10 Scale (K10), 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 from the 2011–13 AHS 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.

Health risk factors (modelled estimates), 2011–13

- Estimated male population, aged 18 years and over, who were current smokers, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness
- Estimated female population, aged 18 years and over, who were current smokers, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness
- Estimated population, aged 18 years and over, who were current smokers, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: The data on which the estimates are based are self-reported data, reported to interviewers in the 2011–13

AHS. 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 15 years and over were asked to describe their smoking status at the time of interview as:

1. current smokers: daily, weekly, other;
1. ex-smokers;
2. 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".

- Estimated population, aged 18 years and over, consuming alcohol at levels considered to be a high risk to health, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  Indicator detail: These data are self-reported data related to alcohol consumption in the previous week, which would be a high risk to health if continued, using the alcohol level 7-day average to determine 'high risk' as defined in the 2001 National Health and Medical Research Council (NHMRC) guidelines. The level of health risk is based on estimated alcohol consumption in the seven days prior to interview using two components: the number of days on which the respondent reported consuming alcohol in the previous week; and the quantity consumed in the most recent days on which they consumed alcohol. In the 2001 NHMRC guidelines, 'high risk' is defined as an average daily consumption of seven or more standard drinks for males and five or more standard drinks for females; and more than 43 standard drinks per week for males, and more than 29 standard drinks per week for females.

- Estimated male population, aged 18 years and over, who were overweight (but not obese), 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and overweight (but not obesity) was determined where a person's BMI was between 25 and less than 30. 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated male population, aged 18 years and over, who were obese, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and 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 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated female population, aged 18 years and over, who were overweight (but not obese), 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and overweight (but not obesity) was determined where a person's BMI was between 25 and less than 30. 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated female population, aged 18 years and over, who were obese, 2011–13
  – by PHA, LGA, PHN, ML, Quintiles, Remoteness

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and 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 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated population, aged 18 years and over, who were overweight (but not obese), 2011–13 *– by PHA, LGA, PHN, ML, Quintiles, Remoteness*

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and overweight (but not obesity) was determined where a person's BMI was between 25 and less than 30. 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated population, aged 18 years and over, who were obese, 2011–13 *– by PHA, LGA, PHN, ML, Quintiles, Remoteness*

  Notes: Refer to **Notes for all *Modelled estimates etc.* and Source information** above.
  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 AHS interview, were used to calculate the BMI, and 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 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 84.3% of persons 18 years and over in the sample who had their height and weight measured.

Modelled estimates of prevalence of certain chronic diseases, risk factors etc., 2007–08

Notes for all *Modelled estimates of prevalence of certain chronic diseases, risk factors etc.:* The estimates have been synthetically predicted at the Statistical Local Area (SLA) level from the 2007-08 National Health Survey (NHS), conducted by the ABS: a note on modelled estimates is at **http://www..adelaide.edu.au/phidu/help-info/about-our-data/indicators-notes/sha-aust/health-status/notes_modelled_estimates.pdf**.

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.

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

The NHS achieves a response rate in excess of 90%. Although the sample includes the majority of people living in private households, it excludes those living in the most remote areas of Australia; whereas these areas comprise less than 3% of the total population, Aboriginal people comprise up to one third of the population in these areas. This and other limitations of the method mean that predictions have not been published for SLAs:

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.

NB: 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.

Note re additional data (Victoria and Queensland only): In Victoria, indicators of health and lifestyle, self-reported health and health conditions are collected annually via computer-assisted telephone interviewing as part of the Victorian Population Health Survey conducted by the Department of Health. Data estimates are available at the Local Government Area. See: **http://www.health.vic.gov.au/healthstatus/survey/vphs.htm**

In Queensland, a Self-Reported Health Status Survey is undertaken annually by Population Health Queensland using computer assisted telephone interviewing. Data are available as estimates at the Local Government Area. See: **http://www.health.qld.gov.au/epidemiology/publications/health-surveys.asp**

Source for all *Modelled estimates of prevalence of certain chronic diseases, risk factors etc.:* Compiled by PHIDU based on data estimated from the 2007–08 National Health Survey (NHS), ABS (unpublished); and ABS Estimated Resident Population, average of 30 June 2007 and 30 June 2008

Self-assessed health (modelled estimates), 2007–08

- Estimated population, aged 15 years and over, with fair or poor self-assessed health, 2007–08 *– by SLA, LHN*

  Notes: Respondents aged 15 years and over in the 2007–08 NHS were asked to rate their health on a scale from 'excellent', through 'very good', 'good' and 'fair', to 'poor' health. The data comprise those respondents who rated their health as fair or poor.

- Estimated population, aged 15 years and over, with a current long-term condition and reporting good, very good or excellent health, 2007–08
  – by SLA, LHN

  Notes: Respondents aged 15 years and over in the 2007–08 NHS were asked to rate their health on a scale from 'excellent', through 'very good', 'good' and 'fair', to 'poor' health. The data comprise those respondents who had been diagnosed with a long term health condition (a condition which has lasted or is expected to last for 6 months or more) and who rated their health as good, very good or excellent.

Chronic disease and conditions (modelled estimates), 2007–08

- Estimated population, aged 18 years and over, with type 2 diabetes, 2007–08[4]
  – by SLA, LHN
- Estimated population with high cholesterol, 2007–08
  – by SLA, LHN

  Notes for *Type 2 diabetes/ High cholesterol* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Respondents to the NHS were asked whether they had been diagnosed with any long term health condition (a condition which has lasted or is expected to last for 6 months or more), and were also asked whether they had been told by a doctor or nurse that they had asthma, cancer, heart and circulatory conditions, and/or diabetes.
- Estimated males with mental and behavioural problems, 2007–08
  – by SLA, LHN
  - Estimated males with mood (affective) problems, 2007–08
    – by SLA, LHN
- Estimated males with mental and behavioural problems, 2007–08
  – by SLA, LHN
  - Estimated males with mood (affective) problems, 2007–08
    – by SLA, LHN

  Notes for all *Mental and behavioural problems/ Mood (affective) problems* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Mental health and behavioural/ mood (affective) problems were identified through the self-reported information on long term conditions obtained by the survey. However, unlike the approach used for conditions such as asthma, cancer, heart and circulatory conditions, and/or diabetes, respondents in the survey were not specifically asked whether they had been diagnosed with any mental disorders. The information provided by respondents could therefore be based on self-diagnosis rather than diagnosis by a health professional.
- Estimated population with circulatory system diseases, 2007–08
  – by SLA, LHN
- Estimated population with hypertensive disease, 2007–08
  – by SLA, LHN
- Estimated population with respiratory system diseases, 2007–08
  – by SLA, LHN
  - Estimated population with asthma, 2007–08
    – by SLA, LHN
  - Estimated population with chronic obstructive pulmonary disease (COPD), 2007–08
    – by SLA, LHN
- Estimated population with musculoskeletal system diseases, 2007–08
  – by SLA, LHN
  - Estimated population with arthritis, 2007–08
    – by SLA, LHN
  - Estimated population with rheumatoid arthritis, 2007–08
    – by SLA, LHN

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[4] Note on diabetes estimates from the NHS and other sources:

The figures for all of Australia for type 2 diabetes published in the 2004-05 and 2007-08 National Health Surveys (NHSs) conducted by the Australian Bureau of Statistics (and used as the basis for the synthetic estimates shown here) is substantially lower than the AusDiab figure of 7.6% in 2000; 3.6% in the 2004-05 survey and 4.0% in the 2007-08 survey. The NHS is based on self-reported data: the AusDiab is based on physical and bio-chemical measures taken by qualified people.

The AusDiab figure is comprised of 3.8% diagnosed and 3.8% undiagnosed – that is, AusDiab state that for every one person with known diabetes, there is one unknown. There is good evidence [Qld and SA] to suggest this relationship is an overstatement. Further, the sample was taken in such a way [highly clustered, households replaced where contact could not be made] and respondents attending the test sites 'self-selected' such that bias in the results is clearly possible: the response rate (as distinct from the contact rate) was also very low. The sample also appears to have relatively few disadvantaged people; this would suggest their diagnosed figure is lower than would be achieved from a well-drawn/ executed sample with reasonable response rates across socioeconomic groups. For a comment on some of these issues from a Queensland perspective, see: **http://www.mja.com.au/public/issues/180_02_190104/letters_190104_fm-2.html.**

Given the problems with the AusDiab data, PHIDU was not prepared to use those data to predict rates in small areas.

The value of the modelled estimates, albeit on this low overall rate, is in showing likely variations between areas.

- Estimated population with osteoarthritis, 2007–08 *– by SLA, LHN*

- Estimated females with osteoporosis, 2007–08 *– by SLA, LHN*

Notes for all *Long term health conditions (i.e., indicators above from Circulatory system diseases onwards)* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Respondents to the NHS were asked whether they had been diagnosed with any long term health condition (a condition which has lasted or is expected to last for 6 months or more), and were also asked whether they had been told by a doctor or nurse that they had asthma, cancer, heart and circulatory conditions, and/or diabetes.

Psychological distress (modelled estimates), 2007–08

- Estimated population, aged 18 years and over, with high or very high levels of psychological distress, 2007–08 *– by SLA, LHN*

Notes: The data have been derived from the Kessler Psychological Distress Scale-10 items (K-10), which is a scale of non-specific psychological distress based on 10 questions asked of respondents about negative emotional states in the 4 weeks prior to interview. 'High' and 'very high' distress are the two highest levels of distress categories (of a total of four categories).

Health risk factors (modelled estimates), 2007–08

- Estimated male population, aged 18 years and over, who were current smokers, 2007–08 *– by SLA, LHN*
- Estimated female population, aged 18 years and over, who were current smokers, 2007–08 *– by SLA, LHN*

Notes for all *Current smokers* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. A current smoker is an adult who reported at the time of interview that they smoked cigarettes, cigars or pipes at least once a week.

- Estimated population, aged 18 years and over, consuming alcohol at levels considered to be a high risk to health, 2007–08 *– by SLA, LHN*

Notes: The data are self-reported data, reported to interviewers in the 2007–08 NHS. The level of health risk was based on estimated alcohol consumption in the seven days prior to interview using two components – the number of days on which the respondent reported consuming alcohol in the previous week; and the quantity consumed in the most recent days on which they consumed alcohol. For people who drank on no more than three days in the last week, their daily consumption was simply the total consumed divided by seven. Harmful use of alcohol is defined as average daily consumption of more than 75 ml (three standard drinks) for males and 50 ml (two standard drinks) for females.

- Estimated population, aged 15 years and over, who are physically inactive, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*

Notes: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Physical inactivity is defined as those aged 15 years and over who did not exercise in the two weeks prior to interview for the 2007–08 NHS, through sport, recreation or fitness (including walking).

- Estimated male population, aged 18 years and over, who were overweight (but not obese), 2007–08 *– by SLA, LHN*
- Estimated male population, aged 18 years and over, who were obese, 2007–08 *– by SLA, LHN*
- Estimated female population, aged 18 years and over, who were overweight (but not obese), 2007–08 *– by SLA, LHN*
- Estimated female population, aged 18 years and over, who were obese, 2007–08 *– by SLA, LHN*
- Estimated population, aged 18 years and over, who were overweight (but not obese), 2007–08 *– by SLA, LHN*
- Estimated population, aged 18 years and over, who were obese, 2007–08 *– by SLA, LHN*
- Male population, aged 18 years and over, in normal weight range, 2007–08 *– by SLA, LHN*
- Female population, aged 18 years and over, in normal weight range, 2007–08 *– by SLA, LHN*

Notes for all *Overweight/ Obesity/ Normal weight* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. The BMI was calculated from self-reported height and weight information and grouped as follows to allow reporting against both World Health Organization and National Health & Medical Research Council guidelines – normal range: 18.5 to less than 20.0 and 20.0 to less than 25.0; overweight: 25.0 to less than 30.0; obese: 30.0 and greater.

- Estimated population, aged 5 to 17 years, with a usual daily intake of two or more serves of fruit, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*
- Estimated population, aged 18 years and over, with a usual daily intake of two or more serves of fruit, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*

  Notes for all *Usual daily intake of fruit* data: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Data includes respondents reporting usually consuming two or more serves of fruit (excluding drinks and beverages) each day. A serve is approximately 150 grams of fresh fruit or 50 grams of dried fruit.
- Estimated population, aged 18 years and over, with at least one of four major health risk factors – smoking, harmful use of alcohol, physical inactivity or obesity, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*

  Notes: The data are self-reported data, reported to interviewers in the 2007–08 NHS. Data includes respondents who reported that they had at least one of the following health risk factors - smoking, harmful use of alcohol, physical inactivity or obesity.

Composite indicators – a chronic disease and an associated risk factor (modelled estimates), 2007–08

- Had type 2 diabetes and were overweight/ obese, persons aged 18 years and over, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*

  Notes: The data are self-reported data, reported to interviewers in the 2007–08 NHS.

  For further information, refer to the chronic disease and risk factor information provided above.
- Had asthma and were smokers, persons aged 18 years and over, 2007–08 *– by SLA, LHN, Quintiles, Remoteness*

  Notes: The data are self-reported data, reported to interviewers in the 2007–08 NHS.

  For further information, refer to the chronic disease and risk factor information provided above.

Disability, 2010 and 2011

- Assistance to persons with a disability (unpaid), 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*

  Notes: 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 persons aged 15 years and over whose unpaid assistance to persons 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
- Persons with a profound or severe disability, All ages, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*
- Persons with a profound or severe disability living in the community, All ages, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*
- Persons with a profound or severe disability, 0 to 64 years, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*
- Persons with a profound or severe disability living in the community, 0 to 64 years, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*
- Persons with a profound or severe disability, 65 years and over, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*
- Persons with a profound or severe disability living in the community, 65 years and over, 2011 *– by PHA, SLA, LGA, PHN, ML, LHN, SA2, Quintiles, Remoteness*

  Notes for all *People with a profound or severe disability* and *People with a profound or severe disability living in the community* data: 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 for all *People with a profound or severe disability* data: Compiled by PHIDU based on ABS Census 2011 (unpublished) data

- Persons aged 18 years and over with profound/severe/moderate/mild core activity restriction, 2010
  – by SLA, LGA, ML, LHN

  Notes: Refer to above **Notes on the Data** for ***Community strengths – Modelled estimates***.

  Source: Compiled by PHIDU based on modelled estimates from the 2010 General Social Survey, ABS (unpublished); and ABS Estimated Resident Population, 30 June 2010

Premature mortality by sex, 2008 to 2012

- Deaths of males aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Deaths of females aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Total deaths, 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Source for all *Premature mortality* data: Data produced by PHIDU based on deaths data supplied by ABS on behalf of State and Territory Registrars of deaths for 2008 to 2012; and ABS Estimated Resident Population, 30 June 2008 to 30 June 2012

Premature mortality by selected cause, 2008 to 2012

- Deaths from cancer, persons aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  ICD-10 codes: C00-D48
  - Deaths from colorectal cancer, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: C18-C21
  - Deaths from lung cancer, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: C33, C34
  - Deaths from breast cancer, females aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: C50
- Deaths from diabetes, persons aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  ICD-10 codes: E10-E14
- Deaths from circulatory system diseases, persons aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  ICD-10 codes: I00-I99
  - Deaths from ischaemic heart disease, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: I20-25
  - Deaths from cerebrovascular disease, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: I60-I69
- Deaths from respiratory system diseases, persons aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, ML, PHN, LHN, Quintiles, Remoteness

  ICD-10 codes: J00-J99
  - Deaths from chronic obstructive pulmonary disease, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: J40-J44
- Deaths from external causes, persons aged 0 to 74 years, 2008 to 2012
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  ICD-10 codes: V01-Y98
  - Deaths from road traffic injuries, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: V01-V04, V06, V09-V80, V87, V89, V99
  - Deaths from suicide and self-inflicted injuries, persons aged 0 to 74 years, 2008 to 2012
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    ICD-10 codes: X60-X84, Y87.0, Y10-Y34

Source for all *Premature mortality* data: Data produced by PHIDU based on deaths data supplied by ABS on behalf of State and Territory Registrars of deaths for 2008 to 2012; and ABS Estimated Resident Population, 30 June 2008 to 30 June 2012

Use and Provision of Health and Welfare Services

Private health insurance (modelled estimates), 2007–08

- Private health insurance, persons aged 15 years and over, 2007–08
  – by SLA, LGA, ML, LHN, Quintiles, Remoteness

  Notes: The data on which the predictions are based are self-reported data, reported to interviewers in the 2007-08 NHS. Respondents to the NHS were asked whether they were currently covered by private health insurance. Private health insurance was defined as "cover additional to that provided under Medicare, offered by private health organisations registered under the National Health Act to reimburse all or part of the cost of hospital and/or ancillary services"; cover provided/ arranged through employers was included; ambulance only cover, and cover arranged under Veteran's Affairs or other government health benefits cards, were excluded (see Australian Bureau of Statistics (ABS) 2009. National Health Survey: users guide - electronic, Australia 2007-08. ABS cat. no. 4363.0.55.001. ABS: Canberra, pp. 88-89. Accessed 30 April 2013, **http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/2851D0FD9C52AB56CA257ACC000E3DE1?opendocument**.

  See also the **Note for all *Modelled estimates* data** above.

  Source: Compiled by PHIDU based on data estimated from the 2007–08 National Health Survey (NHS), ABS (unpublished); and ABS Estimated Resident Population, average of 30 June 2007 and 30 June 2008

MBS services, 2009/10

Source for all *MBS services* data: Compiled by PHIDU based on data from the Department of Health and Ageing, 2009/10; and average of ABS Estimated Resident Population, 30 June 2009 and 30 June 2010

- GP services to males (MBS and DVA), 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- GP services to females (MBS and DVA), 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Total GP services (MBS and DVA), 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- 45 Year Old Health Checks by GPs, males aged 45 to 49 years, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 717
- 45 Year Old Health Checks by GPs, females aged 45 to 49 years, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 717
- 45 Year Old Health Checks by GPs, persons aged 45 to 49 years, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 717

  Note: The difference between the sum of males and females, and the persons total, for the 45 Year Old Health check data is due to not all data being reported by sex.
- Annual health assessments by GPs, persons aged 75 years and over, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 700, 702
- Other services by GPs for Enhanced Primary Care items, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 721, 725, 723, 727, 729, 731
- Total services by GPs for Enhanced Primary Care items, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 700-746, 749, 757-759, 762, 765, 768, 771-773, 775, 778-779, 900, 903, 2710, 2712-2713
- Practice Nurse services under the MBS, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 10993-10999
- Better Access Care Program: Preparation of Mental Health Care Plan by GPs, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 2702, 2710, 2712, 2713
- Better Access Care Program: Psychiatrists, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 291, 293, 296, 297, 299

- Better Access Care Program: Psychologists, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 80100, 80105, 80110, 80115, 80120
  - Better Access Care Program: General Psychologists, 2009/10
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    MBS Item Nos: 80000, 80005, 80010, 80015, 80020
  - Better Access Care Program: Clinical Psychologists, 2009/10
    – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

    MBS Item Nos: 80150, 80155, 80160, 80165, 80170
- Better Access Care Program: Social Workers, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 80150, 80155, 80160 and 80170
- Better Access Care Program: Occupational Therapists, 2009/10
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  MBS Item Nos: 80125, 80130, 80135, 80140, 80145

Home and Community Care Program, 2012/13

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

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

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness 11

  Notes: Provision of meals prepared and delivered to the client's home or provided in a community centre.

  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 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: May include help with bathing, toilet use, eating, dressing and personal grooming.
- Home and Community Care Program: Respite care instances, 2012/13
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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.

  NB: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: Assistance to provide or coordinate individual or group transport services.

  NB: 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 SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: 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

Aged care places, June 2011

Notes for all *Aged care places* data: 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. See: **http://www.health.gov.au/internet/main/publishing.nsf/content/ageing-rescare-servlist-download.htm** for further information.

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. See: http://www.health.gov.au/internet/publications/publishing.nsf/Content/ageing-publicat-aged-care-australia.htm~ageing-publicat-aged-care-australia-pt8~ageing-publicat-aged-care-australia-pt8-4 for further information.

Source for all *Aged care places* data: Compiled by PHIDU based on data from the Department of Health and Ageing, June 2011; and ABS Estimated Resident Population, 30 June 2011

- Residential aged care – high-level care places, June 2011
  – by SLA, LGA, LHN, ML, Quintiles, Remoteness

  Notes: 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 2011
  – by SLA, LGA, LHN, ML, Quintiles, Remoteness

  Notes: 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. Further details can be found **here**.

- Total residential aged care places, June 2011
  – by SLA, LGA, LHN, ML, Quintiles, Remoteness

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

- Community aged care places, June 2011
  – by SLA, LGA, LHN, ML, Quintiles, Remoteness

  Notes: 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.

  NB: The data shows the Statistical Local Area of the location of the agency funded, which is not necessarily the address of the person receiving the package of care.

Health workforce: Medical, Nursing and Dental professionals, 2011

Notes for all *Health workforce* data: The National Health Workforce Dataset (NHWDS) is comprised of registration and workforce survey data from the Australian Health Practitioner Regulation Agency (AHPRA). This dataset contains records for all AHPRA professions for employed practitioners who completed a workforce survey form. The data have been weighted[5] to represent the total number of people who are registered with AHPRA for each profession.

The data were extracted on 13/12/2013 and may not be the most up to date data for 2011. For the latest data release, please refer to: **http:/data.hwa.gov.au**

All data exclude those professionals on extended leave or not in the health workforce. Other data regarding the Australian health workforce, such as those held by the National Centre for Geographic & Resource Analysis in Primary Health Care (GRAPHC), may not be comparable with these data as they include health professionals on extended leave. Due to small numbers, data for many professions were only provided at the Medicare Local level and not the Local Government Area level. Data are not available by Statistical Local Area.

The Local Government Area or Medicare Local to which each professional is allocated is the principal practice address, as provided by the practitioner in the survey.

Values between 0 and 3 have been confidentialised. This has been done in accordance with HWA confidentialisation rules that randomly allocate scores of 0 or 3 to all values of 1 and 2 to protect confidentiality. However, some larger geographical areas such as Statistical Subdivisions, Statistical Divisions, capital cities, major urban centres and rest of state data are calculated from HWA Local Government Area data, which may contain such scores. This results in the sum of these areas not always precisely adding up to larger geographical areas such as State totals.

General Practitioners are defined as the weighted figure of those respondents that listed their principal role as a clinician and principal area of work as General Practice. This definition is that used by the Australian Institute of Health and Welfare.

Other specialists are not able to be defined in the same way and are defined by how they reported their primary specialty.

Total Medical Practitioners are defined as the sum of the weighted figure of those that reported their primary specialty (including unknown and not applicable).

[5] *Medical Practitioners Data Dictionary, Health Workforce Australia*. **http://www.hwa.gov.au/sites/uploads/SurvMedW2014.pdf**

NB: Total Medical Practitioners may not equal the sum of General Practitioners, Total Specialists (excluding General Practitioners) and Unknown/ not available specialties. This is because of the slight difference in how General Practitioners are defined in the two instances.

Source for all *Health workforce* data: Compiled by PHIDU based on data from the National Health Workforce Dataset (NHWDS), jointly owned by Health Workforce Australia (HWA) and the Australian Institute of Health and Welfare (AIHW), 2011; and ABS Estimated Resident Population, 30 June 2011

- Health workforce: General Medical Practitioners, 2011
  – by ML, LGA, Remoteness
- Health workforce: Specialists - Anaesthesia, 2011
  – by ML
- Health workforce: Specialists - Emergency medicine, 2011
  – by ML
- Health workforce: Specialists - Obstetrics and gynaecology, 2011
  – by ML
- Health workforce: Specialists - Opthalmology, 2011
  – by ML
- Health workforce: Specialists - Paediatrics and child health, 2011
  – by ML
- Health workforce: Specialists - Pathology, 2011
  – by ML
- Health workforce: Specialists - Physician, 2011
  – by ML
- Health workforce: Specialists - Psychiatry, 2011
  – by ML
- Health workforce: Specialists - Radiology, 2011
  – by ML
- Health workforce: Specialists - Rehabilitation medicine, 2011
  – by ML
- Health workforce: Specialists - Surgery, 2011
  – by ML
- Health workforce: Specialist Practitioners (as reported, including those not individually presented, excluding GPs) , 2011
  – by ML, LGA, Remoteness
- Health workforce: Unknown/Not applicable Medical Practitioners, 2011
  – by ML, LGA
- Health workforce: Total Medical Practitioners, 2011
  – by ML, LGA, Remoteness
- Health workforce: Registered Nurses only, 2011
  – by ML, LGA
- Health workforce: Registered Nurses who are also Midwives, 2011
  – by ML, LGA
- Health workforce: Total Registered Nurses, 2011
  – by ML, LGA, Remoteness
- Health workforce: Enrolled Nurses, 2011
  – by ML, LGA, Remoteness
- Health workforce: Midwives (may also be a Registered Nurse or Enrolled Nurse) , 2011
  – by ML, LGA, Remoteness
- Health workforce: Total Nurses (Registered Nurses, Enrolled Nurses or Midwives, each person only counted once) , 2011
  – by ML, LGA, Remoteness
- Health workforce: Dentists, 2011
  – by ML, LGA, Remoteness
- Health workforce: Oral health therapists, 2011
  – by ML

- Health workforce: Dental hygienists, 2011
  – by ML
- Health workforce: Dental therapists, 2011
  – by ML
- Health workforce: Dental prosthetists, 2011
  – by ML
- Health workforce: Total Dental Practitioners (includes Dentists, Oral health therapists, Dental hygienists, Dental therapists, and Dental prosthetists) , 2011
  – by ML, LGA, Remoteness

Hospital admissions

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

Note: Hospital admissions data for the SLAs of Fremantle - Inner and Perth - Inner have not been published as they may not be reliable as a result of possible incorrect coding of hospital location instead of person location.

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 2011-12. Health services series no. 50. (Cat. no. HSE 134.) Canberra: AIHW; 2013.]

Same-day admissions for renal dialysis (or care involving dialysis) have also been excluded from the data in this atlas for the categories of admissions for males, females and total persons, 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 renal dialysis for further details); these data are presented separately. All other same-day admissions are included.

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

Regardless of cell size, areas with populations of 1,000 or less in Queensland, or of less than 1,000 in the Northern Territory have been suppressed; in all other jurisdictions, the population cut-off for suppression is less than 300.

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.

Source for all *Hospital admissions* data: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2011/12; and ABS Estimated Resident Population, average of 30 June 2011 and 2012

Overnight admissions by hospital type and sex, 2011/12

Refer to the Notes and Source for all *Hospital admissions* data above.

- Total admissions (excluding extracorporeal dialysis) - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Total admissions (excluding extracorporeal dialysis) - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Total admissions (excluding extracorporeal dialysis) - Private hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Male total admissions (excluding extracorporeal dialysis) - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Male total admissions (excluding extracorporeal dialysis) - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Female total admissions (excluding extracorporeal dialysis) - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Female total admissions (excluding extracorporeal dialysis) - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

Overnight hospital admissions by diagnosis, 2011/12

Refer to the Notes and Source for all *Hospital admissions* data above.

- Admissions for infectious and parasitic diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

- Admissions for infectious and parasitic diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for all cancers - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for all cancers - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for mental health related conditions - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for mental health related conditions - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for circulatory diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for circulatory diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for respiratory diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for respiratory diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for digestive diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for digestive diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for musculoskeletal diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for musculoskeletal diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for genitourinary diseases - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for genitourinary diseases - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for pregnancy and childbirth - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for pregnancy and childbirth - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for injury and poisoning - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for injury and poisoning - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

Overnight hospital admissions by procedure type, 2011/12

Refer to the* Notes and Source for all *Hospital admissions* data *above.

- Admissions for a tonsillectomy, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for a myringotomy, 0 to 9 years, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for a Caesarean section, females aged 15 to 44 years, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for a hysterectomy, females aged 30 years and over, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

Same-day hospital admissions for renal dialysis, 2011/12

- Admissions for same day renal dialysis - Public hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness
- Admissions for same day renal dialysis - All hospitals, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

  Notes: The data presented are of the number of same-day admissions for renal dialysis. The reason for presenting these data separately from overnight admissions is that they represent many repeat visits by a relatively small number of patients, who may have multiple admissions in a week. Their inclusion with, for example, admissions of males, or of females can dramatically alter the geographic distribution of these other categories of admissions. This is particularly evident in regional

and remote areas where renal dialysis facilities are located, and where those using them may have moved to live to be near the facility.

Hospital admissions data for the SLAs of Fremantle - Inner and Perth - Inner have not been published as they may not be reliable as a result of possible incorrect coding of hospital location instead of person location.

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

Regardless of cell size, areas with populations of 1,000 or less in Queensland, or of less than 1,000 in the Northern Territory have been suppressed; in all other jurisdictions, the population cut-off for suppression is less than 300.

Data were not available for private renal 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 renal dialysis units and all renal dialysis units, the 'all units' data for these jurisdictions have also been confidentialised, as their publication would allow identification of the confidentialised private renal 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 renal 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 2011/12; and ABS Estimated Resident Population, average of 30 June 2011 and 2012

Emergency department presentations, 2011/12

- Admissions to emergency presentations, 2011/12
  – by SLA, LGA, PHN, ML, LHN, Quintiles, Remoteness

Notes: Hospital admissions data for the SLAs of Fremantle - Inner and Perth - Inner have not been published as they may not be reliable as a result of possible incorrect coding of hospital location instead of person location.

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

Regardless of cell size, areas with populations of 1,000 or less in Queensland, or of less than 1,000 in the Northern Territory have been suppressed; in all other jurisdictions, the population cut-off for suppression is less than 300.

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.

Source: Compiled by PHIDU using data from the Australian Institute of Health and Welfare, supplied on behalf of State and Territory health departments for 2011/12; and ABS Estimated Resident Population, average of 30 June 2011 and 2012