Australia's Health Tracker by Area, 2017

Notes on the data

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Introductory information

The geographical structure acronyms are defined as follows:
'PHA' - Population Health Areas, 'LGA' - Local Government Areas, 'PHN' - Primary Health Networks, 'Inequality' - Quintiles of Socioeconomic Disadvantage of Area, 'Remoteness' - Remoteness Areas of Australia

Notes on modelled estimates of chronic disease risk factors and the prevalence of diabetes

In the absence of data from administrative data sets, the Australian Bureau of Statistics (ABS) produced estimates for *risk factors* and the *prevalence of diabetes* from the 2011–12 Australian Health Survey (AHS) and the 2014–15 National Health Survey (NHS).

Estimates for PHAs, LGAs and PHNs (also referred to as small geographic areas) are modelled estimates, as described below (more details are provided at **modelled estimates**).

Estimates for Inequality and Remoteness Areas are direct estimates from the surveys extracted using ABS Survey TableBuilder.

Modelled estimates

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 survey 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.

Estimates have not been published for areas 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 ≠) (PHA, LGA, PHN only).

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 those 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: Estimates for PHAs are modelled estimates and were produced by the ABS; estimates at the LGA and PHN level were derived from the PHA estimates.

Inequality and Remoteness: Compiled by PHIDU based on direct estimates from the 2011–12 or 2014–15 Australian Health Survey, ABS Survey TableBuilder.

The indicator information and data sources are presented below under the following themes of **Risk factors**, **Screening**, **Illness** and **Deaths**.

Risk factors: adults

- Estimated population (also for males, females), aged 18 years and over, who were obese, 2014–15
  – by PHA, LGA, PHN, Inequality and Remoteness

  Notes: Refer to **Notes and Source for 2014–15 _estimates_** 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.

  Additional details of the calculation of the BMI are at

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

  Note that the modelled estimates are based on the 73.2% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated population (also for males, females), aged 18 years and over, who were overweight or obese, 2014–15
  – by PHA, LGA, PHN, Inequality and Remoteness

  Notes: Refer to **Notes and Source for 2014–15 _estimates_** 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 or obese was determined where a person's BMI was 25 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.

  Additional details of the calculation of the BMI are at

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

  Note that the modelled estimates are based on the 73.2% of persons 18 years and over in the sample who had their height and weight measured.

- Estimated population with high blood pressure, 2014–15
  – by PHA, LGA, PHN, Inequality and Remoteness

  Notes: Refer to **Notes and Source for 2014–15 _estimates_** above.

  Indicator detail: Age-standardised average proportion of adults aged 18 years or more with elevated blood pressure (≥ 140/90 mmHg).

- Estimated population, aged 15 years and over, consuming alcohol at levels considered to be a high risk to health, 2014–15
  – *by PHA, LGA, PHN, Inequality and Remoteness*

  Notes: Refer to **Notes and Source for 2014–15 *estimates*** above.

  Indicator detail: Long-term risky drinking: Proportion of the population (aged 15+) reporting average alcohol consumption of more than two standard drinks per day over the past year.

  Variation from the national report cards Australia's Health Tracker (July, November 2016) – the estimates for these small geographic areas cover alcohol consumption of people aged 15 years and over; the indicators in the national report cards cover people aged 14 years and over.

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

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

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

  Notes: Refer to **Notes and Source for 2014–15 *estimates*** above.

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

  2. ex-smokers;

  3. never smoked (those who had never smoked 100 cigarettes, nor pipes, cigars or other tobacco products at least 20 times, in their lifetime).

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

  Variation from the national report cards Australia's Health Tracker (July, November 2016) – the estimates for these small geographic areas cover current smokers aged 18 years and over; the indicators in the national report cards cover daily smokers aged 14 years and over.

- Estimated number of people aged 18 years and over with high cholesterol, 2011–12
  – *by PHA, LGA, PHN, Inequality and Remoteness*

  Notes: Refer to **Notes and Source for 2011–12 *estimates*** 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.

  Note that these data have not been updated as the self-reported data from 2014–15 are considered to be less reliable.

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

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

  Variation from the national report cards Australia's Health Tracker (July, November 2016) – the estimates for these small geographic areas cover no or low exercise in the week prior to being interviewed, people aged 18 years and over; the indicators in the national report cards cover insufficient physical activity (time-based), people aged 18 to 64 years.

Risk factors: children and young people

- Estimated population (also for males, females), aged 2 to 17 years, who were obese, 2014–15
  – by PHA, LGA, PHN

  Notes: Refer to **Notes and Source for 2014–15 *estimates*** 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 NHS interview, were used to calculate the BMI – details at

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

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

- Estimated population (also for males, females), aged 2 to 17 years, who were overweight or obese, 2014–15
  – by PHA, LGA, PHN

  Notes: Refer to **Notes and Source for 2014–15 *estimates*** 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 NHS interview, were used to calculate the BMI – details at

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

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

Screening

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

1. *Formal publication and reporting of the NBCSP data is undertaken by the Australian Institute of Health and Welfare on behalf of the Department of Health. NBCSP data included in this report provided by the Department of Health 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, 2012/13.

- Total males who participated in the National Bowel Cancer Screening Program, 2012/13
  – by PHA, LGA, PHN, Inequality and Remoteness

- Total females who participated in the National Bowel Cancer Screening Program, 2012/13
  – by PHA, LGA, PHN, Inequality and Remoteness

- Total persons who participated in the National Bowel Cancer Screening Program, 2012/13
  – by PHA, LGA, PHN, Inequality and 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 2012 and June 2013, 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 2012 and June 2013.

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

- National Bowel Cancer Screening Program: positive test result, males, 2012/13
  – by PHA, LGA, PHN, Inequality and Remoteness

- National Bowel Cancer Screening Program: positive test result, females, 2012/13
  – by PHA, LGA, PHN, Inequality and Remoteness

- National Bowel Cancer Screening Program: positive test result, persons, 2012/13
  – by PHA, LGA, PHN, Inequality and Remoteness

Notes for all *Bowel screening outcomes* data: The outcome indicator presented is referred to as a 'positive test result'; a positive FOBT result indicates that blood has been found in the sample provided.

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

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

Variation from the national report cards Australia's Health Tracker (July, November 2016) – the estimates for these small geographic areas cover eligible people aged 50, 55 or 65 years; the indicators in the national report cards cover people aged 50 to 74 years.

Illness

- Estimated population, aged 25 to 64 years, with diabetes, 2014–15
  – by PHA, LGA, PHN, Inequality and Remoteness

  Notes: Refer to **Notes and Source for 2014–15 *estimates*** 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).

Deaths

- Deaths from cardiovascular diseases, all cancers, respiratory system diseases and diabetes, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: I00-I99, C00-D48, J00-J99, E10-E14

- Deaths from cardiovascular diseases, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: I00-I99

- Deaths from cancer, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: C00-D48

- Deaths from lung cancer, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: C33, C34

- Deaths from breast cancer, females aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: C50

- Deaths from colorectal (bowel) cancer, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: C18-C20

- Deaths from respiratory system diseases, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: J00-J99

- Deaths from diabetes, persons aged 30 to 69 years, 2010 to 2014
  – by PHA, LGA, PHN, Inequality and Remoteness

  ICD-10 codes: E10-E14

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

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

  Notes: For all indicators, the data presented are the average annual indirectly age-standardised rates per 100,000 population (aged 30 to 69 years/0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

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

Source: Data compiled by PHIDU from deaths data based on the 2010 to 2014 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level (Statistical Area Level 2) is the ABS Estimated Resident Population (ERP), 30 June 2009 to 30 June 2013; the population standard is the ABS ERP for Australia, 30 June 2009 to 30 June 2013.

Variation from the national report cards Australia's Health Tracker (July, November 2016) – the estimates for these small geographic areas cover deaths at ages 30 to 69 years (other than for suicide and self-inflicted injuries; the indicators in the national report cards cover people aged 30 to 70 years.