Australia's Health Tracker
Technical Appendix

Acknowledgments

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Australia's Health Tracker
Technical Appendix

This technical appendix is the accompanying document for Australia's Health Tracker, Australia's Adult Health Tracker and Australia's Children and Young People Health Tracker

Abbreviations

ABS	Australian Bureau of Statistics
AHPC	Australian Health Policy Collaboration
AHS	Australian Health Survey
AIHW	Australian Institute of Health and Welfare
ASSAD	Australian School Students Alcohol and Drug Survey
BMI	body mass index
BP	blood pressure
CVD	cardiovascular disease
DHHS	Department of Health and Human Services, Victoria
JCU	James Cook University
NAIP	National Alcohol Indicators Project
NDSHS	National Drug Strategy Household Survey
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
NMHC	National Mental Health Commission
OECD	Organisation of Economic Cooperation and Development
PHIDU	Public Health Information Development Unit
SAHMRI	South Australian Health and Medical Research Institute
UWA	University of Western Australia
WHO	World Health Organization

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Introduction

This technical appendix is a companion and reference tool for the publications *Australia's Health Tracker*, *Australia's Adult Health Tracker and Australia's Children and Young People Health Tracker* (hereafter collectively referred to as the report cards) (Tolhurst et al., 2016).

Compiled through the collaborative effort and guidance of leading Australian public health and chronic disease experts, the report cards have been developed and published by the Australian Health Policy Collaboration (AHPC) at Victoria University, Melbourne.

The report cards are the first comprehensive assessment of how Australia's population – both Aboriginal and Torres Strait Islander and non-Indigenous people, and children as well as adults – is faring when measured against improved health targets for 2025. Where possible they also compare Australia's performance on these indicators to that of populations in other Organisation for Economic Cooperation and Development (OECD) countries.

The report cards are a part of a national project for accountability for chronic disease prevention in Australia which began with the World Health Organization's (WHO) *Global Action Plan for Prevention and Control of Non-communicable Diseases* (WHO, 2013a) and the *WHO Mental Health Action Plan* (WHO, 2013b). Targets and indicators to measure progress for prevention and control of chronic disease (also known as non-communicable disease) were developed through a comprehensive process undertaken by seven national expert working groups in 2015. The working groups developed proposed targets tailored to Australia, described in full in the *Targets and Indicators for Chronic Disease Prevention in Australia (McNamara et al., 2015)*. These are summarised in the table on p.ix.

For full details on the development of the targets and indicators, see the reports *Development of Australian Chronic Disease Targets and Indicators* (Tolhurst, 2015) and the technical paper *Suitability of the WHO 25 x 25 Chronic Disease Targets and Indicators for Australia* (Leung & Tolhurst, 2015).

Indicators

In considering targets and indicators, the AHPC and colleagues used Australian Institute of Health and Welfare criteria. The criteria state that chronic disease indicators must:

- be relevant,

- be applicable across population groups,

- be technically sound (valid, reliable, sensitive (to change over time) and robust),

- be feasible to collect and report,

- lead to action (at various population levels, for example, individual, community, organization/agency),

- be timely, and

- be marketable.

The most recent data were used for the report cards. Some of the indicator data are as recent as 2015-16, and other data is from 2011/12.

The available recent data have limitations. We do not have regular, comprehensive health surveillance in Australia that includes anthropometric, biomedical and environmental measures. The Australian Health Survey (ABS, 2013a) carried out in 2011-12 was the most comprehensive Australian survey ever undertaken in this regard. Particularly relevant to the report cards are the biomedical measures from the 2011-12 survey (ABS, 2013b), such as cholesterol, diabetes biomarkers, salt intake, Hb1c testing. The more recent National Health Survey (ABS, 2015a) did not involve collection of blood and urine samples so the resulting survey data does not include such a comprehensive set of measures. Lack of such measures reduces the ability to track and address these health risk factors in the report cards (and elsewhere).

Targets

Targets and Indicators for Chronic Disease Prevention in Australia (McNamara et al., 2015) used 2025 as the target year for most chronic disease prevention targets and 2010 as the baseline year. This is consistent with the approach of the WHO Action Plans.

Where possible we have used 2010 data as the baseline in the report cards. This works well for some data sources (eg., the Australian School Students Alcohol and Drugs survey, for which there is a 2010 report). But in other areas (eg., the National Nutrition Survey, which occurred in 1995 and again in 2011-12) data are available for years either before or after 2010.

Aboriginal and Torres Strait Islander data

Comparative data in this report is drawn from the most recent reputable source for the most appropriate age cohort. Indigenous and non-Indigenous comparisons may be measured on different timescales, for different age groups, and may involve slightly different concepts.

When comparing Indigenous and non-Indigenous Australians, adjusting for differences in age structure between the two populations is necessary and should be considered when interpreting the data.

International comparisons

Providing an international comparison to understand how Australian adults are faring in the global context is briefly discussed in the adult section of *Australia's Health Tracker* and further details are provided in this appendix. Where possible, the OECD country comparative figures are provided to rank Australia relative to other similar nations. OECD measures were selected or constructed for comparison with the Australian measures. WHO's annual reports to governments on progress against its Action Plans have also been used for international comparisons.

Internationally comparable population data for children and young people were not readily available for most indicators and hence, were not included in the children and young people's section of *Australia's Health Tracker*. If possible, they will be included in the next release of the report cards.

Validation

The data included in the report cards were reviewed and validated by working group members(p.31). The Public Health Information Development Unit (PHIDU) at Torrens University assisted in analysis and locating data that were not readily available. PHIDU is cited where applicable. The AHPC takes responsibility for the final publication, contents and data as reported.

Technical appendix format

This document provides information, in alphabetical order, relevant to the targets and indicators reported in *Australia's Health Tracker.* As the report cards are divided into two main sections – adults and children/young people, so too is this document.

TABLE 1: Targets and indicators proposed for implementation in Australia

FRAMEWORK ELEMENT	PROPOSED AUSTRALIAN TARGET	PROPOSED AUSTRALIAN INDICATORS
Mortality and Morbidity		
Premature mortality from noncommunicable disease	1. 25% reduction in the overall mortality from cardiovascular diseases, cancer, chronic respiratory diseases and diabetes	• **Unconditional probability of dying between ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases** • Age-standardised rates of unplanned admission for patients aged between 30 and 70 years admitted to hospital with a primary diagnosis of cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases • Age-standardised rates of unplanned readmission for patients aged between 30 and 70 years admitted to hospital with an initial primary diagnosis of cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases
	a. 25% reduction in the overall mortality from cardiovascular diseases and diabetes	• **Unconditional probability of dying between ages of 30 and 70 from cardiovascular disease**s • Unconditional probability of dying between ages of 30 and 70 from diabetes • Age-standardised average blood pressure among patients with chronic kidney disease, and percent of adults aged 18 years or more with elevated blood pressure (≥ 140/90 mmHg)
	b. 25% reduction in the overall mortality from chronic respiratory diseases c. Elimination of asthma deaths in adults aged under 65 years	• **Unconditional probability of dying between ages of 30 and 70 from chronic obstructive pulmonary disease** • **Unconditional probability of dying between ages of 30 and 70 from asthma** • Percent of patients aged 30-70 years who are readmitted within 28 days of discharge following a hospital admission related to asthma or COPD
	d. 25% reduction in the overall mortality from cancer	• **Unconditional probability of dying between ages of 30 and 70 from cancer** • One-year survival rates for individuals diagnosed with the following cancers (individual indicators): lung, breast, colorectal, cervix, melanoma and prostate
	e. Reduction in the national suicide rate by 10% by 2020[3]	• The suicide rate as an age-standardised rate per 100,000 population
Behavioural risk factors		
Harmful use of alcohol	2. At least 10% relative reduction in the harmful use of alcohol, with regard to: • Per capita consumption; and • Heavy episodic drinking; and • Alcohol-related morbidity and mortality	• Apparent consumption of pure alcohol per capita (aged 15+), based on excise data, import clearances and sales data from Australian produced wine. • Heavy episodic drinking: Proportion of the population (aged 15+) reporting monthly or more frequent episodes of drinking where 5 or more standard drinks were consumed in a single occasion • Heavy episodic drinking among adolescents: Proportion of the adolescent (12-17 yo) population reporting at least one drinking occasion where 5 or more standard drinks were consumed in the previous week. • 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. (gender split) • Emergency department presentations: Presentations for injury (S & T ICD-10 codes) to Australian Emergency Departments (excluding Tasmania) at any of the following times: Fridays, 22:00 to 23:59; Saturdays, 0:00 to 3:59; 22:00 to 23:59; Sundays, 0:00 to 3:59 and 18:00 to 23:59). Rate per 100,000 population. (gender and age (<30, 30+) • Hospital admissions for alcohol use disorders: Hospital admissions with primary diagnoses of ICD-9-CM codes; 291.0-291.9, 303.0-303.9, 305.0 and ICD-10-AM codes; F10.0-F10.9. Rate per 100,000 population. (gender split) • Alcoholic liver disease deaths: Mortality rates with primary cause of alcoholic liver cirrhosis (ICD-9-CM codes: 571.0, 571.1, 571.2, 571.3 ICD-10-AM codes: K70.0, K70.1, K70.2, K70.3, K70.4 and K70.9) (gender split)

Physical inactivity	3. A 10% relative reduction in prevalence of insufficient physical activity	• Prevalence of insufficiently physically active children and adolescents aged 5–17 years defined as less than 60 minutes of activity daily • Prevalence of insufficiently physically active adults aged 18+ is based on a physical activity recommendation of 150 minutes from five or more sessions per week. (Updated guidelines have removed the sessions requirement and thus the baseline prevalence and WHO target will need to be updated according to estimates based on the new guidelines.)
Salt/sodium intake	4. A 30% relative reduction in mean population intake of salt/sodium	• Age-standardised mean population intake of sodium expressed as salt grams per day
Tobacco use	5a 30% relative reduction in prevalence of current tobacco use in persons aged 14+ years	• **Adults: Age-standardised prevalence of daily smokers aged 14 years and older from National Drug Strategy Household Survey (NDSHS)** (also group 1) • Adolescents: daily smoking prevalence (in the seven days prior to the survey) for adolescents aged 12–17 years
	5b Reduce smoking rates of adults over 18 years with a mental illness by 30% by 2020 and 60% by 2025	• The proportion of the population with mental illness who report being smokers compared with the smoking rates for the population without mental illness
Biological risk factors		
Raised blood Pressure	6. A 25% relative reduction in the prevalence of raised blood pressure	• **Age-standardised average blood pressure and percent of adults aged 18 years or more with elevated blood pressure (≥ 140/90 mmHg) (also group 1)**
Diabetes and obesity	7. Halt the rise in obesity	• **Age-standardised prevalence of normal weight, overweight and obesity class I, II, III in persons 18 years or older (also group 1)** • **Prevalence of normal weight, overweight and obesity in children and adolescents (also group 1)** • Age-standardised proportion of total energy intake from discretionary foods in persons aged 18 years or older and in children (2–17 years) • Prevalence of breastfeeding and exclusive breastfeeding
	8. Halt the rise in new diabetes	• Age-standardised incidence and prevalence of diabetes in persons 25–65yrs
Additional indicators		
		• Age-standardised average total cholesterol levels for adults aged 18 years or more, and percent with total cholesterol ≥ 5.0 mmol/L
Mental ill-health	9. Improve employment rates of adults over 18 with mental illness, and participation rates of young people with mental illness in education and employment, halving the employment and education gap by 2025	• Participation rates by people with mental illness of working age in employment: general population • Participation rates by young people aged 16-30 with mental illness in education and employment: General population

Note: indicted in bold were regarded as core by the mortality & morbidity working group or were nominated by multiple groups

Extracted from the *Targets and indicators for chronic diseases prevention in Australia*

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3. WHO set targets and indicators relevant to mental health in the *WHO Global Mental Health Action Plan 2013-2020*, which contains six global targets and indicators for achievement by 2020

Australia's Health Tracker
Adult data

Adults

Alcohol

Long-term risky drinking

- **Latest population data:** 18.2% of Australians aged 12 and over drink in a long-term risky manner. Males are twice as likely as females to drink at risky levels (26% and 9.7% respectively). Source: AIHW (2014a).

- **Technical note:** 'Risky' is defined in the National Health and Medical Research Council (NHMRC) guidelines for lifetime risk as consuming, on average, more than two standard drinks per day.

- **Target:** The 2010 baseline is 20.1%; the 2025 alcohol target is for a 10% reduction, to 18.1% (rounded to 18%). Baseline data source: AIHW (2011a).

- **Trend:** Latest data suggests progress towards the 2025 target.

- **Latest Indigenous data:** Prevalence among Indigenous Australians was 22.7% in 2013 (down from 32% in 2010). Source: AIHW (2014b).

- **International:**Not available.

Per capita pure alcohol consumption

- **Latest population data:** Average per capita consumption of pure alcohol was 9.7 litres in 2013-14. Source: ABS (2015b).

- **Technical note:** A standard drink consists of 12.5 mls of pure alcohol; 9.7 litres of pure alcohol per year is equivalent to an average of 2.1 standard drinks per day. This figure overestimates the true level of

alcohol consumed as beverages, as adjustments cannot be made for wastage and other factors such as for alcohol used in cooking (ABS, 2015b). The OECD defines alcohol consumption as annual sales of pure alcohol in litres per person aged 15 years and over (OECD 2015, p. 70). This is consistent with one of the WHO alcohol measures (2013a), and matches the definition used in *Targets and Indicators for Chronic Disease Prevention in Australia* (2015).

- **Target:** The 2025 alcohol consumption target is 9.5 litres – 10% under the 2010 level of 10.5 litres of pure alcohol per capita. Source for 2010 baseline: as above.

- **Trend:** Per capita consumption of pure alcohol in 2013-14 was 1.7% less than in 2012-13 (9.9 litres). Latest data suggests progress towards the 2025 target.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International:** Australia is ranked 13th highest of 34 OECD countries for alcohol consumption per capita. (Note that Figure 4.3 shows 44 countries; 10 are not OECD countries, eg. India, Indonesia, Costa Rica and Colombia.) (OECD, 2015).
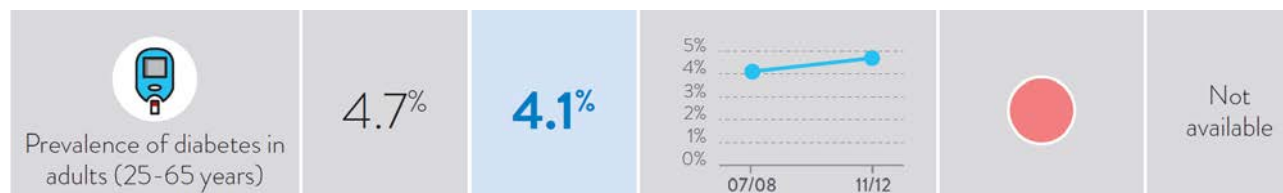
Heavy episodic drinking

- **Latest population data:** In 2013, 5 million people aged 14 and over (26.4% of the population) engaged in heavy episodic drinking. Source: AIHW (2014a).

- **Technical note:** Heavy episodic drinking is five or more standard drinks on a single drinking occasion at least once a month.

- **Target:** The 2025 target is 26%, 10% below the 2010 baseline of 29% of Australians aged 14 and over reporting heavy episodic drinking. Baseline data source: AIHW (2011a).

- **Trend:** Latest data suggests progress towards the 2025 target.

- **Latest Indigenous data:** 37.8% of Indigenous adults report heavy episodic drinking (down from 45.5% in 2010). Source: AIHW (2014b, Table 8.4)

- **International:** Not available.

Emergency department (ED) presentations

- **Latest population data:** In 2011-12, estimated rates of alcohol-related injury presentations to EDs were 5.7 per 1,000 persons for males and 3.4 per 1,000 persons for females aged 14 years or older. Source: Lensvelt et al. (2015).

- **Technical note:** The alcohol-related ED presentation data (Lensvelt et al., 2015) includes all Australian jurisdictions except Tasmania. WA data includes ED presentations in the Perth metropolitan area only; NSW data includes ED presentations coded 'assault' or 'injury' in free-text fields only.

- **Target:** The 2025 targets for alcohol-related injury presentations to EDs are 4.9 and 2.7 per 1,000 per annum for males and females respectively (10% reductions from the 2009-10 baseline figures which were 5.4/1,000 males and 3/1,000 females).

- **Trend:** Latest data indicate slightly higher numbers and therefore, poor progress towards the 2025 target.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

Diabetes

Prevalence of diabetes in adults (25-65 years)	4.7%	4.1%	*[trend graph 07/08 to 11/12]*	*[red circle]*	Not available

- **Latest population data:** Diabetes prevalence in the 25-64 year age group in 2011/12 was 4.7%. Source: ABS (2013a).

- **Technical note:** We used prevalence – not incidence – to develop and report on the target. The data could not be standardised for age.

- **Target:** Using the 2007-08 figure as a baseline, the 2025 target is 4.1%. Baseline data source: ABS (2009).

- **Trend:** Latest data suggests poor progress towards the 2025 target.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International data:** A comparison for Australia using the ABS data (years 25-64 years) against other OECD countries is not possible. However, according to the data in the latest report from the International Diabetes Federation (IDF, 2015) Australia has a 5-7% comparative prevalence of diabetes (20-79 years). Sweden, the United Kingdom, Ireland, Lithuania and Estonia have a lower comparative prevalence (less than 5%) than that reported for Australia. However, France, Italy, Belgium, Poland, Ukraine, Norway and Finland are at the same prevalence as Australia of approx. 5-7%. The United States of America, Russia and Mexico have a higher prevalence (above 9%).

Discretionary food and sugar

Proportion of total energy intake from discretionary or "junk" food in adults diets	34.6%	Indicator to be monitored	–	–	40.7%
Adults consuming too much sugar	47.8%	Indicator to be monitored	–	–	Not available

Discretionary foods

- **Latest population data:** Adults aged 19 years and over report an average of 34.6% of energy intake from discretionary food. Source: ABS (2014d, Table 9.1)

- **Technical note:** Discretionary food or "junk" food are foods considered to be of little nutritional value and which tend to be high in saturated fats, sugars, salt and/or alcohol. The ABS states that dietary surveys are "…subject to under-reporting. That is, a tendency for respondents to either change their behaviour or misrepresent their consumption (whether consciously or sub-consciously) to report a lower energy or food intake. Given the association of under-reporting with overweight/ obesity and consciousness of socially acceptable/desirable dietary patterns, discretionary foods would be expected to be more likely to be under-reported than non-discretionary foods." See Under-reporting in Nutrition Surveys (ABS, 2014e) for more information. This should be considered when interpreting data.

- **Target:** Indicator to be monitored as a risk factor for chronic disease.

- **Latest Indigenous data:** The average proportion of total daily energy from discretionary foods was higher among Aboriginal and Torres Strait Islander people than non-Indigenous people (40.7% vs. 34.6%). Source: ABS (2015d, Table 9.1).

- **International:** Not available.

Sugar

- **Latest population data:** In 2011-12, 47.8% of adults did not adhere to the recommendation to limit energy from free sugars to less than 10% of dietary energy. Source: ABS (2016a, Table 3.1).

- **Technical note:** 'Too much sugar' is defined as ≥10% of daily energy (on a usual basis) from free sugars, based on WHO recommendations.

- **Target:** Indicator to be monitored. Indicator to be monitored as a risk factor for chronic disease.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International:** Not available.

High cholesterol

	32.8%	**24.6%***	No new data since baseline	Inadequate data to assess trend	25%
High cholesterol					

Although an explicit target was not originally nominated in *Targets and Indicators for Chronic Disease Prevention* (McNamara et al., 2015), the working group subsequently agreed upon a target for inclusion in the report card, informed by the related target of a 25% relative reduction in the overall mortality from cardiovascular disease, common cancer, chronic respiratory diseases and diabetes.

- **Latest population data:** The Australian Health Survey 2011-12 (ABS, 2013b) found one in three Australians aged 18 years and over (32.8%, or 5.6 million people) had abnormal or high total cholesterol levels according to their blood test results. However, only 10.1% of this group self-reported having high cholesterol as a current and long-term health condition. Hence, the majority of people with high cholesterol were either unaware that they had the condition or did not consider it to be a long term or current problem. Source: AIHW (2016), ABS (2013b).

- **Technical note:** High cholesterol = total cholesterol greater than or equal to 5.5 mmol/L. Common cancers were defined as lung, breast, colorectal, cervix, skin (melanoma) and prostrate. (McNamara et al., 2015, p.10)

- **Target:** The 2011-12 AHS data (ABS, 2013b) provides the optimal baseline because it measured cholesterol levels rather than relying on self-report. Therefore, a 25% reduction from the 2011-12 baseline gives a 2025 target of 24.6%.

- **Trend:** Insufficient data to assess trend as no new data since baseline.

- **Latest Indigenous data:** In 2012-13, one in four Aboriginal and Torres Strait Islander adults (25%) had abnormal or high total cholesterol levels according to their blood test results. However, only 9.1% of this group self-reported high cholesterol as a current long-term health condition. Source: ABS (2014).

- **International:** Not available.
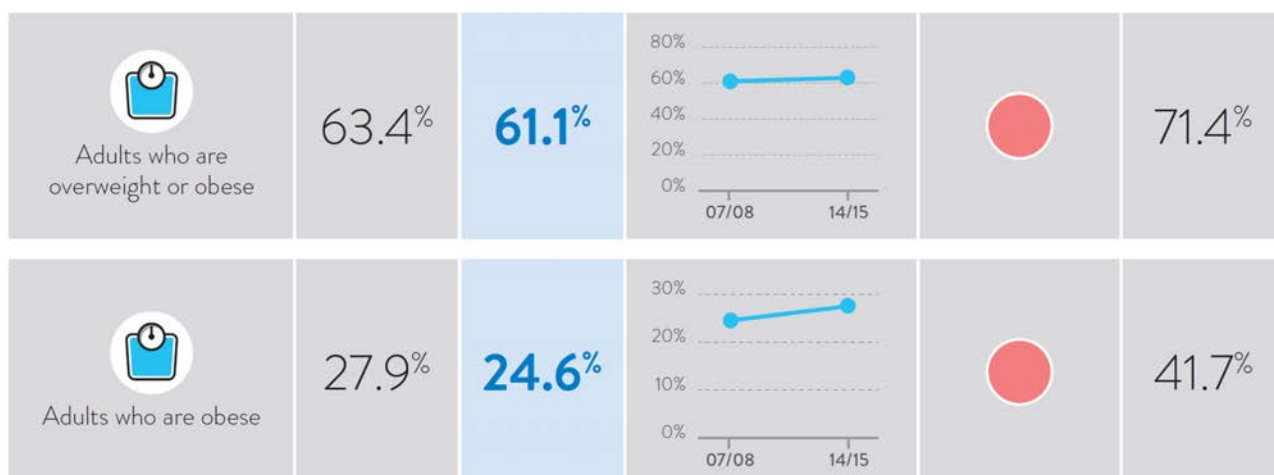
High blood pressure

- **Latest population data:** In 2014-15, 23% of adults had measured high blood pressure (BP). The ABS report notes that people can have high blood pressure but feel well; in 2014-15, of all adults with measured high blood pressure, nearly three-quarters (71.1%) did not report having hypertension (similar to 2011-12). This suggests that many people with high BP were either unaware that they had the condition or did not consider it to be a long-term or current problem. Source: ABS (2015c)

- **Technical note:** Elevated or high BP is technically 'uncontrolled high blood pressure', defined as measured systolic BP of 140 mmHg or more, or diastolic BP of 90 mmHg or more, irrespective of the use of BP medication.

- **Target:** 2011-12 was used for the baseline. In 2011-12, 21.5% of adults had measured high BP. The 2025 target therefore, is 16.1%. Source: ABS (2012).

- **Trend:** Latest data suggests poor progress towards the 2025 target.

- **Latest Indigenous data:** In 2012-13, one in five (20.4%) Aboriginal and Torres Strait Islander adults had measured high BP. In 2012-13, four in five (79.4%) Aboriginal and Torres Strait Islander adults with measured high BP did not report it as a long-term health condition. Source: ABS (2014c).

- **International:** In Australia, BP data is directly measured whereas self-report BP is more common in other nations (see, for example, WHO (2014)). OECD data are not sufficiently similar to data in report cards and hence are not available for comparison.

Morbidity and mortality

Death rates from CVD, stroke, common cancers, or chronic respiratory disease (30-70 years)	207 deaths per 100,000	**166 deaths per 100,000**			Not available

- **Latest population data:** In 2013, 207.0 deaths per 100,000 Australians aged 30–70 years were attributed to four major chronic diseases. Source: Data compiled by the PHIDU, from deaths data based on the 2009 to 2013 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 ICD codes used were CVD I00-I99, cancer C00-C97, diabetes E10-E14, and chronic respiratory disease J30-J98.

- **Technical note:** We cannot report on unconditional probability of dying between 30 and 70 years from CVD, common cancer, diabetes or chronic respiratory diseases for the current report card. Deaths per 100,000 is considered a reasonable alternative indicator. Note that the rates are age-standardised to the sum of the two years data to account for any change in the population distribution in these age groups over the two time periods. The percentage is calculated on these age-standardised rates. Common cancers (*Targets and Indicators for Chronic Disease Prevention 2015*, p. 10) were defined as lung, breast, colorectal, cervix, skin (melanoma) and prostate.

- **Target:** In the baseline year of 2010, there were 221.5 deaths per 100,000; therefore the 2025 target (a 25% reduction) is 166 deaths/100,000. Baseline source: Data compiled by PHIDU as above.

- **Trend:** The rate fell 6.5% over 2010–2013. The difference in death rates between the 2010 and 2013 years is statistically significant (p=0.021). Latest data suggests significant progress towards the 2025 target.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International:** No comparable death rates for chronic diseases as reported in report cards are available across OECD countries. However, the WHO (2014b) reports (using different data to *Australia's Health Tracker*) that in Australia in 2010 a 9.9% probability of dying between exact ages 30 and 70 from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease. And in 2012, this probability dropped to 9.4%. This places Australia as one of the lowest probabilities of premature death from chronic diseases, just behind Japan and Republic of Korea (9.3% in 2012), Switzerland (9.1%) and ahead of New Zealand (10.7% in 2012), Canada (10.7%, 2012) and the United Kingdom (12%, 2012).

Obesity and overweight

|					
Adults who are overweight or obese	63.4%	**61.1%**			71.4%
Adults who are obese	27.9%	**24.6%**			41.7%

- **Latest population data:** In 2014-15 an estimated 63.4% of adults in Australia were overweight or obese (27.9% obese). Source: ABS (2015e, Table 8.3).

- **Technical note:** Overweight is defined as a body mass index (BMI = (weight in kg) / (height in m)2) of 25 to 29.99, and obesity is defined as a BMI of 30 or more.

- **Target:** The baseline year was 2007-08, therefore the 2025 targets are 61.1% of people overweight/ obese and 24.6% classified as obese. Baseline source: ABS (2009, Table 1.3).

- **Trend:** The latest data suggests poor progress towards the target.

- **Latest Indigenous data:** In 2012-13, an estimated 71.4% of Aboriginal and Torres Strait Islander adults were overweight or obese (41.7% obese). Indigenous Australians are significantly more likely to have a BMI denoting overweight or obesity than non-Indigenous Australians. After adjusting for differences in age structure between the two populations, Aboriginal and Torres Strait Islander people were 1.5 times as likely as non-Indigenous people to be obese. Source: ABS (2013c).

- **International:** Obesity rates 30 out of 34 OECD countries – Australia in bottom third performers compared to other countries. In other words, Australia has the 5th highest rates of obesity amongst comparable countries. Source: OECD (2015, Table 1.2).

Physical inactivity

|					
Adults not meeting physical activity recommendations	44.5%	**40%**	No new data since baseline	Inadequate data to assess trend	65%

- **Latest population data:** The 2014-15 National Health Survey (NHS) reports on physical activity for adults (18 and over). Nearly one in three (29.7%) were insufficiently active (did not do enough physical activity to meet their age-specific guidelines) while 14.8% were inactive (no exercise in the last week). Total 'not getting enough exercise' = 44.5%. Source: ABS (2015a).

- **Technical note:** There has been limited standardisation of physical activity surveillance in Australia over the past 30 years (Bauman & Chau 2015). Changes to survey questions have led to varying estimates of the national prevalence of physical inactivity, although some states have maintained consistent and standardised monitoring of physical activity prevalence (such as New South Wales and Western Australia). More recently, use of accelerometers to objectively measure physical activity has added precision, but also complexity, to the epidemiological methods with which physical activity is measured. Updates to physical activity recommendations and guidelines (DOH 2014) have also made it challenging to assess trends in the prevalence of meeting guidelines.

- **Target:** It is anticipated that the NHS will be repeated regularly and therefore the 2014-15 NHS data (not 2010) provides the most suitable baseline to measure trends in national data until 2025. Hence, the 2025 target of a 10% reduction from baseline = 40%.

- **Trend:** Insufficient data to assess trend as no new data since baseline and limited standardization in surveillance (Bauman & Chau 2015).

- **Latest Indigenous data:** Prevalence of insufficient physical activity = 65%. Source: ABS (2014a).

- **International:** Not available.

Salt

Adults consuming too much salt	8.1g	**5.7g**	No new data since baseline	Inadequate data to assess trend	Not available
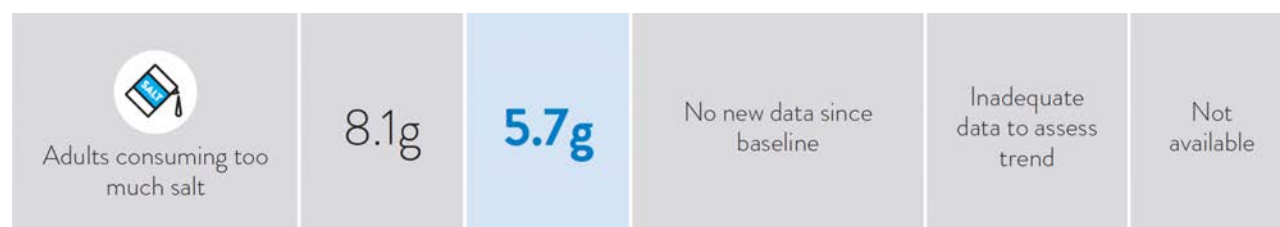
- **Latest population data:** Few data exist on salt consumption in Australia; hence, data from the Victorian Health Monitor were used as a proxy for national data. The average daily salt intake in Victorian adults was estimated at 8.1 g per day. This data was calculated from survey participants providing a urine sample, self-reported food frequency questionnaire, and three 24-H dietary recalls. Source: Department of Health and Human Services (DHHS) Victoria (2012).

- **Technical note:** Targets and Indicators for Chronic Disease Prevention in Australia (McNamara et al, 2015) uses a baseline figure from the Victorian Health Monitor (DHHS, 2012), as no national data was available at the time. The AHS (conducted in 2011-12; ABS, 2012) estimated average daily intake of salt from food sources at 7.1 g for men and 5.3 g for women. However, the dietary survey method used by the AHS underestimates daily salt intake, as respondents tend to under-report, and the survey does not measure the amount of salt added during cooking and at the table. Therefore the data from the Victorian Health Monitor were used as a proxy for national data. Australian adults are recommended to consume less than 4g salt daily (equivalent to 1,600mg sodium)(NHMRC, 2013). The latest data of average daily salt intake of 8.1g is 62% more than 3g daily and 49.5% more than 4g daily.

- **Target:** A 30% reduction from the 2011 Victorian average salt intake of 8.1 g per day (baseline) gives a 2025 target of 5.7 g per day.

- **Trend:** Insufficient data to assess trend, no new data since baseline.

- **Latest Indigenous data:** No salt intake data from 24-hour urine collection is available for Aboriginal and Torres Strait Islanders.

- **International:** The method of measurement and monitoring population average daily salt intake varies across countries (for example: 24H urine tests, spot urine tests, dietary recalls, food frequency questionnaires, weighed food records) and may include representative and non-representative sample sizes. Therefore, at the current time, comparing Australia's average population salt (or sodium) intake is not possible.

Screening
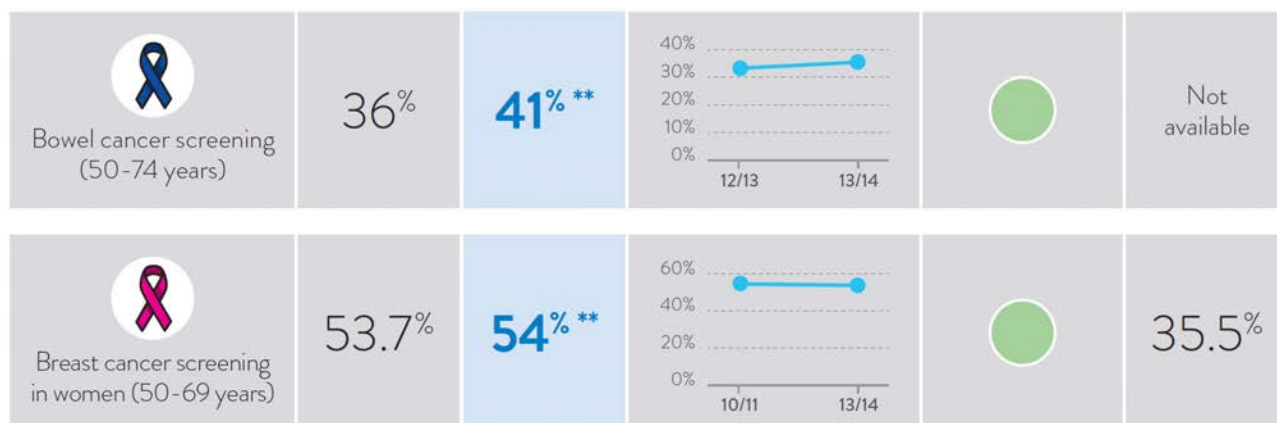
Bowel cancer

- **Latest population data:** Of the 1.4 million people invited to participate in screening between July 2013 and June 2014 (those turning 50, 55, 60 or 65), 36.0% returned a completed bowel cancer screening kit for analysis. Source: AIHW (2015a).

- **Target:** A screening target of 41% for 2019-20 was set by the Department of Health in its 2016-17 Portfolio Budget Statements (DoH, 2016).

- **Trend:** Good progress towards target. The 2013-14 participation rate was higher than the 33.4% recorded in 2012–13. Source: AIHW (2015, Table 1).

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International:** Not available.

Breast cancer

- **Latest population data:** In 2013-14, 1,456,830 women aged 50–69 (53.7%) participated in BreastScreen Australia . Source: AIHW (2015b).

- **Target:** Screening targets for 2019-20 were set by the Department of Health in its 2016-17 Portfolio Budget Statements (DoH, 2016).

- **Trend:** Participation rates in 2010-11 (baseline, 54.6%) and 2013-14 approached the 2025 target, so progress is good and efforts need to be maintained. Source: AIHW (2013a).

- **Latest Indigenous data:** In 2012-13, participation of Aboriginal and Torres Strait Islander women in BreastScreen Australia was 35.5% (age-standardised). Source: AIHW (2015c).

- **International:** Not available.

Smoking

Daily smokers (aged 14 and over)	12.8%	**10.6%**	*[trend chart: 15%, 12%, 9%, 6%, 3%, 0% — 2010 to 2013]*	●	38.9%
Adults with mental illness who smoke daily	23.5%	**11%**	*[trend chart: 30%, 20%, 10%, 0% — 11/12 to 14/15]*	●	50%

Adults who smoke

- **Latest population data**: Most recent estimates (2013) are that 12.8% of Australians aged 14 and over are daily smokers. Source: AIHW (2013b, Table 1).

- **Target:** In 2010 the estimated proportion of daily smokers among Australians aged 14 years and older was 15.1%; a 30% reduction means the 2025 target is 10.6%. Baseline source: as above.

- **Trend:** The reduction in prevalence in 2010-13 was statistically significant (analysed by PHIDU).

- **Latest Indigenous data:** The NDSHS estimated the prevalence of Indigenous Australians who smoke tobacco daily at 32%. However as Indigenous people living in remote communities were not contacted in this survey, the 2014-15 ABS National Aboriginal and Torres Strait Islander Social Survey is the preferred source. In 2014-15, just under two in five (38.9%, non-age standardised) Aboriginal and Torres Strait Islander people aged 15 years and over were daily smokers. ABS (2016b, Table 1.3).

- **International:** Australia's low smoking rate puts the nation 4th of 34 OECD countries and in the top-performing third of countries. Note that the OECD (2015, Table 1.2) defines the proportion of daily smokers as the percentage of the population aged 15 years and over (as opposed to our 14 and over) who report smoking every day.

Adults with a mental illness

- **Latest data:** The proportion of daily smokers among people with mental and behavioural problems was estimated at 23.5% in 2014-15. Source: ABS (2015a, Table 5.3).

- **Technical note:** The number of people who reported a mental or behavioural condition in the NHS in 2014-15 increased over earlier surveys, potentially due to the greater prominence of these conditions in the new module. The ABS (2015a) states that "data on mental and behavioural conditions for 2014-15 are therefore not comparable with data in previous National Health Surveys" (p. 22).

- **Target:** A 60% reduction from the 2011-12 baseline of 27.5% makes the 2025 target 11%. Source: (ABS 2013a).

- **Trend:** As the more recent NHS data are not comparable with previous data, no trend can be

ascertained.

- **Indigenous data:** The smoking rate for Aboriginal and Torres Strait Islanders with mood disorders was 50%. Although the Indigenous indicator is not identical to the non-Indigenous indicator, they were deemed to be comparable and hence reported on. Source: PHIDU, using 2012/13 data, Table builder, The Australian Aboriginal and Torres Strait Islander Health Survey.

- **International:** Not available.

Social inclusion for people with mental illness
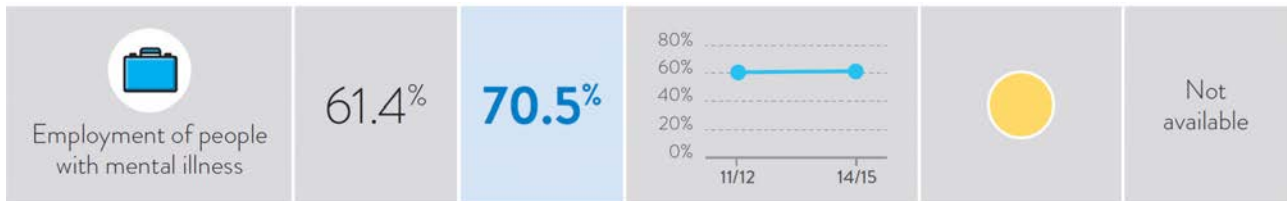
- **Latest population data:** The 2014-15 NHS estimated that 61.4% of people aged 16-64 with current and long-term mental and behavioural problems are employed. Source: extracted from ABS Survey Table Builder by PHIDU.

- **Target:** Halve the employment gap. In 2011-12, 60.6% of people aged 16-64 years old with current and long-term mental and behavioural problems were employed, compared to 79.7% of people aged 16-64 years old who did not report current and long-term mental and behaviour problems. Halving the gap between these figures means the 2025 target is 70.5%.

- **Trend:** Latest data suggests slow or no progress towards 2025 target.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

- **International:** Not available.

Suicide

| | 12.0 deaths per 100,000 | 9.8 *** deaths per 100,000 | | | 20.3 deaths per 100,000 |

Suicide rate

Deaths per 100,000: 15 12 9 6 3 0 — 2013 2014

- **Latest population data:** Deaths due to intentional self-harm occurred at a rate of 12.0 per 100,000 population in 2014. Source: ABS (2016c, Table 11.6).

- **Target:** The baseline year for this indicator is 2013 and the target year is 2020 to be consistent with the WHO Mental Health Action Plan (2013b). The suicide rate was 10.9 per 100,000 in 2013; a 10% reduction means the target is 9.8 per 100,000 (reflecting ~265 fewer deaths per annum based on current population). Baseline source: as above.

- **Trend:** The latest (2014) data suggest an increased rate of suicide per 100,000, hence the trend is away from the 2020 target.

- **Latest Indigenous data:** The age-standardised death rate from suicide for Aboriginal and Torres Strait Islander people was 20.3 per 100,000 for 2009-13. Source: Table 12.4 ABS (2013d).

- **International:** Australia ranks 10th lowest out of 34 OECD nations for suicide mortality rates per 100,000 (OECD, 2013).
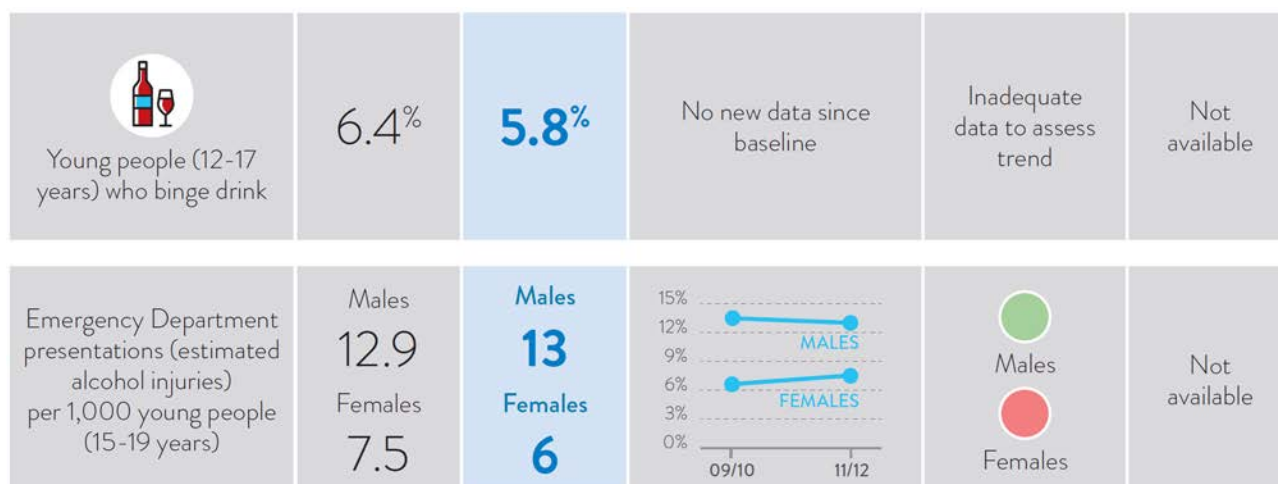
Australia's Health Tracker
Children and Young People data

Children and Young People

Alcohol

Young people (12-17 years) who binge drink	6.4%	**5.8%**	No new data since baseline	Inadequate data to assess trend	Not available
Emergency Department presentations (estimated alcohol injuries) per 1,000 young people (15-19 years)	Males 12.9 Females 7.5	Males **13** Females **6**	(trend chart: MALES, FEMALES 09/10–11/12)	Males Females	Not available

Binge drinking - Heavy episodic drinking, adolescents

- **Latest population data:** In 2011, 6.4% of 12–17-year-olds reported at least one drinking occasion in the previous week where >5 standard drinks were consumed. Source: White and Bariola (2012, p. 36). In the age brackets 12-14, "binge drinking" occurs was reported at similar levels for both sexes, but for the age 15-17 years, it was more common for young males than females.

- **Technical note:** In 2011, 7.4% of male and 5.4% of female 12–17-year-olds reported heavy drinking episodes. Binge drinking is single-occasion risky drinking – consuming more than four standard drinks on one day.

- **Target:** A 10% reduction from the 2011 baseline makes the 2025 target 5.8%.

- **Trend:** We have insufficient data to assess trend, as no new data have been released since baseline. However, ASSAD data (White & Bariola, 2012) show a significant difference (p<0.01) in the proportion of students who drank five or more drinks on one occasion in the past seven days (10.3% in 2005 vs. 6.4% in 2011).

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available. However, in the 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey, based on alcohol consumed in the last 12 months using the 2001 NHMRC risk level guidelines, 20.3% of Indigenous young people aged 15-17 years and 18.6% of non-Indigenous young people aged 15-17 years reported risky/high risk drinking. (ABS, 2013c, Table 14.3).

Emergency Department presentations

- **Latest population data:** In 2011-12 estimated rates of alcohol-related injury presentations to EDs by age/sex by males and females aged 15-19 years were 12.9 and 7.5 per 1,000 persons respectively. Source: Lensvelt et al. (2015).

- **Technical note:** NAIP Bulletin 14 (Lensvelt et al., 2015) includes all Australian jurisdictions except Tasmania. WA data includes ED presentations in the Perth metropolitan area only; NSW data includes

ED presentations coded 'assault' or 'injury' in free-text field only.

- **Target:** The 2009-10 baseline figures were 13.1 per 1000 for males and 6.7 per 1000 for females; a 10% reduction makes the 2025 alcohol targets 13.0 for males and 6.0 for females.

- **Trend:** Male presentation rates have declined slightly and are nearing the target, but female rates have increased.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

Breastfeeding

Proportion of infants exclusively breastfed to six months of age	2.1%	Indicator to be monitored	–	–	Not available

- **Latest data:** The Infant Feeding Survey reports that 2.1% of infants are breastfed exclusively to at least 6 months. Source: AIHW (2011b, Table 2.2).

- **Technical note:** Any breastfeeding and prolonged breastfeeding are associated with significantly reduced risk of obesity later in life. Exclusive breastfeeding means the child receives only breast milk (including expressed milk) and no other fluids or food (with the exception of vitamins, minerals and medicines where necessary). This indicator relies on the proportion of infants exclusively breastfed to six months of age, because this is consistent with WHO 2025 Global Nutrition Targets (WHO 2014c) targets, and the NHMRC Guidelines. Although the NHMRC guidelines recommend exclusive breastfeeding until six months, many families introduce solids at around four months of age. The 2010 Australian National Infant Feeding Survey is the most reputable source for reporting on this information and no equivalent study has since occurred.

- **Target:** Indicator to be monitored as a risk factor for chronic disease.

- **Indigenous data:** Not available.

Discretionary food and sugar

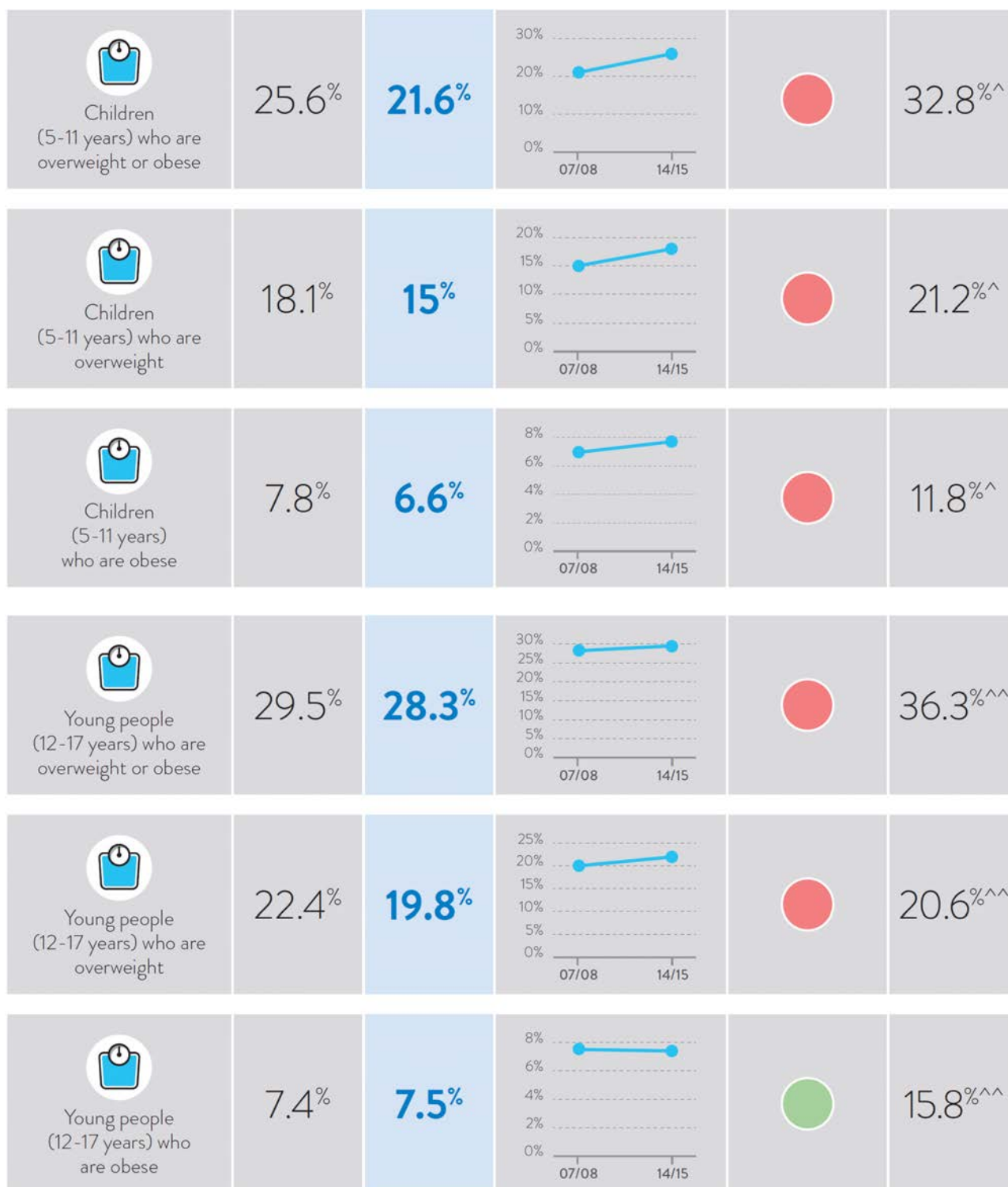|					
Proportion of total energy intake from discretionary or "junk" food in children's (9-13 years) diets	39.4%	Indicator to be monitored	–	–	41%
Children (9-13 years) consuming too much sugar	70.3%	Indicator to be monitored	–	–	Not available
Proportion of total energy intake from discretionary or "junk" food in young people's (14-18 years) diets	40.7%	Indicator to be monitored	–	–	42.9%
Young people (14-18) consuming too much sugar	73.1%	Indicator to be monitored	–	–	Not available

Discretionary foods

- **Latest data:** In children's (9-13 years) diets, on average, 39.4% of energy intake is from discretionary food and in young people's (14-18), 40.7%. The 14–18-year-olds had the highest proportion of energy from discretionary foods of all age groups. Source: ABS (2014d, Table 9.1).

- **Technical note:** Discretionary foods or 'junk' foods are foods considered to be of little nutritional value and which tend to be high in saturated fats, sugars, salt and/or alcohol. The ABS notes that dietary surveys are "...subject to under-reporting. That is, a tendency for respondents to either change their behaviour or misrepresent their consumption (whether consciously or sub-consciously) to report a lower energy or food intake. Given the association of under-reporting with overweight/ obesity and consciousness of socially acceptable/desirable dietary patterns, discretionary foods would be expected to be more likely to be under-reported than non-discretionary foods" (see Under-reporting in Nutrition Surveys (ABS, 2014e) for more information). This should be considered when interpreting data.

- **Target:** Indicator to be monitored as a risk factor for chronic disease.

- **Latest Indigenous data:** In children's (9-13 years) diets, on average, 41% of energy intake is from discretionary food and in young people's (14-18) diets, 42.9%. Source: ABS (2015d, Table 9.1).

Sugar

- **Latest data:** In 2011-12, almost three-quarters of children (70.3%) and young people (73.1%) exceeded the recommended maximum intake of dietary energy from free sugars of 10%. Source: ABS (2016a, Table 3.1).

- **Technical note:** Too much sugar is defined as ≥10% of daily energy (on a usual basis) from free sugar.

- **Target:** Indicator to be monitored as a risk factor for chronic disease.

- **Latest Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

Obesity and overweight

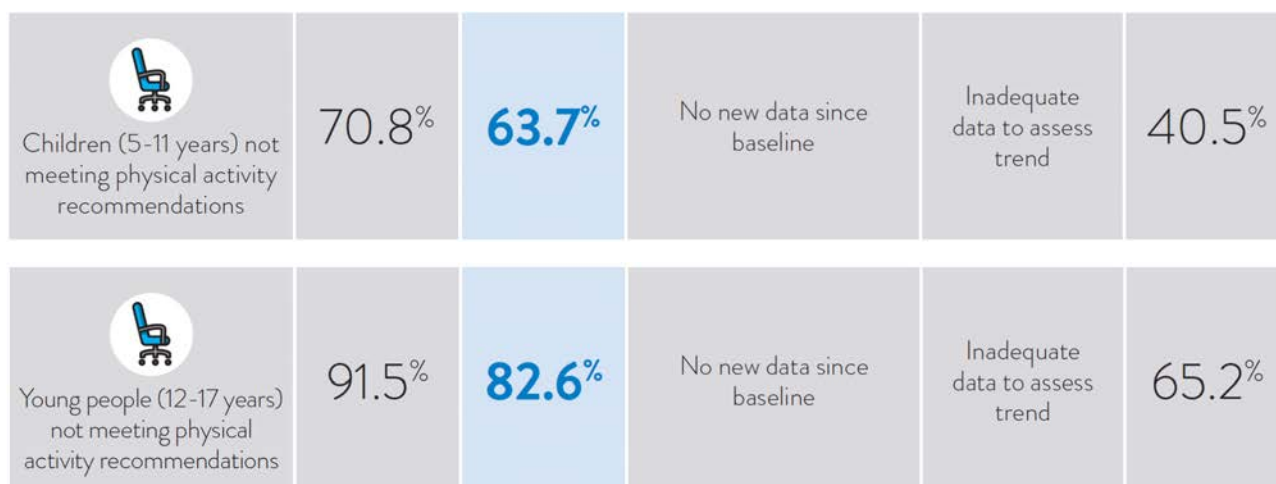|				
Children (5-11 years) who are overweight or obese	25.6%	**21.6%**		32.8%^
Children (5-11 years) who are overweight	18.1%	**15%**		21.2%^
Children (5-11 years) who are obese	7.8%	**6.6%**		11.8%^
Young people (12-17 years) who are overweight or obese	29.5%	**28.3%**		36.3%^^
Young people (12-17 years) who are overweight	22.4%	**19.8%**		20.6%^^
Young people (12-17 years) who are obese	7.4%	**7.5%**		15.8%^^

Children

- **Latest data:** In 2014-15, an estimated 25.6% of children aged 5-11 were overweight or obese; 18.1% were overweight and 7.8% were obese. Source: Provided by PHIDU. Extrapolated from Table 16.1 in ABS (2016a).

- **Technical note:** The classification of children's BMI is different to that of adults', and takes into account individual age and sex. BMI cut-off ranges for children 2–17 years of age are included in Appendix 4 of ABS (2014e).

- **Target:** The 2007-08 data were used as the baseline. Hence to halt the rise: 21.6% needs to be maintained for overweight and obese; 15% for overweight and 6.6% for obese. Source: Provided by PHIDU from the 2007-08 NHS (ABS, 2009).

- **Trend:** The latest data suggests poor progress towards the target.

- **Latest Indigenous data:** In 2012/13, for 5 to 14 years, an estimated 32.8% of children were overweight or obese; 21.2% overweight; 11.8% obese. Australian Bureau of Statistics (ABS) (2013c, Table 24.1).
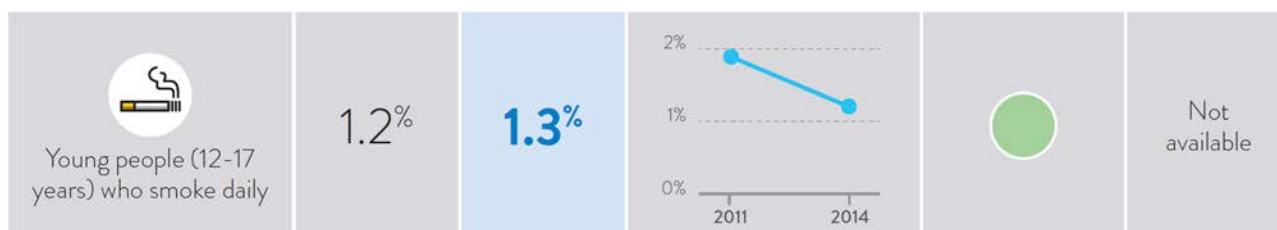
Young people:

- **Latest data:** Data for overweight and obesity in young people for 2014-15 were provided by PHIDU from ABS (2015).

- **Technical note:** The classification of children's BMI is different to that of adults', and takes into account individual age and sex. BMI cut-off ranges for children 2–17 years of age are included in Appendix 4 of ABS (2014e). Stopping the prevalence of obesity in young people from increasing further is important, and it is encouraging to see numbers unchanged since 2007-08. Efforts need to be expanded to increase the proportion of young people within a healthy weight range. Nationally representative data collection every five years is necessary so we can track progress towards the 2025 targets. It can be difficult to capture quality data from people in this age group as they may not regularly weigh themselves or accurately report their weight. The classification of young peoples' BMI is different to that of persons aged 18 years and over, and takes into account individual age and sex. BMI cut-off ranges for children 2 to 17 years of age are included in Appendix 4 of ABS (2014e).

- **Target:** 2007-08 data were used as the baseline for creating 2025 targets. Hence, to halt the rise in obesity, Target 2025 = 7.5% for obesity: 19.8% for overweight and 29.5% for overweight and obese. Source: The target provided by PHIDU for 2007-08 was 7.5% (Nov 2010 re-issue).

- **Trend:** The latest data for obesity in young people suggests progress in halting the rise in obesity. The latest data on overweight and obesity in young people suggests poor progress towards the target.

- **Latest Indigenous data:** In 2012/13, for 15 to 17 years, an estimated 36.3% of young people were overweight or obese; 20.6% were overweight and 15.8% were obese. For the same age brackets in non-Indigenous people the data were: 24.2%, 16.9% and 7.4%. Australian Bureau of Statistics (ABS) (2013c, Table 9.3).

Physical inactivity

Children (5-11 years) not meeting physical activity recommendations	70.8%	**63.7%**	No new data since baseline	Inadequate data to assess trend	40.5%
Young people (12-17 years) not meeting physical activity recommendations	91.5%	**82.6%**	No new data since baseline	Inadequate data to assess trend	65.2%

- **Latest data:** In the 2011-12 AHS, 70.8% of 5–11-year-olds and 91.5% of 12–17-year-olds were not meeting physical activity guidelines. Data were not collected for children in 2014-15. Source: ABS (2013e, Table 2).

- **Technical note:** There has been no change to the physical activity guidelines for children and young people. The guidelines recommend 5–17-year-olds get at least 60 minutes of moderate to vigorous physical exercise every day.

- **Target:** A 10% reduction from the baseline (2011-12) figures gives 63.7% for children and 82.6% for young people as the 2025 target. Source for target: as above.

- **Trend:** Insufficient data to assess trend as no new data since baseline.

- **Indigenous data:** Data on Aboriginal and Torres Strait Islanders indicate 40.5% of 5–11-year-olds and 65.2% of 12–17-year-olds are not meeting physical activity guidelines. Source: ABS (2014f, Table 9.1).

Smoking

- **Latest data:** For 2014, 1.2% of young people reported smoking daily. Source: White and Williams (2015, Table 6.1, page 37).

- **Technical note:** Students who smoked in the seven days prior to the survey are either 'currently smoking' or 'daily smoking'.

- **Target:** In the 2011 ASSAD, the daily smoking prevalence for 12-17 years was 1.8%; therefore, a 30% reduction makes the 2025 target 1.3%. Source for baseline: as above.

- **Trend:** Good progress towards target. Daily smoking prevalence for 12-17 years decreased from 3.0% in 2005 to 1.8% in 2011, and to 1.2% in 2014. The difference between the 2011 and 2014 prevalence is significant at p<0.01.

- **Latest Indigenous data:** Unable to compare data across the same age range, however, in AIHW (2015d) it is estimated that Indigenous young people aged 15-17 years are 4.5 times more likely to smoke daily (18% vs. 4% respectively) than non-Indigenous youth. (Original data are from ABS, 2013a; 2013c.)

Social inclusion for people with mental illness

- **Latest data:** The 2014-15 NHS found that 78.4% of 16–30-year-olds with current and long-term mental and behavioural problems are either studying or employed. Source: 2014-15 NHS data extracted from ABS Survey Table Builder by PHIDU.

- **Target:** Halve participation gap. According to the 2011-12 NHS, 79% of 16–30-year-olds with current and long term mental and behavioural problems were either studying or employed, vs. 90.2% of 16–30-year-olds who did not report such problems. Hence target of 84.5%. Source: 2011-12 NHS data extracted from ABS Survey Table Builder by PHIDU.

- **Trend:** Latest data suggests no/limited progress towards 2025 target.

- **Indigenous data:** Comparable Aboriginal and Torres Strait Islander data not available.

Working group and expert advisory group members

Expert advisory group - Chair Prof. Maximilian de Courten, Director of the Centre for Chronic Disease Prevention and Management, Victoria University; Prof. Alex Brown, Deputy Director, SAHMRI, Adelaide; Prof. Brian Oldenburg, Melbourne School of Population and Global Health, University of Melbourne; Colin Sindall, Chief Preventative Health Officer, Population Health and Prevention Strategy, DHHS Victoria; Dr Erin Lalor, Policy Advisor, Australian Health Policy Collaboration; Prof James Dunbar, Director at Professor James A Dunbar Consulting, Research Advisor, Australian Health Policy Collaboration; Leonie Scott, General Manager, Health Outcomes, National Heart Foundation; Martin Laverty, CEO, Royal Flying Doctors Service; Michael Moore, CEO Public Health Association of Australia; Prof. Ian Olver, Director, Sansom Institute, University of South Australia; Prof. Rob Carter, Alfred Deakin Professor And Chair In Health And Human Services Economics, Deakin University; Prof. Rob Moodie, Melbourne School of Population and Global Health, University of Melbourne; Sharon McGowan, CEO of National Stroke Foundation.

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