



Aboriginal and Torres Strait Islander Health Performance Framework 2014 report

Measure 46 of 68

Detailed analyses

2.22 Overweight and obesity

This measure reports on the prevalence of overweight and obesity among Aboriginal and Torres Strait Islander adults and children

Introduction

This is no. 46 of 68 measures in the *Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: detailed analyses*. This report provides information on a range of measures of health status, determinants of health and the health system performance relating to Aboriginal and Torres Strait Islander people.

The Framework comprises 3 tiers:

Tier 1 – Health status and outcomes

Tier 2 – Determinants of health

Tier 3 – Health system performance.

The full report, including a comprehensive description of all data sources used in the report, and notes about the data quality is available from

<<http://www.aihw.gov.au/publication-detail/?id=60129550779>>.

Tables referenced are available from

<<http://www.aihw.gov.au/indigenous-data/health-performance-framework/>>.

Data sources

- Australian Aboriginal and Torres Strait Islander Health Survey
- Australian Health Survey.

For more information, see 'Data sources and quality' at the end of this measure.

Data analyses

For more information related to overweight and obesity, see measures 2.18 and 2.19. See also 'Other related information' at the end of this measure.

The following data are presented for this measure:

- Obesity in people with selected socioeconomic characteristics, see tables 2.22.1–2
- Rates of overweight/obesity by state/territory and remoteness, see Table 2.22.3.

Current period

In 2012–13:

- Two thirds (66%) of Indigenous Australians aged 15 years and over had a measured Body Mass Index (BMI) score in the overweight or obese range (29% overweight and 37% obese). After adjusting for age, Indigenous adults were 1.6 times as likely to be obese as non-Indigenous Australians (ABS 4727.0.55.006 Table 8.3, Figure 2.22.1).
- Rates of obesity in Indigenous Australians were highest in *Inner regional* areas (40%) and lowest in *Very remote* areas (32%). Rates were similar in *Major cities* (37%) and in *Outer regional* and *Remote* areas (38%) (ABS 4727.0.55.006 Table 2.3).
- Indigenous women had higher rates of obesity (40%) and were overweight at lower rates (26%) than Indigenous men (34% and 31% respectively) (ABS 4727.0.55.006 Table 8.3).
- Rates of being overweight or obese increased with age, from 35% of Indigenous Australians aged 15–17, to 80% of Indigenous Australians aged 55 and over. A similar pattern was seen in non-Indigenous Australians (ABS 4727.0.55.006 Table 8.3).
- About 30% of Indigenous children aged 2–14 were overweight or obese, compared with 25% of non-Indigenous children (ABS 4727.0.55.006 Table 9.3).

Trend

Trend data are not available. It is not possible to compare 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey results with previous surveys as the latest results are based on measured Body Mass Index (BMI) rather than self-reported height and weight (as was done before).

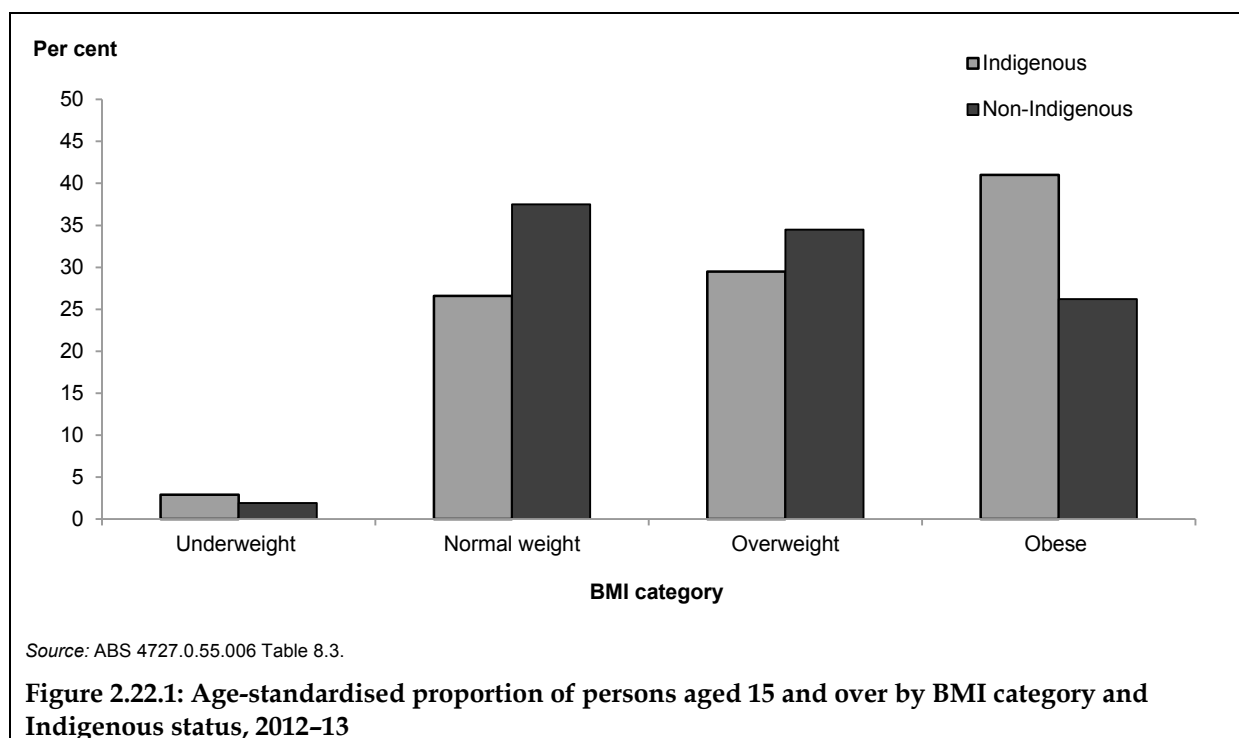


Table 2.22.1: Selected health and socioeconomic characteristics by Indigenous persons (15 years and over) reporting obesity, 2012–13

	Obese ^(a)		Not obese		Total ^(b)	Total persons 15 years and over
	Per cent	Number	Per cent	Number	Number	Number
SEIFA^(c)						
1st quintile (most disadvantaged)	37.3	68,024	62.7	114,281	182,305	214,140
5th quintile (most advantaged)	40.4	5,854	59.6	8,642	14,496	17,168
Ratio most disadvantaged/most advantaged	0.9	11.6	1.1	13.2	12.6	12.5
Employment						
Employed	37.7	60,912	62.3	100,532	161,444	186,246
Unemployed	33.4	13,931	66.6	27,720	41,650	48,692
Not in the labour force	38.2	53,303	61.8	86,387	139,689	174,003
Ratio unemployed/employed	0.9	0.2	1.1	0.3	0.3	0.3
Has non-school qualification^(d)						
Yes	41.6	58,642	58.4	82,385	141,027	166,000
No	34.4	69,503	65.6	132,254	201,757	242,941
Ratio no/yes	0.8	1.2	1.1	1.6	1.4	1.5
Highest year of school completed						
Year 12	36.0	31,144	64.0	55,361	86,505	101,295
Year 9 or below ^(e)	38.3	38,130	61.7	61,520	99,650	121,511
Ratio Year 9 or below/Year 12	1.1	1.2	1.0	1.1	1.2	1.2
Smoker status						
Current smoker ^(f)	32.4	49,888	67.6	103,875	153,763	178,720
Non-smoker ^(g)	41.4	78,257	58.6	110,763	189,020	230,221
Ratio smoker/non-smoker	0.8	0.6	1.2	0.9	0.8	0.8
Adequate daily vegetable intake^(h)						
Yes	36.7	5,782	63.3	9,966	15,748	19,633
No	37.4	122,363	62.6	204,673	327,036	389,308
Ratio no/yes	1.0	21.2	1.0	20.5	20.8	19.8
Adequate daily fruit intake⁽ⁱ⁾						
Yes	37.8	54,020	62.2	88,796	142,815	171,847
No	37.1	74,125	62.9	125,843	199,968	237,094
Ratio no/yes	1.0	1.4	1.0	1.4	1.4	1.4
Self-assessed health status						
Excellent/very good/good	33.8	87,783	66.2	172,185	259,968	309,881
Fair/poor	48.7	40,361	51.3	42,454	82,815	99,060
Ratio fair, poor/excellent, very good, good	1.4	0.5	0.8	0.2	0.3	0.3

(continued)

Table 2.22.1 (continued): Selected health and socioeconomic characteristics by Indigenous persons (15 years and over) reporting obesity, 2012–13

	Obese ^(a)		Not obese		Total ^(b)	Total persons 15 years and over
	Per cent	Number	Per cent	Number	Number	Number
Heart/circulatory problems^(j)						
Yes	53.1	33,046	46.9	29,182	62,229	72,597
No	33.9	95,098	66.1	185,456	280,555	336,344
Ratio yes/no	1.6	0.3	0.7	0.2	0.2	0.2
Kidney disease^(k)						
Yes	49.5	4,191	50.5	4,272	8,463	9,993
No	37.1	123,954	62.9	210,367	334,320	398,948
Ratio yes/no	1.3	0.0	0.8	0.0	0.0	0.0
Diabetes^(l)						
Yes	58.6	23,227	41.4	16,425	39,652	48,255
No	34.6	104,917	65.4	198,214	303,131	360,686
Ratio yes/no	1.7	0.2	0.6	0.1	0.1	0.1
Measured high blood pressure^(m)						
Yes	56.2	34,452	43.8	26,830	61,282	64,236
No	35.4	85,334	64.6	156,036	241,371	251,053
Ratio yes/no	1.6	0.4	0.7	0.2	0.3	0.3
Total number⁽ⁿ⁾	39.6	119,786	60.4	182,867	302,653	315,288
Total persons 15 years and over	37.4	128,145	62.6	214,639	342,783	408,941

(a) Body Mass Index greater than 30.0 for people aged 18 years and over. For information on the calculation of BMI scores for people aged 15–17, see the Glossary in AATSIHS First Results 2012–13 (4727.0.55.001) or AATSIHS Updated Results 2012–13 (4727.0.55.006).

(b) Total excludes measurement not taken.

(c) Index of Relative Socio-Economic Advantage and Disadvantage 2011.

(d) Non-school qualifications classified to the Australian Standard Classification of Education (ASCED) (includes e.g. Bachelor degree or higher, diploma, advanced diploma, certificate).

(e) Year 9 or below includes never attended school.

(f) Includes persons who smoke daily, persons who smoke at least once a week but not daily, and those who smoked less than weekly.

(g) Includes ex-smoker and those who have never smoked.

(h) As the 2012–13 AATSIHS only collected information on whole serves of vegetables, the 2013 NHMRC Australian Dietary Guidelines have been applied as follows: 5 serves of vegetables for persons aged 9 years and over, with the exception of 18–49 year old males who eat 6 serves.

(i) According to 2013 NHMRC Australian Dietary Guidelines, which recommend 2 serves of fruit per day for persons aged 9 years and over.

(j) Self-reported data consisting of persons reporting they have a current heart or circulatory condition which has lasted, or is likely to last, for 6 months or more.

(k) Self-reported data consisting of persons reporting kidney disease which has lasted or is expected to last, for six months or more.

(l) Self-reported data consisting of persons reporting diabetes which has lasted, or is expected to last, for six months or more. Includes type 1 and type 2 diabetes, type unknown, and persons who reported they had diabetes but that it was not current at the time of interview.

(m) Persons aged 18 years and over measured blood pressure data; high blood pressure is a measurement of 140/90 mmHg or higher.

(n) Total excludes persons for whom a blood pressure measurement not taken (due to refusal for medical reasons or other reasons).

Note: Percentages add within rows. Estimates have been rounded and discrepancies may occur between sums of the component items and totals. Data excludes not stated responses.

Sources: ABS and AIHW analysis of 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey.

Table 2.22.2: Selected household and health risk factors by Indigenous persons (18 years and over) reporting obesity, 2012–13

	Obese ^(a)		Not obese		Total ^(b)	Total persons 18 years and over
	Per cent	Number	Per cent	Number	Number	Number
Equivalised gross household income^(c)						
1st quintile (lowest)	39.0	40,797	61.0	63,888	104,685	124,518
4th/5th quintile (highest)	43.2	19,000	56.8	24,996	43,997	51,676
Ratio lowest/highest	0.9*	2.1	1.1	2.6	2.4	2.4
Total number	39.5	97,767	60.5	149,945	247,712	292,747
Financial stress—whether household could raise \$2,000 in an emergency^(c)						
Yes	39.9	53,119	60.1	79,988	133,107	158,276
No	38.7	60,454	61.3	95,586	156,040	184,641
Ratio yes/no	1.03*	0.9	1.0	0.8	0.9	0.9
Total number	39.3	113,572	60.7	175,574	289,146	342,917
Household had day/s without money for basic living expenses in last 12 months^(d)						
Yes	39.8	49,388	60.2	74,593	123,982	147,199
No	38.8	70,371	61.2	111,179	181,549	216,909
Ratio yes/no	1.02*	0.7	1.0	0.7	0.7	0.7
Total number	39.2	119,759	60.8	185,772	305,531	364,108
Housing tenure type^{(d)(e)}						
Owner	44.0	39,808	56.0	50,751	90,558	110,215
Renter	37.2	79,736	62.8	134,536	214,272	252,547
Ratio renter/owner	0.8*	2.0	1.1	2.7	2.4	2.3
Total number	39.2	119,828	60.8	185,772	305,600	364,177
Lives in overcrowded household^{(f)(d)}						
Yes	30.1	18,158	69.9	42,163	60,321	71,380
No	41.4	101,601	58.6	143,609	245,210	292,728
Ratio yes/no	1.0	1.0	1.0	1.0	1.0	1.0
Total number	39.2	119,759	60.8	185,772	305,531	364,108
Alcohol consumption						
Abstained from alcohol in last 12 months ^(g)	40.3*	27,340	59.7	40,436	67,776	83,184
Short-term/single occasion risk^(h)						
Yes	37.3*	66,879	62.7	112,368	179,247	208,979
No	43.4	23,926	56.6	31,211	55,137	67,136
Ratio yes/no	0.9*	2.8	1.1	3.6	3.3	3.1

(continued)

Table 2.22.2 (continued): Selected household and health risk factors by Indigenous persons (18 years and over) reporting obesity, 2012–13

	Obese ^(a)		Not obese		Total ^(b)	Total persons 18 years and over
	Per cent	Number	Per cent	Number	Number	Number
Physical activity⁽ⁱ⁾						
Met guidelines ^(j)	36.0	35,725	64.0	63,457	99,182	117,125
Did not meet guidelines ^(k)	44.2	59,893	55.8	75,608	135,501	165,910
Ratio did not meet/met guidelines	1.2*	1.7	0.9	1.2	1.4	1.4
Total number	40.7	95,618	59.3	139,065	234,683	283,035
Disability status^(l)						
Has profound, severe or moderate core activity limitation	48.1*	18,698	51.9	20,208	38,906	48,886
Has schooling/employment restriction only	40.7*	13,847	59.3	20,186	34,033	40,050
Has unspecified limitation or restriction	42.0*	29,446	58.0	40,646	70,092	82,325
Total disability/long-term health condition	43.3	61,990	56.7	81,040	143,031	171,261
No disability/long-term health condition	35.5	58,142	64.5	105,470	163,612	194,607
Ratio disability/no disability	1.2*	1.1	0.9	0.8	0.9	0.9
Psychological distress (Kessler 5)^(m)						
Low/moderate	39.3	83,852	60.7	129,340	213,191	252,230
High/very high	39.1	35,741	60.9	55,591	91,332	109,134
Ratio high, very high/low, moderate	1.0	0.4	1.0	0.4	0.4	0.4
Total number	39.3	119,592	60.7	184,931	304,524	361,364
Stressors experienced in last 12 months⁽ⁿ⁾						
No stressors	37.9	28,189	62.1	46,221	74,410	91,344
Experienced one or more stressor	39.5	91,518	60.5	139,902	231,420	273,389
Ratio one or more/no stressors	1.0	3.2	1.0	3.0	3.1	3.0
Total number	39.2*	120,064	60.8	186,432	306,496	365,429
Long term health conditions^(o)						
No current long term health condition	24.2*	12,512	75.8	39,258	51,770	63,950
One	33.9*	18,483	66.1	35,981	54,464	64,247
Two	39.7*	19,150	60.3	29,047	48,197	57,094
Three or more	46.0	69,988	54.0	82,225	152,213	180,577
Ratio three or more/no conditions	1.9*	5.6	0.7	2.1	2.9	2.8
Respiratory disease^(p)						
Yes	45.1	52,253	54.9	63,721	115,974	137,406
No	35.6	67,879	64.4	122,790	190,669	228,462
Ratio yes/no	1.3*	0.8	0.9	0.5	0.6	0.6

(continued)

Table 2.22.2 (continued): Selected household and health risk factors by Indigenous persons (18 years and over) reporting obesity, 2012–13

	Obese ^(a)		Not obese		Total ^(b)	Total persons 18 years and over
	Per cent	Number	Per cent	Number	Number	Number
Has diabetes related eye/sight problem^{(q)(r)}						
Yes	49.1	4,764	50.9	4,939	9,704	11,966
No	60.7	15,018	39.3	9,728	24,746	30,614
Ratio yes/no	0.8*	0.3	1.3	0.5	0.4	0.4
Total number	57.4	19,782	42.6	14,668	34,450	42,580
Total persons 18 years and over	39.2	120,133	60.8	186,511	306,643	365,868

* Represents statistically significant differences at the $p < 0.05$ level. Rate ratios in the 'Obese column' were tested. For Alcohol consumption, 'Abstained' was also tested against those who did not have 'Short term/single occasion risk'. For those with disability or a long-term health condition, level of disability/long-term health condition was also tested with 'Total with disability/long-term health condition' used as the reference category. Number of long term health conditions were also tested with 'Three or more' as the reference category.

(a) Body Mass Index greater than 30.0 for people aged 18 years and over.

(b) Totals and population distributions exclude measurement not taken.

(c) Excludes 'not stated' and 'not known'.

(d) Excludes 'not stated'.

(e) Total includes 'other' and 'life tenure scheme'.

(f) Households requiring at least one additional bedroom, based on the Canadian National Occupancy Standard for Housing Appropriateness.

(g) Abstainer includes those who have never consumed alcohol.

(h) Includes those who drank. Risk level calculated on exceeding the NHMRC Australian Alcohol Guidelines (NHMRC 2009). For short-term/single occasion risk this is 5 or more standard drinks on any day over last 12 months.

(i) Physical activity data collected from persons 18 years and over; and non-remote areas only.

(j) 150 minutes of moderate/vigorous physical activity from five or more sessions over a week.

(k) Includes 'don't know'.

(l) Self-reported data consisting of persons who reported having a disability or restrictive long-term health condition where a limitation, restriction, impairment, disease or disorder has lasted, or is expected to last for six months or more, and restricts everyday activities. Levels of activity limitation (profound, severe, moderate, and school/employment restriction only) are based on whether, and how often, a person needs help, has difficulty, or uses aids or equipment with any core activities (self-care, mobility or communication). A person's overall level of core activity limitation is determined by their highest level of limitation in any of these activities. Only current difficulties with education and/or employment were collected. Respondents aged 65 years and over were not asked about employment restrictions and so some may be categorised as not having a specific limitation or restriction that would otherwise have been assigned 'schooling/employment restriction only' had they been asked the question.

(m) Based on the Kessler-5 (K5) measure of psychological distress. Overall levels of distress are based on how often respondents reported experiencing each feeling. Low/moderate is a score of 5–11. High/very high is a score of 12–25.

(n) Stressors experienced by self, family or friends. Excludes 'refused'.

(o) Self-reported data consisting of persons reporting a current medical condition which has lasted, or is expected to last, for six months or more.

(p) Self reported data consisting of persons reporting they have a current respiratory condition which has lasted, or is expected to last, for 6 months or more. Includes chronic obstructive pulmonary disease, asthma, chronic sinusitis, and other diseases of the respiratory system.

(q) Self-reported data consisting of persons who reported having an eye/sight problem due to diabetes/HSL.

(r) Excludes 'not known'.

Note: Percentages add within rows. Estimates have been rounded and discrepancies may occur between sums of the component items and totals.

Source: ABS and AIHW analysis of 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey.

Table 2.22.3: Rates of overweight or obese people aged 18 years or over, by state and territory by remoteness, 2012–13 (age-standardised rate per 100 population)^{(a)(b)}

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Rate of overweight or obese people per 100 people aged 18 years or over									
Indigenous									
Major cities	77.4	71.8	69.7	76.7	73.9	..	72.8	..	74.4
Inner regional	75.5	72.3	79.8	71.5	84.2†	65.8	..	..	75.6
Outer regional	75.5	62.0	69.3	76.2	67.9	70.8	..	76.0	72.4
Remote	79.2	..	73.8	71.2	78.5	69.7	..	65.8	71.6
Very remote	82.1	..	71.8	71.0	69.6	..	..	54.1	64.6
Non-Indigenous									
Major cities	59.3	59.2	62.5	63.9	64.1	..	62.5	..	60.8
Inner regional	67.9	69.0	67.2	68.9	71.4	62.4	..	..	67.7
Outer regional	63.9	61.5	70.2	72.9	68.0	67.2	..	61.9	67.6
Remote	n.p.	..	70.4	68.3	76.0	68.8	..	62.4	69.7
Very remote	..	..	..	..	..	..	..	..	..
95% confidence intervals for rates (±)									
Indigenous									
Major cities	4.6	7.5	4.7	5.9	5.4	..	8.4	..	2.3
Inner regional	4.9	9.5	7.6	16.0	48.4	7.3	..	..	3.3
Outer regional	9.7	16.3	7.9	6.1	10.0	6.3	..	9.6	4.0
Remote	6.3	..	5.8	7.1	15.6	16.5	..	8.2	3.6
Very remote	10.0	..	6.6	8.3	9.1	..	..	8.9	4.4
Non-Indigenous									
Major cities	2.1	2.3	2.0	2.3	2.2	..	2.9	..	1.2
Inner regional	4.0	4.0	3.9	6.3	7.2	2.6	..	..	1.8
Outer regional	6.6	6.9	5.1	6.6	8.8	4.3	..	3.3	3.1
Remote	n.p.	..	22.8	13.1	17.5	22.8	..	7.7	5.2
Very remote	..	..	..	..	..	..	..	..	..

† Estimate has a relative standard error between 25% and 50% and should be used with caution.

(a) Directly age-standardised to the 2001 Australian Estimated Resident Population based on the 2001 Census, using 10 year age groups up to 55+.

(b) Population excludes persons for whom BMI could not be calculated.

Sources: ABS and AIHW analysis of 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey and 2011–12 Australian Health Survey.

Data sources and quality

Australian Aboriginal and Torres Strait Islander Health Survey

The 2012–13 Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) included a sample of 12,000 Indigenous Australians for the core sample and sub-samples for various components of the survey such as voluntary biomedical data for adults. The AATSIHS sample was specifically designed to select a representative sample of Indigenous Australians and therefore overcome the problem inherent in most national surveys (that is, small and unrepresentative Indigenous samples).

Survey results are subject to sampling errors as only a small proportion of the population is used to produce estimates that represent the whole population. Non-sampling errors may occur where there is non-response to the survey or questions in the survey, misunderstanding of questions or errors in recording, coding or processing the survey. Information recorded in this survey is 'as reported' by respondents. Responses may be affected by imperfect recall or individual interpretation of survey questions. Any data that are self-reported are also likely to under-estimate circumstances about which the respondent is unaware, or may be reluctant to report (for example, certain health conditions, weight, drug use).

Selected non-Indigenous comparisons are available from the 2011–13 Australian Health Survey (AHS). The AHS was conducted in *Major cities*, *Regional* and *Remote areas*, but *Very remote* areas were excluded from the sample.

Further information on AATSIHS data quality issues can be found in the user guide for the survey (ABS 2013). Time series comparisons for some indicators are available from the 2004–05 NATSIHS, 2008 NATSISS, 2002 NATSISS, 2001 NHS and the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS).

Australian Health Survey

The Australian Health Survey (AHS) combines the existing ABS National Health Survey (NHS) and the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) together with 2 new elements: a National Nutrition and Physical Activity Survey (NNPAS) and a National Health Measures Survey (NHMS).

For more information see:

- National Health Survey
<<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4363.0.55.001Main+Features12011-13?OpenDocument>>.
- National Aboriginal and Torres Strait Islander Health Survey
<<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4715.0/>>.
- National Nutrition and Physical Activity Survey
<<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.007~2011-12~Main%20Features~About%20the%20National%20Nutrition%20and%20Physical%20Activity%20Survey~731>>.
- National Health Measures Survey
<<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4364.0.55.005Chapter1102011-12>>.

Overweight and obesity data

The quality of BMI as a measure of overweight and obesity has a number of issues: the reliability of self-reported height and weight; under-reporting; mixed methods of collection of weight and height; and interpretation of BMI cut-offs in children.

Self-reported height and weight has been found to over-estimate height and under-estimate weight, thus under-estimating the resultant BMI. An analysis of the 1995 National Health Survey and 1995 National Nutrition Survey (ABS 1998), in which both self-reported and measured height and weight data were collected, found that 27% of males and 28% of females would have been classified to a different, predominately heavier, BMI category. This analysis did not explore data from the Aboriginal and Torres Strait Islander respondents; however, there was little difference between different ethnic and socioeconomic groups. The report concludes:

Based on the findings from this study, there may be grounds for questioning the reliability, and hence the use and interpretation, of BMI results based on self-reported height and weight.

In the 2004–05 NATSIHS and 2004–05 National Health Survey, height and weight information could not be obtained for approximately 16% of Indigenous Australians and 8% of non-Indigenous Australians. With a large non-response rate there may be issues with bias. In the 1994 NATSIHS an assessment of potential bias due to non-measurement concluded that there would have been only small differences if the whole population was measured; however, this assessment was based on an imputation method that assumed that people with similar characteristics had similar weight and height (Cunningham & Mackerras 1998).

Height and weight were self-reported in the 2004–05 National Health Survey except in remote areas where respondents to the Indigenous survey were offered the opportunity to be weighed or measured if they were unsure of their weight or height (ABS 2006). Given the known problems with self-reporting of height and weight, care needs to be exercised in interpretation of results given the mixed methods used, especially when the analysis is split by remoteness.

List of symbols used in tables

- . . not applicable
- n.p. not available for publication but included in totals where applicable, unless otherwise indicated
- * represents results with statistically significant differences at the $p < 0.05$ level, between the categories specified in table footnotes
- † estimate has a relative standard error between 25% and 50% and should be used with caution

List of tables

Table 2.22.1:	Selected health and socioeconomic characteristics by Indigenous persons (15 years and over) reporting obesity, 2012–13.....	4
Table 2.22.2:	Selected household and health risk factors by Indigenous persons (18 years and over) reporting obesity, 2012–13.....	6
Table 2.22.3:	Rates of overweight or obese people aged 18 years or over, by state and territory by remoteness, 2012–13 (age-standardised rate per 100 population)	9

List of figures

Figure 2.22.1:	Age-standardised proportion of persons aged 15 and over by BMI category and Indigenous status, 2012–13	3
----------------	--	---

References

- ABS (Australian Bureau of Statistics) 1998. How Australians measure up. ABS cat no. 4359.0. Canberra: ABS.
- ABS 2006. National Aboriginal and Torres Strait Islander Health Survey 2004–05. ABS cat no. 4715.0. Canberra: ABS.
- ABS 2013. Australian Aboriginal and Torres Strait Islander Health Survey: users' guide, 2012–13. ABS cat no. 4727.0.55.002. Canberra: ABS.
- Cunningham J & Mackerras D. 1998. Overweight and obesity: Indigenous Australians 1994. ABS cat no. 4702.0. Canberra: ABS.
- NHMRC (National Health and Medical Research Council) 2009. Australian Guidelines to Reduce Health Risks from Drinking Alcohol. Canberra: NHMRC.
- NHMRC 2013. Australian Dietary Guidelines. Canberra: NHMRC.

Other related information

- ABS 2015. Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012–13. ABS cat. no. 4727.0.55.006. Table no. 2.3, 3.3, 4.3, 7.3, 8.3, 9.3, 14.3 and 21.3. Viewed 31 March 2015, <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4727.0.55.0062012-13?OpenDocument>>.
- ABS 2015. Feature Article: Obesity and Chronic Disease. ABS cat. no. 4364.0.55.005. Viewed 31 March 2015, <<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4364.0.55.005Chapter1052011-12>>.
- AIHW (Australian Institute of Health and Welfare) 2014. National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care: results from December 2013. National key performance indicators for Aboriginal and Torres Strait Islander primary health care. Cat. no. IHW 146. Canberra: AIHW.
- Canuto K, McDermott R, Cargo M & Esterman A 2011. Study protocol: a pragmatic randomised controlled trial of a 12-week physical activity and nutritional education program for overweight Aboriginal and Torres Strait Islander women. BMC Public Health 11:1–10.

Aboriginal and Torres Strait Islander Health Performance Framework 2014 report: detailed analyses

- Denney-Wilson E, Robinson A, Laws R & Harris MF 2014. Development and feasibility of a child obesity prevention intervention in general practice: The Healthy 4 Life pilot study. *Journal of paediatrics and child health*.
- Hardy LL, O'Hara BJ, Hector D, Engelen L & Eades SJ 2014. Temporal trends in weight and current weight-related behaviour of Australian Aboriginal school-aged children. *The Medical Journal of Australia* 200:667–71.
- Haysom L, Indig D, Moore E, Hardy LL & van den Dolder PA 2013. Prevalence and perceptions of overweight and obesity in Aboriginal and non-Aboriginal young people in custody. *Medical Journal of Australia* 19:266–70.
- Jansen PW, Mensah FK, Nicholson JM & Wake M 2013. Family and Neighbourhood Socioeconomic Inequalities in Childhood Trajectories of BMI and Overweight: Longitudinal Study of Australian Children. *PLOS One*.
- Magee C, Caputi P & Iverson D 2014. Lack of sleep could increase obesity in children and too much television could be partly to blame. *Acta Paediatrica* 103:e27–e31.
- Malseed C, Nelson A & Ware R 2014. Evaluation of a school-based health education program for urban Indigenous young people in Australia. *Health* 2014.
- Markwick A, Ansari Z, Sullivan M & McNeil J 2014. Social determinants and lifestyle risk factors only partially explain the higher prevalence of food insecurity among Aboriginal and Torres Strait Islanders in the Australian state of Victoria: a cross-sectional study. *BMC public health* 14:598.
- OECD 2014. Obesity Update. (Labour and Social Affairs OECD Directorate for Employment, chairman).
- Siahpush M, Huang TTK, Sikora A, Tibbits M, Shaikh RA & Singh GK 2014. Prolonged financial stress predicts subsequent obesity: Results from a prospective study of an Australian national sample. *Obesity* 22:616–21.
- Thurber K, Boxall A-M & Partel K 2014. Overweight and obesity among Indigenous children: individual and social determinants.
- Vos T, Barker B, Stanley L & Lopez AD 2007. The burden of disease and injury in Aboriginal and Torres Strait Islander peoples 2003. Brisbane: School of Population Health, University of Queensland.
- Zhao Y, Wright J, Begg S & Guthridge S 2013. Decomposing Indigenous life expectancy gap by risk factors: a life table analysis. *Population health metrics* 11:1.