

# Person—body mass index (classification), code N[.N]

## Identifying and definitional attributes

**Metadata item type:** Data Element

**Short name:** Body mass index—classification

**METEOR identifier:** 270474

**Registration status:**

- [Health](#), Standard 01/03/2005
- [Indigenous](#), Standard 13/03/2015

**Definition:** The category of weight deficit or excess in adults and weight excess only in children and adolescents as measured by a code.

**Data Element Concept:** [Person—body mass index \(classification\)](#)

## Value domain attributes

### Representational attributes

**Representation class:** Code

**Data type:** Number

**Format:** N[.N]

**Maximum character length:** 2

**Permissible values:**

Value	Meaning
1	Not overweight or obese < 25.00
1.1	Underweight < 18.50 Low (but risk of other clinical problems increased)
1.2	Normal range 18.50 - 24.99 Average
2	Overweight ≥ 25.00 Average
2.1	Overweight ≥ 25.0 Average
2.2	Pre Obese 25.00 - 29.99 Increased
3	Obese ≥ 30 Increased
3.1	Obese class 1 30.00 - 34.99 Moderate
3.2	Obese class 2 35.00 - 39.99 Severe
3.3	Obese class 3 ≥ 40.00 Very severe

**Supplementary values:**

Value	Meaning
9	Not stated/inadequately described

## Collection and usage attributes

**Guide for use:****Adults:**

Body mass index for adults cannot be calculated if components necessary for its calculation (weight or height) is unknown or has not been collected (i.e. is coded to 888.8 or 999.9).

BMI for adults is categorised according to the range it falls within as indicated by codes 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3 or 9. For consistency, when the sample includes children and adolescents, adults can be analysed under the broader categories of 1, 2, 3 or 9 as used for categorising children and adolescents.

**Children/adolescents:**

Body mass index for children and adolescents aged 2 to 17 years cannot be calculated if components necessary for its calculation (date of birth, sex, weight or height) is unknown or has not been collected (i.e. is coded to 888.8, 999.9 or 9).

Self-reported or parentally reported height and weight for children and adolescents should be used cautiously if at all.

To determine overweight and obesity in children and adolescents, compare the derived BMI against those recorded for the relevant age and sex of the subject to be classified, against Table 1: Classification of BMI for children and adolescents, based on BMI cut-points developed by Cole et al (2000). For example, an 11 year old boy with a BMI of 21 would be considered overweight (i.e. coded as 2), or a 7 year old girl with a BMI of 17.5 would be considered not overweight or obese (i.e. coded as 1).

Using this method, children and adolescents can only be coded as 1, 2, 3 or 9.

**Collection methods:**

Use N for BMI category determined (1, 2, 3 or 9) for persons (children and adolescents) aged 2 to 17 years.

Use N.N for BMI category determined (1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3 or 9) for persons aged 18 years or older.

Standard definitions of overweight and obesity in terms of BMI are used to derive age-specific and age-adjusted indicators of overweight and obesity for reporting progress towards National public health policy.

## Source and reference attributes

**Reference documents:**

Cole TJ, Bellizzi MC, Flegal KM, Dietz WH 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. British Medical Journal 320: 1240-1243

## Data element attributes

## Collection and usage attributes

**Guide for use:**

Table 1: Classification of overweight and obesity for children and adolescents				
Age(years)	BMI equivalent to 25 kg/m <sup>2</sup>		BMI equivalent to 30 kg/m <sup>2</sup>	
	Males	Females	Males	Females
2	18.41	18.02	20.09	19.81
2.5	18.13	17.76	19.80	19.55
3	17.89	17.56	19.57	19.36
3.5	17.69	17.40	19.39	19.23
4	17.55	17.28	19.29	19.15
4.5	17.47	17.19	19.26	19.12
5	17.42	17.15	19.30	19.17
5.5	17.45	17.20	19.47	19.34
6	17.55	17.34	19.78	19.65
6.5	17.71	17.53	20.23	20.08
7	17.92	17.75	20.63	20.51
7.5	18.16	18.03	21.09	21.01
8	18.44	18.35	21.60	21.57
8.5	18.76	18.69	22.17	22.18
9	19.10	19.07	22.77	22.81
9.5	19.46	19.45	23.39	23.46
10	19.84	19.86	24.00	24.11
10.5	20.20	20.29	24.57	24.77
11	20.55	20.74	25.10	25.42
11.5	20.89	21.20	25.58	26.05
12	21.22	21.68	26.02	26.67
12.5	21.56	22.14	26.43	27.24
13	21.91	22.58	26.84	27.76
13.5	22.27	22.98	27.25	28.20
14	22.62	23.34	27.63	28.57
14.5	22.96	23.66	27.98	28.87
15	23.29	23.94	28.30	29.11
15.5	23.60	24.17	28.60	29.29
16	23.90	24.37	28.88	29.43
16.5	24.19	24.54	29.14	29.56
17	24.46	24.70	29.41	29.69
17.5	24.73	24.85	29.70	29.84
18	25.00	25.00	30.00	30.00

## Comments:

This metadata item applies to persons aged 2 years or older. It is recommended for use in population surveys and health care settings for adults and population surveys only for children and adolescents. It is recommended that calculated BMI for children and adolescents be compared with a suitable growth reference such as the US Centers for Disease Control 2000 BMI- for-age chart in health care settings such as hospitals, clinics and in general practice. A BMI greater than the 85th percentile would be classified as overweight, while a BMI greater than the 95th percentile would be classified as obese. These percentiles are arbitrary and do not relate to morbidity as the BMI cut-points do in adults.

BMI can be considered to provide the most useful, albeit crude, population-level measure of obesity. The robust nature of the measurements and the widespread routine inclusion of weights and heights in clinical and population health surveys mean that a more selective measure of adiposity, such as skinfold thickness measurements, provides additional rather than primary information. BMI can be used to estimate the prevalence of obesity within a population and the risks associated with it, but does not, however, account for the wide variation in the nature of obesity between different individuals and populations (WHO 2000).

BMI values for adults are age-independent and the same for both sexes.

However, BMI values for children and adolescents aged 2 to 17 years are age and sex specific and are classified by comparing against the above table, Table 1: Classification of BMI for children and adolescents.

For adults and children and adolescents BMI may not correspond to the same degree of fatness in different populations due, in part, to differences in body proportions. The classification table shows a simplistic relationship between BMI and the risk of comorbidity, which can be affected by a range of factors, including the nature of the diet, ethnic group and activity level. The risks associated with increasing BMI are continuous and graded and begin at a BMI of 25 (or equivalent to 25 for children and adolescents). The interpretation of BMI grades in relation to risk may differ for different populations. Both BMI and a measure of fat distribution (waist circumference or waist: hip ratio in adults) are important in calculating the risk of obesity comorbidities.

It is recommended that in population surveys, sociodemographic data including ethnicity should be collected, as well as other risk factors including physiological status (e.g. pregnancy), physical activity, smoking and alcohol consumption. Summary statistics may need to be adjusted for these variables.

National health metadata items currently exist for sex, date of birth, country of birth, Indigenous Status and smoking. Metadata items are being developed for physical activity.

Presentation of data:

Methods used to establish cut-off points for overweight have been arbitrary and, as a result, cut-off points vary between countries. The data are derived mainly from studies of mortality and morbidity risk performed in people living in western Europe or the United States of America, and cut-off points for BMI as an indicator of adiposity and risk in populations who differ in body build and genetic disposition are likely to vary.

Caution is required in relation to BMI cut-off points when used for different ethnic groups because of limited outcome data for some ethnic groups, e.g. Aboriginal and Torres Strait Islander peoples. As with overweight the cut-off points for a given level of risk are likely to vary with body build, genetic background and physical activity.

The classification above is different to ones that have been used in the past and it is important that in any trend analysis consistent definitions are used.

BMI should not be rounded before categorisation to the classification above.


## Source and reference attributes

**Submitting organisation:** World Health Organization (see also Comments) and the consortium to develop an Australian standard definition of child/adolescent overweight and obesity; at the Children's Hospital at Westmead on behalf of the Commonwealth Department of Health & Ageing

**Origin:** WHO (World Health Organisation) 2000. Obesity: Preventing and Managing the Global Epidemic, report of a WHO Consultation. World Health Organization, Geneva.

Cole TJ, Bellizzi MC, Flegal KM, Dietz WH 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. British Medical Journal 320: 1240-1243

## Relational attributes

**Related metadata references:** Supersedes  [Body mass index - classification, version 2, Derived DE, NHDD, NHIMG, Superseded 01/03/2005.pdf](#) (79.5 KB) *No registration status*

See also [Adult—body mass index \(self-reported\), ratio NN\[N\].N\[N\]](#)

- [Health](#), Standard 01/03/2005
- [National Health Performance Authority \(retired\)](#), Retired 01/07/2016

See also [Child—body mass index \(measured\), ratio NN\[N\].N\[N\]](#)

- [Health](#), Standard 01/03/2005

## Implementation in Data Set Specifications:

[Indigenous primary health care DSS 2012-14Health](#), Superseded 21/11/2013  
[Indigenous](#), Superseded 21/11/2013

**Implementation start date:** 01/07/2012

**Implementation end date:** 30/06/2014

### **Conditional obligation:**

This item is only collected for persons aged 25 years and older.

[Indigenous primary health care DSS 2014-15Health](#), Superseded 13/03/2015  
[Indigenous](#), Superseded 13/03/2015

**Implementation start date:** 01/07/2014

**Implementation end date:** 30/06/2015

### **Conditional obligation:**

This item is only collected for persons aged 25 years and older.

[Indigenous primary health care DSS 2015-17Health](#), Superseded 25/01/2018  
[Indigenous](#), Superseded 27/02/2018

**Implementation start date:** 01/07/2015

**Implementation end date:** 30/06/2017

### **Conditional obligation:**

This item is only collected for persons aged 25 years and older.

[Indigenous primary health care NBEDS 2017–18Health](#), Superseded 06/09/2018  
[Indigenous](#), Superseded 22/10/2018

**Implementation start date:** 01/07/2017

**Implementation end date:** 30/06/2018

**Conditional obligation:**

This item is only collected for persons aged 25 and older.

[Indigenous primary health care NBEDS 2018–19Health](#), Superseded 12/12/2018  
[Indigenous](#), Superseded 02/04/2019

**Implementation start date:** 01/07/2018

**Implementation end date:** 30/06/2019

**Conditional obligation:**

This item is only collected for persons aged 25 and older.

[Indigenous primary health care NBEDS 2019–20Health](#), Superseded 16/01/2020  
[Indigenous](#), Superseded 14/07/2021

**Implementation start date:** 01/07/2019

**Implementation end date:** 30/06/2020

**Conditional obligation:**

This item is only collected for persons aged 25 and older.

[Indigenous primary health care NBEDS 2020–21Health](#), Retired 13/10/2021

**Implementation start date:** 01/07/2020

**Implementation end date:** 30/06/2021

**Conditional obligation:**

This item is only collected for persons aged 25 and older.

[Indigenous-specific primary health care NBEDS December 2020Indigenous](#),  
Standard 14/07/2021

**Implementation start date:** 01/07/2020

**Implementation end date:** 31/12/2020

**Conditional obligation:**

Reporting against this data element is conditional on a person being aged  $\geq 25$  years at the census date and having recorded a 'CODE 1 Yes' response to ['Person—body mass index recorded indicator, yes/no code N'](#).

Data relating to only the most recently recorded result are provided to the AIHW.

**DSS specific information:**

In the ISPHC NBEDS only aggregated data with CODE 2.2 or 3 are provided to the AIHW.

[Indigenous-specific primary health care NBEDS June 2021 Indigenous](#), Standard 03/07/2022

**Implementation start date:** 01/01/2021

**Implementation end date:** 30/06/2021

**Conditional obligation:**

**Reports Numerator**  
Reporting against this data element is conditional on a person being aged  $\geq 25$  years at the census date and having recorded a 'CODE 1 Yes' response to [Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2012Health](#), Superseded 23/02/2012  
Data relating to only the most recently recorded result are provided to the AIHW.

**DSS specific information:**  
[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2013Health](#), Superseded 21/11/2013  
In the ISPHC NBEDS only aggregated data with CODE 2.2 or 3 are provided to the AIHW.

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2014Health](#), Superseded 13/03/2015  
[Indigenous](#), Superseded 13/03/2015

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2015Health](#), Superseded 05/10/2016  
[Indigenous](#), Superseded 20/01/2017

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2015-2017Health](#), Superseded 25/01/2018  
[Indigenous](#), Superseded 27/02/2018

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2015-2017Health](#), Superseded 17/10/2018  
[Indigenous](#), Superseded 17/10/2018

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, 2018-2019Health](#), Superseded 16/01/2020  
[Indigenous](#), Superseded 14/07/2021

[Indigenous primary health care: P112a-Number of regular clients who are classified as overweight or obese, June 2020Health](#), Retired 13/10/2021  
[Indigenous](#), Superseded 14/07/2021

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2012Health](#), Superseded 23/02/2012

**Implementation in Indicators:**

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2013Health](#), Superseded 21/11/2013  
[Indigenous](#), Superseded 21/11/2013

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2014Health](#), Superseded 13/03/2015  
[Indigenous](#), Superseded 13/03/2015

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2015Health](#), Superseded 05/10/2016  
[Indigenous](#), Superseded 20/01/2017

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2015-2017Health](#), Superseded 25/01/2018  
[Indigenous](#), Superseded 27/02/2018

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2015-2017Health](#), Superseded 17/10/2018  
[Indigenous](#), Superseded 17/10/2018

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, 2018-2019Health](#), Superseded 16/01/2020  
[Indigenous](#), Superseded 14/07/2021

[Indigenous primary health care: P112b-Proportion of regular clients who are classified as overweight or obese, June 2020Health](#), Retired 13/10/2021  
[Indigenous](#), Superseded 14/07/2021

[Indigenous-specific primary health care: P112a-Number of Indigenous regular clients classified as overweight or obese, December 2020Indigenous](#),  
Superseded 03/07/2022

[Indigenous-specific primary health care: P112a-Number of Indigenous regular clients classified as overweight or obese, June 2021Indigenous](#), Standard  
03/07/2022

[Indigenous-specific primary health care: P112b-Proportion of Indigenous regular clients classified as overweight or obese, June 2021Indigenous](#), Standard  
03/07/2022

[Indigenous-specific primary health care: P112b-Proportion of Indigenous regular clients regular clients classified as overweight or obese, December 2020Indigenous](#), Superseded 03/07/2022