



2004-05

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OVERWEIGHT AND OBESITY IN ADULTS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) FRI 25 JAN 2008

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INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

NOTES

ABOUT THIS PUBLICATION

Excess body weight is a health concern affecting increasing numbers of Australians. This publication presents information about adults who were classified as being overweight or obese in the 2004–05 National Health Survey (NHS), and compares this to results from previous surveys in 1989–90, 1995 and 2001. In the NHS, overweight and obesity are defined using the Body Mass Index (BMI), which is based on height and weight information reported by survey respondents. See the Glossary for detailed information on the BMI and how it is calculated.

The NHS is designed to obtain national benchmarks on a number of health issues such as chronic disease and risk factors, and to enable changes in health to be monitored over time.

INFORMATION IN THIS PUBLICATION

BMI information is presented in this publication for the adult population only (i.e. persons aged 18 years and over). Respondents who did not provide their height and weight are excluded from this publication.

Age standardising is a method of removing the influence of age when comparing populations. It has been applied to the proportions used when making comparisons over time, or where otherwise noted.

Estimates which have been age standardised have been explicitly identified as such. Refer to the Glossary for further information.

EFFECTS OF ROUNDING

Where estimates have been rounded, discrepancies may occur between sums of the component items and totals.

Susan Linacre
Acting Australian Statistician

CHAPTER 1. INTRODUCTION

INTRODUCTION

Overweight and obesity have become a world-wide concern, reaching epidemic proportions. Excess body weight contributes to medical risk for conditions such as diabetes, cardiovascular disease, osteoarthritis, some cancers, high blood pressure and high cholesterol (WHO 2003). High body mass was responsible for 7.5% of the total burden of disease and injury in Australia in 2003 (AIHW 2007). It has been estimated that overweight and obesity and their associated illnesses cost Australian society and governments a total of \$21 billion in 2005 (Access Economics 2006).

A range of factors influence the body mass outcomes of given individuals and populations. Specific lifestyle behaviours such as exercise and dietary habits impact on weight. This publication presents body mass information and associated characteristics as reported by adults in the National Health Survey (NHS).

BODY MASS INDEX

Body Mass Index (BMI) is an internationally recognised measure of the amount of fat and muscle in the human body and used as an index of obesity. The BMI values in this publication are calculated from self-reported height and weight. The values are grouped into body mass categories in line with the WHO and National Health and Medical Research Council (NHMRC) guidelines, and are used to derive a measure of the proportion of overweight and obesity in the population. See BMI in the Glossary for more information.

Because height and weight measures are 'as reported' by respondents, they may differ from those which might be obtained for the same person by actual physical measurement. Overall, people tend to overstate their height and understate their weight (ABS 1995).

It should be noted that while BMI is a useful tool to assess and monitor changes in body mass at the population level, it has been identified as an inappropriate measure for certain populations and individuals. For example, those whose high body mass is due to muscle rather than fat.

OVERVIEW

In 2004–05, 54% of adults were classified as overweight or obese. The proportion of men in these categories was significantly higher than that for women (62% of men compared to 45% of women). This difference is most evident in the overweight category, where 43% of men were overweight compared to 28% of women. The median age of men who were overweight or obese (45 years) is lower than that of women (48 years).

In addition to the BMI score calculated from the height and weight reported by respondents in the NHS, adults were also asked for their own perception of whether they were of acceptable weight, underweight or overweight. In 2004–05, the majority of adults considered themselves to be of acceptable weight (63% of men and 59% of women), while 32% of men and 37% of women considered themselves to be overweight. However, this was significantly below the proportions classified as overweight or obese based on their body mass index (BMI), calculated from reported height and weight; 62% of men and 45% of women. Of those classified as obese, 84% perceived themselves as overweight compared to only 42% of those who were overweight.

CHANGES OVER TIME¹

Comparing the results of the 2004–05 survey with those conducted in the preceding 15 years shows increases in the number and proportion of adults who are overweight or obese. Over the four surveys, the number of overweight or obese adults increased from 4.6 million in 1989–90 to 5.4 million in 1995, 6.6 million in 2001, and 7.4 million in 2004–05.

Even when the effect of changes in the age structure of the adult population over time is taken into account (i.e. when age standardisation is applied to the data), the proportion of overweight or obese adults increased steadily over this period - from 38% in 1989–90 to 44% in 1995, 50% in 2001 and 53% in 2004–05. The increase was most marked among obese adults, with the proportion of the adult population in this category doubling between 1989–90 and 2004–05 (from 9% to 18%). Over the same period, the proportion of overweight adults increased from 29% to 35%.

The proportion of men classified as overweight or obese increased steadily from 45% in 1989–90, to 52% in 1995, 58% in 2001, and 62% in 2004–05. The proportion of overweight or obese women also increased progressively, from 32% in 1989–90, to 37% in 1995, 42% in 2001, and 45% in 2004–05. During the period, the proportion of men who were classified as obese more than doubled (from 9% in 1989–90 to 19% in 2004–05) while the proportion of women in this category increased from 10% to 17%.

Increases in the proportion of adults who were overweight or obese occurred among all age groups. Hence the median age of overweight or obese adults remained similar over the 15 year period. In 2004–05, the median age of overweight or obese adults was 46 years.

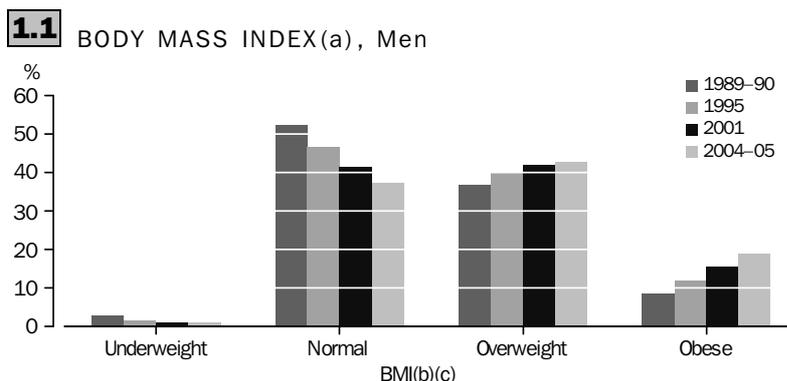
In keeping with the increase in the proportions of the population who were overweight or obese in the 15 years to 2004–05, there were corresponding decreases in the proportions of the population who were classified as normal or underweight during this period. Between 1989–90 and 2004–05, the proportion of men who reported normal weight decreased from 52% to 37%, and the proportion of women in this category decreased from 60% to 51%. Over the same period, the proportion of men who were underweight decreased from 3% to 1%, and the proportion of women in this category decreased from 8% to 4%.

While adults with higher BMI scores are more likely to assess themselves as being overweight than those with lower scores, overweight or obese adults (both male and female) are increasingly likely to see themselves as having an acceptable weight. On an age standardised basis, the proportion who perceived themselves as having an acceptable weight increased from 37% in 1995, to 41% in 2001, and 44% in 2004–05. This change over time was most marked for those in the overweight BMI category (45% in 1995, 53% in 2001 and 57% in 2004–05) although it was also apparent among those in the obese category (13% in 1995, 17% in 2001 and 16% in 2004–05).

¹ Percentages in this section are based on age standardised data.

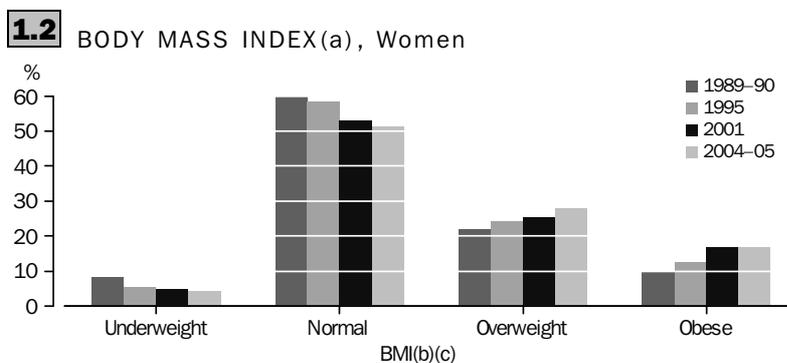
CHANGES OVER TIME

continued



(a) Age standardised percentages. See Glossary.
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.

Source: National Health Survey



(a) Age standardised percentages. See Glossary.
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.

Source: National Health Survey

WEIGHT AND HEIGHT

As reported in *How Australians Measure Up, 1995* (cat. no. 4359.0) people tend to over estimate their height and under estimate their weight. These reporting errors are relatively uniform over time and across the population suggesting the BMI measure obtained from self reported height and weight are useful when examining trends and patterns.

Over the four surveys conducted in the 15 years to 2004–05, the average self-reported weight of Australian men increased steadily from 77.4 kg in 1989–90 to 83.6 kg in 2004–05 (an overall increase of 6.2 kg). Across the age groups, the increases ranged from 3.5 kg (for 18–24 year olds) to 7.5 kg (for 35–44 year olds). The average height of men increased marginally over the same period, with the greatest increase (1.6 cm) occurring in the 25–34 years and 35–44 years age groups.

The average weight of women also increased steadily over the period, from 62.6 kg in 1989–90 to 67.7 kg in 2004–05 (a total increase of 5.1 kg). Increases in average weight for women across age groups ranged from 3.0 kg in the 75 years and over age group to 6.2 kg in the 25–34 years age group. The average height of women increased marginally over

CHAPTER 1. INTRODUCTION *continued*

WEIGHT AND HEIGHT
continued

the same period, with the greatest increase (1.8 cm) occurring in the 25–34 years age group.

CHAPTER 2. SOCIOECONOMIC CHARACTERISTICS

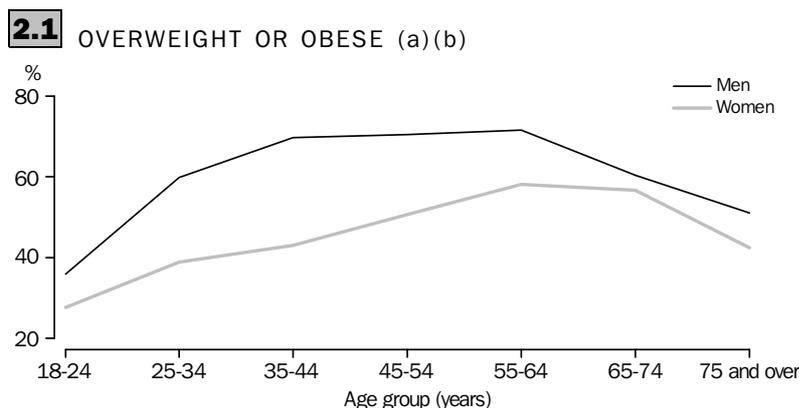
INTRODUCTION

Rising rates of obesity reflect the changes in society and behavioural patterns which have occurred over recent decades. Economic growth, modernisation, urbanisation and globalisation of food markets are some of the forces thought to underlie these increases (WHO 2003).

There are some differences between those who are overweight or obese and those who are underweight or normal weight across most socioeconomic indicators. To some extent, many of the differences are also related to the age and gender profile of different population groups.

AGE AND SEX

In 2004–05, a higher proportion of men than women were classified as overweight or obese across all age groups, although the difference was greatest among the age groups under 45 years. For example, among 35–44 year olds, 70% of men were categorised as overweight or obese compared with 43% of women. For both men and women the proportion classified as overweight or obese was highest in the 55–64 year age group, with persons in this age group being twice as likely to be overweight or obese (72% of men and 58% of women aged 55–64 years) than those in the 18–24 years age group (36% of men and 28% of women). Similar patterns are evident across surveys conducted since 1989–90.



(a) Overweight or obese BMI. See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

COUNTRY OF BIRTH

Adults born in Southern and Eastern Europe and the Oceania region (excluding Australia) were the most likely to be overweight or obese (65% and 63% respectively). While those born in Australia were less likely to be overweight or obese (55%), adults born in South East Asia were least likely to be classified in this way (31%).

Adults who arrived in Australia before 1996 were more likely to be overweight or obese than those who arrived between 1996 and 2005 (54% compared to 40%). Most people born overseas are in good health on arrival due to the rigorous health checks they undergo to be eligible for migration. This 'healthy migrant effect' generally wanes as their length of time in Australia increases, and time since migration is an important factor in excess weight in migrants (AIHW 2004).

CHAPTER 2. SOCIOECONOMIC CHARACTERISTICS *continued*

COUNTRY OF BIRTH *continued*

As for the total population, men born overseas were more likely to be classified as overweight or obese than overseas born women (58% compared to 43%). The highest proportion of overweight and obesity was recorded for men born in Southern and Eastern Europe (72%), followed by men born in the Oceania region (excluding Australia) (68%). The largest proportion of overweight and obese women were those born in the Oceania region (excluding Australia) and Southern and Eastern Europe (both with 56%).

MAIN LANGUAGE SPOKEN

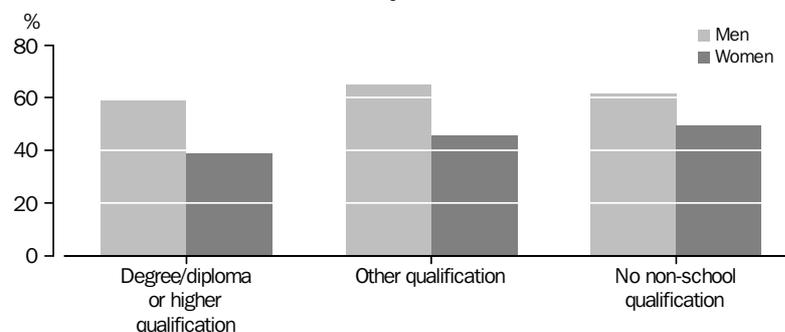
Those who mainly spoke a language other than English at home were less likely than English speakers to be classified as overweight or obese (46% compared to 54%). This partly reflects the differing birthplaces and ages within this group.

HIGHEST NON-SCHOOL QUALIFICATION

Adults with a degree, diploma or higher qualification were less likely to be overweight or obese than those with other or no non-school qualifications. Approximately half (48%) of those with a degree, diploma or higher qualification were overweight or obese, compared to 57% of those with other qualifications and 55% of those with no qualifications.

The proportion of men with a degree, diploma or higher qualification who were overweight or obese was 57%, compared to 65% of men with other qualifications and 62% of men with no non-school qualifications. The proportion of women with a degree, diploma or higher qualification who were overweight or obese was 38%, while the proportion was 45% for those with other qualifications and 49% for those with no qualifications.

2.2 HIGHEST NON-SCHOOL QUALIFICATION (a) (b)



(a) Proportion of persons aged 18 years and over who were overweight or obese.

See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

LABOUR FORCE

Of Australian adults in the labour force aged 18–64 years, the proportion of overweight and obesity was higher among those who were employed (54%) than those who were unemployed (50%). Over half (53%) of those who were not in the labour force in this age group were overweight or obese.

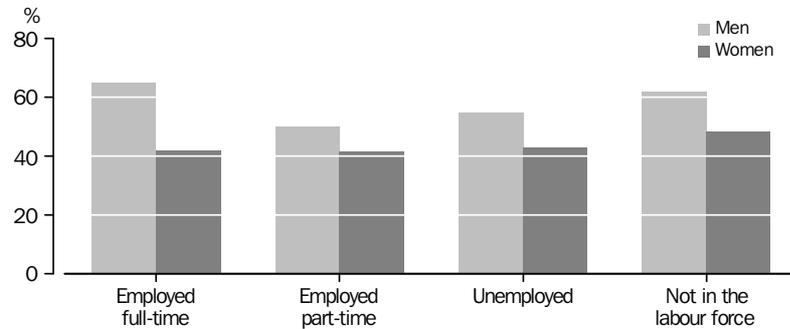
Nearly two-thirds (65%) of men who were employed full-time were overweight or obese, and this was higher than the proportions amongst those employed part-time (51%), the unemployed (55%) and those not in the labour force (62%). Among women, the proportion who were overweight or obese was similar regardless of labour force status:

CHAPTER 2. SOCIOECONOMIC CHARACTERISTICS *continued*

LABOUR FORCE *continued*

42% among those working full-time; 42% among part-time workers; 43% among the unemployed; and 49% among those not in the labour force.

2.3 LABOUR FORCE PARTICIPATION (a) (b)



(a) Proportion of persons aged 18–64 years who were overweight or obese. See Glossary.

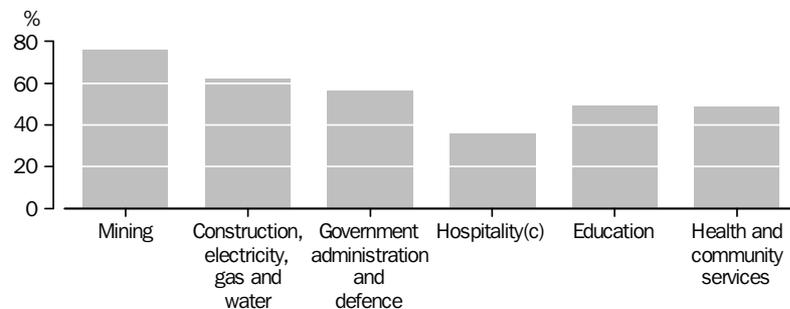
(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

INDUSTRY

The extent to which workers aged 18–64 years were classified as overweight or obese varied across industries, with the proportion in these categories ranging from 36% in the hospitality industry to 76% in the mining industry. This partly reflects differences in the age and sex of employees across industries.

2.4 SELECTED INDUSTRIES (a) (b)



(a) Proportion of persons aged 18–64 years who were overweight or obese. See Glossary.

(b) Excludes those for whom BMI category was not known.

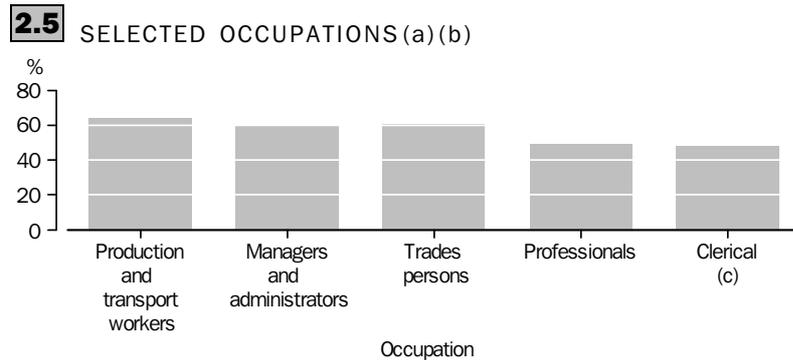
(c) Accommodation, cafes and restaurants.

Source: National Health Survey 2004–05

OCCUPATION

The occupation with the highest proportion of overweight or obese adults aged 18–64 years was production and transport workers (63%), while the lowest proportion was recorded among clerical, sales and services workers (46%). As with industry, this partly reflects differences in the age and sex of workers across occupations.

OCCUPATION *continued*



(a) Proportion of persons aged 18-64 years who were overweight or obese.

See Glossary.

(b) Excludes those for whom BMI category was not known.

(c) Clerical, sales and service workers.

Source: National Health Survey 2004-05

HOURS WORKED

The likelihood of being overweight or obese was related to the number of hours a person usually worked each week, with the proportion of workers aged 18-64 years who were overweight or obese increasing in line with the number of hours reported. This pattern was particularly true for men. The proportion who were overweight or obese increased from 48% among men working less than 25 hours to 70% among those working 49 hours or more. To some extent, this reflects the much greater likelihood of men to work part time when they are younger.

Women are more likely than men to work part time through their working lives. Consistent with this among women the proportion who were overweight or obese was similar regardless of the hours worked. The proportions of women in each hours worked grouping who were overweight or obese ranged between 41% and 44% across the different age groups.

However, longer work hours may also be a contributor to obesity. As the hours worked increased so did the level of sedentary or low physical activity and the likelihood of consuming inadequate amounts of fruit and vegetables recorded by these people.

LIVING ARRANGEMENTS

While the proportion of adults who were overweight or obese was similar regardless of the structure of the household, the proportion was slightly higher among adults living in couple only households (56%) than among adults in households containing couples with children (54%), adults in lone person households (51%), and adults in lone parent households (47%).

INCOME

While fairly similar proportions of adults in low income and high income households were overweight or obese in 2004-05 (56% and 52% respectively), those in low income households were more likely to be obese. Around one fifth (21%) of adults in low income households were obese compared with 16% of adults in high income households.

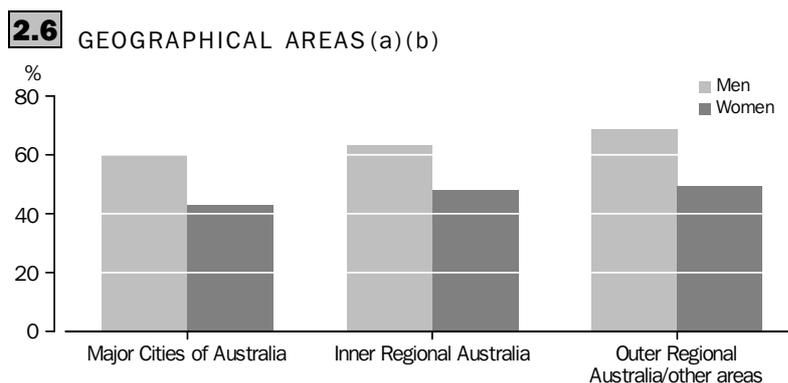
DISADVANTAGE

A higher proportion of adults living in areas with the greatest disadvantage (those in the lowest quintile of the index of socioeconomic disadvantage) were overweight or obese (56%) compared to those living in areas with the least disadvantage (those in the highest quintile of the index of socioeconomic disadvantage) (48%). The proportion of adults living in areas with the greatest disadvantage who were obese (22%) was almost double that of obese adults living in areas with the least disadvantage (13%).

GEOGRAPHICAL AREAS

The proportion of adults who were overweight or obese was lower among people living in major cities of Australia (52%) than the proportion among those living in inner regional Australia (56%) and outer regional Australia and other areas of Australia (60%).

A high proportion of men living in outer regional Australia (69%) were overweight or obese compared to major cities of Australia (60%) and inner regional areas of Australia (64%). The same trend was present in the female population. One in two women who lived in outer regional Australia were overweight or obese (50%). The proportions for overweight or obese women living in the inner regional and major cities of Australia were 48% and 43% respectively.



(a) Proportion of persons aged 18 years and over who were overweight or obese.

See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

INDIGENOUS AUSTRALIANS

After adjusting for age differences between the two populations and for differences in non-response in the 2004–05 NHS and the 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), Indigenous Australians (aged 18 years or more) were 17% more likely to be overweight or obese than non-Indigenous Australians.

Of Indigenous respondents aged 18 years or more, an estimated 60% were overweight or obese. Among men, 62% were overweight or obese. Among women, 58% were overweight or obese. Some 35% of Indigenous adults were classified as being of normal weight, and 4% were underweight.

The proportion of adults who were overweight or obese was higher among Indigenous Australians than the non-Indigenous population in all age groups. While this pattern held for women, among men the proportion who were overweight or obese was lower than the non-Indigenous population in the middle years (68% and 72% respectively in the 35–54 years age group). In each age group the disparity between Indigenous and

CHAPTER 2. SOCIOECONOMIC CHARACTERISTICS *continued*

INDIGENOUS
AUSTRALIANS *continued*

non-Indigenous people was greater for females than for males. Further data on age and sex is available in Appendix 1.

CHAPTER 2. SOCIOECONOMIC CHARACTERISTICS *continued*

2.7 BODY MASS INDEX(a), Socioeconomic characteristics(b)

BODY MASS INDEX

	Underweight	Normal	Underweight or normal	Overweight	Obese	Overweight or obese	Total(c)	Total(c)
	%	%	%	%	%	%	%	'000
Country of birth								
Australia	2.4	43.0	45.4	35.8	18.9	54.6	100.0	9 785.3
Other Oceania	*1.8	35.3	37.1	37.4	25.5	62.9	100.0	444.6
United Kingdom	1.9	42.5	44.4	37.3	18.3	55.6	100.0	1 027.6
Other North West Europe	*2.0	44.1	46.1	35.8	18.1	53.9	100.0	313.2
Southern and Eastern Europe	*1.7	33.5	35.2	43.3	21.6	64.8	100.0	636.2
North Africa and the Middle East	**0.4	46.7	47.1	36.1	16.7	52.9	100.0	211.8
South East Asia	7.9	61.0	68.9	27.9	3.2	31.1	100.0	439.8
All other countries	*1.6	52.0	53.6	35.0	11.4	46.4	100.0	558.1
Born overseas								
Arrived before 1996	2.3	44.2	46.5	36.1	17.4	53.5	100.0	3 157.7
Arrived 1996–2005	6.0	53.6	59.6	30.5	9.9	40.4	100.0	817.6
Total overseas-born	3.1	46.1	49.2	35.0	15.9	50.8	100.0	3 975.4
Main language spoken at home								
English	2.4	43.3	45.7	35.9	18.4	54.3	100.0	12 449.6
Language other than English	4.2	49.7	53.9	32.0	14.1	46.1	100.0	1 306.2
Highest non-school qualification								
Degree/diploma or higher qualification	2.7	49.5	52.2	34.3	13.5	47.8	100.0	3 804.7
Other qualification(d)	1.7	40.9	42.6	37.6	19.9	57.4	100.0	3 609.2
No non-school qualification	2.9	42.0	44.9	35.3	19.8	55.1	100.0	6 299.9
Labour force status(e)								
Employed	2.2	43.9	46.0	36.5	17.4	54.0	100.0	8 854.4
Unemployed	*3.8	46.4	50.3	30.9	18.9	49.7	100.0	362.9
Not in the labour force	3.4	43.8	47.2	31.0	21.8	52.8	100.0	2 348.2
Hours worked(f)								
Less than 25 hours	3.7	53.5	57.1	28.7	14.2	42.9	100.0	1 619.7
25 to 48 hours	2.3	44.9	47.2	36.0	16.8	52.8	100.0	5 139.2
49 hours and over	*0.7	34.0	34.7	43.9	21.4	65.3	100.0	2 095.6
Geographical areas								
Major cities of Australia	2.7	45.5	48.2	35.1	16.7	51.8	100.0	9 423.8
Inner regional Australia	2.5	41.6	44.1	36.4	19.5	55.9	100.0	2 695.4
Outer regional Australia/other areas	1.9	38.5	40.5	36.5	23.0	59.5	100.0	1 641.4
Living arrangements								
Couple only	1.4	42.5	43.9	38.0	18.1	56.1	100.0	3 914.4
Couple with children	2.5	43.1	45.6	35.9	18.5	54.4	100.0	5 454.4
All other households	3.8	46.0	49.8	32.8	17.3	50.2	100.0	4 391.9
Household income(g)								
First quintile	3.5	40.5	43.9	34.9	21.2	56.1	100.0	2 465.1
Fifth quintile	1.7	46.2	47.8	36.6	15.5	52.2	100.0	2 476.5
Index of disadvantage(h)								
First quintile	3.2	40.4	43.6	34.5	21.9	56.4	100.0	2 453.0
Fifth quintile	2.6	49.0	51.6	35.2	13.2	48.4	100.0	2 983.7

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) BMI. See Glossary.

(b) Data on age and sex available in Appendix 1.

(c) Excludes those for whom BMI category was not known.

(d) Includes inadequately described qualifications.

(e) Persons aged 18–64 years.

(f) Persons aged 18–64 years.

(g) Household income. See Glossary.

(h) Index of disadvantage. See Glossary.

Source: National Health Survey 2004–05

CHAPTER 3. HEALTH STATUS

INTRODUCTION

Being overweight or obese is a modifiable risk factor for a number of chronic diseases, including National Health Priority Area (NHPA) conditions such as diabetes, cardiovascular disease, osteoarthritis and some cancers. Excess body weight is also associated with a range of risk factors for chronic disease such as high blood pressure and high blood cholesterol (AIHW 2006).

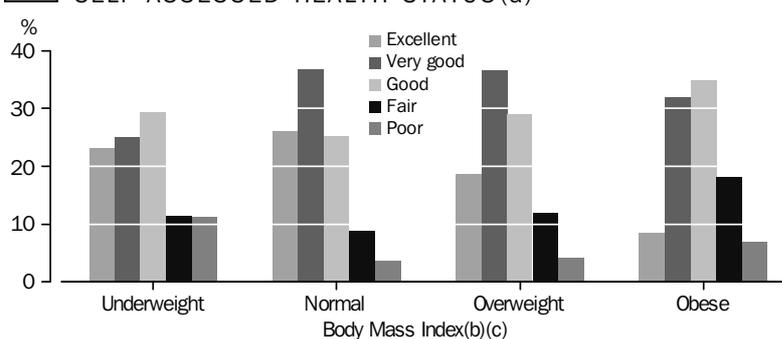
SELF ASSESSED HEALTH STATUS

In the NHS, respondents reported their general assessment of their own health, selecting a single option from a five point scale: excellent, very good, good, fair, poor.

In 2004–05, 20% of adults reported their self assessed health status as excellent, 35% very good, 28% good, 12% fair and 5% poor.

Adults classified as overweight or obese were less likely than those classified as underweight or normal weight to assess their health as excellent or very good (50% compared with 62%). Overweight or obese adults were more likely than those classified as underweight or normal weight to rate their health as fair or poor (19% compared to 13%).

3.1 SELF ASSESSED HEALTH STATUS (a)



(a) Self assessed health. See Glossary.
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

Obese women were equally as likely as obese men to rate their health as excellent (9% and 8% respectively) or very good (33% and 31%).

Underweight men were more likely than underweight women to place their health self-assessment at the extremes of the scale, that is: excellent (29% and 22% respectively) or poor (17% and 10%).

LONG-TERM CONDITIONS

The likelihood of having a long-term condition (one that lasted or was expected to last for six months or more) among adults who were overweight was similar to the general population (around 87%). However, people who were obese were slightly more likely to have a long-term condition.

Proportionally more overweight or obese adults had multiple long-term conditions. Overall, the average number of long-term conditions reported by each adult was 3. Obese adults reported having an average of 4 conditions. Of those with 5 or more long-term conditions, 61% were overweight or obese.

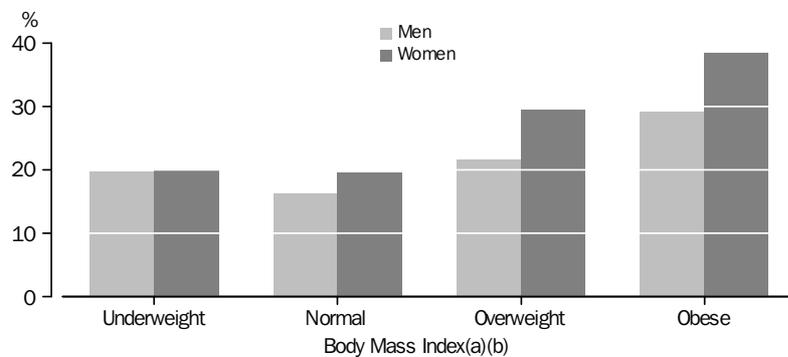
DISEASES OF THE
CIRCULATORY SYSTEM

Diseases of the circulatory system are those related to the heart and blood vessels, including heart, stroke and vascular diseases. Overweight and obesity pose a major risk for diseases of the circulatory system (WHO 2003).

In 2004–05, 23% of Australian adults (approximately 3.2 million people) had a disease of the circulatory system. Circulatory system diseases were highest among overweight or obese adults (28%), followed by those classified as underweight or normal weight (18%).

These diseases were slightly more likely to be reported by women (26%) than men (21%) regardless of body mass. The highest proportion was reported among obese women (38%), followed by overweight women (29%), obese men (29%) and overweight men (22%).

3.2 DISEASES OF THE CIRCULATORY SYSTEM



(a) BMI. See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

Heart disease

Forms of heart disease include hypertensive disease and ischaemic heart disease (including angina). Being overweight or obese is a major risk factor for heart disease (AIHW 2007).

In 2004–05, 15% of Australian adults (approximately 2.1 million people) had heart disease. Of adults who were overweight or obese, 20% had heart disease. Obese adults were most likely to report heart disease. More than a quarter (26%) of adults who were obese reported heart disease, while 18% of those who were overweight reported heart disease. This rate halved for those with a normal weight (10%) and decreased further in those who were underweight (8%).

Three quarters (75%) of males with heart disease were overweight or obese, whereas two thirds (66%) of females with heart disease were overweight or obese. Although nearly half (46%) of males with heart disease were overweight, the proportion of females with heart disease was evenly spread between the normal (32%), overweight (35%) and obese (31%) categories.

Heart disease continued

HYPERTENSIVE DISEASE

Hypertensive disease or high blood pressure is the most common form of heart disease, and is a risk factor for other more severe diseases of the circulatory system such as coronary heart disease and stroke (AIHW 2007). Overweight and obesity lead to adverse metabolic effects on blood pressure (World Health Organisation 2003).

In 2004–05, 14% of Australian adults (approximately 1.9 million people) had hypertensive disease. The proportion with high blood pressure increased with BMI category. Among those in the underweight category 7% reported elevated blood pressure, followed by adults of normal weight (9%), 16% of those who were overweight and 24% among those classified as obese.

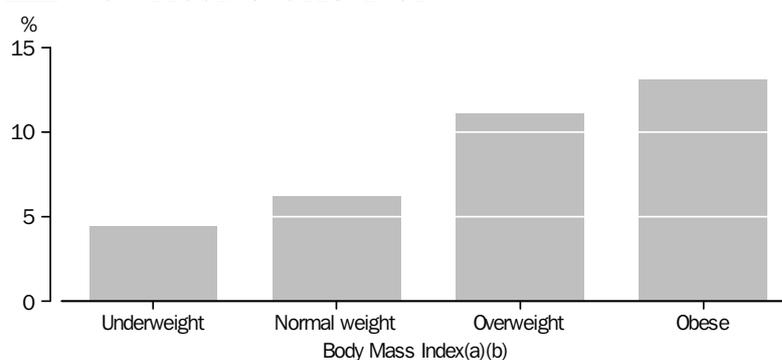
HIGH BLOOD
CHOLESTEROL

High blood cholesterol is a risk factor for diseases of the circulatory system such as coronary heart disease and stroke (AIHW 2007a). As for high blood pressure, overweight and obesity lead to adverse metabolic effects on blood cholesterol (WHO 2003).

In 2004–05, 9% of Australian adults (approximately 1.3 million people) had high blood cholesterol. The proportion of people with high cholesterol increased with BMI category, with a marked increase occurring between the normal weight and overweight categories where the proportion doubled. Among those classified as underweight or normal weight 6% reported high blood cholesterol, compared to those classified as overweight or obese (12%) with high cholesterol.

High cholesterol was reported by 9% of both men and women and there was very little difference between the sexes across BMI categories.

3.3 HIGH BLOOD CHOLESTEROL



(a) BMI. See Glossary.
(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

DISEASES OF THE
MUSCULOSKELETAL
SYSTEM AND CONNECTIVE
TISSUE

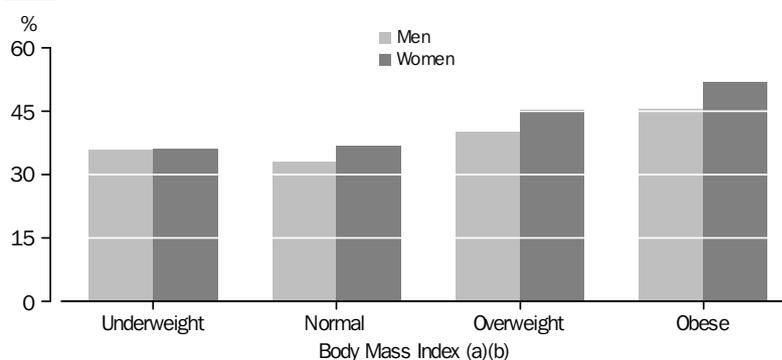
Diseases of the musculoskeletal system and connective tissue manifest in many forms of joint problems and disorders of the bones and muscles and their attachments, including arthritis, osteoporosis, rheumatism, back pain and disc disorders. Chronic musculoskeletal conditions are among the debilitating health problems associated with obesity (WHO 2003).

DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE *continued*

In 2004–05, 40% of Australian adults (approximately 5.5 million people) had a disease of the musculoskeletal system. Musculoskeletal diseases were more prevalent among overweight or obese adults (44%), than among those classified as underweight or normal weight (35%).

The proportion of women (42%) with diseases of the musculoskeletal system was higher than the corresponding proportion of men (38%), and this was evident in all BMI categories. More than half (52%) of obese women, and 45% of overweight women had a musculoskeletal disease. In men, 45% of the obese and 40% of the overweight had at least one of these conditions.

3.4 DISEASES OF THE MUSCULOSKELETAL SYSTEM



(a) BMI. See Glossary.
 (b) Excludes those for whom BMI category was not known.
 Source: National Health Survey 2004–05

Arthritis

Of those who were overweight or obese, 23% reported arthritis, including osteoarthritis (19% of men and 29% of women). Arthritis is age related, and the proportion of overweight or obese adults with arthritis increased with age with the highest proportion in the 75 years or more age group (54%).

OSTEOARTHRITIS

Osteoarthritis is among the most common forms of arthritis. It is a degenerative condition caused mainly by accumulated wear of the cartilage that cushions the ends of bones where they meet to form a joint. As the cartilage degenerates the normal functioning of the joint is disrupted causing pain. The disease affects mainly the hands, spine and weight-bearing joints such as the hips, knees and ankles. Excess body weight is a risk factor for osteoarthritis (AIHW 2007).

In 2004–05, 10% of Australian adults (approximately 1.4 million people) had osteoarthritis. Of adults who reported osteoarthritis, 63% were classified as overweight or obese. The prevalence of this condition was higher for women (13%) than men (8%), and this was the case in all except the underweight BMI category. Of women classified as overweight or obese, 17% reported osteoarthritis compared to 9% of those women classified as underweight or normal weight. In contrast, for overweight or obese men, 9% reported osteoarthritis compared to 7% of underweight or normal weight men.

DISEASES OF THE
RESPIRATORY SYSTEM

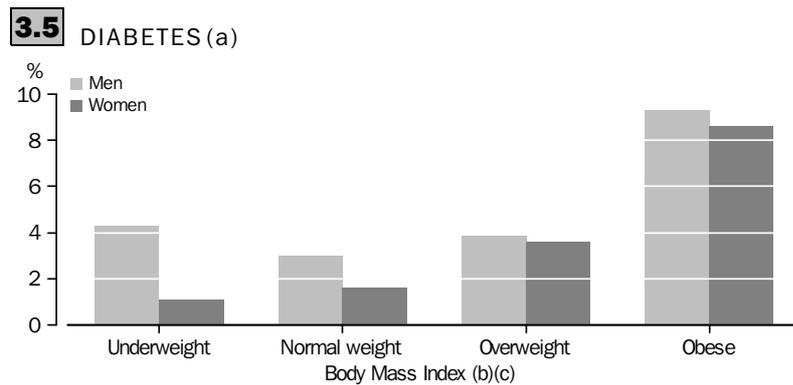
The debilitating health problems associated with obesity include respiratory difficulties (WHO 2003), such as chronic obstructive pulmonary disease, asthma, obstructive sleep apnea and obesity hyperventilation syndrome.

In 2004–05, nearly a third (32%) of Australian adults (approximately 4.4 million people) had a respiratory condition. Diseases of the respiratory system were more prevalent in women (35%) than in men (28%), and this was the case in each BMI category. Respiratory conditions were most prevalent among obese women (43%).

DIABETES

Type 2 diabetes is characterised by resistance in the body's ability to use insulin and is likely to develop after 40 years of age. It is also known as non-insulin dependent diabetes mellitus. Overweight and obesity lead to adverse metabolic effects, including insulin resistance which is associated with type 2 diabetes (WHO 2003).

Of adults with Type 2 diabetes, 75% were overweight or obese. As BMI category increased, so did the prevalence of Type 2 diabetes, particularly for obese adults. The reported prevalence of Type 2 diabetes among overweight adults (3.8%) was almost twice that in normal weight adults (2.2%), and in obese adults the proportion of Type 2 diabetes (9.0%) was more than four times that in normal weight adults.



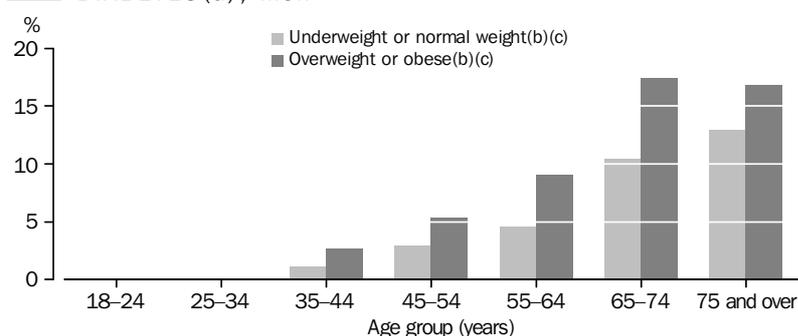
(a) Type 2 diabetes
(b) BMI. See Glossary.
(c) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

For both men and women, and in most age groups, the proportion with Type 2 diabetes was higher among those who were overweight or obese than it was in those who were underweight or normal weight. This difference according to BMI category was particularly marked for women.

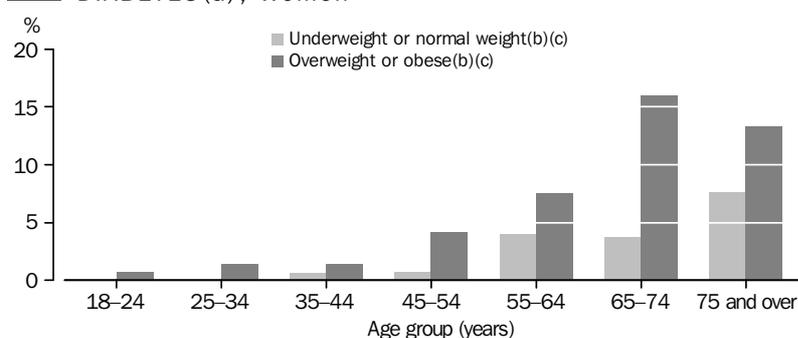
DIABETES *continued*

3.6 DIABETES (a), Men



(a) Type 2 diabetes
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.
 Source: National Health Survey 2004-05

3.7 DIABETES (a), Women



(a) Type 2 diabetes
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.
 Source: National Health Survey 2004-05

MENTAL OR BEHAVIOURAL PROBLEMS

In 2004-05, 12% of Australian adults (approximately 1.6 million people) reported that they had a mental or behavioural problem. A higher proportion of women (13%) reported having mental or behavioural problems than men (10%) and this was the case in each BMI category. Of those classified as overweight or obese, 12% of men and 16% of women reported a mental or behavioural problem.

Mental or behavioural problems were most common among adults at both ends of the BMI scale. Adults classified as obese or underweight were most likely to report a mental or behavioural problem (14% of obese and 19% of underweight) compared to 11% of both overweight and normal weight adults.

The highest proportion of obese men who reported mental or behavioural problems was in the 25 to 34 and 45 to 54 year age groups (14%). The highest proportion of obese women who reported mental or behavioural problems was in the 35 to 44 year age group (22%).

PSYCHOLOGICAL
DISTRESS

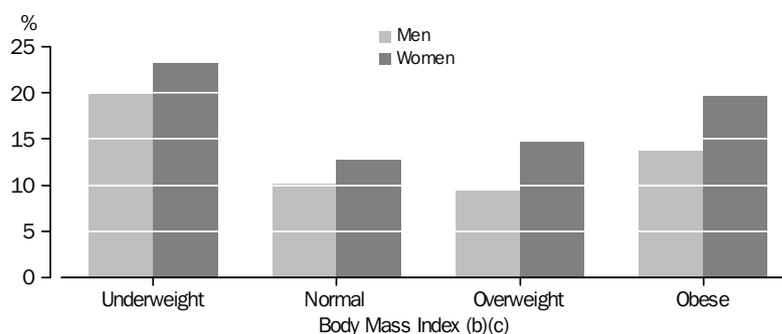
In the NHS, to complement data on long term conditions, additional information was collected from adult respondents using the Kessler 10 Scale (K10), a 10 item scale of current psychological distress. The K10 asks about negative emotional states in the four weeks prior to interview. The results from the K10 are grouped into four categories: low (indicating little or no psychological distress); moderate; high; and very high levels of psychological distress. Based on research from other population studies, a very high level of psychological distress (as shown by the K10) may indicate a need for professional help.

In 2004–05, almost two thirds (63%) of adults were classified as having low levels of psychological distress, nearly a quarter (24%) to moderate levels, 9% to high levels and 4% to very high levels.

Both high and very high levels of psychological distress were more common among adults who were either underweight or obese. Among the underweight, 13% had high levels and 10% had very high levels of psychological distress. In obese adults the corresponding percentages were 11% and 5%.

High or very high levels of psychological distress were most likely to be experienced by underweight women (23%), underweight men (20%) and by obese women (20%).

3.8 HIGH OR VERY HIGH LEVELS OF PSYCHOLOGICAL DISTRESS (a)



(a) Psychological distress. See Glossary.
 (b) BMI. See Glossary.
 (c) Excludes those for whom BMI category was not known.
 Source: National Health Survey 2004–05

Among adults with a very high level of psychological distress, the extremes of the BMI scale were over-represented. A higher proportion of adults with a very high level of psychological distress were obese (24%) or underweight (7%), compared with adults in the total Australian population (where 18% were obese and 3% were underweight).

INJURIES

Of people classified as overweight or obese, 16% reported experiencing one or more injuries in the four weeks prior to interview, proportionally less than people who were classified as underweight or normal weight (18%). However, of those classified as overweight or obese who had experienced an injury, 26% reported cutting down on their usual activities because of the injury (or most recent if more than one), compared to 21% of those classified as underweight or normal weight who had an injury.

CHAPTER 3. HEALTH STATUS *continued*

INJURIES *continued*

Adults classified as overweight or obese who experienced an injury were less likely than other people to have been injured during sport or leisure activities. Around one quarter (25%) of overweight or obese people were participating in sport or other leisure activities when they had their most recent injury, while almost one third (30%) of adults who were underweight or normal weight were participating in such activities when their injury occurred.

3.9 COMORBIDITY, Selected long-term conditions(a)(b)

<i>Person level</i>	<i>Hypertensive disease</i>	<i>Ischaemic heart disease</i>	<i>High cholesterol</i>	<i>Osteoarthritis</i>	<i>Asthma</i>	<i>Diabetes type 2</i>	<i>Mental or behavioural problems</i>	<i>Total(c)</i>
	'000	'000	'000	'000	'000	'000	'000	'000
Hypertensive disease	..	93.5	488.2	334.5	167.5	203.7	174.5	1 377.2
Ischaemic heart disease	93.5	..	80.0	54.8	26.7	40.5	30.9	190.5
High blood cholesterol	488.2	80.0	..	216.0	89.0	133.3	126.1	864.7
Osteoarthritis	334.5	54.8	216.0	..	128.3	99.2	133.6	894.2
Asthma	167.5	26.7	89.0	128.3	..	55.7	124.4	764.4
Diabetes type 2	203.7	40.5	133.3	99.2	55.7	..	50.0	410.1
Mental or behavioural problems	174.5	30.9	126.1	133.6	124.4	50.0	..	861.2

.. not applicable

(a) Of overweight and obese adults.

(b) Excludes those for whom BMI was not known.

(c) Only selected comorbid conditions are shown and therefore components do not add to totals.

Source: National Health Survey 2004–05

CHAPTER 3. HEALTH STATUS *continued*

3.10 SELECTED HEALTH CHARACTERISTICS

	<i>Underweight</i>	<i>Normal weight</i>	<i>Overweight</i>	<i>Obese</i>	<i>Total(a)</i>	<i>Total(a)</i>
	%	%	%	%	%	'000
Long-term conditions						
Diseases of the circulatory system	20.0	18.1	24.7	33.4	23.3	3 202.8
Heart disease	7.9	9.8	17.4	25.5	15.3	2 100.7
Hypertensive disease	6.6	8.7	15.8	24.4	14.0	1 924.5
High blood cholesterol	*4.4	6.2	11.1	13.1	9.1	1 253.1
Diseases of the musculoskeletal system and connective tissue	35.9	35.2	42.1	48.5	40.1	5 511.2
Osteoarthritis	8.6	8.3	11.0	14.3	10.3	1 423.8
Diseases of the respiratory system	32.9	31.0	31.1	34.8	31.8	4 372.2
Type 2 diabetes mellitus	1.7	2.2	3.8	9.0	4.0	549.4
Mental and behavioural problems	18.9	11.3	10.7	13.7	11.7	1 608.8
Total with a long-term condition (b)	86.0	85.2	88.2	90.4	87.2	12 000.6
Level of psychological distress(c)						
Low	55.0	63.2	65.2	60.3	63.2	8 693.9
Moderate	21.7	25.2	23.4	23.2	24.1	3 312.8
High	12.6	8.5	8.0	11.4	9.0	1 232.2
Very high	9.9	3.1	3.4	4.9	3.7	508.0
Total	100.0	100.0	100.0	100.0	100.0	13 760.6
Self assessed health status						
Excellent	23.1	26.0	18.5	8.5	20.1	2 762.5
Very good	24.9	36.7	36.5	31.8	35.4	4 875.7
Good	29.3	25.1	29.0	34.7	28.3	3 897.4
Fair	11.4	8.8	11.9	18.0	11.6	1 598.9
Poor	11.3	3.5	4.1	6.9	4.5	626.1
Total	100.0	100.0	100.0	100.0	100.0	13 760.6
Injury(d)						
Injury	17.4	18.2	16.0	15.2	16.8	2 318.5

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Excludes those for whom BMI category was not stated or not known.

(b) Per cent of people in each BMI category who reported the relevant long-term condition.

(c) As measured by the Kessler 10 scale, from which a score of 10 to 50 is produced. See Psychological distress in Glossary.

(d) Injury sustained in the 4 weeks prior to interview.

Source: National Health Survey 2004–05

CHAPTER 4. LIFESTYLE RISK FACTORS

INTRODUCTION

Behavioural or lifestyle risk factors increase the risk of ill health, but unlike other factors such as age, sex, and genetics, lifestyle behaviours can be altered. Regular exercise and diet are factors in preventing obesity, diabetes and some mental health problems. Conversely, smoking, excessive alcohol consumption and obesity are major risks for a range of chronic diseases including mental health problems.

In the NHS, adult respondents are asked to report on lifestyle risk factors such as current daily smoking, alcohol consumption at a risky to high risk level, insufficient physical activity (sedentary or exercise at a low level), and inadequate fruit or vegetable intake (less than 2 serves and 5 serves respectively per day). The consumption of skim or reduced fat milk was also collected for use as a proxy for fat intake.

It should be noted that these measures are broad concepts based on recall rather than detailed data collected from observation or diary techniques. There may also be an awareness on the part of respondents about the social desirability of their responses. While the personal interview methodology used in the NHS may result in a greater likelihood of behaviours which are obvious to interviewers being reported, the level of the activity reported, for example, may be affected by respondent concern about the acceptability of their responses.

OVERVIEW

In 2004–05, the pattern of reporting these risk factors was similar among adults classified as overweight or obese, and those classified as normal weight or underweight. Almost all adults reported at least one of the four key lifestyle risk factors (97%).

The two most frequently reported lifestyle risk factors among adults were inadequate fruit or vegetable intake (90%) and sedentary or low level exercise (70%), and the most common pattern was to report them both, without also reporting smoking or drinking at risky levels (44%). In comparison to those classified as normal or underweight, adults who were overweight or obese were slightly more likely to report in this way (43% and 44%).

Among females, there was a difference in responses between those classified as overweight or obese, and other females. The former group were more likely to report sedentary or a low level exercise alongside inadequate fruit or vegetable intake (49% compared to 46%), and less likely to report inadequate fruit or vegetable intake alone (14% compared to 18%). The other response patterns were similar in both the overweight or obese, and normal or underweight groups.

Most adults reported both of the two common lifestyle risk factors (sedentary or a low level exercise and inadequate fruit or vegetable intake), making two lifestyle risk factors the most common outcome (52%).

OVERVIEW *continued*

4.1 LIFESTYLE RISK FACTORS (a)

	Men	Women	All adults
	%	%	%
.....			
UNDERWEIGHT OR NORMAL (b)(c)			
Number of risk factors			
One risk factor	25.1	24.5	24.7
Two risk factors	47.1	53.3	50.7
Three risk factors	19.6	15.7	17.4
Four risk factors	4.6	3.1	3.7
Selected risk factors			
Nutrition only	20.7	17.9	19.1
Nutrition and exercise	37.9	45.8	42.5
Nutrition, smoking and exercise	14.5	10.3	12.0
Total with risk factors	96.4	96.6	96.5
No risk factor	3.6	3.4	3.5
Total	100.0	100.0	100.0
Total ('000)	2 653.5	3 741.2	6 394.6

.....			
OVERWEIGHT OR OBESE (b)(c)			
Number of risk factors			
One risk factor	25.5	22.2	24.2
Two risk factors	48.0	56.2	51.4
Three risk factors	20.6	16.0	18.7
Four risk factors	3.4	2.1	2.9
Selected risk factors			
Nutrition only	21.3	14.4	18.4
Nutrition and exercise	39.4	49.4	43.6
Nutrition, smoking and exercise	12.2	10.9	11.6
Total with risk factors	97.5	96.5	97.1
No risk factor	2.5	3.5	2.9
Total	100.0	100.0	100.0
Total ('000)	4 310.9	3 055.1	7 366.0

(a) Lifestyle risk factors. See Glossary.

(b) BMI. See Glossary.

(c) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

Looking at NHS data over the period since 1989–90, and adjusting for changes in the age structure over the period, changes in the proportion of overweight or obese adults reporting certain lifestyle risk factors are consistent with a broader change amongst the total adult population. Rates of smoking decreased among adults who were overweight or obese (from 26% in 1989–90 to 23% in 2004–05), however this reflected a general decrease in smoking rates across the whole population (for example among normal weight, 29% in 1989–90 to 24% in 2004–05). Similarly, rates of risky or high risk drinking among the overweight or obese increased from 1995 onwards (from 8% in 1995 to 14% in 2004–05) but they also increased in people who were classified as having normal weight (from 8% to 13%). The proportion of overweight or obese people who had a low or sedentary exercise level did not change substantially over time, nor did the rates of sedentary and low exercise among people with a normal BMI (table 4.8), similar to the total adult population.

EXERCISE

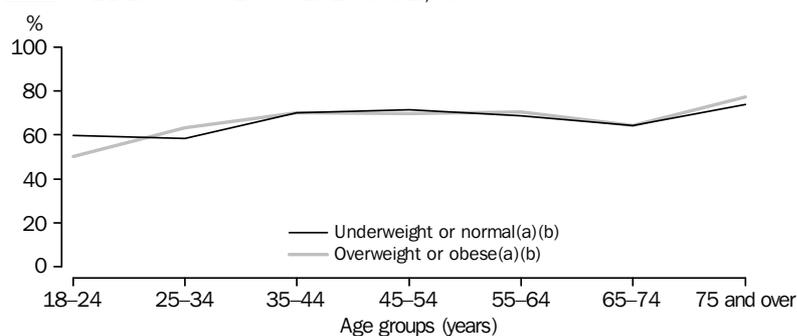
The NHS measures current levels of physical activity by asking respondents to report on all exercise for sport, recreation or leisure undertaken in the two weeks prior to the survey interview. The NHS also collected information on frequency, duration and intensity (walking, moderate or vigorous) of the physical activity, with each person classified to an exercise level of sedentary, low, moderate or high.

In the NHS, people are asked how much they did of three different types of exercise—vigorous exercise, moderate exercise and walking for sport, recreation or fitness. In 2004–05, overweight or obese adults were less likely to report vigorous exercise and more likely to report walking as their only form of exercise, compared to other adults. Of the overweight or obese adults classified as having a moderate or high level of exercise, 36% reported doing vigorous exercise in the two weeks prior to interview, compared to 43% of underweight or normal weight adults classified at similar exercise levels. One-fifth (20%) of overweight or obese people with a moderate or high exercise level reported walking as their only form of exercise, compared to 17% of those who were underweight or normal weight.

In general, reported exercise levels were similar across BMI categories. Overweight or obese adults were slightly less likely to exercise at a moderate to high level (29%) than those underweight or normal weight (32%).

Men who were classified as overweight or obese were slightly more likely to be sedentary or have exercised at low levels (67%) than men in the underweight or normal weight range (65%). This difference was greatest in the 18–24 years age group (60% of underweight or normal weight adults compared to 50% of overweight or obese adults in the same age group).

4.2 SEDENTARY-LOW EXERCISE, Men



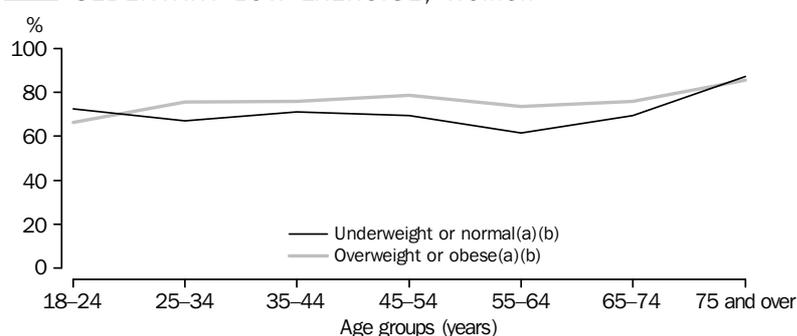
(c) BMI. See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

EXERCISE *continued*

4.3 SEDENTARY-LOW EXERCISE, Women



(a) BMI. See Glossary.
 (b) Excludes those for whom BMI category not known.

Source: National Health Survey 2004-05

Of overweight or obese women, 76% were sedentary or exercised at low levels, more than women who were not overweight (70%). For overweight or obese women, this lifestyle risk factor was lowest among 18-24 year olds (66%) and increased in the older age groups. In contrast, for women in the underweight or normal weight range, sedentary and low exercise levels were lowest among 55-64 year olds (62%), and the difference between the two groups of women in terms of the proportion with this lifestyle risk factor was also greatest in this age group (62% compared to 74%).

A perception of being overweight was related to a tendency to exercise less. Of all adults aged 18 years and over who considered themselves to be overweight, just over one-quarter (26%) engaged in moderate to high levels of exercise, compared with 33% of adults who thought they were underweight or acceptable weight. Of adults who were overweight or obese and considered themselves to be overweight, 26% exercised at moderate to high levels, compared with 34% of overweight or obese who thought they were underweight or acceptable weight. This pattern was the same for adults who had an underweight or normal weight BMI (table 4.8).

DIETARY BEHAVIOUR
 FRUIT OR VEGETABLES

A majority of adults (90%) did not consume the recommended amount of fruit (2 or more serves) or vegetables (5 or more serves). This proportion was similar regardless of body weight (refer to Glossary for recommended intake of fruit or vegetables).

Age is related to fruit or vegetable intake. Older adults are more likely to consume an adequate amount of fruit or vegetables compared to young adults. Adults aged 55-64 years were the most likely to consume inadequate fruit or vegetables (85%) compared to 95% of the 18-24 years age group.

SKIM OR REDUCED FAT
 MILK

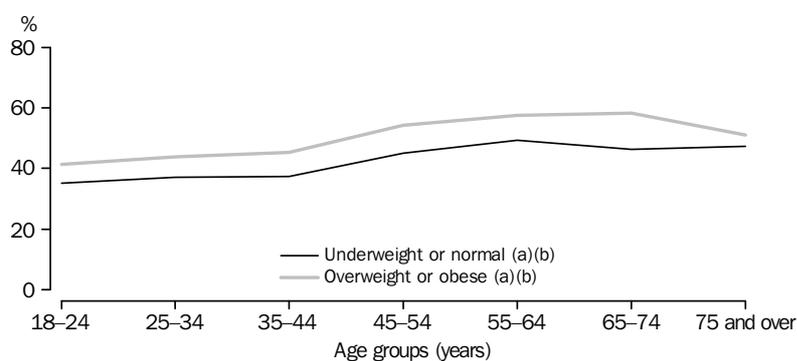
Adults' diets should be low in fat, especially saturated fat, because it is more easily deposited as fat tissue than unsaturated fat (Better Health Channel 2006). Although milk is a good source of protein and calcium, it does contain saturated fat. Reduced fat or skim milk provides a healthier alternative, contributing to a healthy diet.

SKIM OR REDUCED FAT MILK *continued*

Approximately 50% of people who were overweight or obese reported consuming skim or reduced fat milk, compared to 41% of people who were underweight or had normal weight. Overall, women (52%) were more likely than men (40%) to consume skim or reduced fat milk, however both males and females were more likely to use skim or reduced fat if they were overweight or obese. Skim or reduced fat milk was used by 59% of overweight or obese women (compared to 47% of underweight or normal weight women) and 44% of overweight or obese men (compared to 33% underweight or normal weight men).

Consumption of skim or reduced fat milk generally increased with age, however in all age groups, skim or reduced fat milk use was higher in overweight or obese people. The greatest difference in the consumption of skim or reduced fat milk between overweight or obese and underweight or normal weight men and women was in the 55–64 years and 45–54 years age group. Almost two-third (66%) of overweight or obese women aged 45–54 years reported using skim or reduced fat milk, compared to 50% of women in the same age group who were underweight or had normal weight. Just over half (53%) of overweight or obese men aged 55–64 years used skim or reduced fat milk, compared to 38% of men in the underweight or normal weight range.

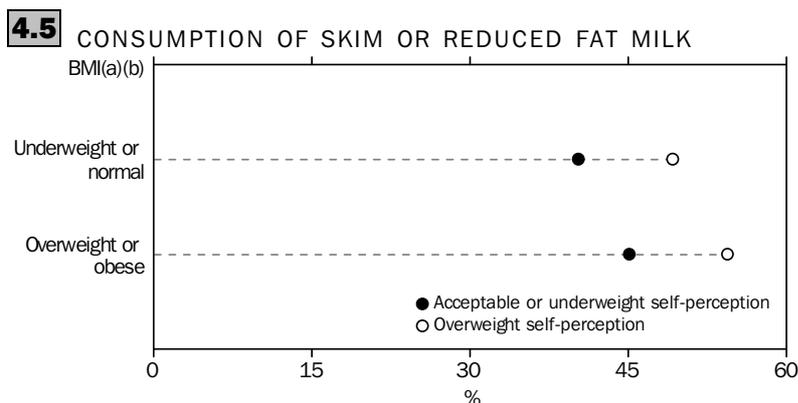
4.4 SKIM OR REDUCED FAT MILK CONSUMPTION



(a) BMI. See Glossary.
 (b) Excludes those for whom BMI category not known
 Source: National Health Survey 2004–05

Whether people perceived they were overweight was related to whether they reported usually consuming skim or reduced fat milk. Of all adults who thought they were overweight, 54% used skim or reduced fat milk, compared to 42% of people who thought their weight was underweight or acceptable weight. Of all adults who were classified as overweight or obese and also considered themselves to be overweight, 54% used skim or reduced fat milk, but this dropped to 45% for those who were overweight or obese and thought that their weight was underweight or acceptable weight. This pattern was repeated in both men and women, with the most pronounced difference among men aged 18 to 24 years. In this age group, skim or reduced fat milk was used by only 28% of overweight men who believed they were underweight or acceptable weight, increasing to 47% among those who thought they were overweight.

SKIM OR REDUCED FAT MILK
MILK *continued*



(a) BMI. See Glossary.
(b) Excludes those for whom BMI category was not known.
Source: National Health Survey 2004–05

SMOKING

Overall, people who were overweight or obese were no more likely to be daily smokers than those who were underweight or normal weight (20% and 22% respectively). However, younger people who were overweight or obese were more likely to report daily smoking than their non-overweight counterparts.

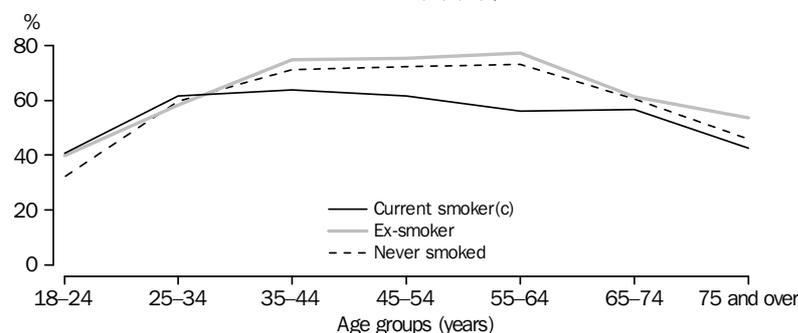
Almost one third (30%) of overweight or obese adults aged 18–24 years were daily smokers, compared to less than one quarter (24%) of underweight or normal weight 18–24 year olds. In the age group 35–44 years proportions of smoking were similar across BMI categories. However from age 45 onwards the pattern reversed, with proportion of smoking among overweight or obese adults lower than underweight or normal weight people. Some 14% of overweight or obese persons aged 45 years and over were daily smokers, compared to 18% of underweight or normal weight people.

This pattern was apparent in both male and female smokers, however it was most apparent in men. Of overweight or obese men aged 45 years and over 15% were daily smokers, lower than the proportion of those who were underweight or normal weight (22%). The proportion of smokers among overweight or obese women aged 45 years and over was 12%, similar to those who were underweight or normal weight (15%).

Many studies have reported links between the cessation of smoking and the likelihood of being overweight (Lahti-Koski et al. 2002). In the 2004–05 NHS, male ex-smokers were more likely to be overweight or obese (67%) than men who had never smoked (60%) or who currently smoke (57%). In almost all age groups a high proportion of male ex-smokers were overweight or obese compared to current smokers and those who had never smoked. The proportion of male ex-smokers who were overweight or obese was highest at 55–64 years (77%), while among current smokers the age group with the highest proportion was the 35–44 year age group at 64%. Female ex-smokers were also more likely to be overweight or obese (50%) than current smokers (44%) and women who had never smoked (43%). However for age groups less than 35–44 years, proportions of people who were overweight or obese were similar among ex-smokers and current smokers. The proportion of overweight female ex-smokers was highest in the age group 55–64 years at 62% (table 4.8).

SMOKING *continued*

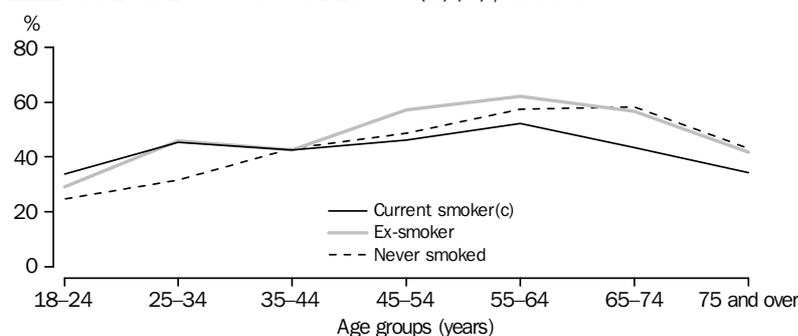
4.6 OVERWEIGHT OR OBESITY (a)(b), Men



(a) Overweight or obese BMI. See Glossary.
 (b) Excludes those for whom BMI category was not known.
 (c) Includes non-daily smokers.

Source: National Health Survey 2004-05

4.7 OVERWEIGHT OR OBESITY (a)(b), Women



(a) Overweight or obese BMI. See Glossary.
 (b) Excludes those for whom BMI category was not known.
 (c) Includes non-daily smokers.

Source: National Health Survey 2004-05

ALCOHOL CONSUMPTION

In the NHS data was collected about alcohol consumed in the week prior to interview. This is used to calculate levels of long term risk from alcohol consumption. For definitions of alcohol risk levels see the Glossary in this publication.

The proportion of people who were overweight or obese who drank at risky or high risk levels (14%) was similar to those in the underweight or normal weight range (13%). Women classified as overweight or obese were less likely to drink at risky or high risk levels (11%) compared to females classified as underweight or normal weight (13%). Among men, rates of risky or high risk drinking were largely the same across the BMI categories.

Overall, men who drank at risky or high risk levels had similar rates of overweight or obesity (66%) compared to men who drank at low risk levels (62%). However the proportion of these men who were overweight or obese was higher than the proportion for men who had never consumed alcohol or had last consumed alcohol more than one week ago (59%). In the younger age groups, men who drank at risky or high risk levels were more likely to be overweight or obese, however this difference was less marked in the older age groups. Among women, overweight or obesity was less common in risky or

CHAPTER 4. LIFESTYLE RISK FACTORS *continued*

ALCOHOL CONSUMPTION

continued

high risk drinkers (40%) and low risk drinkers (43%) than among women who had never consumed alcohol or last consumed alcohol more than one week ago (48%). This pattern was strongest in the older age groups (table 4.8).

4.8 BODY MASS INDEX(a)(b), Lifestyle risk factors

	18-24	25-34	35-44	45-54	55-64	65-74	75 and over	Men	Women	All adults
	%	%	%	%	%	%	%	%	%	%
Current daily smoker										
Underweight	20.5	24.4	30.2	45.9	26.9	10.3	**3.0	20.2	22.6	22.2
Normal	24.1	22.8	27.1	25.1	21.5	10.6	5.2	26.7	18.0	21.7
Underweight or normal	23.8	22.9	27.2	25.8	21.7	10.6	5.0	26.5	18.3	21.7
Overweight	30.7	28.8	24.1	19.7	14.3	10.1	3.6	21.6	18.1	20.3
Obese	28.9	31.9	26.3	19.6	12.4	4.2	4.2	22.6	17.2	20.1
Overweight or obese	30.3	29.8	24.9	19.7	13.6	8.2	3.8	21.9	17.8	20.2
Risky/high risk alcohol consumption										
Underweight	*8.6	**5.7	*10.3	*27.9	**3.5	**15.3	**1.9	8.8	9.1	9.0
Normal	12.8	13.0	15.1	15.0	18.8	11.9	5.4	13.8	13.6	13.6
Underweight or normal	12.4	12.6	14.8	15.4	18.4	12.0	5.1	13.6	13.2	13.4
Overweight	19.1	16.3	14.8	17.6	15.2	9.5	6.5	16.9	11.9	15.0
Obese	16.1	10.6	13.0	13.2	13.6	9.1	3.8	15.1	8.8	12.1
Overweight or obese	18.4	14.5	14.2	16.0	14.6	9.3	5.8	16.4	10.7	14.0
Sedentary/low exercise level										
Underweight	81.1	75.9	78.4	77.5	*73.9	*69.2	90.9	76.7	80.4	79.7
Normal	64.7	62.8	70.3	69.8	64.3	66.6	80.6	64.9	69.4	67.5
Underweight or normal	66.2	63.5	70.7	70.0	64.5	66.7	81.7	65.2	70.3	68.2
Overweight	51.7	63.9	68.8	70.2	69.2	66.0	81.5	63.8	72.9	67.3
Obese	73.5	76.6	78.5	78.5	75.8	77.0	81.1	74.3	80.8	77.4
Overweight or obese	56.9	68.0	72.1	73.3	71.6	69.7	81.4	67.0	75.9	70.7
Inadequate fruit or vegetable consumption (c)										
Underweight	92.7	97.7	93.5	95.3	*81.8	*79.4	89.9	94.5	91.9	92.4
Normal	93.9	92.4	91.3	87.0	84.3	82.9	88.9	91.1	88.6	89.7
Underweight or normal	93.8	92.7	91.4	87.3	84.2	82.8	89.0	91.2	88.8	89.4
Overweight	94.2	93.6	91.3	87.5	85.4	86.2	86.5	91.0	87.0	89.7
Obese	97.9	93.5	91.6	88.7	85.4	85.6	88.7	93.1	85.9	89.8
Overweight or obese	95.1	93.5	91.4	88.0	85.4	86.0	87.1	91.6	86.6	89.5

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) BMI. See Glossary.

(b) Excludes those for whom BMI category was not known.

(c) Inadequate fruit or vegetable consumption. See Glossary.

Source: National Health Survey 2004-05

CHAPTER 5. HEALTH MANAGEMENT

INTRODUCTION

Effective weight management for those at risk of developing obesity involves a range of long-term strategies, including prevention, weight maintenance, management of co-morbidities and weight loss (WHO 2003).

SERVICE USE

A clinical response is an important element of strategies to manage overweight or obesity. Overweight or obese adults (39%) were slightly more likely to report having used selected health services in the two weeks prior to interview than underweight or normal weight adults (38%).

For example, in 2004–05, just under one-quarter (24%) of all adults had visited a general practitioner (GP) or specialist in the last two weeks for their own health. Of overweight or obese adults, 27% had visited a GP or specialist. Just under one third (32%) of overweight or obese women had visited a GP or specialist, compared to less than one quarter (23%) of overweight or obese men.

Consultations with doctors were more likely with age. For example, 18% of the 18–24 years age group had visited a GP or specialist, compared with 37% of people aged 55 years and over. Further, older adults (55 years and over) who were overweight or obese were more likely to have had a consultation with a GP or specialist (38%) than older adults who were underweight or normal weight (35%).

Of men reporting a discharge from hospital in the two weeks prior to interview, 69% were overweight or obese. Other hospital services were also well utilised by overweight or obese men, including day clinic visits (75%), visits to casualty or emergency (64%) and visits as outpatients (66%). There was little difference between people in different BMI categories in the usage of other health services.

Of all women using health related services, overweight or obese women were more likely to visit day clinics (51%) and consult a GP or specialist (50%). Overall, overweight or obese women (48%) were less likely to use a health related service than underweight or normal weight women (52%).

Overall, 15% of adults reported having visited other health professionals. This proportion was similar for overweight or obese adults and underweight or normal weight adults. Of those who consulted other health professionals, chemists (27%), physiotherapists or hydrotherapist (20%) and chiropractors (18%) were the most commonly consulted. These proportions were similar for those overweight or obese and those underweight or normal weight.

DAYS AWAY FROM WORK

In the 2004–05 NHS, the average length of absence for employees who had been absent due to their own illness or injury was 3.0 days. People who were underweight or normal weight had lower than average absenteeism rates (2.3 days and 2.8 days respectively). Conversely, people who were overweight or obese had higher than average rates (both 3.2 days).

5.1 DAYS AWAY (a), Employee aged 18–64 years

<i>BMI group (b)(c)</i>	<i>Total employees</i>	<i>Total employees absent</i>	<i>Rate of absenteeism</i>	<i>Total days absent</i>	<i>Average days away per employee</i>	<i>Average days away per absent employee</i>
	'000	'000	%	'000	no.	no.
Underweight	192.1	17.9	9.3	41.9	0.2	2.3
Normal weight	3 883.6	392.7	10.1	1 088.9	0.3	2.8
Underweight or normal	4 075.7	410.6	10.1	1 130.8	0.3	2.8
Overweight	3 235.5	309.1	9.6	979.1	0.3	3.2
Obese	1 543.2	191.0	12.4	609.1	0.4	3.2
Overweight or obese	4 778.7	500.1	10.5	1 588.2	0.3	3.2
Total	8 854.4	910.7	10.3	2 719.0	0.3	3.0

(a) Absent from work due to own illness or injury at least once in the two weeks prior to interview.

(b) BMI. See Glossary.

(c) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004–05

REDUCED ACTIVITIES

Overweight or obese adults were also more likely to have time away from other activities compared to persons who had an underweight or normal BMI. In 2004–05, 10% of overweight or obese men, and 15% of overweight or obese women had other days of reduced activity. This compared with 9% of underweight or normal weight men, and 12% of underweight or normal weight women.

PRIVATE HEALTH INSURANCE

Approximately half (51%, or 7.1 million) of adults were covered by private health insurance. The proportions were similar across all four BMI categories.

CHAPTER 6. OTHER DATA SOURCES

INTRODUCTION

The NHS is currently one of the key sources of national information on body mass in Australia. The most recent national data based on self reported height and weight come from the 2004–05 NHS. However, there are other collections which collect direct measures of height and weight and from different populations such as children. The 2007 NHS will present data based on both self report and direct measures.

OTHER DATA SOURCES

Self reported information relating to the body mass of adults is also collected in state health surveillance programs which are undertaken in several jurisdictions. The surveys are conducted using Computer Assisted Telephone Interviewing (CATI) methodology, whereas the NHS uses personal interviews to collect information.

The table below shows data for 2004, when BMI data were collected in all jurisdictions. Note that responses may be influenced by the differing age profiles of the states and territories. For example, South Australia and Tasmania have slightly older populations.

6.1 OVERWEIGHT AND OBESE (a), Adults—2004

	NSW	Vic. (b)	Qld(c)	SA	WA	Tas. (c)	NT(c)	ACT(c)
<i>Surveys</i>	%	%	%	%	%	%	%	%
CATI	49.5	49.4	51.8	55.3	51.8	50.6	51.5	48.2
NHS	53.8	53.3	52.9	55.4	52.8	55.7	na	52.8
Median age (years)	43.1	42.5	42.8	45.1	42.5	45.2	38.4	41.5

(a) BMI. See Glossary.

(b) Reported CATI survey results for Victoria and reported NHS results have been adjusted for missing values.

(c) Data collected through the 2004 Filling the Gaps Survey by DoHA, to provide national coverage of health data.

Source: National Health Survey 2004–05 and Australia's health, AIHW 2006

The 2004 *NSW Schools Physical Activity and Nutrition Survey (SPANS)* provided an insight into overweight or obesity in children aged 5–16 years in NSW. SPANS measured the height, weight and waist of all participating students. It was conducted by the NSW Department of Health.

Overall, 25% of boys and 23% of girls were classified as overweight or obese. For boys, the rate of overweight or obesity was related to age, reaching a peak in 11–12 year olds before declining again. For girls, the highest rate of overweight or obesity was in 9–10 year olds.

Measured height and weight were last collected nationally for all people aged 25 years or more in the *Australian Diabetes, Obesity and Lifestyle Study (AusDiab)* in 1999–2000. AusDiab was the first national Australian longitudinal population based study, spanning five years. Respondents underwent a detailed physical examination by health professionals, which included measuring height, weight and blood pressure.

CHAPTER 6. OTHER DATA SOURCES *continued*

OTHER DATA SOURCES *continued*

Around 55% of people who completed the survey questionnaire also provided physical measurements, but this figure does not include people who refused to participate in the study, suggesting that the true response rate is much lower. Adjustments to the sample were made in the weighting process to account for the fact that young males were under-represented in the physical examination (IDI, 2001).

In the AusDiab survey, almost 60% of Australians aged 25 years and over were classified as either overweight or obese, 2.5 times more than in 1980, according to the Risk Factor Prevalence Study run by the National Heart Foundation (Cameron et al. 2003).

EXPLANATORY NOTES

NATIONAL HEALTH SURVEY

1 Information about the survey design and methodology, the quality and interpretation of results, and information about the range of publications and other available data services is in the Explanatory Notes of the National Health Survey 2004–05: Summary of Results, Australia (cat. no. 4364.0). Detailed information about the survey is also available in the National Health Survey 2004–05 : Users' Guide (cat. no. 4363.0.55.001) (ABS Website <www.abs.gov.au>).

NATIONAL ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH SURVEY

2 This publication also contains Indigenous information obtained from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) which was conducted at the same time as the 2004–05 NHS. Information about that survey, and summary results are available in the National Aboriginal and Torres Strait Islander Health Survey 2004–05: Summary of Results, Australia (cat. no. 4715.0) (ABS Web site <www.abs.gov.au>).

DATA IN THIS PUBLICATION

3 Although height and weight was collected of all persons aged 15 years and over in the NHS, this publication represents the adult population only (aged 18 years and over). NHS respondents in the age group 15–17 years could, with the approval of a parent or guardian, answer survey questions themselves or have questions answered by proxy, usually by a parent or guardian.

4 In 65% of cases information about height, weight and reported body mass for persons aged 15–17 years was usually reported by proxy and the child may or may not have been consulted. Greater variance of BMI was realised when height and weight was reported by a proxy (ABS 1995). As a result, data for this age group should be interpreted with care and is not used in this publication.

5 For a variety of reasons, approximately 8% of respondents aged 18 years and over did not provide their weight or height information. As a result, they were excluded from data presented in this publication as their BMI scores were not able to be calculated.

ABBREVIATIONS AND SYMBOLS

■ ABS	Australian Bureau of Statistics
■ AIHA	Australian Institute of Health and Welfare
■ BMI	Body Mass Index
■ BHC	Better Health Channel
■ cm	Centimetre
■ DoHA	Department of Health and Ageing
■ kg	Kilogram
■ K10	Kessler Psychological Distress Scale
■ na	not available
■ NHMRC	National Health and Medical Research Council
■ NHS	National Health Survey
■ no.	Number
■ OHP	Other health professional
■ SEIFA	Socio-Economic Indexes for Areas
■ WHO	World Health Organization
■ %	Per cent
■ '000	Thousands

APPENDIX 1

A1.1 BODY MASS INDEX(a)(b), Estimates

Group	AGE GROUP (YEARS)						Total
	25-34	35-44	45-54	55-64	65-74	75 and over	
MEN ('000)							
Underweight	7.6	9.0	4.4	2.9	3.0	15.8	69.7
Normal	533.7	407.4	371.4	287.3	247.3	193.5	2 583.7
Underweight or normal	541.4	416.5	375.8	290.2	250.2	209.4	2 653.5
Overweight	568.5	648.2	583.4	488.9	271.4	171.1	2 987.3
Obese	237.7	310.9	313.8	240.1	110.3	46.5	1 323.5
Overweight or obese	806.3	959.1	897.2	728.9	381.6	217.6	4 310.9
Total	1 347.6	1 375.5	1 273.0	1 019.1	631.9	427.0	6 964.4
WOMEN ('000)							
Underweight	64.3	47.5	24.8	15.1	16.6	35.7	288.0
Normal	729.1	720.2	584.0	382.6	249.9	265.9	3 453.2
Underweight or normal	793.4	767.7	608.8	397.7	266.5	301.6	3 741.2
Overweight	316.0	354.2	374.1	322.5	213.6	156.7	1 900.7
Obese	186.2	222.2	250.8	229.3	131.8	66.0	1 154.4
Overweight or obese	502.2	576.4	624.9	551.7	345.4	222.7	3 055.1
Total	1 295.6	1 344.1	1 233.7	949.4	611.9	524.3	6 796.3
ALL ADULTS ('000)							
Underweight	71.9	56.6	29.2	18.0	19.5	51.6	357.7
Normal	1 262.8	1 127.6	955.4	669.9	497.2	459.4	6 037.0
Underweight or normal	1 334.7	1 184.2	984.6	687.9	516.7	511.0	6 394.6
Overweight	884.6	1 002.4	957.5	811.3	485.0	327.8	4 888.0
Obese	423.9	533.1	564.6	469.3	242.1	112.5	2 478.0
Overweight or obese	1 308.5	1 535.5	1 522.1	1 280.6	727.1	440.3	7 366.0
Total	2 643.2	2 719.7	2 506.7	1 968.5	1 243.8	951.3	13 760.6

(a) See BMI in Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Health Survey 2004-05

APPENDIX 1 *continued*

A1.2 BODY MASS INDEX(a)(b), Indigenous Estimates

AGE GROUP (YEARS)						
Group	18-24	25-34	35-44	45-54	55 and over	Total
MEN ('000)						
Underweight	*1.2	*0.8	*0.3	*0.5	*0.2	3.0
Normal	11.3	11.1	8.0	4.6	3.1	38.1
Underweight or normal	12.5	12.0	8.3	5.1	3.3	41.1
Overweight	7.1	11.2	7.7	6.5	5.0	37.5
Obese	4.1	7.1	8.9	5.5	4.6	30.2
Overweight or obese	11.2	18.3	16.5	12.0	9.6	67.7
Total	23.7	30.3	24.8	17.1	13.0	108.8
WOMEN ('000)						
Underweight	2.3	*1.5	*1.7	*0.6	*0.4	6.6
Normal	11.9	11.7	7.6	5.0	3.3	39.4
Underweight or normal	14.2	13.2	9.3	5.6	3.7	46.0
Overweight	4.7	6.7	6.4	4.5	4.1	26.4
Obese	4.4	10.6	9.5	7.0	5.9	37.4
Overweight or obese	9.1	17.3	15.9	11.6	10.0	63.8
Total	23.2	30.5	25.2	17.2	13.8	109.9
ALL ADULTS ('000)						
Underweight	3.5	2.4	*2.0	*1.1	*0.6	9.6
Normal	23.2	22.8	15.5	9.6	6.4	77.6
Underweight or normal	26.7	25.2	17.6	10.7	7.1	87.2
Overweight	11.8	17.9	14.1	11.0	9.1	63.9
Obese	8.5	17.7	18.4	12.6	10.5	67.7
Overweight or obese	20.2	35.6	32.4	23.6	19.7	131.5
Total	46.9	60.8	50.0	34.3	26.7	218.7

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) BMI. See Glossary.

(b) Excludes those for whom BMI category was not known.

Source: National Aboriginal and Torres Strait Islander Health Survey 2004-05

GLOSSARY

Age standardisation A method of removing the influence of age when comparing populations with different age structures. Where appropriate, estimates in this publication are age standardised to the age composition of the total estimated resident population (ERP) of Australia as at 30 June 2001. The age standardised rate is that which would have prevailed if the studied population had the same age composition as the standard population. See Chapter 7, page 157 of the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).

Alcohol consumption risk level Alcohol risk levels were derived from the average daily consumption of alcohol in the seven days prior to interview and were grouped into relative risk levels as defined by the National Health and Medical Research Council (NHMRC) as follows:

ALCOHOL RISK LEVEL (a)

	CONSUMPTION PER DAY	
<i>Risk level</i>	<i>Men</i>	<i>Women</i>
Low risk	50 mls or less	25 mls or less
Risky	More than 50 mls, up to 75 mls	More than 25 mls, up to 50 mls
High risk	More than 75 mls	More than 50 mls

(a) One standard drink contains 12.5 ml of alcohol.

It should be noted that risk levels as defined by the NHMRC are based on regular consumption levels of alcohol, whereas indicators derived in the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) do not take into account whether consumption in the reference week was more, less or the same as usual.

Drinking status information was also collected for those who did not consume any alcohol in the 7 days prior to interview. Categorised as:

- Last consumed more than one week to less than 12 months ago;
- Last consumed 12 months or more ago; and
- Never consumed.

Body Mass Index (BMI) Calculated from reported height and weight information, using the formula weight (kg) divided by the square of height (m). To produce a measure of the prevalence of overweight or obesity in adults, BMI values are grouped according to the table below which allows categories to be reported against both the World Health Organisation (WHO) and NHMRC guidelines. Not stated categories in height and weight are excluded from estimates in this publication.

BODY MASS INDEX

2004–05	
Underweight	Less than 18.5
Normal range	18.5 to less than 25.0
Overweight	25.0 to less than 30.0
Obese	30.0 and greater

Circulatory conditions This topic refers primarily to those persons ever told by a doctor or nurse that they have one or more heart or circulatory conditions, and who consider they currently have one or more such conditions.

The following predefined condition categories were included on the questionnaire, with provision for interviewers to record three additional write-in conditions if required:

- Rheumatic heart disease;
- Heart attack;
- Stroke (including after effects);

GLOSSARY *continued*

- Circulatory conditions**
continued
- Angina;
 - High blood pressure/hypertension;
 - Hardening of the arteries/atherosclerosis/arteriosclerosis;
 - Fluid problems/fluid retention/oedema;
 - High cholesterol;
 - Rapid or irregular heartbeat/tachycardia/palpitations;
 - Heart murmur/heart valve disorder;
 - Haemorrhoids; and
 - Varicose veins.
- Further information can be found in the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).
- Conditions** See Long-term medical condition.
- Current daily smoker** A current daily smoker is an adult who reported that they regularly smoked one or more cigarettes, cigars or pipes per day at the time of the survey.
- The extent to which an adult was smoking at the time of interview, and refers to regular smoking of tobacco, including manufactured (packet) cigarettes, roll-your-own cigarettes, cigars and pipes, but excludes chewing tobacco and smoking of non-tobacco products.
- Days away from work** Refers to days the respondent was away from work for at least half the day, due to illness or injury in the two weeks prior to the interview. For further information on days away see Chapter 5, page 115 and 116 of the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).
- Diabetes mellitus** A chronic condition in which blood glucose levels become too high due to the body producing little or no insulin, or not using insulin properly.
- There are three main types of diabetes mellitus:
- Type 1: is characterised by little or no insulin production and is likely to develop before 18 years of age. Treatment generally involves insulin injections and careful dietary control. It is also known as insulin-dependent diabetes.
 - Type 2: is characterised by resistance in the body's ability to use insulin and is likely to develop after 40 years of age. Lifestyle factors such as diet, obesity and exercise are strongly associated with Type 2 diabetes. It is also known as non-insulin dependent diabetes mellitus.
 - Gestational diabetes mellitus: occurs during pregnancy in about 3–8% of females not previously diagnosed with diabetes. This form of diabetes usually resolves after pregnancy. Unlike Type 1 and Type 2 diabetes, gestational diabetes is not defined as a long-term condition in the NHS and is excluded from the analysis of diabetes in this publication.
- Exercise level** Based on frequency, intensity (i.e. walking, moderate exercise and vigorous exercise) and duration of exercise (for recreation, sport or fitness) in the two weeks prior to the interview. From these components, an exercise score was derived using factors to represent the intensity of the exercise. Scores were grouped into the following four categories:

GLOSSARY *continued*

Exercise level *continued*

EXERCISE LEVEL (a)

SCORES

Sedentary(b)	Less than 100 (includes no exercise)
Low	100 to less than 1600
Moderate	1600–3200, or more than 3200 but less than 2 hours of moderate exercise
High	More than 3200 and 2 hours or more of vigorous exercise

(a) See Chapter 4 of the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001) for more information.

(b) Sedentary refers to sitting in one place for extended periods of time.

Fruit (usual daily serves)

Refers to the number of serves of fruit (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately 150 grams of fresh fruit or 50 grams of dried fruit. The National Health and Medical Research Council (NHMRC) has recommended a minimum of two serves of fruit per day.

Full-time workers

Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Health services

Refers to the following health-related services respondents reported they had used in the two weeks prior to interview:

- Discharged from a stay in hospital (as an admitted patient);
- Visit to casualty/emergency units at hospitals;
- Visit to outpatients department at hospital;
- Visit to day clinics;
- Consultation with general practitioner (GP) and/or specialist;
- Dental consultation; and
- Consultation with other health professionals (OHP): see separate entry in this Glossary.

Household

A household is defined as one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling. This publication reports proportions for persons aged 18 years and older.

Household income

Derived as the sum of the reported personal cash incomes of all household members aged 15 years and over. Household incomes were then divided into quintiles; 1st quintile lowest income, 5th quintile highest income. Cases where household income could not be derived are excluded before quintiles are created.

Inadequate fruit or vegetables

Refers to the intake of less than two serves of fruit or less than five serves of vegetables per day for adults. See 'fruit (usual daily serves)' and 'vegetables (usual daily serves)' in the Glossary.

Index of disadvantage

This is one of four Socio Economic Indexes for Areas (SEIFAs) compiled by ABS following each Census of Population and Housing. The indexes are compiled from various characteristics of persons resident in particular areas; the index of disadvantage summarises attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. As shown in this publication Quintile 1 refers to the most disadvantaged group, while Quintile 5 refers to the most advantaged group. For further information on SEIFA 2001 see Chapter 6 of the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).

Injury event

An accident, harmful incident, exposure to harmful factors or other incident which resulted in an injury. The injury must have occurred in the four weeks prior to the survey and have resulted in one or more of the following actions being taken:

- consultation with a health professional;
- sought medical advice;
- received medical treatment;

GLOSSARY *continued*

Injury event <i>continued</i>	<ul style="list-style-type: none">■ reduced usual activities; and■ other treatment of injury (i.e. took medications, used a bandage/band aid, or heat or ice pack).
Labour force status	Persons aged 15–64 years who were actively employed in the four weeks prior to the survey. Proportions in this publication represent persons aged 18–64 years who are employed full-time, employed part-time, unemployed (see also Unemployed) and not in the labour force (see also Not in the labour force).
Living arrangements	Refers to the composition of the household to which the respondent belonged. Households are categorised as single person, couple only, one adult and child(ren), couple and child(ren), other households.
Long-term medical condition	A medical condition (illness, injury or disability) which has lasted at least six months, or which the respondent expects to last for six months or more. Some reported conditions were assumed to be long-term, including asthma, arthritis, cancer, osteoporosis, diabetes, rheumatic heart disease, heart attack and stroke.
Musculoskeletal system and connective tissue	<p>Diseases of the musculoskeletal system and connective tissue manifest in many forms of joint problems and disorders of the bones and muscles and their attachments, including arthritis, osteoporosis, rheumatism, back pain and disc disorders. Persons reporting arthritis and osteoporosis were asked if they were told by a doctor or nurse, all other conditions were not. Conditions included in Musculoskeletal system and connective tissue were:</p> <ul style="list-style-type: none">■ Arthritis;■ Gout;■ other arthropathies;■ Rheumatism;■ Other soft tissue disorders;■ Sciatica;■ Back disorders;■ Back pain;■ Curvature of the spine;■ Osteoporosis;■ Other diseases of the musculoskeletal system and connective tissue; and■ Symptoms of the musculoskeletal system and connective tissue. <p>Further information can be found in the 2004–5 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).</p>
Not in the labour force	Persons aged 18–64 years who are not employed or unemployed as defined, including persons who: <ul style="list-style-type: none">■ are retired;■ no longer work;■ do not intend to work in the future;■ are permanently unable to work; and■ have never worked and never intend to work.
Other health professionals	Includes consultation, for own health reasons, in the two weeks prior to interview with one or more of the following: <ul style="list-style-type: none">■ Aboriginal health worker;■ Accredited counsellor;■ Acupuncturist;■ Alcohol and drug worker;■ Audiologist/audiometrist;■ Chemist;■ Chiropodist/podiatrist;■ Chiropractor;■ Dietitian/nutritionist;

GLOSSARY *continued*

Other health professionals <i>continued</i>	<ul style="list-style-type: none">■ Herbalist;■ Hypnotherapist;■ Naturopath;■ Nurse;■ Occupational therapist;■ Optician/optometrist;■ Osteopath;■ Physiotherapist/hydrotherapist;■ Psychologist;■ Social worker/welfare officer;■ Speech therapist/pathologist; and■ Traditional healer.
Part-time workers	Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week
Private health insurance	Refers to the private health insurance status at the time of the survey. The category 'With cover' includes those with hospital and/or ancillary cover, and those with cover but the type of cover was unknown.
Psychological distress	Derived from the Kessler Psychological Distress Scale - 10 items (K10). This is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the 4 weeks prior to interview. The K10 is scored from 10 to 50, with higher scores indicating a higher level of distress; low scores indicate a low level of distress. In this publication, scores are grouped as follows: <ul style="list-style-type: none">■ Low 10–15;■ Moderate 16–21;■ High 22–29; and■ Very high 30–50.
Self-assessed health status	A person's general assessment of their own health against a five status point scale from excellent through to poor.
Skim or reduced fat milk	Levels of fat in milk products are as follows: <ul style="list-style-type: none">■ whole milk 8 g of fat;■ 1% reduced milk: 4.5 g of fat;■ 2% reduced milk: 2.5 g of fat; and■ skim milk: 0.9 g of fat.
Type of conditions	All reported long-term medical conditions were coded to a classification developed by the ABS for use in the National Health Survey, which is based on the tenth revision of the International Classification of Diseases and Health Related Problems (ICD-10). Further information can be found in the 2004–05 National Health Survey: Users' Guide (cat. no. 4363.0.55.001).
Unemployed	Persons aged 15–64 years who were not employed and actively looking for work in the four weeks prior to the survey, and were available to start work in the week prior to the survey. See also Labour force status.
Vegetables (usual daily serves)	Refers to the number of serves of vegetables (excluding drinks and beverages) usually consumed each day, as reported by the respondent. A serve is approximately half a cup of cooked vegetables or one cup of salad vegetables — equivalent to approximately 75 grams. The National Health and Medical Research Council (NHMRC) has recommended a minimum of five serves of vegetables per day.
Year of arrival	The year in which a person, reporting a country of birth other than Australia, first arrived in Australia to live for a period of one year or more.

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