

14 Patient risk factors

General practice is a useful intervention point for health promotion because about 88% of Australians visit a GP at least once in any given year.⁴ GPs, through ongoing professional education, have substantial knowledge of population health, screening programs and other interventions. They are also in an ideal position to advise patients about the benefits of health screening, and to counsel patients individually about their lifestyle choices.

Since April 1998, a section on the bottom of each encounter form has been used to investigate aspects of patient health or health care delivery not covered by general practice consultation-based information. These additional substudies are referred to as SAND (Supplementary Analysis of Nominated Data). The SAND methods are described in Section 2.4.

The patient risk factors measured in BEACH include body mass index (BMI) (calculated using self-reported height and weight), self-reported alcohol consumption and smoking status. Patient risk factors are investigated for a subsample of 40 of the 100 patient encounters recorded by each GP. An example of the encounter form with the patient risk factor SAND questions is included in Appendix 1. The methods used in the risk factor substudies reported in this chapter are described in each section below.

Data on patient risk factors measured in SAND are reported for each year from 1999–00 to 2008–09 in the companion report *General practice activity in Australia 1999–00 to 2008–09: 10 year data tables*.¹

Abstracts of results and the research tools used in all SAND substudies from April 1998 to March 2009 have been published. Those from:

- April 1998–99 were published in *Measures of health and health care delivery in general practice in Australia*¹⁹
- April 1999 to July 2006 were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*²⁰
- August 2006 to March 2007 were published in *General practice activity in Australia 2006–07*²¹
- April 2007 to January 2008 were published in *General practice activity in Australia 2007–08*³
- February 2008 to January 2009 are included in Chapter 15 of this report.

14.1 Body mass index

High body mass was the third highest contributor to the total burden of disease in Australia, accounting for 7.5% of the total burden⁶⁴, an increase from 4.3% of total burden and sixth rank in 1996.⁶⁵ The 2007–08 National Health Survey (NHS) estimated that, based on measured data, 62% of Australians aged 18 years and over were overweight or obese (BMI > 25). Men were more likely to be overweight or obese than women (68% compared with 55%).¹⁴ The 2007–08 NHS also reported that 25% of children aged 5–17 years were classified as overweight or obese, with boys and girls having similar rates of overweight/obesity (26% and 24% respectively).¹⁴

Method

Patient BMI was investigated for a subsample of 40 of the 100 patient encounters. Each GP was instructed to ask the patient (or their carer in the case of children):

- What is your height in centimetres (without shoes)?
- What is your weight in kilograms (unclothed)?

Metric conversion tables (feet and inches; stones and pounds) were provided to the GP.

The BMI for an individual was calculated by dividing weight (kilograms) by height (metres) squared. The recent WHO recommendations⁶⁶ for BMI groups were used, which specify that an adult (18 years and over) with a BMI:

- less than 18.5 is underweight
- greater than or equal to 18.5 and less than 25 is normal
- greater than or equal to 25 and less than 30 is overweight
- of 30 or more is obese.

The reported height for adult patients was checked against sex-appropriate upper and lower height limits from the Australian Bureau of Statistics (ABS).⁶⁷ Encounters with adults whose reported heights were outside the sex-appropriate limits were excluded from the analysis.

The standard BMI cut-offs described above are not appropriate in the case of children. Cole et al. (2000 & 2007) developed a method which calculates the age-sex-specific BMI cut-off levels for overweight and obesity specific to children aged 2–17 years.^{68,69} There are four categories defined for childhood BMI: underweight, normal weight, overweight and obese. This method, based on international data from developed Western cultures, is applicable in the Australian setting. The reported height of children was checked against age-sex-appropriate upper and lower height limits from the ABS and Centres for Disease Control (CDC).^{67,70} Encounters with children whose reported heights were outside either of the age-sex-appropriate limits were excluded from the analysis.

The BEACH data on BMI are presented separately for adults (aged 18 years and over) and children (aged 2–17 years). The standard BMI cut-offs have been applied for the adult sample, and the method described by Cole et al. (2000 & 2007) has been used for defining overweight and obesity in children (aged 2–17 years).^{68,69}

Results

Body mass index of adults

The sample size was 33,526 patients aged 18 years and over at encounters with 1,010 GPs.

- More than half (61.5%) of the patients were overweight or obese – 25.4% obese and 36.1% overweight (Table 14.1).
- More than one-third (36.1%) of adult patients had a normal BMI and 2.5% were underweight (Table 14.1).
- Males were more likely to be overweight or obese (68.7%, 95% CI: 67.6–69.7) than females (56.5%, 95% CI: 55.5–57.5) (results not tabled).
- Overweight/obesity was most prevalent among male patients aged 65–74 years (76.5%) and those aged 45–64 years (74.8%) (Figure 14.1).

- Among female patients overweight/obesity was most prevalent in those aged 65–74 years (69.3%) and 45–64 years (63.1%) (Figure 14.1).
- Underweight was most prevalent among patients aged 18–24 years and 75 years and over. Of young adults (18–24 years), 7.4% of females and 2.8% of males were underweight, and among those aged 75 years and over, 5.0% of women and 1.3% of men were underweight (Figure 14.2).

The overall and sex-specific prevalence estimates were consistent with the ABS 2007–08 figures from the National Health Survey, which reported that 62% of adults aged 18 and over (68% of men and 55% of females) were overweight or obese.¹⁴

Estimation of body mass index for the adult general practice patient population

The BEACH study reports data about patient BMI from a sample of the patients attending general practice. As older people attend a GP more often than young adults, and females attend more often than males, they have a greater chance of being selected in the subsample. This leads to a greater proportion of older and female patients in the sample when compared with the total population who will attend a GP at least once. We have weighted the BEACH sample to estimate the BMI of the GP–patient population (that is, the 14 million adult patients who attended a GP at least once in 2006–07), using the method described by Knox et al. (2008).⁴

The estimates for the adult GP–patient population (after adjusting for age–sex attendance patterns) suggest that 24.5% of the patient population were obese, 35.4% were overweight, 37.7% were normal weight and 2.4% were underweight (Table 14.1).

Readers interested in prevalence of the three WHO-defined levels of obesity will find more information and discussion in Chapter 7 of the AGPSCC publication *General practice in Australia, health priorities and policies 1998 to 2008*.⁷¹

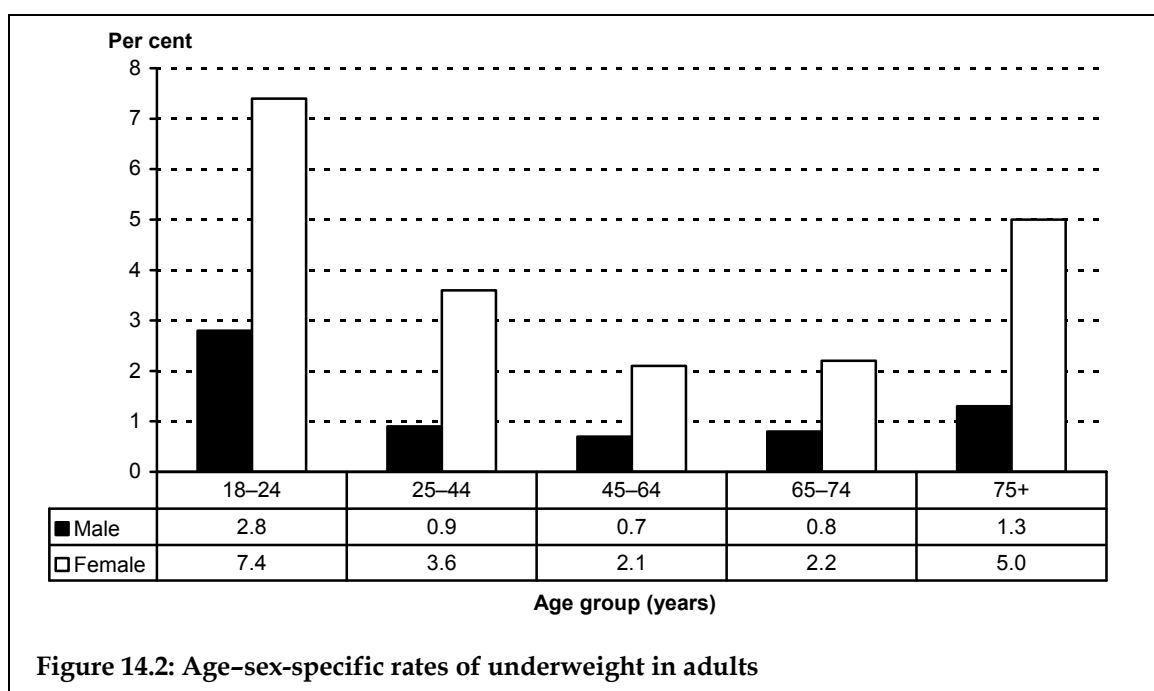
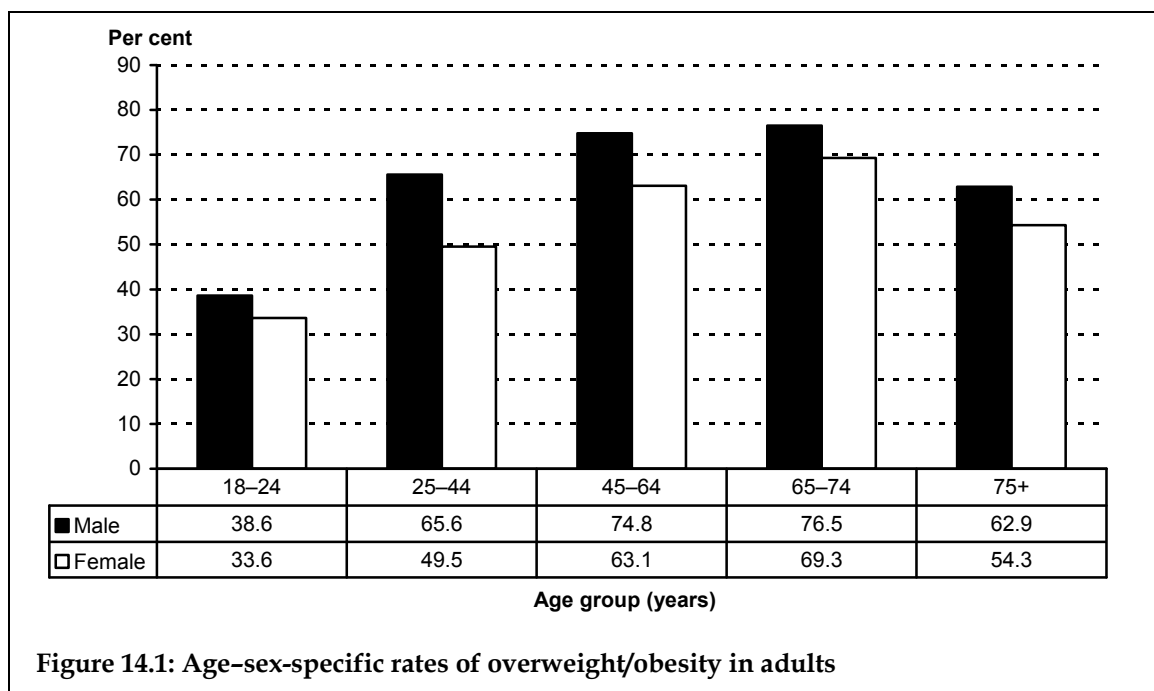
Table 14.1: Patient body mass index (aged 18 years and over)

BMI class	Male ^(a)		Female ^(a)		Total respondents	
	Per cent in BEACH sample (95% CI) (n = 13,595)	Per cent in patient population (95% CI) ^(b)	Per cent in BEACH sample (95% CI) (n = 19,671)	Per cent in patient population (95% CI) ^(b)	Per cent in BEACH sample (95% CI) (n = 33,526)	Per cent in patient population (95% CI) ^(b)
Obese	25.0 (24.1–26.0)	24.2 (23.3–25.2)	25.6 (24.8–26.4)	24.8 (23.9–25.6)	25.4 (24.7–26.1)	24.5 (23.8–25.2)
Overweight	43.6 (42.7–44.6)	42.4 (41.4–43.5)	30.9 (30.2–31.6)	29.4 (28.7–30.2)	36.1 (35.5–36.7)	35.4 (34.7–36.0)
Normal	30.3 (29.3–31.4)	32.3 (31.1–33.5)	40.0 (39.1–41.0)	42.3 (41.2–43.3)	36.1 (35.3–36.8)	37.7 (36.8–38.6)
Underweight	1.0 (0.8–1.2)	1.1 (0.9–1.3)	3.4 (3.2–3.7)	3.6 (3.2–3.9)	2.5 (2.3–2.7)	2.4 (2.2–2.6)

(a) Patient sex was not recorded for 260 respondents.

(b) Estimation of BMI among the total adult general practice patient population (that is, patients aged 18 years and over who have attended a GP at least once) n = 14 million.

Note: BMI—body mass index; CI—confidence interval.



Body mass index of children

BMI was calculated for 2,970 patients aged 2-17 years at encounters with 821 GPs.

- Just over one-quarter of children (27.2%, 95% CI: 25.4-29.0) were classed as overweight or obese – this consists of 10.5% (95% CI: 9.3-11.7) obese and 16.7% (95% CI: 15.3-18.2) overweight (results not tabled).
- There was no difference in prevalence of overweight/obesity among male (28.5%, 95% CI: 26.0-31.0) and female children (26.1%, 95% CI: 23.7-28.4) (results not tabled).
- The age-specific rates of obesity followed similar patterns for both sexes (figures 14.3 and 14.4).

Readers interested in further detail and discussion of overweight and obesity in children attending general practice will find more information in Cretikos et al. (2008) *General practice management of overweight and obesity in children and adolescents in Australia*.⁷²

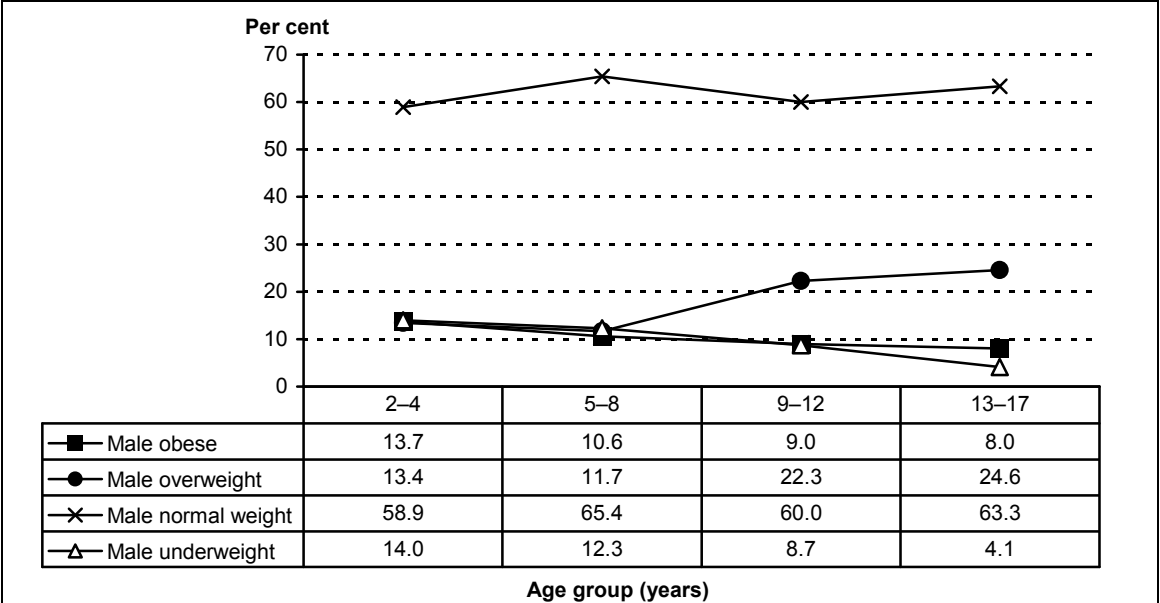


Figure 14.3: Age-specific rates of obesity, overweight, normal weight and underweight in male children

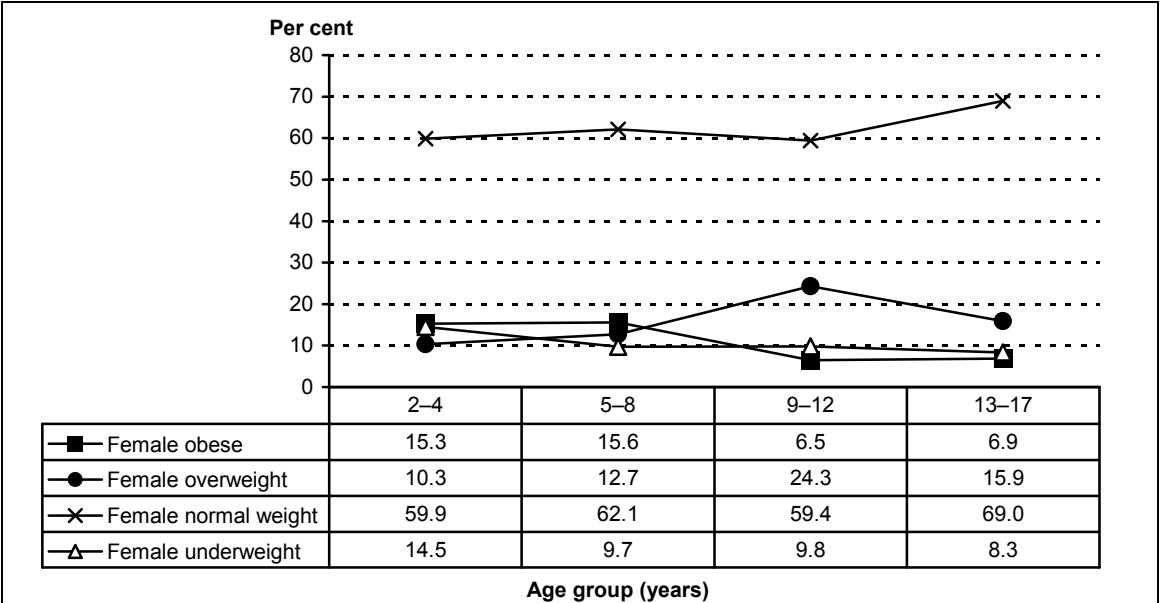


Figure 14.4: Age-specific rates of obesity, overweight, normal weight and underweight in female children

14.2 Smoking (patients aged 18 years and over)

Tobacco smoking is the leading cause of drug-related death and hospital separations in Australia.⁷³ It has been identified as the risk factor associated with the greatest disease burden, accounting for 7.8% of the total burden of disease in Australia in 2003⁶⁴, a decrease from 9.7% of total burden in 1996.⁶⁵ According to the 2007 National Drug Strategy Household Survey (NDSHS), 16.6% of Australians aged 14 years and over smoked daily: 18.0% of males and 15.2% of females.⁷⁴

Method

GPs were instructed to ask adult patients (18 years and over):

- What best describes your smoking status?
 - Smoke daily
 - Smoker occasionally
 - Previous smoker
 - Never smoked

Respondents were limited to adults aged 18 years and over because there are ethical concerns about approaching the younger patient group to ask for information on smoking for survey purposes. In addition, the reliability of this information from patients aged less than 18 years may be compromised if a parent is present at the consultation.

Results

The smoking status of 34,194 adult patients was established at encounters with 1,010 GPs. Table 14.2 shows that:

- 15.3% of adult patients were daily smokers
- significantly more male (18.1%) than female patients (13.3%) were daily smokers
- only 2.6% of adult patients were occasional smokers
- more than a quarter of adults (28.8%) were previous smokers.

Table 14.2: Patient smoking status (aged 18 years and over)

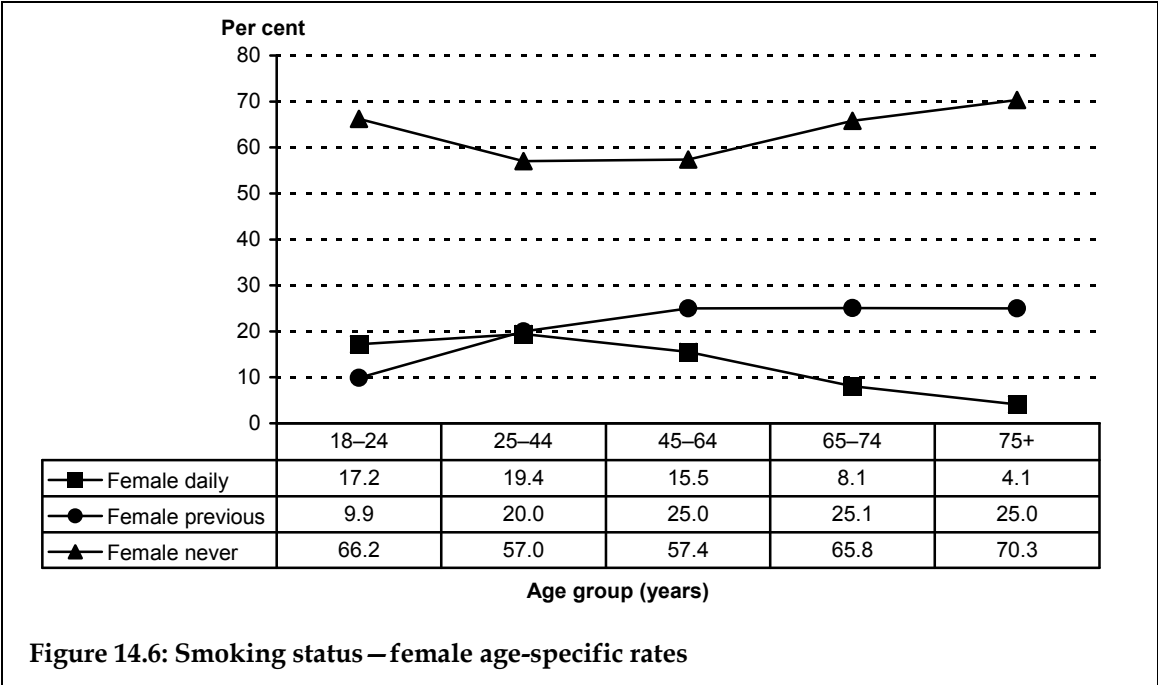
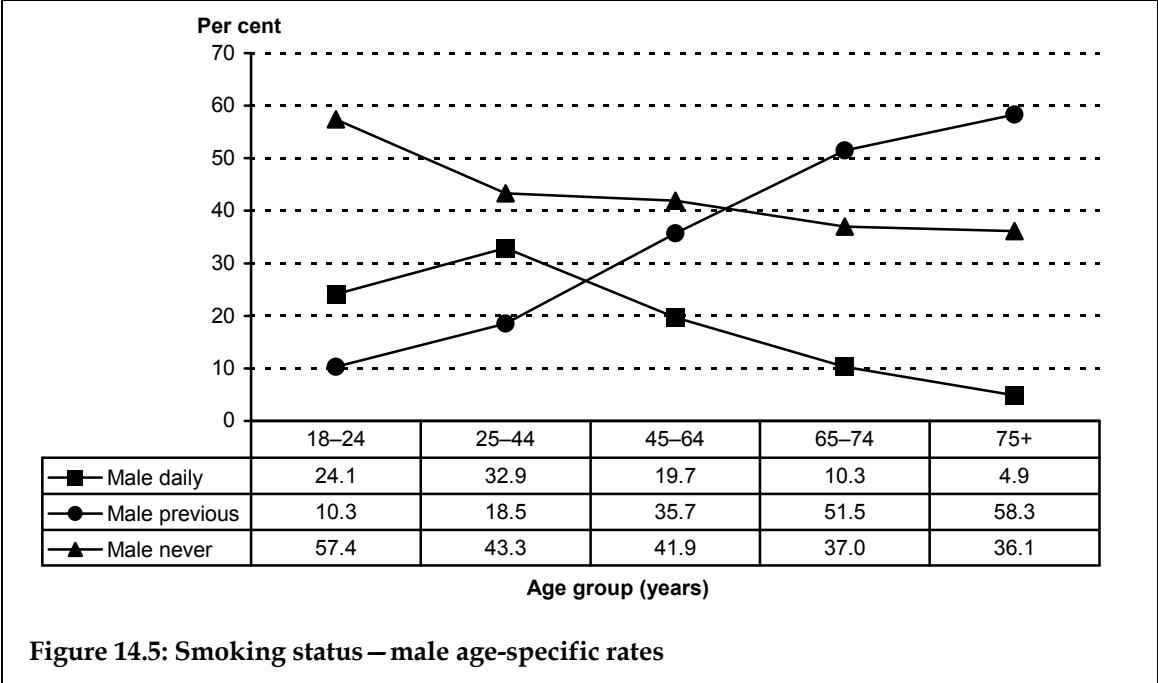
Smoking status	Male ^(a)		Female ^(a)		Total respondents	
	Per cent in BEACH sample (95% CI) (n = 13,841)	Per cent in patient population (95% CI) ^(b)	Per cent in BEACH sample (95% CI) (n = 20,079)	Per cent in patient population (95% CI) ^(b)	Per cent in BEACH sample (95% CI) (n = 34,194)	Per cent in patient population (95% CI) ^(b)
Daily	18.1 (17.2–19.0)	22.8 (21.7–24.0)	13.3 (12.6–14.0)	15.4 (14.6–16.2)	15.3 (14.6–15.9)	18.8 (18.0–19.6)
Occasional	3.0 (2.6–3.4)	4.1 (3.5–4.6)	2.4 (2.2–2.7)	3.0 (2.6–3.3)	2.6 (2.4–2.9)	3.5 (3.1–3.8)
Previous	37.9 (36.8–39.1)	29.9 (28.8–31.0)	22.5 (21.7–23.3)	21.4 (20.6–22.2)	28.8 (28.1–29.6)	25.3 (24.6–26.1)
Never	41.0 (39.8–42.2)	43.2 (41.9–44.5)	61.7 (60.7–62.7)	60.3 (59.2–61.3)	53.3 (52.4–54.2)	52.5 (51.5–53.4)

(a) Patient sex was not recorded for 274 respondents.

(b) Estimation of the smoking status of the total adult general practice patient population (that is, patients aged 18 years and over who have attended a GP at least once) $n = 14$ million.

Note: CI—confidence interval.

Daily smoking was most prevalent among younger adult patients (aged 18–24 years and 25–44 years), with one in five and one in four of these patients respectively reporting daily smoking. Almost 60% of male and 25.0% of female patients aged 75 years and over were previous smokers, but only 4.9% of males and 4.1% of females in this age group were daily smokers (figures 14.5 and 14.6).



Estimation of smoking in the adult general practice patient population

The BEACH study reports data about patient smoking habits from a sample of patients attending general practice. As older people attend a GP more often than young adults, and females attend more often than males, they have a greater chance of being selected in the subsample. This leads to a greater proportion of older and female patients in the sample when compared with the total population who attend a GP at least once (about 14 million adults). We have weighted the BEACH sample to estimate the smoking status among the GP-patient population, using the method described by Knox et al. (2008).⁴

The estimates for the GP-patient population (after adjusting for age-sex attendance patterns) suggest that 18.8% of the patient population were daily smokers, 3.5% were occasional smokers, 25.3% were previous smokers and 52.5% had never smoked. Male patients in the total general practice population were significantly more likely to be daily (22.8%), occasional (4.1%) and previous smokers (29.9%) than females patients (15.4%, 3.0% and 21.4%, respectively) (Table 14.2).

14.3 Alcohol consumption (patients aged 18 years and over)

In people aged 65 years and over, low to moderate consumption of alcohol has been found to have a preventive effect against selected causes of morbidity⁷³ (in particular ischaemic heart disease).⁷⁵ The National Health and Medical Research Council (NHMRC) in a review of the evidence concluded that in young women there was no evidence of any cardiovascular mortality benefit from alcohol consumption, and in young men any benefit was outweighed by alcohol-related other causes of death.⁷⁵ In 2003 alcohol consumption accounted for 3.3% of the total burden of disease in Australia; however, after taking into account the benefit derived from low to moderate alcohol consumption, this fell to 2.3%.⁶⁴

The 2007 NDSHS found that 10.1% of people aged 14 years and over (10.1% of males and 10.4% of females) drank at levels considered to be risky or high risk for their health in the long term.⁷⁴ This risk level of alcohol consumption was based on the NHMRC 2001 guidelines.⁷⁶ The NDSHS also found that 34.6% of people aged 14 years and over (38.7% of males and 30.5% of females) drank alcohol during the preceding 12 months at levels that put their health at risk in the short term.⁷⁴

The NHMRC 2001 alcohol guidelines⁷⁶ have been rescinded. In February 2009 the NHMRC published a revised edition of evidence-based alcohol guidelines, which are significantly different from those in 2001 and use the concept of progressively increasing risk of harm with the amount of alcohol consumed, rather than specifying 'risky' and 'high risk' levels of drinking.⁷⁷ For this reason we have continued to apply the definitions earlier developed by WHO (see Method below).⁷⁸

Method

To measure alcohol consumption, BEACH uses three items from the WHO Alcohol Use Disorders Identification Test (AUDIT)⁷⁸, with scoring for an Australian setting.⁷⁹ Together, these three questions assess 'at-risk' alcohol consumption. The scores for each question range from zero to four. A total (sum of all three questions) score of five or more for males or four or more for females suggests that the person's drinking level is placing him or her at risk.⁷⁹

GPs were instructed to ask adult patients (18 years and over):

- How often do you have a drink containing alcohol?
Never
Monthly or less
Once a week/fortnight
2-3 times a week
4+ times a week
- How many standard drinks do you have on a typical day when you are drinking?

- How often do you have six or more standard drinks on one occasion?
Never
Less than monthly
Monthly
Weekly
Daily or almost daily

A standard drinks chart was provided to each GP to help the patient identify the number of standard drinks consumed.

Respondents were limited to adults aged 18 years and over because there are ethical concerns about approaching the younger patient group to ask for information on alcohol consumption for survey purposes. In addition, the reliability of this information from patients aged less than 18 years may be compromised if a parent or guardian is present at the consultation.

Results

Patients' self-reported alcohol consumption was recorded at 33,347 adult patient (18 years and over) encounters with 1,010 GPs.

- About one-quarter of adults reported drinking alcohol at at-risk levels (25.2%) (Table 14.3).
- At-risk drinking was more prevalent among male patients (30.1%) than female patients (21.8%) (Table 14.3).
- At-risk drinking was most prevalent in the 18-24 year age group, particularly among men. In this age group half of the males and more than one-third of the females reported at-risk alcohol consumption (Figure 14.7).
- The proportion of patients who were at-risk drinkers decreased with age for both males and females (Figure 14.7).

These estimates are a little lower than those for short-term risk from the NDSHS.⁷⁴ This is likely to be due to the difference in the age ranges studied (14 years and over in the NDSHS and 18 years and over in BEACH), and to differences in the age-sex distributions of the study populations.

Table 14.3: Patient alcohol consumption (aged 18 years and over)

Alcohol consumption	Male		Female		Total respondents	
	Per cent in BEACH sample (95% CI) (n = 13,583)	Per cent in patient population (95% CI) ^(a)	Per cent in BEACH sample (95% CI) (n = 19,764)	Per cent in patient population (95% CI) ^(a)	Per cent in BEACH sample (95% CI) (n = 33,347)	Per cent in patient population (95% CI) ^(a)
At-risk drinker	30.1 (28.9–31.2)	35.7 (34.4–37.0)	21.8 (20.8–22.7)	23.8 (22.7–24.8)	25.2 (24.3–26.0)	29.2 (28.2–30.2)
Responsible drinker	48.9 (47.8–50.1)	45.1 (43.9–46.4)	42.6 (41.6–43.7)	43.7 (42.7–44.8)	45.2 (44.3–46.1)	44.4 (43.4–45.3)
Non-drinker	21.0 (20.0–22.0)	19.2 (18.1–20.3)	35.6 (34.3–36.9)	32.5 (31.2–33.8)	29.6 (28.6–30.7)	26.4 (25.4–27.4)

(a) Estimation of the alcohol consumption of the total adult general practice patient population (that is, patients aged 18 years and over who have attended a GP at least once) n = 14 million.

Note: CI—confidence interval.

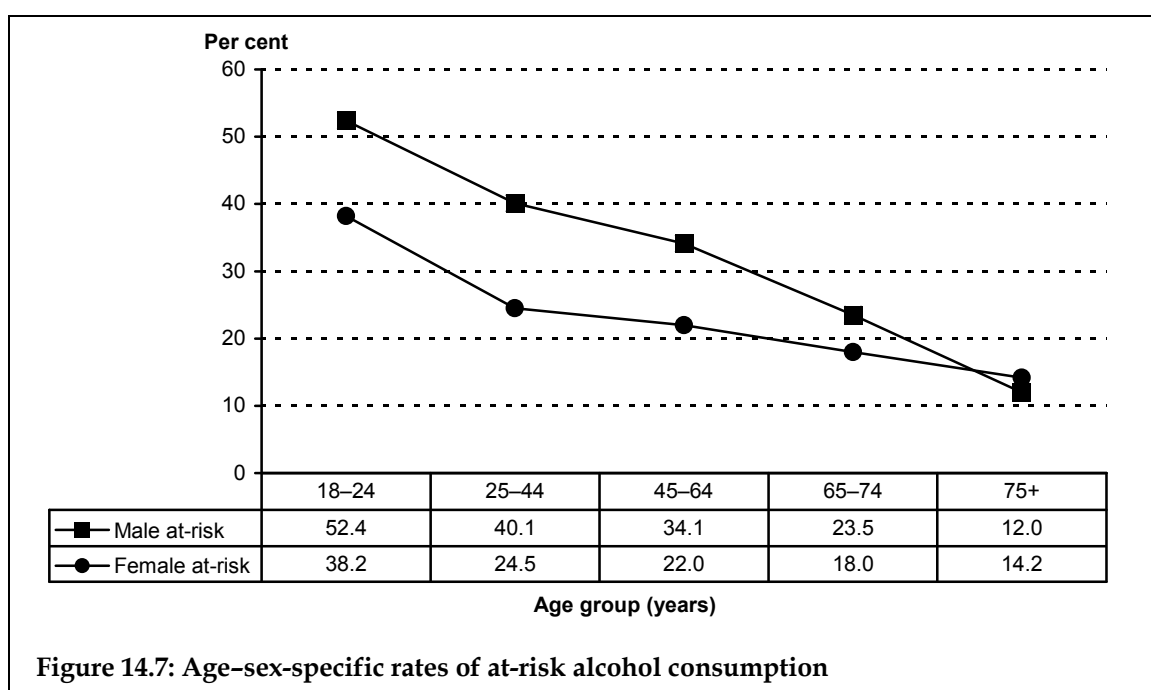


Figure 14.7: Age-sex-specific rates of at-risk alcohol consumption

Estimation of alcohol consumption in the adult general practice patient population

The BEACH study reports data about patient alcohol consumption from a sample of the patients attending general practice. As older people attend a GP more often than young adults, and females attend more often than males, they have a greater chance of being selected in the subsample. This leads to a greater proportion of older and female patients in the sample when compared with the total population who attend a GP at least once (about 14 million adults). We have weighted the BEACH sample to estimate the alcohol consumption among the GP-patient population, using the method described by Knox et al. (2008).⁴

The estimates for the GP-patient population (after adjusting for age-sex attendance patterns) suggest that 29.2% of the patient population were at-risk drinkers, 44.4% were responsible drinkers and 26.4% were non-drinkers. Male patients in the total general practice population

were significantly more likely to be at-risk drinkers (35.7%) than female patients (23.8%) (Table 14.3).

Readers interested in the relationship between morbidity managed and alcohol consumption will find more information in Proude et al. (2006) *The relationship between self-reported alcohol intake and the morbidities managed by GPs in Australia*.⁸⁰

14.4 Risk factor profile of adult patients

All patient risk factor questions (BMI, smoking and alcohol consumption) were asked of the same subsample of patients. This allows us to build a risk profile of this sample of adult patients. For the purposes of this analysis, being overweight or obese, a daily smoker or an at-risk drinker were considered risk factors. A risk factor profile was prepared for 32,432 adult patients (aged 18 years and over) (Table 14.4).

- More than half (51.8%) of the adult respondents had one risk factor. The most common was overweight (23.8% of adults) followed by obesity (17.4%).
- One in five patients had two risk factors, the most common combinations being:
 - overweight and at-risk alcohol consumption – 7.2% of patients
 - obesity and at-risk alcohol consumption – 4.4% of patients
 - daily smoking and at-risk alcohol consumption – 2.9% of patients.
- A small group of patients (3.8%) had three risk factors.

Table 14.5 shows the number of risk factors by patient sex.

- Females were significantly more likely to have no risk factors (29.1%) than males (19.0%).
- Almost one-third of males (30.5%) had two or three risk factors compared with just under one-fifth (18.2%) of females.

Estimation of the risk profile of the adult general practice patient population

The BEACH study reports data about patient risk factors from a sample of the patients attending general practice. As older people attend a GP more often than young adults, and females attend more often than males, they have a greater chance of being selected in the subsample. This leads to a greater proportion of older and female patients in the sample when compared with the total population who attend a GP at least once (about 14 million adults). We have weighted the BEACH sample to estimate the risk factor profile among the GP-patient population, using the method described by Knox et al. (2008).⁴

The estimates for the GP-patient population (after adjusting for age-sex attendance patterns) show that:

- one-quarter of patients had no risk factors (24.0%)
- about half of the adult patients had one risk factor (49.1%). The most common risk factor was overweight (21.3% of adults) followed by obesity (15.6%)
- one in five patients had two risk factors (21.9%). The most common combinations of risk factors were overweight and at-risk alcohol consumption (7.7%), followed by obesity and at-risk alcohol consumption (4.6%)
- one in twenty patients had three risk factors (Table 14.4).

Table 14.4: Risk factor profile of patients (aged 18 years and over)

Number of risk factors	Number	Per cent in BEACH sample (n = 32,432)			Per cent in patient population ^(a)		
		95% LCL	95% UCL	95% LCL	95% UCL	95% LCL	95% UCL
No risk factors	8,093	25.0	24.2	25.7	24.0	23.2	24.8
One risk factor	16,795	51.8	51.1	52.5	49.1	48.4	49.8
Overweight only	7,717	23.8	23.2	24.4	21.3	20.7	21.9
Obese only	5,647	17.4	16.8	18.0	15.6	15.1	16.2
At-risk alcohol level only	2,292	7.1	6.6	7.5	8.1	7.5	8.7
Current daily smoker only	1,139	3.5	3.2	3.8	4.1	3.7	4.4
Two risk factors	6,310	19.5	18.9	20.0	21.9	21.2	22.6
Overweight and at-risk alcohol level	2,330	7.2	6.8	7.6	7.7	7.3	8.1
Obese and at-risk alcohol level	1,417	4.4	4.1	4.6	4.6	4.3	4.9
Daily smoker and at-risk alcohol level	926	2.9	2.6	3.1	3.9	3.5	4.2
Overweight and current daily smoker	916	2.8	2.6	3.0	3.2	3.0	3.5
Obese and current daily smoker	721	2.2	2.0	2.4	2.5	2.3	2.7
Three risk factors	1,234	3.8	3.5	4.1	5.1	4.7	5.4
Overweight and current daily smoker and at-risk alcohol level	775	2.4	2.2	2.6	3.3	3.0	3.5
Obese and current daily smoker and at-risk alcohol level	459	1.4	1.3	1.6	1.8	1.6	2.0

(a) Estimation of the risk factor profile of the total adult general practice patient population (that is, patients aged 18 years and over who have attended a GP at least once) n = 14 million.

Note: LCL—lower confidence limit; UCL—upper confidence limit.

Table 14.5 shows the estimation of number of risk factors in the total GP-patient population by sex. Male patients in the total patient population were significantly more likely to have two (28.2%) or three risk factors (7.3%) than female patients (16.6% and 3.2%, respectively).

Table 14.5: Number of risk factors, by patient sex

Number of risk factors	Male		Female	
	Per cent in BEACH sample (95% CI) (n = 13,228)	Per cent in patient population (95% CI) ^(a)	Per cent in BEACH sample (95% CI) (n = 19,204)	Per cent in patient population (95% CI) ^(a)
No risk factors	19.0 (18.1–19.8)	17.5 (16.6–18.4)	29.1 (28.1–30.0)	29.4 (28.4–30.4)
One risk factor	50.5 (49.6–51.5)	47.0 (46.0–48.1)	52.7 (51.8–53.5)	50.8 (49.9–51.7)
Two risk factors	25.0 (24.1–25.9)	28.2 (27.1–29.2)	15.6 (15.0–16.3)	16.6 (15.9–17.3)
Three risk factors	5.5 (5.0–5.9)	7.3 (5.7–7.9)	2.6 (2.4–2.6)	3.2 (2.9–3.5)

(a) Estimation of the risk factor profile of the total adult general practice patient population (that is, patients aged 18 years and over who have attended a GP at least once) n = 14 million.

Note: CI—confidence interval.

14.5 Changes in patient risk factors over the decade 1999–00 to 2008–09

In order to investigate changes over time in these patient risk factors, data tables reporting results for each year from 1999–00 to 2008–09 are published in the companion report *General practice activity in Australia 1999–00 to 2008–09: 10 year data tables*.¹

The major changes between 1999–00 and 2008–09 are highlighted below.

- The prevalence of overweight and obesity in adults attending general practice increased significantly, from 33.1% and 19.4% respectively in 1999–00 to 36.1% and 25.4% in 2008–09; an increase apparent in both male and female patients.
- In contrast, the prevalence of overweight and obesity in children aged 2–17 years remained static from 1999–00 to 2008–09, with about 11% of children being obese and about 17% overweight.
- Both current and occasional smoking rates decreased significantly in adults aged 18 years and over, from 18.9% and 5.2% respectively in 1999–00 to 15.3% and 2.6% in 2008–09.
- The prevalence of at-risk alcohol consumption levels among adults aged 18 years and over remained fairly static at around 26% between 2001–02 and 2008–09.