

9 Health risk behaviours in patients at cardiovascular encounters

General practice is commonly identified as a significant intervention point for health care and health promotion. As about 80% of the population visit a GP in any one year⁵, GPs have contact with a very large proportion of the community in an environment where consideration of aspects of the patient's health is the purpose of the contact.

In the SAND sections on the bottom of each of the BEACH forms (see Chapter 2, Methods) patients could be asked a range of different questions depending on the SAND recording block into which they fell. Some were asked questions about their alcohol intake and their self-reported height and weight. Others were asked about their current smoking status (together with a range of other questions). Of these subsamples of patients, some also had a cardiovascular problem managed during their encounter.

In the 2-year period 1998–00, 12,279 patients at cardiovascular encounters were asked and responded to the question about smoking and 11,476 responded to the questions about alcohol consumption and height and weight. This chapter investigates the extent to which patients for whom a cardiovascular problem is being managed in general practice continue to carry risk factors known to be detrimental to their cardiovascular health.

9.1 Smoking

A review of the literature pertaining to the relationship between smoking and cardiovascular disease is provided in Chapter 1, Background.

The National Drug Strategy Household Survey estimated that 22% of the population aged 14 years and over are regular smokers, comprising 25% of men and 20% of women²⁴⁴.

In the total BEACH data set, the estimates of daily smokers have been quite consistent over the 3 years 1998–01 at about 19% of adult (18+ years) patients attending a GP. Male patients are more likely to smoke daily (22.6%) than females (17.1%) and the prevalence of smoking in this population decreases with age. In 2001, 27.3% of the surveyed patients reported they were past smokers¹³.

The extent to which people with known cardiovascular problems continue to smoke, irrespective of extensive public education programs regarding the association of smoking and cardiovascular disease, has not been investigated elsewhere.

Method

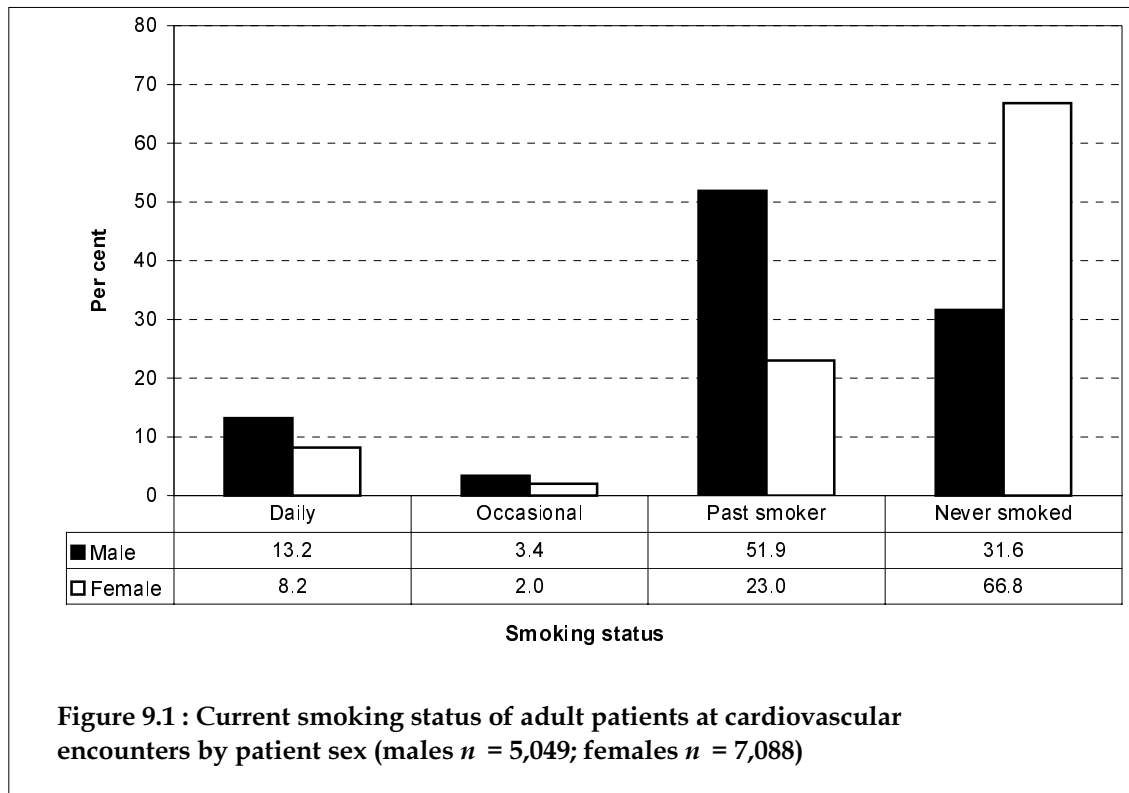
The GPs were instructed to ask the patients (18+ years):

- What best describes your smoking status? Smoke daily; Occasional smoker; Previous smoker; Never smoked

Results

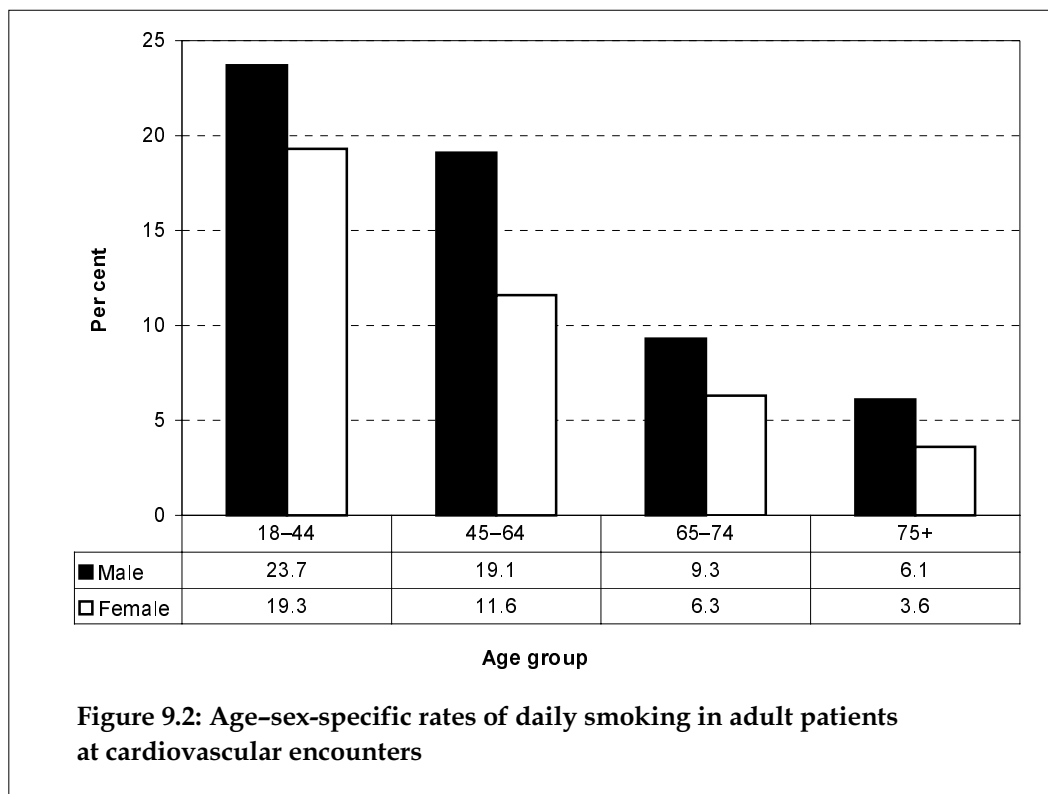
The smoking status of 12,279 adult patients aged 18 years and over at cardiovascular encounters was ascertained from encounters with 1,936 GPs. Overall, 10.3% (95% CI: 9.0–11.7) of these patients reported being daily smokers. A further 2.6% (95% CI: 1.1–4.1) reported occasional smoking and 35.1% (95% CI: 34.2–35.9) were previous smokers (results not presented).

Age and sex were specified for 12,137 of the 12,279 respondents. Over half (52.0%, 95% CI: 51.0–53.0) of these patients at cardiovascular encounters (two-thirds of the female patients and about one-third of the male) had never smoked. A greater proportion of male cardiovascular patients (13.2%) than female (8.2%) were daily smokers (Figure 9.1).



Age–sex-specific smoking rates

Daily smoking was most common in younger adults of both sexes, one in four men (23.7%) and one in five women (19.3%) aged between 18 and 44 years reporting that they smoked daily. The proportion of patients who were smokers decreased with age. Only 6.1% of male and 3.6% of female cardiovascular patients aged 75 years and over were daily smokers (Figure 9.2). However, 61.1% of males and 23.6% of females aged 65 years and more were previous smokers (results not shown).



Discussion

These results indicate that adult patients managed for cardiovascular problems are about half as likely to be current smokers than average for the total GP patient population and this applies to both sexes. The proportion of this population that reported being previous smokers was slightly higher (35.1%) than average (27.1%)¹³. This is likely to reflect the older age group of patients involved in cardiovascular encounters, for the past smoking rate in older patients (65 years and over) paralleled that of the total population for this age group.

The age-sex-specific smoking rates demonstrate some interesting trends. Although the proportion of both males and females in the 18-44 age group who are current smokers is considerably less than the total population (23.7% cardiovascular male patients compared with 36.7% total patient population, 19.3% female cardiovascular patients compared with 24.3% total patient population), the levels are of concern. Clearly, the presence of a cardiovascular problem that is currently under management by a GP is having only marginal effect on the smoking behaviour of these people.

9.2 Alcohol consumption

The literature relating to the relationship of at-risk alcohol consumption and cardiovascular disease was reviewed in Chapter 1. In summary, although alcohol use in moderation may be beneficial to cardiovascular health, hazardous consumption is an important modifiable cause of cardiovascular disease as well as other premature death and disability in Australia⁷. The 1998 National Drug Strategy Household Survey estimated that 7-16% of adult males and between 4-10% of adult females were drinking

at hazardous or harmful levels²⁴⁴. The latter figures are somewhat lower than the estimates from the 1995 ABS National Health Survey, of 15% for males and 13% for females³³.

The 3 years of data available from the BEACH program for patients attending GPs suggest a consistent rate of 24% of adults reporting at-risk alcohol consumption levels¹³.

Method

To measure alcohol consumption, BEACH uses three items from the WHO Alcohol Use Disorders Identification Test (AUDIT)²⁴⁵, with slightly modified wording and scoring for an Australian setting²⁴⁶. Together these three questions assess at-risk alcohol use. The scores for each question range from 0 to 4. A score of 5+ for males or 4+ for females suggests that the person’s drinking level is placing them at risk.

GPs were instructed to ask the patient (18+ years):

- How often do you have a drink containing alcohol? Never
 Monthly or less
 Once a week
 2–4 times a week
 5+ times a week

- How many standard drinks do you have on a typical day when you are drinking? _____

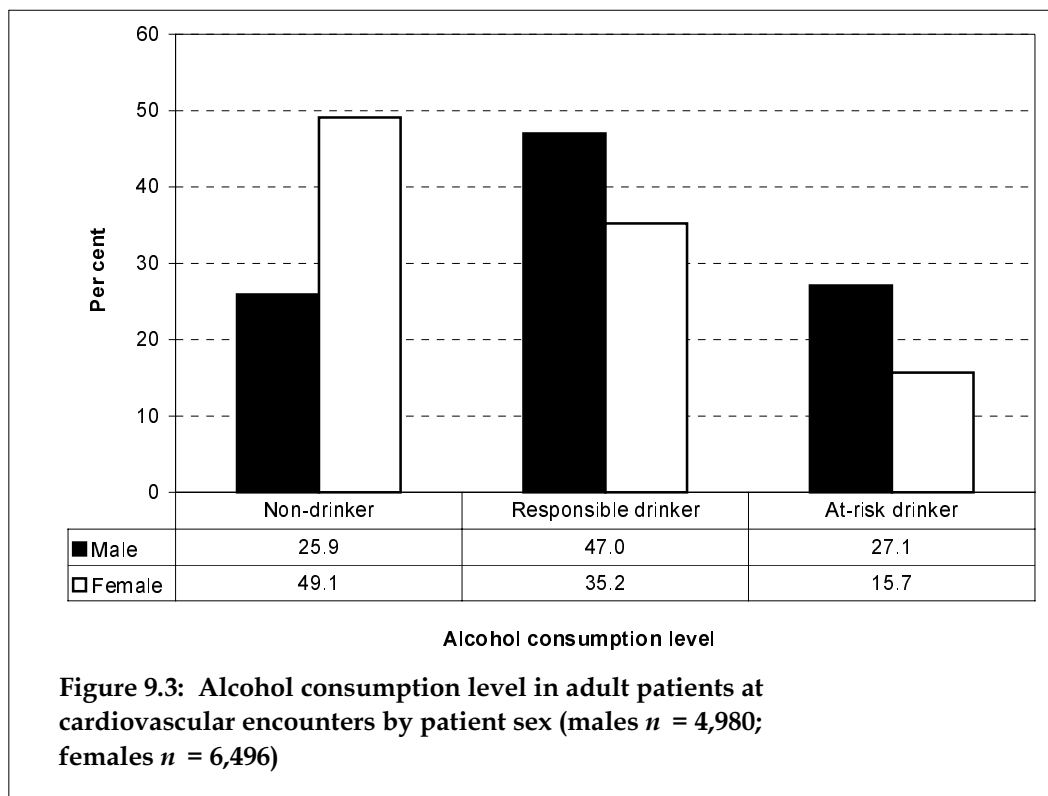
- How often do you have 6 or more standard drinks on one occasion? Never
 Monthly or less
 Once a week
 2–4 times a week
 5+ times a week

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

Results

Responses to these questions were recorded at 11,476 cardiovascular patient encounters (18+ years) from 1,928 GPs. Age and sex were available for the total subsample.

Overall, 20.7% (95% CI: 19.0–22.3) of these patients reported drinking at-risk levels of alcohol. A significantly greater proportion of males reported at-risk drinking levels (27.1%, 95% CI: 24.0–30.2) than female patients (15.7%, 95% CI: 13.3–18.1). Responsible drinkers accounted for almost half (47.0%) the male respondents and for over one-third (35.2%) of female respondents. Almost half the women patients reported that they did not drink at all compared with one-quarter of the male patients (Figure 9.3).

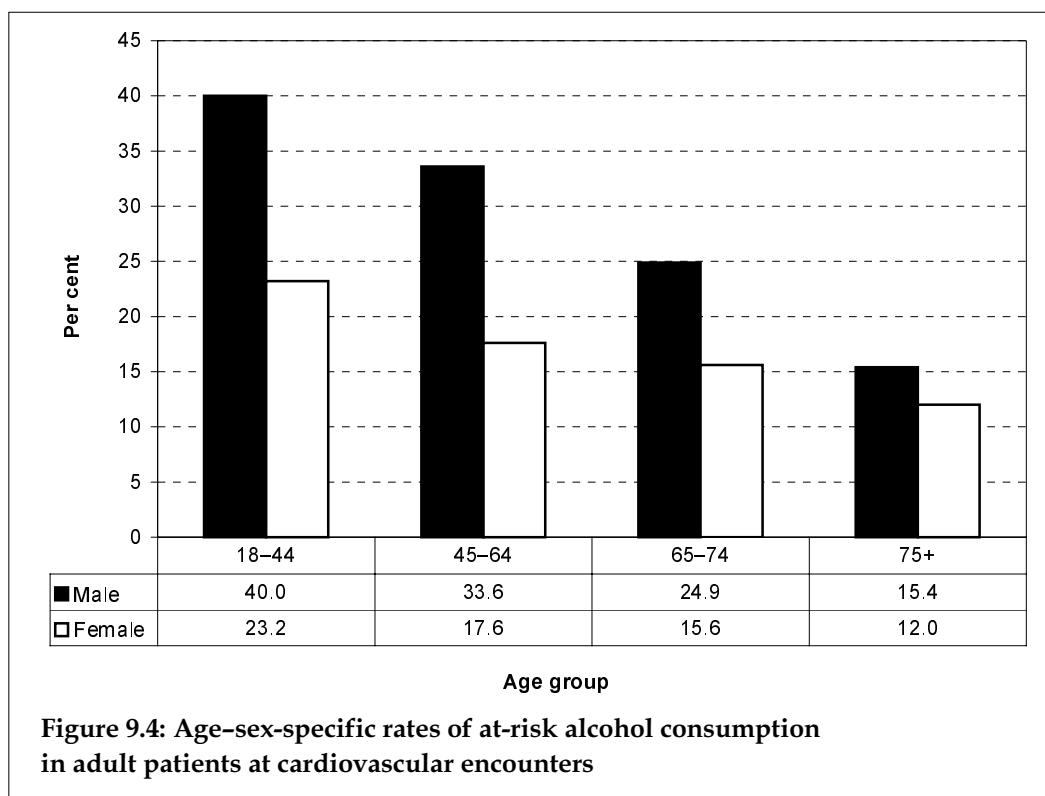


Age–sex-specific rates

Of those males aged 18–44 years for whom a cardiovascular problem was managed 40.0% reported at-risk levels of alcohol consumption. Although this proportion decreased with age of the patient, it remained relatively high at one in three for those aged 45–64 years, dropped to one in four (24.9%) in those aged 65–74 years and then to one in seven (15.4%) for patients of 75 years of more. The same trend was demonstrated for women at cardiovascular encounters, but the proportion of at-risk drinkers was far less than for their male counterparts, particularly in those aged 18–64 years (Figure 9.4).

Discussion

The overall prevalence of at-risk drinking in this cardiovascular patient population (20.7%) was a little lower than the overall rate for the total GP patient population (24.1%). However this difference was mainly due to a lower at-risk alcohol prevalence in women of 25–44 years, the remaining rates being very similar to the average for the GP patient population¹³.



9.3 Body mass index

Background

Australia is at present second only to the United States as the most overweight nation in the world^{119,120}, with the United Kingdom a close third¹²⁰. A review of the available literature on obesity and overweight and the relationship between weight and cardiovascular disease is provided in Chapter 1. A brief summary is provided below.

The estimate of overweight and obese Australians reported in the National Physical Activity Survey¹⁰⁷ is supported by BEACH data over the first 3 years of its collection. BEACH collects the self-reported height and weight of patients to estimate their BMI which is summarised in the study's annual reports. In 1998-99, BEACH showed 51.2% of adults over 18 years to be overweight (32.8%) or obese (18.4%)¹⁴. In 1999-00, BEACH reported 52.5% to be overweight (33.1%) or obese (19.4%)¹² and in the 2000-01 BEACH year, 54.3% were found to be overweight (34.1%) or obese (20.2%)¹³. The AIHW reports similar proportions for 1999-00, claiming 60% of Australians aged 25 years and over were overweight with 20% of these being classified as obese⁴. In 1995, Australian men on average weighed 3.6 kg more than their counterparts in 1980. Women weighed on average 4.8 kg more². In terms of total disease burden, overweight and obesity are responsible for approximately 4.3% in both males and females in Australia⁴.

All of the above studies used body mass index (BMI) as the classification for being overweight or obese, as proposed by the World Health Organization (WHO) as a simple measure of obesity¹⁰⁸.

Method

The GPs were instructed to ask the patients (or their carer in the case of children):

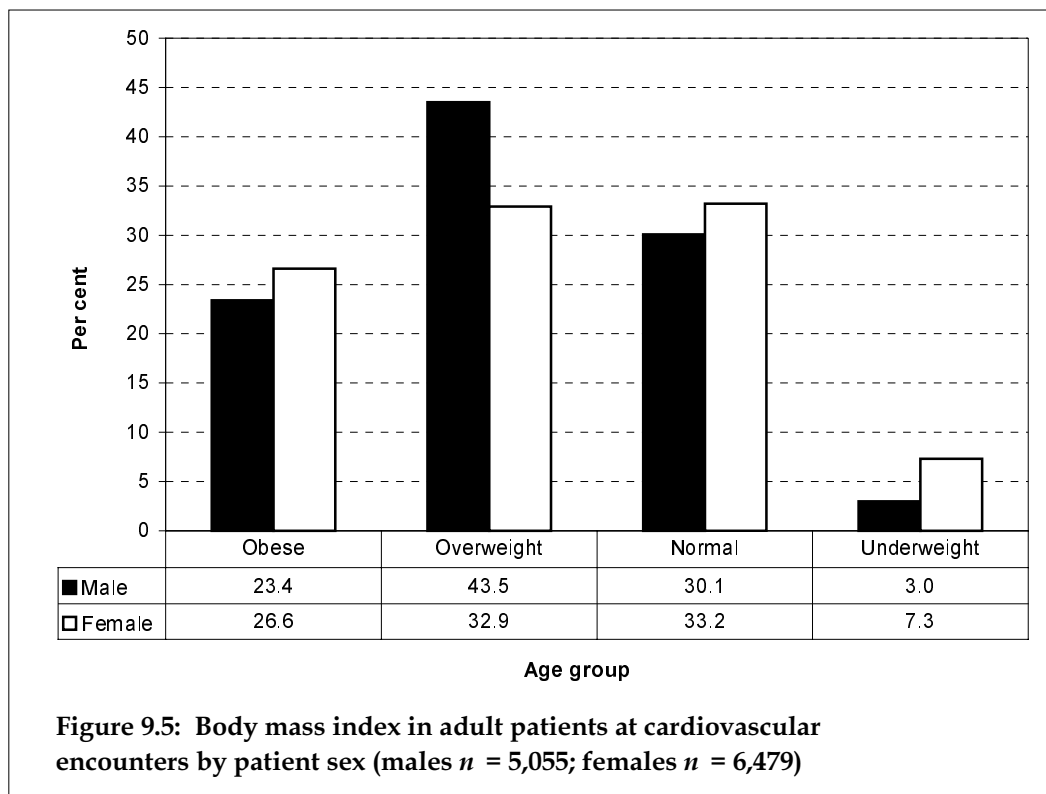
- What is your height in centimetres?
- What is your weight in kilograms?

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

The BMI for an individual is calculated by dividing weight (kilograms) by height (metres) squared. A person with a BMI of less than 20 is considered underweight, 20–24 is normal, 25–29 overweight and more than 30 is considered to be obese⁴.

Results

BMI was calculated for 11,534 patients aged 18 years and over at cardiovascular encounters with 1,939 GPs. Overall, less than one-third (31.9%, 95% CI: 31.0–32.9) of patients at cardiovascular encounters were in the normal weight range. In total almost two-thirds were classified as overweight or obese. One-quarter (25.2%, 95% CI: 24.2–26.1) were considered obese, and a further 37.5% (95% CI: 36.6–38.4) were classed as overweight. Approximately one-quarter of both male and female patients were classed as obese, but males were far more likely to be overweight (43.5% compared with 32.9%) than were their female counterparts (Figure 9.5).

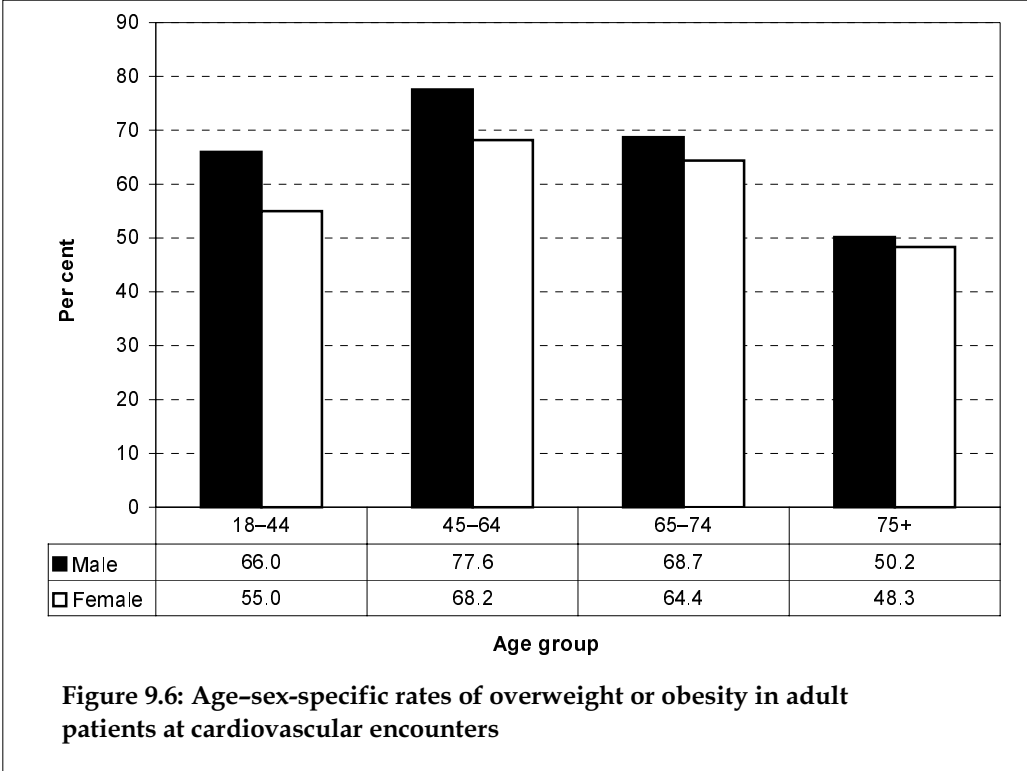


Age–sex-specific rates

Males were more likely to be overweight or obese (66.9%, 95% CI: 63.3–70.5) than were females (59.5%, 95% CI: 56.3–62.7). More than three-quarters (77.6%, 95% CI: 73.1–82.0) of the middle-aged male patients (aged 45–64 years) were considered overweight or obese. Two-thirds (66.0, 95% CI: 60.5–71.6) of the younger males (18–44 years) and of those aged 65–74 years (68.7%, 95% CI: 63.7–73.6) were found to be overweight or obese. The rates for women at cardiovascular encounters were only slightly lower, ranging from 68.2% (95% CI: 64.1–72.2) in middle-aged women (45–64 years) down to 48.3 (95% CI: 43.6–53.1) in those who were 75 years or over (Figure 9.6).

Discussion

These rates of overweight and obesity are somewhat higher than those of the total adult patient population in BEACH in which the overall overweight/obesity rate is estimated to be about 52% (compared with 63% in this sample of cardiovascular patients). This difference applied in all age groups except in patients aged 75 years and over, in whom prevalence of weight problems was similar to the total population¹³.



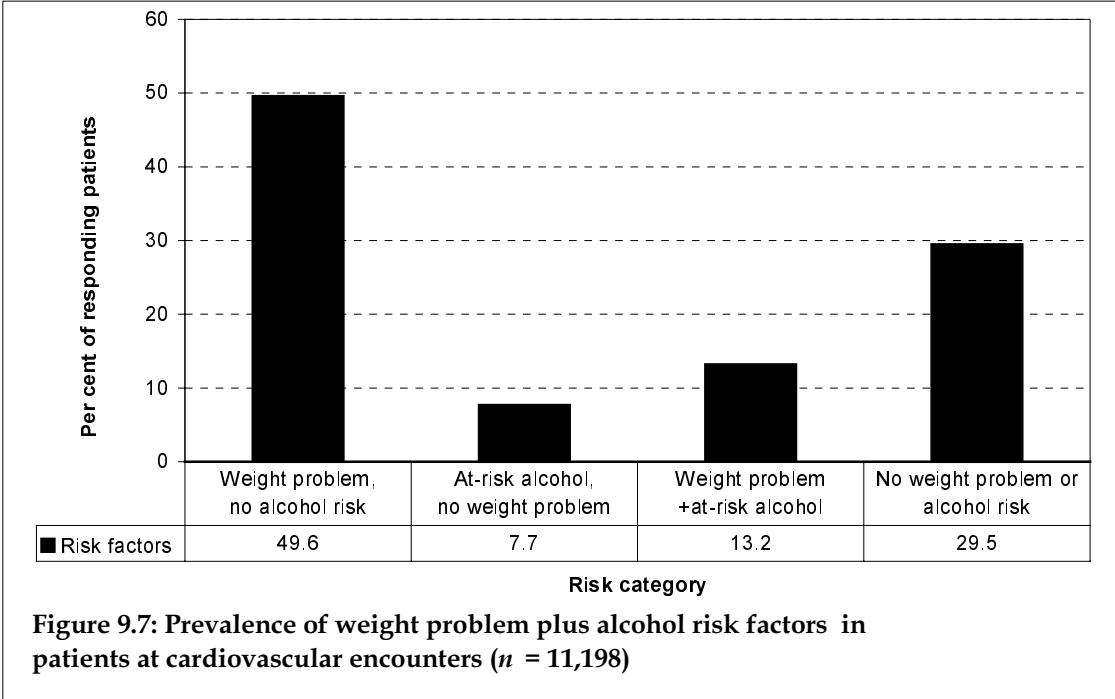
9.4 Alcohol consumption and body mass index

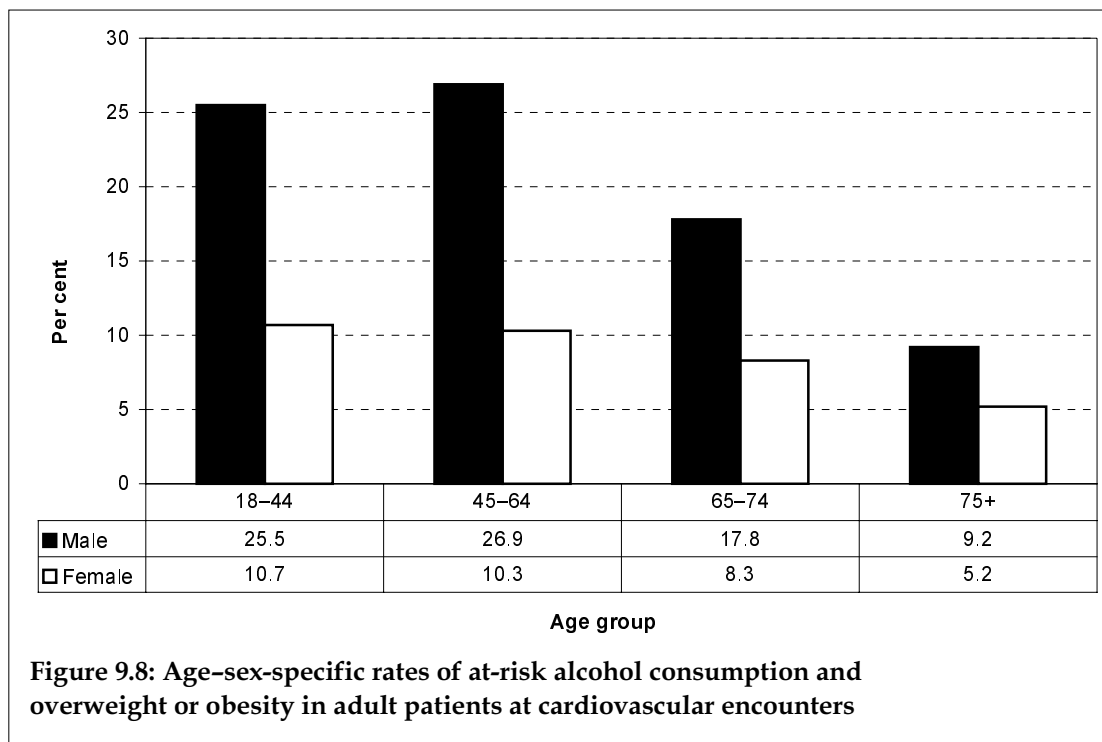
Since the questions on height and weight and those on alcohol consumption were asked of the same patients, it is possible to investigate the proportion of patients at cardiovascular encounters who were at risk in terms of both of these variables.

There were 11,198 patients for whom responses to both the BMI questions and the alcohol consumption questions were recorded. Half of these (49.6%, 95%CI: 48.5–50.6) were overweight or obese but did not report at-risk levels of alcohol consumption. Those patients who were drinking at-risk levels of alcohol but were not overweight or obese represented 7.7% of the sample (95% CI: 6.7–8.8). Patients who were both overweight or obese and who consumed at-risk levels of alcohol accounted for 13.2% (95% CI: 12.2–14.2) of the sample. Only 29.5% (95% CI: 28.5–30.5) had neither of these risk factor (Figure 9.7).

Age–sex-specific rates

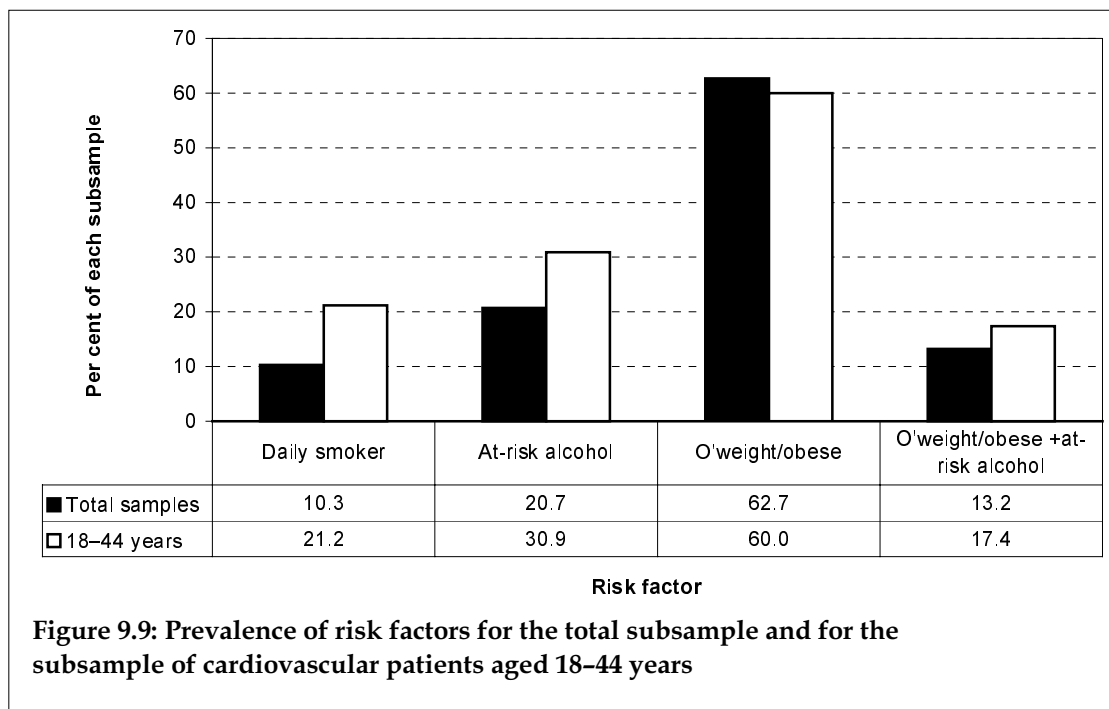
The age–sex-specific rates of these combined risk behaviours are presented in Figure 9.8. One in five males at cardiovascular encounters (19.6%, 95% CI: 17.7–21.6) reported having both health risk behaviours, a significantly greater proportion than in the female sample in which 8.2% reported both (95% CI: 6.1–10.2). The prevalence of these combined risk behaviours was highest in the youngest age group for both sexes (25.5% of males and 10.7% of females), and it remained near these levels for both sexes in the middle ages. However, the proportion of patients with both risk behaviours decreased at 65 years and reduced to less than 10% in the elderly.





9.5 Overview of these results

The literature review provided in Chapter 1 highlighted the relationship between each of these measured risk behaviours and cardiovascular disease. Figure 9.9 summarises the major findings reported above. The estimates provided of risk behaviours of patients for whom a cardiovascular problem was managed by the GP at the encounter suggest that excess weight is by far the most common of the three measured risk behaviours for these patients. Although the most recent data for the total GP-attending population suggest an overall overweight/obesity prevalence of 54%¹³, it might have been expected that patients attending for the management of a cardiovascular problem would watch their weight more carefully in response to education about the relationship between weight and cardiovascular disease. This was not the case, the prevalence of overweight problems (62.7%) being similar to that of the total GP patient population. Further, the prevalence in younger adults reflected that of the total population.



Whereas the prevalence of daily smoking among patients at cardiovascular encounters (10.3%) was only half that estimated for the total GP attending population¹³ the prevalence in patients 18-44 years remained high at 21.4%.

The prevalence of at-risk alcohol consumption of 20.7% was considerably less than for the overall patient population (about 34%),¹³ but again, younger adults were more prone to this risk behaviour, with 30% drinking at-risk levels of alcohol.

The patients at cardiovascular encounters who were both overweight/obese and reported at-risk alcohol consumption accounted for only 13% of the subsample asked these questions, but 17% of the younger adults (and 25.5% of younger male cardiovascular patients) had both risk behaviours.

It has not been possible with the current data set to estimate the proportion of patients at cardiovascular encounters who have all three risk behaviours because the sample of patients asked about their smoking habits differed from the sample asked about alcohol intake and height and weight. In future years, such analyses will be possible because from BEACH year 3 onwards all three risk behaviours were assessed for the same subsample.

However, these data suggest there is ample opportunity for GPs to intervene with this group of patients, particularly in the provision of education regarding the risks of being overweight (all ages) and, for younger male adults in particular, the risks to their cardiovascular health of high alcohol consumption and smoking.