

6. Health

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Amongst other things, the analysis presented in this chapter shows:

- There is an occupational class gradient in the prevalence of most health outcomes covered in ELSA, including: heart disease, respiratory illness, self-reported fair or poor health, having a limiting long-standing illness and mental health symptoms. Men and women in routine or manual occupational class households were most likely, and men and women in professional or managerial class households were least likely, to report having each of these conditions.
- Social inequalities in health are more marked at younger ages than older ages. For example, in the 50–59 age group, men in routine and manual occupations were twice as likely to have a limiting long-standing illness as men in professional and managerial occupations, while, among men aged 75 or older, there was very little difference between the two groups in the proportions suffering from a limiting long-standing illness. A similar pattern appeared for heart disease, hypertension, diabetes, arthritis and respiratory illness, although generally more so for men than for women.
- Similar occupational class differences in age trends appeared for health-related behaviours. For instance, sedentary behaviour increased with age more rapidly for men and women in routine or manual households than for those in professional or managerial households.
- There is a suggestion that the variation in the social inequality in health by age is a consequence of those in routine and manual occupational classes reaching a state of poor health a decade or two earlier in their lives than their peers in more advantaged social positions. Around a third of routine and manual men in the 50- to 59-year-old group report a limiting long-standing illness, while rates for men in the professional and managerial groups remain much lower than this until they get beyond age 75; for example, only just over a quarter of professional and managerial men aged 60–74 report a limiting long-standing illness.
- People in routine or manual occupational class households were most likely to abstain from drinking alcohol or only drink alcohol on special occasions, while people in professional or managerial households were more likely to drink moderately, in line with the pattern now thought to be protective against chronic illness.

Physical and mental health are key areas of focus for the ELSA study, in addition to physical and cognitive functioning (Chapter 7). Health and well-being are important outcomes of interest both on their own and in relation to people's social and economic circumstances. The link between social and economic circumstances and health is well established and research has now turned toward understanding the causal mechanisms involved in these relationships (Macintyre, 1997; Marmot et al., 1997). The complex interplay of social and biological chains of risk over the life course to influence health in later life is an important aspect of these relationships (Kuh et al., 1997; Davey Smith, 1997). In addition to their relevance as an outcome of interest, physical and mental health also influence people's employment patterns, their economic circumstances and the levels at which they are able to participate in society (Smith, 1999). These issues become increasingly salient as people age and the risk for most health problems increases. With its multidisciplinary focus incorporating high-quality measurement of health and a longitudinal design, ELSA provides a unique opportunity to understand these relationships.

At wave 1, ELSA collected detailed self-reports of both symptomatic and diagnosed illness, as well as of health-related behaviours. All of the major illnesses experienced by people in middle and older age were included. Respiratory and musculoskeletal illnesses featured prominently, as results from national surveys have shown them to be among the major sources of long-standing illness for people aged 65 and over (Falaschetti, Malbut and Primatesta, 2002; Bridgewood et al., 2000). As the main cause of death in the UK, cardiovascular disease also comprised a main focus of the ELSA health module. Mortality associated with cardiovascular disease has fallen in the last few decades. For example, between 1989 and 1999, the death rate due to coronary heart disease fell by 43% in men aged 45–55 and by 34% in those aged 65–74 (British Heart Foundation, 2003). By contrast, in older age groups, morbidity associated with cardiovascular disease has not fallen and is a particular burden.

In addition to physical health, the ELSA wave 1 interview also included a separate module focusing on mental health. Depression is associated with increased rates of mortality (Prince et al., 1998) as well as greater dependency and reduced quality of life (Mann, Graham and Ashby, 1984). Prevalence of depression is strongly associated with factors that are more common among older people, such as physical disability and social support (Harwood et al., 1998, Kivelä et al., 1996).

The health behaviours of older people have typically been less of a focus among health researchers and professionals than those of younger individuals. However, accumulating evidence points to the ongoing importance of health behaviours to health status across the lifespan (Morley and Flaherty, 2002). For example, smoking continues to be a major risk factor for death from cancer, coronary heart disease and stroke in older age, and smoking cessation confers benefits well into older age (Benfante, Reed and Frank, 1991; Burns, 2000). Consumption of alcohol presents both particular problems among the elderly (Moore et al., 1999) and potential cardiovascular benefits at moderate levels (for example, Abramson et al. (2001)). Finally, besides reducing the risk of cardiovascular disease, engaging in regular physical activity also preserves

functional abilities among older people and benefits psychological health (McAuley and Katula, 1998).

The next section describes the measures included in this chapter. This is followed by separate sections describing findings on cardiovascular disease, non-cardiovascular chronic illness, general and mental health, and health-related behaviours.

6.1 Measures

Information regarding diagnosed illness was collected via self-report in this wave of ELSA. The Health Survey for England (HSE), from which the sample for ELSA was selected, included a nurse interview with a wide range of physical and biological measures. A second nurse interview is being conducted at wave 2 of ELSA in 2004.

Cardiovascular disease

Regarding cardiovascular disease, participants were asked about morbidity associated with coronary heart disease (heart attack, angina and heart failure) and risk factors that remain important in older age groups (hypertension and diabetes) (Abbott et al., 2002). Participants were therefore asked whether a doctor had ever told them that they suffered from any of the following conditions: high blood pressure or hypertension, angina, a heart attack, congestive heart failure, an abnormal heart rhythm, diabetes or high blood sugar, a stroke, any other heart trouble. Those participants who reported having a heart attack diagnosis were asked if it had occurred in the past two years.

In addition to self-reported diagnosed angina and heart attack, the Rose Questionnaire was used to collect data on symptomatic angina or heart attack. The Rose Questionnaire was developed to identify the characteristic symptom complex known as angina in a standard way. Its validity has been established by studies that compared the questionnaire to clinical diagnosis. From this questionnaire, the more severe grade 2 angina was classified. In addition, participants were classified as having had a possible heart attack if, according to the Rose Questionnaire, they reported having ever had an attack of severe pain across the front of the chest lasting for more than half an hour.

Intermittent claudication is a cramp-like pain in the calf on walking that occurs because of narrowed arteries in the leg leading to reduced blood supply to the muscles. It is a painful, debilitating condition that reduces mobility in those affected and has a detrimental effect on quality of life. It is often the first symptom of peripheral arterial disease and is a marker for increased risk from fatal and non-fatal cardiovascular events. Based on the Edinburgh Intermittent Claudication Questionnaire (Leng and Fowkes, 1992), participants were classified as having the condition if they reported leg pain on walking, but not at rest, which disappeared within 10 minutes after they stopped walking. Intermittent claudication was further classified as grade 1 or grade 2, with grade 2 being more severe.

The results section on cardiovascular disease presents the prevalence of diagnosed heart attack, angina, hypertension, diabetes and stroke as well as symptomatic angina, heart attack and intermittent claudication by age and sex (Table 6A.1). In addition, occupational class differences in heart disease (Table 6A.2), hypertension (Table 6A.3) and diabetes (Table 6A.4) are examined for men and women in three age groups. Heart disease is defined as diagnosed or symptomatic angina or heart attack. Regional differences in heart disease are included in Table 6A.5.

Non-cardiovascular chronic illness

ELSA respondents were asked whether a doctor had ever told them they had, or had had, chronic lung disease (such as chronic bronchitis or emphysema), asthma, arthritis, osteoporosis, cancer or Parkinson's disease. If the respondent reported having had one of these diagnoses, they were asked some follow-up questions such as date of onset or level of treatment. Respondents with arthritis were asked which type(s) of arthritis they had. Respondents aged 60 or over were asked additional questions about whether they had ever fractured their hip and whether they had ever had a joint replaced.

In addition, symptomatic respiratory illness was assessed using the British Medical Research Council (MRC) Respiratory Questionnaire (Fletcher et al., 1978). The version of the MRC Respiratory Questionnaire used here measures two aspects of respiratory illness. One is the presence of cough and sputum as an indication of chronic respiratory disability (chronic obstructive airways disease). Another is wheezing and attacks of shortness of breath, symptoms frequently found in patients suffering from asthma.

With the exception of symptomatic respiratory illness, each of these measures is examined by age and sex (Table 6A.6). This is followed by a section focusing on arthritis by occupational class (Table 6A.7) and, among those with diagnosed arthritis, data on types of arthritis (Table 6A.8) and the prevalence of joint replacements (Table 6A.9) are also presented. In addition, respiratory illness, which is defined as diagnosed asthma or lung disease or showing signs of symptomatic respiratory illness on the MRC Respiratory Questionnaire, is examined in relation to occupational class (Table 6A.10), quality of housing (Table 6A.11) and area type (urban, suburban, rural) (Table 6A.12).

General and mental health

In addition to information on specific physical illness, this wave of ELSA collected self-reports on general health and long-standing illness, mental health and a measure of quality of life, as well as measures of demand and control. The measure of self-reported general health used was that included in the Health and Retirement Study (HRS/AHEAD) in the USA, with which ELSA is designed to be comparable where possible. Respondents rated their health as excellent, very good, good, fair or poor. All respondents were also asked whether they suffered from any illness or disability that affected them over a long period of time. Those who reported that they were suffering from a long-standing illness were asked whether the illness limited their activities in some way.

Measures of mental health in this wave of ELSA included diagnosed mental illness as well as two measures of symptomatic mental health. For diagnosed mental illness, respondents were asked whether a doctor had ever told them that they had any emotional, nervous or psychiatric problems. This was asked within the context (on the same show card) of the non-cardiovascular chronic illnesses described above. The two measures of symptomatic mental illness included were the 12-item General Health Questionnaire (GHQ12) and an abbreviated version of the Center for Epidemiologic Studies Depression Scale (CES-D). The GHQ12 was asked in the self-completion component of the interview. The GHQ12 is a well-validated and widely used measure of psychological well-being. Respondents were classified as having no symptoms, one to three symptoms or four or more symptoms (Goldberg and Williams, 1988). The eight-item version of the CES-D was used to estimate the prevalence of depressive symptoms. The questions asked the degree to which the respondent had experienced depressive symptoms, such as restless sleep, being unhappy and so on, over the past month. The CES-D appears in the HRS/AHEAD studies and has been extensively used in a range of clinical and non-clinical settings with a range of different populations. In line with the way in which the scale has been used in the HRS/AHEAD those who reported three or more symptoms were classified as being depressed (Steffick, 2000).

Quality of life was measured using the CASP-19 in the self-completion booklet. CASP-19 contains 19 questions on four sub-domains of quality of life. These sub-domains (from which the acronym is derived) are: Control, Autonomy, Self-realisation and Pleasure. The scale has been validated in a previous study of a non-institutionalised population of people aged between 65 and 75 years in the UK. All the sub-domains exhibited good internal consistency (Cronbach α s between 0.6 and 0.8) and the overall scale correlated well with a pre-existing life satisfaction scale (LSI-W) (Hyde et al., 2003). The scale was dichotomised at the mean to divide the sample between those with worse-than-average quality of life and those with better-than-average quality of life.

The first wave of ELSA also included seven questions in the self-completion booklet measuring control and demand. Two of these focused specifically on work, two on home and three on life in general. These questions were derived from questions in the Whitehall II study of civil servants (Marmot et al., 1997). Low control at home was defined as those who strongly or moderately agreed with the statement 'At home I feel I have control over what happens in most situations'. Low control at work was defined as those who strongly or moderately agreed with the statement 'At work I feel I have control over what happens in most situations'. Those who strongly or moderately agreed with the statement 'Considering all the things I have to do at work, I have to work very fast' were defined as having high demands at work. Those who strongly or moderately agreed with the statement 'Considering all the things I have to do at home, I have to work very fast' were defined as having high demands at home.

Section 6.4 reports differences in self-reported general health, long-standing and limiting long-standing illness, symptomatic and diagnosed mental illness and quality of life, as well as measures of demand and control at home and at work. Each of these measures is reported by age and sex (Tables 6A.13 and

6A.14). In addition, self-reported health, limiting long-standing illness and both measures of symptomatic mental health are examined by occupational class (Tables 6A.15, 6A.16 and 6A.17).

Health-related behaviours

The final section of this chapter reports on smoking, alcohol consumption and physical activity. The ELSA interview asked about current smoking habits, including cigarettes and roll-ups, and differentiated between weekday and weekend use. These questions were used in the Health Survey for England. Reports of the number of cigarettes smoked (or the amount of tobacco used, for roll-ups) on weekdays and weekends were used to derive an average number of cigarettes smoked per day. Among current smokers, daily number of cigarettes was banded into light (fewer than 10 cigarettes/day), moderate (between 10 and 19 cigarettes/day) and heavy (20 or more cigarettes/day) use, following the definition used in prior reports of the HSE. Baseline data from respondents at ELSA wave 0 (that is, HSE 1998, 1999 or 2001) were used to assess the prevalence of changes in smoking status since the HSE interview.

Because detailed baseline data on the drinking habits of ELSA respondents is available from the Health Survey for England, wave 1 of ELSA focused on self-reported change in alcohol use from HSE interview. A question on current drinking frequency was also included, in order to differentiate between those who drink most frequently (twice a day or more), those who are less frequent drinkers and those who abstain completely from alcohol consumption.

ELSA questions on physical activity were designed to capture a general picture of the activity status of the older population in England, both leisure-time and, for those still working, occupational. All respondents were asked the frequency with which they took part in sports or activities that were vigorous (for example, jogging, cycling, aerobics), moderately energetic (for example, gardening, walking at moderate pace) or mildly energetic (for example, laundry, home repairs). These items were modified from the Whitehall II Health Questionnaire administered in 1991–93 (Marmot et al., 1991). Examples of activities for each question were those most commonly reported in two population-based cohorts in a similar age group (40–65 years) in the UK arm of the European Prospective Investigation into Cancer (EPIC) cohort and the Ely Diabetes Study (Pols et al., 1997). These were categorised according to the activity's metabolic equivalent (MET) score using a compendium of activity energy costs that was designed to facilitate coding of self-reported activity across studies (Ainsworth et al., 1993; Ainsworth et al., 2000). Activity examples provided to respondents correspond to MET ≥ 6 , MET ≥ 3.5 to < 6 and MET ≥ 2 to < 3.5 respectively for vigorous, moderate and mild activity.

Physical activity at work was assessed using a question from the EPIC Short Physical Activity Questionnaire. Currently employed respondents were asked whether their job was mainly (1) sedentary (most of time spent sitting), (2) standing (most of time spent standing), (3) physical work (involving some effort including handling heavy objects and use of tools) or (4) heavy manual work (involving very vigorous physical activity). This question has been validated against an objective concurrent measure of daily energy expenditure,

using four-day heart-rate monitoring with individual calibration in a randomly selected group of men and women aged 45 to 65 years (Wareham et al., 2003).

A pragmatic approach was used to develop two summary physical activity variables, ensuring that the population would be roughly evenly distributed across the categories to enable sufficient power for statistical analysis and that the derivation of each category was interpretable. The first variable summarises leisure-time physical activity into five ordinal categories (from 0 as sedentary to 4 as active).¹ The second summary variable takes into account on-the-job physical activity and categorises respondents as sedentary or as having low, moderate or high activity.²

Each of the health behaviour measures is reported by age and sex (Tables 6A.18 and 6A.19) and occupational class (Tables 6A.20, 6A.22, 6A.24 and 6A.25). Change in alcohol consumption and cigarette smoking between the HSE and ELSA wave 1 interviews is also reported (Tables 6A.21 and 6A.23).

6.2 Cardiovascular disease

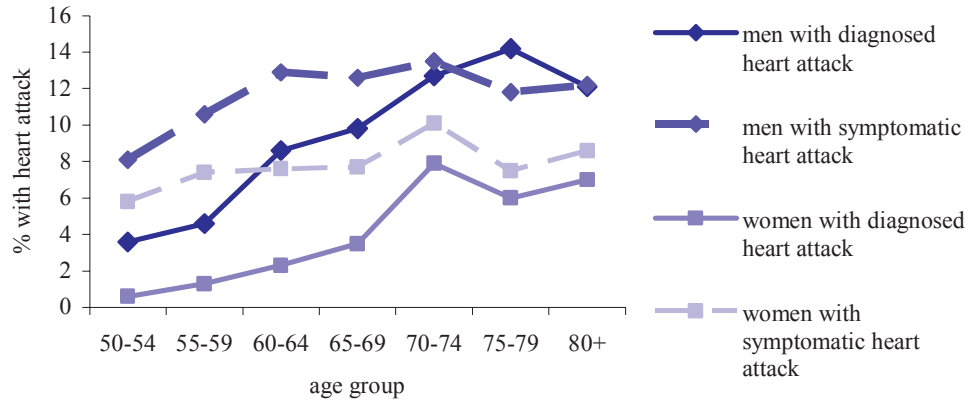
Heart disease

Overall, 8.3% of men and 3.7% of women reported having had a heart attack. In both sexes, prevalence of heart attack increased with age until the 70s, and then declined slightly in the oldest age group. The prevalence of diagnosed heart attack ranged from 3.6% of men and 0.6% of women in the youngest age group (50–54) to 14.2% in men aged 75–79 and 7.9% of women aged 70–74.

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- ¹ Level 0 (Sedentary) No moderate and no vigorous activity.
- Level 1 (Low moderate) Moderate activity once a week or 1–3 times a month and no vigorous activity.
- Level 2 (Some moderate or vigorous) Moderate activity more than once a week and no vigorous activity; OR vigorous activity 1–3 times a month and no moderate activity.
- Level 3 (More moderate or vigorous) Moderate activity once a week or more and vigorous activity once a week or 1–3 times a month; OR vigorous activity once a week and moderate activity 1–3 times a month or never; OR moderate activity 1–3 times a month and vigorous activity 1–3 times a month.
- Level 4 (Active) Vigorous activity more than once a week, with or without moderate activity.
- ² Sedentary Not working or sedentary occupation, engages in mild exercise 1–3 times a month or less, with no moderate or vigorous activity.
- Low Standing occupation, engages in moderate leisure-time exercise 1–3 times a month or never and no vigorous activity; OR engages in mild leisure-time activity at least 1–3 times a month, moderate once a week or less and no vigorous; OR has a sedentary or no occupation and engages in moderate leisure-time activity once a week or 1–3 times a month, with no vigorous activity.
- Moderate Does physical work; OR engages in moderate leisure-time activity more than once a week; OR engages in vigorous activity once a week to 1–3 times a month.
- High Heavy manual work or vigorous leisure activity more than once a week.

Of those reporting that they had had a heart attack, 23.2% of men and 20.1% of women reported having had it in the last two years. These values corresponded to 1.9% of men and 0.8% of women overall. (Figure 6.1, Table 6A.1)

Figure 6.1. Comparing diagnosed and symptomatic heart attack, by age and sex

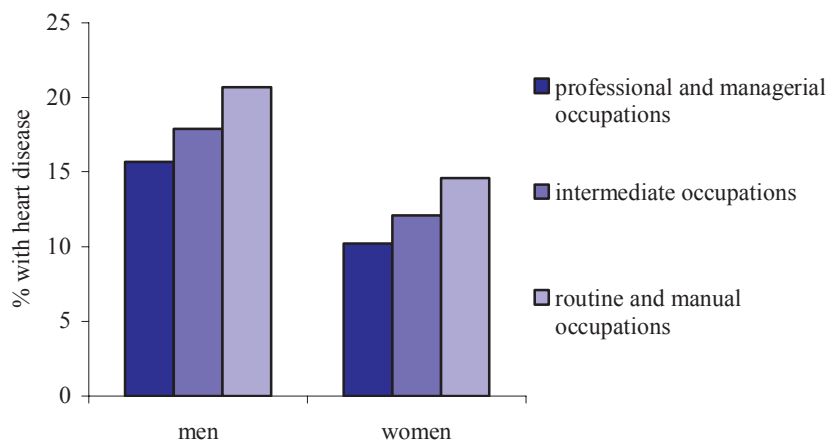


11.1% of men and 8.1% of women reported having diagnosed angina. Men aged 75–79 and women aged 80 or over were the most likely to report diagnosed angina, at 20.8% and 16.8% respectively. (Table 6A.1)

1.4% of men and 1.0% of women were positive for symptomatic severe angina on the Rose Angina Questionnaire. Amongst men aged over 80, the prevalence of symptomatic angina was 1.9%, compared with 1.0% amongst men aged 50–54. The prevalence of symptomatic angina increased with age amongst women and peaked for women aged between 70 and 79 at 1.7%, compared with 0.7% amongst women aged 50–54. 11.3% of men and 7.7% of women were positive for symptomatic heart attack on the Rose Questionnaire. Rates of symptomatic heart attack from the Rose Questionnaire were higher than doctor-diagnosed heart attack. The difference in these rates diminished with increasing age. (Figure 6.1, Table 6A.1)

There was an occupational class gradient in the prevalence of heart disease (diagnosed or symptomatic heart attack or angina) among both men and women. Overall, 15.7% of men and 10.2% of women in the managerial or professional group had heart disease, compared with 20.7% of men and 14.6% of women in the routine or manual group. Looking at differences across age groups, this gradient did not hold for men aged 75+. Amongst men aged 50–59, the prevalence was 8.9% amongst those in managerial occupations compared with 14.3% amongst those in manual occupations. A gradient was also apparent in men aged 60–74 and for women aged 50–59. In the oldest age group, an inverse gradient seemed apparent in men whilst among women the intermediate group were more likely to have heart disease than their counterparts in other groups. (Figure 6.2, Table 6A.2)

Figure 6.2. Heart disease,^a by occupational class of head of household and sex



a. Heart disease is defined as having diagnosed or symptomatic angina or heart attack.

Stroke

Overall, 4.8% of men and 3.7% of women were diagnosed with stroke. There was a sharp rise in the prevalence of stroke with age. The prevalence ranged from 1.4% in those aged 50–59 to 7.8% in those aged over 70. (Table 6A.1)

Hypertension

The prevalence of diagnosed hypertension was similar among men and women (36.1% of men and 38.8% of women). The prevalence of hypertension increased with increasing age. The highest rate of hypertension was for those aged between 75 and 79, at 44.5% for men and 50.8% for women. (Table 6A.1)

There were no occupational class differences in the prevalence of hypertension in men. In women, an occupational class gradient was apparent. Amongst women in routine and manual households, the prevalence of hypertension was 41%, compared with 34% amongst those in managerial households. (Table 6A.3)

Diabetes

Men had a higher prevalence of diabetes than women (8.5% in men and 6.1% in women). Diabetes was most prevalent in men and women aged between 70 and 74 (13.0% of men and 9.9% of women) and showed declining prevalence with additional increasing age. (Table 6A.1)

While an occupational class gradient in diabetes was not generally apparent, an occupational class gradient in diabetes was apparent among women in their 50s. Amongst women with manual occupations in this age group, the prevalence of diabetes was 4.8%, compared with 1.7% amongst those in managerial occupations. (Table 6A.4)

Intermittent claudication

Symptomatic intermittent claudication prevalence was slightly higher among men than among women (6.5% in men and 6.1% in women). The prevalence of intermittent claudication also showed a rise among men and women aged between 70 and 74, and it remained raised with additional increasing age. (Table 6A.1)

6.3 Non-cardiovascular chronic illness

Among chronic physical illnesses that were not cardiovascular diseases, arthritis was the most common, followed by asthma. This section focuses specifically on musculoskeletal illness, respiratory illness and cancer.

Musculoskeletal illness

Here, arthritis, osteoporosis, hip fractures and joint replacements are all considered as musculoskeletal illnesses. As has been seen in previous samples (Bassey, Sayter and Cooper, 2002; Walters, McDonough and Strohschein, 2002), women were much more likely than men to have musculoskeletal-related illnesses. 37.8% of women had arthritis compared with 25.2% of men, and the equivalent numbers for osteoporosis were 7.7% and 1.3% respectively. Also, women in their 80s, and to a lesser extent in their late 70s, were particularly likely to have had a hip fracture. Among people aged 80 and over, 6.2% of women had fractured a hip compared with 1.6% of men. The equivalent numbers among those aged 75–79 were 3.5% and 2.0%. Overall, women were more likely than men to have had a joint replacement, at 8.2% compared with 6.2%. This was true in every age group. (Only respondents aged 60 or over were asked about hip fractures and joint replacements.) With the exceptions of hip fractures and osteoporosis among men, the prevalence of each of the musculoskeletal illnesses considered here increased with increasing age. (Table 6A.6)

Among those who reported diagnosed arthritis, 60.3% of women and 53.3% of men had osteoarthritis while 22.0% of women and 22.4% of men reported having rheumatoid arthritis. 10.8% of women and 13.8% of men with diagnosed arthritis reported having some other kind of arthritis and 10.7% of women and 12.6% of men reported that they did not know what kind of arthritis they had. (Respondents were able to indicate multiple response categories, and so these proportions total more than 100%.) (Table 6A.8)

Among those who reported diagnosed arthritis, 10.9% of women and 11.3% of men aged 60–74 had had a joint replacement. This climbed to 18.4% of women and 20.0% of men among those aged 75 or over. (Again, only respondents aged 60 or over were asked about joint replacements.) (Table 6A.9)

There was a slight social gradient in diagnosed arthritis using the NS-SEC measure of occupational class among respondents in the two younger age groups (aged 50–74). The bulk of the increased prevalence of arthritis was among men and women in manual-class households compared with men and

women in other households. 40.3% of women and 29.7% of men in households in which the head of household was in a routine or manual occupation reported diagnosed arthritis compared with 34.0% of women and 21.0% of men in households in which the head of household was in a managerial or professional occupation. (Table 6A.7)

Respiratory illness

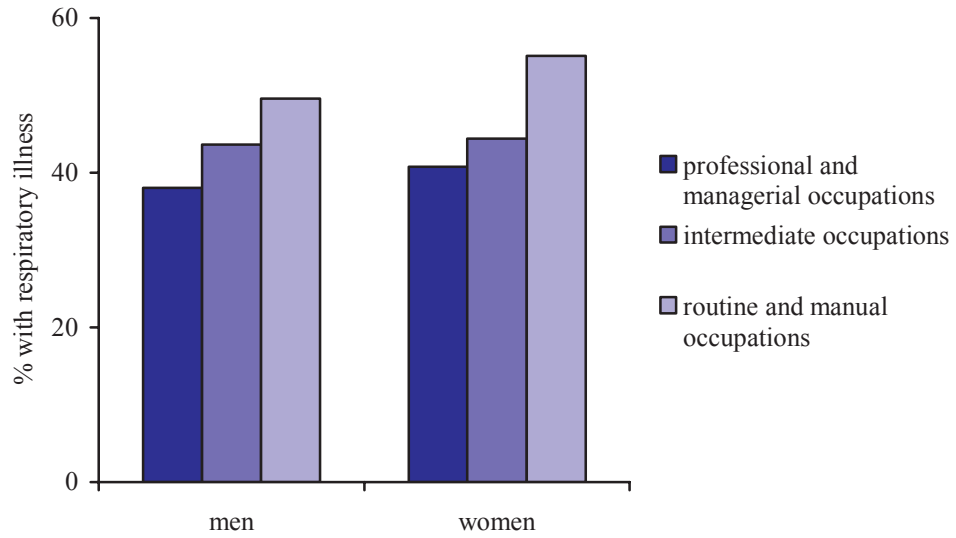
Women were slightly more likely than men to have asthma. Overall, 12.7% of women reported diagnosed asthma compared with 10.1% of men. This sex difference existed for every age group. The prevalence of diagnosed asthma is known to decline with age (Primates, Bost and Dong, 1998), and in the ELSA sample, the prevalence of asthma was highest prior to age 75. For both men and women, the prevalence of diagnosed asthma reached a peak in the 60–64 age group, at 12.8% for men and 15.3% for women. The prevalence of diagnosed asthma was lowest in the oldest age group, at 7.0% of men and 10.6% of women. (Table 6A.6)

For diagnosed lung disease (which was specified as separate from asthma on the show card), after age 75, men were much more likely than women to report having the disease. Among those aged 75–79, 10.5% of men reported having diagnosed lung disease compared with 5.5% of women. The equivalent figures among those in their 80s were 9.8% and 6.0%. For men, the prevalence of diagnosed lung disease increased with age from 3.2% among those aged 50–54 to 10.5% among men aged 75–79, and then decreased slightly in the oldest age group, to 9.8%. Age patterns in diagnosed lung disease were less consistent for women. Women aged 70–74 had the highest levels, at 9.9%, while women in the youngest age group had the lowest levels, at 3.5%. The prevalence did not vary much for women in other age groups, hovering between 5.5% and 7.3%. (Table 6A.6)

There was a clear occupational class gradient in respiratory illness for both men and women. 49.6% of men and 55.1% of women in households in which the head of household was in a routine or manual occupation had a respiratory illness, compared with 38.0% of men and 40.8% of women in households in which the head of household was in a managerial or professional occupation. This relationship was true for each age group, with the exception of men aged 75 or over. (Figure 6.3, Table 6A.10)

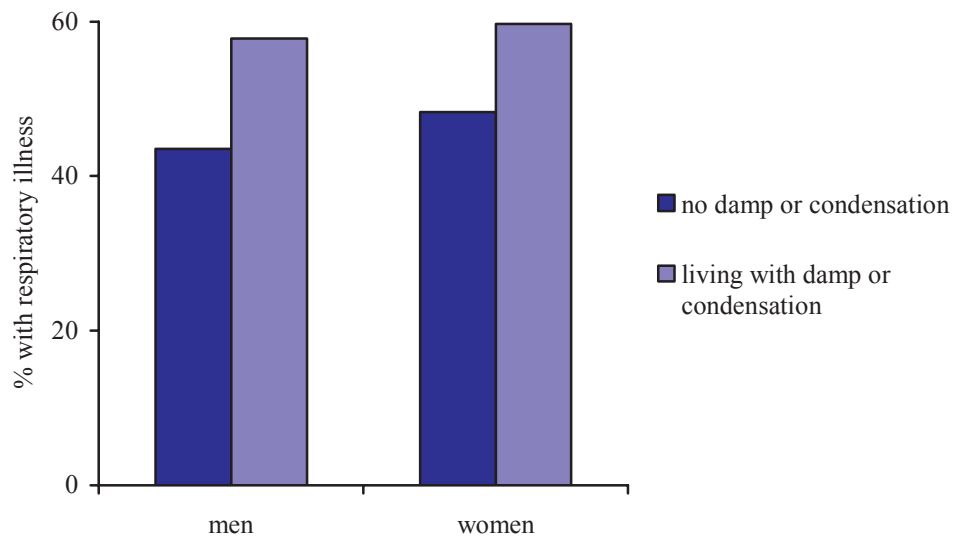
Men and women who lived in houses that had rising damp or condensation problems (as reported by the respondents themselves – see Chapter 8) were more likely to have respiratory illness than their counterparts who did not. 57.8% of men and 59.7% of women who reported living in a house with rising damp or a condensation problem had respiratory illness, compared with 43.5% of men and 48.3% of women who did not report either of these problems with their houses. This relationship held true for each age group. (Figure 6.4, Table 6A.11)

Figure 6.3. Respiratory illness,^a by occupational class of head of household and sex



a. Respiratory illness is defined as diagnosed lung disease or asthma, or showing signs of symptomatic respiratory illness on the MRC Respiratory Questionnaire.

Figure 6.4. Respiratory illness,^a by rising damp or condensation problems and sex



a. Respiratory illness is defined as diagnosed lung disease or asthma, or showing signs of symptomatic respiratory illness on the MRC Respiratory Questionnaire.

Risk of having respiratory illness increased with increasing degree of urbanisation of the area in which people lived. 50.3% of men and 53.7% of women living in urban environments had respiratory illness, compared with 41.5% of men and 47.5% of women living in rural environments. This relationship was true for the two younger age groups. Among those aged 75 or older, it was weaker for men and did not exist for women. (Table 6A.12)

Cancer

Women were more likely than men to have diagnosed cancer, but only prior to age 70, possibly reflecting the incidence of breast cancer which has a younger age distribution than other cancers (Dos Santos Silva and De Stavola, 2002). The age pattern for cancer differed somewhat for men and women. For men, the prevalence of diagnosed cancer increased with age from 1.9% among those aged 50–54 to 9.8% among those aged 75–79, and then dropped slightly to 7.0% in the oldest age group (possibly reflecting cancer-related mortality). For women, the prevalence increased from 4.4% among those aged 50–54 to 7.7% among women aged 60–64. The prevalence of cancer then dropped somewhat for women over their late 60s and early 70s (to 6.7% and 6.5% respectively), and then increased again in the late 70s (9.1%) and the 80s (9.9%). (Table 6A.6)

6.4 General and mental health

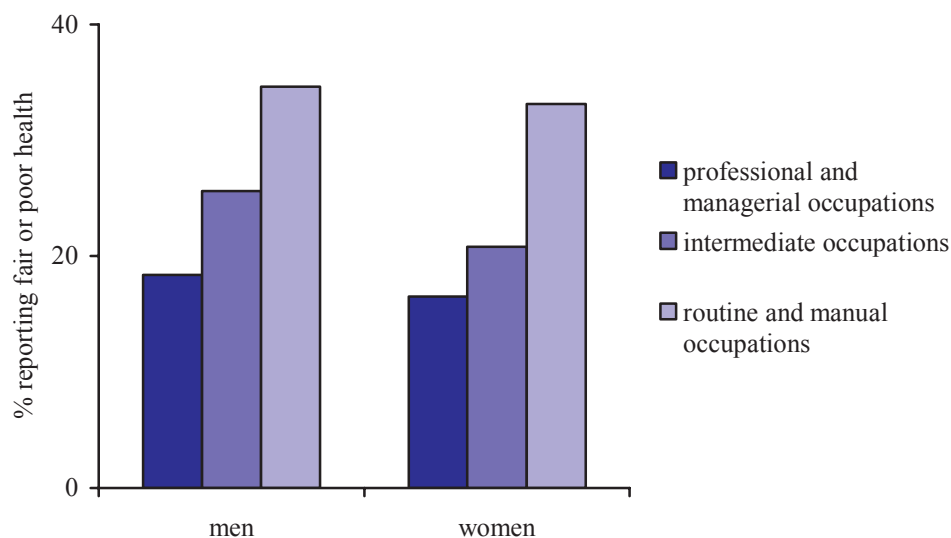
This section reports age and sex differences in self-reported general health, long-standing and limiting long-standing illness, symptomatic and diagnosed mental illness, and quality of life, as well as measures of demand and control at home and at work.

Self-rated health

Differences between the sexes were slight, but older people were more likely to report poor health than people in the younger age groups. 17.8% of women and 17.5% of men aged 50–54 said that they had excellent health, compared with 8.6% and 5.8% respectively of those aged over 80. Conversely, only 4.5% of women and 5.6% of men in the youngest age group reported poor health. This increased steadily with age, reaching 9.2% of women and 12.1% of men in the oldest age group. (Table 6A.13)

For analysis by occupational class, respondents reporting excellent and very good health were combined, as were those reporting fair or poor health, to create three groups. For all age groups and for both sexes, those in the managerial and professional occupational social groups were less likely to report fair or poor health than those in either the intermediate or routine and manual social groups. Overall, 16.5% of women and 18.4% of men in the professional and managerial socio-economic group reported having fair or poor health compared with 33.1% and 34.6% respectively in the manual socio-economic group. This relationship held true for each of the age groups. (Figure 6.5, Table 6A.15)

Figure 6.5. Self-reported fair or poor health, by occupational class of head of household and sex



Long-standing illness

Trends in long-standing illness are similar to the pattern for self-reported health. Differences between the sexes were slight. There were increasing proportions who reported that they suffer from a long-standing illness with increasing age. Just under half (43.0% of men and 44.3% of women) of those aged between 50 and 54 say that they have a long-standing illness compared with 68.2% of men and 67.3% of women aged 80 or over. (Table 6A.13)

Limiting long-standing illness

As with long-standing illness, there were no significant sex differences with limiting long-standing illness, but its prevalence generally increased with increasing age. 24.1% of men and 25.4% of women aged between 50 and 54 reported having a limiting long-standing illness, compared with 53.0% of men and 50.3% of women aged over 80. (Table 6A.13)

Overall, there was an occupational class gradient in reporting a limiting long-standing illness. 25.7% of men and 27.7% of women in managerial or professional groups had a limiting long-standing illness, compared with 40.3% of men and 39.1% of women in routine or manual groups. This gradient was consistent across age groups for women, but less consistent for men. The occupational class gradient was apparent for men in the middle age group (aged 60–74). In the youngest age group (aged 50–59), men in managerial or professional occupations were much less likely to report a limiting long-standing illness than men in other occupations (16.7% compared with 30.9% in intermediate and 33.6% in routine or manual occupations). There was no real gradient in the oldest age group (75 years and over) for either men or women. 48.0% of men aged 75 or over who had worked in routine or manual

occupations reported a limiting long-standing illness compared with 47.0% in managerial or professional and 38.0% in intermediate occupations. (Table 6A.16)

Symptomatic mental illness

GHQ12

Women were slightly more likely than men to score 4 or more on the GHQ12 (14.2% compared with 12.1%). Other studies of older people have also found women to be more likely than men to score 4+ on the GHQ12 (Tait and Fuller, 2002). (Table 6A.14)

Age trends in a score of 4+ on the GHQ12 were similar for both men and women. Although those in the younger age groups were more likely to have a lower GHQ12 score than those in older age groups, respondents in the middle age groups (60–74 years) were the least likely to report 4+ symptoms. For both men and women, those aged 65–69 were the least likely to score 4+ on the GHQ12, at 9.5% of men and 11.0% of women. Men and women aged 80 or over were more likely than younger men and women to score 4+, at 15.9% for men and 18.7% for women. (Table 6A.14)

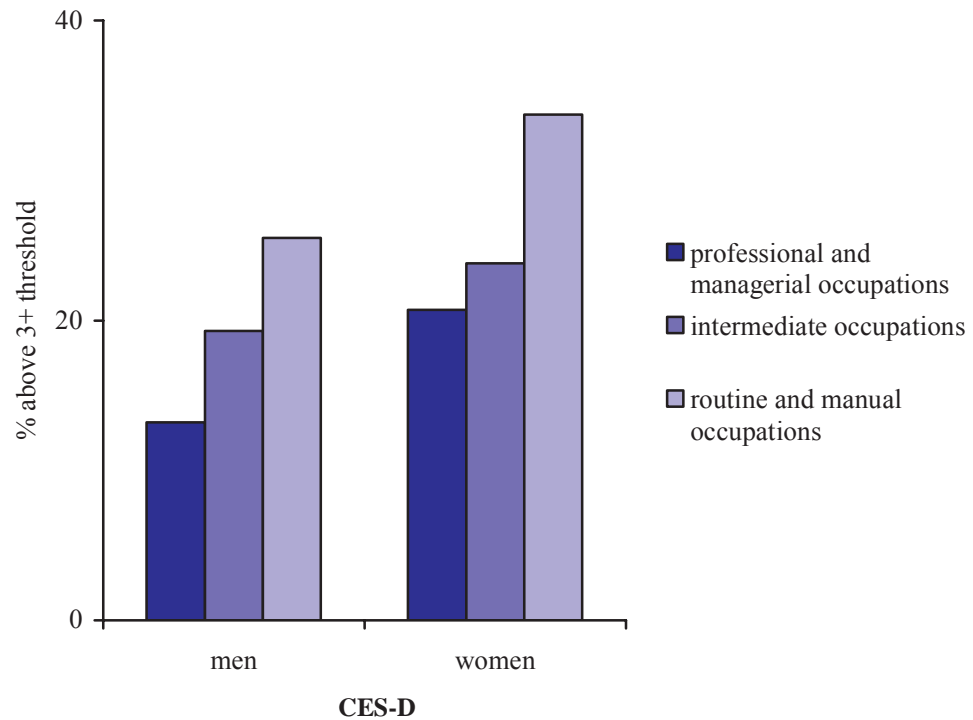
For men, there was a clear occupational class gradient in scoring 4+ on the GHQ12, with men in managerial and professional occupations least likely to score 4+, at 9.6%, and men in routine or manual occupations most likely, at 14.3%, overall. For women, those in manual households were more likely to score 4+ on the GHQ12, at 16.5%, than women in other occupational class groups. There was very little difference between the proportion of women scoring 4+ in intermediate groups, at 11.6%, and the proportion of women scoring 4+ in managerial or professional households, at 12.3%. These relationships were consistent across the three age groups for both men and women. (Table 6A.17)

CES-D

There were clear sex and age differences in the rates of people who reported suffering from depression on the CES-D. In all ages, women were more likely than men to be suffering from depression. 20.1% of men reported three or more symptoms compared with 28.1% of women, overall. Also, rates of depression increased with age for both sexes. 26.4% of men and 37.2% of women aged 80 or over were depressed, compared with 18.7% of men and 25.5% of women aged between 50 and 54. (Table 6A.14)

There were also clear occupational class differences in the rates of people suffering from depression for all age groups. Overall, both men and women in managerial and professional households were the least likely to be depressed, at 13.2% for men and 20.7% for women. Similarly, men and women in manual households were the most likely to be depressed, at 25.5% of men and 33.7% of women (Figure 6.6, Table 6A.17).

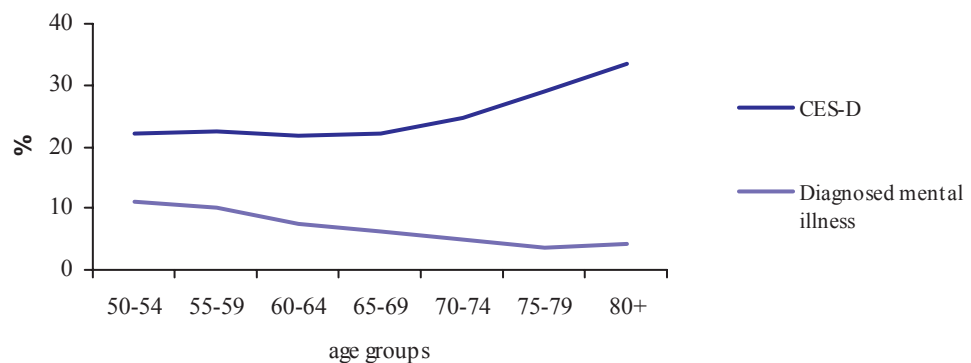
Figure 6.6. Mental illness symptoms, by occupational class of head of household and sex



Diagnosed mental illness

Overall, there was a low prevalence of mental illness in the older population according to self-reports of diagnosed mental illness. The prevalence was highest amongst women and generally declined with age for both sexes. 12.7% of women aged between 50 and 54 reported a mental illness diagnosis of some kind, compared with 9.0% of men in the same age group and 4.9% of women aged over 80. Interestingly, the rates of diagnosed mental illness were much

Figure 6.7. Symptomatic depression and diagnosed mental illness, by age



lower than those for symptomatic mental illness, and the two have opposing relationships with age, with diagnosed rates declining with age and levels of reported symptoms increasing. Other studies have suggested that depression among older persons may go undiagnosed and untreated (Clark, 1992; Harrison, Savla and Kafetz, 1990). (Figure 6.7, Table 6A.14)

Quality of life

There are clear distinctions in the quality of life of different age groups. For both men and women, the proportion reporting a better-than-average quality of life declines swiftly in the oldest age groups, from age 75 for men and age 70 for women. Men aged between 50 and 75 have similar rates of enjoying a better-than-average quality of life, at just over 60%. However, this declines to 38.8% of men aged 80 or over. For women, rates of better-than-average quality of life are similar between 50 and 69 years at around 65%. However, the proportions who report better-than-average quality of life decline to 43.4% of those aged 80 or over. (Table 6A.14)

Control at home and at work

Neither men nor women have high rates of low control at home. Only 9.3% of men and 7.9% of women report having low control at home. Nor is there an obvious age-related pattern for either sex. Around a fifth of both men and women report having low control at work. In general, those in the younger age groups have higher rates reporting low control at work. (Table 6A.14)

Demands at home and at work

Thinking of their home life, 55.0% of women and 45.0% of men reported having high demands at home. For both sexes, there was a general decline in the rates reporting high demands with increasing age. 46.5% of men aged 50 to 54 and 58.6% of women aged 50 to 54 reported high demands at home, compared with 36.4% of men and 37.4% of women aged over 80. (Table 6A.14)

Just under one-fifth of men and 29.1% of women reported high demands at work. The proportion reporting high demands at work declined with age, but more so for women than for men. 40.8% of women and 21.1% of men in the 50–54 age group reported high demands at work, compared with 26.9% of women aged 60–65 and 15.9% of men aged 65–69. (Table 6A.14)

6.5 Health-related behaviour

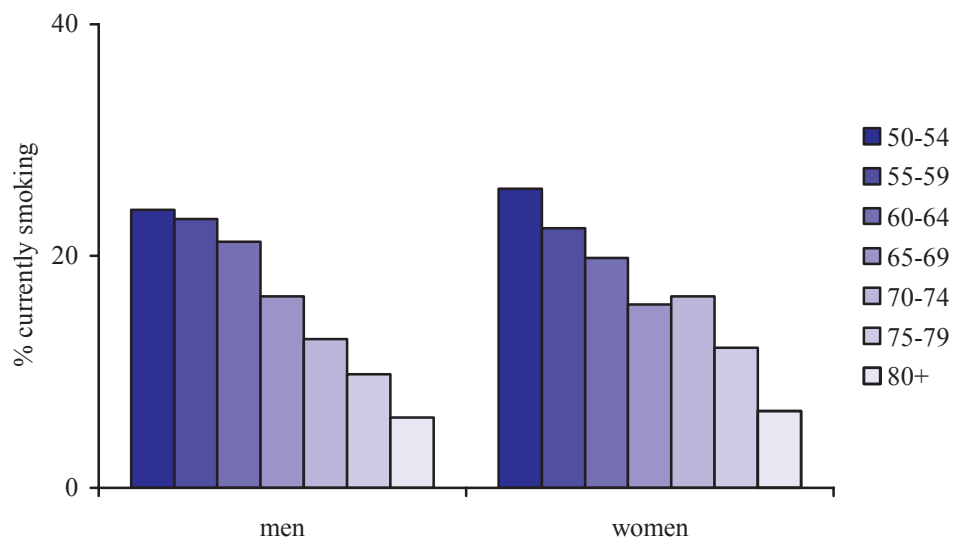
Smoking

Smoking typically shows a decline with age, partly due to selective mortality of heavy smokers. This is true in ELSA data as well. For both sexes, the prevalence of current smokers was highest in the 50–54 age group (24.0% for men and 25.8% for women) and declined generally with age. Between ages 55 and 69, there is a higher prevalence of current smoking among men than

women; in all other age groups, the pattern is reversed. (Figure 6.8, Table 6A.18)

Among smokers, the proportion engaging in heavy smoking (20 or more cigarettes/day) was higher in men than in women across all age groups (40.4% of male smokers compared with 30.5% of female smokers, overall). A linear decline with age in prevalence of heavy smoking is evident after age 60, for both sexes. (Table 6A.19)

Figure 6.8. Proportion of current smokers, by age and sex



When examined by NS-SEC occupational classification, the highest prevalence of current smoking is among those in routine and manual occupations for both sexes (22.8% for men, 22.1% for women, averaged across age groups). However, sex and age appear to affect the relationship between NS-SEC classification and smoking status. For example, among those in managerial and professional occupations, a higher proportion of men than women in the 50–59 age group were current smokers (16.3% compared with 15.9%), but in the 60-74 and 75+ groups, a higher proportion of women in this occupational category are current smokers (9.3% of men compared with 11.8% of women, and 6.1% compared with 9.2%). Among those in routine and manual occupations, there are few differences by sex in prevalence of current smokers, across all age groups. (Table 6A.20)

While the vast majority of respondents (78.9% of men and 79.6% of women) did not smoke at either the HSE or ELSA interviews, a small percentage (3.1% of men and 2.7% of women in the total sample) quit smoking between the two. About 1% of the sample ‘relapsed’ (that is, was a former smoker at HSE and a current smoker at ELSA) and fewer than 1% of respondents took up smoking in between the two data collection points. (Table 6A.21)

Alcohol use

The percentage of men and women in the ELSA sample who drank more frequently than twice a day (5.7% for men and 3.2% for women) was low and did not appear to be related to age. (Table 6A.18)

Compared with other occupational categories, both women and men in managerial and professional occupations had the highest overall frequency of drinking twice a day or more (6.7% for men and 4.3% for women), and this percentage peaked among women aged 75 or over (7.2%) in this group and among men aged 60–74 (8.9%). Individuals aged 75 or over in routine and manual occupations were the most likely to abstain from drinking completely compared with other age/occupational categories within each sex (16.4% for men and 26.0% for women). (Table 6A.22)

The overwhelming majority of respondents (83.2% of men and 88.6% of women) reported no change in drinking habits since they were interviewed as part of the Health Survey for England, with those aged 75 or older being the least likely to have changed. The most common change in drinking patterns was drinking a lot less (7.5% for men and 4.3% for women). Very few respondents (less than 1% for each sex) reported drinking a lot more than they did at HSE. (Table 6A.23)

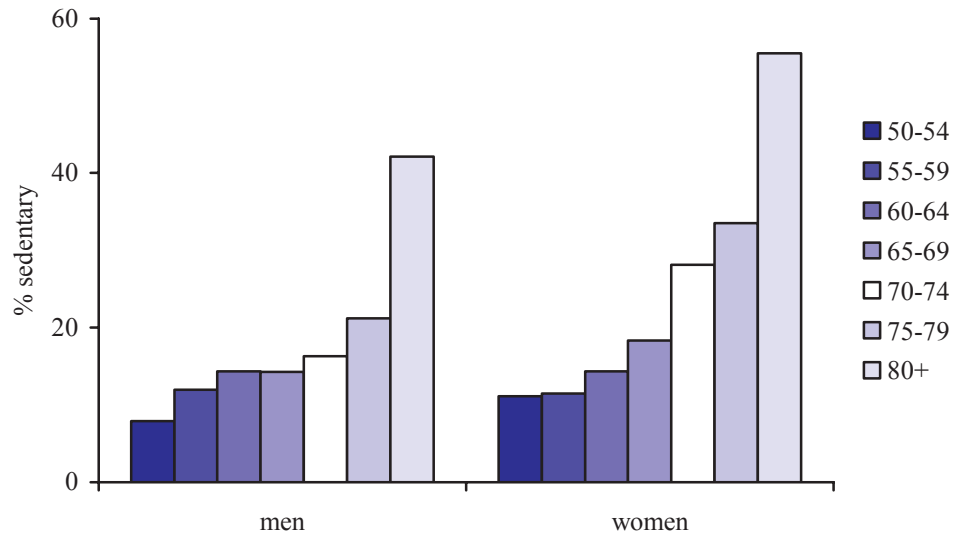
Physical activity

Consistent with past research, the proportion of respondents who were sedentary (defined as never engaging in either moderate or vigorous leisure-time physical activity) increased with each successive age group (though remained roughly equal between 60–64 and 65–69 for men), and was higher among women than men for almost all age groups, the exceptions being 55–59 and 60–64. Among women, 11.1% of those aged 50–54 were sedentary compared with 55.5% of those aged 80 or over. The equivalent figures for men were 7.9% and 42.1%. (Figure 6.9, Table 6A.18)

When NS-SEC occupational class was considered, for leisure-time physical activity only (not counting any on-the-job activity), a general pattern emerged of men in routine and manual occupations being less likely than those in other classifications to have the highest (Level 4) activity level, though the trend across the three-group occupational hierarchy was not linear. There appears to be a linear trend such that among women in manual and routine households, there are fewer very active (Level 4) and more sedentary individuals. (Table 6A.24)

For the summary measure that incorporates information about on-the-job as well as leisure-time activity, patterns were similar to those found for leisure-time activity, with certain exceptions: for example, among men aged 50–59, those in routine and manual occupations were the least likely to be in the highest leisure-time activity category, but using the measure incorporating occupational-related activity, men in professional and managerial occupations were the least likely to be in the high-level physical activity category. For women across age groups, the same linear relationship between household occupational class and activity was evident for this measure as for the exclusively leisure-time activity measure. (Table 6A.25)

Figure 6.9. Proportion of sedentary behaviour,^a by age and sex



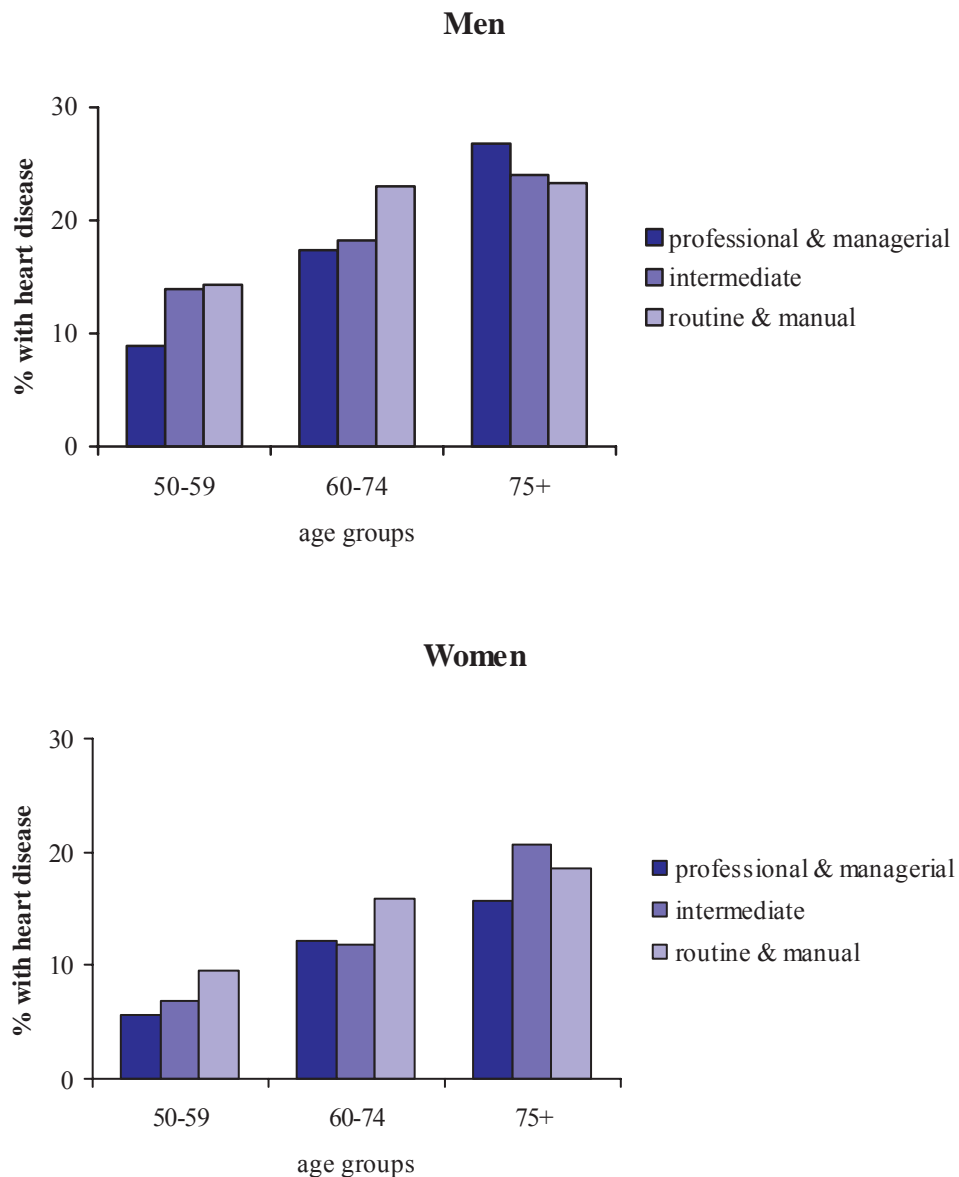
a. Defined as no moderate and no vigorous activity.

6.6 Conclusion

Ageing is often associated with illness and poor health. Health data from the first wave of ELSA suggest that, while this picture is broadly true, a closer examination of the pattern reveals important inequalities. Age trends for different occupational class groups shown in this chapter imply that people in certain occupational classes may reach a state of poor health a decade or two earlier in their lives than their peers in more advantaged social positions. For example, Table 6A.16 shows that in the 50–59 age group, men in routine and manual occupations were twice as likely to have a limiting long-standing illness as men in professional and managerial occupations, while, among men aged 75 or older, there was very little difference between the two groups in the proportions suffering from a limiting long-standing illness. Looking at the table slightly differently, around a third of routine and manual men in the 50–59 age group report a limiting long-standing illness, while rates for men in the professional and managerial groups remain much lower than this until they get beyond age 75 (for example, only just over a quarter of professional and managerial men aged 60–74 report a limiting long-standing illness). A similar pattern appeared for women, although to a lesser degree. These occupational class differences in age trends were also shown for heart disease (see Figure 6.10), diagnosed hypertension (although not for women), diabetes, arthritis and respiratory illness (again, not for women). It appears that while the risk of ill health increases after age 75 for people in professional and managerial groups, this increased risk appears much earlier in life for people in routine and manual social groups. Of course, in cross-sectional data, identifying underlying reasons for these socioeconomic differences in age trends is not possible. For example, do they relate to an early ageing effect, or to selective survival, or to a reduction in socioeconomic influences on health at older ages?

These are the kinds of questions about health and ageing that ELSA will be able to address with longitudinal data in the future.

Figure 6.10. Proportion with heart disease, by occupational class of head of household, age and sex



In some respects, occupational class differences for the age trends of health-related behaviours mirrored the patterns seen for illness. For instance, the prevalence of sedentary behaviour increased with age more rapidly for men and women in routine and manual social groups than for those in professional and managerial groups (see Tables 6A.24 and 6A.25). Examining cross-sectional data, it is not possible to know whether earlier onset of poor health in particular social groups is causing decreases in physical activity, or whether increased sedentary behaviour at earlier ages leads to early onset of poor health. Future waves of ELSA will allow the direction of such relationships to

be investigated. Longitudinal data will also be key for understanding age trends in disease outcomes, such as the decrease in diagnosed mental illness with age shown in Table 6A.14. Such a decrease might be related to cohort effects – for example, people who are now aged 75 or over may have been more likely to have had positive life experiences that increased their psychological well-being. The decrease could also be due to period effects – for example, as a result of the rate of diagnosis for mental illness being low in particular times. Or the decline in rates may be attributable to a real decline in mental illness with age.

Finally, it is worth highlighting the occupational class differences in alcohol consumption among older people shown by wave 1 ELSA data (Table 6A.22). Men and women in manual households were much more likely than their professional counterparts to abstain from drinking alcohol or to drink on special occasions only. Conversely, men and women in professional households were much more likely to drink moderately, in line with the pattern that is now thought to be protective against chronic illness.

These occupational class and age variations in health and health-related behaviour shown by the first wave of ELSA suggest important areas for future work to improve our understanding of social differences in health and ageing. Future waves of ELSA will provide opportunities for investigating cohort, period and time effects, as people age, so that the complex nature of the relationships presented here can be better understood.

Acknowledgement

The authors gratefully acknowledge the assistance of Dr Kirsten Rennie with the derivation of the physical activity scales and with providing background information on the physical activity items.

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