

4. Self-reported physical health

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Key points arising from this chapter are:

- Seventeen chronic conditions were considered, all of which have potential to increase difficulties in daily function among sufferers. A quarter of participants recorded at least one additional diagnosis between the interviews in 2002–03 and 2004–05 (median time lapse: 27 months).
- By the end of the second wave of fieldwork, half those in their early 50s in 2002–03 were without diagnosis of any of these conditions but only one-in-ten of those aged 80 years or over.
- Women had an advantage in prevalence and a small advantage in incidence of diagnosis of at least one of seven cardiovascular disease (CVD)-related conditions, but this did not apply when all 17 conditions were considered together.
- Of four CVD-related conditions and six other physical diseases analysed separately, percentage incidence of diagnosis was particularly high for cataracts among those aged 75 and over in 2002–03 (15% of men and 22% of women without previous cataracts) and for arthritis among women aged 60 and over (one-in-eight of those without the condition previously).
- Experience of chest pain symptoms was not strongly age-related.
- Experience of troubling pain, and, more specifically, of severe pain in the back, hip, knees or feet, was not age-related.
- Balance problems and dizziness were considerably more common the older the person (for example, three-out-of-five women aged 80 and over experienced one or both of these at least sometimes, compared with only one-out-of-five women in their 50s).
- Older age was also associated with greater likelihood of multiple falls.
- Falls may affect life more if one lives alone. More people aged 60 to 74 living alone experienced them than their counterparts living with others. This was not true of older people still living in the community.
- Among people aged under 75, greater wealth was accompanied by greater health, as measured in this chapter. This applied to incidence of at least one disease, being free of diagnosis of the 17 conditions, and experience of chest pain, of balance problems or dizziness, of severe pain and of specific severe pain at two or more specific parts of the body (back, hip, knee, foot).

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- Once aged at least 75, associations between health indicators and wealth largely disappeared. They remained for women for incidence of CVD-related conditions, experience of angina symptoms, experience of severe pain generally and experience of severe pain in multiple specific parts of the body.

This chapter has two main themes: first, major changes in health status and, second, the prevalence of certain symptoms that often precede or accompany serious illness or disability.

Diseases of the circulatory system (diseases affecting the circulation of the blood in the heart, arteries, capillaries or veins) are the most common causes of death in people aged 75 and over (National Statistics, 2005); for deaths among those aged 50 to 74, neoplasms and circulatory diseases account for similar proportions of deaths.

Various forms of cardiovascular-related diseases are covered in a section on diagnosed disease. These are angina, heart attack, stroke, heart failure, abnormal heart rhythm and heart murmur. Participants are also asked about diagnosed high blood pressure or high cholesterol. The interview includes questions to indicate whether people may have experienced angina or myocardial infarction, even if they have not been diagnosed as such. Responses to these are contrasted with the reports of diagnosed conditions. An important common factor for these two conditions is that there are procedures for preventing them occurring in the first place and for alleviating them and preventing recurrence. Angina pectoris is experienced as a crushing sensation in the chest and is most often caused by thickening of the arteries leading to the heart. It results in heavy burdens for patients in terms of disability and for society in terms of healthcare costs (McDermott, 2001). Each year, more than 20,000 people in the UK develop angina for the first time (Department of Health, 2000, chapter 4). Approximately 300,000 people die of a heart attack or myocardial infarction each year in the UK (Department of Health, 2000, chapter 3), but many survive, and the results reported below for diagnosed disease and symptoms refer to people who have survived. The chances of further heart attacks and disability can be reduced for many people by changing habits such as smoking, poor diet and inactivity and by taking prescribed medication such as aspirin, beta blockers and cholesterol-lowering drugs. This group of survivors is sizeable and important in terms of opportunity to influence the burdens of illness and healthcare.

The interview also asks people about some serious forms of chronic disease that are not of the cardiovascular system. The ones mentioned in this chapter are musculoskeletal (arthritis and osteoporosis), cancers, respiratory diseases (chronic lung disease other than cancer, and asthma) and eye diseases.

There are various forms of arthritis, the two most common being rheumatoid arthritis and osteoarthritis. Joint pain is the dominant symptom of osteoarthritis, which may involve damage to various parts of the joint (hip, knee, hand etc.). It is the second most common cause of work disability in the US (Arden and Nevitt, 2006). The causes of rheumatoid arthritis are still the subject of uncertainty but there is evidence of a genetic component (Worthington, 2005). It is an inflammatory condition that is more disabling than osteoarthritis but less common (Woolf and Pfleger, 2003). People with

rheumatoid arthritis are more prone to cardiovascular disease than average (Solomon et al., 2003). Osteoporosis is characterised by degeneration of the bones, and women of advancing years are prone to it, partly because of reduced oestrogen levels (Woolf and Pflieger, 2003).

The respiratory diseases are grouped under generic headings. Chronic lung disease can take a number of forms such as chronic bronchitis, chronic obstructive pulmonary disease (COPD) and emphysema. Smoking and environmental hazards are major risk factors for chronic lung diseases. Early life factors are also implicated (Anto et al., 2001). Only asthma is separated out; it is a disease of all ages (Bousquet et al., 2005), whereas COPD tends to become more prevalent with older age. These diseases can have a major impact on daily life by reducing mobility, making people anxious (Ho and Jones, 1999), reducing participation in social activities and increasing absence from work.

Chronic eye diseases can also be disabling. The causes of cataracts, the most common condition, are still the subject of debate. The resulting blurred vision can interfere with daily life – such as driving, reading and cooking – but most cataracts can be treated successfully (RNIB and RCOphth, 2001).

Symptoms covered in this chapter include balance, dizziness and falls. ‘Problems with your balance’ were not defined for respondents but can be a consequence of physical defects in various parts of the body, e.g. disorders of the balance organs in the ear, faulty visual cues, stiff joints or weak leg muscles. The sense of imbalance can trigger other symptoms such as anxiety, fatigue, headaches, neck pain and difficulty in concentrating. Imbalance can also result in falls, with potential major consequences, as described below.

Common causes of falls are muscle weakness, balance problems and sway when walking, and cognitive impairment (Abt Associates Inc., 2004). Environmental factors include hazards to trip over. Some medications (possibly including those to lower blood pressure) can lead to physiological changes that increase the risk of falling (Riefkohl et al., 2003). Certain cardiovascular conditions (including abnormal heart rhythm) may more directly play a part as well. Fear of falling is in itself a risk factor, partly because it leads people to become less physically active and hence their muscles become weaker. Slow walking speed (reported in Chapter 6) may be an indicator of vulnerability to falling (Bueno-Cavanillas et al., 2000), which is exacerbated by reduced activity after having a fall. Once a person has started experiencing falls, their chance of future falls greatly increases (Abt Associates Inc., 2004). Although most falls do not result in injury, a fall-related injury can have serious long-term implications, such as physical disability, entry into long-term care or other dependency, and psychological problems (Department of Health, 2001, Standard 6). If the faller has osteoporosis, they are at high risk of bone fracture (Department of Health, 2001), with resulting threats to their independence. After an osteoporotic fracture, half can no longer live independently (Department of Health, 2001, Standard 6). There have been extensive reviews of interventions to prevent falls in elderly people, which show that there is no quick solution but that there are ways of reducing risks (Gillespie et al., 2003).

Pain is a complex phenomenon that crosses the boundaries between physical damage to the body and psychological states that affect the intensity of pain that people feel and the effects it has for them. For example, there is evidence that depressed people are more likely to develop chronic back pain (Currie and Wang, 2005). In a study of older people with knee pain, the likelihood of self-reported disability and the ability to climb stairs 30 months after interview were most strongly related to knee strength and to self-efficacy (a measure of confidence in the ability to climb stairs) at the start of the period (Rajeski et al., 2001). As mentioned above, joint pain is a major symptom of arthritis. Chronic pain will often lead to a change in behaviour, such as restriction of physical activity, which can then affect daily functioning. Being overweight or obese can exacerbate the risk of disability (Lamb et al., 2000).

The main analyses compare incidence of disease or prevalence of symptoms by sex and age and then by age-specific wealth quintile, described in Chapter 1. Analyses of change are confined to core members interviewed in person at both wave 1 and wave 2; analyses of prevalence at wave 2 refer to core members interviewed in person at wave 2. The only difference between these two sets was that the former excluded a small number of people interviewed by proxy in 2002–03 but not in 2004–05. The analyses presented here show associations between age or wealth and various health indicators. They do not necessarily indicate cause. It is beyond the scope of this report to explore thoroughly which factors are responsible for age and wealth differences that are found.

4.1 Mortality

Methods

The mortality data have been described in Chapter 2. In this chapter, we divide the deaths into those from circulatory diseases and those with other causes. Deaths from circulatory diseases were defined as those in chapter I of ICD-10.¹ These have been separated out because there is a special emphasis on cardiovascular diseases in ELSA and they were expected to be the only group with sufficiently high numbers of deaths to separate out (190 were attributed to this cause). There were 48 deaths for which cause was unknown, mainly because these individuals had not been marked up with the Office for National Statistics (ONS) and their deaths were reported by the field staff. In total, 5.5% of the core participants at wave 1 had not given permission to be followed up for information from ONS, but for most of these, fact of death would become known through the field operations.

Results

There is a sharp increase in death rates with age (as a percentage of core members who took part in 2002–03) both for the circulatory diseases and for

¹The international classification of diseases is the standard classification produced under the aegis of the World Health Organisation. The 10th version was endorsed by the 43rd World Health Assembly and came into use in 1994 (website accessed 5 June 2006: <http://www.who.int/classifications/icd/en/>).

the heterogeneous group of other causes (Table 4A.1). Circulatory diseases accounted for nearly half of deaths of known cause among people aged 75 and over in 2002–03. There was a steeper negative trend of circulatory deaths than of other deaths with increasing wealth for men, but not for women (Table 4A.2). Even in the poorest quintile of wealth for women aged under 75 in 2002–03, circulatory deaths were still rare.

Death rates from ischaemic heart disease are lower the higher the education level among people aged 60 years and over in several northern European countries, including England and Wales, but not in Spain or Italy (Avendano et al., 2006). The country variations are attributed in part to differences in socio-economic patterns of behaviours such as smoking and diet. It is argued that cardiovascular risk is influenced by the cumulation of socio-economic and behavioural factors throughout the life course (Davey Smith and Hart, 2002).

4.2 Absence and incidence of selected chronic diseases

Methods

In each wave of the survey, respondents are asked to report certain chronic diseases that have been diagnosed by a doctor. The second and subsequent time that they take part, an individual is reminded of previous reports of diagnosed disease, given the opportunity to disagree with these, and asked for additional conditions diagnosed since the last interview. In this chapter, percentage incidence of disease is calculated from the numbers who reported a disease anew in the second wave of fieldwork as a percentage of those who did not list the disease at the first wave. The base excludes anyone who did not answer the question at either wave. The diseases reported in this chapter are the ones that were most prevalent and/or had the greatest incidence of new cases; others are not reported because the small numbers make estimates imprecise. In the main analyses, no account is taken of the small number of people who, at wave 2, disputed that they had ever had the disease or those who, when they reported the new diagnosis, gave a date prior to the first interview.

The main indicator of incidence of cardiovascular-related (CVD-related) diseases omits high blood pressure and high cholesterol as these are often asymptomatic and are arguably risk factors for disease rather than the disease itself. Moreover, high cholesterol was only listed as a specific condition in wave 2 (2004–05) and it is likely that in wave 1 (2002–03) it was under-reported as people would have had to include it as an ‘other’ cardiovascular disease. The seven categories of diseases included in this grouping are: angina; myocardial infarction; heart failure; abnormal heart rhythm; heart murmur; diabetes; and stroke. There is a code for ‘other’, but as far as possible these are recoded into the listed conditions; the small heterogeneous group left has been omitted from the analyses. There are also separate analyses for ischaemic heart disease, i.e. angina and myocardial infarction combined, abnormal heart rhythm (often atrial fibrillation), diabetes and stroke.

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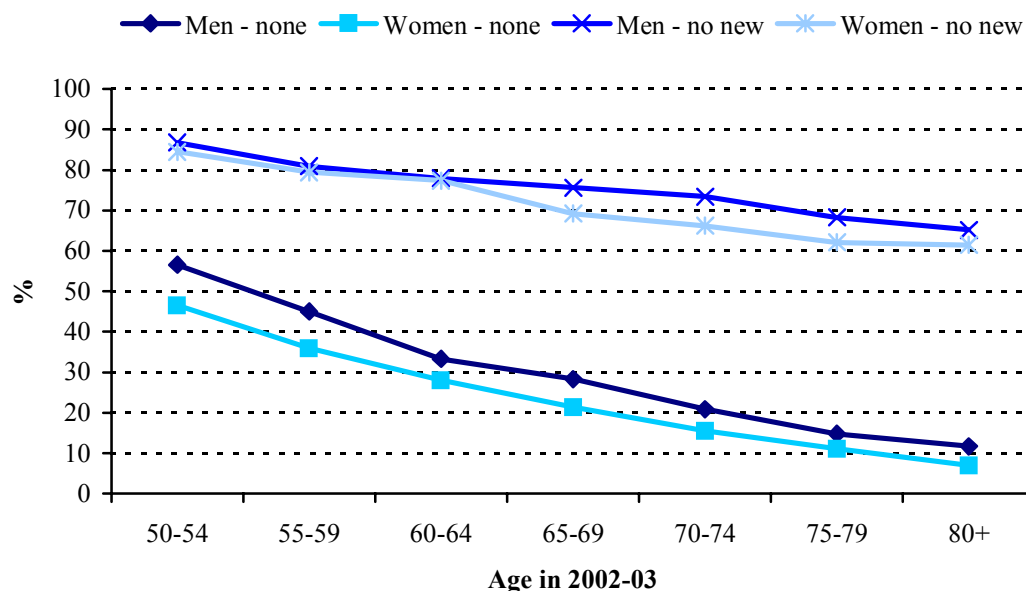
The main chronic eye diseases recorded in the interview are glaucoma, diabetic eye disease and cataract. Of these, the incidence of cataract is most common. ELSA records whether or not the respondent has at least one cataract and does not measure specific cataracts, so does not distinguish whether the person with ongoing cataracts is referring to the same cataract as in the previous wave or a new cataract in the other eye, or re-occurrence of a cataract.

Six other groups of diseases are labelled 'other chronic physical disease'. These are the two musculoskeletal categories of arthritis and osteoporosis, the two respiratory disease categories of lung disease and asthma, cancers and Parkinson's disease (the last being uncommon still in this group and not analysed separately at all). Arthritis in this chapter includes all forms of arthritis. Although cancers are a major cause of mortality, they have not been a major focus of the ELSA study – the incidence described here compares those with some form of cancer with those who had none. ELSA does not systematically record developments of secondaries or new primaries.

Incidence by sex and age

One-quarter of the sample reported at least one new condition at their second interview that they had not reported at the first. The likelihood of doing this was age-related, being around one-in-seven of those in their early 50s in 2002–03 and one-in-three of those aged 75 and over (Table 4A.3 and Figure 4.1).

Figure 4.1. Percentages without selected diseases by 2004–05 and percentages without additional selected diseases in 2004–05



The base numbers for Tables 4A.4–4A.6 concerning incidence are the subsets who did not report the specified conditions in their first ELSA interview in 2002–03 but did answer the question.

The time lapse between interviews ranged from 22 to 38 months, with a median of 27 months. Logistic regression models were run to check whether

the patterns by age and sex would be different if adjusted for lapsed time (not shown). The adjustment was slight and has not been made in the tables presented here.

For the broad groups of diseases, there were positive gradients with age in percentages with at least one (additional) diagnosis by the second wave of fieldwork (Table 4A.4). This was particularly steep for eye conditions among women. There was one anomaly: a fairly low percentage of men aged 80 years and over reported a new CVD-related disease. As higher percentages of older age groups already had at least one disease by 2002–03, one can infer that comorbidity was also tending to increase with age.

Incidence of specific conditions was analysed by broader age groups, as the numbers of incident cases were too small for a finer breakdown. The base numbers were larger than for the generic groups of conditions because they only excluded those with the specific disease at wave 1 and those for whom their status at either wave was uncertain (typically small numbers). For most specific conditions, 90% or more of participants in both waves were included in the base for Table 4A.5. The exceptions to this were ischaemic heart disease (85% of men). Even in the oldest age group, previous conditions ruled out only around one-in-ten of the sample for diabetes, stroke and abnormal heart rhythm. However, among men aged 75 years or over at wave 1, one-in-four were excluded for ischaemic heart disease.

Of the CVD-related diseases among men, the incidence of stroke showed a clear positive gradient with age and the incidence of angina or myocardial infarction was also greatest in the oldest age group (75 years and over) (Table 4A.5). However, the oldest age group did not have the highest incidence percentage for diabetes or abnormal heart rhythm. Among women, the oldest age group had the highest incidence of all four CVD-related disease groups but the difference between the younger two age groups was small in absolute terms.

One key message to emerge is that incidence rates for the circulatory diseases were not dissimilar for men and women, although the women had an overall advantage, taking into account lesser prevalence of prior disease as seen in Table 4A.7.

With respect to other specific diseases, 90% or more of men in both waves were included in the base for Table 4A.6 for all but arthritis (75%). Among women, 90% or more of the sample were not yet diagnosed by 2002–03 with respect to cancer, osteoporosis and lung disease, and between 80% and 90% for cataract and asthma. However, only 61% were arthritis-free. For arthritis and cataract, the percentages free of diagnosis at the first interview were much lower at the older end of the age spectrum, being about two-thirds of men and half of women aged 75 years and over for arthritis, and about 70% of men and 57% of women for cataract.

Incidences of the musculoskeletal diseases over the 27-month period were greater among those aged 75 and over than among those in their 50s in 2002–03, but the respiratory conditions did not show a consistent pattern by age and the numbers reporting new disease in this short period were low. The oldest group of men were most likely to have had chronic lung disease diagnosed,

however. Fairly small percentages reported first-time cancer diagnoses even in the oldest age groups. Cataracts, on the other hand, showed steep age gradients such that only 2% of those aged under 60 were diagnosed but 15% of men and 22% of women aged 75 or over had received the diagnosis between the two waves.

Absence of selected diagnoses

Table 4A.7 and Figure 4.1 show the percentages of people who had not reported diagnoses of groups of disease at either the first or second rounds of interviewing. The groups cover the conditions noted in the previous paragraphs. As expected, the older age groups were much less likely to be free of diagnoses than the younger ones. Although women appeared to have an advantage for the CVD-related diseases, they did not for the other categories. Women aged 75 or over were markedly less likely to be free of eye disease than their younger counterparts and than men of a similar age. Even though those aged 75 and over had avoided premature mortality and were still living in the community, only around one-in-ten did not report any of the diagnoses covered in this table.

Incidence and absence of selected diagnoses by age-specific wealth

We analysed the number of new conditions reported between the two rounds of fieldwork, as a percentage of everyone who took part, not just those free of the diseases at the first wave (Table 4A.8). We found that the richest men and women were most likely to have escaped new diagnoses if they were aged under 75, but they did not have a substantial advantage over their poorer counterparts in the oldest age group. Among women the proportions reporting two or more new diagnoses in 2004–05 were greater if they were aged 75 or over in 2002–03 than if they were younger, but there was not a clear wealth gradient in the size of this difference between age groups.

Table 4A.9 shows that the richest had advantages in not having been diagnosed with any of the seven CVD-related diseases. In general, the poorest are least likely to be without a diagnosis. These are cross-sectional analyses so the difference between age groups may not reflect the progression of disease through time (successive waves of fieldwork can show this). Among the three richest wealth quintiles, the men aged 75 years and over are substantially less likely than those aged 60 to 74 to be free of these diagnoses. Among the two poorest quintiles, absence of such diagnoses is similar in these age groups. The consequence is that the wealth gradient has disappeared among the oldest age group. This would be consistent with delayed onset for the more materially advantaged men. For women, there is still a wealth gradient in percentages without these CVD-related diagnoses at age 75 and over. Nevertheless, among the richer groups the age difference in prevalence is greatest between the two oldest groups, again consistent with a delayed onset (e.g. in the richest quintile, 87% of 50-to 59-year-olds, 80% of those aged 60 to 74 and only 63% of those aged over 74 were without diagnoses; among the three poorest quintiles, there was a substantial drop in the percentage disease-free between the younger two groups).

On the other hand, for the group of ‘other’ diseases (musculoskeletal, respiratory, cancer and Parkinson’s disease), the only substantial steady gradient of increasing advantage with greater wealth appears among men aged 50 to 59 years (Table 4A.10). The richest men and women still have an advantage over the poorest at age 60–74, but there is not a steady progression across the quintiles. Differences between the wealth quintiles are relatively minor among the oldest group.

4.3 Symptom indicators of angina and possible heart attack

Methods

Two standard sets of questions were used to ascertain current experience of symptoms that could be indicative of cardiovascular disease. The Rose Angina Questionnaire (Rose and Blackburn, 1986) asks about experience of chest pain on walking and classifies people into none, grade 1 or grade 2.² It has been validated against clinical diagnosis (Bass, Follansbee and Orchard, 1981; Blackwalder et al., 1981). All participants were asked these questions.

Based on the Rose Angina Questionnaire, participants were classified as having had a possible myocardial infarction (heart attack) if they reported having ever had an attack of severe pain across the front of the chest, lasting for half an hour or more. This is referred to in this chapter as ‘possible myocardial infarction’.

People whose situation was not clear because they said that they never walked or could not walk were excluded from the analysis of angina (236 people).

Symptoms experienced: variation by age and sex

Six per cent of both men and women fulfilled the criteria for angina, with a quarter to a third of these having the more severe form (Table 4A.11). For men, there is a trend of increasing prevalence with age, ranging from 3% of men aged 52–54 years to 8% of those aged 75–79 years, with the oldest age group having a lower reported prevalence at 6%. The two youngest female

²Rose defined angina as a chest pain or discomfort with the following characteristics:

1. the site must include *either* the sternum (any level) *or* the left arm and left anterior chest (defined as the anterior chest wall between the levels of clavicle and lower end sternum);
2. it must be provoked by either hurrying or walking uphill (or by walking on the level, for those who never attempt more);
3. when it occurs on walking it must make the subject either stop or slacken pace, unless nitroglycerin is taken;
4. it must disappear on a majority of occasions in 10 minutes or less from the time when the subject stands still.

Grade 1 angina occurs when the subject only experiences the chest pain when walking uphill or hurrying.

Grade 2 angina occurs when the subject experiences the chest pain even when walking at an ordinary pace on the level.

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groups have slightly lower prevalence than older women, but otherwise there is not a clear trend with age. Prevalence of possible myocardial infarction is greater for men than for women and greater than for angina, being 10% of men and 6% of women (Table 4A.12). There is not a continuing upward trend of increasing prevalence with age. For men, possible myocardial infarctions were most common among those aged 70–79 years and least common among those aged 52–54 years. The age pattern for women is not straightforward.

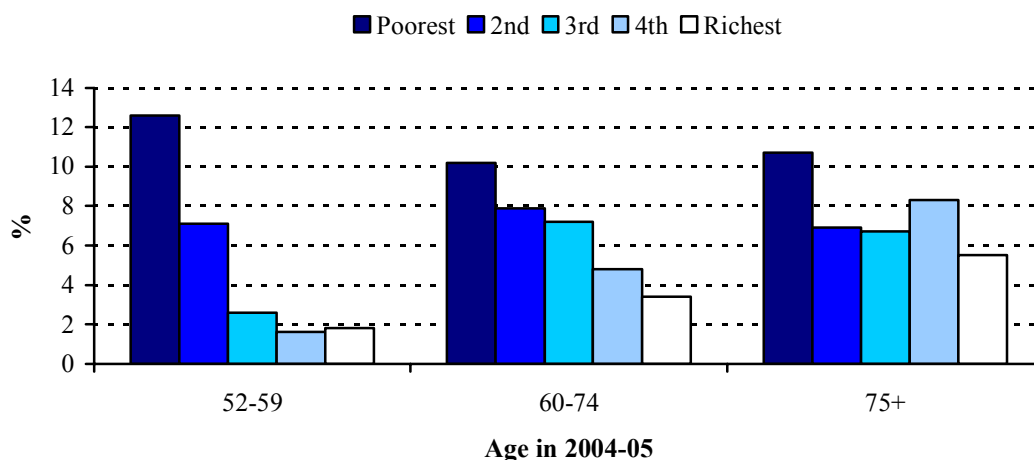
It is noticeable that the oldest age group did not have the highest prevalence of these symptoms. This group would be most affected by the exclusion of people in long-term care and also by prior deaths of those who had cardiovascular disease. These omissions would tend to reduce the prevalence observed in our sample. The prevalence of angina may also be underestimated as a result of excluding those who never walk or cannot walk; this group accounted for 8% of those aged 80 years or over compared with 3% or less of others.

Symptoms experienced: variation by age-specific wealth

For all except the oldest men, there is a decreasing tendency to report angina symptoms with increasing wealth quintile (Table 4A.13 and Figure 4.2). The largest difference between the richest and the poorest in absolute terms is found among men in their 50s, suggesting that the poorest wealth quintile are at a marked disadvantage in developing symptoms earlier in life. Among the oldest men, the pattern of prevalence does not show a consistently increasing advantage with increasing wealth, although the poorest fared worst.

Chest pain symptoms of possible myocardial infarction also show stronger wealth gradients at younger age groups, but were more common in the richer quintiles than angina, making the relative advantage of the wealthiest less clear-cut (Table 4A.14). For men and women aged 75 and over, there was variation by wealth but no straightforward pattern.

Figure 4.2. Percentages reporting angina symptoms in 2004–05, by age and age-specific wealth quintile: men



Comparison between symptoms and diagnosis

Those reporting symptoms that fulfilled the criteria for the Rose Angina Questionnaire and possible myocardial infarction were compared with those who had said, either in 2002–03 or in 2004–05, that they had been diagnosed with these conditions by a doctor at some point in their life. Around half of those with symptoms of angina did not report diagnosis (Table 4A.15). To put this in context, the total numbers with possible angina that was undiagnosed comprised only 3% of men and women in the sample. This was a smaller number than those who had had a diagnosis and did not currently have symptoms (8% of men and 6% of women), perhaps partly because of control by treatment (not explored further here).

The same analysis was undertaken for myocardial infarction (Table 4A.16). As with angina, substantial proportions of those who did report symptoms had not reported a diagnosis: 55% of the men and 76% of the women. These possibly undiagnosed cases accounted for around 5% of the whole sample. Similar percentages had reported being diagnosed with a heart attack but did not recall ever having the symptom of chest pain lasting more than half an hour. This may have arisen because the heart attack was a long time previously or the heart attack was a mild one.

Although validated, these instruments are known to be imperfect against objective tests, with higher percentages of false negatives (negative on symptoms, positive on objective tests) than of false positives (Garber, Carleton and Heller, 1992). Nevertheless, self-reports of symptoms do predict mortality from ischaemic heart disease (Hart et al., 1997) and hence it would be wise for those with the symptoms to speak to their doctor. People who reported angina symptoms but had not already reported diagnosed angina, heart attack, stroke or diabetes were asked if they had talked to a doctor about their pain. Overall, four-fifths of those who reported symptoms of angina and not a diagnosis either had another of these CVD-related diagnoses (11%) or had spoken to a doctor (70%).

4.4 Loss of balance, dizziness and falls

Methods

Respondents were asked to rate frequency of problems with balance and dizziness when walking on a level surface. Later in the interview, respondents aged 60 years and over were asked whether they had fallen down during the previous two years. If they had fallen, they were asked the number of falls and whether they had injured themselves seriously enough to need medical treatment.

Prevalence of loss of balance, dizziness and falls by sex and age

Table 4A.17 shows that the proportion of people with balance problems steadily increased with age, with a sharp rise between the 60–79 and 80+ age groups. Women were more likely to report balance problems than men at every age. For example, of those in the youngest age group, 14% of women

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and 10% of men reported ever having balance problems, compared with 55% of women and 46% of men in the oldest age group.

The proportion who reported that they ‘always’ had problems was similar between the ages of 52 and 69, although the proportion who said they ‘sometimes’ had problems rose significantly.

Table 4A.18 shows that problems with dizziness increased with age, with substantial differences between people in their 70s and younger people, and again between those aged 80 years and over and people in their 70s. Dizziness is not as common as balance problems across all age groups, but, like balance, women are more likely to report dizziness than men. Approximately 11% of men and 17% of women experienced some dizziness symptoms, compared with 19% of men and 29% of women for balance problems.

Taking balance and dizziness together, the increasing prevalence of problems in successively older groups is clear (Figure 4.3), and experience of multiple symptoms also increases, with over one-in-five of the oldest women experiencing both at least some of the time.

Figure 4.3. Percentages reporting balance problems or dizziness at least some of the time, by age and sex

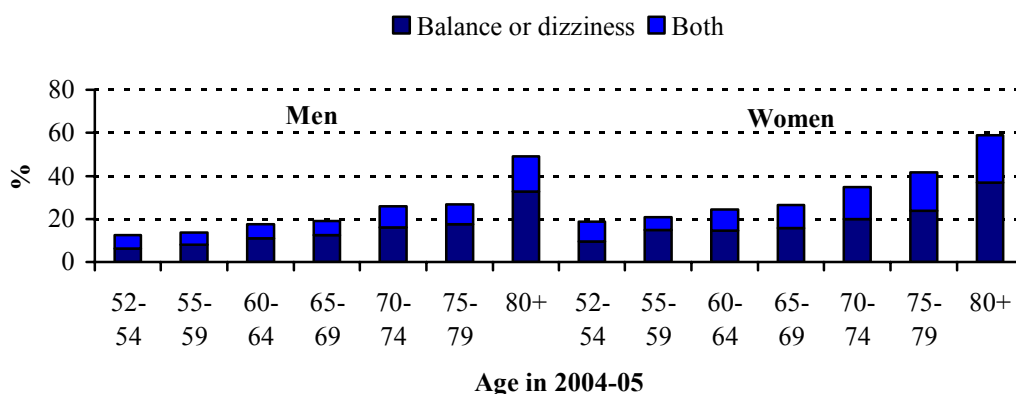


Table 4A.19 shows that, as we would expect, the likelihood of falling increased with age. However, there are still a fairly high proportion of people in the youngest age group (60–64 years) reporting at least one fall (22% of men and 32% of women). Women were more likely to fall than men (39% against 26%) and this did not just reflect the different age distributions of men and women as it applied in all age groups.

A similar proportion of people in the two oldest groups had fallen once. However, the proportion of people who have had multiple falls is substantially greater among those aged 80 years and over than among those in their late 70s. This is particularly true for men: 5% of men aged 75–79 had fallen at least three times, rising to 14% of men aged 80 years or over.

Across all age groups, a greater proportion of women than men who had fallen needed medical treatment (a total of 39% of women and 29% of men) (Table 4A.20). Those needing medical attention amounted to 15% of all women aged 60 years and over (including non-fallers) and 8% of such men. In the four younger age groups who fell, the proportions of men needing medical

treatment were similar. Those aged 80 and over were most likely to have had a fall needing treatment. Among women, the proportions needing medical treatment increased with age except that the prevalence among women in their late 60s was no greater than that among women in their early 60s. Interestingly, the likelihood of needing medical treatment was no greater among people reporting one fall than among those reporting three or more (in both cases, just over a third).

Prevalence of loss of balance, dizziness and falls by age-specific wealth

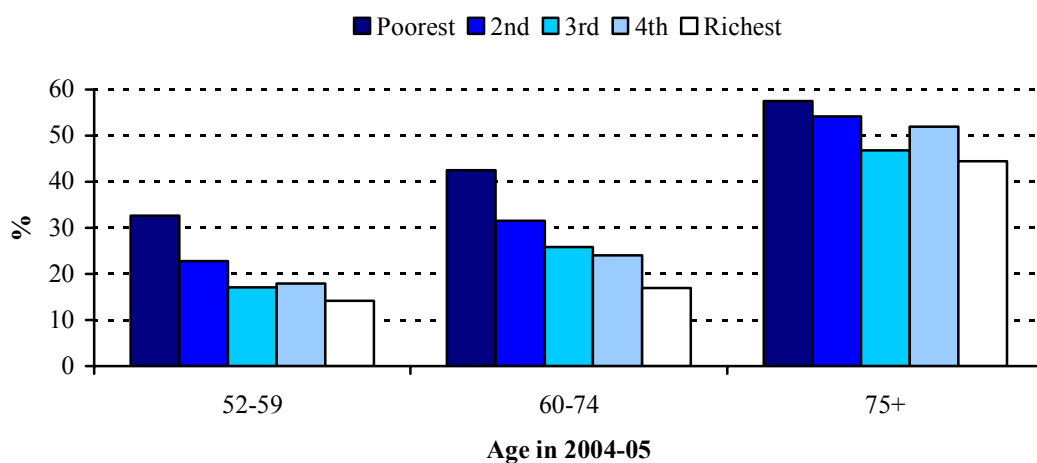
There is a strong negative association between balance problems and level of wealth except among men aged 75 and over (Table 4A.21). Again, there are indications of delayed onset for wealthier groups, with the differences between wealth quintiles being smaller at older ages. As young as 52–59 years, one-in-ten men in the poorest quintile had balance problems often, but this prevalence was only found among the richest groups once they had reached 75 or over.

Symptoms of dizziness were also less frequent the wealthier the respondent (Table 4A.22). There was generally steadily increasing advantage for successively richer groups provided they were aged under 75. Among the oldest age group, the poorest still fared worse than the richest but there was not a clear gradient across the intermediate quintiles.

Figure 4.4 clearly shows that in all wealth groups, older women are more likely than younger ones to experience balance problems or dizziness and the advantage of the wealthiest becomes negligible.

Table 4A.23 shows that for women aged 60–74, there was a clear benefit for successively wealthier groups in likelihood of falling. The poorest men fared worse than the richest but the pattern across the intermediate quintiles was uneven. Men in the poorest quintile were particularly likely to have experienced three or more falls (13% compared with 6% or fewer of richer groups). Wealth was not associated with falling for those aged 75 or over.

Figure 4.4. Percentages reporting balance problems or dizziness in 2004–05, by age and age-specific wealth quintile: women

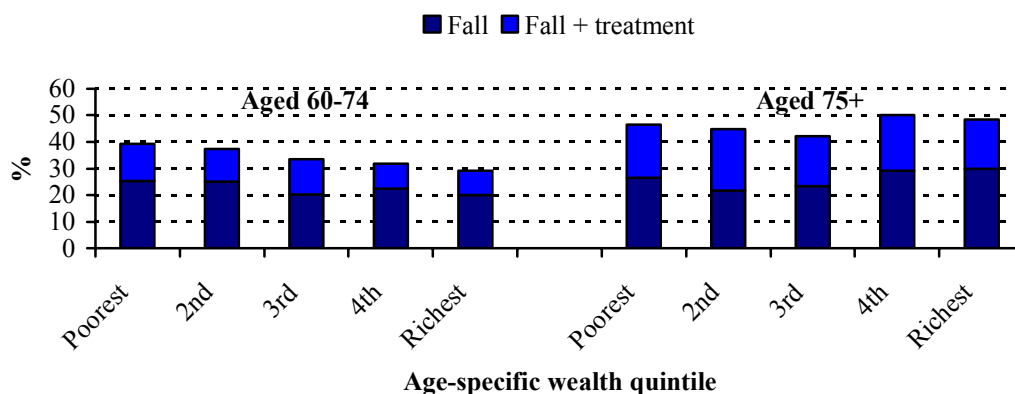


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Amongst those who had falls, there is not a linear relationship between need for hospital treatment and level of wealth (Table 4A.24). Male fallers aged 60–74 years in the richest quintile appeared to have lower chances of needing treatment than those in other quintiles (14% versus 29–32% respectively).

Figure 4.5 brings together falling and need for treatment, as a percentage of all women, and shows the lack of a relationship with wealth among the older age group but some gradient in the younger one.

Figure 4.5. Percentages reporting falls and need for treatment during the previous two years, by age and wealth: women



Prevalence of falls by whether lives alone

Falls may have greater impact on the sufferer's life if he or she lives alone. Table 4A.25 shows that falls were more common among those living alone if they were also aged 60–74, but this difference was not apparent among the older people. Only the younger lone men who fell were substantially more likely to need treatment than their counterparts who were not alone (Table 4A.26).

4.5 Symptoms of pain

Methods

All respondents were asked whether they were often troubled by pain and, if so, how bad the pain was most of the time. The question was general and did not refer to specific sites of, or occasions precipitating, pain. Those who were often troubled by pain were asked to rate the pain they experienced (from 1 to 10) in specific parts of the body while walking on a flat surface. Respondents were asked separately about pain in their back, hip, knee and feet. For the purposes of this report, ratings between 1 and 5 have been termed 'mild–moderate pain' and ratings between 6 and 10 have been termed 'severe' pain. A score of zero means that they did not report pain at that part of the body.

Symptoms of pain by sex and age

Table 4A.27 shows there is little variation by age across all categories of pain severity. However, women were more likely to be in pain, and slightly more

likely to experience severe pain, than men: 22% of women reported moderate pain compared with 17% of men, and a further 9% of women reported severe pain compared with 7% of men. The proportion of men in severe pain was 4% at age 52–54 and 9% at age 80 or over. It was greater in older than younger age groups but there was not necessarily a step-up in prevalence for each 5-year age band. In contrast, the proportion of women in severe pain was close to one-in-ten in all age groups above 64 years.

Of those with pain, women were more likely than men to report pain in any one of the four sites covered in the interview (Tables 4A.28–4A.31). The smallest sex difference is seen for knee pain (62% of women with pain had it in the knee compared with 57% of men with pain) – for the other sites, about 10 percentage point more female pain-sufferers had pain at that part of the body than male sufferers.

When comparing parts of the body, pain sufferers were more likely to experience pain specifically in the back or knee than in the hip or foot. Women with pain were more likely than men to give a mild–moderate pain rating for back and hip pain, and there was also a small excess of women over men giving a severe pain rating for all four sites. This amounted to a 3–4 percentage point difference for back, hip, and knee pain and a 6 percentage point difference for foot pain.

Combining the information for presence of any pain and, if present, the sites of pain, it emerges that 85% of men and 80% of women did not have pain at any of the four parts of the body listed (Table 4A.32). On the other hand, 7% of men and 11% of women had pain at two or more of the sites. This varied little across the three broad age groups. The number of sites was also correlated with quality of life. The quality-of-life measure used is known as the CASP-19. It was developed with an older population in mind and, unlike many quality-of-life instruments, measures qualities distinct from health (Hyde et al., 2003). The median value and interquartile range of CASP-19 for those with no pain at any of the hip, back, knee or foot were 45 (39–50) for men and 46 (40–50) for women, but for those with severe pain in two or more of these sites the median and interquartile range were 32 (25–40) for men and 36 (29–42) for women, a marked shift towards worse quality of life.

Symptoms of pain by age-specific wealth

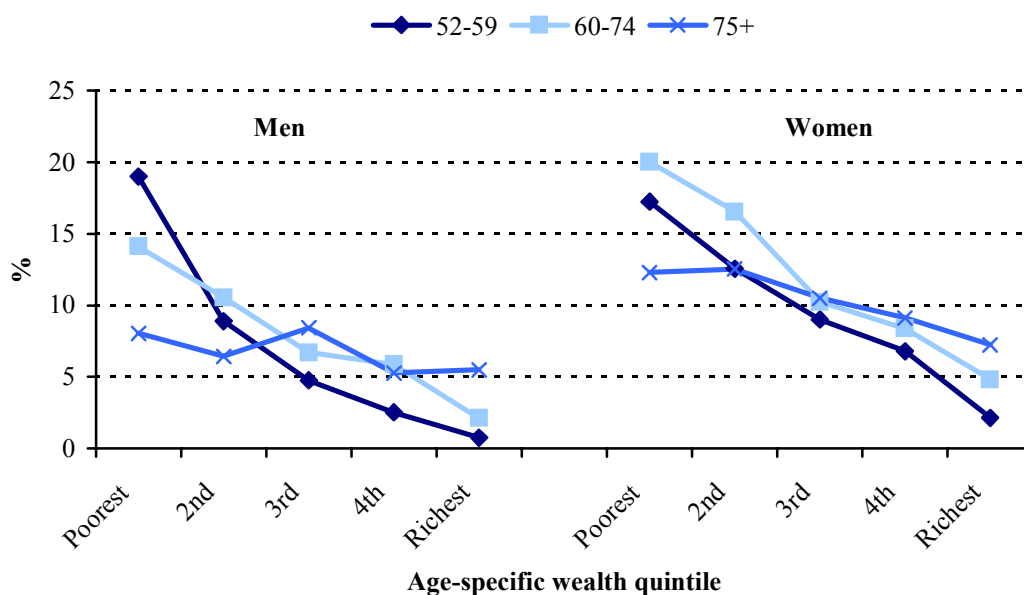
Among those with pain, there is an association between pain severity and level of wealth (Table 4A.33). As wealth increases, the proportion of people with no pain increases and the proportion with severe pain decreases. This relationship is found for both men and women, except for men aged 75 and over. The association is also fairly weak for women in the oldest age group. For example, among those aged 52–59, half the men and two-thirds of the women in the poorest wealth quintile had no pain, compared with four-fifths of men and three-quarters of women in the richest quintile. With severe pain, the converse is true – around 15% of men and women in the lowest wealth quintile aged 52–59 had severe pain, falling to 2–3% of men and women in the highest wealth quintile.

For the separate parts of the body, the analyses focus on severe pain – Table 4A.34 gives numbers experiencing severe pain at a particular site of the body

as a percentage of those who had pain. For each of the four sites, the wealthiest were generally least likely to have severe pain among men and women aged 50–74 years. For men aged 50–59 and women aged 50–74, the greatest differences in prevalence of severe pain tended to be between the poorest and second-poorest quintiles or between the second-poorest and middle wealth quintiles. Generally, the association with wealth was not one of steadily increasing advantage as wealth increased. As with other symptoms discussed, there was no clear pattern with wealth among people aged 75 and over.

Figure 4.6 gives the percentages with severe pain at at least two of the four sites, as a percentage of everyone, including those who did not report pain at all. There is clearly a decreasing likelihood of this potentially debilitating experience with increasing wealth for all except the oldest men. As these are cross-sectional data, they do not indicate whether wealth influenced pain or vice versa – or other factors may have accounted for the association. However, it is possible that the life histories of those who have been able to accumulate less wealth exposed them to more of the experiences and diseases that lead to pain and that this could in turn inhibit work opportunities for accumulating further wealth. This is a subject for further study.

Figure 4.6. Percentages with severe pain in two or more of back, hip, knee and foot, by sex, age and wealth



4.6 Discussion

The median time lag between interviews was 27 months (range 22 to 38 months). After this short period, a quarter of the participants reported at least one additional diagnosis of the 17 conditions reported in this chapter. As expected, there was a strong relationship with age, but it is disturbing that about one-in-six people in their 50s were reporting an additional condition.

Among the seven CVD-related diseases, those with the greatest incidence in absolute numbers were angina or myocardial infarction, abnormal heart rhythm, diabetes and stroke. New heart murmur and new cases of chronic heart failure were rare – indeed, the prevalence was rare too. Heart murmurs can occur at any age and are not particularly a ‘disease of old age’, whereas chronic heart failure tends to develop in very old age and may also be disproportionate in the subpopulation living in long-term care. An increase in incidence of specific chronic diseases with age was expected but not always found. Men aged 75 and over did not have greater incidence of diabetes or abnormal heart rhythm. In so far as obesity is a powerful predictor of diabetes and obese people have markedly shorter lifespans, the former finding could arise because the most vulnerable have already died by the age of 75.

Cataracts, as well as arthritis and osteoporosis, can contribute to falls, and their greater incidence among women may be part of the story for higher percentages of women than men falling. Other possible reasons, not explored here, are differences in levels of activity (physical activity protects against falls), other vision problems and medication use.

The results for balance, dizziness and falls reinforce the concerns expressed in the National Service Framework that they are a major public health problem. As young as their late 50s, nearly one-in-five women were experiencing problems with balance and one-in-ten experienced dizziness at times. In future waves of fieldwork, we can observe whether these are the people who have serious problems and falls later.

Overall, 25% of the men and 39% of the women aged 60 or over when interviewed in 2004–05 had experienced a fall during the previous two years. Of those aged 65 or over, 35% had fallen. The Cochrane Review of Interventions quotes 30% of men and women aged over 65 years and living in the community falling in any year (Gillespie et al., 2003). One would expect a higher percentage over a two-year period. The ELSA figure may be an underestimate if loss to the sample was disproportionate amongst those who had experienced falls, especially if there were serious consequences. The results presented here are consistent with other findings that about half of those who fall do so more than once (Kannus et al., 2005), thus highlighting the importance of acting to prevent further falls.

There are studies showing that socio-economic factors are associated with incidence of stroke and heart attack. Qureshi et al. (2003) found that people with less than 12 years’ education had higher risk of fatal strokes and myocardial infarction than those with more education. Nanchahal et al. (2005) found that high cardiovascular risk scores were more prevalent with lower income and less education. With cross-sectional data, we cannot be sure whether wealth is affecting health or vice versa, but the effect of health on wealth might be expected to be less than that of health on income. Apart from the actual presence of the disease, differential attitudes to seeking medical attention and differential ability to insist on diagnosis might be affecting the reported distributions.

Nevertheless, it is striking that wealth gradients are consistently appearing for younger people and tending to be much weaker or non-existent for those aged 75 years or over. In this chapter, several findings have suggested that there

might be a delay in onset of conditions for the wealthier groups rather than a complete escape from them.

The symptoms of imbalance and dizziness and the reporting of falls were clearly associated with wealth in those aged under 75. There is little other information on the socio-economic profiles of these symptoms. Among an Australian community, those with a degree or higher were less likely to fall than those who stopped their education at secondary school or sooner, but there was not a simple association with income (Gill, Taylor and Pengelly, 2005). There are many possible explanations for an inverse association with wealth, including disadvantages for those with less wealth with respect to presence of morbid conditions such as arthritis and osteoporosis, general functioning limitations and perhaps less control over the medication prescribed.

A common link between the diseases and symptoms shown in this chapter is their tendency to increase vulnerability to deteriorating functions such as walking and climbing stairs, and hence potentially affecting other functions such as shopping, maintaining the home and socialising. Incidence for most of the conditions was greater at older ages, despite already-higher prevalence. Thus multiple co-morbidity and adverse symptomatic experience can trigger people into dependence. There are conditions, such as angina and heart attack symptoms, that were not most common among the oldest age group. This may mean that there comes an age when those left in the community are the ones who have some form of protection against key diseases. Poorer people were reporting more symptoms, whether angina, balance problems, dizziness, falls or pain. These could be the end result of a lifetime accumulation of disadvantage – all that are reported here are the current associations. Further longitudinal analyses in the future will help to show how much the wealth advantage comes from the healthy staying wealthy and how much from the wealthy staying healthy.

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