Chronic pain

9

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Summary

- Chronic pain is defined in this chapter as pain or discomfort that troubles a person all of the time or on and off for more than three months. It has been shown to be associated with a number of negative outcomes including depression, job loss, reduced quality of life, impairment of function and limiting daily activities.
- More women than men reported chronic pain. Overall, 31% of men and 37% of women reported this. The prevalence of chronic pain increased with age, from 14% of men and 18% of women aged 16-34 to 53% of men and 59% of women aged 75 and over.
- There was no significant variation in the prevalence of chronic pain across strategic health authority areas.
- Those living in the lowest income quintile of equivalised household income were more likely to report having chronic pain (40% of men and 44% of women) than those in the highest income quintile (24% of men and 30% of women respectively). Similarly, those living in the most deprived quintile of the Index of Multiple Deprivation (IMD) were more likely to report having chronic pain (36% of men and 42% of women) than those in the least deprived quintile (31% of men and 34% of women).
- Adults were assigned a Chronic Pain Grade based on their ratings of their pain level and the extent to which their pain interfered with their usual activities. Grades I and II indicate low interference pain at different intensities, while grades III and IV indicate pain with differing levels of restriction to usual activities.
- The majority of both men and women with chronic pain were assigned low interference grades of the scale (70% of men and 68% of women). The likelihood of having a high interference pain grade increased with age. 22% of men and 21% of women aged 16-34 with chronic pain had a high interference pain grade, rising to 39% of men and 44% of women aged 75 and over.
- There was significant variation in the distribution of Chronic Pain Grades by equivalised household income. Those in the lowest income quintile were more likely to have more limiting Chronic Pain Grades III and IV, and less likely to have lower intensity pain (grade I), than those in the highest quintile.
- Participants with more limiting Chronic Pain Grades (III and IV) were more likely to report poorer general health than those with less limiting pain. 48% of men and 43% of women with a grade IV pain described their health in general as bad or very bad, compared with 4% and 3% respectively with grade I pain, and only 1% and 2% respectively who did not have chronic pain.
- Men and women with more limiting Chronic Pain Grades III and IV were more likely than those with grade I or II pain, or with no pain, to report having a longstanding illness. Similarly, those with pain grades III and IV were more likely to report multiple longstanding illnesses.

- The likelihood that those with chronic pain had seen professionals at a specialist pain service increased with the severity of Chronic Pain Grade. 61% of men and 54% of women with severely limiting chronic pain (grade IV) reported having seen a professional at a specialist pain service, compared with 25% of men and 24% of women with the least limiting pain grade (grade I).
- There was significant variation in mean well-being scores according to Chronic Pain Grade. Mean well-being scores were 53.1 for men and 52.6 for women with no chronic pain, and decreased within each subsequent Chronic Pain Grade, from 51.8 for men and 52.1 for women in grade I down to 44.9 for men and 43.4 for women in grade IV. The average mental well-being score for men and women in severely limiting chronic pain was at a similar level of to that of the lowest scoring 10% of people who were pain free.
- Those with chronic pain were more likely to have problems with anxiety or depression than those with no pain, and the likelihood of reporting anxiety or depression increased markedly as pain grade increased. 70% of men and 68% of women with grade IV pain report being anxious or depressed, compared with 26% of men and 27% of women with grade I pain, and 17% and 22% respectively among those with no chronic pain.

9.1 Introduction

Pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage.[1] Chronic pain is pain that persists over a period of time, typically for at least three months. Estimates of the prevalence of chronic pain vary, but a recent estimate is that 7.8 million people in the UK suffer moderate to severe pain that has lasted for more than six months.[2] Moreover, it appears that prevalence of chronic pain is rising, with more cases now compared with 40 years ago.[2] Studies suggest that it is more commonly reported by women and those from socially or financially disadvantaged groups.[2]

Chronic pain has a significant impact on peoples' lives. It is associated with a number of negative outcomes including depression, job loss, reduced quality of life, impairment of function and limiting daily activities.[2,3,4,5] Pain is one of the most common reasons for which people seek medical treatment. It is estimated that those in chronic pain consult their doctor up to five times more frequently than others. This equates to almost 5 million GP appointments a year.[6] Calculating the cost of chronic pain to the economy is difficult, but estimates of the cost of back pain alone are around £12.3 billion per year. The cost of chronic pain from all sources is much higher.[2]

Chronic pain was a focus of the Chief Medical Officer's Annual Report 2008.[2] This was a landmark publication in the field of chronic pain, being the first national government report to look at the issue and make recommendations for improving the situation. Recommendations around improved data, increased training for healthcare professionals and improved services for people with chronic pain were all made within the report.

An issue made clear in the Chief Medical Officer's Annual Report was that current service provision for pain management is inadequate and existing services are not evenly distributed across the country. In order to look at the quality and coverage of existing pain services, the National Pain Audit was commissioned. The report from phase one of the audit has highlighted that there are areas to be improved, particularly around the provision of multidisciplinary services for pain management.[7]

Progress has been made with some recommendations. The Department of Health's National Quality Board has asked the National Institute of Health and Clinical Excellence (NICE) to include pain management for adults and children as one of the library of topics for which quality standards are being developed. These quality standards are regarded as crucial to the delivery of a high quality outcomes-focused NHS in England, and are designed to provide patients, carers and the public, health and social care professionals, commissioners and service providers with definitions of high-quality health and social care.[8] The Royal College of General Practitioners made chronic pain a clinical priority area for 2011-2014, appointing a clinical champion to oversee the work.[9]

Following the 2006 white paper *'Our health, our care, our say'*, personal care plans were introduced, with a target to offer them to everybody with a longstanding illness by the end of 2010.[10] A personal care plan is a written agreement between a patient and their health professional about the care and support required to manage a long term condition. Many people with chronic pain are likely to benefit from a personal care plan, providing a personalised package of care to manage both their pain and any associated longstanding conditions.[11]

This chapter presents data collected about chronic pain in the Health Survey for England 2011; inclusion of this topic in the survey was recommended by the Chief Medical Officer in his 2008 report.

9.2 Methods and definitions

9.2.1 Methods

Questions about pain were asked of all adult participants in the main computer-assisted interview. Adult participants were asked if they were currently troubled by pain and discomfort either all of the time or on and off. If participants reported that they were, they were asked whether they had had the pain or discomfort for more than three months. Participants who reported that they had had pain or discomfort for more than three months were then asked more detailed questions about their pain or discomfort. These questions included:

- which areas of the body the pain was in
- the intensity of their pain
- how much their pain interfered with aspects of their life
- support or help they had received.

A number of the questions asked were based on the Von Korff Graded Chronic Pain Scale Version 2.0.[12] Participants were asked to rate their current level of pain ('How would you rate your pain right now?'), the level of their usual pain at times when they had been in pain in the last three months, and the level of their worst pain in the last three months. All levels were measured on a scale from zero to ten, where zero was no pain and ten was pain as bad as it could be. Further questions established the number of days they had been kept from their usual activities in the last three months, and ratings – again on a scale from 0 to 10 – about how much their pain interfered with their ability to carry out their daily activities, recreational, social and family activities, and work including housework. From these questions a characteristic pain intensity score and a four item disability score were calculated. Using these two scores, a Chronic Pain Grade was calculated for each participant.

9.2.2 Definitions

Chronic pain

Chronic pain was defined as pain or discomfort that had troubled the participant all of the time or on and off for more than the last three months.

Chronic Pain Grade

The table below shows the possible grades a participant could be assigned using the Von Korff scale.

Pain Free	
Grade 0	No pain problem in the last three months
Low interference	
Grade I	Low intensity pain
Grade II	High intensity pain
High interference	
Grade III	Moderately limiting pain
Grade IV	Severely limiting pain

The five grades in the Chronic Pain Grade system are based on a score for disability from the questions about interference with activities and days lost, ranging from 0 to 40; and a score for intensity of pain from the three ratings of pain (current, usual and worst), ranging from 0 to 30. Grade 0 is assigned to those who are pain free, meaning no pain problem in the last three months. Grades I and II are characterised by some level of pain in the last three months, but a disability score below 17 indicating low levels of interference with people's lives. Grade I has an intensity score of less than 15 out of maximum of 30, while Grade II has an intensity score of 15 or more. Grades III and IV are given to those whose pain causes high levels of interference with their lives, with Grade III for a disability score of 17 to 24 and Grade IV for a disability score of 25 to 40. Note that intensity of pain is not used

when assigning individuals to grades III or IV. However, analysis of the HSE data shows that intensity of pain also increased according to Chronic Pain Grade, with grade I having the lowest intensity of pain and grade IV having the highest. Grades II and III had similar levels of pain intensity.

Detailed information on the scoring of the different grades is available elsewhere.[12]

Mental well-being

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[13] was developed to capture a broad concept of positive mental well-being.[14] This includes psychological functioning, cognitive-evaluative dimensions and affective-emotional aspects of well-being. The scale is based on 14 statements, for each of which participants are asked to circle the response that best describes their experience over the previous two weeks. They can answer on a 5-point scale: 'None of the time', 'Rarely', 'Some of the time', 'Often', or 'All of the time'. The statements are all expressed positively – for example, 'I've been feeling optimistic about the future'. The responses, numbered 1 to 5, are aggregated to form the Well-being Index, which can range from 14 (those who answer 'rarely' on every statement) to 70 (those who answer 'All of the time' to all statements).

Happiness

To assess happiness, participants were asked: 'Taking all things together on a scale of 0 to 10, how happy would you say you are? Here 0 means you are very unhappy and 10 means you are very happy'. Although it was included in the HSE for the first time in 2010 this item is fairly standard and has been used in many other surveys, though sometimes with different response scales. Happiness is often analysed alongside similar questions framed in terms of overall satisfaction with life.[15]

EQ-5D

The EQ-5D questionnaire is a standardised instrument developed by the EuroQol Group in order to provide a simple, generic measure of health for clinical and economic appraisal. Applicable to a wide range of health conditions and treatments, it provides a simple descriptive profile and a single index value for health status that can be used in the clinical and economic evaluation of health care as well as in population health surveys.[16]

There are two components to the EQ-5D; the first is a descriptive system comprising five different dimensions; Mobility; Self care; (ability to perform) Usual Activities; Pain/Discomfort and Anxiety/Depression. Participants are asked to indicate whether they have no problems, some problems or severe problems (the wording for each dimension differs slightly). The second component is the EQ visual analogue scale (EQ VAS), which records the participant's self-rated health that day on a vertical 'thermometer' scale where the endpoints are labelled 'Best imaginable health state' (100) and 'Worst imaginable health state' (0). This information can be used as a quantitative measure of health as judged by the individual participants.

9.3 Prevalence of chronic pain

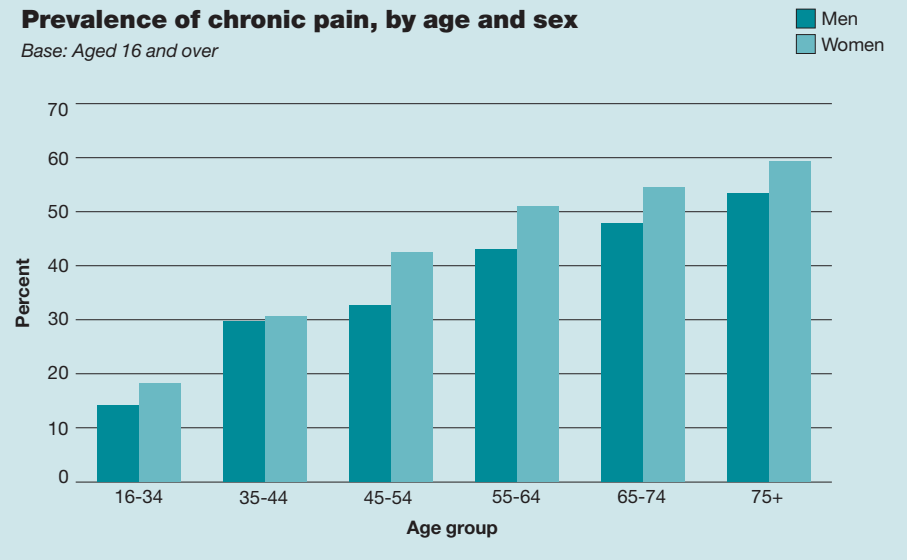
9.3.1 Prevalence of chronic pain, by age and sex

More women than men reported chronic pain. Overall, 31% of men and 37% of women reported this. The prevalence of chronic pain increased with age, with older people being more likely to report chronic pain than younger people. In those aged 16-34, 14% of men and 18% of women reported chronic pain. This rose to 53% of men and 59% of women aged 75 and over. **Table 9.1, Figure 9A**

9.3.2 Prevalence of chronic pain, by strategic health authority and sex

After controlling for the different age profiles of people living in different strategic health authorities, there was no significant difference between the prevalence of chronic pain across areas. **Table 9.2**

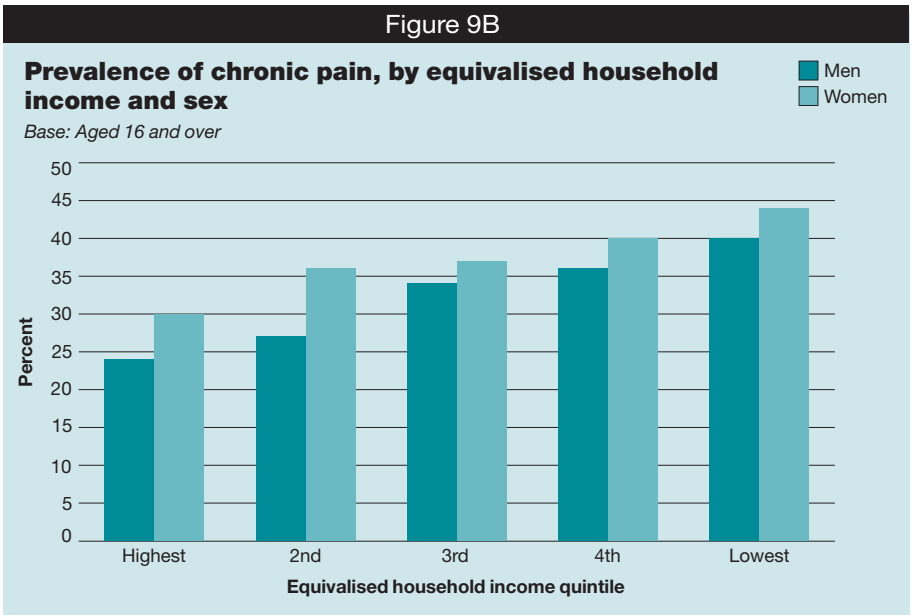
Figure 9A



9.3.3 Prevalence of chronic pain, by socio-economic factors

There was significant variation in the proportion of participants reporting chronic pain according to equivalised household income. As shown in Figure 9B, men and women in the lowest income quintile were more likely to report having chronic pain than those in the highest income quintile (40% of men and 44% of women compared with 24% of men and 30% of women respectively).

Figure 9B



Those living in more deprived areas, as defined by the Index of Multiple Deprivation (IMD), were more likely to report having chronic pain than those in the least deprived areas. 36% of men and 42% of women living in the most deprived IMD quintile reported being troubled by chronic pain, compared with 31% of men and 34% of women in the least deprived quintile.

Tables 9.3-9.4, Figure 9B

9.4 Site of chronic pain

Participants who experienced chronic pain were asked to report all sites of their pain. The most commonly reported site of chronic pain was in the arms, hands, hips, legs or feet. 58% of men and women reporting chronic pain said that this was a site of their pain. Back pain was the next most commonly reported site of pain, with more women than men

reporting this type of pain (44% compared with 37% respectively). This was followed by neck and shoulder pain, again reported by more women than men (25% and 22% respectively). Similarly, more women than men reported stomach or abdominal pain (12% and 9% respectively) and headache, facial or dental pain (10% and 6% respectively).

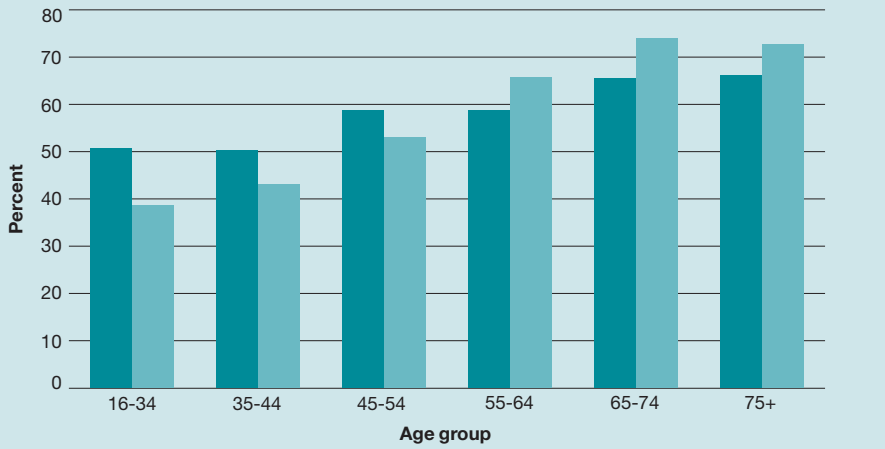
For the majority of pain sites, the likelihood of reporting chronic pain increased with age. An exception to this was chest pain. Overall 6% of men and 5% of women reported chest pain as being a source of chronic pain, with younger adults being as likely as older adults to report this.

The pattern of the prevalence of pain increasing with age was similar for men and women for most sites of pain, but this was not the case for pain in the arms, hands, hips, legs or feet. While the overall prevalence of pain in these areas was the same for men and women, and the likelihood of reporting pain in these areas increased with age for both sexes, the rate of increase was different. Younger men were more likely than younger women to report pain in the arms, hands, hips, legs or feet but older women were more likely than older men to report pain here. Figure 9C shows the patterns for men and women of different ages.

Figure 9C

Chronic pain in arms, hands, hips, legs or feet, by age and sex

Base: Aged 16 and over with chronic pain



As the graph shows, overall the rate of increase in pain in the arms, hands, hips, legs or feet by age for men is lower than the rate of increase for women. Comparing the youngest and oldest age groups, there was a 15 percentage point rise in this type of chronic pain for men (from 51% among those aged 16-34 to 66% of those aged 75 and over) and a 34 percentage point rise for women (from 39% to 73%). Thus 53% of men aged 16-54 who reported chronic pain said that they had pain in these areas, compared with 46% of women. However, when looking at those aged 55 and over the pattern changed, and 63% of men aged over 55 reported this type of pain, compared with 70% of women.

Participants were asked to report all sites of chronic pain. Overall, women were more likely than men to report multiple pain sites (14% of women reported pain in three or more sites, compared with 11% of men). Older people were more likely than younger people to report having chronic pain at multiple sites. Only 4% of men and 7% of women aged 16-25 reported chronic pain at three or more sites, compared with 15% of men and 19% of women aged 75 and over. **Table 9.5, Figure 9C**

9.5 Level of pain and the impact on activities

9.5.1 Level of pain

Participants were asked to rate their current pain level, their usual pain level in the last three months and the level of their worst pain in the last three months.

Women reported a higher level of current pain than men, with mean level of current pain at 3.2 for women and 2.8 for men. Level of pain in both men and women increased with age, with mean ratings rising from 2.6 in women aged 16-34 to 4.0 in women aged 75 and over, and from 2.2 in men aged 16-34 to 3.2 in men aged 75 and over.

Both men and women rated their usual level of pain in the last three months as higher than their current level of pain. As for current pain, ratings of usual pain were higher in women than men, at 5.2 for women and 4.6 for men. As was also seen with current pain, ratings of usual pain increased with age, with mean ratings rising from 4.9 in women aged 16-34 to 5.6 in women aged 75 and over, and from 4.1 in men aged 16-34 to 4.9 in men aged 75 and over.

When asked to rate the level of their worst pain in the last three months, women rated this higher than men did. On average, women rated their worst pain as 7.3 out of 10, compared with a rating of 6.7 in men. Interestingly, the rating of worst pain did not differ significantly across age groups. **Tables 9.6-9.8**

9.5.2 Impact of pain on usual activities

Participants with chronic pain were asked to report how many days in the last three months their pain had kept them from doing usual activities like work, school and housework. The majority of men and women said that their pain had not kept them from their usual activities on any days, with fewer women than men reporting this (55% of women and 59% of men). However, almost a quarter of both sexes said that their pain had kept them from doing their usual activities for more than two weeks in the last three months (24% of women and 22% of men).

Older people were more likely than younger people to report that their pain kept them from their usual activities on any day in the last three months. 65% of men aged 16-34 were not kept from their usual activities on any day, compared with 50% of men aged over 75. This pattern was similar for women, with 54% of women aged 16-34 not kept from their usual activities on any day, compared with 46% of women aged over 75.

For some participants, disruption to their usual activities was relatively severe, with more than 14 days affected by their chronic pain. As Figure 9D shows, this was least common among those aged 16-34 (8% of men with chronic pain, and 15% of women), and most common among those aged 75 and over (36% of both men and women). There was relatively little variation among those in the intervening age groups, with the proportion affected on more than 14 days ranging between 20% and 27%. **Table 9.9, Figure 9D**

9.5.3 Chronic Pain Grades, by age and sex

Adults were assigned a Chronic Pain Grade based on their ratings of their pain level and the extent to which their pain interfered with their usual activities. An explanation of the grading system is given in section 9.2.2. Grades run from grade 0 (no pain) to grade IV (severely limiting pain). Grades I and II indicate low interference pain at different intensities, while grades III and IV indicate high interference pain.

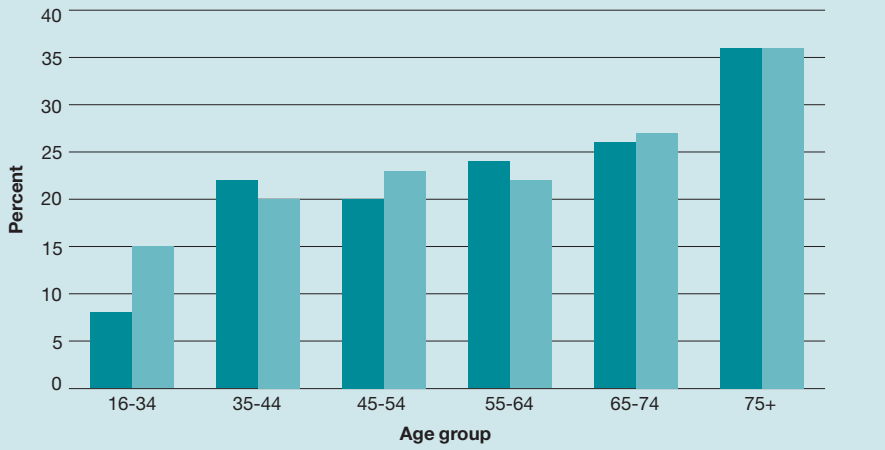
The majority of both men and women with chronic pain were graded within the low interference grades of the scale (70% of men and 68% of women). The likelihood of having a high interference pain grade increased with age. 22% of men and 21% of women aged 16-34 with chronic pain had a high interference pain grade, rising to 39% of men and 44% of women aged 75 and over.

While similar proportions of men and women had low interference grades overall, within

Figure 9D

Proportion whose chronic pain interfered with usual activities more than 14 days in last three months, by age and sex

Base: Aged 16 and over with chronic pain



these grades women were more likely to have higher pain intensity, at Chronic Pain Grade II, and men were more likely to have lower intensity pain, at Chronic Pain Grade I. Interestingly, the pattern of change by age for these pain grades also differed between men and women, as shown in Figure 9E.

Figure 9E

Prevalence of Chronic Pain Grades I and II, by age group

Base: Aged 16 and over with chronic pain

More than twice the proportion of women than men aged 16-34 had grade II pain (31% and 14% respectively), but among those aged 75 and over there were similar proportions of women and men at grade II (28% and 25% respectively). Among women there was relatively little variation in the proportions with grade II pain across age groups (ranging from 26% to 32%) while among men grade II pain was most likely to be reported among those aged 45-54 or 75 and over (29% and 25% respectively). **Table 9.10, Figure 9E**

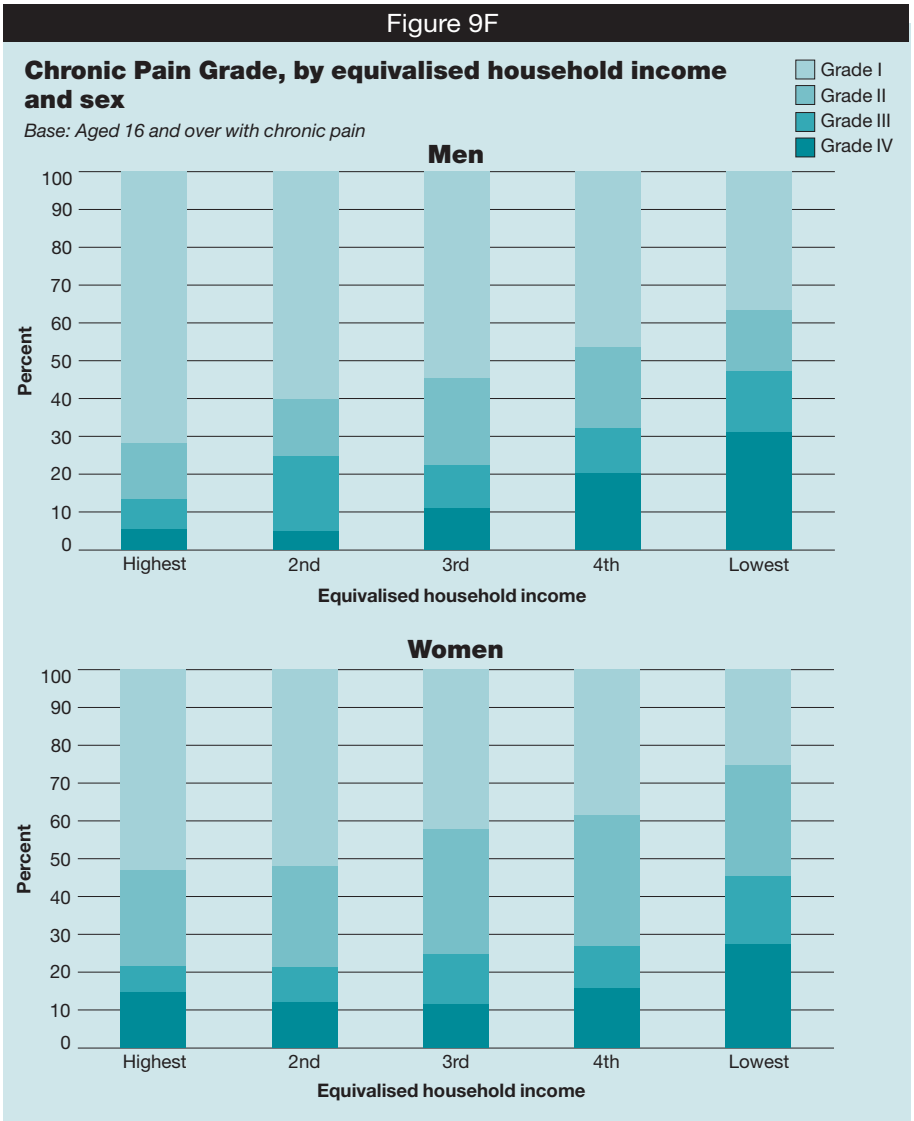
9.5.4 Chronic Pain Grades, by strategic health authority

After controlling for the different age profiles of people living in different strategic health authorities, there was no significant difference between the distributions of Chronic Pain Grades across areas. **Table 9.11**

9.5.5 Chronic Pain Grades, by equivalised household income

There was significant variation in the distribution of Chronic Pain Grades by equivalised household income, as shown in Figure 9F. Those in the lowest income quintile were more likely to have more limiting Chronic Pain Grades III and IV, and less likely to have lower intensity pain (grade I), than those in the highest quintile. The pattern was particularly clear for men, with 31% in the lowest quintile having grade IV pain, compared with only 5% in the highest income quintile; 37% of men in the lowest quintile had grade I pain compared with 72% in the highest quintile. For women, the proportion with grade IV pain was much higher in the lowest income quintile (27%) than in the remaining four quintiles (ranging between 12% and 16%). Grade I pain among women ranged from 53% in the highest quintile to 25% in the lowest. **Table 9.12, Figure 9F**

Figure 9F



9.5.6 Chronic Pain Grades, by general health and longstanding illness

Participants with more limiting Chronic Pain Grades (III and IV) were more likely to report poorer general health than those with less limiting pain. 48% of men and 43% of women with a Chronic Pain Grade of IV described their health in general as bad or very bad, compared with 4% and 3% respectively with grade I pain, and only 1% and 2% respectively who did not have chronic pain.

Participants were asked whether they had any longstanding illnesses, disabilities or infirmities and if so, whether these conditions limited them in carrying out their day to day activities. Men and women with Chronic Pain Grades III and IV were more likely than those with grade I or II pain, or with no pain, to report having a longstanding illness, and this illness was more likely to be limiting their day to day activities. 80% of men and 83% of women with a Chronic Pain Grade of IV had a limiting longstanding illness. This compared with 24% of men and 27% of women with grade I pain, and 9% of men and 11% of women without chronic pain. Men and women with pain grades III and IV were also more likely to report multiple longstanding illnesses. 44% of men and 56% of women with grade IV pain had more than one longstanding illness, compared with 15% and 18% respectively with grade I pain, and 8% and 9% respectively with no chronic pain.

Table 9.15 shows the main types of longstanding illness participants reported. While these conditions did not necessarily directly relate to the chronic pain experienced, there were clear differences according to different pain grades. Looking at those with grade IV pain, the most limiting of the grades, the two most commonly reported longstanding illnesses were musculoskeletal complaints and arthritis, rheumatism or fibrositis. Musculoskeletal complaints were mentioned more by men (30% compared with 19% of women) while arthritis and associated conditions were more common among women (28% compared with 19% of men). Back, neck and spine problems were also frequently mentioned, especially among those with grade IV pain (19% of men and 22% of women). Some further conditions were more frequently mentioned by women with grade IV pain than men; these were respiratory conditions (20% of women, 12% of men), problems of the nervous system including migraine (18% and 15% respectively), complaints of the digestive system (18% and 11% respectively), and diabetes and associated conditions (17% and 12% respectively).

Tables 9.13-9.15

9.5.7 Chronic Pain Grades, personal care plans and the use of specialist pain services

People with long term conditions are entitled to have a personal care plan, which is an agreement between a person and their health care professional which helps them to manage their health day to day.[11] Participants with a longstanding illness were asked about whether they had a care plan and if not, whether they would like the opportunity to discuss one.

The proportion of men and women with a longstanding illness who had agreed a personal care plan differed according to pain grade. Fewer in grades I and II, whose pain did not affect daily activities, had a plan (12% and 16% respectively for men, 10% and 12% for women) than those with limiting pain in grades III and IV. The pattern for grades III and IV was different for men and women: among men those with grade III pain were most likely to have agreed a plan (32%, compared with 16% of women), while among women it was those with grade IV pain (24%, compared with 20% of men). For both men and women, the proportion who did not have a personal care but would like to discuss one increased with the severity of pain grade, rising from 16% of men and 17% of women with grade I pain to 44% of men and 31% of women with grade IV pain.

Participants with chronic pain were asked about whether they had seen any of a list of professionals or specialist advisors about support or help to manage their pain. One of the answer options was ‘specialist pain services such as a doctor, nurse or physiotherapist at a hospital or clinic’, and Table 9.17 shows the proportion mentioning this option. The likelihood of seeing professionals at a specialist pain service increased with the severity of

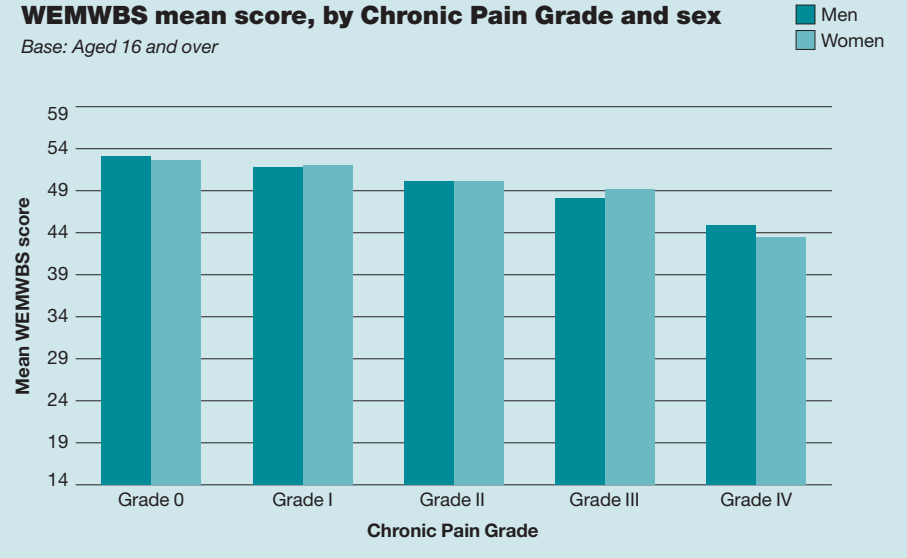
Chronic Pain Grade. 61% of men and 54% of women with severely limiting chronic pain (grade IV) reported having seen a professional at a specialist pain service, in comparison with 25% of men and 24% of women with the least limiting pain grade (grade I).

Tables 9.16-9.17

9.5.8 Chronic Pain Grades, mental well-being and happiness

The Warwick Edinburgh Mental Well-being Scale (WEMWBS) was used to assess adults' well-being in the last two weeks. Scores ranged from a minimum of 14 to a maximum of 70, with higher scores indicating higher levels of mental well-being. As shown in Figure 9G, there was significant variation in mean well-being scores according to Chronic Pain Grade. Men who were not in chronic pain had a mean well-being score of 53.1, and the score decreased with each subsequent Chronic Pain Grade, from 51.8 in grade I down to 44.9 in men in grade IV. The same pattern was seen in women, with those not in chronic pain having a mean well-being score of 52.6, decreasing from 52.1 in grade I to 43.4 in grade IV. Moreover, men and women with the most limiting pain had a mean well-being score only 1 point higher than the lowest 10% of well-being scores of pain free men and women. Thus the average mental well-being score for men and women in severely limiting chronic pain was at a similar level to that of the lowest scoring 10% of people who were pain free.

Figure 9G



A similar pattern across Chronic Pain Grades was seen when participants were asked to rate their happiness. Men with no chronic pain had a mean happiness score of 8.1 out of ten, compared with a mean score of 6.1 in men with grade IV pain. Similarly, women who had no chronic pain had a mean happiness score of 8.2, compared with 6.3 in women with grade IV pain.

Table 9.18-9.19, Figure 9G

9.5.9 Chronic Pain Grades and EQ-5D health status

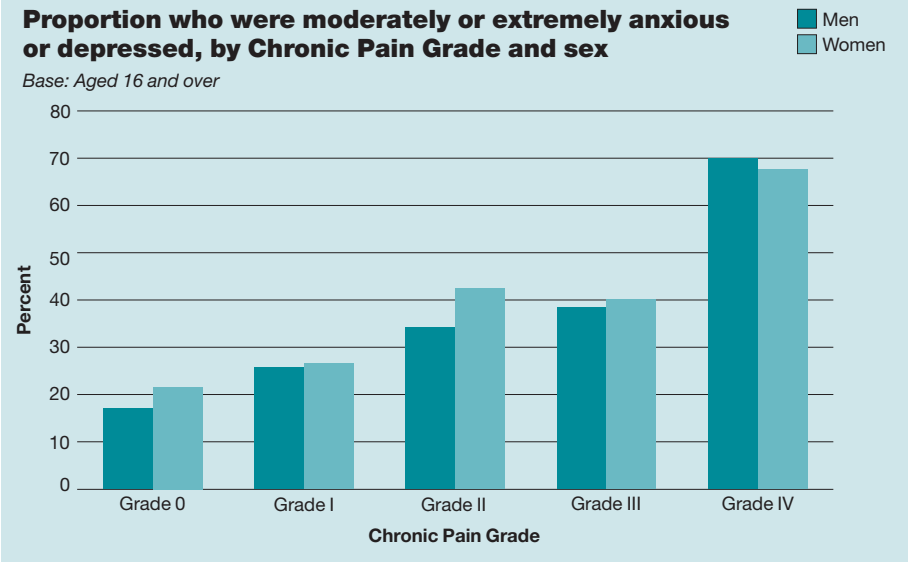
The visual analogue scale (VAS), part of the EQ-5D, provided a measure of self-assessed health status ranging from 0 to 100. The mean score on this scale varied according to pain grade. Both men and women with no chronic pain had a mean score of 78.5, and the mean score decreased at each subsequent pain grade. Scores among those with grade I pain were 75.3 for men and 75.9 for women, decreasing to 48.5 among men and 49.6 among women with grade IV pain. The largest gap in scores occurred between those in grades III and IV, with a difference of 14.9 points for men, and 16.2 points for women; this gap was wider than between those in grade I and grade III in each case.

In a pattern similar to that found for well-being scores, the mean scores for those in pain grade IV were well below the 10th percentile score of those with no chronic pain (60 for both men and women). This means that the average health status score of those with the most limiting chronic pain grade is lower than the lowest 10% of health state scores reported by those with no chronic pain.

As part of the EQ-5D measure participants were also asked to assess the levels of problems they had that day with five dimensions of health. These were mobility, self care, usual activities, pain/discomfort, and anxiety/depression. In all of these areas, those with more limiting pain grades were more likely to report some level of problems than those with less severe pain or with no pain.

While it is to be expected that those in chronic pain were more likely to have problems with their physical health than those who were pain free, and that problems increased with the severity of pain, it is striking to see the same pattern for anxiety/depression. As Figure 9H shows, for both men and women, the likelihood of reporting anxiety or depression increased markedly as pain grade increased, with the largest difference between grades III and IV. Those with grade I pain were more likely than those with no pain to report anxiety and depression (26% and 17% respectively among men, 27% and 22% among women). However, men with grade IV pain were more than four times as likely to report being anxious or depressed (70%) than those without chronic pain, while women with grade IV pain were more than three times as likely (68%). **Tables 9.20-9.21, Figure 9H**

Figure 9H



9.6 Discussion

The data presented in this chapter show that chronic pain affects many adults in England and, consistent with existing evidence, is associated with numerous negative outcomes. Just over a third of women and just under a third of men suffered from chronic pain. The Von Korff Graded Chronic Pain Scale first of all recognises the degree of disability, or inability to continue with every day activities, and secondly, where there is less limitation on activities, the severity of pain. A minority of the population was identified, around 6% of both men and women, who suffered severe pain that seriously restricted their ability to carry out daily activities. Chronic pain was associated with poor self assessment of general health, and those with the most severe chronic pain often had multiple longstanding illnesses or conditions. The physical limitations and disability, including restricted mobility, were often also associated with poorer mental well-being.

Chronic pain affected certain groups more than others. Women were more likely than men to suffer from chronic pain, and in particular among those with non limiting pain, women were likely to report higher intensity pain (grade II) than men. There was a marked increase in the prevalence of chronic pain with age, particularly for the most severe, grade IV pain. Nevertheless, there were many people of working age suffering considerable disruption to their working lives, and as well as the personal burden of this, there is a substantial economic impact from days lost at work.

There were also socio-economic inequalities, with people from poorer households and people from the most deprived areas more likely to report chronic pain than those from more prosperous backgrounds. It is not just the overall prevalence of chronic pain which was distributed unequally, but also the severity of the pain, with those from lower income groups not only more likely to report having chronic pain, but to have more severe grades of chronic pain imposing greater restrictions on their usual activities. Inequalities like this make it clear that there is work to be done to understand why this is the case, for instance to establish to what extent they may reflect generally poorer health in lower income households, and access to and take up of help to support and manage pain. More focused attention may be required to tackle the problem of chronic pain in certain groups to reduce the burden of chronic pain overall.

Of the 31% of men and 37% of women reporting chronic pain, the majority of these had not seen any specialist pain services: overall only a third of those with chronic pain said that they had done so. However, there was evidence that those with the most severe pain were the most likely to have accessed specialist services. Of all of the adults with a longstanding illness or condition who also reported chronic pain, only 18% of men and 15% of women had agreed a personal care plan; while the care plan might not be specifically to deal with their pain, there would be the opportunity to help with pain management. However, around a quarter of those with chronic pain (25% of men and 24% of women) did not have a personal care plan, but said they would like the opportunity to discuss one when this was described to them.

One of the most striking findings from this chapter is the relationship between chronic pain and mental health and well-being. Being in chronic pain was associated with poorer mental well-being, lower levels of happiness and higher prevalence of anxiety/depression. It is not possible to say which of these comes first but it is clear that they are all related. It seems that a multidisciplinary approach to chronic pain management which addresses all of the areas related to chronic pain would be beneficial.

References and notes

1 Merskey H, Bogduk N (eds). *Classification of Chronic Pain*. International Association for the Study of Pain, Seattle, 1994. Part III, Pain Terminology, updated in 2011. www.iasp-pain.org/Content/NaviationMenu/Publications/Freebooks/default/htm

2 Donaldson L. Pain: *Breaking through the barrier. Chapter in 150 years of the Annual Report of the Chief Medical Officer: On the state of public health 2008*. DH, London, 2009. www.dh.gov.uk/en/Publicationsandstatistics/Publications/AnnualReports/DH_096206

3 Blair M J, Robinson R L, Katon W, Kroenke K. *Depression and pain comorbidity: A literature review*. Arch Intern Med 2003;163:2433-2444.

4 Breivik H, Collett B, Ventafridda V, Cohen R, Gallacher D. *Survey of chronic pain in Europe: Prevalence, impact on daily life and treatment*. European Journal of Pain 2006;**10**:287-333.

5 Kleijnen Systematic Reviews Ltd on behalf of the European Federation of IASP (International Association for the Study of Pain) Chapters. *Healthy ageing in relation to chronic pain in the EU: systematic literature report*. 2012. www.sip-platform.eu/

6 Elliott AM, Smith BH, Penny KI, et al. *The epidemiology of chronic pain in the community*. Lancet 1999; **354**: 1248 – 1252

7 British Pain Society, Dr Foster *Intelligence. National Pain Audit: Phase 1 Report: Organisational Audit of NHS Chronic Pain Services.* London, 2011. www.nationalpainaudit.org/media/files/National_Pain_Audit_Report_December_2011.pdf

8 See 'Other/Cross-cutting' section on www.nice.org.uk/guidance/qualitystandards/QualityStandardsLibrary.jsp

9 www.rcgp.org.uk/clinical_and_research/circ/innovation__evaluation/clinical_priorities/2011-2013.aspx

10 Department of Health. Our Health, *Our Care, Our Say: a new direction for community services*. HMSO, London, 2006. http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_4127552

11 More information about personal care plans can be found at www.nhs.uk/Planners/Yourhealth/Pages/Careplan.aspx

12 Von Korff M. *Assessment of chronic pain in epidemiologic and health services research: empirical bases and new directions*. Chapter in Turk D C, Melzack R. (eds). *Handbook of pain assessment*: third edition. Guilford Press, New York, 2011.

13 The Warwick-Edinburgh Mental Well-being Scale was funded by the Scottish Government National Programme for Improving Mental Health and Well-being, commissioned by NHS Health Scotland, developed by the University of Warwick and the University of Edinburgh, and is jointly owned by NHS Health Scotland, the University of Warwick and the University of Edinburgh.

14 Tennant R, Hiller L, Fishwick R, Platt S, Joseph S et al. T*he Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation.* Health and Quality of Life Outcomes 2007;**5**:1-13.

15 Di Tella R, MacCulloch RJ, Oswald AJ. *The macroeconomics of happiness*. Review of Economics and Statistics 2003. 85;**4**:809-827.

16 Cheung K, Oemar M, Oppe M, Rabin R. *User Guide: basic information on how to use EQ-5D. Version 3.0*. Euroquol Group, 2010. www.euroqol.org/eq-5d/publications/user-guide.html

17 This excludes arthritis, rheumatism, fibrositis and complaints relating to the back, spine or neck.

Tables

Notes on the tables

1. The group on which the figures in the table are based is stated at the upper left corner of the table.
2. The data in most tables have been weighted. See Chapter 7, Volume 2 of this report for more detail. Both unweighted and weighted sample sizes are shown at the foot of each table.
3. Apart from tables showing age breakdowns, data have been age-standardised to allow comparisons between groups after adjusting for the effects of any differences in their age distributions. See Chapter 8.3.3, Volume 2 of this report for more detail.
4. The following conventions have been used in tables:
   - \- no observations (zero value)
   - 0 non-zero values of less than 0.5% and thus rounded to zero
   - [ ] used to warn of small sample bases, if the unweighted base is less than 50. If a group's unweighted base is less than 30, data are normally not shown for that group.
5. Because of rounding, row or column percentages may not add exactly to 100%.
6. 'Missing values' occur for several reasons, including refusal or inability to answer a particular question; refusal to co-operate in an entire section of the survey (such as the nurse visit or a self-completion questionnaire); and cases where the question is not applicable to the participant. In general, missing values have been omitted from all tables and analyses.

Table 9.1

Prevalence of chronic pain,[a] by age and sex

Aged 16 and over *2011*

Pain for more than 3 months	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%
Men	14	30	33	43	48	53	31
Women	18	31	42	51	55	59	37
Bases (unweighted)							
Men	*917*	*678*	*666*	*630*	*506*	*420*	*3817*
Women	*1209*	*834*	*824*	*769*	*609*	*537*	*4782*
Bases (weighted)							
Men	*1349*	*761*	*730*	*616*	*436*	*322*	*4215*
Women	*1311*	*767*	*741*	*639*	*475*	*447*	*4381*

[a] Chronic pain is defined as pain or discomfort which currently troubles an individual either all of the time or on and off, and which has lasted for more than 3 months.

Table 9.2

Prevalence of chronic pain[a] (observed and age-standardised), by strategic health authority[b] and sex

Aged 16 and over *2011*

Pain for more than 3 months	Strategic health authority									
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East Coast	South Central	South West
	%	%	%	%	%	%	%	%	%	%
Men										
Observed	38	30	33	31	34	32	23	32	32	31
Standardised	37	31	32	32	35	29	26	31	33	30
Women										
Observed	39	37	43	41	40	40	31	35	32	38
Standardised	37	37	41	42	40	40	33	33	33	36
Bases (unweighted)										
Men	*309*	*509*	*391*	*338*	*409*	*422*	*436*	*286*	*327*	*390*
Women	*409*	*614*	*501*	*429*	*484*	*522*	*551*	*382*	*398*	*492*
Bases (weighted)										
Men	*209*	*571*	*438*	*354*	*456*	*460*	*613*	*341*	*342*	*432*
Women	*225*	*571*	*459*	*386*	*445*	*490*	*625*	*379*	*340*	*461*

[a] Chronic pain is defined as pain or discomfort which currently troubles an individual either all of the time or on and off, and which has lasted for more than 3 months.

[b] This table provides data for regional analysis by the configuration of strategic health authorities (SHAs) in place from July 2006.

Table 9.3

Prevalence of chronic pain[a] (age-standardised), by equivalised household income and sex

Aged 16 and over *2011*

Pain for more than 3 months	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men	24	27	34	36	40
Women	30	36	37	40	44
Bases (unweighted)					
Men	*701*	*644*	*618*	*607*	*474*
Women	*728*	*761*	*739*	*809*	*724*
Bases (weighted)					
Men	*757*	*706*	*654*	*640*	*537*
Women	*669*	*707*	*653*	*717*	*653*

[a] Chronic pain is defined as pain or discomfort which currently troubles an individual either all of the time or on and off, and which has lasted for more than 3 months.

Table 9.4

Prevalence of chronic pain[a] (age-standardised), by Index of Multiple Deprivation[b] and sex

Aged 16 and over *2011*

Pain for more than 3 months	IMD quintile				
	Least deprived	2nd	3rd	4th	Most deprived
	%	%	%	%	%
Men	31	30	30	30	36
Women	34	35	39	39	42
Bases (unweighted)					
Men	*785*	*806*	*802*	*718*	*706*
Women	*986*	*1015*	*1026*	*876*	*879*
Bases (weighted)					
Men	*832*	*880*	*870*	*814*	*818*
Women	*877*	*950*	*954*	*798*	*802*

[a] Chronic pain is defined as pain or discomfort which currently troubles an individual either all of the time or on and off, and which has lasted for more than 3 months.

[b] The Index of Multiple Deprivation 2010 (IMD) combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score at the small area level in England.

Table 9.5

Site of chronic pain, by age and sex

Age 16 and over with chronic pain — *2011*

Site of pain	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%
Men							
Pain in arms, hands, hips, legs or feet	51	50	59	59	65	66	58
Back pain	29	39	36	40	37	42	37
Neck or shoulder pain	13	16	21	27	29	23	22
Stomach ache or abdominal pain	10	13	7	8	10	8	9
Headache, facial or dental pain	7	8	6	9	4	3	6
Chest pain	7	4	5	6	7	9	6
Other pain	10	8	7	8	7	11	9
Pain at 1 site	*76*	*77*	*69*	*63*	*59*	*59*	*67*
Pain at 2 sites	*20*	*15*	*22*	*25*	*25*	*26*	*22*
Pavin at 3 or more sites	*4*	*9*	*9*	*13*	*15*	*15*	*11*
Women							
Pain in arms, hands, hips, legs or feet	39	43	53	66	74	73	58
Back pain	35	49	45	40	46	49	44
Neck or shoulder pain	17	18	29	26	29	31	25
Stomach ache or abdominal pain	21	22	10	9	7	8	12
Headache, facial or dental pain	17	8	12	9	8	6	10
Chest pain	6	6	4	6	4	5	5
Other pain	3	6	8	9	5	8	7
Pain at 1 site	*78*	*64*	*63*	*60*	*50*	*49*	*61*
Pain at 2 sites	*15*	*26*	*24*	*25*	*32*	*32*	*26*
Pain at 3 or more sites	*7*	*10*	*13*	*15*	*18*	*19*	*14*
Bases (unweighted)							
Men	*134*	*202*	*220*	*283*	*242*	*224*	*1305*
Women	*233*	*258*	*350*	*399*	*334*	*321*	*1895*
Bases (weighted)							
Men	*191*	*224*	*239*	*265*	*208*	*172*	*1299*
Women	*240*	*235*	*315*	*326*	*259*	*266*	*1642*

Table 9.6

Mean rating of current pain,[a] by age and sex

Age 16 and over with chronic pain *2011*

Current level of pain	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
Men							
Mean	2.2	2.6	3.1	2.7	2.9	3.2	2.8
Standard error of the mean	0.21	0.19	0.20	0.17	0.18	0.21	0.08
Women							
Mean	2.6	2.8	3.2	3.0	3.5	4.0	3.2
Standard error of the mean	0.19	0.16	0.16	0.13	0.15	0.18	0.07
Bases (unweighted)							
Men	*133*	*202*	*220*	*283*	*241*	*223*	*1302*
Women	*232*	*258*	*350*	*399*	*334*	*320*	*1893*
Bases (weighted)							
Men	*188*	*224*	*239*	*265*	*207*	*171*	*1295*
Women	*239*	*235*	*315*	*326*	*259*	*265*	*1640*

[a] Participants were asked to rate their pain right now on a scale from 0 to 10, where 0 is no pain and 10 is pain as bad as it could be.

Table 9.7

Mean rating of worst pain in the last three months,[a] by age and sex

Age 16 and over with chronic pain *2011*

Worst pain in the last 3 months	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
Men							
Mean	6.4	6.8	6.8	6.7	6.8	6.9	6.7
Standard error of the mean	0.24	0.17	0.18	0.18	0.17	0.16	0.08
Women							
Mean	7.1	7.3	7.5	7.2	7.2	7.5	7.3
Standard error of the mean	0.16	0.15	0.12	0.13	0.12	0.13	0.06
Bases (unweighted)							
Men	*133*	*202*	*220*	*282*	*241*	*221*	*1299*
Women	*232*	*258*	*350*	*399*	*334*	*318*	*1891*
Bases (weighted)							
Men	*188*	*224*	*239*	*264*	*207*	*170*	*1293*
Women	*239*	*235*	*315*	*326*	*259*	*263*	*1638*

[a] Participants were asked to rate their worst pain in the last 3 months on a scale from 0 to 10, where 0 is no pain and 10 is pain as bad as it could be.

Table 9.8

Mean rating of usual pain in the last three months,[a] by age and sex

Age 16 and over with chronic pain — *2011*

Usual pain in the last 3 months	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
Men							
Mean	4.1	4.4	4.8	4.6	4.7	4.9	4.6
Standard error of the mean	0.19	0.16	0.14	0.15	0.15	0.15	0.07
Women							
Mean	4.9	4.9	5.3	5.3	5.3	5.6	5.2
Standard error of the mean	0.14	0.12	0.11	0.11	0.11	0.12	0.05
Bases (unweighted)							
Men	*133*	*202*	*218*	*283*	*239*	*219*	*1294*
Women	*232*	*258*	*350*	*398*	*333*	*316*	*1887*
Bases (weighted)							
Men	*188*	*224*	*236*	*265*	*205*	*168*	*1288*
Women	*239*	*235*	*315*	*326*	*259*	*261*	*1635*

[a] Participants were asked to rate their worst pain on average in the last 3 months on a scale from 0 to 10, where 0 is no pain and 10 is pain as bad as it could be.

Table 9.9

Number of days pain prevented usual activities[a] in the last three months, by age and sex

Age 16 and over with chronic pain — *2011*

Number of days pain prevented usual activities	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%
Men							
0	65	62	61	59	56	50	59
1-6	19	7	13	9	9	9	11
7-14	8	9	6	9	9	5	8
15-30	3	6	7	6	5	6	6
31-75	2	5	3	6	8	9	5
76-90	3	10	10	11	12	21	11
1-14 days	27	16	19	17	18	14	19
More than 14 days	*8*	*22*	*20*	*24*	*26*	*36*	*22*
Women							
0	54	59	58	59	53	46	55
1-6	24	15	14	12	12	10	14
7-14	6	7	5	7	7	8	7
15-30	4	5	6	6	5	8	6
31-75	5	7	7	5	7	7	6
76-90	6	7	10	11	16	21	12
1-14 days	30	22	19	19	19	18	21
More than 14 days	*15*	*20*	*23*	*22*	*27*	*36*	*24*
Bases (unweighted)							
Men	*131*	*202*	*218*	*283*	*241*	*220*	*1295*
Women	*232*	*256*	*350*	*396*	*332*	*314*	*1880*
Bases (weighted)							
Men	*186*	*224*	*236*	*265*	*207*	*169*	*1288*
Women	*239*	*234*	*315*	*324*	*258*	*259*	*1629*

[a] Participants were asked how many days in the last 3 months pain had kept them from doing usual activities like work, school or housework.

Table 9.10

Chronic Pain Grade,[a] by age and sex

Age 16 and over with chronic pain *2011*

Chronic Pain Grade	Age group						Total
	16-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%
Men							
Low interference							
Grade I – Low intensity	64	53	45	49	49	36	49
Grade II – High intensity	14	20	29	19	17	25	21
High interference							
Grade III – Moderately limiting	13	12	12	10	12	12	12
Grade IV – Severely limiting	9	15	14	22	22	28	18
Total Grade I and II	*78*	*73*	*74*	*68*	*66*	*61*	*70*
Total Grade III and IV	*22*	*27*	*26*	*32*	*34*	*39*	*30*
Women							
Low interference							
Grade I – Low intensity	48	43	37	42	33	28	39
Grade II – High intensity	31	28	30	26	32	28	29
High interference							
Grade III – Moderately limiting	10	13	16	12	13	15	13
Grade IV – Severely limiting	11	16	17	21	22	29	19
Total Grade I and II	*79*	*71*	*67*	*68*	*65*	*56*	*68*
Total Grade III and IV	*21*	*29*	*33*	*32*	*35*	*44*	*32*
Bases (unweighted)							
Men	*132*	*201*	*218*	*282*	*239*	*216*	*1288*
Women	*230*	*257*	*350*	*396*	*334*	*313*	*1880*
Bases (weighted)							
Men	*187*	*223*	*236*	*264*	*205*	*166*	*1282*
Women	*237*	*234*	*315*	*324*	*259*	*259*	*1628*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

Table 9.11

Chronic Pain Grade[a] (observed and age-standardised), by strategic health authority[b] and sex

Aged 16 and over with chronic pain *2011*

Chronic Pain Grade	Strategic health authority									
	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East Coast	South Central	South West
	%	%	%	%	%	%	%	%	%	%
Men										
Observed										
Low interference										
Grade I – Low intensity	49	39	47	52	45	49	55	54	58	53
Grade II – High intensity	20	22	25	24	25	25	11	18	16	19
High interference										
Grade III – Moderately limiting	11	12	12	10	12	9	12	15	15	11
Grade IV – Severely limiting	20	27	16	14	18	17	23	13	11	18
Standardised										
Low interference										
Grade I – Low intensity	57	43	50	57	47	54	53	53	60	52
Grade II – High intensity	19	27	20	23	31	22	11	16	16	16
High interference										
Grade III – Moderately limiting	10	8	16	8	9	13	14	17	15	18
Grade IV – Severely limiting	14	22	13	12	14	11	22	15	10	14
Women										
Observed										
Low interference										
Grade I – Low intensity	35	31	39	40	35	40	37	47	42	43
Grade II – High intensity	32	22	33	32	33	27	28	26	30	28
High interference										
Grade III – Moderately limiting	18	17	12	7	13	13	16	8	17	11
Grade IV – Severely limiting	15	29	16	21	19	20	19	19	11	18
Standardised										
Low interference										
Grade I – Low intensity	39	37	41	43	38	42	37	51	41	46
Grade II – High intensity	32	27	29	33	35	28	27	23	29	28
High interference										
Grade III – Moderately limiting	18	14	13	6	12	11	18	8	14	10
Grade IV – Severely limiting	11	22	16	18	15	19	19	19	15	15
Bases (unweighted)										
Men	*130*	*167*	*133*	*114*	*154*	*144*	*111*	*94*	*110*	*131*
Women	*166*	*240*	*219*	*182*	*202*	*214*	*175*	*142*	*142*	*198*
Bases (weighted)										
Men	*79*	*167*	*138*	*109*	*156*	*141*	*142*	*109*	*107*	*133*
Women	*87*	*210*	*194*	*156*	*179*	*194*	*191*	*131*	*110*	*176*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[b] This table provides data for regional analysis by the configuration of strategic health authorities (SHAs) in place from July 2006.

Table 9.12

Chronic Pain Grade[a] (age-standardised), by equivalised household income and sex

Aged 16 and over with chronic pain *2011*

Chronic pain grade	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Low interference					
Grade I – Low intensity	72	60	55	46	37
Grade II – High intensity	15	15	23	21	16
High interference					
Grade III – Moderately limiting	8	20	12	12	16
Grade IV – Severely limiting	5	5	11	20	31
Women					
Low interference					
Grade I – Low intensity	53	52	42	38	25
Grade II – High intensity	25	27	33	35	29
High interference					
Grade III – Moderately limiting	7	9	13	11	18
Grade IV – Severely limiting	15	12	12	16	27
Bases (unweighted)					
Men	*178*	*185*	*242*	*246*	*206*
Women	*240*	*265*	*310*	*361*	*326*
Bases (weighted)					
Men	*175*	*191*	*232*	*238*	*207*
Women	*210*	*233*	*263*	*299*	*281*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

Table 9.13

Self-reported general health (age-standardised), by Chronic Pain Grade[a] and sex

Aged 16 and over *2011*

Self-reported general health	Chronic Pain Grade[a]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%	%
Men					
Very good	41	26	17	9	2
Good	45	53	43	26	29
Fair	13	17	30	44	21
Bad	1	3	9	16	32
Very bad	0	1	1	5	16
Total good/very good	*86*	*79*	*60*	*36*	*31*
Total bad/very bad	*1*	*4*	*10*	*20*	*48*
Women					
Very good	41	28	11	11	2
Good	45	52	49	38	16
Fair	12	17	34	36	39
Bad	1	2	4	12	31
Very bad	1	0	2	3	12
Total good/very good	*86*	*80*	*60*	*49*	*18*
Total bad/very bad	*2*	*3*	*6*	*15*	*43*
Bases (unweighted)					
Men	*2510*	*624*	*265*	*150*	*248*
Women	*2887*	*722*	*540*	*250*	*368*
Bases (weighted)					
Men	*2914*	*633*	*265*	*151*	*232*
Women	*2739*	*628*	*470*	*214*	*315*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

Table 9.14

Longstanding illness status (age-standardised), by Chronic Pain Grade[a] and sex

Aged 16 and over — *2011*

Longstanding illness status	Chronic Pain Grade[a]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%	%
Men					
Limiting longstanding illness	9	24	44	73	80
Non limiting longstanding illness	20	23	17	5	5
No longstanding illness	71	53	39	22	16
Only one longstanding illness	*21*	*32*	*35*	*38*	*40*
More than one longstanding illness	*8*	*15*	*25*	*41*	*44*
Women					
Limiting longstanding illness	11	27	39	58	83
Non limiting longstanding illness	18	23	22	10	5
No longstanding illness	71	51	39	32	11
Only one longstanding illness	*20*	*32*	*32*	*26*	*32*
More than one longstanding illness	*9*	*18*	*28*	*42*	*56*
Bases (unweighted)					
Men	*2509*	*625*	*265*	*150*	*248*
Women	*2887*	*722*	*540*	*250*	*368*
Bases (weighted)					
Men	*2913*	*634*	*265*	*151*	*232*
Women	*2739*	*628*	*470*	*214*	*315*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

Table 9.15

Type of longstanding illness (age-standardised), by Chronic Pain Grade[a] and sex

Aged 16 and over — *2011*

Type longstanding illness[b]	Chronic Pain Grade[a]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%	%
Men					
Musculoskelatal complaints (not including arthritis or complaints relating to the back, spine or neck)	2	11	14	20	30
Arthritis/ rheumatism/ fibrositis	1	9	13	18	19
Back/neck/spine problems	1	8	12	18	19
Respiratory complaints including asthma, bronchitis and COPD	6	7	8	17	12
Problems of the nervous system including migraine, fibromyalgia and ME	2	4	3	9	15
Complaints of the digestive system (including stomach, bowel, colon, liver and kidneys)	2	6	9	11	11
Diabetes and other endocrine/ metabolic diseases	7	6	9	13	12
Heart and circulatory complaints (including stroke, heart attack and angina)	4	5	7	10	14
Hypertension	5	6	6	10	5
Women					
Musculoskelatal complaints (not including arthritis or complaints relating to the back, spine or neck)	2	9	11	16	19
Arthritis/ rheumatism/ fibrositis	3	10	17	23	28
Back/neck/spine problems	1	7	9	16	22
Respiratory complaints including asthma, bronchitis and COPD	7	8	12	9	20
Problems of the nervous system including migraine, fibromyalgia and ME	1	3	7	11	18
Complaints of the digestive system (including stomach, bowel, colon, liver and kidneys)	2	6	12	8	18
Diabetes and other endocrine/ metabolic diseases	7	7	11	16	17
Heart and circulatory complaints (including stroke, heart attack and angina)	3	3	4	8	11
Hypertension	5	6	7	11	9
Bases (unweighted)					
Men	*2510*	*625*	*265*	*150*	*248*
Women	*2887*	*722*	*540*	*250*	*368*
Bases (weighted)					
Men	*2914*	*634*	*265*	*151*	*232*
Women	*2739*	*628*	*470*	*214*	*315*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[b] Participants could mention up to six longstanding illnesses or conditions, and therefore percentages may sum to more than 100%. The questions about longstanding conditions were not linked to those about chronic pain, and the chronic pain reported may not relate directly to the conditions mentioned.

Table 9.16

Provision of personal care plan (age-standardised), by Chronic Pain Grade[a] and sex

Aged 16 and over with a longstanding illness *2011*

Personal care plan status	Chronic Pain Grade[a]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%	%
Men					
Agreed a personal care plan[b]	12	12	16	32	20
Not offered a personal care plan but would like to discuss one	12	16	15	26	44
Not offered a personal care plan and would not like to discuss one[c]	76	72	70	43	35
Women					
Agreed a personal care plan[b]	17	10	12	16	24
Not offered a personal care plan but would like to discuss one	14	17	22	30	31
Not offered a personal care plan and would not like to discuss one[c]	69	73	65	54	45
Bases (unweighted)[d]					
Men	*724*	*323*	*184*	*119*	*231*
Women	*778*	*376*	*354*	*194*	*331*
Bases (weighted)					
Men	*745*	*311*	*177*	*120*	*214*
Women	*695*	*323*	*298*	*163*	*280*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[b] Includes those who agreed a personal care plan within the last year and those who agreed one more than one year ago.

[c] Includes those who were not offered a personal care plan and don't know whether they would like one.

[d] A small number of participants were discussing a personal care plan which had yet to be agreed, or had been offered a personal care plan and did not want one. These are not included in the table.

Table 9.17

Use of specialist pain services (age-standardised), by Chronic Pain Grade[a] and sex

Aged 16 and over with chronic pain *2011*

Have used specialist pain services	Chronic Pain Grade[a]			
	Low interference		High interference	
	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%
Men	25	38	52	61
Women	24	39	40	54
Bases (unweighted)				
Men	*625*	*265*	*150*	*248*
Women	*721*	*540*	*250*	*368*
Bases (weighted)				
Men	*634*	*265*	*151*	*232*
Women	*628*	*470*	*214*	*315*

[a] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

Table 9.18

WEMWBS[a] mean scores (age-standardised), by Chronic Pain Grade[b] and sex

Aged 16 and over *2011*

Mean score	Chronic Pain Grade[b]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
Men					
Mean	53.1	51.8	50.1	48.1	44.9
Standard error of the mean	0.19	0.45	0.91	1.03	2.07
Median	54	53	52	50	44
90th percentile[c]	63	61	62	61	59
10th percentile	43	42	39	36	30
Women					
Mean	52.6	52.1	50.1	49.2	43.4
Standard error of the mean	0.18	0.38	0.50	0.82	0.79
Median	53	53	51	51	43
90th percentile[c]	63	62	61	61	56
10th percentile	42	42	38	36	32
Bases (unweighted)					
Men	*2042*	*525*	*201*	*117*	*187*
Women	*2386*	*628*	*442*	*193*	*280*
Bases (weighted)					
Men	*2356*	*536*	*204*	*115*	*175*
Women	*2265*	*551*	*384*	*165*	*241*

[a] The Warwick-Edinburgh Mental Well-being Scale is designed to measure mental well-being of adults in the UK. The scale has 14 items, each scored from 1 to 5 on a Likert scale, and a total score between 14 and 70 is calculated.

[b] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[c] Percentiles have been presented in this table for reference only. The percentiles show a set of points within a scale from 1-100 which is divided into groups based on order of magnitude. For example, the group of those with a score that is equal to or more than the value of 90% of those with a score is expressed as the 90th percentile.

Table 9.19

Happiness score[a] (age-standardised), by Chronic Pain Grade[b] and sex

Aged 16 and over — *2011*

Mean score	Chronic Pain Grade[b]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
Men					
Mean	8.1	7.6	7.2	7.0	6.1
Standard error of the mean	0.04	0.09	0.18	0.20	0.26
Median	8	8	8	7	6
90th percentile[c]	10	10	10	10	9
10th percentile	6	5	5	4	3
Women					
Mean	8.2	7.8	7.5	7.4	6.3
Standard error of the mean	0.03	0.08	0.11	0.15	0.18
Median	8	8	8	8	6
90th percentile[c]	10	10	10	10	9
10th percentile	6	5	5	5	3
Bases (unweighted)					
Men	*2045*	*532*	*209*	*120*	*202*
Women	*2398*	*635*	*463*	*207*	*291*
Bases (weighted)					
Men	*2347*	*541*	*210*	*118*	*187*
Women	*2268*	*554*	*402*	*176*	*250*

[a] Participants were asked to indicate how happy they would say they are, taking all things together, on a scale of 0 to 10, where 0 means very unhappy and 10 means very happy.

[b] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[c] Percentiles have been presented in this table for reference only. The percentiles show a set of points within a scale from 1-100 which is divided into groups based on order of magnitude. For example, the group of those with a score that is equal to or more than the value of 90% of those with a score is expressed as the 90th percentile.

Table 9.20

EQ-5D visual analogue scale[a] values (age-standardised), by Chronic Pain Grade[b] and sex

Aged 16 and over *2011*

Mean score	Chronic Pain Grade[b]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
Men					
Mean	78.5	75.3	69.3	63.4	48.5
Standard error of the mean	0.35	0.96	1.30	1.97	3.57
Median	80	80	70	68	50
90th percentile[c]	95	90	90	89	80
10th percentile	60	50	50	32	20
Women					
Mean	78.5	75.9	68.8	65.8	49.6
Standard error of the mean	0.32	0.69	0.95	1.60	1.89
Median	80	80	70	70	50
90th percentile[c]	95	92	90	90	79
10th percentile	60	50	45	40	20
Bases (unweighted)					
Men	*2134*	*550*	*212*	*121*	*201*
Women	*2473*	*647*	*473*	*209*	*306*
Bases (weighted)					
Men	*2457*	*561*	*213*	*119*	*187*
Women	*2345*	*564*	*410*	*177*	*263*

[a] The EQ-5D questionnaire is a standardised instrument developed by the EuroQol Group in order to provide a simple, generic measure of health. The first component is a descriptive system comprising five different dimensions (see Table 9.21), and the second is the EQ visual analogue scale (EQ VAS) where a 'thermometer' scale is presented to participants, with zero representing the worst imaginable health state and 100 representing the best imaginable health state. Participants were asked to indicate how good or bad their own health state was that day and mean scores were calculated.

[b] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.

[c] Percentiles have been presented in this table for reference only. The percentiles show a set of points within a scale from 1-100 which is divided into groups based on order of magnitude. For example, the group of those with a score that is equal to or more than the value of 90% of those with a score is expressed as the 90th percentile.

Table 9.21

EQ-5D health dimensions[a] (age-standardised), by Chronic Pain Grade[b] and sex

Aged 16 and over — *2011*

Health dimension; experience on day interviewed	Chronic Pain Grade[b]				
		Low interference		High interference	
	Grade 0 No pain	Grade I Low intensity	Grade II High intensity	Grade III Moderately limiting	Grade IV Severely limiting
	%	%	%	%	%
Men					
Mobility					
No problems in walking about	94	79	62	49	22
At least some problems in walking about	6	21	38	51	78
Self care					
No problems with self care	98	98	95	84	55
At least some problems with self care	2	2	5	16	45
Usual activities					
No problems performing usual activities	94	83	69	40	18
At least some problems performing usual activities	6	17	31	60	82
Pain/discomfort					
No pain or discomfort	87	33	10	11	9
Moderate or extreme pain or discomfort	13	67	90	89	91
Anxiety/depression					
Not anxious or depressed	83	74	66	62	30
Moderately or extremely anxious or depressed	17	26	34	38	70
Women					
Mobility					
No problems in walking about	92	84	68	47	29
At least some problems in walking about	8	16	32	53	71
Self care					
No problems with self care	98	98	97	89	67
At least some problems with self care	2	2	3	11	33
Usual activities					
No problems performing usual activities	92	84	66	41	12
At least some problems performing usual activities	8	16	34	59	88
Pain/discomfort					
No pain or discomfort	84	37	11	11	4
Moderate or extreme pain or discomfort	16	63	89	89	96
Anxiety/depression					
Not anxious or depressed	78	73	58	60	32
Moderately or extremely anxious or depressed	22	27	42	40	68
Bases (unweighted)					
Men	*2178*	*559*	*219*	*129*	*209*
Women	*2568*	*667*	*479*	*216*	*318*
Bases (weighted)					
Men	*2510*	*569*	*219*	*127*	*193*
Women	*2434*	*582*	*415*	*184*	*272*

[a] The EQ-5D questionnaire is a standardised instrument developed by the EuroQol Group in order to provide a simple, generic measure of health. The first component is a descriptive system comprising five different dimensions, shown here, and the second is the EQ visual analogue scale (EQ VAS, see Table 9.20).

[b] The Chronic Pain Grade was calculated based on the Von Korff Graded Chronic Pain Scale Version 2.0. This takes into account intensity of pain, the number of days pain has prevented usual activities and the impact of pain on daily, social and work activities in the last three months.