Indications of Public Health in the English Regions

9: Older People
Authorship and Acknowledgements

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Reports in the series
The reports in the Indications of Public Health in the English Regions series address areas covered by the White Paper Choosing Health. Previous reports addressed the following topics: general health, lifestyles, ethnicity, child health, sexual health, mental health and alcohol and can be found at www.apho.org.uk/apho/indications.htm.

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About the APHO
Please turn to the inside back cover of this report.
Foreword

With improved living conditions and better health care throughout life, life expectancy continues to increase. For example, at 65, life expectancy is increasing for men and women by about 1.5 to 2 years every decade. This, combined with declining birth rates has created an unprecedented shift in the age structure of our population, with dramatic increases in the proportion of the population aged over 65. Ill health and the need for health and social care services is increasingly concentrated in old age, particularly in the over 80’s, where we expect to see the largest relative growth in population size in the next twenty years.

The critical issue is whether people will spend these extra years in good physical and mental health, or in illness, distress and loss of independence. Disease prevention activities, such as vaccination and blood pressure control produce quick returns in old age, as does increasing the level of physical activity. Effective treatments for stroke, fall-related illness, vision, hearing, continence, oral health and foot care problems reduce long-term dependency, and rehabilitation services have an essential role in helping older people recover quickly following hospital admission. Early intervention in dementia and depression improves well-being, which together with support for carers reduces or postpones the need for long-term institutional care.

This report provides an insight into the current health status of older people in the English Regions. There are grounds for optimism, for example, in the high uptake of flu vaccination, but the ratio between healthy active life and years spent with ill health and dependency is still disappointingly low, as are the levels of physical activity amongst older people.

There are some challenging facts in this report. Its findings reinforce how important falls prevention services are with some dramatic statistics. Only 46% of older people with a fractured neck of femur return to their usual residence. Mortality after hip fracture is high, 10% within 30 days of fracture and around 30% at one year. Death certificates do not reliably record these data and published mortality rates are a gross underestimate.

The Regional comparisons will act as a spur to all to examine the differences in interventions and outcomes for older people. As this report makes clear, the data raise questions about differences that demand answers.

We recognise that the determinants of healthy active life in old age go beyond health and social care, with income, housing, transport, education and fear of crime all having an influence, and the report provides valuable insight into these factors. For example, up to 50% of those deemed to be in fuel poverty are older people and they are more likely to be living in housing classified not decent. In 2005/06, 90.5% of excess winter deaths were people aged 65 and over.

This report has great potential for shaping health and social care and wider central and local government policies for older people.

Professor Ian Philp
National Director for Older People’s Health

Sir Liam Donaldson
Chief Medical Officer
# Table of contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>1</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>7</td>
</tr>
<tr>
<td>Chapter 1: Introduction</td>
<td>13</td>
</tr>
<tr>
<td>Chapter 2: Demography</td>
<td>19</td>
</tr>
<tr>
<td>Chapter 3: Life Expectancy and Mortality</td>
<td>31</td>
</tr>
<tr>
<td>Chapter 4: Morbidity</td>
<td>50</td>
</tr>
<tr>
<td>Chapter 5: Physical functionality</td>
<td>63</td>
</tr>
<tr>
<td>Chapter 6: Mental Health</td>
<td>80</td>
</tr>
<tr>
<td>Chapter 7: Quality of Life &amp; Wellbeing</td>
<td>90</td>
</tr>
<tr>
<td>Chapter 8: Lifestyle</td>
<td>112</td>
</tr>
<tr>
<td>Chapter 9: Use of Services</td>
<td>128</td>
</tr>
<tr>
<td>Chapter 10: Older people in the five countries of the UK and Ireland</td>
<td>145</td>
</tr>
<tr>
<td>Appendix 1: Methodology</td>
<td>153</td>
</tr>
<tr>
<td>Appendix 2: Traffic light summary of indicators for the English Regions</td>
<td>157</td>
</tr>
<tr>
<td>Appendix 3: List of abbreviations</td>
<td>163</td>
</tr>
</tbody>
</table>
List of Figures and Tables

Figure 2.1 Population Structure, England 2005 .......................................................................................... 19
Figure 2.2a % older age groups of the total male population, age 65+, 2005 .................................................. 20
Figure 2.2b % older age groups of the total female population, age 65+, 2005 ............................................. 20
Figure 2.3a % older age groups of the total male population, age 65+, selected European Countries, 2005 .......................................................................................................................... 20
Figure 2.3b % older age groups of the total female population, age 65+, selected European Countries, 2005 .......................................................................................................................... 20
Figure 2.4 % Pensioners, 2005 ...................................................................................................................... 21
Figure 2.5 Male to Female Ratio, age 25+, England, 2005 ............................................................................. 21
Figure 2.6 Male to Female Ratio, age 65+, 2005 ......................................................................................... 22
Figure 2.7 Gender Ratio, age 65-84 & 85+, selected European Countries, 2005 ................................. 22
Figure 2.8 Old Age and Child Dependency Ratios, 2005 ........................................................................ 23
Figure 2.9 Projected old age dependency ratio 2004-2044, England ............................................................. 23
Figure 2.10a % black and minority ethnic male pensioners (65+), 2004 ....................................................... 24
Figure 2.10b % black and minority ethnic female pensioners (60+), 2004 .................................................... 24
Figure 2.11a Marital status in males, age 50+, England and Wales, 2005 ................................................... 26
Figure 2.11b Marital status in females, age 50+, England and Wales, 2005 ................................................ 26
Figure 2.12 % in communal residential establishments, Age 35+, England 2001 ..................................... 26
Figure 2.13 % in medical or care establishments (65+), 2001 .................................................................. 26
Figure 2.14 Internal migration within the United Kingdom, age 65+ by region, mid-2000 to mid-2001 ...... 27
Figure 2.15 Net internal migration within the United Kingdom, age 65+ by region, mid-2000 to mid-2001 ........................................................................................................................................... 27
Figure 2.16 Projected population change 2004-2029, all ages, England .................................................... 28
Figure 2.17a Projected population change 2004-2029 in males, age 65+, England ...................................... 29
Figure 2.17b Projected population change 2004-2029 in females, age 65+, England ............................... 29
Figure 3.1 Life expectancy at age 65, 2001 ................................................................................................. 32
Figure 3.2 Life expectancy at age 65 by selected European Countries, 2001 ............................................. 32
Figure 3.3 Principal period life expectancy projections at birth and at age 65, England, 1981 to 2054 .... 32
Figure 3.4 Healthy life expectancy at age 65, 2001 .................................................................................. 32
Table 3.1 Life expectancy, healthy life expectancy and disability free life expectancy at age 65 by sex, England, 1981 to 2001 .................................................................................................................. 33
Figure 3.5 Disability free life expectancy at age 65, 2001 ........................................................................ 34
Figure 3.6 Disability free life expectancy at age 65, selected European Countries, 2001 ....................... 34
Figure 3.7 Age specific death rates, All causes, England 2005 ............................................................... 35
Figure 3.8 Directly Standardised Death Rates for All Causes, age 65+, 2005 ........................................... 35
Figure 3.9a Main causes of mortality in England, Males aged 65+, 2005 .................................................... 36
Figure 3.9b Main causes of mortality in England, Females aged 65+, 2005 ................................................ 36
Figure 3.10a Relative contribution to specific causes of death by age group, Males aged 65+, England 2005 ............................................................................................................................................. 36
Figure 3.10b Relative contribution to specific causes of death by age group, Females aged 65+, England 2005 ............................................................................................................................................. 36
Figure 3.11 Age specific death rates, Circulatory Disease, England, 2005 ................................................. 38
Figure 3.12 Directly Standardised Death Rates for Circulatory Disease, age 65+, 2005 ....................... 38
Figure 3.13 Directly Standardised Death Rates for Circulatory Disease, selected European Countries, age 65+ ............................................................................................................................................... 38
Figure 3.14 Age specific death rates, Coronary Heart Disease, England, 2005 ......................................... 39
Figure 3.15 Directly Standardised Death Rates for Coronary Heart Disease, age 65+, 2005 .................. 39
Figure 3.16 Directly Standardised Death Rates for Coronary Heart Disease, selected European Countries, age 65+ ............................................................................................................................................... 40
Figure 3.17 Age specific death rates, Stroke, England 2005 .................................................................. 40
Figure 3.18 Directly Standardised Death Rates for Stroke, age 65+, 2005 ............................................... 40
Figure 3.19 Directly Standardised Death Rates for Stroke, selected European Countries, age 65+ .......... 41
Figure 3.20 Age specific death rates, Cancers, England 2005 ................................................................. 42
Figure 3.21 Directly Standardised Death Rates for Cancers, age 65+, 2005 ............................................. 42
Figure 3.22 Directly Standardised Death Rates for Cancers, selected European Countries, age 65+ .... 42
Figure 3.23 Age specific death rates, Respiratory Diseases, England, 2005 ............................................ 43
Figure 3.24 Directly Standardised Death Rates for Respiratory Diseases, age 65+, 2005 ....................... 43
Figure 3.25 Directly Standardised Death Rates for Respiratory Diseases, selected European Countries, age 65+ ............................................................................................................................................... 44
Figure 3.26 Age specific death rates, Digestive system disorders, England, 2005 ............................................. 45
Figure 3.27 Directly Standardised Admission Rates for Digestive system disorders, age 65+, 2005 ...................... 45
Figure 3.28 Directly Standardised Death Rates for Digestive system disorders, selected European Countries, age 65+ .............................................................. 46
Figure 3.29 Excess Winter Deaths Index by region, 2005/06 ........................................................................ 47
Figure 4.1 Self-reported 'not good' health, England, 2001 ..................................................................... 50
Figure 4.2 Self-reported 'not good' health, England, 2005 ..................................................................... 50
Figure 4.3 Self-reported 'bad/very bad' health, age 65+, England, 2005 ................................................. 51
Figure 4.4 Self-reported limiting long term illness, England 2001 ...................................................... 52
Figure 4.5 Self-reported limiting long term illness, England 2005 ...................................................... 52
Figure 4.6 Limiting Long Standing illness, age 65+, England 2005 ................................................... 52
Figure 4.7 Doctor diagnosed arthritis, age 65+, England, 2005 ......................................................... 54
Figure 4.8 Age standardised Hypertension, 2005 ............................................................................. 54
Figure 4.9 Age specific admission rates, All admissions, England 2005/06 .............................................. 55
Figure 4.10 Directly Standardised Admission Rates for All admissions, age 65+, 2005/06 ......................... 55
Figure 4.11 Age specific admission rates, Circulatory Disease, England, 2005/06 ................................. 56
Figure 4.12 Directly Standardised Admission Rates for Circulatory Disease, age 65+, 2005/06 ................ 56
Figure 4.13 Age specific admission rates, Coronary Heart Disease, England, 2005/06 ....................... 57
Figure 4.14 Directly Standardised Admission Rates for Coronary Heart Disease, age 65+, 2005/06 ........ 57
Figure 4.15 Age specific admission rates, Stroke, England, 2005/06 .................................................... 58
Figure 4.16 Directly Standardised Admission Rates for Stroke, age 65+, 2005/06 ................................. 58
Figure 4.17 Age specific admission rates, Cancers, England, 2005/06 ................................................. 59
Figure 4.18 Directly Standardised Admission Rates for Cancers, age 65+, 2005/06 .............................. 59
Figure 4.19 Age specific admission rates, Respiratory Diseases, England, 2005/06 .......................... 60
Figure 4.20 Directly Standardised Admission Rates for Respiratory Diseases, age 65+, 2005/06 ............. 60
Figure 4.21 Age specific admission rates, Digestive system disorders, England, 2005/06 ................. 61
Figure 4.22 Directly Standardised Admission Rates for Digestive system disorders, age 65+, 2005/06 ....... 61
Figure 5.1 % reporting difficulty in walking a quarter mile, England, 2005 ........................................ 63
Figure 5.2 Age standardised % reporting difficulty in walking a quarter mile, England, 2005 .................... 63
Figure 5.3 % reporting one or more falls in past year, England, 2005 ..................................................... 64
Figure 5.4 Age standardised % reporting one or more falls in past year, England, 2005 ....................... 64
Figure 5.5 Age specific death rates for accidental falls, England, 2005/06 ........................................ 65
Figure 5.6 Directly standardised death rates for accidental falls, age 65+ England, 2005 ...................... 65
Figure 5.7 Directly standardised death rates for accidental falls, age 65+ Selected European countries ............................ 66
Figure 5.8 Age specific hospital admission rates for accidental falls, England, 2005 ................................ 66
Figure 5.9 Directly standardised hospital admission rates for accidental falls, age 65+, England, 2005 .... 66
Figure 5.10 Age specific hospital admission rates for fractured neck of femur England, 2005 ................... 67
Figure 5.11 Directly standardised hospital admission rates for fractured neck of femur, age 65+, England, 2005 ........................................................ 67
Figure 5.12 % returning to usual place of residence within 28 days of emergency admission for fractured neck of femur, England, 2003/04 ............................................................ 68
Figure 5.13 Indirectly standardised death rate within 30 days of admission for fracture neck of femur England 2003/04 .................................................................................. 68
Figure 5.14 % Impaired on Short Physical Performance Battery England 2005, age 65+, England, 2005 ... 70
Figure 5.15 Age standardised % impaired on Short Physical Performance Battery score, age 65+, England, 2005 .................................................................................. 70
Table 5.1 Percentage of men and women by age who were visually impaired (low vision or blind) in MRC study .................................................. 71
Figure 5.16 Crude rate per 1,000 of people registered blind or partially sighted, England, 2006 ................ 72
Figure 5.17 Crude rate per 1,000 of people registered blind or partially sighted, age 65+, England, 2006 .......................................................... 72
Figure 5.18 Crude rate per 1,000 of people registered deaf or hard of hearing, England, 2004 ............... 73
Figure 5.19 Crude rate per 1,000 of people registered deaf or hard of hearing, age 65+, England, 2004 .... 73
Figure 5.20 % of people who have no natural teeth England, 1998 & 2005 ............................................. 74
Figure 5.21 Age standardised % of people who have no natural teeth (self report), age 65+ England 2005 .......................................................... 74
Figure 5.22 % of people reporting a “bladder problem”, England, 2005 .............................................. 75
Figure 5.23 Age standardised % of people reporting a “bladder problem”, age 65+, England, 2005 .... 75
Table 6.1 Percentage of Mental Health admission by primary diagnosis code in the 65 and over age group, 2004/5 ........................................................................ 81
Figure 6.1 Age specific admission rates, Mental Health, England, 2005/06 .......................................... 82
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.10</td>
<td>% of people doing 30 minutes of moderate activity at least 3 times in the past week, England, 2006</td>
</tr>
<tr>
<td>8.11</td>
<td>% of people doing at least 30 minutes of moderate activity at least once in the last 4 weeks, England, 2006</td>
</tr>
<tr>
<td>8.12</td>
<td>% of people doing 30 minutes continuous walking at least once in the last 4 weeks, England, 2006</td>
</tr>
<tr>
<td>8.13</td>
<td>% of people drinking more than 21/14 units per week, England, 2005</td>
</tr>
<tr>
<td>8.14</td>
<td>% of people drinking on 5 or more days a week, Great Britain, 2005</td>
</tr>
<tr>
<td>8.15</td>
<td>% of people drinking on 5 or more days a week, age 65+, 2003/04</td>
</tr>
<tr>
<td>8.16</td>
<td>% of binge drinkers, England, 2004 (HSE)</td>
</tr>
<tr>
<td>8.17</td>
<td>% of binge drinkers, 2004 (GHS)</td>
</tr>
<tr>
<td>9.1</td>
<td>Rate of new and existing clients with completed assessments, 2005/06</td>
</tr>
<tr>
<td>9.2</td>
<td>Rate of new and existing clients with completed reviews by primary client type, 2005/06</td>
</tr>
<tr>
<td>9.3</td>
<td>Rate of referral for primary reason mental health (dementia and other), 2005/06</td>
</tr>
<tr>
<td>9.4</td>
<td>% of clients assessed who do not receive service, 2005/06</td>
</tr>
<tr>
<td>9.5</td>
<td>% of mental health clients assessed but not receiving service, 2005/06</td>
</tr>
<tr>
<td>9.6</td>
<td>Rate of households receiving home help &amp; home care, by type of provider, 2006</td>
</tr>
<tr>
<td>9.7</td>
<td>Rate of households receiving intensive and non-intensive home care, 2006</td>
</tr>
<tr>
<td>9.8</td>
<td>Average number of hours of home help per household during survey week, 2006</td>
</tr>
<tr>
<td>9.9</td>
<td>Rate of Home care services all clients age 65+, 2005/06</td>
</tr>
<tr>
<td>9.10</td>
<td>Rate of Day care service, all clients, age 65+, 2005/06</td>
</tr>
<tr>
<td>9.11</td>
<td>Rate of meal services, all clients, age 65+, 2005/06</td>
</tr>
<tr>
<td>9.12</td>
<td>Rate of overnight respite care, all clients, age 65+, 2005/06</td>
</tr>
<tr>
<td>9.13</td>
<td>Rate of new episodes of care within NHS physiotherapy services, by age group, 2004-05</td>
</tr>
<tr>
<td>9.14</td>
<td>% of GP consultations in past 14 days, by age group, Great Britain, 2005</td>
</tr>
<tr>
<td>9.15</td>
<td>% of people who consulted a GP in the past 14 days, England, 2005</td>
</tr>
<tr>
<td>9.16</td>
<td>Age standardised % of people who consulted a GP in the past 14 days, England, 2005</td>
</tr>
<tr>
<td>9.17</td>
<td>% of people attending hospital as outpatients in past year, England, 2005</td>
</tr>
<tr>
<td>9.18</td>
<td>Age standardised % of people attending hospital as outpatients in past year, 2005</td>
</tr>
<tr>
<td>9.19</td>
<td>Age standardised influenza vaccine uptake for winter season, age 65+, by Regions, 2005/06</td>
</tr>
<tr>
<td>9.20</td>
<td>Age standardised rates for admission for revascularisation, England, 2005/06</td>
</tr>
<tr>
<td>9.21</td>
<td>Directly Standardised Admission Rates for revascularisation, age 65+, 2005/06</td>
</tr>
<tr>
<td>9.22</td>
<td>Rate and ratio of Revascularisation procedures at ages 50-64 and 65-79, 2005/06</td>
</tr>
<tr>
<td>9.23</td>
<td>Age standardised rates for admission for hip replacement, by age, England, 2005/06</td>
</tr>
<tr>
<td>9.24</td>
<td>Directly standardised admission rates for hip replacement, 65+, 2005/06</td>
</tr>
<tr>
<td>9.25</td>
<td>Rate and ratio of hip replacement procedures at ages 50-64 and 65-79, 2005/06</td>
</tr>
<tr>
<td>Table 10.1</td>
<td>National populations aged 65 and over, 2005</td>
</tr>
<tr>
<td>10.1</td>
<td>% of population within older age groups, 2005 (ROI 2006)</td>
</tr>
<tr>
<td>10.2</td>
<td>Male to Female ratio, age 65+, 2005 (ROI 2006)</td>
</tr>
<tr>
<td>10.3</td>
<td>% pensioners, 2005 (ROI 2006)</td>
</tr>
<tr>
<td>10.4</td>
<td>Old age and child dependency ratios, 2005 (ROI 2006)</td>
</tr>
<tr>
<td>10.5</td>
<td>Projected population change, age 65+, 2004-2029</td>
</tr>
<tr>
<td>10.6</td>
<td>Life Expectancy at age 65, 2003-05 (ROI 2001-03)</td>
</tr>
<tr>
<td>10.7</td>
<td>Directly standardised death rates for All causes, aged 65+, 2005</td>
</tr>
<tr>
<td>10.8</td>
<td>Directly standardised death rates for All circulatory disease, aged 65+, 2005</td>
</tr>
<tr>
<td>10.9</td>
<td>Directly standardised death rates for Coronary Heart Disease, aged 65+, 2005</td>
</tr>
<tr>
<td>10.10</td>
<td>Directly standardised death rates for Stroke, aged 65+, 2005</td>
</tr>
<tr>
<td>10.11</td>
<td>Directly standardised death rates for Cancers, aged 65+, 2005</td>
</tr>
<tr>
<td>10.12</td>
<td>Directly standardised death rates for Respiratory Disease, aged 65+, 2005</td>
</tr>
</tbody>
</table>
Executive Summary

Chapter 1
There is no clear definition of ‘older age’ and although impairment of function and health problems become more common with increasing age, function and health are not reliably predicted by chronological age. Therefore all age cut off points used in this report are arbitrary and the groups above and below these cut off points are very heterogeneous in their health and capabilities.

Many data sources give inadequate information on older people, lumping the older age group into a single group or even more unhelpfully excluding older people all together. The recent Health Survey for England 2005 Health of Older People report is one of the few data sources which has reasonably detailed coverage of older people.

National Policy has recognised that the numbers of older people and the proportion that they form of the population will increase. The National Service Framework for Older People is one of numerous policy documents that aims to ensure that all older people are able to obtain health care and preventive services appropriate to their needs, that there is no age discrimination, that there is zero tolerance of abuse and that all older people are treated with respect for their dignity. Other policy documents have emphasised the need to ensure that older people had adequate income, had decent housing and were in no way excluded. Services for older people had to ensure that they were able to live independently in their own homes for as long as possible. This report identifies some of the demographic and health facts which have to be recognised in implementing these policies.

Chapter 2
In 2005 16% of the population of England were aged 65 or over and 2% aged 85 or over. The highest percentage of older people is found in South West region and the lowest in London region. UK falls in the middle of the range of European countries for proportion aged 65 and over. In older age groups the proportion of females increases so there are more women than men. Currently the number of people of pensionable age is 30% of the number of people of working age (the old age dependency ratio) in England. The proportion is highest in South West region and lowest in London region. This old age dependency ratio is projected to rise to nearly 50% by 2044. About 3.5% of people of pensionable age are estimated to be from black and minority ethnic groups but this varies markedly between regions with London having 15% while North East has 1%. With increasing age the proportion of married older people falls while the percentage of widow/widowers increases so that of those aged 90 or over, 35% of men and 7% of women have living spouses.

The vast majority of older people live in their own homes but with older age the percentage living in communal residential establishments increases. The Census (2001) showed that of those aged 85 and over 12% of men and 22% of women were in these establishments. The proportion of people aged 65 and over in communal residential establishments was greatest in South West region and least in London region. All regions experience migration in and out of people aged 65 and over but in London region outflows exceeded inflows by a large margin. South West, East of England, East Midlands and South East regions were net gainers of older people with immigration to the region exceeding emigration. Population projections show that most of the increase in English population over the next 25 years will be among those aged 50 and over with the largest proportional increase in the oldest age group. The greatest projected increase in proportion of older people is seen in East Midlands and the smallest increase in London.
Chapter 3
On their 65th birthday a man can expect to live a further 16 years and a woman a further 19 years. The highest life expectancy at 65 years is experienced in South West region and the lowest in North East region where it is 1.8 years less. UK has one of the lower life expectancies at 65 among a range of European countries. Healthy life expectancy at 65 is 4.3 years less than total life expectancy for men and 5.8 years less for women. Disability free life expectancy at 65 is 7.1 years less than total life expectancy for men and 9 years less for women.

All cause mortality rises steeply with age and at all ages is slightly less for women than for men. Age standardised all cause mortality in those aged over 65 is greatest in North East region and least in South West region. The main causes of mortality in those aged 65 and over are cancer (29% in men, 21% in women), heart disease (21% in men, 15% in women), stroke (9% in men, 13% in women), other circulatory disease (9% in men, 10% in women), respiratory disease (16% in both men and women) and digestive disease (4% in men, 5% in women). For all these causes of death mortality rises steeply with age and at each age death rate is higher for men than for women, except for stroke and digestive disease. There was also a north south gradient with North East and North West regions having the highest mortality for nearly all these causes and South East and South West the lowest. Comparison with a range of European countries shows the United Kingdom to be in the middle of the range for most causes of death except for respiratory disease, where it is one of the highest. The proportion of excess winter deaths increases with age with the highest percentage in the 85 and over age group. The proportion of excess winter deaths varies between regions and the regional rank order does not stay constant year to year.

Chapter 4
The majority of ill health is simply tolerated or perhaps self treated and so does not figure in health service records and most health service contacts are with primary care where much of the data are not collected. In community surveys older people are more likely to report that their health is not good or that they suffer from a longstanding illness that limits what they can do. According to the HSE 2005 The heath of older people nearly half of those aged over 65 report their health as not good and a similar proportion say they have a limiting long standing illness.

Many of the common diseases, to which older people are more susceptible, such as arthritis, hypertension and diabetes are mostly treated in primary care. Nearly 47% of women and 32% of men aged 65 and over reported that they had arthritis while 13% of men and 10% of women reported having diabetes.

Hospital admission rates reflect both the frequency of the disease and also the policies and practice regarding admission. The probability of hospital inpatient admissions for all causes rise with age. The age standardised admission rates for all causes are generally lower in the southern regions. South East has the lowest and North East the highest. The regional pattern of standardised admission rates for respiratory disease also shows a north south gradient. Standardised admission rates for all circulatory disease show a different regional pattern with highest rates in London and East of England. Standardised admission rates for all cancers are highest for North East region and lowest for North West region. The regional rank order for admission rates for coronary heart disease, stroke, all cancers and digestive disease do not show a marked north south gradient.
**Chapter 5**

Difficulties with mobility increase with age and in one survey 29% of men and 31% of women aged 65-69 reported difficulty in walking a quarter of a mile while among those aged 85 and over it was 67% of men and 74% of women.

In the past year 21% of 65-69 year olds and 43% of those aged 85 or over reported having fallen. Deaths from accidental falls rise steeply with age and over 2200 people aged over 65 in England were recorded as having died as a result of falls in 2005. Sixty percent of those admitted to hospital because of a fall are aged 65 or over and 40% are aged 80 or over. The regional rank order for death rates and admission rates for falls are different with West Midlands having the highest death rate and the lowest admission rate.

One of the serious consequences of a fall is fractured neck of femur. Age standardised admission rates for fractured neck of femur rise steeply with age and are greatest in South West region and lowest in London.

A test of physical performance (Short Physical Performance Battery) shows performance to decline with age. Visual impairment also becomes increasingly common with age so that by the age of 90 and over 28% of men and 39% of women were visually impaired. Registration rates for blindness and visual impairment vary considerably between region but probably reflect differences in registration practice rather than true prevalence of visual disability. The same is true for registration rates for deafness and hard of hearing.

The percentage of people without teeth rises steeply with age but has decreased in more recent years. There is a north south gradient in percentage edentate with the highest percentage in Yorkshire and Humber region and the lowest in South East.

The Health Survey for England Health of older people survey found “bladder problems” to rise with age with 16% of men and 19% of women aged 65-69 and 31% and 34% of those aged 85 and over reporting such problems.

**Chapter 6**

Older people like any other group suffer a range of mental disorders including dementia, depression, anxiety and other conditions. The vast majority of older people with mental health problems receive no care, only informal care, care in a communal residential establishment or care by primary care services. It is only a tiny fraction of the total who are admitted to hospital so hospital admissions are not a reliable indicator of the frequency of mental health problems. Of the older people admitted to hospital for a mental health diagnosis nearly half are admitted with a primary diagnosis of dementia and a quarter with diagnosis of mood disorder.

Dementia is rare below the age of 60 but thereafter its prevalence doubles every 5 years so it has been estimated that 30% of those age 90 or over suffer from this condition. Of those with dementia less than 1 in 40 age 65 and over is likely to be admitted to hospital. Age standardised hospital admissions for dementia are lowest in North West and South East regions.

Depression both diagnosed and undiagnosed is also common in older people. The Health of older people survey found that one fifth of 65-69 year olds and two fifths of those aged 85 and over had high scores on a depression inventory. Hospital admission rates for depression also increase with age.
Chapter 7
Quality of life depends on both material and social circumstances. After age 60 the proportion of men and women who remain economically active drops steeply so that in the 70-74 age group only 8% of men and 4% of women are economically active. Among older people those in London and South East regions are most likely to be economically active. Much unpaid caring is undertaken by older people and the proportion of carers is highest among women aged 55-64 and men aged 75-84. The percentage of older people giving care is highest in North East and North West regions and lowest in London and South East. Nearly half the households affected by fuel poverty are occupied by people aged 60 or more and older people are more likely to be living in housing classified as not decent. The proportion of older people living in houses owned outright is higher than for younger people but the proportion living in social housing is also higher. Older people are less likely than younger to be living in households with a car and make fewer trips per year. Older people living in South West or South East regions are most likely to be living in households with a car and those in North East are least likely.

The Health Survey for England health of older people survey measured social capital and found that contact with friends, contact with family, perceived social support and participation in organised activity did not vary much with age but that trust in people in general increased as people got older. Contrary to popular belief worry levels about various types of crime including burglary, violent crime and anti-social behaviour did not increase but decreased with increasing age. Crime rates in different regions are not available differentiated by age of victim.

Chapter 8
Standard 8 of the National Service Framework for older people is promoting health and active life in older age. With increasing age the percentage of current smokers falls and that of ex smokers increases. The regional pattern for smoking by older people is the same as that for smoking by all ages with higher smoking rates in the northern regions and lower rates in the southern regions. After the age of 65 the percentage of those overweight and obese falls with increasing age.

Detailed information on nutrient intake is hard to obtain but data from the Family Food Survey suggest that those in households with an older household reference person have higher rather than lower nutrient intakes than those with a younger household reference person. All are recommended to eat five portions of fruit and vegetables per day. Older men are equally likely to follow this advice as younger men but among older women there was some suggestion that the percentage eating 5 portions per day decreased with age. There were no clear differences between regions for fruit and vegetable consumption by older people.

The percentage engaging in active recreation falls with age. There was no clear regional pattern and the region with the highest and lowest percentage taking active recreation varied depending on which age band was being examined.

The percentage drinking heavily (for men >21 units/wk for women >14) decreases with age but the percentage drinking frequently increases with age. In other words older people drink more frequently but smaller amounts on each occasion. Binge drinking (for men drinking more than 8 units on one occasion or for women more than 6 units) is much less frequent among older people. The regional patterns among older people for frequent (more than 5 times a week) and binge drinking are very dissimilar. South West has the second highest percentage of frequent drinkers but the lowest percentage of binge drinkers while North West has the third lowest percentage of frequent drinkers but the highest percentage of binge drinkers.
Chapter 9
Social services are important for supporting older people to remain at home but their services are complex and it is difficult to obtain a clear picture from routine statistics. Among those aged 75 and over the social service client rate is 274 per thousand. Of these 23 per thousand are referred for mental health reasons of which nearly two thirds are for dementia. The client rate is greatest in North East and North West regions and lowest in East of England. Some clients are assessed but do not receive service. This varies from nearly 30% in South West to only 12% in Yorkshire and Humber region. The reasons for these variations are unclear. Home care may be provided by the local authority or by independent providers. The average hours of home care provided per client vary from 8-14 hours per week. Community care includes home care, day care, meals services and overnight respite. The regional client rate patterns for these services varied but South East had the lowest client rate for most services except overnight respite. North East had the highest client rate for home care and day care, London for meal services and Yorkshire and Humber for overnight respite.

Chiropody services are important for the well being and continued mobility of older people. There is wide variation between regions in the care episode rate which is highest in London and West Midlands and lowest in East of England and South East regions.

NHS General Practitioner services and hospital outpatients are also important in supporting older people in their homes. The Health Survey for England health of older people survey found that those aged 85 and over had similar usage of General Practitioner to those aged 65-69 and only slightly higher usage of hospital outpatient services. There was some regional variation in use of General Practitioner services but very little for hospital outpatient services. Flu immunisation is recommended for older people. Coverage varied from 77% in North East to 72% in London but all regions achieved the target coverage of 70%.

It is firm policy that there shall be no age discrimination and access to medical care should always be on the basis of capacity to benefit rather than chronological age. For two procedures coronary artery revascularisation and elective hip replacement the access rates for 50-64 year olds and for 65-79 year olds were compared. For revascularisation the ratio of rates in the younger verses the older group was highest in North East suggesting a lower propensity to operate in the older group and lowest in the East of England region. For hip replacement the ratio was also highest in North East but lowest in South East. These differences between regions do not show any improper clinical practice but they do pose the question as to why they arise.

Chapter 10
The bulk of this report is concerned with England and while having similar policy goals Scotland, Wales, Northern Ireland and the Republic of Ireland have slightly different policy frameworks. The four countries of the United Kingdom have similar proportions of older people in their population with Wales having slightly more than England. However the Republic of Ireland has a considerably lower proportion of older people. Differences in life expectancy on the 65th birthday (15.4 to 16.8 years for men and 18.4 to 19.6 years for women) in the 5 countries are small compared to the differences within countries. Of the five countries England has the lowest age standardised all cause mortality in those aged 65 and over and Republic of Ireland has the highest. The same pattern is seen for all circulatory disease mortality and for coronary heart disease mortality. Scotland has the highest age standardised rate for stroke and all cancer mortality.
Conclusion

This report presents a wide range of data on older people. It demonstrates the folly of stereotyping people on the basis of chronological age. It shows that older people are a numerically important group and one which requires particular services. It also shows that there are variations between regions which need to be explained and might be a guide to future service development.
Chapter 1: Introduction

This *Indications of Public Health in the English Regions* report on older people aims to describe the health and quality of life of older people living in Britain. By looking at their demography, mortality and morbidity, physical and mental functionality, quality of life, lifestyle, and services used it seeks to identify areas of concern which can be rectified and to lay down a baseline against which future progress may be judged. The main focus of the report is on England but the final chapter reviews the position in Wales, Scotland, Northern Ireland and the Republic of Ireland.

The Public Health Observatories each have lead roles and West Midlands Public Health Observatory has lead responsibility for information on older people.

Definition of “Older” person

There is no clear definition of “old age” or “older age” in terms of chronological age. Ageing as a biological term can be defined as “a progressive, generalized impairment of function resulting in a loss of adaptive response to stress and an increasing probability of death”\(^1\). The signs of ageing include a loss of vigour, greying and loss of hair, loss of suppleness and wrinkling of the skin, impairment of the senses, osteoporosis, and cardiovascular and neurological degeneration\(^2\). As this report shows, the prevalence of many different conditions increases with age. The age at which a person becomes “old” depends on many factors including the age of the person making that judgment, and many older people reject being labelled according to their chronological age\(^3\). The average age which the public used to define the start of “old age” was 65, in an Age Concern survey\(^4\). The National Service Framework (NSF) for Older People\(^5\) defined three groups of older people: those entering old age on completing paid employment and child rearing; those in the transitional stage between healthy active life and frailty (typically seventh and eighth decade); and frail older people, who are vulnerable because of health or social care needs\(^6\). The Department for Work and Pensions (DWP) generally referred to people aged 60 years and over as older people in *Opportunity Age*, but also included people in their 50s as this is a period when many people take early retirement or prepare for retirement.

This report does not attempt the unhelpful task of defining “old” and “older” but tries to show the relation between each indicator and chronological age. In making regional comparisons arbitrary cut off points, sometimes chosen by ourselves, sometimes forced on us because they were the only data available, have been used to summarise data. However these cut offs should not be regarded as having any particular meaning and both groups above and below the cut off are very heterogeneous in their health and capabilities.

Limitations to the data

Given the wide variation in health, fitness and circumstances of people in different age bands one would like to find data on older people broken down into fairly narrow age bands. However many data sources simply lump all data on those aged sixty five and over into a single group. Even worse some exclude all older people from their data collection. Even where data exist problems with their collection and presentation may make them difficult to interpret (See Appendix 1 Methodological Issues).

Just prior to the finalisation of this report “*The health of older people*”\(^6\) was published by the Health Survey for England. This gives the findings of an extensive survey carried out in England, which interviewed a large representative sample of people aged 65 years and over including 1897 men and 2272 women. Data from this survey, which will be referred to as the “HSE 2005 *The health of older people*”, are used in several places throughout this report. The *HSE 2005 The health of older people* tabulates its information by both Government Office Region and by 5 year age band but few
other sources give such rich data.

This report has tried to compare data on older people between Government Office Regions but for many data sets the information is tabulated by Region or age band but not by both making the desired comparisons impossible. The report has also tried to make comparisons with European countries but this is only possible for the few indicators where work has been done to create reasonably consistent data sets (for example mortality rates and life expectancy). Comparison with other UK countries made in the final chapter is easier but inconsistencies in data collection still limit what can be shown.

**Demographic trends**
Population projections (Chapter 2) predict a significant rise in the proportion of older people compared to the younger age groups and in particular an increase in the frail older population. This projected rise in the retired population has led to concern about meeting the cost of pensions, and the increasing demand for NHS and social services. Although people aged 65 and over make up only 16% of the population, they occupy almost two thirds of general and acute hospital beds and account for 50% of the recent growth in emergency admissions.

**The National Service Framework for Older People**
The National Service Framework (NSF) for Older People, one of a number of long term strategies designed to improve areas of care, was published in 2001 and addresses conditions which are particularly significant for this age group: strokes, falls and mental health conditions such as dementia. The NSF for Older People particularly urged the need for integrated commissioning and delivery of older people’s services, the use of a single assessment process across health and social services, provision of services in the home to prevent the need for admission to long-term residential care, and effective rehabilitation services to enable early discharge from hospital. Five years later the Audit Commission reviewing progress against the targets of the NSF for Older People in Living Well in Later Life found that much progress had been made, but that only 6% of inspected local authorities nationally had a single assessment process for health and social care.

The National Director for Older People’s Health has also reviewed progress in a series of three reports Better Health in old age (2004), A new ambition for old age (2006), and A recipe for care – not a single ingredient (2007). The second of these introduced the themes of dignity in care, joined-up care and healthy ageing and the third identified ways to reconfigure older people’s services, reducing the need for hospital care and increasing community based services. At the same time the Department of Health is running the campaign “Dignity in Care” which aims to create zero tolerance of abuse and disrespect of older people within the care system and ensure that all are treated with respect for their dignity, including during end of life care.

**Age discrimination**
Older people have concerns that they may not be treated the same way as younger people in the NHS. In How Ageist is Britain Age Concern found that 29% of people reported experiencing age discrimination, 30% believed there is more age prejudice now than 5 years ago and 30% felt that those aged over 70 years were viewed as incompetent and incapable. The Department of Work and Pensions (DWP) reviewed age discrimination in the workplace in Opportunity Age and proposed the establishment of a Commission for Equality and Human Rights to help combat age discrimination. It has now become illegal to discriminate in the workplace on grounds of age. None the less some legislation still makes distinctions on age grounds, for example there is no mobility component to Attendance Allowance, although it is the over 65s equivalent to the Disability Living Allowance. The NSF for Older People standard one: ‘rooting out age discrimination’ aims to prevent age discrimination and inequity in the treatment of older people within the NHS. The Audit Commission...
in its report *Older people: Independence and well being: the challenge to public services*\textsuperscript{13} found a reduction in explicit age discrimination in planning services, policies and provision of services. For example access to cardiac procedures and hip and knee replacements had improved for those aged 65 years and over, since the publication of the National Service Framework, while access to stroke services were generally good. The main exception was meeting the mental health needs of older people where improvement was needed\textsuperscript{7}. The Audit Commission again emphasized the need to tackle age discrimination, the need to include older people in consultation, and the needs of older carers and proposed a change of emphasis from acute services in a crisis, to prevention and the promotion of wellbeing and independence. The Joseph Rowntree Foundation (JRF) has also urged the need for tackling age discrimination and inequality by reintegrating older people into mainstream services\textsuperscript{12}.

**Exclusion of older people**

The Office of the Deputy Prime Minister (now Communities and Local Government) has also produced a series of reports on older people. The first *Excluded older people*\textsuperscript{14} emphasized the importance of early intervention with low level preventative services, the need for joined up and coordinated services, and the importance of user involvement, choice and control. The second report *A Sure Start to later life: ending inequalities for older people*\textsuperscript{15} outlined a new format for providing services for excluded older people based on the children’s Sure Start programme.

*Opportunity Age*\textsuperscript{3} produced by the Department of Work and Pensions (DWP) outlined proposals to increase employment rates in the over 50s (aspiring to an 80% employment rate up to state pension age), to provide older people with adequate income and decent housing, and to assist them in preserving independence despite increasing health problems. It proposed packages such as *Link-Age* to help older people remain independent in their own homes as well as the piloting of individual budgets so that people can buy their own care packages. *Older Women, Work and Health, reviewing the evidence*\textsuperscript{16} a report produced by Help the Aged and The Age and Employment Network highlighted that already 1.5 million women aged 45-64 are in the workforce but very little is known about how this affects their health.

The Nuffield Institute for Health in their report *Living well in later life: From Prevention to Promotion*\textsuperscript{17} also urge a reduction in inequalities and social exclusion, through community capacity building and local democracy, giving older people more control and independence, and allowing them to participate fully in social, economic, cultural and civil affairs.

**Older people in a changing environment**

The House of Lords, Science and Technology Committee considered current demographic trends, the ageing process, age related diseases, the built environment and assistive technology, the role of the NHS and research into ageing in their report *Ageing: Scientific Aspects: Scientific Committee Report on Ageing*\textsuperscript{2}. Among other items they stressed the importance of emails and mobile phones to society today and commented that industry has not addressed the needs of those with poorer eyesight, memory and dexterity and has failed to adequately involve older people in research into assistive technology.

The Housing and Older People Development Group, a government advisory body in its report *Delivering Housing for an Ageing Population*\textsuperscript{18} noted the predicted growth in numbers of households headed by older people particularly the older old, of older people living alone and of older people from black and minority ethnic groups. These people usually want to continue to live in the same area and to remain involved in their local communities and therefore need a wide range of housing choices ranging from mainstream housing to specialist provision to allow this.
Prevention of ill health

From Welfare to Wellbeing: planning for an ageing society\textsuperscript{12} published by the Joseph Rowntree Foundation urged public services to shift their focus from providing crisis support to the minority of most vulnerable older people to providing preventive support to the majority of older people enabling them to maintain their independence. They also commented on the need to re-establish the link between pensions and income level so that the basic state pension would enable older people to stay out of poverty.

Two studies from the Economic and Social Research Council (ESRC) are also concerned with older people. Fit and fifty\textsuperscript{19} reports on demographic changes as they affect 50 year olds and outlines their experience of employment, health, socioeconomic situation, home ownership, lifestyle and life expectancy. Growing older in the 21st Century\textsuperscript{20} is a report of a programme of 24 research projects covering the diversity of older people as a group, quality of life, ageism, social exclusion and carers.

As fit as butchers’ dogs\textsuperscript{21} published by Age Concern reviews older people’s health knowledge and behaviour and describes the barriers to leading a healthy lifestyle. A way of overcoming some of these barriers is suggested in a series of reports Making the Case\textsuperscript{22}, Taking action\textsuperscript{23} and Measuring impact\textsuperscript{24} from the Health Development Agency. These reports describe eight pilot programmes, designed to improve health in midlife (50-65 yrs) as a foundation for a more independent and healthy old age. They found that people in the 50-65 age group feel ignored by generic adult services and do not identify with services for older people; want the opportunity to reflect and plan for a healthy and fulfilling old age; are undergoing multiple transitions concerning employment, health, and family structure; and ,being aware of growing older, are particularly receptive to health improvement messages.
References

Chapter 1


Chapter 2: Demography

This chapter covers the demography of older people. The changing demography of the older population has attracted considerable attention because of concern about meeting the cost of pensions\(^1\). There is also concern about the growth in the numbers of the “oldest old”, and the increasing numbers of frail older people. The increase in the number of those in older age groups has also caused concern about increased demand for NHS and social services\(^2\).

Population age structure
Before considering the health of older people it is important to consider how many there are, what proportion they form of the population and how their numbers will change in the future. Knowledge of the numbers of people of different ages in a population is an essential requirement for planning and predicting labour supply, economic and welfare policy including pensions, housing, transportation, health and social services and the social and physical infrastructure.

Indicator description
Indicator: Percentage of Male and Female Population in specific age groups 2005.
Numerator: Male and Female in specific age group.
Denominator: Persons of all ages.

Population Pyramid

![Population Structure, England 2005](image)

Figure 2.1 shows the structure of the English population in 10 year age bands for males and females. The population peaks in the 30-39 age band which makes up nearly 15% of the total population, followed by the 40-49 age band which makes up 14%. The numbers in the older age bands decrease with increasing age.

In 2005 16% (8 million) of the population of England were aged 65 years and over and 2% (1 million) were aged 85 years and over. The 65 years and over population for both males and females has increased about 5 fold since the 1901 Census. After the age of 60-64 the number of males decreases more rapidly than females.

**GOVERNMENT OFFICE REGIONS**

Figure 2.2a % older age groups of the total male population, age 65+, 2005

![Graph showing the percentage of the male population aged 65+ in different regions of England.]


**GOVERNMENT OFFICE REGIONS**

Figure 2.2b % older age groups of the total female population, age 65+, 2005

![Graph showing the percentage of the female population aged 65+ in different regions of England.]


**EUROPEAN COMPARISON**

Figure 2.3a % older age groups of the total male population, age 65+, selected European Countries, 2005

![Graph showing the percentage of the male population aged 65+ in selected European countries.]

Source: Eurostat.

**EUROPEAN COMPARISON**

Figure 2.3b % older age groups of the total female population, age 65+, selected European Countries, 2005

![Graph showing the percentage of the female population aged 65+ in selected European countries.]

Source: Eurostat.
Regional comparison
Figures 2.2a and 2.2b show the variation in the percentage of males and females aged 65 and over by region. The percentage aged 65 and over for males varies from 10% to 17% and for females from 13% to 21%. The highest percentage is found in South West region and the lowest in London. The differences between regions are in part determined by long standing resident populations and in part by migration (see section below). In all regions there are more females than males in the 65 and over age band.

European comparison
Compared to other European countries, UK’s proportion of those aged 65 and over is in the middle of the range, with Italy showing the highest proportion of those aged 65 and over of both sexes and Ireland the lowest (Figures 2.3a and 2.3b).

Pensionable age
The current state pensionable age in the UK is 60 and over for females and 65 and over for males. From 2010 the state pensionable age for women will gradually increase to 65 so that by 2020 it will be the same for both men and women. The Pensions Act of 2007 also enables future staged increases to be introduced from 2024; this could result in a pensionable age of 68 for both men and women by 2046. All the data in this section are presented using the current state pensionable ages of 60 for females and 65 for males. Nine million people (18.6%) in England are over the current retirement age.

Indicator description
**Indicator:** Percentages of pensionable age, 2005  
**Numerator:** Males aged 65 and over, Females aged 60 and over  
**Denominator:** Males and females of all ages.

Regional comparison
The percentage of the population of pensionable age in different regions is shown in Figure 2.4, with South West having the highest proportion and London the lowest for both sexes.
Male : Female Ratio
Since females live longer than males the proportion of females in older age bands rises. This has implications for housing need and health and social care need. Very often older people are cared for by their spouse and so older women may have no one to care for them.

Indicator description
Indicator: Male:Female ratio in different age bands, 2005.
Definition: Number of males in age band
Denominator: Number of females in age band.

Relation to age
The ratio of males to females moves away from one at about the age of 60 and thereafter decreases more rapidly with increasing age (Figure 2.5). About 57% of those aged 65 and over are women and by the age of 85 this has risen to 70%.

Regional comparison
Figure 2.6 shows that there is very little variation between regions in the male:female ratio in either the 65-84 or the 85 and over age group. There is a slightly higher male:female ratio in the 85 and over age group in London.

European comparison
There is considerable variation in the male:female ratio between the selected European countries shown in Figure 2.7. The UK has a higher ratio in the 65-84 age group than most of the other European countries. For the 85 and over age group Greece, Romania and Portugal have the highest ratios. The male:female ratio in the 85 and over group in Greece appears to be an outlier, the cause of this is unknown.

GOVERNMENT OFFICE REGIONS

EUROPEAN COMPARISON

Figure 2.6 Male to Female Ratio, age 65+, 2005
Figure 2.7 Gender Ratio, age 65-84 & 85+, selected European Countries, 2005

Source: Eurostat
Dependency Ratios
Dependency ratios relate the numbers who are expected to be dependent on the numbers who are expected to be supporting that dependency in some way. Old age dependency ratio is defined as the ratio of those over state pension age (60 for females and 65 for males), to those aged 16 to state pension age, expressed as a percentage. The way in which the dependent and the supporting populations are defined is of course determined by social theory and political viewpoint. The dependency ratio is a crude but useful tool for assessing the economic balance of an ageing population. The total dependency ratio of a country is used as a simple measure of its capacity to produce the resources needed to maintain living standards for the whole population, while the old age dependency ratio to some degree measures the capacity to maintain living standards for the pensionable population.

While the old age dependency ratio has been increasing, the child dependency ratio (defined as ratio of those under age 16 to those age 16 to state pension age) has been decreasing. The changes in old age dependency are a consequence of reductions in age specific death rates increasing the numbers of older people and reduction in birth rate reducing the size of the supporting adult population. However it is likely that many people will continue to be economically active beyond the current state retirement age, and will remain financially independent.

Recently it has been suggested that there should be an ‘oldest old support ratio’ based on the ratio of people aged 50-74 to those aged 85 and over, since it is generally younger retired people who provide the majority of care to the oldest old, and since the proportion of retired people in the oldest old age group is expected to increase.

Indicator description
Indicator: Old age dependency ratio.
Numerator: Number of population of pensionable age (Male aged 65 and over, female aged 60 and over).
Denominator: Number of population aged 6 to pensionable age.

Regional comparison
Figure 2.8 shows the old age dependency ratio by region. As would be expected from the age
distribution the old age dependency ratio is greatest in South West (36%) and lowest in London (21%). Only South West and North East have a higher old age dependency ratio than child dependency ratio.

**Projection**
The old age dependency ratio for England is currently 30% and is projected to increase to 48% in 2044 (Figure 2.9). However this projection takes no account of the probability that the age defined as dependent will change.

**Ethnic minority population**
Black and ethnic minority older people may have different health and social care requirements. The black and ethnic minority population is distributed unevenly around England with high concentrations in many urban areas. While the current numbers of older, non-white ethnic groups are small, the numbers in younger age bands are larger and therefore the number of older people from these groups is likely to increase in future years.

In this report the broad grouping recommended by National Statistics has been used. However it must be remembered that these groups are very heterogeneous and for a proper understanding breakdown into the constituent groups within these would be required. The APHO indications report on Ethnicity and Health showed regional distribution of black and ethnic people, but did not break this down by age.

**Indicator description**
*Indicator:* Percentage of male/female population of pensionable age (60 and over for females and 65 and over for males) in broad ethnic groups, 2005.
*Numerator:* Number of males aged 65 and over/ females aged over 60 and over from ethnic group,
*Denominator:* Total number of males aged 65 and over / females aged 60 and over.

The percentage of older people in England from non white ethnic groups is small: 3.7% based on the mid 2005 ethnic population estimates. The largest ethnic minority group of pensioners is the
Asian and Asian British followed by Black and Black British. Among pensioners from ethnic groups, the proportion of males is higher than that of females, in contrast to the overall population (shown in Figure 2.6).

Regional comparison
Figures 2.10a and 2.10b show the percentage of black and minority ethnic pensioners. London has the highest concentration of men and women of pensionable age from non white ethnic groups (17% Men, 14% Women). All other regions have less than 6% with the lowest percentage (1%) in North East region.

Marital status
Marital status has a strong effect on health and wellbeing. Mortality rates are consistently lower in married people than for never married and for previously married people. Bereavement is strongly linked with depression and is associated with suicide. Being divorced or widowed can lead to social isolation, and even people who have been single all their lives may find that they have less close friends and social support as they age. Spouses provide a major proportion of unpaid care for sick and disabled partners.

In terms of health it is probably the presence of a partner that is important rather than the precise legal status of the partnership. However since the projections used in this report give marital status that classification has been retained for this report. Partnership between non married couples is becoming increasingly common though less so among older people than among younger. In the 2001 Census 96% of those age 60-74 living as couples and 97% of those aged 75 or over living as couples were married.

Indicator description
Indicator: Percentage of males and females in different marital status in 5 year age bands starting aged 50 to aged 90 and over, 2005.
Numerator: Total number of males / females in a particular marital status by age
Denominator: All males / females in that age group.

Relation to age
Figure 2.11a and 2.11b shows the marital status of people by 5 year age group from the age of 50. Over 70% of females aged 50 to 64 are married, but after the age of 64 the percentage decreases with increasing age to only 7% of those aged 90 and over. The percentage of married males increases from 71% to a maximum of 77% between the age of 50 to 69 and then decreases to 35% at 90 and over. The gender difference in the percentage of married people is due to the different age specific mortality rates between the genders. The increase in widows and widowers follows the reverse pattern to marriage, with the largest percentages being found in the older women. The percentage that are divorced decreases with age in both sexes, while there is little change in the number who are single. It is possible that the decrease in the percentage of divorced people is at least partly due to a cohort effect of lower divorce rates in the past.
Older People In Communal Residential Establishments

As people age they are more likely to move into a residential home or nursing home. However the majority of older people live in their own homes and of those requiring care, the vast majority receive informal care from relatives or other carers. Only the oldest age groups have higher proportions in residential care.

Indicator description

**Indicator:** Percentage of people in communal residential establishments.

**Numerator:** Number of people of a specific age in a communal residential care establishment.

**Denominator:** Number of people in specific age group.
Relation to age
Figure 2.12 shows that the percentage of older people in communal residential establishments in England remains very low (below 1%) until the age of 70-74 when 1.3% of men and 1.4% of women are in communal residential establishments. It increases rapidly with increasing age to 12% of men and 23% of women in the 85 and over age group living in communal residential establishments. Among those aged 70 or over a higher percentage of females than males are in communal residential establishments.

Regional commentary
Figure 2.13 shows the percentage of those aged 65 and over in communal residential establishment by region. South West has the highest percentage of females in communal residential care establishments and North East has the highest percentage of males. London has the lowest percentage in both males and females.

Migration
The majority of older people want to continue to live in their area and remain involved in their local communities; however many older people move house when they retire. Some stay in the same neighbourhood but downsize or move to be closer to services and amenities. Some move further away to be close to relatives, and some “retire” to a place that is seen as more desirable than the current area.

Indicator description
Indicator: Internal migration within United Kingdom in the 65 and over age group, mid-2000 to mid-2001
Definition: Numbers (in thousands) of people aged 65 and over in each Government Office Region migrating to and from the rest of the United Kingdom.

Relation to age
Older people are less likely to migrate to another region than people of all ages.

GOVERNMENT OFFICE REGIONS
Figure 2.14 Internal migration within the United Kingdom, age 65+ by region, mid-2000 to mid-2001

Source: ONS Table D5745 Internal migration within the United Kingdom

GOVERNMENT OFFICE REGIONS
Figure 2.15 Net internal migration within the United Kingdom, age 65+ by region, mid-2000 to mid-2001

Source: ONS Table D5745 Internal migration within the United Kingdom
Regional commentary

All regions experience inward and outward migration in their 65 and over population. However for some regions migration is in balance for example in North East, West Midlands and Yorkshire & Humber (Figure 2.4 and 2.15). Some regions have more inward migration of older people including East of England, South West, East Midlands and South East, whereas London and North West have a net outflow. The higher number of older people leaving London is partly due to the lack of residential care homes and suitable housing alternatives for people who want to downsize in that region.

Population projections

The number and age structure of future populations depend on current populations, age specific death rates, birth rates and migration rates. Projections may be period based in which the current age specific death rates are assumed to apply to future populations or cohort based in which the age specific death rates which will apply in the future are estimated. The population projections discussed in this section are period based giving population projections to 2029 based on mid 2004 population estimates. Projections beyond this date are possible but become increasingly unreliable.

The overall population of England is expected to increase over the next 25 years. Most of this increase will be in those aged over 50, with the population aged under 50 changing very little. Figure 2.16 shows how the English population is projected to grow by age group and sex by 2029. It is clear that the largest percentage area of growth will be in the oldest age group (85 and over) and in males more than females.

Indicator description

**Indicator:** Projected percentage of males and females aged 65-74, 75-84 and 85 and over in 2029.

**Numerator:** Projected number of males/females in age band,

**Denominator:** Projected number of males/females of all ages.

**AGE BAND**

*Figure 2.16* Projected population change 2004-2029, all ages, England

![Projected population change 2004-2029](Source: ONS Projected population change 2004-2029)
Regional comparisons
There is considerable difference between regions in the projected growth of their older population. The projected increase over the 65 population ranges from 39% to 80% in males and 20% to 60% in females, being highest in East Midlands and lowest in London. The projected increase in the population aged over 85 is even more dramatic ranging from 123% in males in London and 226% in males in East Midlands. In females the range is 31% in London to 99% in East Midlands (Figure 2.17a and b).

**GOVERNMENT OFFICE REGIONS**

**Figure 2.17a** Projected population change 2004-2029 in males, age 65+, England

**Figure 2.17b** Projected population change 2004-2029 in females, age 65+, England

Source: ONS Projected population change 2004-2029
References


Chapter 3  Life Expectancy and Mortality

**Life Expectancy**
Life expectancy is a measure indicating the number of additional years that a person can expect to live having reached a particular age. Life expectancy at birth is the most commonly used measure but life expectancy can be calculated from any age. Life expectancy depends on the age specific death rates that will apply to a person at each stage of their life. Life expectancy is an alternative summary indicator of the mortality experience of a population, and one that some people find easier to understand.

Increased longevity is much more desirable if it is accompanied by good health. In order to take account of both quantity and quality of life the concepts of ‘Healthy Life Expectancy’ and ‘Disability Free Life Expectancy’ are used. These indicators provide a measure of the balance between length and quality of life, taking account of the proportion of years lived in good or fairly good health, rather than just the total number of years lived. Because of the difficulty of defining health there are many ways of calculating healthy life expectancy.

The different measures of life expectancy are useful for predicting future health and social needs, identifying trends and inequalities and for evaluating health programmes. The government plans outlined in the *poverty and social exclusion strategy* used healthy life expectancy as one of the indicators for older people. In addition the *NSF for older people* also included as its aim the requirement to extend the healthy life expectancy of older people. The treasury’s work on long term fiscal sustainability sees future healthy life expectancy as an important demand driver.

The average life expectancy of a male baby born in the United Kingdom in 1901 was 45 years and that for a female baby 49 years. The dramatic reduction in infant and child mortality in the earlier part of the 20th century saw a marked improvement so that in 2003-05 the life expectancy at birth was 76.6 years for a male baby and 81.0 years for a female baby. However a significant reduction in adult mortality has also contributed to this increase in life expectancy, and life expectancy at older ages has increased. For example the life expectancy for a man on his 65th birthday has increased by 3.7 years between 1980-82 and 2003-05, while that for a woman has increased by 2.5 years.

Life expectancies for both sexes are projected to increase further and the gap between male and female life expectancy to narrow.

**Life Expectancy at age 65**
Life expectancy at 65 (period life expectancy) is the average additional number of years a person aged 65 could expect to live if they lived their remaining life under the conditions prevailing in the particular year that they were 65.

**Indicator description**

*Indicator:* Total life expectancy at age 65.
*Definition:* Additional years that a person can expect to survive at their 65th Birthday.

As the latest figures for health and disability free life expectancies are for 2001 total life expectancy is also shown for that date. However, life expectancy has risen by approximately 0.7 years for men and 0.5 years for women between 2001 and 2004.

**Regional Comparisons**
Figure 3.1 shows variation between the regions in life expectancy at 65 and demonstrates a north-south gradient. The highest life expectancy at age 65 is experienced in South West followed by
South East, while the lowest is in North East. The difference between the lowest and highest is 1.8 years for both males and females.

**European comparison**

France has the highest life expectancy at age 65 for females and France and Sweden the joint highest for males. Ireland has the lowest life expectancy at 65 for both males and females (Figure 3.2).

**Projection**

Figure 3.3 shows the projected life expectancy for males and females at birth and at 65 years old to 2054. It can be seen that life expectancy continues to rise for both males and females. The number
of people aged 65 years and over is expected to rise by about 54% in the next 25 years changing from about 8.0 million to about 12.3 million due to changes in life expectancy, and the total number of centenarians is expected to treble in the next 25 years.

**Healthy life expectancy at age 65**
Healthy life expectancy is the average number of years that a person can expect to live “in full health” and is calculated by taking account of the years lived in less than full health due to disease and/or injury. While its calculation is complex, it is based on current age specific rates of experiencing ill health and of mortality.

**Indicator description**
*Indicator:* Healthy life expectancy at age 65.
*Definition:* Additional years that a person can expect to survive “in full health” at their 65th birthday.

Healthy life expectancy at age 65 in England was 4.3 years less than total life expectancy in men and 5.8 years less in women (see Table 3.1).

**Table 3.1** Life expectancy, healthy life expectancy and disability free life expectancy at age 65 by sex, England, 1981 to 2001.

<table>
<thead>
<tr>
<th></th>
<th>Men at 65</th>
<th>Women at 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy</td>
<td>13.07</td>
<td>16.06</td>
</tr>
<tr>
<td>Healthy life expectancy</td>
<td>10.09</td>
<td>11.72</td>
</tr>
<tr>
<td>Disability free life expectancy</td>
<td>7.67</td>
<td>8.94</td>
</tr>
</tbody>
</table>

**Regional Comparisons**
Healthy life expectancy at 65 years shows considerable regional variation (Figure 3.4). It shows a north south gradient similar to total life expectancy at 65 years. The regional rank order is the same as that for total life expectancy. The difference between highest and lowest healthy life expectancy is approximately 3 years in both men and women compared to 1.8 years for total life expectancy. The regions with the lowest total life expectancy at 65 (North East, North West and Yorkshire & Humber) are also the regions in which more of the remaining years are spent in ill health.

**Disability free life expectancy at age 65**
Disability free life expectancy is a similar indicator to healthy life expectancy but measures the years lived without any significant disability rather than years in “full health”. It is calculated using data on ability to perform five activities of daily living collected in the General Household Survey. Disability free life expectancy is shorter than healthy life expectancy since some people who have restricted ability to perform some activities of daily living are still considered to be in “full health”.

**Indicator description**

*Indicator:* Disability free life expectancy at age 65.

*Definition:* Additional years that a person can expect to survive without disability at their 65th birthday.

As with the other forms of life expectancy women have a higher disability free life expectancy than men at age 65. Disability free life expectancy at age 65 in England was 7.1 years less than total life expectancy in men and 9 years less in women (see Table 3.1).

**Regional comparisons**

The regional pattern for disability free life expectancy shows the same north south gradient as that for healthy life expectancy (Figure 3.5). The regional rank order is nearly the same as healthy life expectancy. North East, North West and Yorkshire & Humber regions respectively have the lowest disability free life-expectancy, and South East followed by South West have the highest.

**European comparison**

Italy has the highest disability free life expectancy at 65 for both males and females and Finland has the lowest (Figure 3.6).

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**GOVERNMENT OFFICE REGIONS**

**EUROPEAN COMPARISON**

<table>
<thead>
<tr>
<th>Government Office Region</th>
<th>Disability free life expectancy at age 65, 2001</th>
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<tbody>
<tr>
<td>England</td>
<td>GOR</td>
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<td></td>
<td>Males</td>
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<td>Females</td>
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<tr>
<th>Country</th>
<th>Disability free life expectancy at age 65, selected European Countries, 2001</th>
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<tbody>
<tr>
<td>Italy</td>
<td>BE ES AT IE WI ES DE DK NL PT FR IT</td>
</tr>
<tr>
<td>Source</td>
<td>ONS Life Expectancy &amp; Healthy Life Expectancy^9</td>
</tr>
<tr>
<td>Source</td>
<td>Eurostat Table hlth_hlye</td>
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</table>
Mortality
This section presents data on mortality from all causes and mortality due to selected diseases in older people. Age standardised all cause rates and age standardised cause specific rates are important indicators of ill health in populations. These statistics are generally reliable but the limitations of recording of cause of death and the limitations of age standardisation procedures introduce weakness. These become more relevant in the older age groups and are discussed in the methods appendix. While the recording of the occurrence of death is virtually complete, the cause of death is slightly less completely and reliably gathered.

All cause mortality
Death rates increase with increasing age and vary with both gender and geography. In England, 178,055 men and 220,111 women over 65 years of age had their death registered in 2005.

Indicator description
 Indicator: Directly Standardised death rate for all causes in the 65 and over age group in 2005
 Numerator: Number of deaths in age 65 and over for all causes registered in 2005 by 5 year age bands and sex
 Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age
Mortality rates increase with increasing age and are higher in males than females (Figure 3.7).

Regional Comparisons
North East region followed by North West has the highest all cause mortality for both males and females aged 65 and over. South East has the lowest male and South West has the lowest female mortality (Figure 3.8). This is of course the reverse order to that for life expectancy (Figure 3.1).

Source:
ONS Deaths Registrations 2005
Deaths by major cause category
Circulatory diseases, cancer and respiratory diseases are the main causes of deaths amongst older people, and this group of diseases accounts for over 78% of deaths for those over 65 years old (84% men, 75% women).

Indicator description
Indicator: The percentage of deaths by specific cause in the 65 and over age group in 2005
Numerator: Number of deaths in age 65 and over for specific underlying cause of death registered in 2005
Denominator: 2005 mid-year population estimates

Deaths by major cause category
Circulatory diseases, cancer and respiratory diseases are the main causes of deaths amongst older people, and this group of diseases accounts for over 78% of deaths for those over 65 years old (84% men, 75% women).

Indicator description
Indicator: The percentage of deaths by specific cause in the 65 and over age group in 2005
Numerator: Number of deaths in age 65 and over for specific underlying cause of death registered in 2005
Denominator: 2005 mid-year population estimates

CAUSES OF DEATH

Figure 3.9a Main causes of mortality in England, Males aged 65+, 2005

Source: ONS Deaths Registrations 2005

Figure 3.9b Main causes of mortality in England, Females aged 65+, 2005

Source: ONS Deaths Registrations 2005

CAUSES OF DEATH

Figure 3.10a Relative contribution to specific causes of death by age group, Males aged 65+, England 2005

Source: ONS Deaths Registrations 2005

Figure 3.10b Relative contribution to specific causes of death by age group, Females aged 65+, England 2005

Source: ONS Deaths Registrations 2005
Relation to age
The main causes of death in men and women over 65 years are shown in figures 3.9a and 3.9b. Circulatory disease (which includes heart disease, stroke and other circulatory) is the commonest cause of death. Cancers are second, of which, lung cancer, breast cancer, colorectal cancer and prostate cancer are the most frequent causes. Respiratory disease is the third commonest cause of death in over 65 year olds, and digestive disease is the fourth. Figures 3.10a and 3.10b show the changing pattern of cause of death with increasing age in the 65 and over age group by gender. Cancers account for proportionately fewer deaths in the very old (80+), whereas respiratory and circulatory diseases become relatively more common in later years.

Circulatory Diseases
Circulatory disease is the leading cause of death in England and the rest of the UK. It accounted for over a third of all deaths in those over 65 and over registered in England in 2005. Coronary heart disease and stroke, the major subdivisions of circulatory disease, are described in a separate section following this section on all circulatory diseases.

The National Service Framework for Coronary Heart Disease (2000) provides a strategy to modernise coronary heart disease (CHD) services detailing 12 standards for improved prevention, diagnosis, treatment and rehabilitation and goals to secure fair access to high quality services. The National Service Framework for older people included a section on stroke and aims to reduce the incidence of stroke in the population and ensure that those who have had stroke have prompt access to integrated stroke care services. The Public Service Agreement targets included a target for mortality rates for CHD and stroke to substantially reduce by 2010 from Our Healthier Nation baseline, 1995-1997.

Mortality from circulatory disease
Indicator description
Indicator: Directly Standardised death rate for all circulatory disease in the 65 and over age group in 2005
Numerator: Number of deaths in age 65 and over for all circulatory disease classified by underlying cause of death (ICD10 code I00-I99) registered in 2005 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age
Circulatory diseases accounted for 38% of all deaths registered in 2005 for the 65 and over age group. Figure 3.11 shows a clear relationship between age and risk of death from circulatory disease, with increasing death rates with increasing age. Mortality from circulatory disease is higher in males than females but the difference narrows with increasing age.

Regional Comparisons
Figure 3.12 shows regional variation in circulatory disease mortality for people aged 65 and over. There is a north south gradient with regions in the south having lower rates than those in the north for both males and females. The rates for females are significantly lower than those for males in all regions.
**European comparison**

Figure 3.13 shows circulatory mortality in people aged 65 and over in selected European countries. Romania has the highest rate of circulatory death in the 65 and over age group while overall France has the lowest. The UK is in the lower range of the European data.

**European Health For All database 2006 (latest data for each country)**
Coronary Heart Disease (CHD)

Indicator description

**Indicator:** Directly Standardised death rate for coronary heart disease in the 65 and over age group in 2005

**Numerator:** Number of deaths in age 65 and over for coronary heart disease classified by underlying cause of death (ICD10 code I20-I25) registered in 2005 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

Mortality rates from CHD increase with increasing age, and are higher in males than females (Figure 3.14). Coronary heart disease was the cause of 54% of male circulatory mortality and 39% of female circulatory mortality in the over 65 age group (see Figures 3.9a and 3.9b).

Regional Comparisons

There is a north south gradient in the regional variation in CHD mortality in people aged 65 and over, with North West region followed by North East having the highest rates and South West the lowest (Figure 3.15).

European comparison

Figure 3.16 shows CHD in selected European countries. Latvia has the highest death rate from CHD and France the lowest for both males and females.

<table>
<thead>
<tr>
<th>AGE BAND</th>
<th>GOVERNMENT OFFICE REGIONS</th>
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<tr>
<td>Figure 3.14</td>
<td>Age specific death rates, Coronary Heart Disease, England, 2005</td>
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<tr>
<td>Figure 3.15</td>
<td>Directly Standardised Death Rates for Coronary Heart Disease, age 65+, 2005</td>
</tr>
</tbody>
</table>

Source: ONS Deaths Registrations 2005

Source: ONS Deaths Registrations 2005
**EUROPEAN COMPARISON**

**Figure 3.16** Directly Standardised Death Rates for Coronary Heart Disease, selected European Countries, age 65+

![Graph showing directly standardized death rates for coronary heart disease among older people in Europe.](image)

Source: European Health For All database 2006 (latest data for each country)

**Stroke (Cerebrovascular disease) mortality**

**Indicator description**

**Indicator:** Directly Standardised death rate for stroke in the 65 and over age group in 2005

**Numerator:** Number of deaths in age 65 and over for stroke classified by underlying cause of death (ICD10 code I60-I69) registered in 2005 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

**AGE BAND**

**GOVERNMENT OFFICE REGIONS**

**Figure 3.17** Age specific death rates, Stroke, England 2005

![Graph showing age-specific death rates for stroke in England.](image)

Source: ONS Deaths Registrations 2005


**Figure 3.18** Directly Standardised Death Rates for Stroke, age 65+, 2005

![Graph showing directly standardized death rates for stroke in different regions.](image)

Source: ONS Deaths Registrations 2005

Figure 3.9 shows a clear relationship between stroke and age, and very little difference between the sexes. Stroke accounted for 23% of male circulatory mortality and 34% of female circulatory mortality in the over 65 age group in 2005 (see Figure 3.9a and 3.9b).

Regional Comparisons
Figure 3.18 shows regional variation in rates of death from stroke in people aged 65 and over. West Midlands region has the highest mortality rate from stroke followed by the three northern regions. London has the lowest mortality rate for stroke.

European comparison
Mortality rates for stroke in selected European countries in people aged 65 and over are shown in Figure 3.19. Romania has the highest mortality rate due to stroke and Switzerland has the lowest.

Cancer
Cancer is the second most frequent cause of death in England. It accounted for 24% of all deaths in people over 65 years old in England registered during 2005. The disease occurs in many forms and has different causes and outcomes. The NHS Plan identified and gave high priority to the treatment of cancers. The plan aimed to reduce death rates and improve prospects of survival and quality of life for cancer sufferers. In addition, the Cancer Plan sets out the actions and milestones needed to deliver the fastest improvement in cancer services. The further development of service improvements initiated by the Cancer Plan is proposed by the Cancer Reform Strategy.

Indicator description
Indicator: Directly Standardised death rate for cancers in the 65 and over age group in 2005
Numerator: Number of deaths in age 65 and over for cancers classified by underlying cause of death (ICD10 code C00-C97) registered in 2005 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates
Standardised by age and sex to the European Standard Population

**AGE BAND**

<table>
<thead>
<tr>
<th>Figure 3.20</th>
<th>Age specific death rates, Cancers, England 2005</th>
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<tbody>
<tr>
<td>Figure 3.21</td>
<td>Directly Standardised Death Rates for Cancers, age 65+, 2005</td>
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</tbody>
</table>

Source: ONS Deaths Registrations 2005  

**EUROPEAN COMPARISON**

| Figure 3.22 | Directly Standardised Death Rates for Cancers, selected European Countries, age 65+ |

Source: European Health For All database 2006 (latest data for each country)

**Relation to age**

The rate of cancer mortality increases with increasing age (Figure 3.20) and males have higher rates of cancer mortality than females from the age of 60 years. Cancer accounts for proportionately fewer deaths in the very old age groups than the 'younger old' (see Figures 3.10a and b).

**Regional Comparisons**

Figure 3.21 shows regional variation in age and sex standardised rates for all cancer mortality over
65 years old. There is a north south gradient with the exception of East of England region, which has the lowest rate of mortality (1044 deaths per 100,000). North East has the highest rate (1329 deaths per 100,000). In all regions the rates in women were significantly lower than those in men.

**European comparison**
Mortality rates for all cancers for people aged 65 and over in selected European countries are shown in Figure 3.22. The rank order for male and female death rates is different. Of the countries shown Hungary has the highest rate for males and Denmark the highest for females.

**Respiratory Diseases**
Respiratory diseases include conditions such as asthma, pneumonia, bronchitis, emphysema and chronic obstructive pulmonary disease (COPD). Respiratory disease kills one in five people in the UK. Respiratory mortality is associated with social inequalities. The government plans to produce a National Service Framework for Chronic Obstructive Pulmonary Disease (announced in June 2006) in response to the recommendations published in the Chief Medical Officer’s Annual Report 2004.

**Indicator description**
Indicator: Directly Standardised death rate for all respiratory disease in the 65 and over age group in 2005

Numerator: Number of deaths in age 65 and over for all respiratory disease classified by underlying cause of death (ICD10 code J00-J99) registered in 2005 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

**AGE BAND**

**GOVERNMENT OFFICE REGIONS**

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Source: ONS Deaths Registrations 2005
Relation to age
Figure 3.23 shows a clear relationship between increasing age and increasing death rate from respiratory disease. Males have a higher mortality rate than females from the age of 60 upwards. The majority of deaths from respiratory conditions occur in people aged 65 and over, 93%. Respiratory disease becomes a more important cause of death in the 80 and over age group, this age group accounted for 65% of respiratory disease deaths registered during 2005 (Figure 3.10a and 3.10b).

Regional Comparisons
Figure 3.24 shows regional variation for all respiratory mortality. North West has the highest mortality rate (757 deaths per 100,000) and South West has the lowest (525 deaths per 100,000). In all English regions the rates in men are significantly higher than those in women.

European comparison
Figure 3.25 shows respiratory disease mortality rates in people age 65 and over in selected European countries. Death rates from this cause are higher in the United Kingdom than in most other European countries.

Digestive Diseases
This group of diseases is the fourth most important cause of deaths in older people. In 2005 digestive diseases accounted for over 23,000 registered deaths in England and over 17,000 of these occurred in those aged 65 and over. Four percent of all registered deaths in over 65 years old were as result of digestive diseases. Deaths from vascular disorders of the intestine, diverticular disease, intestinal obstruction, fibrosis, cirrhosis and alcoholic liver disease, and gastric and duodenal ulcers, make up the major proportion of deaths from digestive disease.
Indicator description

Indicator: Directly Standardised death rate for all disease of the digestive system in the 65 and over age group in 2005

Numerator: Number of deaths in age 65 and over for all disease of the digestive system classified by underlying cause of death (ICD10 code K00-K93) registered in 2005 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

The rate of deaths due to digestive disease increases with increasing age, and there is little difference between the sexes (Figure 3.26). The majority (73%) of deaths from digestive conditions occur in people aged 65 and over; 6,704 men and 10,499 women were registered as dying due to a digestive disorder during 2005.

Regional Comparisons

Figure 3.27 shows regional variation in age and sex standardised rates for all digestive mortality in those aged 65 and above. North East had the highest rate (207 deaths per 100,000) followed by North West (193 deaths per 100,000) while South East, East of England and South West have the lowest average rates. The rates in men are similar to those in women, except in London and South West regions where the rate is significantly higher in men than in women.

European comparison

Death rates from those aged 65 and over in selected European countries are shown in Figure 3.28. Rates are highest in Hungary and lowest in Greece. The death rate in UK from this cause for women is among the higher in Europe.
European Comparison

Figure 3.28 Directly Standardised Death Rates for Digestive system disorders, selected European Countries, age 65+

Excess winter mortality

Excess mortality in winter is an important public health issue in the UK, potentially amenable to effective intervention. This excess death is greatest in both relative and absolute terms in older people. Excess winter deaths are associated with cold weather, but it has been observed that other countries in Europe especially the colder Scandinavian countries have relatively fewer excess deaths in winter compared to UK. Factors contributing to excess winter deaths include poor housing, poverty and behavioural response to cold. Respiratory and circulatory diseases contribute most to the increase in deaths seen during the winter months, and excess winter death is higher in years with influenza epidemics. The risk of excess winter deaths can be reduced by ensuring adequate insulation and heating in houses especially in those occupied by the old. Provisional figures for 2005/2006 showed that there were 24,200 excess winter deaths in England and 90.5% of these were for those aged 65 and over.

Indicator description

Indicator: Excess winter deaths index (EWDI)
Numerator: Number of excess winter deaths
Denominator: Half number of non winter deaths

Excess winter deaths are deaths in the 4 winter months (Dec-Mar) less half the number of deaths in the non winter months (Aug - Nov and Apr - Jul).

Relation to age

The proportion of excess winter deaths increases with increasing age. Figure 3.29 shows that the highest percentage of excess winter deaths occurs in the 85 and over age group.

Regional Comparisons

Figure 3.29 shows the percentage of excess winter deaths (EWDI) in 2005/06 by government region ordered by total EWDI in those aged 65 and over. The highest proportions of EWDI occur in South East followed by West Midlands. North West have the lowest proportion of EWDI. All regions show
the national pattern of increasing EWDI with increasing age. The regional rank order for EWDI varies considerably between years.

GOVERNMENT OFFICE REGIONS

Figure 3.29  Excess Winter Deaths Index by region, 2005/06

Source: ONS Excess winter deaths

22
References


**Chapter 4: Morbidity**

The frequency of most illnesses and ill health rises with increasing age, and so as more people live into older age the number with chronic illnesses and poor health will also increase. The majority of ill health is simply tolerated or perhaps self treated and so does not figure in health service records. Some of the illness in the community presents to and is treated in primary care but since most primary care data are not collected in a form suitable for national analysis the greater part of the data presented in this section are hospital admission data. Hospital admission is the tip of the iceberg and represents only a very small fraction of the total illness in the population.

**Self reported health**

The Census, the General Household Survey (GHS) and the Health Survey for England (HSE) are all sources of data on self reported health status. The Census 2001 included the question “Over the last 12 months would you say your health has on the whole been: Good, Fairly Good, Not Good?” and the HSE 2005 The health of older people used the question “How is your health in general – Would you say it was very good, good, fair, bad, very bad”. Such questions have been found to be robust indicators of general health and correlate with apparently harder indicators such as survival. Another widely used question is “Do you have any long term illness, health problem or disability which limits your daily activities or the work you can do?”

**Health “not good” Indicator description**

*Indicator:* Percentage of people reporting their health as ‘not good’

*Numerator:* Number of respondents who classified their health as ‘not good’ by age band and sex.

*Denominator:* Number of respondents by age band and sex.

In the Census 2001 ‘not good’ was the specific category offered to respondents. For the HSE data, ‘fair’, ‘bad’ and ‘very bad’ responses have been grouped together to create a new ‘not good’ category for comparative purposes.

**Age Band**

<table>
<thead>
<tr>
<th>Figure 4.1</th>
<th>Self-reported ‘not good’ health, England, 2001</th>
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<tbody>
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<td><img src="image1" alt="Graph" /></td>
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**Source:** 2001 Census Standard Tables ST016

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<thead>
<tr>
<th>Figure 4.2</th>
<th>Self-reported ‘not good’ health, England, 2005</th>
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<td><img src="image2" alt="Graph" /></td>
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</table>

**Source:** Health Survey for England 2005 (Vol1 Table2.1)
Relation to Age

Figure 4.1 shows that in the 2001 Census the percentage of people reporting that their health is “not good” increases with age from 4% in men and 5% in women in 25-34 year olds to 31% in men and 35% in women in the 85 and over age group. At most ages women are more likely than men to report their health as not being good. Figure 4.2 is taken from the HSE 2005 The health of older people. It uses a slightly different question and provides more recent information and greater detail. The survey responses have been grouped in order to make the graph clear. The percentage of people over 65 reporting their health as “bad” or “very bad” is 13%, while about 44% could be classed as stating their health to be ‘not good’ (i.e. responses of “fair”, ”bad” or ”very bad”). This survey suggests that the increase of ‘poor health’ with age is less steep than in the earlier Census data.

Regional Comparison

Figure 4.3 shows the percentage of people aged 65 and over reporting their health as “bad” or “very bad” by region. There is a north south trend for women. Overall Yorkshire and Humber, North East and North West are joint highest and East of England is the lowest. North East is the highest for women and Yorkshire and Humber the highest for men. In North East, West Midlands, London and South East women are more likely to report their health as “bad” or “very bad” than men in their region.

GOVERNMENT OFFICE REGIONS

Figure 4.3 Self-reported ‘bad/very bad’ health, age 65+, England, 2005

Source: Health Survey for England 2005 (Vol1 Table2.2)^2

Limiting long standing Illness

Indicator description

Indicator: Limiting long term (standing) illness.  
Numerator: Number of men and women in age band reporting that they have a limiting long term (standing) illness.  
Denominator: Total number of men and women in age band.
Relation to Age

Figure 4.4 shows the number of men and women by different ages who reported a limiting long term illness at the Census 2001. Men and women report similar rates. The percentage rises steeply with age, peaking at about 60% by the age of 85-89 before falling slightly. Figure 4.5 shows that the percentage reporting limited long standing illness in the *HSE 2005 The health of older people* is very similar.

Regional Comparison

Figure 4.6 shows the percentage of people aged 65 and over (age standardised) who reported a limiting long standing illness to the *HSE 2005 The health of older people* by region. Again there is a north south trend with the highest proportion of those aged 65 and over reporting a limiting long standing illness in North East and the lowest in London.
Common diseases in the older age group chiefly treated in primary care

There are several common diseases in older people which are mainly treated in primary care, for example diabetes, hypertension, arthritis and Parkinson’s disease. For these conditions Hospital Episode Statistics data and mortality data do not indicate prevalence.

Diabetes is a serious disease which can lead to dangerous health problems. It is associated with serious chronic ill health, disability and premature mortality. Complications resulting from diabetes include heart disease, stroke, blindness, kidney disease and amputations. Many of these long-term effects can be avoided if the condition is diagnosed earlier and a more effective treatment regime administered. The National Service Framework for Diabetes sets out twelve new standards and the key interventions necessary to raise the standards of diabetes care. Quality and Outcomes Framework data indicate that the prevalence of diagnosed diabetes at all age is 3.6%. Synthetic estimates have calculated the total prevalence of diabetes in England as 3.6% for men and 5.1% for women, with a prevalence of 4.4% for all persons. At a regional level prevalence is estimated to range from 4.7% in North East to 3.9% in South East. The Health Survey for England 2003 demonstrated that prevalence rates increase with increasing age from 0.3% for men and 0.9% for women aged 25-34 to 11.9% for men and 8.4% for women aged 65-74. In the HSE 2005 The health of older people the prevalence of self reported doctor diagnosed diabetes in the over 65s was 13% in men and 10% in women. Surprisingly within this age group prevalence did not rise with age. The age standardised prevalence of diabetes among those aged 65 and over is higher for men than women in all regions, except London where it is the same. Any differences between regions are not significant for both sexes.

Parkinson’s disease is a progressive neurological condition affecting movements. Diagnosis is usually based on medical history and clinical examination. The risk of developing Parkinson’s disease increases with increasing age as symptoms most often appear after the age of 50. Self reported prevalence rates of Parkinson’s disease increase with increasing age from 0.7% of 65-74 year olds, to 1.4% for 75-84 year olds and 1.6% in those aged 85 and over. The rate is higher in men than women. A study found that only 3% of those diagnosed in life had Parkinson’s disease recorded on their death certificate. In the HSE 2005 The health of older people the prevalence of self reported doctor diagnosed Parkinson’s disease in those age 65 years and over was about 1%.

The most prevalent chronic disease in older people is arthritis, (rheumatoid arthritis, osteo-arthritis and other types). Arthritis can affect any joint and may cause pain, loss of function or deformity. Arthritis of the hips and knees may impair mobility and arthritis of the hands may impair ability to perform activities of daily living. The HSE 2005 The health of older people found that the prevalence of self reported doctor diagnosed arthritis was 47% in women and 32% in men and tends to rise with age (Figure 4.7). There was no significant difference in prevalence between regions.

Indicator description

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Percentage of men and women reporting arthritis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator:</td>
<td>Number of men and women in age band reporting that they had arthritis</td>
</tr>
<tr>
<td>Denominator:</td>
<td>Number of men and women in age band responding to question.</td>
</tr>
</tbody>
</table>

Hypertension, or high blood pressure, is a major contributor to cardiovascular disease. Blood pressure is measured as systolic and diastolic blood pressure and elevated readings in either of these contribute to cardiovascular disease, though systolic hypertension is more important. The Health Survey for England (2003) found that mean systolic blood pressure increased with increasing age in both sexes, but that diastolic blood pressure increased with increasing age up to the age of 54 and then decreased with increasing age.
In the *HSE 2005 The health of older people* the prevalence of hypertension (defined as >140/90 mmHg or receiving treatment for hypertension) in those aged over 65 was 62% in men and 64% in women. Prevalence increased with age for women (59% in women aged 65-69 to 71% in women aged 80-84). Figure 4.8 shows the age standardised prevalence of hypertension in those aged 65 and over in different regions. The prevalence of hypertension does not vary significantly between regions but London (men and women) has the highest prevalence of controlled hypertension and Yorkshire and Humber (men) and East of England (women) the lowest. For untreated hypertension the picture is reversed with the prevalence for both sexes being lowest in London and highest in North East.

**Indicator description**

**Indicator:** Age standardised percentage of men and women with hypertension, defined as blood pressure > 140/90 mms of Hg or treated hypertension (categorised as untreated hypertension, treated with uncontrolled blood pressure and treated with controlled blood pressure).

**Numerator:** Number of men and women with hypertension as defined above.

**Denominator:** Number of men and women who had their blood pressure measured.

**Hospital Admissions**

As explained in the introduction to this section hospital admission represents only a very small fraction of the illness in the population. Variation in admission rates between regions may be affected by the operational practice of the hospitals and the primary care organisations, the availability of hospital services, the availability of other care services, and perhaps the readiness of the population to seek care. Some patients are admitted more than once in a year. For these reasons it is an unreliable indicator of disease prevalence, though it is likely to be least unreliable for severe conditions. The uncertainty arising from inconsistent diagnosis and age standardisation (discussed in the Methodological Appendix) must also be borne in mind.
**Indicator description**

**Indicator:** Directly Standardised hospital admission rate for all causes in the 65 and over age group in 2005/06

**Numerator:** Number of hospital admissions in age 65 and over for all causes during 2005/06 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

**Relation to age**

Figure 4.9 shows admissions for all causes by age. With the exception of women of child bearing age the rate of admission increases with increasing age, and there is a higher rate of men admitted compared to women.

---

**Figure 4.9 Age specific admission rates, All admissions, England 2005/06**

![Age Band vs Rate per 100,000](image1)

**Source:**
DH Hospital Episode Statistics 2005/06

---

**Figure 4.10 Directly Standardised Admission Rates for All admissions, age 65+, 2005/06**

![Government Office Region vs Rate per 100,000](image2)

**Source:**
DH Hospital Episode Statistics 2005/06

**Regional Comparisons**

North East has the highest rates of admissions for all causes in people age 65 and over and South East has the lowest (Figure 4.10). In general northern regions have higher rates than southern regions.

**Circulatory disease**

The general features of these conditions have been discussed in the mortality section. Many older people with circulatory disease are not admitted to hospital, so admission is not a reliable indicator of prevalence. Among self reported long standing conditions, heart and circulatory disease were the most frequently reported in both the 65-74 and 75 and over age groups in the 2005 General Household Survey. Circulatory disease accounted for 13% of all hospital admissions for those aged 65 and over in England in 2005/06.
Admission for Circulatory disease

Indicator description

**Indicator:** Directly Standardised hospital admission rate for all circulatory disease in the 65 and over age group in 2005/06

**Numerator:** Number of hospital admissions in age 65 and over for all circulatory disease classified by primary diagnosis (ICD10 code I00-I99) during 2005/06 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

Admission rates for circulatory disease increase with increasing age and are higher in men than women (Figure 4.11). Of people admitted to hospital for circulatory disease in 2005/06 59% were over 65 years old.

Regional Comparisons

London has the highest regional rate for circulatory disease admissions and South East has the lowest. All the regions show much lower levels of admissions in women than men (Figure 4.12). The rank order of the other regions is different to that for mortality from circulatory disease where there was a definite north south gradient (Figure 3.12).

**AGE BAND**

<table>
<thead>
<tr>
<th>GOVERNMENT OFFICE REGIONS</th>
</tr>
</thead>
</table>

Source: DH Hospital Episode Statistics 2005/06

**Figure 4.11** Age specific admission rates, Circulatory Disease, England, 2005/06

Source: DH Hospital Episode Statistics 2005/06

**Figure 4.12** Directly Standardised Admission Rates for Circulatory Disease, age 65+, 2005/06
Admission for Coronary Heart Disease
Many older people with coronary heart disease (CHD) are managed in primary care so admission rate is not a reliable indicator of true prevalence.

**Indicator description**

**Indicator:** Directly Standardised hospital admission rate for coronary heart disease in the 65 and over age group in 2005/06

**Numerator:** Number of hospital admissions in age 65 and over for coronary heart disease classified by primary diagnosis (ICD10 code I20-I25) during 2005/06 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

**Relation to age**
Admission rate for CHD increases with increasing age until the age of 70-74 above which there is no clear trend (Figure 4.13). At all ages admission is greater in men than women.

**Regional comparison**
Admission rates for CHD are greatest in London and lowest in South West (Figure 4.14). The regional ranks for CHD admission rates are different from those for CHD mortality; both London and East of England have low mortality given the rank position of their admission rates.

**Figure 4.13** Age specific admission rates, Coronary Heart Disease, England, 2005/06

**Figure 4.14** Directly Standardised Admission Rates for Coronary Heart Disease, age 65+, 2005/06

Source:
DH Hospital Episode Statistics 2005/06

Source:
DH Hospital Episode Statistics 2005/06
Admission for Stroke
Not all people suffering a stroke are admitted to hospital, so hospital data are not an indicator of prevalence.

Indicator description
Indicator: Directly Standardised hospital admission rate for stroke in the 65 and over age group in 2005/06
Numerator: Number of hospital admissions in age 65 and over for stroke classified by primary diagnosis (ICD10 code I60-I69) during 2005/06 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age
Figure 4.15 indicates that admission rate for stroke increases with increasing age. The admission rate for men is slightly higher than for women.

Regional comparison
Admission rate for stroke among people aged 65 and over is highest for women in South West, but for men the rate is highest in North East (Figure 4.16). East Midlands has the lowest overall rate. The regional ranks for stroke admission rates are different from those for stroke mortality (Figure 3.18); however South East is the lowest for mortality and second lowest for admission rates.

AGE BAND

| GOVERNMENT OFFICE REGIONS

<table>
<thead>
<tr>
<th>Figure 4.15 Age specific admission rates, Stroke, England, 2005/06</th>
<th>Figure 4.16 Directly Standardised Admission Rates for Stroke, age 65+, 2005/06</th>
</tr>
</thead>
</table>

Source: DH Hospital Episode Statistics 2005/06
Admissions for Cancer
The general features of these conditions have been discussed in the mortality section.

Indicator description
Indicator: Directly Standardised hospital admission rate for all cancers in the 65 and over age group in 2005/06
Numerator: Number of hospital admissions in age 65 and over for all cancers classified by primary diagnosis (ICD10 code C00-C97) during 2005/06 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age
The rate of admissions for cancer increases with increasing age to a peak at the 65-69 age group in women and at 75-79 in men (Figure 4.17). The rate of admission in women is higher than men up to the age of about 60 after which the rate for admission in men is higher.

Regional Comparisons
Regional variation in hospital admission rates for all cancer among people aged 65 and over is shown in Figure 4.18. The figure shows significant regional variation. North East has the highest average rate (9,563 per 100,000) and North West region has the lowest average rate (5,691 per 100,000). The rates in men are significantly higher than those in women for all regions. Although North East also has the highest mortality rate, in general the regional ranking is not the same for cancer admissions and cancer mortality (Figure 3.21).
Admissions for Respiratory Diseases

The general features of these conditions have been discussed in the mortality section. As for other conditions, hospital admissions cannot be taken as a reliable indicator of prevalence.

Indicator description

Indicator: Directly Standardised hospital admission rate for all respiratory disease in the 65 and over age group in 2005/06

Numerator: Number of hospital admissions in age 65 and over for all respiratory disease classified by primary diagnosis (ICD10 code J00-J99) during 2005/06 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population.

Relation to age

Figure 4.19 shows that the rate of admission for respiratory disease increases with increasing age and that the rate is higher in men than women. Of people admitted with respiratory disease in 2005/06, 37% were aged 65 and over.

Regional Comparisons

Regional variation in hospital admission rates of all respiratory diseases in people aged 65 and over is shown in figure 4.20. There is a degree of north south gradient with North East region having the highest average rate (3,705 per 100,000) and South West region having the lowest average rate (2,397 per 100,000). In all regions the rates in women were significantly lower than those in men. Regional rankings of admission rates are similar to rankings of mortality rates from respiratory disease (Figure 3.24).
Admissions for Digestive Diseases

The general features of these conditions have been discussed in the mortality section. As with other conditions hospital admissions will not reflect the prevalence of digestive disease in the population.

Indicator description

Indicator: Directly Standardised hospital admission rate for all disease of the digestive system in the 65 and over age group in 2005/06

Numerator: Number of hospital admissions in age 65 and over for all disease of the digestive system classified by primary diagnosis (ICD10 code K00-K93) during 2005/06 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

The rate of admission for digestive diseases increases with increasing age, and is higher in men than women (Figure 4.21). Of admissions for digestive diseases 32% occurred in those aged 65 and over.

Regional Comparisons

Regional variation in hospital admission rates for all digestive disease among people aged 65 and over, is shown in figure 4.22. Yorkshire and Humber has the highest average rate (5,953 per 100,000) and South East region has the lowest average rate (4,569 per 100,000). In all the regions the rates in men are significantly higher than those in women. The regional rankings for mortality and admission are different (Figure 3.27).

<table>
<thead>
<tr>
<th>AGE BAND</th>
<th>GOVERNMENT OFFICE REGIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 4.21 Age specific admission rates, Digestive system disorders, England, 2005/06</td>
<td>Figure 4.22 Directly Standardised Admission Rates for Digestive system disorders, age 65+, 2005/06</td>
</tr>
</tbody>
</table>

Source: DH Hospital Episode Statistics 2005/06
References


Chapter 5: Physical functionality

This chapter covers a range of physical functions that change with increasing age, and influence the wellbeing and independence of older people. The chapter covers mobility and falls, sensory impairment, dental health, continence and sleep.

Mobility

The ability to keep active and independent is very dependent on mobility which generally declines with increasing age. Mobility can be seriously decreased by the effects of falls, especially falls resulting in fractured neck of femur. Lower limb arthritis can seriously affect older peoples’ mobility, particularly arthritis of the hip, which is effectively relieved by hip replacement. Elective total hip replacement is covered in Chapter 9 (Use of Services).

When the HSE 2005 The health of older people asked people aged 65 and over if they had mobility problems, defined as any difficulty walking a quarter of a mile by themselves without equipment, 39% of men and 47% of women said they had some difficulty. The percentage having difficulty and the degree of difficulty increased with age. Of those aged 65-69 29% of men and 31% of women reported difficulty or inability to do it, while among those aged 85 and over it was 67% of men and 74% of women (Figure 5.1). There were considerable regional differences in the age standardised prevalence of mobility problems (Figure 5.2). The percentage of men with mobility problems was greatest in East Midlands and North West and least in South East while for women the percentage was greatest in North East and least in East of England. Because regional sample sizes were quite small (200 - 500 people) regional differences have to be interpreted with caution.

Indicator description

Indicator: Percentage of people aged 65 and over reporting difficulty in walking a quarter of a mile by themselves without equipment.

Numerator: Number of people aged 65 and over reporting difficulty in walking a quarter of a mile by themselves without equipment.

Denominator: All people responding to question in survey.
Accidental falls
Falls represent the most frequent and serious type of accident in the over 65s age group with around 30% of this age group falling every year\(^2\). The mortality rate from falls and the number of admissions to hospital due to falls has been rising in England in recent years (2000-2005). Falls are often associated with appreciable morbidity\(^3\), can lead to the loss of independence especially in the older age groups and may impact on both physical and mental health. It is estimated that two thirds of older patients who have had a hip fracture never return to their pre-fracture level of mobility\(^3\). Falls can lead to social isolation with the fear of falling preventing trips out of the home. Additionally people with osteoporosis are at increased risk of a fracture when they suffer from a fall.

Standard six of the *National Service Framework (NSF) for Older People*\(^4\) aims to reduce the number of falls which result in serious injury, and to ensure effective treatment and rehabilitation for those who have fallen. The joined-up care theme of *A new ambition for old age*\(^5\) includes a programme on falls and bone health. The National Institute of Health and Clinical Excellence (NICE) has also issued guidelines on the assessment and prevention of falls in older people\(^6\).

The *HSE 2005 The health of older people*\(^7\) asked the question of those aged 65 and over “have you fallen down in the past 12 months”.

**Indicator description**

**Indicator:** Percentage of people aged 65 and over reporting having had one or more falls in the past year.

**Numerator:** Number of people aged 65 and over reporting having had one or more falls in the past year.

**Denominator:** All people responding to question in survey.

**Relation to age**
The percentage reporting having had one or more falls in the past year in those aged 65 and over rises with age (Figure 5.3). Among 65-69 year olds about 20% reported having one or more falls whereas in those aged 85 and over the figure was 43%.
Regional comparison
The age standardised percentages of men and women reporting having had one or more falls in the past year is shown in Figure 5.4. The region with the highest percentage is East Midlands while the lowest is East of England region.

Mortality from accidental falls
Indicator description
Indicator: Directly Standardised death rate for falls in the 65 and over age group in 2005
Numerator: Number of deaths in age 65 and over for falls classified by underlying cause of death (ICD10 code W00-W19) registered in 2005 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Regional comparison
West Midlands has the highest rate of death from accidental falls for both men and women, followed by the northern regions. The lowest rates for men and women are in East of England region (Figure 5.6).

European comparison
Figure 5.7 shows the rates of death due to accidental falls in Europe. Among the countries shown the highest rate of deaths is found in Hungary for both men and women. The lowest rate for men is in Spain and for women in Romania. The UK has a fairly low rate compared to other European countries.
EUROPEAN COMPARISON

Figure 5.7  Directly standardised death rates for accidental falls, age 65+
Selected European countries

![Graph showing directly standardised death rates for accidental falls, age 65+ across selected European countries]

Source: European Health For All database 2006 (latest data for each country)

Admissions for accidental falls
Indicator description

Indicator: Directly Standardised hospital admission rate for falls in the 65 and over age group in 2005/06

Numerator: Number of hospital admissions in age 65 and over for falls classified by first diagnosis code that represents an external cause (ICD10 code W00-W19) during 2005/06 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

AGE BAND

Figure 5.8  Age specific hospital admission rates for accidental falls, England, 2005

![Graph showing age specific hospital admission rates for accidental falls, England, 2005]

Source: DH Health Episode Statistics 2005/06  ONS Mid year population estimates

GOVERNMENT OFFICE REGIONS

Figure 5.9  Directly standardised hospital admission rates for accidental falls, age 65+, England, 2005

![Graph showing directly standardised hospital admission rates for accidental falls, age 65+, England, 2005]

Source: DH Health Episode Statistics 2005/06  ONS Mid year population estimates
Relation to age
Figure 5.8 shows the admission rate of accidental falls increases with increasing age. Unlike the rate for mortality from falls, the rate is higher in women than men. In England 60% of admissions for falls in 2005/06 were over the age of 65 and 40% were over the age of 80. On average each year in England 2% of women aged 65 and over will be admitted to hospital because of a fall.

Regional comparison
Figure 5.9 shows North West has the highest rate of admission for falls for both sexes in those aged 65 and over. The West Midlands has the lowest rate of admission for falls although it has the highest rate of deaths due to accidental falls (Figure 5.6).

Fractured Neck of Femur
Hip fracture is a common serious injury related to falls in older people. More than 95% of hip fractures in adults aged 65 and older are caused by a fall. Hip fractures in older and frail people can lead to loss of mobility and loss of independence. For many older people it is the event that forces them to leave their homes and move into residential care. Only 46% of older people with fractured neck of femur return to their usual residence. Mortality after hip fracture is high; 10% within 30 days of the fracture and around 30% at one year. Hip fracture is unreliably recorded on death certificates and published mortality rates are a gross underestimate.

Admission for fractured neck of femur
Indicator description
Indicator: Directly Standardised hospital admission rate for fractured neck of femur in the 65 and over age group in 2005/06
Numerator: Number of hospital admissions in age 65 and over for fractured neck of femur classified by primary diagnosis (ICD10 code S72.0-S72.2) during 2005/06 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

<table>
<thead>
<tr>
<th>AGE BAND</th>
<th>GOVERNMENT OFFICE REGIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 5.10</td>
<td>Age specific hospital admission rates for fractured neck of femur, England, 2005</td>
</tr>
<tr>
<td>Figure 5.11</td>
<td>Directly standardised hospital admission rates for fractured neck of femur, age 65+, England, 2005</td>
</tr>
</tbody>
</table>

Source DH Health Episode Statistics 2005/06 ONS Mid year population estimates
Relation to age
Figure 5.10 shows that the rate of admission for fractured neck of femur increases with increasing age and is higher in women than men. About 90% of people admitted to hospital with a hip fracture in 2005/06 were aged 65 and over and about three quarters were women.

Regional comparison
The rate of admission for fractured neck of femur in people aged 65 and over is highest in South West and lowest in London for both sexes (Figure 5.11). In all regions admission rates are much higher for women than for men.

Death rate at 30 days and return to usual place of residence
High rate of return to usual residence and low rate of mortality within 30 days may be an indicator of quality of care for fractured neck of femur. These data are not available separately for older people, and the figures given are for all ages. However since fractured neck of femur predominantly affected older people, the all-age data will primarily relate to them (see Figure 5.10).

Percentage returning to usual residence
Indicator description
Indicator: Indirectly age and sex-standardised percent returning to usual place of residence within 28 days of emergency admission for fractured neck of femur.
Numerator: The number of denominator continuous inpatient (CIP) spells where the patient is discharged to the pre-admission category of accommodation between 0 and 27 days (inclusive) of admission.
Denominator: The number of finished CIP spells following an emergency admission for patients aged 65 years and over with a primary diagnosis on admission of fracture of proximal femur (ICD 10 codes S2.0, S2.1 and S2.2). Excludes CIP spells where the first episode in the spell has an admission source coded other than 19, 29, 54, 65, 66, 69, 85, 86, 88, 89.

GOVERNMENT OFFICE REGIONS
Figure 5.12 % returning to usual place of residence within 28 days of emergency admission for fractured neck of femur, England, 2003/04

Figure 5.13 Indirectly standardised death rate within 30 days of admission for fracture neck of femur England 2003/04

Source: NCHOD- Clinical and Health Outcomes Knowledge Base
Source: NCHOD Clinical and Health Outcomes Knowledge Base
A CIP spell covers all continuous, finished consultant episodes for the same patient, including those following a transfer to another hospital. Each CIP spell must start with an admission episode and finish with a discharge episode in the year of analysis. In some cases the admission episode may have commenced in a preceding HES year.

**Regional comparison**

Figure 5.12 shows by region the percentage of people returning to their usual place of residence following fractured neck of femur. Yorkshire & Humber region has the highest percentage of people returning to their usual residence after admission for fractured neck of femur and West Midlands has the lowest percentage.

**Deaths within 30 days of fractured neck of femur**

**Indicator description**

*Indicator:* Indirectly age and sex-standardised death rate for patients aged 65 years and over within 28 days of emergency admission for fractured neck of femur (nof)

*Numerator:* The number of denominator continuous inpatient (CIP) spells where the patient dies in hospital and after discharge between 0-29 days (inclusive) of admission.

*Denominator:* The number of finished CIP spells following an emergency admission for patients aged 65 years and over with a primary diagnosis on admission of fractured proximal femur (ICD10 codes S72.0, S72.1 and S72.2).

**Regional comparison**

Figure 5.13 shows the rate of death within 30 days of admission for fractured neck of femur. North West has the highest rates and East Midlands has the lowest rate.

**Physical Impairment**

The *HSE 2005 The health of older people* included various tests of physical function including grip strength and tests of lower body function.

**Indicator description**

*Indicator:* Percentage impaired on Short Physical Performance Battery (SPPB).

*Numerator:* Number of men and women less than 8 on SPPB

*Denominator:* Total number of men and women tested.

The SPPB conducts of a test of walking speed, a test of balance and a test of ability to rise from a simple chair. Subjects were scored 0-4 on these three tests and those scoring less than 8 out of 12 were categorised are being impaired.

**Relation to age**

The percentage with a low score on this test rose sharply with age (Figure 5.14).

**Regional Comparison**

Figure 5.15 shows the considerable regional variation in impaired mobility based on a SPPB score of less than 8. The regional pattern varies between the genders. North East has the highest impairment in women (59%) and also the joint highest with South West for men (35%). However, South West has the lowest percentage for women at 41%.
Sensory Impairments

Sensory impairments become increasingly common as people age; around 80% of people over 60 have a visual impairment and 22% have both a visual and hearing impairment.

Visual impairment

Visual impairments can affect all ages but are more prevalent in the older age groups. The great majority of people (98%) aged 65 and older wear glasses. A report produced by the Eye Care Services Steering Group listed the major eye conditions that affect older people, including cataract, glaucoma and macular degeneration. A quarter of people will have developed cataracts and 5% will have glaucoma by the age of 75. Glaucoma can lead to blindness and requires lifelong care once the diagnosis is made. Macular degeneration is the most common cause of irremediable serious visual loss in people over 65 years of age. Approximately 306,500 people in England are registered blind or partially sighted, however only approximately 50% of visually impaired people who are eligible to register actually do so.

A large multi-centre general practice based study of 14,600 people organised by the Medical Research Council (MRC) found that 12.4% of those aged 75 years or over were visually impaired (binocular acuity with usual glasses <6/18). More detailed results of the study are given Table 5.1.

In order for people to be registered as blind or partially sighted they must first undergo an examination by a consultant ophthalmologist. The statutory definition of blindness is that a person should be “so blind as to be unable to perform any work for which eyesight is essential”. There is no equivalent definition of partial sight, but in practice this category refers to persons who, although not blind within the meaning of the 1948 Act, are substantially and permanently disabled by defective vision caused by congenital defect, illness or injury. Registration as blind or partially sighted is a very variable process and is influenced by the practice of local authorities and the readiness of individuals to register as well as by the prevalence of visual impairment. For this reason registration cannot be taken to reflect prevalence.
Table 5.1  Percentage of men and women by age who were visually impaired (low vision or blind) in MRC study

<table>
<thead>
<tr>
<th>Age Band</th>
<th>All Visual Impaired &lt;6/18 %</th>
<th>95% CI*</th>
<th>Low Vision &lt;6/18 to 3/60 %</th>
<th>95% CI*</th>
<th>Blind &lt;3/60 %</th>
<th>95% CI*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-79</td>
<td>4.8</td>
<td>3.6-5.9</td>
<td>4.2</td>
<td>3.1-5.2</td>
<td>0.6</td>
<td>0.3-0.9</td>
</tr>
<tr>
<td>80-84</td>
<td>10.0</td>
<td>8.4-11.7</td>
<td>7.7</td>
<td>6.0-9.4</td>
<td>2.3</td>
<td>1.5-3.1</td>
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<td>85-89</td>
<td>19.2</td>
<td>15.5-22.9</td>
<td>16.0</td>
<td>12.4-19.6</td>
<td>3.2</td>
<td>2.0-4.4</td>
</tr>
<tr>
<td>90+</td>
<td>28.6</td>
<td>21.6-35.5</td>
<td>22.0</td>
<td>15.6-28.4</td>
<td>6.6</td>
<td>3.1-10.1</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-79</td>
<td>7.2</td>
<td>6.0-8.5</td>
<td>6.6</td>
<td>5.4-7.8</td>
<td>0.6</td>
<td>0.3-1.0</td>
</tr>
<tr>
<td>80-84</td>
<td>12.9</td>
<td>10.4-15.5</td>
<td>10.6</td>
<td>8.1-13.1</td>
<td>2.3</td>
<td>1.6-3.0</td>
</tr>
<tr>
<td>85-89</td>
<td>25.6</td>
<td>22.3-28.9</td>
<td>20.8</td>
<td>17.5-24.0</td>
<td>4.8</td>
<td>3.6-6.0</td>
</tr>
<tr>
<td>90+</td>
<td>39.4</td>
<td>34.5-44.3</td>
<td>32.4</td>
<td>27.3-37.4</td>
<td>7.0</td>
<td>4.7-9.3</td>
</tr>
</tbody>
</table>

* 95% CI is 95% Confidence Interval

Registered blind and partially sighted

**Indicator description**

**Indicator:** Crude rates of people registered blind or partially sighted with the council, aged 65 and over, 2006.

**Numerator:** Number of people registered blind or partially sighted in specific age groups.

**Denominator:** Number of people in that age group.

**Relation to age**

The rate of registration for blindness and partial sight increases with increasing age, with a major increase in the 75 and over age group (Figure 5.6). 6% of the people registered blind and 78% of the people registered as partially sighted in England in 2006 were aged 65 and over.

**Regional comparison**

Figure 5.17 shows by region the crude rates of the 65 and over population who were registered as blind or partially sighted in 2006. North West has the highest crude rate of combined blindness and partial sightedness, while East of England region has the lowest. Registration for blindness follows similar regional patterns as registration for partial sightedness, except that the region with the highest crude rate of registered blindness is London. It must be emphasized that these are crude rates of registration rather than actual prevalence of blindness or partial sightedness.

**Comment**

A quarter of those registered blind or registered partially sighted also have an additional disability. The majority of additional disabilities registered were physical disabilities. North East region has the highest crude rate of registered blind or partially sighted people with additional disabilities and South West has the lowest.
Hearing impairment

Hearing loss is reported to be a common problem in modern society due to the combined effects of noise, ageing, disease, and hereditary conditions. Hearing problems can compromise safety because of difficulty hearing fire alarms, traffic and pedestrian crossings etc. Other practical problems include hearing doorbells, telephones and other devices and difficulty with communication can lead to social isolation. The majority of people with hearing loss are in the older age group. They usually experience a gradual age-related reduction in hearing and an increasing inability to hear high-pitched sounds. It is estimated that 5 million people would benefit from using a hearing aid but that only 1.5 million have one. There is no formal examination procedure required in order to register as deaf or hard of hearing. Being deaf is defined as: those who (even with a hearing aid) have little or no useful hearing, and the definition of being hard of hearing is: those who (with or without a hearing aid) have some useful hearing and whose normal method of communication is by speech, listening and lip reading. The reservations described for registration of visual impairment also apply to hearing impairment. Registration rates for deaf and hard of hearing are not a reliable indicator of the prevalence of hearing impairment.

Registered deaf or hard of hearing

Indicator description

Indicator: Crude rates of people registered with their council as deaf or hard of hearing, aged 65 and over, 2004.

Numerator: Number of people in specific age group who are registered deaf or hard of hearing.

Denominator: Number of people in specific age group.

Relation to age

The rate of registration as deaf or hard of hearing increases with increasing age (Figure 5.18). In England 40% of the 55,000 people registered as deaf and 79% of the 160,000 people registered as hard of hearing in 2004 were aged 65 and over.
Regional comparison
When registrations for deafness and hardness of hearing in the 65 and over age group are combined North West has the highest rate and East of England has the lowest rate (Figure 5.19). There is a north south gradient with the exceptions of East Midlands which has a higher than expected rate and East of England which has a lower. However for deafness alone the highest rate of registration in the 65 and over age group is found in West Midlands and the lowest in East of England. Registration is likely to be a serious underestimate of the prevalence of both deafness and hardness of hearing.

Smell and Taste
The senses of taste and smell decline in old age. Smell and taste play important roles in detection of many hazards such as the smell of burning or the taste of spoiled food. Sense of smell and taste are linked to appetite and a decline in these senses may result in a loss of interest in food, poor appetite, and poor nutrition status.

Loss of the senses of smell and taste can be caused by neurological disease, drugs and medical treatments, including chemotherapy and radiotherapy. The loss of the sense of taste can be caused by a condition called dry mouth which is more prevalent in older age groups. Loss of sense of smell can be caused by nasal congestion and diseases affecting the nose, nasal passageways or sinuses.

Touch
Many people experience changes in the touch-related sensations as they age including sensitivity to temperature, cutaneous sensation (feelings touch / pressure) and proprioception (knowing the position of the body in space). Decreased sensitivity to temperature can lead to injuries such as frostbite, hypothermia, and burns. The loss of cutaneous sensation makes it harder to pick up small objects and to know when hands are on surfaces etc. Decrease in proprioception can lead to increased falls.

AGE BAND

<table>
<thead>
<tr>
<th>AGE BAND</th>
<th>Crude rate per 1,000 of people registered deaf or hard of hearing, England, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>5</td>
</tr>
<tr>
<td>18-64</td>
<td>10</td>
</tr>
<tr>
<td>65-74</td>
<td>15</td>
</tr>
<tr>
<td>75+</td>
<td>20</td>
</tr>
</tbody>
</table>

GOVERNMENT OFFICE REGIONS

<table>
<thead>
<tr>
<th>GOVERNMENT OFFICE REGIONS</th>
<th>Crude rate per 1,000 of people registered deaf or hard of hearing, age 65+, England, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW</td>
<td>20</td>
</tr>
<tr>
<td>NE</td>
<td>15</td>
</tr>
<tr>
<td>EM</td>
<td>10</td>
</tr>
<tr>
<td>YH</td>
<td>5</td>
</tr>
<tr>
<td>WM</td>
<td>10</td>
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<tr>
<td>L</td>
<td>15</td>
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<tr>
<td>SE</td>
<td>20</td>
</tr>
<tr>
<td>SW</td>
<td>25</td>
</tr>
<tr>
<td>E</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: ONS Numbers of deaf people registered with councils 2004

73
**Dental Health**

Dental health is of major importance to the overall health of older people as it may affect their ability to eat, their food choices and their nutritional state. Older people who have lost their teeth (edentate) and are reliant on often poorly fitting dentures have lower intake of iron and fibre, and they eat less fruit and vegetables than dentate adults. Poor dental health can lead to sore mouths (due to ulcers, tooth decay and poorly fitted dentures) which also affect overall motivation to eat. Older edentate people may also experience problems with speaking and be anxious about personal appearance. In 1994 the Department of Health published *An oral health strategy for England* setting up a number of targets for the retention of teeth to be met by 1998, including that 33% of adults aged 75 and over should have some natural teeth and that 10% of adults aged 75 and over should have more than 20 natural teeth. The Adult Dental Health Survey is carried out every 10 years the most recent being in 1998 and the next due in 2008. The most recent available data based on oral examination are thus 1998 but the *HSE 2005 The health of older people* asked respondents if they had any of their own teeth left.

**Percentage Edentate Indicator description**

- **Indicator:** Percentage of people aged 65 and over who have no natural teeth (edentate) by dental examination (Adult Dental Survey) or Self report (HSE 2005).
- **Numerator:** The number of people with no teeth in specific age group in dental survey.
- **Denominator:** All people of that age group in HSE 2005 The health of older people survey.

**Relation to age**

The percentage of people with no teeth increases with increasing age. Figure 5.20 shows, both the data from the *Adult Dental Health Survey 1998* and those for *HSE 2005 The health of older people*, Women are slightly more likely to be edentate than men. The results of the last three Adult Dental Surveys indicated that the percentage of people in each age with no teeth is reducing each decade. In the 65 and over age group the percentage has decreased from 79% in 1978 to 46% in 1998. The more recent data suggests a further decrease, though care must be taken in comparing the two sources since they used different methods. The decreasing numbers of people with no teeth is likely
to be partially a cohort effect because older people have lived through a period when there was a greater tendency for dentists to extract teeth, or even to undertake complete dental clearance and replacement with dentures.

**Regional comparison**

Using data from the *HSE 2005 The health of older people* 30 figure 5.21 shows considerable differences regionally. There is a clear north south gradient of tooth loss in the 65 and over age group. The percentage of people with no teeth is highest in Yorkshire and Humber region (37% of men and 47% of women) and lowest in South East (19% of men and 25% of women).

**Continence**

Incontinence is a distressing problem that afflicts a large number of older people. Urinary incontinence is particularly prevalent in women and older people32. In the UK, over a one year period, over a third of people aged 40 and over have symptoms of urinary incontinence, urgency, frequency, nocturia or bladder storage problems 33. Incontinence has been linked in various studies to depression and even suicide 34,35.

The NHS Information Authority has produced a draft document on the planned continence dataset to support the implementation of the *National Service Framework for Older People* under standard two ‘person centred care’. It envisages data capture by doctors and health and social care workers and the dataset is intended to cover all stages of the provisional integrated continence service across the primary, secondary and residential care sectors 36.

When asked in the *HSE 2005 The health of older people* if they had bladder problems 21% of men and 22% of women said that they had 1.

**Indicator:** Percentage reporting they had “bladder problems”.

**Numerator:** Number saying they had “bladder problems”

**Denominator:** All survey respondents.

**AGE BAND**

**GOVERNMENT OFFICE REGIONS**

Figure 5.22 % of people reporting a “bladder problem”, England, 2005

[Graph showing percentage reporting bladder problems by age band and gender]

Source: HSE 2005 Health of Older people 1

Figure 5.23 Age standardised % of people reporting a “bladder problem”, age 65+, England, 2005

[Graph showing age-standardized percentage reporting bladder problems by government office region and gender]

Source: HSE 2005 Health of Older people 1
Relation to age

The percentage reporting bladder problems rises with age (Figure 5.22). Of the 65-69 year olds 16% of men and 19% of women reported bladder problems but of those aged 85 or more 31% of men and 34% of women reported problems. Very similar figures were reported in the previous *HSE 2000 Health of older people survey* [37]. The prevalence in men and women is similar which conflicts with some other surveys [38].

Regional Comparison

Figure 5.23 shows age standardised percentages of men and women aged 65 or more reporting bladder problems. The highest percentages are in South West and North West, while the lowest are in Yorkshire and Humber and East of England. In most regions the prevalence of problems in men and women is similar but in North East and London women are far more likely than men to report problems.

Of those who had a bladder problem 89% of men and 54% of women had consulted a health professional, most frequently their GP, (68% of men and 39% of women). The *HSE 2005 The health of older people survey* was restricted to people living in private households but the *HSE 2000 Health of older people survey* reported that people in care homes were more likely to have bladder problems than those in private homes 30% of men and 28% of women in care homes aged 65 and over complained of bladder problems compared to 15% of both sexes living at home [37]. Another study reported urinary incontinence rates of 46% in care homes and 28% in hospitals [39].

Faecal incontinence can also affect all age groups but significantly increases in the older age groups [40]. Meta analysis of studies of faecal incontinence in the community revealed a rate of 0.8% in men and 1.6% in women aged 15-60 year olds, rising to 5.1% in men and 6.2% in women in the 60 and over age group [40]. Another study reported faecal incontinence rates of 43% in care homes and 23% in hospitals [39].

Sleep

Sleep patterns change as people get older; sleep is lighter, more fragile and more prone to disturbance [41]. Older people generally go to bed earlier and wake up earlier in the morning [42,43] and they complain of difficulty falling to sleep and frequent waking in the night [44]. Sleep is very important for feelings of wellbeing. A study on the health behaviours of bereaved people showed that being able to sleep for at least 6½ to 9 hours per night was associated with better social functioning, better emotional health, and greater energy [45]. Insomnia and disturbed sleep patterns may be related to co-morbidities or coexisting disease. An association has been demonstrated between sleep disturbances and respiratory conditions, physical disabilities, depressive symptoms and self reported poor health [40]. Other problems such as pain associated with arthritis, back pain or other disease, sleep apnoea, dementia, anxiety, urinary problems and being in a caring role for a sick family member have also been associated with disturbed sleep [47,48,49].

Various studies have shown that self reported sleep problems are widespread in the older age group. A study of 9000 participants aged 65 and over showed that more than 50% complained of at least one sleep complaint most of the time [46]. In another large study of 2800 53-97 year olds, 26% of participants reported at least one sleep complaint [44]. A study targeting only healthy older adults (67-68 year olds) who did not complain of sleep disturbance demonstrated that 33% women and 16% men had significant sleep disturbance This study indicated that age results in significant changes in sleep patterns, even in non-complaining older adults who may adapt their perception of acceptable sleep patterns with increasing age [50].
References  Chapter 5


Chapter 6: Mental Health

Mental Health is an important component of the overall state of health and wellbeing. The National Service Framework (NSF) for Mental Health published in 1999 sets clear quality requirements for NHS and social care organisations to implement. It aims to improve the quality of mental health services and to reduce the unacceptable variations. The NSF sets out seven standards: the promotion of better mental health for everyone; improved access to mental health services in primary care (two standards); more effective care for people with mental health problems (two standards); better support for those who care for people with mental illness and to reduce the suicide rate by at least a fifth by 2010. Although the NSF covers services for adults up to the age of 65, its principles are applicable to older people. The new Department of Health initiative Securing better mental health for older people (2005) looks to combine mental health and older people’s services, to provide more person centred care.

Mental health is included in several general public health documents and policies. The National Service Framework for Older People (2001) sets new national standards and service models of care across health and social services for all older people. Mental health in older people is one of the eight standards highlighted in the NSF, aiming to promote good mental health in older people and to treat and support those older people with dementia and depression. The White Paper Choosing Health sets out the key principles for supporting the public to make healthier and informed choices regarding their health. Improving mental health is one of the six overarching priorities of the report. The Department of Health’s Public Service Agreement targets 2005-2008 include targets for reducing mortality from suicide; improving health outcomes for people with long-term conditions; and improving the quality of life and independence of older people.

Mental health problems are common in older people. It has been estimated that 40% of older people attending GPs, 50% of older general hospital patients, and 60% of older care home residents have mental health problems. Although the majority of older people with mental health problems are treated by their GP, unfortunately there is little primary care data available for analysis and so this report relies heavily on Hospital Episode Statistics Data on admission with mental health disorders as primary diagnosis.

The recently published Indications of Public Health in the English Regions: Mental Health did not give separate information for older people and for some indicators excluded them.

Common Mental Disorders Affecting Older People

Older people like any other group suffer a range of common mental disorders. In the older age group these include dementia, depression, anxiety, phobias, obsessive-compulsive and panic disorders. The Mental Health of Older People is a report based on a survey of psychiatric morbidity among adults in Great Britain in 2000. Though limited to those aged less than 75 years, it revealed that 10% of people aged 60 to 74 living in private households had one of the common mental disorders (12% of women and 8% of men). People from ethnic minority groups are more likely to be diagnosed as having a mental disorder. There is evidence of a strong association between disability or long-term physical illness and mental disorders, particularly depression. People with less education, with low income or belonging to manual social classes are more likely to suffer from mental disorders. Among older people those with supportive and extensive social networks tend to be less likely to suffer from mental disorders.

Hospital Admissions

The vast majority of older people with mental health problems receive no care. If care is provided it is either informal, in a communal residential establishment, or by primary care services. It is only a very
small fraction of the total who are admitted to a hospital, so hospital admissions are not a reliable indicator of prevalence of mental health problems.

The data shown in this section are for admissions under any speciality with a primary diagnosis of a mental condition. When viewing these data it must be remembered that an individual may be admitted more than once and that Hospital Episode Statistics data are generally considered to be weaker for mental health than for other data\(^8\). See comments in Appendix 1.

**Main causes of admission for mental health diagnosis**

**Indicator Description**

**Indicator:** Percentage of admissions to any speciality for a specific psychiatric diagnosis (primary diagnosis ICD10 code F00-F99) in the 65 and over age group.

**Numerator:** Number of admissions for specific mental disorder in the 65 and over age group,

**Denominator:** Number of admissions for any mental health disorder in this age group.

**Table 6.1** Percentage of Mental Health admission by primary diagnosis code in the 65 and over age group, 2004/5.

<table>
<thead>
<tr>
<th>Mental illness (ICD 10 Code)</th>
<th>65 - 69</th>
<th>70 - 74</th>
<th>75 - 79</th>
<th>80 - 84</th>
<th>85+</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia (F00-F03)</td>
<td>13.2</td>
<td>26.0</td>
<td>38.9</td>
<td>51.4</td>
<td>61.1</td>
<td>40.5</td>
</tr>
<tr>
<td>Mood disorders (F30-F39)</td>
<td>35.3</td>
<td>31.5</td>
<td>27.5</td>
<td>30.5</td>
<td>13.1</td>
<td>24.4</td>
</tr>
<tr>
<td>Neurotic disorders (F40-F48)</td>
<td>10.9</td>
<td>10.2</td>
<td>10.9</td>
<td>7.4</td>
<td>5.7</td>
<td>8.2</td>
</tr>
<tr>
<td>Schizophrenia (F20-F29)</td>
<td>12.6</td>
<td>9.1</td>
<td>6.9</td>
<td>4.3</td>
<td>2.5</td>
<td>6.6</td>
</tr>
<tr>
<td>Delirium (F05)</td>
<td>1.9</td>
<td>2.7</td>
<td>4.2</td>
<td>5.9</td>
<td>9.0</td>
<td>5.1</td>
</tr>
<tr>
<td>Other mental health (Other F00-F99)</td>
<td>26.0</td>
<td>20.4</td>
<td>14.1</td>
<td>10.6</td>
<td>8.7</td>
<td>15.1</td>
</tr>
<tr>
<td>Numbers admitted in each age group</td>
<td>6691</td>
<td>6628</td>
<td>7926</td>
<td>8653</td>
<td>9662</td>
<td>39560</td>
</tr>
</tbody>
</table>

Source: DH Hospital Episode Statistics (HES) 2005/06

**Relation to age**

Dementia and mood disorders are the most frequent causes of admission for mental illness for people age 65 and over (Table 6.1). The proportion of admissions for dementia increases with increasing age, whereas the proportion of admissions for mood disorder (mostly depression), neurotic disorders and schizophrenia decreases with increasing age. The proportion of admissions coded to delirium (mostly temporary mental malfunction due to underlying physical disease) increases with increasing age. The total numbers admitted by age group increases by 45% between the age of 65-69 and 85 and over.
**All mental health admissions**

**Indicator Description**

**Indicator:** Directly Standardised hospital admission rate for mental health in the 65 and over age group in 2005/06

**Numerator:** Number of hospital admissions in age 65 and over for mental health classified by primary diagnosis (ICD10 code F00-F99) during 2005/06 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

**Relation to age**

Figure 6.1 shows that admissions increase steeply with age from the age of 65-69 in both men and women.

**Regional Comparison**

London has the highest admission rate for mental illness in those aged 65 and over and South East has the lowest. The ranked order for men and women is not identical; London has the highest rate in men and West Midlands has the highest rate in women.

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**Dementia**

Dementia is a chronic or persistent disorder of behaviour and higher intellectual function due to organic brain disease. Symptoms of dementia include impairment of attention, orientation, memory, judgment, language, motor and spatial skills and function. The majority of people who are diagnosed with dementia have either Alzheimer’s disease or vascular dementia, or a combination of the two. The National Service Framework for Older People, standard seven for Mental Health, estimated that about 5% of the population over 65 has dementia. The report on dementia in 2007 estimated that 700,000 people in the UK currently have dementia, and that two thirds of them are...
women. The majority (two thirds) of people with dementia live in the community, and the remainder live in care homes. Risk factors for dementia include vascular problems (particularly hypertension), diabetes mellitus, smoking, poor diet, excessive alcohol intake and family history.

Dementia is diagnosed when cognitive impairment (memory, attention/concentration, reasoning and mental speed) impairs activities of daily living. However milder degrees of cognitive impairment also occur in older people. 19% of all respondents to a survey of psychiatric morbidity in the UK aged 60 to 74 showed signs of cognitive impairment. Another study showed similar results; 18% prevalence of cognitive impairment without dementia.

There is an association between impaired cognitive function and higher subsequent mortality rates; this association is independent of age and physical health status. Cognitive impairment has been considered a strong risk factor for the subsequent development of dementia, as many people with mild cognitive impairment will progress to dementia within 3 years.

Although dementia can occur at any age it is rare below the age of 60. It is estimated that after the age of 60 the prevalence of dementia doubles for every five years so that about 30% of those aged 95 years or more are affected. Prevalence estimates by age are shown in Figure 6.3. The estimates have been developed by combining data from various European studies using the Expert Delphi Consensus method. An early study which included data from North America, Australasia and Japan as well as Europe showed a similar trend. Other European based studies give similar findings. It is possible that there is a slightly higher rate in women than men.

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### AGE BAND

**Figure 6.3** Estimated population prevalence of late onset dementia by age group, UK, (Expert Delphi Consensus method - studies from various years)

![Graph showing prevalence of dementia by age group]

Source: The Expert Delphi Consensus on the prevalence of dementia, Dementia UK, Personal Social Services Research Unit (PSSRU) 2007
Hospital Admission for dementia
Dementia is the main cause of mental health admissions (Table 6.1) in people aged 65 and over. In this age group 41% of mental health admissions are due to different forms of Dementia (21% unspecified Dementia, 14% Vascular Dementia and 5% Alzheimer's Disease).

Indicator Description
Indicator: Directly Standardised hospital admission rate for dementia in the 65 and over age group in 2005/06
Numerator: Number of hospital admissions in age 65 and over for dementia classified by primary diagnosis (ICD10 code F00-F03) during 2005/06 by 5 year age bands and sex
Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population.

Relation to age
Figure 6.4 shows that admissions for dementia increase with increasing age and that men have slightly higher rates than women at all ages. Figures suggest that there is approximately one admission for every 40 prevalent cases although this varies slightly by sex and age.

Regional Comparison
South East and North West regions have the lowest rates for men and women (Figure 6.5). East of England and West Midlands regions have the highest rates for men and East Midlands the highest rate for women. The regional rank order is not stable and varies from year to year.

Depression
Depression is one of the commonest forms of mental health problem affecting older people. Depression affects approximately 10-15% of people aged 65 and over living at home in UK\textsuperscript{22}, 15-50% of older people in hospital and 30-40% of those in residential and nursing homes\textsuperscript{23}. There are more than 1 million older people with a formal diagnosis of depression but it is believed that there
are large numbers of older people with undiagnosed depression\textsuperscript{24}. Depression has a significant impact on the wellbeing and function of older people, and on the use of health services and the social economy. It increases both the risk of suicide and natural mortality.

Depression is associated with poor physical health, disability and handicap\textsuperscript{25, 26, 27} and is more common among people who are physically ill both in hospital and at home. Depression is also associated with social isolation and loneliness, and with the experience of severe life events and major social difficulties. People with low socioeconomic status, low education level and low income are more at risk of developing depression\textsuperscript{28}. The frequency of depression increases with increasing chronological age but this may be explained by confounding variables such as poor physical health, disability, cognitive impairment and low income rather than age per se\textsuperscript{27}.

Analysis of the main causes of mental health admissions (Table 6.1) indicates that mood disorder is the second largest cause of admission for older people. (25\% of mental health related admissions in people age 65 and over) (13\% Depressive Episode and 5\% Recurrent Depressive Disorder). In England there were approximately 101 admissions per 100,000 women and 69 per 100,000 men for depression among those aged 65 years and over.

**Depression In the community**

The *HSE 2005 The health of older people*\textsuperscript{29} used the self administered 10 item Geriatric Depression Scale (GDS10)\textsuperscript{30} to assess the prevalence of depression. This instrument is thoroughly standardised and validated. A score of 3 or more has been classified as high indicating the presence of significant depressive symptoms. High scores on GDS10 were associated with reporting poor general health and limiting long standing illness.

**Indicator description**

*Indicator:* Directly Standardised hospital admission rate for depression in the 65 and over age group in 2005/06.

*Numerator:* Number of men and women scoring 3 or more on the GDS10

*Denominator:* Total number of men and women tested.

GDS10 is a 10 item geriatric depression scale.

**Relation to age**

Figure 6.6 shows that the percentage of high scores on GDS10 increases with age rising from 20\% in the 65-69 year olds to 41\% in the 85 year and over age group. At all ages the percentage of women with high scores is slightly greater than the percentage of men.

**Regional comparison**

The age standardised percentage of high GDS10 scores is shown in Figure 6.7. It was greatest in Yorkshire & Humber and least in South East for men. The highest percentage for women occurred in North East and London, and the lowest percentage was in East of England. The differences did not reach levels of statistical significance.
Hospital admission for depression
**Indicator Description**

**Indicator:** Directly Standardised hospital admission rate for depression in the 65 and over age group in 2005/06.

**Numerator:** Number of hospital admissions in age 65 and over for dementia classified by primary diagnosis (ICD10 code F32-F33) during 2005/06 by 5 year age bands and sex.

**Denominator:** 2005 mid-year population estimates.

Standardised by age and sex to the European Standard Population

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**AGE BAND**

**GOVERNMENT OFFICE REGIONS**

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**Figure 6.6** Self-reported depression (GDS10 Score 3+), age 65+, England, 2005

**Figure 6.7** Age standardised self-reported depression (GDS10 Score 3+), age 65+, England, 2005

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**Figure 6.8** Age specific admission rates, Depression, England, 2005/06

**Figure 6.9** Directly standardised admission rates for Depression, age 65+, 2005/06

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Source:
DH Hospital Episode Statistics 2005/06

Source:
DH Hospital Episode Statistics 2005/06
Relation to age
After the age of 60 admission rates for depression increase with increasing age; at all ages admission rates are higher in women than men (Figure 6.8).

Regional Commentary
North West region has the highest admission rates for depression in women aged 65 and over and East Midlands the highest for men. North East region has the lowest rates (Figure 6.9). The gender difference is particularly large in North West, West Midlands and South West regions. The pattern of admission rates for depression is very different to that for all mental health illness (Figure 6.2).
References

Chapter 6


Chapter 7: Quality of Life & Wellbeing

Quality of life and well being involve far more than the absence of illness and disability. Quality of life is influenced by the individual’s physical and social environment and by their perception of these things.

Many government policy documents emphasize the importance of quality of life and wellbeing for older people. A Sure Start to later life is particularly concerned with quality of life and wellbeing of excluded older people. One of the 10 programmes in New ambition for old age is concerned with independence, wellbeing and choice. Opportunity Age outlined the need for central and local government to tackle issues which affect older people’s wellbeing, such as age discrimination, fear of crime, transport and poor housing, and to provide opportunities for learning, leisure and volunteering. Quality of life and wellbeing was also a theme in other reports such as Joseph Rowntree Trust’s From Welfare to Wellbeing and the Nuffield Institute for Health’s Living well in later life: From Prevention to Promotion. Age Concern’s As fit as butchers dogs found that older people link happiness or mental wellbeing with health.

A large study carried out by the Economic and Social Research Council (ESRC) found that wellbeing depended on: standards of comparison and expectation; a positive attitude; good social networks and a sense of support; living in a neighbourhood with good facilities and feeling safe. A study on social exclusion carried out by English Longitudinal Study of Ageing (ELSA) found that: Social relationships (contact with family and friends); Cultural relationships (e.g. cinema, theatre); Civic activities (voting, volunteering, local interest group); Access to basic services (health services and shops); Neighbourhood quality (feeling safe in your local area); Financial products (bank account, long term savings) and Material consumption (afford household utilities and annual holiday) were all important components of wellbeing. The ESRC study Growing older in the 21st Century drew similar conclusions that the main drivers of quality of life in older age were: people’s standards of comparison; expectation; their sense of optimism; good health and physical functioning; engaging on a large number of social activities; feeling supported; and living in safe communities with good community facilities and service.

The determinants of quality of life for older people can thus be divided into material circumstances and communal and social circumstances. This chapter examines aspects of these two in turn. Under material circumstance it considers economic activity, acting as carer, fuel poverty, availability of transport and housing condition. Under communal and social circumstances it considers various aspects of social capital and fear of crime.

Measurement of quality of life presents conceptual and practical challenges because it is dependent on the interpretations and perceptions of the individual and involves multiple domains. Relevant domains include social and personal resources, self mastery or control over life, autonomy and independence. Instruments intended to measure quality of life vary from single questions to multiple item instruments such as CASP-9 and scored interviews. Use of these instruments suggests that quality of life as they measure it tends to decrease with increasing age.

Economic activity
While the current age at which the state pension becomes payable is set at 65 years for men and 60 years for women many would like to continue in paid employment after this age but not all who wish to continue working are able to do so.

Remaining economically active past retirement age can have benefits by providing extra income and
social contact. Demographic changes in the population leading to larger numbers of older people have made it desirable to the government to increase the age at which pensions are payable. In *Opportunity Age* the Department for Work and Pensions (DWP) outlined proposals to increase employment rates in the over 50s, to provide older people with adequate income and decent housing, and to help them preserve independence despite increasing health problems. The report aspires to an employment rate of 80% by increasing the number of over 50s in the workforce. The report *Older Women, Work and Health, reviewing the evidence* comments on the fact that although work has both positive and negative effects on health, workers in low-status and physically demanding jobs tend to suffer from the negative effects. It also comments upon the fact that very little occupational health research has been carried out on the health effects of work in the older age group.

**Indicator description**

**Indicator:** The percentage of people in different age bands who are economically active.

**Numerator:** Number of people in age band who are economically active,

**Denominator:** Number of people in age band.

Economically active is defined as being full or part time self employed or employed, seeking work or a full time student. In the older age bands the economically active are almost entirely self employed or employed.

**AGE BAND**

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<tr>
<th>AGE BAND</th>
<th>GOVERNMENT OFFICE REGIONS</th>
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<tr>
<td>Figure 7.1</td>
<td>% Economically active, England, 2001</td>
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<tr>
<td>Figure 7.2</td>
<td>% Economically active (men 65+ women 60+), England, 2005/06</td>
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**Relation to age**

Far more men than women work after the age of 60 (Figure 7.1). In the 60-64 age group 52% of men work compared to 26% of women, though this is probably due to the fact that women are able to receive their state pension from the age of 60, whereas men have had to wait until 65. Only 5% men and 9% women aged 65-69 work, this drops to 8% and 4% respectively for the 70-74 age group. The percentages in those aged 75 years and over will be very low and are not included in the standard Census tables.

**Regional comparisons**

Figure 7.2 shows the percentage of men (65 years and more) and women (60 years or more) economically active in 2005/06. There is a trend from south to north with highest economic activity...
rates for men and women in London and South East and lowest in North East, Yorkshire and Humber and North West.

**Carers**

Many of those who are not in paid employment make an invaluable contribution to the economy through unpaid caring for others. Caring can be fulfilling, but for many older people, who are themselves in poor health and who are called to do excessive caring both night and day for a sick partner, it can lead to serious deterioration in quality of life. The 2001 Census asked how many hours people provided unpaid care for a family member or friend, and showed that 5.2 million people in England and Wales did some caring and over one million provided more than 50 hours per week. Many older people care for a partner when they become ill and the Census found that over half of the people providing 50 or more hours of unpaid care per week were over the age of 55, and many people in this age group reported themselves as not in ‘good health’. Approximately one in five people in their 50s provide some unpaid care. The majority of carers are female, until the age of 65 when males are more likely to be the carer. Older people are also likely to be providing child care for grandchildren, either full time, or filling in for their working children when other child care arrangements fail, and 60% of grandparents see their grandchildren every week. A national survey showed that 52% had grandchildren to stay overnight, 54% babysat, and 60% of grandparents looked after grandchildren aged less than 15 in the daytime.

**Indicator description**

**Indicator:** Men and women aged 65 and over providing 20 or more hours of unpaid care per week.

**Numerator:** Number of men or women aged over 65 providing 20 hours or more unpaid care per week,

**Denominator:** Number of men or women aged over 65 in the population.

**AGE BAND**

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<tr>
<td>Figure 7.3</td>
<td>% Providing 20 hours or more unpaid care per week, England, 2001</td>
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Source: Census 2001 Standard table S025

Source: Census 2001 Standard table S025
Relation to age
Figure 7.3 shows the percentage of men and women of different age groups providing unpaid care. The percentage of the population providing unpaid care increases with increasing age to 55-64 in women and 75-84 in men, and then decreases with age. Women provide more care than men at all ages until the 65-74 age band. Above 75 years men are more likely to be the carers.

Regional comparison
Figure 7.4 shows the percentage of people aged 65 and over providing 20 hours or more unpaid care per week by region. The region with the highest percentage is North East followed by North West. South East has the lowest percentage of carers. There appears to be a north south trend.

Fuel poverty
One aspect of material well being of particular importance to older people is the ability to heat their homes or its converse, fuel poverty. The main causes of fuel poverty are homes with poor energy efficiency; houses too large in relation to the number of people occupying them; low household incomes, the price of fuel and the temperature of the external environment. Older people are more at risk of fuel poverty as they generally rely on pensions and so have lower incomes than the general population. As older people generally spend most of their time at home, their exposure to cold is largely determined by the temperature of the living space and bedroom in their homes. Older people may not detect cold to the same extent that younger people do, as they may have decreased temperature discrimination. The health of older people is more affected by cold stress, they have a greater fall in core body temperature in response to cold and are much more affected by excess winter mortality. (See Figure 3.27).

Fuel poverty affects health in numerous ways. There is the problem of choosing what to spend money on, so often it is a simple question of heat or food. The “heat or eat” dilemma has been known since the 1960s. In order to keep the house warm people may be left with inadequate nutrition. Alternately they may have to compromise by only heating part of the house, or by tolerating lower indoor temperatures. This can lead to condensation, damp and mould which also affect health.

Indicator description
Indicator: Percentage of households suffering from fuel poverty by region.
Numerator: Estimated number of households in fuel poverty,
Denominator: Number of households.

Fuel poverty is defined by the UK Fuel Poverty Strategy as the financial position when a household needs to spend more than 10% of its income on fuel in order to achieve an adequate standard of warmth. The proportion of households in fuel poverty has been calculated by the Centre for Sustainable Energy using data from the 2001 Census, the 2003 English House Condition (EHC) survey and RESIDATA a property database.

Relation to age
Figure 7.5 shows the composition of households in fuel poverty. Fuel poverty affects all age groups but is particularly a problem for older people. The over 60s age group forms the largest proportion of those affected by fuel poverty, with 49% of fuel poor households containing a person aged 60 years or over.

Regional Comparisons
Figures for fuel poverty broken down by age and region are not available. But since 49% of those
in fuel poverty are households containing people aged 60 or over, the distribution of all households in fuel poverty is likely to be a fair illustration of households with older people in fuel poverty. The regions with the highest percentage of households suffering from fuel poverty are North West, North East and Yorkshire & Humber, while London, South East and East of England have the least (Figure 7.6).

**FUEL POVERTY**

**GOVERNMENT OFFICE REGIONS**

| Figure 7.5 Composition of households in fuel poverty, England, 2003 |
| Figure 7.6 % of households suffering fuel poverty, England, 2007 based on 2003 EHCS |

Housing

Housing was mentioned as problematic for older people in *Excluded older people*[^29]. The report *A Sure Start to later life*[^1] outlined the need for access to home safety devices, the need for warm, energy efficient homes, access to low level housing support (changing light bulb, gardening etc.), and access to disabled facilities for older people. The DWP’s *Opportunity Age*[^3] emphasized the need for central and local government to tackle issues which limit older people’s lives such as poor housing.

The report *Delivering Housing to an Ageing Population*[^30] stated that older people want to continue to live in their area and remain involved in their local communities, but that there is a lack of suitable alternatives if they want to downsize. They want to remain in their own homes for as long as possible so may require support to remain independent at home. Significant numbers of older people live in non-decent or poor quality accommodation; many have difficulties with mobility within the home; fear of falls; accessing adaptations; and accessing local amenities. The report suggested that ideally, to produce sustainable communities, there should be a mix of tenure, household-size, ages, and income rather than homogenous areas of older people’s residences.

**Non-decent housing**

**Indicator description**

- **Indicator:** Housing in non-decent condition.
- **Numerator:** Number of houses in non decent condition with householder in age band,
- **Denominator:** Total number of houses with householder in age band.

A house may be deemed to be in non decent condition because it is not in reasonable repair, lacks reasonably modern facilities or fails to provide a reasonable degree of thermal comfort[^30].
Relation to age

Figure 7.7 shows the percentage of houses in non-decent condition by tenure and age of householder. Of households headed by someone age 50 34% were considered to be living in non-decent accommodation. For social rented properties the proportion in non-decent condition is more for those lived in by younger (50-64 46% non decent) than for those lived in by older (65 and over 36% non decent). On the other hand for owner occupied properties the percentage in non decent condition rises sharply with the age of the householder being 28% for those aged 50-64 and 51% for those aged 85 and over. Fifty four percent of privately rented houses occupied by those aged 50 and over are non decent. Houses are most likely to be classed as non-decent for failing on thermal comfort. This is especially true for the houses occupied by the older age groups; for example 42% of non decent homes occupied by householders aged 85 and over failed on thermal comfort.

Regional Comparison

No data available broken down by age of householder and region.

Household tenure

Outright house ownership represents a large asset making many older people asset rich. However it is not a readily realisable asset and entails considerable maintenance expenses. Thus many of those who are asset rich may also lack disposable income for daily living expenses.

Indicator description

Indicator: Housing tenure.
Numerator: Number of houses with household reference person (householder) in age band in owner occupied owned outright, owner occupied buying with a mortgage, social rented or private rented,
Denominator: Total number of houses with householder in age band.

Relation to age

Housing tenure by age of household reference person is shown in Figure 7.8. More than 60% of householders aged 60 and over own their property outright having paid off their mortgage. The number of people paying off their mortgage falls steeply with increasing age. The proportion of social...
sector tenants falls slightly to reach a minimum in the late 40s and then rises again. The proportion of those aged 80 and over who are owner occupiers is slightly less than that for younger old people and the proportion in socially rented housing is much higher.

**Regional comparison**
No data available broken down by age of householder and region.

**Transport**
Ability to travel becomes an increasing problem with age and disability. Transport issues were mentioned in the report *Excluded older people* as problematic for older people. A *Sure Start to later life* also listed poor transport network, limited mobility and lack of local services as contributing factors to several aspects of social exclusion. The DWP’s *Opportunity Age* emphasizes the need for central and local government to tackle issues which limit older people’s lives such as difficulties with transport. The House of Lords Scientific Committee *Report on Ageing* also commented on the fact that many older people lack access to suitable transport, leading to social isolation and inactivity. A study asking what the most relevant factors to quality of life were, concluded that the social environment (which specifically included transport) was the most important factor directly predicting individual quality of life.

Older people above retirement age are more dependent on public transport than younger people and are more likely to report difficulties accessing local amenities. Most trips made by older people are for shopping and other personal business; these account for 43% of the trips made by 50-59 years olds, 55% for 60-69 year olds and 60% for the 70 and over age group. Older women are less likely to have driving licences than men but this is a cohort effect. In 2002 for example, 29% of women and 68% of men aged 70 and over compared to 74% women and 89% men aged 50-59 had driving licences. More recent data on travel are available but use coarser age groupings.

**Car Ownership**

**Indicator description**

*Indicator:* Car ownership.

*Numerator:* Number of people in age band living in household which has use of one or more cars

*Denominator:* Number of people in age band.

**Relation to Age**
Figure 7.9 shows car ownership (i.e. the household owns a car) by age from the age of 50. It can clearly be seen that car ownership declines with increasing age and that females are less likely to be in a car owning household than males. The decline in car ownership could be because of unwillingness to drive, physical or mental disabilities or because of financial reasons.

**Regional Comparison**
Those aged 65 years and over living in South West and South East are most likely to live in a household with a car while those in North East are least likely to do so. Car ownership by older people in London region is low possibly reflecting reduced use for cars in an urban environment (Figure 7.10).
Number of journeys

Indicator description

Indicator: Number of trips made per person per year 2003/04
Definition: Number of trips made per year (self reported)

Relation to Age

Figure 7.11 shows that the number of trips made per person decreases with increasing age and is lower in females than males.

Regional Comparison

No data broken down by region and age are available

AGE BAND

Figure 7.11 Number of trips made per year, England, 2003/04

Source: National Travel Survey cited in Focus on older people
Social Capital
Social capital, a term which describes characteristics of groups rather than of individuals, captures many aspects of how a person feels about the community or area in which they live. It has been described as “a useful concept which focuses our attention on an important set of resources inherent in relationships, networks, associations and norms, which have previously been accorded insufficient priority in the social sciences literature.” While undoubtedly being an important influence on health and wellbeing its precise meaning and scope are contentious.

Social capital affects both mental and physical health. The link between the social network element of social capital and health has been clearly established. For example, the Alameda County Study demonstrated that people who lacked social and community ties were more likely to die during a nine year follow up compared to those with the most contacts. Socially isolated people are more likely to die in adverse weather conditions. Reduced social trust and group membership has been linked to increased total mortality, to increased infant mortality, coronary heart disease and malignant neoplasms. Other aspects besides overt social cohesion and trust have also been shown to contribute to social capital; for example income inequality has been shown to lead to reduced social capital, and increased educational achievement increases it.

Involvement in adult learning not only benefits the individual through continuing learning and acquisition of new skills but also represents an important form of social activity.

A group of researchers interested in social capital have drawn up a question bank for the measurement of social capital. These questions on Social Capital were included in the General Household Survey 2000 and the Health Survey for England 2000. Similar questions were used in the HSE 2005 The health of older people and covered contact with friends, contact with family, perceived lack of social support, level of trust, participation in organised activity, neighbourhood problems and access to services.

Contact with friends
Indicator description
Indicator: Low contact with friends.
Numerator: Number with low friends score.
Denominator: Number of people answering questions.

A low score was one of 4.5 or less out of 7.5 based on response to question about how often they met friends or spoke to them on the phone. A score for frequency of contact ranging from 1 (no contact) to 5 (contact most days) was given for meeting friends and a similar score for phone contact. The total score (range 1.5 – 7.5) was made up of the score for meeting plus half the score for phone contact.

Relation to age
Looking over the full adult life span (16+) contact with friends decreases steeply with age. Among the over 65s men were more likely than women to report low contact with family and low level of contact tended to increase with age. (Figure 7.12)

Regional Comparison
The age standardised percentage reporting low level of contact with friends in different regions is shown in figure 7.13. The men in East of England region were most likely to report low levels of contact and men in Yorkshire and Humber least likely to do so, but the pattern for women was different.
Contact with family
Indicator description
Indicator: Low contact with family.
Numerator: Number with a low family score.
Denominator: Number of people answering questions.

A low score was one of 4.5 or less out of 7.5 based on response to question about how often they met family or spoke to them on the phone. Score constructed as for contact with friends indicator.

Relation to age
Like contact with friends, low contact with family increases slightly with age and women are less likely to report low contact with family than men (Figure 7.14).
**Regional Comparison**

Men report the lowest levels of family contact in North East, while East of England has the lowest for women. Yorkshire and Humber and West Midlands have high levels of family contact for both sexes.

**Perceived social support**

**Indicator description**

- **Indicator**: Perceived severe lack of social support.
- **Numerator**: Number with a low social support score.
- **Denominator**: Number of people answering questions.

A low score was one of 17 or less out of 21 constructed from response to questions about support from family and friends. Responses to 7 statements in a self completion booklet about support from family and friends were scored 1 (not true) 2 (partly true) or 3 (certainly true) producing a total score ranging from 7 to 21. The statements were of the type “There are people I know – amongst my family and friends – who do things to make me happy -who make me feel loved – who can be relied on no matter what happens” and so on.

** Relation to age**

Perceived severe lack of social support was unrelated to age but at all ages men were more likely to report a severe lack of social support (Figure 7.16).

**Regional Comparison**

The regional patterns for perceived severe lack of social support were different for men and women (Figure 7.17). Men in North East region were more likely to perceive severe lack of social support than men in North West, Yorkshire and Humber and East and West Midlands. For women it was those in London, East of England, South West and South East who were most likely to perceive severe lack of social support.
Trust In people In general

Indicator description

Indicator: Trust in people in general.
Numerator: Number of people with low trust score.
Denominator: Number of people answering questions.

The trust score is the number of positive responses to three questions “Would you say that most people can be trusted or you can’t be too careful in dealing with people?” “Would you say that most of the time people try to be helpful or just look out for themselves?” “Do you think people would take advantage of you if they got the chance or try to be fair?” A score of 0 was classified as Low, of 1-2 as Medium, and of 3 as High.

Relation to age

The Health Survey for England 2000[^45] showed that level of trust increased with age and those aged 75 and over were twice as likely as 16-24 year olds to be in the highest trust category. The HSE 2005 The health of older people shows this is still true in the over 65s and the percentage having low trust falls with age (Figure 7.18) while the percentage having high scores rises. This could be an ageing effect (i.e. people become more trusting as they age) or a cohort effect (i.e. people born in the early part of the 20th century are more trusting than those born later).

Regional Comparison

A high percentage of men and women in South West had high trust, while in London and West Midlands fewer had high levels of trust (Figure 7.19).

Organised activity

Indicator description

Indicator: Participation in organised activity.
Numerator: Number who participate regularly in one or more organised associations
Denominator: Number responding to question.

Organisations on the prompt list include political, trades union, environmental groups, parent/school...
associations, residents’ groups, neighbourhood watch, evening classes, religious groups, groups for older people and several others.

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<tr>
<th>AGE BAND</th>
<th>GOVERNMENT OFFICE REGIONS</th>
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<tr>
<td>Figure 7.20</td>
<td>% participating in one or more organised association, England, 2005</td>
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<tr>
<td>Figure 7.21</td>
<td>Age standardised % participating in one or more organised association, age 65+, England, 2005</td>
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Source: HSE 2005 Health of older people report 46 Source: HSE 2005 Health of older people report 46

Relation to age
44% of men and 48% of women aged 65 and over participated in one or more organised activity and 20% and 25% respectively participated in two or more. For both genders participation in organized activity was highest in 70 to 74 year olds (Figure 7.20).

Regional Comparison
The percentage participating regularly in one or more organised associations was greatest in South West and South East and least in West Midlands (Figure 7.21).

Crime; Victimization and Fear of Crime
Fear of crime can have adverse effects on older people’s sense of wellbeing, reducing social contacts in people who fear to leave their homes, and in some cases resulting in older people not feeling safe in their own homes. The DWP’s Opportunity Age 3 emphasizes the need for central and local government to tackle life-limiting issues such as fear of crime in older people. The report Excluded older people 29 also has a section on crime and safety in older people. A survey by Age Concern found that 25% of older respondents felt that street crime is a big or very big problem in their area and that 72% of older people agreed with a statement that suggested that you are more likely to become a victim of street crime as you get older 47. A study found that older victims of burglary decline in health faster than non-victims of a similar age; two years after the burglary, victims were 2.4 times more likely to have died or to be in residential care than their non-burgled neighbours 48.

Information on crime comes from two different sources, that reported to and recorded by the police and that reported in surveys such as the British Crime Survey where people are asked whether they have been the victim of various crimes. These two data sources often provide strikingly different pictures and it is clear that a very high proportion of most crime is not reported to the police.

Sources for Indicators in this section are British Regional Crime Survey and Police Records of Crime as reported in Crime in England and Wales 2005/06 49.
Worry about crime

Indicator description

**Indicator:** Percentage of people with high levels of worry about crime by type of crime and age group.

**Numerator:** People in specified age band reporting that they were very worried about specified type of crime,

**Denominator:** People in specified age band who responded to survey.

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**Relation to age**

Figures 7.22 – 7.24 show the percentage of males and females respectively with high levels of worry about burglary (7.22), car crime (7.23) and violent crime (7.24) by age group. The figures show that females worry much more about burglary and violent crime than men, and have particularly high concern about violent crime, whereas car crime is the main concern for men at all ages below 65.
About 10% of men and 15% of women have high levels of worry about burglary until the age of 75 when there is a decline in worry levels. The figures lend no support to the idea that older people worry more about crime than younger people but on the contrary show clearly lower levels of worry with increasing age.

Regional comparison
No data are available on levels of worry about crime specifically by older people but levels of worry by people of all ages vary appreciably between regions. London region has the highest level of worry followed by West Midlands and then North West. The region with the lowest level of worry about crime is South West (Figure 7.25). This may represent the difference between regions with large conurbations and more rural regions.

Burglary Victimisation
Indicator description
Indicator: Percentage of people in age band, who have been victim of burglary.
Numerator: Number of people in age band who have been victims of burglary.
Denominator: Total number of people in the age band.

Relation to Age
Figure 7.26 shows recorded burglary (with entry and total i.e. with entry or attempted) by age of householder as reported to the British Crime Survey, and it is clear that it decreases with increasing age. Comparison with Figure 7.22 shows that level of worry about burglary at different ages realistically reflects the probability of being a victim. The higher percentage of over 75 year olds who suffer burglary or attempted burglary is a cause for concern. Older people are at increased risk of one type of burglary, distraction burglary, whose perpetrators appear to specifically target older people.

Regional comparison
No data are available on burglary specifically of houses with older householders, but burglary rates vary appreciably between regions. Figure 7.27 shows rates of both all burglary and burglary
with entry as recorded both by the police and as reported to the British Crime Survey. It can be seen that recorded rates are consistently lower than rates reported to the British Crime Survey. Rates of burglary with entry and attempted in London are virtually double that in South East region. Comparison with Figure 7.25 shows that London region has both the highest level of worry about burglary and the highest rate of burglaries and South East and South West the lowest.

**Violent Crime Victimization**  
**Indicator description**  
*Indicator:* Percentage of people in age band, who have been victim of violent crime.  
*Numerator:* Number of people in age band who have been a victim of violent crime.  
*Denominator:* Total number of people in age band.

**Relation to Age**  
Figure 7.28 shows violent crime rates by age of victim as reported to the British Crime Survey. It is clear that the young are most likely to be victims of violent crime and risk decreases with increasing age. Comparison with Figure 7.24 shows that level of worry about violent crime at different ages is a realistic reflection of the probability of being a victim.

**Regional comparison**  
No data are available on violent crime specifically against older people but rates for all violent crime against any age vary appreciably between regions. Figure 7.29 shows rates of violent crime as recorded by the police. It should be noted that rates reported to the British Crime Survey are more than double and show a different regional pattern. Rates of violent crime are much higher in London region than in other regions and lowest in East of England region which has half the rate of London. Comparison with Figure 7.25 shows that the level of worry about violent crime in a region bears little relation to the rate of violent crime recorded by the police. It also bears little relation to the rate of violent crime reported by the British Crime Survey (data not shown).
Anti-social behaviour

Indicator description

**Indicator:** Perception of High level of Anti Social Behaviour.

**Numerator:** Number of people in age band, who report perceiving level of anti social behaviour as being high.

**Denominator:** Total number of people in age band.

Relation to Age

Figure 7.30 shows the percentage of people in different age bands who have high worry levels about anti social behaviour. Once again it demonstrates that the common belief that it is older people who are most worried on this issue is ill founded. Levels of worry about anti-social behaviour are highest in the young and decrease with age.

Regional comparison

No data are available on levels of perceptions about anti social behaviour specifically by older people, but perceptions by people of all ages vary appreciably between regions (Figure 7.31). As with various types of crime, London has the highest percentage of those who perceive high levels of anti-social behaviour, and the lowest percentage is found in South West and East of England regions.

### Learning in Later Life

Participation in learning declines with age. A survey undertaken in 1996 found that while 40% of adults of all ages had participated in learning recently, only 25% in the 55-64 age group, 20% of the 65-74 age group and 14% of those aged 75 and over had done so. There are various barriers to learning in later life including disability and poor health, being in a full time caring role, difficulties with transport, and the financial costs and availability of courses. Previous occupation and educational experience influences likelihood of continued learning. There is a strong association between learning and work with over 60% of employed older people participating in learning, compared to 50% of retired people. However the optimum time for participation in formal learning appears to be between three and ten years after retirement.
Learning in later life can contribute to quality of life and wellbeing. A study showed that 80% of a sample of learners aged 50-71 reported greater enjoyment of life, self-confidence, and improved ability to cope with events such as divorce or bereavement. Of the sample 28% reported increased involvement in social, community and voluntary activities. Involvement in learning represents an important form of social activity, but there is also evidence that older people can benefit from continuing to learn and gain new skills.

**Elder abuse**

Elder Abuse may be defined as ‘A single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person’. The abuse can be physical, psychological, financial, sexual or neglect. Both older men and women can be at risk of being abused. Often, the people who abuse older people are exploiting a special relationship. They are in a position of trust, whether through family bonds, friendship or through a paid caring role, and they exploit that trust. Despite its importance data on the topic are fragmentary.

Help the Aged’s website states that (based on the findings of a study) an estimated 500,000 older people are believed to be abused at any one time in the UK, 46% of abusers are related to the victim, but very rarely (1% of cases) is the abuser the main family carer, 25% of abusers are sons or daughters, 78% of abuse is perpetrated against people who are aged 70+, and 16% against 90+, and the 80-89 age group are the most vulnerable to abuse. Despite the numbers believed to be involved the issue is not always recognised by the public. Only 2% of people surveyed by Help the Aged named it as a priority issue.

Action on Elder Abuse produced a report on financial abuse of older people based on calls to its telephone helpline. It reported that over £2 million had been stolen or defrauded, and 31 houses were taken, sold without consent or given away under pressure/blackmail in a one year period. It reported that the majority of victims were women aged 81 plus and that the majority of perpetrators were sons or daughters of the victim.

**Place of death**

Most research on place of death preference and occurrence of death has been based on cancer patients, and has found that 50-70% would like to die at home. However the number of home deaths is actually decreasing, from 27% in 1994 to 22% in 2001. The chances of a home death depend on patient characteristics and circumstances. Older people are less likely than young people to have a home death. Ethnic minorities and socially deprived people (as measured by Jarman score) are also less likely to die at home. Other factors affecting place of death include patients’ preferences, the availability of home care, and living with relatives or extended family (which increase likelihood of home death), or living in rural areas, and having non-malignant disease (which decrease likelihood). Geography also affects the chance of a home death. At the national level the percentage of hospital deaths for cancer patients in England and Wales is higher than USA, France, Germany, Switzerland, Netherlands and Eire in 2004. There is also regional variation (demonstrated on data for the period 1985-94) with London having lower numbers and West Midlands the highest numbers of home deaths.
References

Chapter 7


110

Chapter 8: Lifestyle

This chapter is organised to follow the seven priorities for improving lifestyle and health identified in the White Paper Choosing Health.1

• reducing smoking,
• reducing obesity,
• improving diet and nutrition,
• increasing exercise,
• promoting sensible drinking,
• improving sexual health
• mental health (see chapter 6)

To a certain extent people’s health depends on the choices they make about lifestyle. The National Service Framework for Older People2 sets for its 8th Standard promoting health and active life in older age. It urges the need to prevent or delay the onset of ill health and disability, reduce the impact of illness and disability on health and wellbeing, identify barriers to healthy living and work in partnership with other agencies to develop healthy communities to support older people in healthy lifestyles.

Many other publications concerning older people also press the case for healthy lifestyle and active ageing. New ambition for old age3 has healthy ageing as one of its three themes and one of its 10 programmes. A Sure start to later life4 stated that the Choosing Health Delivery Board should deliver a project on active ageing, which promotes exercise and physical activity in older people. The Audit Commission’s report Older people: Independence and well being: the challenge to public services5 outlined the need to support older people who become frail so that they can lead active fulfilling lives. The Report on Ageing by the House of Lords Scientific Committee noted that the ageing process was affected by nutrition, lifestyle and the environment, and that these in turn were influenced by socio-economic factors6. The Health Development Agency conducted a series of pilot projects on health promotion in the 50 and over age group described in Making the Case7, which puts forward the reasons for promoting the health and wellbeing of older people. Age Concern also produced a report on health behaviour in older people As fit as butchers dogs8 describing their health knowledge, health behaviour; barriers and enabling factors to leading a healthy lifestyle.

Smoking

Smoking greatly increases the risk of numerous diseases including heart disease, stroke, and several types of cancer.9 Although the earlier in life that smokers quit the better, older smokers still stand to gain extensive health benefits by quitting. The National Service Framework for Older People states the importance of ensuring fair access to smoking cessation services for older people2. Of the 600,000 people setting a quit date with the NHS stop smoking services in 2005/06 16% were 60 years of age or more10 which is greater than the estimated percentage of smokers in this age group. This suggests that older people are indeed accessing this service.

Information on smoking habits is collected by the Health Survey for England and by the General Household Survey.

Indicator description

**Indicator:** The percentage of current and ex-smokers, 2004.

**Numerator:** Number who currently smoke cigarettes and number who are currently non smokers but used to be regular smokers,

**Denominator:** Number of people in the age group.
Relation to age

Figure 8.1 shows the percentage of current and ex-smokers by age group. It is quickly apparent that smoking decreases with increasing age, and that there are a much higher percentage of ex-smokers in the older age groups. The gender difference in the percentage of ex-smokers in the 75 and over age group is partly due to the fact that fewer women than men smoked in the period up to the 1950s. The data are taken from the Health Survey for England because this gives a more detailed age breakdown than the General Household Survey.

Regional Comparison

Figure 8.2 shows the percentage of smokers in the region. There is a general north south trend for both older and all smokers with the highest percentage of smokers in both age groups living in North East and North West followed by East Midlands. South East and London have the lowest percentage for all age smokers and older smokers.

Obesity

The problems associated with the increase in obesity of the population have been outlined in the National Audit Office report *Tackling Obesity in England* and the Royal College of Physicians’ *Storing up problems: the medical case for a slimmer nation*. Choosing Health lists reducing obesity as one of its overarching priorities because of its association with heart disease, cancer, diabetes, stroke, high blood pressure, and high cholesterol. There is a cross government campaign to raise awareness of the risks of obesity and National Institute for Clinical Excellence (NICE) is preparing guidance on prevention and treatment of obesity. Standard 8 of the National Service Framework for Older People notes the link between being overweight and osteoarthritis of the knees and that obesity can make it harder for older people to keep active increasing the risk of further weight gain. While obesity has many negative effects on health it must also be noted that being underweight predisposes to pressure sores and slower healing, and is associated with increased risk of hip fracture in older women.
Overweight and Obese
Overweight is defined as a Body Mass Index (BMI) greater than 25 kg/m² and obesity as a BMI greater than 30 kg/m². Body Mass Index (BMI) is calculated by dividing weight (in kilograms) by height (in metres) squared (kg/m²).

Indicator description
Indicator: Percentage of people who are overweight or obese.
Numerator: Number of people in age band who are overweight/obese,
Denominator: Total number of people in age band.

Relation to Age
The mean BMI increases with age until the age of 55-64 after which it starts to fall. Figures 8.3a and 8.3b show four categories of BMI by age: underweight, healthy range, overweight and obesity. From 25 years of age onwards the majority of the population are overweight or obese, and this increases with age until a peak at 45-54 when 78% of men and 68% of women are overweight while 30% of men and 33% of women are obese. Above the age of 65 the percentage of obese and overweight falls so that in those aged 85 and over 51% of men and 55% of women are overweight and 10% of men and 19% of women are obese. It should be noted that after the age of 45-54 the percentage of underweight people increases gradually, up to 2.5% in those aged 75 and over.

The prevalence of overweight and obesity has in recent years increased in all age groups including older people. Between 1993 and 2005 in the 65-74 year age band the prevalence of obesity increased by 12.4%.

Regional Comparison
Figure 8.4 shows the age standardised percentages of men and women age 65 and over who are overweight and obese by region. For men the regions with the highest percent overweight (including obese) are East Midlands (79%) and South West (76%) while the lowest percent is in North West
(64%). East Midlands (30%) and West Midlands (28%) had the highest percentage of obese men and North East (18%) the lowest. For women the picture was different with the highest percentage of overweight (including obese) in West Midlands (72%) and Yorkshire and Humber (72%) while the lowest was in South East (62%).

**GOVERNMENT OFFICE REGIONS**

**Figure 8.4 Age standardised % of overweight / obese, age 65+, 2005**

![Government Office Region](image)

Source: Health Survey for England 2005 trend tables Table 9

**Diet and nutrition**

*Choosing Health* noted the association of poor diet with heart disease, diabetes, cancer, stroke, high blood pressure and high cholesterol and outlined plans to improve food labelling and to increase the availability of healthier food. The *National Service Framework for older people* includes under standard 8 the need for older people to benefit from improved diet and nutrition. Twenty percent of older people are reported to suffer from constipation and healthy eating can provide increased fibre in the diet to reduce this problem. Healthy diet is also reputed to improve mental health.

A new *ambition for old age* specifically mentions the need to give older people in hospital and care homes sufficient assistance with eating to ensure that they receive adequate nutrition.

Information on food consumption and expenditure is collected in the Family Food Survey which in 2000 replaced the National Food Survey and the Family Expenditure Survey. This is a large national survey covering the whole of Great Britain and Northern Ireland with a sample size of approximately 7000 households. Individual consumption is estimated from household consumption. In most cases where the household reference person is aged over 50 the household will consist of only one or two individuals.

**Nutrient Intake**

**Indicator description**

*Indicator:* Intake of macronutrients and selected micronutrients.

*Definition:* Intake per head estimated from reported household consumption.

**Relation to age**

Figures 8.5a, 8.5b and 8.5c show that consumption of all nutrients except niacin increases with age of the household reference person up to 74 years. Households with a household reference person...
age 75 or over have slightly lower intakes of all nutrients than those aged 65-74 but for all nutrients except niacin still have more than those aged less than 50.

In interpreting these figures it has to be remembered that averages can mask individual low values, and that the most vulnerable if living in institutions would not be included while the most vulnerable living at home may well have not responded. None the less the data shown do not support the idea that a high proportion of older people have very low nutrient intakes.

**Regional comparisons**
The sample is too small to justify breakdown by age and region.

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**AGE BAND**

**Figure 8.5a** Macro nutrient Intake per person per day, by age of Household Reference Person, UK, 2004/05

![Graph showing nutrient intake by age group](source)

**Figure 8.5b** B vitamin intake per person per day, by age of household Reference Person, UK, 2004/05

![Graph showing B vitamin intake by age group](source)

Source: Family Food in 2004/05

**AGE BAND**

**Figure 8.5c** Iron & Vitamin Intake per person per day, by Age of Household Reference Person, UK, 2004/05

![Graph showing iron and vitamin intake by age group](source)

Source: Family Food in 2004/05
Consumption of particular foods
Indicator description
Indicator: Consumption per head of particular foods.
Definition: Intake per head estimated from reported household consumption.

Relation to Age
Figure 8.6 shows consumption for vegetables, fruit, alcohol and sugars & preserves. For alcohol both household and eating out purchases are included. Only household purchases are included for other foods. As with most nutrients consumption of vegetables and fruit rises with age of household reference person until the age of 74. Consumption of fruit and vegetables in the 75 and over group is less than in the 65-74 age group, but greater than people aged less than 50. Alcohol consumption (including alcohol consumed away from home) is greatest in the 50-64 age band and lowest by a wide margin in the over 75s. Sugars and preserves is the one food group where consumption rises steadily with age being highest in the 75 and over age group. The sources of energy excluding alcohol (not shown) vary little with age. Households with a household reference person aged under 30 obtain the least percentage of their energy from fat (37.1%) while those aged 65-74 obtain most energy from fat (38.4%).

AGE BAND

Figure 8.6 Consumption selected foods per person per week by age of Household reference person, UK, 2004/05

Source: Family Food in 2004/05

Fruit and Vegetables
It is recommended that everyone eat at least 5 portions of fruit and vegetables per day.

Indicator description
Indicator: Percentage consuming specific numbers of portions of fruit and vegetables per day.
Numerator: Numbers in different age groups eating specified number of portions of fruit and vegetables per day,
Denominator: Total number in age group.

Relation to age
Figures 8.7a and 8.7b show the percentages eating different numbers of portions of fruit and vegetable per day. Overall 26% of men and 30% of women comply with the advice to eat 5 portions per day but 7% of men and 5% of women eat none at all. Fruit and vegetable consumption rises with age reaching a peak around the 55-64 years when 28% of men and 39% of women eat 5 or
more portions per day. In older age groups the number eating several portions declines in women but seems to stay constant in men. (The figures for men aged 85 and over are based on a small sample and are unreliable).

**Regional Comparison**

Frequency of fruit and vegetable consumption by those aged 65 and over in the regions is shown in Figure 8.8. Women in South East (36%), London (36%) and East of England (34%) and men in London (41%) were most likely to be consuming the recommended 5 portions. The regions with the highest percentage eating no fruit at all were East Midlands (10% of men) and North East (7% of women). (The figures for North East are based on a small sample and are unreliable).

**GOVERNMENT OFFICE REGIONS**

**Figure 8.8** Age standardised % of fruit and veg consumed by those age 65+, 2005

Source: Health Survey for England 2005
Physical activity

Standard 8 of the National Service Framework for Older People states that increasing physical activity can enhance mobility, independence, well being, mental health and quality of life. Adapted exercise even for very frail older people can help strength and balance and reduce the risk of falling. After the age of 40 muscle mass is lost at a rate of 1-2% per year, however a three month exercise programme can rejuvenate muscle mass by a 15 year equivalent, so community based training programmes for healthy older people can have profound effects in reversing muscle wasting. The House of Lords Science and Technology committee suggested that local authorities should improve facilities for exercise and make them suitable for older people to use. The social exclusion unit found that lack of physical activity contributed to several aspects of social exclusion. Lack of physical activity can be due to poor transport network, limited mobility and lack of local services.

People participating in activity

**Indicator description**

**Indicator:** Participation in 30 minutes of sport or active recreation (including walking or cycling) of moderate intensity on at least three occasions in the past week.

**Numerator:** Number of population in age group who participated in 30 minutes of sport or active recreation (including walking or cycling) of moderate intensity on at least three occasions in the past week.

**Denominator:** Total number of population in age group.

**Indicator description**

**Indicator:** Participation in 30 minutes of sport or active recreation (including walking or cycling) of moderate intensity on at least one occasion in the past four weeks.

**Numerator:** Number of population in age group who participated in 30 minutes of sport or active recreation of moderate intensity on at least one occasion in the past four weeks.

**Denominator:** Total number of population in age group.

**Indicator description**

**Indicator:** Walking continuously for at least 30 minutes at least once in past four weeks.

**Numerator:** Number of people who have walked continuously for at least 30 minutes at least once in past four weeks.

**Denominator:** Total number of population in age group.

Walking and cycling are counted as moderate sport or active recreation if undertaken for their own sake but not if undertaken for some other purpose (e.g. to get to work or go shopping). Walking for any purpose counted towards the indicator on continuous walking for 30 minutes in the last four weeks.

These indicators are for a very low level of activity. The recommended minimal level of physical activity is for at least 30 minutes of physical activity on at least five occasions per week.
Relation to age

Figure 8.9 shows the percentage of men and women participating in the different levels of activity. It makes clear that with increasing age people become less active. Even in the youngest age group only 33% take moderate intensity exercise 3 or more times per week and this falls to less than 2% in the oldest (over 85 years) age group. Thirty minutes of moderate activity at least once in the past four weeks is a very low level of activity and most (75%) of the youngest age group are this active however it falls sharply with age and only 30% of 65-74 year olds, 18% of 75-84 year olds and 8% of those age 85 and over take even this minimal level. In other words 70%, 82% and 92% of 65-74 year olds 75-84 year olds and 85+ year olds respectively have very low levels of physical activity. The number of people walking for 30 minutes continuously at least once in the last four weeks remains fairly steady at around 70% up to the age of 65 but thereafter decreases with age so that only 32% of those aged 85 and over walk even this much. In the older age groups the difference in activity level between genders is slight.

Regional comparisons

Figure 8.10 shows the regional variation in the percentage of older people who participate in at least 30 minutes of moderately intense physical recreation on at least three occasions a week. South East and South West have the highest percentage of 65-74s participating at this level and West Midlands has the lowest. The rank order for activity by older age groups is not the same, for example West Midlands has the second highest percentage of 75-84s participating, while Yorkshire and Humber has the lowest. Among those aged 85 and over the percentage participating is highest in Yorkshire and Humber and lowest in North East and West Midlands. However, it must be remembered that the numbers in the older age groups are small and very few of the differences between regions are significant.
Looking at a very minimal level of activity, people participating in active recreation for 30 minutes at least once in the past four weeks, a different picture emerges (Figure 8.11). South East and South West have the highest percentage of 65-74s active and Yorkshire and Humber the least. Among 75-84 year olds the rank order is slightly different and among those 85 and over different again. Overall it is clear that a high percentage of people are very inactive. Once again it has to be remembered that for the older age groups the numbers are small and most of the differences will not be statistically significant. The observation that 34% of 65-74s in South East have taken at least 30 minutes active recreation over the past four weeks could be restated as saying that 66% have taken virtually no active recreation in the past four weeks.

Figure 8.12 shows regional variation in walking continuously for 30 minutes in the last four weeks for the same age groups. It must be remembered that for this indicator walking for any purpose (such as going to work or shopping) is included whereas the moderate activity indicator only included walking for recreational purposes. For the 65-74 and 75-84 age groups the regions with highest percentage of walkers are South West, South East and London, and the lowest percentages are in North East, North West and West Midlands. In the 85 and over age group the highest percentage of walkers are in Yorkshire & Humber, North East and North West, while the lowest are in East Midlands, London and East of England.

Sensible Drinking
The Alcohol harm reduction strategy for England aims to reduce alcohol related harm by better education and communication about alcohol, improving health and treatment services for alcohol problems, combating alcohol related crime and disorder and working with the alcohol industry. Alcohol consumption is a factor in around half of all violent crimes, about a third of domestic violence incidents and a great deal of anti-social behaviour but in later life excessive drinking is more likely to result in falls, poor memory and harmful interaction with medication. It imposes a huge burden on the NHS being implicated in up to 150,000 hospital admissions per year, up to 22,000 premature deaths per annum and one third of all attendances at accident and emergency departments (70% of night time attendances). The cost is huge, up to £1.7 billion for health problems, up to £7.3 billion for crime and public disorder problems and up to £6.4 billion for workplace problems per annum. Problems from alcohol consumption may arise from chronic high consumption (high overall alcohol...
consumption over a longer period) and from binge drinking (consumption of a large amount in a short period of time). Most chronic high drinkers are also binge drinkers and vice versa. Government advice is that men should not drink more than three to four units on any day and that women should not drink more than two to three units on any day. The Royal Colleges have framed their advice in terms of weekly consumption recommending that men should not drink more than 21 units per week and women more than 14 units per week. A unit contains 8 grams of alcohol and is equivalent to a half pint of ordinary strength beer, a small glass of wine, a single pub measure of spirits or a small glass of sherry.

### Chronic consumption

**Indicator description**

- **Indicator:** Chronic consumption of large amounts of alcohol.
- **Numerator:** Men in age band drinking more than 2 units per week and women drinking more than 14 units per week.
- **Denominator:** Total men and women in age band.

### Frequent consumption

**Indicator description**

- **Indicator:** Frequent consumption.
- **Numerator:** People who have drunk alcohol on 5 or more days in the past week.
- **Denominator:** Total men and women in age band.
Relation to age
In contrast to the number of units drunk per week, the percentage drinking on five or more days is higher in older people than in younger people (Figure 8.14). As with units consumed, the percentage of men drinking frequently is higher than for women. It can be seen that an average of 23% of the over 65 age group drink on at least five days per week compared to 18% of all adults aged 16 and over.

Regional Comparison
South East, South West and East Midlands respectively have the highest percentage of people over 65 drinking on at least 5 days per week, while North East, London and North West have the lowest percentage of older drinkers (Figure 8.15). In North East there is a lower percentage of over 65s drinking than for all adults, this is the only region in which the pattern is reduced.

This measure only indicates how many days a person has taken at least one alcoholic drink, so frequent consumption of small amounts which is unproblematic cannot be distinguished from frequent consumption of large amounts which is highly problematic. The finding that older people are frequent consumers of alcohol is supported by the findings of the Family Food Survey (Figure 8.6).

Binge drinking
Indicator description
Indicator: Binge drinking.
Numerator: Number of men drinking more than 8 units and women drinking more than 6 units on at least one occasion in past week,
Denominator: Total men and women in age band.

Relation to age
Figure 8.16 shows that a very high percentage of young men and women binge drink (39% of men and 27% of women age 16-24 years) but this percentage falls rapidly with age and very few older people binge drink (3% of men and 1% of women aged 75 years and over).
Regional Comparison
Binge drinking in the over 65s is highest in North West, South East and North East, but even in North West it only reaches 5%, and it is lowest in South West, East of England and London regions. Far fewer older people binge drink, only 3% of those aged 65+ compared to 16% of all age groups (Figure 8.17).

AGE BAND

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<th>AGE BAND</th>
<th>% of binge drinkers, England, 2004 (HSE)</th>
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GOVERNMENT OFFICE REGIONS

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<th>% of binge drinkers, 2004 (GHS)</th>
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<td>Over 65s</td>
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<td>All ages</td>
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Source: HSE 2005 Trend Table 12 (2004 data)
Source: General Household Survey 2004

Sexual Health
Information on sexual health and health related behaviour in older people is limited. A study of older people (age range 50-90) in Sheffield showed that 82% were currently involved in sexual relationships. 7% of the respondents were engaging in risky behaviours (e.g. more than one sexual partner and failing to use condoms), and 3% reported that they had partners of the same gender. A European study of 4977 men and 5023 women aged 40-80 found that 83% of men and 63% of women had sexual intercourse in the preceding year. A study in the USA showed similar rates of people reporting sexual activity with 93% of those aged 50-59, 75% of those aged 60-69 and 45% of 70+ reporting sexual intercourse in the last 5 years.

In the European study 23% of men and 32% of women reported some sexual dysfunction, most commonly ejaculation problems (11%) and erectile dysfunction (8%) in men and lack of sexual interest (18%), inability to reach orgasm (13%) and lubrication difficulties (11%) in women. In the Sheffield study 24% of the respondents reported current sexual health concerns. Sexually transmitted disease does occur in older people but the rates are much lower than those seen in the young.

Only just over half of those who reported sexual health concerns in the Sheffield study had sought health care most commonly from their GP. Other studies have also shown that older people seeking advice on sexual problems are most likely to see their GP, but that many do not seek help because they believe that it is due to normal ageing or because of embarrassment. However health professionals may not be aware of older people’s sexual health needs, or may be reluctant to discuss a topic which they did not feel to be legitimate. The majority of older people surveyed reported receiving very little information on sexually transmitted disease and HIV.
Other Issues – Illegal drugs
The vast majority of drugs consumed by older people are medically prescribed or legally obtained by over the counter sales. The main impact of illegal drugs on older people is through crime undertaken by younger drug users to finance their habit. Many police forces estimate that around half of all recorded crime has some drug related element\(^{26}\). However while the use of illegal drugs is generally considered to be a young person’s problem, there is no cut-off age when they cease to be a problem. A recent report *Measuring different aspects of problem drug use: methodological development* \(^{27}\) using four different sources of data gives no figures for drug use in those aged more than 64. It estimates that 5 per thousand in the 35-64 age group use opiates or crack cocaine compared to 21 per thousand in the 25-34 age band. It should be noted that these figures give no information on drugs other than opiates and crack cocaine.

Regional comparisons
Regions vary in the extent of drug use and the pattern differs with age. While London region has the highest rate of 35-64 year old problem drug users, the highest rates in the 25-34 age group are in Yorkshire & Humber and the highest rates for 15-24 years olds are in West Midlands (not shown). East of England and South East have the lowest rates for all age groups. There is no information on drug use for different regions in the over 64s.
References


Chapter 9: Use of Services

The majority of older people live independently in their own homes (See Figure 2.12, Chapter 2) and wish to maintain their independence. However as the prevalence of ill health and impairment rises with age so people may have need of health and social services to help them remain in their own homes. In doing so they may receive help from the local authority, the health service and most importantly from voluntary sector organisations, friends, neighbours and relatives. This chapter considers the first two of these sources of service;

- Social services (local authority)
- Health services (NHS).

Opportunity Age, a report from the Department of Work and Pensions proposed services to help older people remain in their own homes for as long as possible such as the ‘Link-Age’ service, and the piloting of individual budgets so that people can buy their own care packages.

It is important to prevent problems escalating to a crisis by early intervention with low level preventative services. Older people appreciate opportunities for user involvement with services, choice and control. The Audit Commission emphasized the need to support older people, who become frail or ill, with a whole system approach involving the health, social, housing and pension services. The National Service Framework for Older People also urged better coordination of services with a single assessment process to be used by both the NHS and social services.

The Joseph Rowntree Foundation also recommended a change from crisis intervention for the most vulnerable to a preventive approach to help the majority of older people maintain their independence. The report Better health in old age from the Department of Health also emphasised the importance of better services such as improving uptake of flu vaccination, reducing delays in discharge from hospital for older people and increasing the number of specialists in old age medicine for helping old people stay in their own homes or quickly return home if hospital admission was necessary. New ambition for old age urged the need for better services for strokes, falls, bone health and mental health.

Social Services

Social services and other local authority departments deliver an extensive range of services which are important for the well being of older people both helping them to get through short term crises and to cope with long term problems. Social services provide some residential care, and a wide range of community care services such as home help and home care services delivered in the client’s own home. Other services such as some meal services, day care and respite care are delivered outside the client’s home. Home care services may involve routine household tasks within or outside the home, personal care of the client or respite to allow a break for the client’s regular carers.

Clients requesting or referred for social care help are assessed by Social Services (Councils with Social Services Responsibilities) and where appropriate a care package is planned. In addition all existing clients receive a reassessment at an annual review. Not all clients assessed are offered care or if offered accept community based services. In England as a whole 22% of those aged 65 and over assessed by social service do not receive services. It is not known how many of these are deemed not to require services after assessment, or how many do not receive them for some other reason.

In describing social services it is necessary to look at clients assessed by social services and also clients who then receive a package of care. Data are collected on both these groups. Information on clients assessed and clients receiving care is collected by the Referrals, Assessments and Packages...
of Care Project (RAP), which aims to provide a coherent set of national statistics on adult community care. A separate system (HH1 form) collects data on those who receive home care services in a specimen week (11th to 17th September 2006). As with data on any service one has to ask, when there are apparent differences in social services received between groups, to what extent these differences are attributable to underlying differences in the prevalence of the problem, to differences in provision of and access to services, or to differences in coding and recording client and service characteristics.

The data have been grossed up to allow for non-response and so are estimates. If an individual is referred for the first time during the year and then has a subsequent second review, they may be counted twice both as a new referral and an existing client but the error introduced for this reason should be small.

**Clients assessed by Social Services**

**Indicator description**

*Indicator:* New & existing adult clients who have been assessed/reviewed.

*Numerator:* Number of new and number of existing clients assessed in age band,

*Denominator:* Number of people in the age band.

**Relation to age**

The client rate rises sharply with age. In England 16.0 per 1000 of those aged 18-64 are clients (5.6 new and 10.4 existing clients per 1000). Among the 65-74 the rate rises to 60.1 per 1000 (24.6 new and 35.5 existing clients per 1000) and among those age 75 and over the rate is 273.9 per 1000 (96.2 new and 177.7 existing clients per 1000). A high proportion of those assessed by social services are classed as having a physical disability or being frail (51 per 1000 of the 65-74 year olds and 240 per 1000 of the 75 and over age group). Many in these age bands are classed as having a mental health problem (6 per 1000 of the 65-74 age group and 23 per 1000 of the 75 and over age group). Dementia accounts for 33% of those classed as being primarily referred because of a mental health problem in the 65-74 year old band and 54% of those in the 75 year and over band.
Regional Comparison

Figure 9.1 shows new clients who have been assessed and existing adult clients who have been reviewed in the 65-74 and 75 and over age bands. When considering all completed assessments, regardless of whether the client is new or existing, the rate is highest in the North East and lowest in the East of England for both the 65-74 year olds and the 75 and over age group. The rank order differs only slightly between the two age groups.

Figure 9.2 shows the rate of client referrals in 65-74 year olds and 75 and over age group for different primary causes; physical disability (including frailty and sensory impairment), mental health and other (mostly being “vulnerable”). In all regions physical disability accounts for the vast majority of referrals.

Figure 9.3 shows the rate of referrals for primary reason mental health (dementia and other), 2005/06.
The rate of referral for community services primarily because of mental health is shown in Figure 9.3. In all regions except South West dementia accounts for a higher proportion of mental health referrals in the older age band. The rate of completed referrals for mental health clients is highest in North East and lowest in the East of England for the 65-74 and 75 and over age groups. This is the same as the rate for all referrals. There is appreciable variation between regions in the percentage of mental health referrals attributed to dementia. 64% of referrals in those aged 75 and over in South East and West Midlands are for dementia, while in South West only 39% of mental health referrals in this age group are for dementia. These differences are more likely to be due to recording and assessment practice than to variation in prevalence.

### Clients assessed but not receiving service

**Indicator description**

- **Indicator:** Clients assessed but not receiving services.
- **Numerator:** Number of clients aged 65 and over receiving some community service,
- **Denominator:** Number of clients aged 65 and over assessed by social services.

**GOVERNMENT OFFICE REGIONS**

**Figure 9.4** % of clients assessed who do not receive service, 2005/06

**Figure 9.5** % of mental health clients assessed but not receiving service, 2005/06


**Regional Comparison**

Figure 9.4 shows that the percentage of clients assessed by social services who are then not recorded as receiving a service varies widely between regions, 29% in South West and 12% in Yorkshire and Humber. The pattern of clients with physical disability, frailty or sensory impairment not receiving services is very similar to that for overall clients. However those classed as referred primarily for mental health (including dementia) show a different pattern; 42% of those assessed in the Yorkshire and Humber not receiving a service whereas only 19% of those assessed in the East of England region do not receive a service (Figure 9.5). The meaning of and the reasons for these differences deserve investigation.
**Households receiving home help and home care**

**Indicator description**

*Indicator:* Proportion of households receiving home help and home care from local authority and independent providers.

*Numerator:* Households receiving home help and home care from local authority and independent providers.

*Denominator:* Total number of households in region.

*These data do not include day care, meals, transport and equipment, or clients receiving home care through direct payments.*

**Indicator description**

*Indicator:* Proportion of households receiving intensive and non intensive home help and home care.

*Numerator:* Households receiving intensive and non intensive home help and home care.

*Denominator:* Total number of households in region.

** Intensive home help or home care is 6 or more home visits per week or 5 or more hours of care. Non intensive care all other care packages.

**Indicator description**

*Indicator:* Average Hours of Home Help and Home Care per household.

*Numerator:* Total hours of home help and home care delivered in sample week.

*Denominator:* Total number of households receiving home help or home care.

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**GOVERNMENT OFFICE REGIONS**

**Figure 9.6** Rate of households receiving home help & home care, by type of provider, 2006

**Figure 9.7** Rate of households receiving intensive and non-intensive home care, 2006

Source: Home care services for adults, England [National Summary] 2006 (based on HH1 forms) 9  
DCLG Mid-year estimates for England 2004 10
**GOVERNMENT OFFICE REGIONS**

**Figure 9.8** Average number of hours of home help per household during survey week, 2006

Source: Home care services for adults, England [National Summary] 2006 (based on HH1 forms) 9
DCLG Mid-year estimates for England 2004 10

**Relation to age**

The available data refer to all households receiving care from adult social services. The majority of households receiving care from social services will consist of older people, as the prevalence of ill health and disability increases with age (shown in earlier chapters).

**Regional Comparison**

The proportion of all households receiving home care social services varies between regions ranging from 23 to 14 per 100,000 households (Figures 9.6 and 9.7). North East and North West regions have the highest rate of households receiving care, and South East, South West and London have the lowest rates of households receiving care. Yorkshire & Humber had the highest percentage of all home care provided by the local authority (50%) and London had the lowest percentage (19%). A few households receive help from both local authority and independent providers. In general, regions in which a high rate of households received homecare were also the regions in which a high rate of home care was received from local authorities (Figure 9.6). The exceptions to this generalisation were North West in which a low proportion of the homecare was provided by local authorities and South West in which a higher proportion of home care provided came from local authorities.

In general in regions where a high proportion of all households received home care a high proportion also received intensive home care (more than 6 visits per week or more than 5 hours of care). The exceptions to this generalisation were London where a slightly higher proportion received intensive home care and East Midlands where a lower proportion received intensive home care (Figure 9.7).

The average number of hours of home care received in England was 10 hours per household but there is variation between regions and in North West an average of 14 hours care was given (Figure 9.8). There is no clear relationship between the proportion of households receiving care and average hours of care received. North East region, which has the highest rate of households receiving care provides the lowest average number of hours while North West which has the second highest rate of households receiving home care provides the highest average number of hours.
Community based services
Community based services were provided to about 1.49 million clients during the year 2005/06, accounting for 85% of all clients receiving services. 596,000 clients received home care, 499,000 clients received equipment and adaptations, 444,000 received professional services such as occupational therapy and 244,000 received day care as a service following assessment. Clients receiving more than one type of community based service are included for each service received.

Indicator description
Indicator: Rate of receipt of specific services (home care, day care, meal services and overnight respite).
Numerator: Number of people aged 65 and over receiving specific service,
Denominator: Number of people aged 65 and over.

GOVERNMENT OFFICE REGIONS
Figure 9.9 Rate of Home care services all clients age 65+, 2005/06


Figure 9.10 Rate of Day care service, all clients, age 65+, 2005/06


GOVERNMENT OFFICE REGIONS
Figure 9.11 Rate of meal services, all clients, age 65+, 2005/06


Figure 9.12 Rate of overnight respite care, all clients, age 65+, 2005/06

Regional Comparison

Figures 9.9 to 9.12 demonstrate how the regional pattern of provision of community services (home care, day care, meals, overnight respite care) varies. For those aged 65 years and over rates for provision of home care vary from 49 to 79 per 1000 (Figure 9.9), for day care from 13 to 20 per 1000 (Figure 9.10), for provision of meals from 13 to 27 per 1000 (Figure 9.11) and for overnight respite care from 3 to 10 per 1000 (Figure 9.12). South East has the lowest rate of provision for all services except overnight respite. London has the highest rate of meal and second highest rate of home care provision but the second lowest rate of overnight respite. Yorkshire and Humber has the highest rate of overnight respite provision.

It is notable that Figure 9.6 (Households receiving home care per 1000 households all ages) gives a different picture to Figure 9.9 (Clients aged 65 and over receiving home care per 100,000 population aged 65 and over). The very different rank order of regions in the two figures illustrates the care with which social service statistics must be interpreted.

NHS Services

NHS chiropody services

Foot care is important for maintaining mobility and health in older people. The National Service Framework (NSF) for Older People lists the low provision of chiropody as a possible example of age discrimination. The Social Exclusion Unit noted that a lack of access to chiropody services affects older people most, and because it affects mobility can lead to depression and isolation. A toe nail cutting service is particularly important for older people, and the Audit Commission report on progress against the NSF commented services appeared under resourced in all the areas inspected. Many older people reported that rather than suffer very long waits for NHS treatment they had to ‘go private’. No figures are available for provision of chiropody by private suppliers.

Indicator description

Indicator: New episodes of care in NHS Chiropody services.
Numerator: Number of new episodes of care for age band in NHS Chiropody services,
Denominator: Number of population in age band.

Relation to Age

The use of chiropody services increases with increasing age. Among those aged 85 years and over 78 per 1000 population have a new episode of care compared with 62 per 1000 of the 75-84 age group and 42 per 1000 of 65-74 year olds. The rate falls steadily below the age of 65, with only 20 per 1000 of 55 – 64 year olds and 6 per 1000 of 6-54 year olds receiving a new episode of care.

Regional Comparison

London is the region with the highest rate of new chiropody episodes, followed by West Midlands and North East respectively while East of England, South East and Yorkshire & Humber respectively have the lowest number of new episodes (Figure 9.13). Need for chiropody is much more extensive than is met by NHS service and so variation between regions is likely to be an indicator of variation in service provision rather than any variation in the underlying need.

Use of General Practitioner services

The general practitioner (GP) is the gateway to services in the NHS. Primary care is now the preferred setting for management of long-term conditions and 60% of GP consultations relate to chronic diseases, such as arthritis, asthma, diabetes, heart disease or depression. The National Service framework for Older People outlined key roles for GPs in the management of stroke, dementia and falls. GPs are also a crucial point of first contact for many older people, and frequently the only point
of contact that an older person has within the health or social care professions\(^\text{11}\).

Older people frequently report difficulties accessing GP surgeries due to problems with transport or distance\(^\text{12}\). Older people in rural areas consult their GP less than their urban counterparts which may reflect difficulty accessing primary care services\(^\text{11,2}\). Older people are often concerned about out-of-hours services and difficulties in accessing GPs at night and at weekends especially as some older people have problems with automated phone messages or coping with constantly engaged phone lines.
**Indicator description**

**Indicator:** Consultation with GP in past 14 days.

**Numerator:** Number of men and women in age band consulting GP in past 14 days,

**Denominator:** Number of men and women in age band.

**Relation to Age**

The percentage of consultations with GP as reported in *General Household Survey* increases with increasing age (Figure 9.14). The *HSE 2005 The health of older people* shows a slightly different picture (Figure 9.15) with no increase with age after 65 in those consulting with GP.

**Regional Comparison**

The age standardised percentage of those aged 65 and over consulting with GP in the regions is shown in Figure 9.16. South West and London have the highest percentage consulting with GP. Yorkshire and Humber and East of England have the lowest percentage consulting.

**Outpatient visits to hospital**

For many conditions care in general practice is supplemented with hospital outpatient consultations and access to hospitals is important for older people. Ease of access, especially by public transport is a major consideration in planning of all new hospitals.

**Indicator description**

**Indicator:** Percent attending hospital as an outpatient in the past year.

**Numerator:** Number of men and women aged 65 and over attending hospital as an outpatient.

**Denominator:** Number of men and women aged 65 and over answering question in survey.

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**AGE BAND**

**GOVERNMENT OFFICE REGIONS**

**Figure 9.17**  % of people attending hospital as outpatients in past year, England, 2005

**Figure 9.18**  Age standardised % of people attending hospital as outpatients in past year, 2005

Source: Health Survey for England 2005 Health of Older People (Vol 3 Table 3.7)  
Source: Health Survey for England 2005 Health of Older People (Vol 3 Table 3.8)
Relation to age
53% of men and 49% of women aged 65 and over attended hospital as an outpatient. Figure 9.17 shows that the percentage attending increases with age in women and dips in the 85s and over age group.

Regional comparisons
Age standardised percentages of men and women aged 65 and over attending hospital as outpatients are shown in Figure 9.18. The differences between regions are small.

Influenza immunisation
Influenza in older people contributes to about 3% of excess winter deaths (see chapter 3), in non-epidemic years. It is therefore recommended that those aged 65 and over should be offered and encouraged to take up influenza vaccination. The national target for vaccination coverage in older people in England is 70%, though the World Health Organization has a target of 85% uptake in recommended risk groups by 2010. The proportion of older people vaccinated has risen and in 2005/06 75% of over 65 year olds were vaccinated. National Policy for the influenza immunisation programme identifies not only those aged 65 and over but also younger people with certain chronic illnesses and those who are the main carer for an older or disabled person whose welfare may be at risk if the carer falls ill.

Indicator description
Indicator: Percentage of influenza vaccine uptake in people aged 65 years and over, for winter season 2005/06.
Numerator: Number of people age 65 and over vaccinated against flu,
Denominator: Total number of people aged 65 and over.

GOVERNMENT OFFICE REGIONS

Figure 9.19 Age standardised influenza vaccine uptake for winter season, age 65+, by Regions, 2005/06

Source: Health Protection Agency
Regional Comparison

North East region has the highest percentage coverage (77%) followed by South West and South East. The lowest percentage of cover is found in London with 72% followed by West Midlands and East Midlands respectively (Figure 9.19). All of the regions have cover above the level of the target of 70% in the NSF for Older People.

Selected surgical procedures

Older people have a right to expect that they will not be discriminated against and that their access to services will be determined by their need and their ability to benefit and not by their chronological age. Standard one of the National Service Framework for Older people reaffirms this right. Many illnesses become more common with increasing age and hospital admission rates for most conditions also rise with age. On the other hand access to some diagnostic and curative procedures may not show the same relation to age and comparison of access rates may inform the discussion as to whether discrimination on grounds of age is occurring. The next section therefore examines admissions to hospital for two different procedures in relation to age.

Admission for Revascularisation Procedure

Revascularisation is an effective treatment for Coronary Heart Disease (CHD). The need for revascularisation should be higher in areas of high CHD mortality, however there is often an inverse relationship between CHD mortality and revascularisation.

Indicator description

**Indicator:** Directly Standardised hospital admission rate for revascularisation in the 65 and over age group in 2005/06

**Numerator:** Number of hospital admissions in age 65 and over for revascularisation procedures classified by primary procedure (OPCS code K40-K44) during 2005/06 by 5 year age bands and sex

**Denominator:** 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

The rate of coronary revascularisation procedures increases with increasing age to peak at the 70-74 age group, and then falls with increasing age. There are higher rates of revascularisation in men than women (Figure 9.20).

Regional Comparison

Figure 9.21 shows that the highest rates of revascularisation are carried out in London and East of England region, which did not have high rates of circulatory disease mortality (see Figure 3.15, Chapter 3). The lowest rates of revascularisation were found in North West which had the highest rate of circulatory disease mortality.

Figure 9.22 shows the age standardised revascularisation rate for persons aged 50-64 and 65-79 year olds and the ratio of these two groups (50-64:65-79). The figure shows that revascularisation rates in the older age group (65-79) are higher than in the 50-64 groups in all the regions in England. The ratio of revascularisation rates in the two groups is not related to the revascularisation rate and varies from 0.47 in East of England to 0.63 in North East. A low ratio suggests a higher propensity to operate on the older age group. The difference between regions does not demonstrate that any is too ready or too reluctant to undertake this procedure in older people but it does pose the question why is the ratio different?
AGE BAND

Figure 9.20  Age standardised rates for admission for revascularisation, England, 2005/06

Government Office Regions

Figure 9.21  Directly Standardised Admission Rates for revascularisation, age 65+, 2005/06

Source: DH Hospital Episode Statistics 2005/06

GOVERNMENT OFFICE REGIONS

Figure 9.22  Rate and ratio of Revascularisation procedures at ages 50-64 and 65-79, 2005/06

Source: DH Hospital Episode Statistics 2005/06
Hip replacement

Elective Total Hip Replacement is carried out to relieve discomfort and disability caused by arthropathies (including osteoarthritis and rheumatoid arthritis) of the hip. Approximately 58,300 hip replacements were carried out in the NHS in England in the year 2005/06, of these 71% were carried out in patients over the age of 65. On the whole there has been an increase in the number of hip replacements being carried out compared to previous years.

Indicator description

Indicator: Directly Standardised hospital admission rate for hip replacements in the 65 and over age group in 2005/06

Numerator: Number of hospital admissions in age 65 and over for hip replacements classified by primary procedure (OPCS code W37-W39) during 2005/06 by 5 year age bands and sex

Denominator: 2005 mid-year population estimates

Standardised by age and sex to the European Standard Population

Relation to age

Figure 9.23 shows that the rate of hip replacement operations increases with age up to around the age of 75 after which the rate begins to dip possibly due to the older age groups becoming too frail to be operated upon. In terms of the total number of hip replacements performed, women outnumber men by two to one in the over 65-year age group.

Regional Commentary

Figure 9.24 shows the admission rates for total hip replacements in people aged 65 and over in 2005/06. London has the lowest rate of hip replacements for both males and females whereas South West has the highest rate. Figure 9.25 shows the ratio of age standardised hip replacement rates for the two age groups 50-64 and 65-74. The ratio varies from 0.25 in South East to 0.34 in North East suggesting that surgeons in North East are less likely to operate on older patients. Once again the differences in ratio between regions do not indicate that any region is discriminating against older people but they do pose the question what causes the difference?

Source: DH Hospital Episode Statistics 2005/06
Figure 9.25  Rate and ratio of hip replacement procedures at ages 50-64 and 65-79, 2005/06

Source: DH Hospital Episode Statistics 2005/06
References  Chapter 9


Chapter 10: Older people in the five countries of the UK and Ireland

This series of Indications reports is designed to focus on the English Regions. However, the Association of Public Health Observatories (APHO) also covers the other countries of the United Kingdom (UK) and the Republic of Ireland (ROI). This chapter is the first step in developing a broader, multi-country perspective in APHO reports.

The five countries of the UK and Ireland differ greatly in size of population, with England dwarfing the other countries (Table 10.1). But the differences between the countries are not just of geography and demography. There are also differences in policy and service organisation. These differences in policy, as well as the varying history of statistics collection in each country, mean that there are differences in the data collected and how they are processed and presented. To provide a manageable approach to compiling data for this first attempt in an APHO Indications report to look across the ‘five nations’, the content of this chapter is restricted to demography and mortality.

Table 10.1 National populations aged 65 and over, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Population aged 65+ (Data rounded to nearest 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>8,059,000</td>
</tr>
<tr>
<td>Scotland</td>
<td>833,000</td>
</tr>
<tr>
<td>Wales</td>
<td>521,000</td>
</tr>
<tr>
<td>Ireland</td>
<td>461,000</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>237,000</td>
</tr>
</tbody>
</table>

The Policy Context

Ireland has been an independent country for 85 years. The constituent countries of the UK have had varying degrees of autonomy, developing since the Scottish Office was first established in 1885. More recently devolution to Scotland and Wales and the re-establishment of the Northern Ireland Assembly have seen an increasing divergence in policies within the UK. Although significant, the extent of this divergence should not be over-emphasised. Important areas of policy are still 'reserved' to the UK government, not least policy on pensions.

Policies for England are described throughout this report. Key policies for the other countries are briefly described here to set a context for the statistics that follow. The focus is on policies related to health improvement that are specifically about older people within each country. It should be noted that major impacts of policy on older people come from policies that affect all ages such as health care, housing and transport.

Scotland

The Scottish Executive strategy ‘All our Futures: Planning for a Scotland with an Ageing Population’¹ is a key policy driver for this area of work. However “the implications of an ageing population for Scotland’s development and for society as a whole are wide-ranging and complex and cannot be addressed easily in a single policy statement”¹ In the development of ‘All our Futures’¹ the UK government strategy ‘Opportunity Age’² has been taken into account, particularly in reserved areas of employment, pensions and benefits.
The new strategy identifies six priority areas for action:

1. Improving opportunities, removing barriers
2. Intergenerational links
3. Health and wellbeing
4. Care, support and protection
5. Housing, transport and planning
6. Lifelong learning opportunities

In each of these areas there are multiple existing policies, some specific to older people or their interests and others, which are more generic, on which the strategy seeks to build, for example, unpaid care, age discrimination, joint health and social care services, tobacco control, physical activity, and lifelong learning. One of the core aims of the Scottish Executive strategy 2005, Delivering for Health, is to improve provision for long term conditions in the community, reducing reliance upon hospital care, especially unplanned care. Also of note are moves to engage older people more effectively in community planning (the statutory framework for local inter-agency partnership) which offers promise for engaging with the upstream determinants of health. Challenges identified are: ageism, equality and diversity, links between the generations, rurality and geographic isolation, lack of knowledge/information and closing the opportunity gap.

Wales

In January 2003 the Welsh Assembly Government launched its ten year Strategy for Older People in Wales, which addresses the wider determinants of health. This was followed in 2005 by the Healthy Ageing Action Plan for Wales, which focuses on specific health promotion topics. Together with the National Service Framework for Older People in Wales, launched in 2006, these policy and strategy documents provide the national framework for the Welsh Assembly’s action to improve the health and well-being of older people and guidance for action at local level. The Welsh Assembly has funded a coordinator in each of the 22 local authorities in Wales to develop a local Older People’s Strategy. These local strategies also link to the mandatory joint local authority and local health board Health, Social Care and Well-being Strategies, which outline plans to address the needs identified for all local population groups in each local authority area.

Older people are engaged in the process through older people’s forums in every local authority and the National Partnership Forum for Older People, which advises the Welsh Assembly on older people’s issues. In addition, a Commissioner for Older People has been appointed and will start in April 2008.

Both at national and local level, the Welsh Assembly are working in partnership with other organisations to improve the health and well-being of older people, including Better Government for Older People Cymru, Age Alliance Wales, the Beth Jones Foundation for intergenerational practice, the National Public Health Service for Wales and Age Concern Cymru.

Republic of Ireland

The Republic of Ireland’s vision for the promotion of healthy ageing is set out in Adding Years to Life and Life to Years – A Health Promotion Strategy for Older People. This strategy builds on the proposals previously made in The Years Ahead. The key goals of healthy ageing in the Republic of Ireland are:

- To improve life expectancy for people aged 65 and over
- To improve the health status of people aged 65 and over
- To improve the lives and autonomy of older people who are already affected by illness and impairment
Adding Years to Life and Life to Years includes recommendations for improved life expectancy through reductions in mortality from injuries, cardiovascular disease and cancers. The development of enabling physical and social environments which support older people to live healthy and active lives through age-friendly housing and transport policy is also emphasised.

The National Development Plan 2007-2013 includes a specific Older People Programme which interlinks with national development priorities for the improvement of housing stock and resources, improvements in primary care and rural transport. A life-course approach is proposed in the Republic of Ireland’s National Action Plan for Social Inclusion 2007-2016 and older people are recognised as being at particular risk of social exclusion. The plan commits to continuing investment in community care services for older people to support community living and to review pension provision for older people.

**Northern Ireland**

*Ageing in an Inclusive Society – A Strategy for Promoting the Social Inclusion of Older People* is the key over-riding strategy relating to the welfare of older people in Northern Ireland. This strategy highlights the need to develop integrated action to provide more effective economic, health and housing support for older people and recommends:

- targeting older people who are economically vulnerable
- prioritising healthy ageing within the implementation of health strategies
- the development of policy and practice aimed at supporting older people to live at home
- improved access to services and facilities, especially transport
- combating ageism and promoting equality through legislation and other means

The government’s anti-poverty and social inclusion strategy for Northern Ireland, *Lifetime Opportunities*, adopts a life-course approach and therein makes goals relating to improving older people’s lives by 2020. These goals relate to improvements in the areas of reducing inequalities in life expectancy and financial well-being (e.g. flexible retirement, pension and benefits) and access to support services that facilitate independent living. These goals also support the specific recommendations made in the *Fuel Poverty Strategy in Northern Ireland*.

With regard to public policy on the health of older people in Northern Ireland, the health and social care strategy *Towards a Healthier Future 2005-2025* and the allied health policy *Investing for Health* make specific reference to population ageing and the importance of investment in integrated networks of local supports such as housing, health and social services and community groups.
Demography

Indicator descriptions
The indicators shown in this chapter are as defined for the corresponding figures for English regions in chapter 2 and 3.

There is a greater proportion of women than men in all the older age groups in all five countries. (Figure 10.1). The ratio of male:female in each older age group is fairly consistent across all five countries, with more than eight men for every ten women in the 65-74 age group, decreasing to around four for every ten at age 85 and over (Figure 10.2).

Figure 10.1 % of population within older age groups, 2005 (ROI 2006)

![Graph showing the percentage of the population within older age groups for England, Northern Ireland, Scotland, Wales, and the Republic of Ireland, 2005 (ROI 2006).]

Source: Table 12 Mid-2005 Population Estimates: Quinary age groups and sex for health areas in the United Kingdom; estimated resident population. CSOI 2006 census

Figure 10.2 Male to Female ratio, age 65+, 2005 (ROI 2006)

![Graph showing the male to female ratio for each country, age 65 and over, 2005 (ROI 2006).]

Source: Table 12 Mid-2005 Population Estimates: Quinary age groups and sex for health areas in the United Kingdom; estimated resident population. CSOI 2006 census

The relatively young population of the Republic of Ireland is seen in the low proportion of its population which is above the pensionable age (Aged 60+ (or 65+ in ROI) for women, 65 for men). The highest proportion of older people in the population is in Wales. (Figure 10.3).

The demographic distinctiveness of the Republic of Ireland is also seen in the population balance between the working age population and children (under 16 years) and the retired population (age 60 or over for women and 65 or over for men, taking the UK retirement age). In the UK countries, there are around 30 people of retirement age and about 30 children for every 100 people of working age. Northern Ireland has more children and fewer pensioners, though overall Wales has the highest proportion of children and old people combined (66 for every 100 people of working age). (Figure 10.4).
All five countries project an increase in the older population over the next quarter century. The greatest percentage rise will be for men aged 85 and over. In all the other age bands in all 5 countries the percentage increase for men is higher than that for women (except for Wales aged 65-74 where the projected increase is equal for men and women). The Republic of Ireland, will experience larger percentage increases than the UK countries in the age bands 65-74 and 75-84 years. The increase for men aged 85 and over in the Republic of Ireland is less than in the UK countries but still amounts to a doubling. For women aged 85 and over the greatest percentage increase will be in Northern Ireland.
**Life expectancy**

The situation of all five countries as affluent, western societies is demonstrated in the consistency of life expectancy at age 65. At this age men can expect another 15.4 - 16.8 years of life and women another 18.4 - 19.6. Scotland has the lowest life expectancy and England the highest for both sexes, but compared with levels of inequality within each country the differences between the countries are modest (Figure 10.6).

**Mortality**

There is a generally consistent pattern to mortality above age 64 across the five countries. The Republic of Ireland usually has the highest mortality rate, with Scotland second highest, and England usually has the lowest. But there are exceptions.

The pattern for all-cause mortality is shown in Figure 10.7. It is notable that for every single cause examined male mortality is higher than female in every country.

The pattern for all circulatory disease is similar (Figure 10.8). For coronary heart disease, while the pattern appears the same, the differences between Scotland, Wales and Northern Ireland are not significant for men (Figure 10.9). For stroke, Scotland has the highest rates for both men and women while England, Wales and Northern Ireland are not statistically significantly different for men or for women Directly standardised death rates for (Figure 10.10).

Cancer mortality is highest in Scotland and lowest in Northern Ireland and England for men. For women, mortality is also highest in Scotland and lowest in England, though the latter is not significantly different from Northern Ireland and Wales (Figure 10.10).

Respiratory disease mortality shows a distinctively different pattern. It is markedly higher for men, particularly, and women in the Republic of Ireland, while differences between the other countries are less pronounced (Figure 10.12). However, this may be an artefact of the coding rules in use in the Republic of Ireland, where deaths are still coded to ICD9. (In the UK countries ICD10 is now used.)
Conclusion
In all the countries of the UK and Ireland, no matter what the current population balance, the older population is growing. This represents both an opportunity and a challenge, and in each country there are policies in place to capitalise on the opportunities and to address the challenges, as there are across Europe. 


References


7. The National Council on Ageing and Older People & The Health Promotion Unit, Department of Health and Children 1998, Adding Years to Life and Life to Years. A Health Promotion Strategy for Older People, Brenner, H and Shelley, E.


Appendix 1: Methodology

Main Sources of Data

Deaths
The majority of the data presented is from the Annual Death Extract, National Statistics. All the death rates presented using this source are for deaths registered in 2005. The data have been extracted using primary diagnosis only unless otherwise stated. Some data were obtained in an aggregated form from National Centre for Health Outcomes Development (NCHOD).

Admissions
The majority of the data presented is from the Hospital Episodes Statistics Data, Department of Health. All admission data from this source are from the financial year 2004/5. The data have been extracted using primary diagnosis only unless otherwise stated. Some data were obtained in an aggregated form from National Centre for Health Outcomes Development (NCHOD).

Population
The population used for all data analysis unless otherwise stated is the 2005 mid year population estimates from National Statistics.

Presentation of data

Age related data
Age specific rates appear as line graphs unless age data were only available grouped in unequal age bands, when a bar chart is used instead.

Regional data
For regional data bar charts are used in descending order with the rate/percentage for England imposed as a line across the chart.

Traffic Light Indicators
Traffic light indicator tables are colour labelled when the value falls outside the higher or lower 2nd standard deviation line on the control chart funnel plot. Red and green labels are used when the value falls outside these limits. Red cannot always be considered ‘bad’ or green ‘good’. Amber is used for values which fall within these lines. For some indicators where the numbers are very large there may be a problem of over-dispersion of the data and nearly all values lie outside the 2nd standard deviation lines.

Methods used

Age related data
Age specific rates have been calculated by dividing total number of events in the age band by estimated total number at risk in the age band. Where the data allowed, quinary age bands were used but otherwise the narrowest possible age bands were taken.

Regional data
Age standardised rates were used wherever possible but if adequate data were not available then crude rates were used. The calculation of age standardised rates and its limitations are described in the next section.

Age Standardisation and older people
In order to allow comparison of groups with different age structures it is common to present “age standardised” rates and they are widely used in this report. These are calculated by summing the product of age specific rates for each age band in the group by the number in that age band in the
standard population. The sum is then divided by the total number in all age bands in the standard population to obtain the age standardised rate. Any difference between groups in age standardised rate is then not due to difference in age structure since the same standard population was used to calculate all age standardised rates. The method does however assume that minor differences in age structure within age bands are unimportant and in general this is true for younger age groups. For the age standardised rates given in this report five year age bands have generally been used. However with older groups minor differences in average age within age band may become important and some authorities argue that for older age bands one year groups should be used.

The problem is further compounded by the use of the European Standardised Population which has a top age band of 85 years and over. This means that an age band of 85 years and over also has to be used for age specific rates and this is clearly unsatisfactory. Further the European Standard population is much younger than the UK population and therefore biases comparisons towards younger age groups. The rank order of age standardised rates may be appreciably changed by use of different standard populations. Therefore for groups aged 65 or over and particularly for groups including those aged 85 and over the use of age standardised rates will reduce the effect of age differences in the populations but cannot be assumed to have eliminated it.

**Recording Cause of Death**

Information on cause of death is mainly drawn from the medical certificate of cause of death which is completed by the attending doctor. This lists an immediate cause of death with two preceding conditions and other significant conditions contributing to death. Automatic coding software used by National Statistics to compile the deaths register derives an underlying cause of death from the information on the death certificate. An audit of death certificates completed by hospital doctors found that only 55% had been correctly completed but the errors on a further 36% would have been corrected by the coding software.

A further problem with describing illness in older people is that it is often difficult to state a precise cause of death. Older people often have several pathologies and may be generally frail so that a precise cause of death may not be clear. In 2005 2.9% deaths of men and 6.6% of deaths for women aged 85 and over were coded to imprecise diagnoses (R50-R69, R95-R99). Other deaths may be coded to plausible diagnoses such as bronchopneumonia where the underlying cause is frailty. At one crematorium in 1999-2001 old age was given as one of the causes of death in 7% and the only cause in 2%. The Shipman inquiry prompted a review of death certification and some have urged that old age should be acceptable as a cause of death.

Comparison with other European countries introduces further possibilities of inconsistency in diagnosis and certification practice although an international classification of disease is used (currently ICD10) and the EUROSTAT project is working to improve comparability.

**Recording hospital episode data**

In the Hospital Episode Statistics (HES) system episodes are assigned up to 4 diagnoses, though the vast majority have only 1 or 2, and up to 6 procedures. The episode records are coded by trained coders who derive diagnoses and procedures from the summary produced by the clinician. There has been discussion about the accuracy and completeness of coding. A systematic review in 2001 of published studies covering a variety of conditions and all ages found a median coding accuracy of 91% in England and Wales. Just as assigning a cause of death certification can prove problematic in older people, assigning causes for admission to hospital may also be difficult. Often multiple pathologies are present and it may be unclear which of the diagnoses should be regarded as primary.

There are particular concerns over recording of episodes for psychiatric diagnoses, which the HES
protocols describe as having shortfalls. The accuracy of psychiatric diagnosis within HES has not been evaluated and its completeness has been questioned.

**Recording other data on morbidity**

In general practice there are several systems for coding diagnostic and other information and the Quality Outcomes Framework encourages practices to compile registers of certain diseases including coronary heart disease, stroke and transient ischaemic attacks, hypertension, diabetes, chronic obstructive pulmonary disease and severe mental health problems. Even if well defined diagnostic criteria are not used and recording may well be incomplete these records could be a gold mine of information on disease prevalence. Unfortunately as the information is presently extracted it is not possible to obtain age specific or age standardised rates so no information from this source is included in this report. In special surveys such as the Health Survey for England recording of disease will be much more reliable since precise diagnostic criteria are stated and survey workers are trained in their use.
Indications of Public Health in the English Regions | 9: Older People

References


## Appendix 2: Traffic light summary of indicators for the English Regions

### Chapter 3

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### Indicators of Public Health in the English Regions

#### 9: Older People

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#### Chapter 4

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**Chapter 5**

| 5.2 Have a mobility problem, Age 65+, 2005 | M   | 39      | 45      | 37      | 36      | 40      | 45      | 34      | 36      | 36      | 41 |
|                                           | F   | 47      | 46      | 41      | 49      | 57      | 49      | 43      | 44      | 55      | 48 |

| 5.4 Fall in past 12 months, Age 65+, 2005 | M   | 23      | 29      | 17      | 22      | 24      | 24      | 20      | 24      | 22      | 24 |
|                                           | F   | 29      | 32      | 25      | 29      | 32      | 27      | 28      | 32      | 29      | 31 |

| 5.6 Directly standardised death rates for falls, Age 65+, 2005, | M   | 26.9    | 22.8    | 21.1    | 23.8    | 28.4    | 35.9    | 21.3    | 23.5    | 40.5    | 27.8 |
|                                                            | F   | 18.8    | 16.8    | 10.1    | 17.8    | 22.3    | 28.3    | 13.9    | 17.4    | 29.0    | 15.9 |

| 5.9 Directly standardised admission rates for falls, Age 65+, 2004/05, | M   | 1508    | 1441    | 1370    | 1643    | 1716    | 1783    | 1459    | 1517    | 1313    | 1374 |
|                                                               | F   | 2297    | 2270    | 2131    | 2358    | 2592    | 2563    | 2312    | 2343    | 1998    | 2139 |

| 5.11 Directly standardised admission rates for fractured neck of femur, Age 65+, 2005/06, | M   | 346     | 370     | 358     | 315     | 323     | 320     | 336     | 401     | 356     | 325 |
|                                               | F   | 700     | 730     | 717     | 615     | 720     | 656     | 696     | 814     | 700     | 657 |

| 5.12 Returning to usual place of residence following hospital treatment for fractured neck of femur 2003/04, | P   | 46.2    | 48.7    | 50.7    | 48.1    | 48.2    | 41.5    | 45.1    | 44.0    | 41.1    | 52.8 |
### Indications of Public Health in the English Regions | 9: Older People

#### Indicator 5.13
Deaths within 30 days of emergency admission to hospital for fractured neck of femur, 2003/04.

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#### Indicator 5.15
Prevalence of Low SPPB, Age 65+, 2005.

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#### Indicator 5.17 (i)
Crude rate per 1,000 registered blind, Age 65+, 2006.

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#### Indicator 5.17 (ii)
Crude rate per 1,000 registered partially sighted, Age 65+, 2006.

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#### Indicator 5.19 (i)
Crude rate per 1,000 registered deaf, Age 65+, 2006.

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#### Indicator 5.19 (ii)
Crude rate per 1,000 registered hard of hearing, Age 65+, 2006.

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Percentage Edentate, Age 65+, 2005

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#### Indicator 5.23
Percentage Bladder Problem, Age 65+, 2005

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### Chapter 6

#### 6.2
Directly standardised admission rates for mental health, Age 65+, 2005/06

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#### 6.5
Directly standardised admission rates for dementia, Age 65+, 2005/06

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#### 6.7
GDS10 score 3+ by region, Age 65+, 2005

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## Chapter 7


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### 7.13 Age standardised % Low contact with friends, Age 65+, 2005.

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### 7.15 Age standardised % Low contact with family, Age 65+, 2005.

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### 7.17 Age standardised % severe lack of perceived support, Age 65+, 2005.

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### 7.19 Age standardised % high trust in people in general, Age 65+, 2005.

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### 7.21 Age standardised % participating in organised activity, Age 65+, 2005.

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## Chapter 8

### 8.2 Smoking, Age 65+, 2003/04.

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### 8.4 % Overweight including obese (BMI>25), Age 65+, 2005.

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### 8.8 Eating 5 portions fruit & vegetables, Age 65+, 2005.

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## Indicator 8.10
Moderate active recreation (at least 3 times in last week), Age 65+, 2006.

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## Indicator 8.11
Minimal active recreation (at least once in last 4 weeks), Age 65+, 2006.

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<td>27.2</td>
<td>26.4</td>
<td>22.2</td>
<td>21.5</td>
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## Indicator 8.12
30 minutes walking at least once in last 4 weeks, Age 65+, 2006.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sex</th>
<th>England</th>
<th>East Midlands</th>
<th>East of England</th>
<th>London</th>
<th>North East</th>
<th>North West</th>
<th>South East</th>
<th>South West</th>
<th>West Midlands</th>
<th>Yorkshire and the Humber</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.12 30 minutes walking at least once in last 4 weeks, Age 65+, 2006.</td>
<td>P</td>
<td>56.2</td>
<td>54.7</td>
<td>55.4</td>
<td>56.7</td>
<td>53.0</td>
<td>54.1</td>
<td>59.0</td>
<td>60.3</td>
<td>53.8</td>
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## Indicator 8.15
Drinking on 5 or more days per week, Age 65+, 2006.

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<th>London</th>
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<th>South West</th>
<th>West Midlands</th>
<th>Yorkshire and the Humber</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.15 Drinking on 5 or more days per week, Age 65+, 2006.</td>
<td>P</td>
<td>22.5</td>
<td>24.4</td>
<td>22.9</td>
<td>17.7</td>
<td>13.7</td>
<td>18.7</td>
<td>27.7</td>
<td>27.2</td>
<td>21.8</td>
<td>22.6</td>
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## Indicator 8.17
Binge drinking, 2004

<table>
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<th>North West</th>
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<th>South West</th>
<th>West Midlands</th>
<th>Yorkshire and the Humber</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.17 Binge drinking, 2004</td>
<td>P</td>
<td>3.1</td>
<td>3.1</td>
<td>2.3</td>
<td>2.3</td>
<td>3.6</td>
<td>5.0</td>
<td>3.8</td>
<td>1.7</td>
<td>3.0</td>
<td>2.9</td>
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</tbody>
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## Chapter 9

<table>
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<tr>
<th>Indicator</th>
<th>Sex</th>
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<th>North West</th>
<th>South East</th>
<th>South West</th>
<th>West Midlands</th>
<th>Yorkshire and the Humber</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.21 Directly standardised admission rates for revascularisation, Age 65+, 2005/06</td>
<td>M</td>
<td>640</td>
<td>556</td>
<td>744</td>
<td>877</td>
<td>544</td>
<td>545</td>
<td>646</td>
<td>612</td>
<td>586</td>
<td>593</td>
</tr>
<tr>
<td>9.21 Directly standardised admission rates for hip replacements, Age 65+, 2005/06</td>
<td>F</td>
<td>233</td>
<td>195</td>
<td>260</td>
<td>327</td>
<td>211</td>
<td>204</td>
<td>227</td>
<td>201</td>
<td>206</td>
<td>254</td>
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<tr>
<td>9.24 Directly standardised admission rates for revascularisation, Age 65+, 2005/06</td>
<td>M</td>
<td>426</td>
<td>453</td>
<td>433</td>
<td>282</td>
<td>404</td>
<td>418</td>
<td>456</td>
<td>502</td>
<td>439</td>
<td>416</td>
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<tr>
<td>9.24 Directly standardised admission rates for hip replacements, Age 65+, 2005/06</td>
<td>F</td>
<td>582</td>
<td>597</td>
<td>621</td>
<td>448</td>
<td>553</td>
<td>509</td>
<td>630</td>
<td>688</td>
<td>634</td>
<td>532</td>
</tr>
</tbody>
</table>

Note:
Chapter 9 traffic light method - no assumption has been made on whether rates are better or worse. Red indicates a higher than England average and green a lower than average rate.
# Appendix 3: List of abbreviations

## European Countries (with year of latest available data)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>Austria 2005</td>
</tr>
<tr>
<td>BE</td>
<td>Belgium No data</td>
</tr>
<tr>
<td>CH</td>
<td>Switzerland 2002</td>
</tr>
<tr>
<td>CZ</td>
<td>Czech Republic 2004</td>
</tr>
<tr>
<td>DE</td>
<td>Germany 2004</td>
</tr>
<tr>
<td>DK</td>
<td>Denmark 2001</td>
</tr>
<tr>
<td>EE</td>
<td>Estonia 2005</td>
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<tr>
<td>EL</td>
<td>Greece 2004</td>
</tr>
<tr>
<td>ES</td>
<td>Spain 2004</td>
</tr>
<tr>
<td>FI</td>
<td>Finland 2004</td>
</tr>
<tr>
<td>FR</td>
<td>France 2002</td>
</tr>
<tr>
<td>HU</td>
<td>Hungary 2003</td>
</tr>
<tr>
<td>IE</td>
<td>Ireland 2002</td>
</tr>
<tr>
<td>IT</td>
<td>Italy 2001</td>
</tr>
<tr>
<td>LV</td>
<td>Latvia 2004</td>
</tr>
<tr>
<td>NL</td>
<td>Netherlands 2004</td>
</tr>
<tr>
<td>NO</td>
<td>Norway 2003</td>
</tr>
<tr>
<td>PL</td>
<td>Poland 2004</td>
</tr>
<tr>
<td>PT</td>
<td>Portugal 2003</td>
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<tr>
<td>RO</td>
<td>Romania 2004</td>
</tr>
<tr>
<td>SE</td>
<td>Sweden 2002</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom 2004</td>
</tr>
<tr>
<td>EU5</td>
<td>5 Countries of the EU prior to 1st May 2004</td>
</tr>
</tbody>
</table>

## 5 Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
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<tbody>
<tr>
<td>ROI</td>
<td>Republic of Ireland</td>
</tr>
<tr>
<td>NI</td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>Scot</td>
<td>Scotland</td>
</tr>
<tr>
<td>Eng</td>
<td>England</td>
</tr>
<tr>
<td>Wales</td>
<td>Wales</td>
</tr>
</tbody>
</table>

## Government Office Regions (GOR)

<table>
<thead>
<tr>
<th>Region</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>South East</td>
</tr>
<tr>
<td>WM</td>
<td>West Midlands</td>
</tr>
<tr>
<td>L</td>
<td>London</td>
</tr>
<tr>
<td>SW</td>
<td>South West</td>
</tr>
<tr>
<td>E</td>
<td>East of England</td>
</tr>
<tr>
<td>EM</td>
<td>East Midlands</td>
</tr>
<tr>
<td>NW</td>
<td>North West</td>
</tr>
<tr>
<td>YH</td>
<td>Yorkshire and the Humber</td>
</tr>
<tr>
<td>NE</td>
<td>North East</td>
</tr>
</tbody>
</table>

## Organisations

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APHO</td>
<td>Association of Public Health Observatories</td>
</tr>
<tr>
<td>CASP</td>
<td>Critical Appraisal Skills Programme</td>
</tr>
<tr>
<td>DWP</td>
<td>Department for Work and Pensions</td>
</tr>
<tr>
<td>DH</td>
<td>Department of Health</td>
</tr>
<tr>
<td>ESRC</td>
<td>Economic and Social Research Council</td>
</tr>
<tr>
<td>GAD</td>
<td>Government Actuary’s Department</td>
</tr>
<tr>
<td>JFR</td>
<td>Joseph Rowntree Foundation</td>
</tr>
<tr>
<td>LA</td>
<td>Local Authority</td>
</tr>
<tr>
<td>MRC</td>
<td>Medical Research Council</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>NCHOD</td>
<td>National Centre for Health Outcomes Development</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>NICE</td>
<td>National Institute of Health and Clinical Excellence</td>
</tr>
<tr>
<td>ONS</td>
<td>Office for National Statistics</td>
</tr>
<tr>
<td>OPCS</td>
<td>Office of Population, Censuses and Surveys</td>
</tr>
<tr>
<td>PCT</td>
<td>Primary Care Trust</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>BCS</td>
<td>British Crime Survey</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>CHD</td>
<td>Coronary Heart Disease</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disease</td>
</tr>
<tr>
<td>ELSA</td>
<td>English Longitudinal Study of Ageing</td>
</tr>
<tr>
<td>EWDI</td>
<td>Excess Winter Deaths Index</td>
</tr>
<tr>
<td>GHS</td>
<td>General Household Survey</td>
</tr>
<tr>
<td>HES</td>
<td>Hospital Episode Statistics</td>
</tr>
<tr>
<td>HSE</td>
<td>Health Survey for England</td>
</tr>
<tr>
<td>ICD</td>
<td>International Classification of Diseases</td>
</tr>
<tr>
<td>NSF</td>
<td>National Service Framework</td>
</tr>
<tr>
<td>RAP</td>
<td>Referrals Assessments and Packages Project</td>
</tr>
<tr>
<td>SPPS</td>
<td>Short Physical Performance Battery</td>
</tr>
</tbody>
</table>
About the Association of Public Health Observatories (APHO)

The Association of Public Health Observatories (APHO) represents and co-ordinates a network of 12 public health observatories (PHOs) working across the five nations of England, Scotland, Wales, Northern Ireland and the Republic of Ireland.

APHO facilitates joint working across the PHOs to produce information, data and intelligence on people's health and health care for practitioners, policy makers and the public.

APHO is the:
- single point of contact for external partners
- learning network for members and participants
- advocate for users of public health information and intelligence

Further information about APHO, the PHOs and their work can be obtained from www.apho.org.uk
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