Diabetes is a metabolic condition, associated with insulin insufficiency and resistance, resulting in an inability to regulate blood glucose levels. Type 1 is an auto-immune condition where the pancreatic beta cells that produce insulin are destroyed. Type 2 occurs when the body becomes resistant to the action of insulin, initially compensating by increasing production, the pancreatic beta cells are unable to keep up with demand and eventual beta cell failure ensues.

2.5 million adults have diagnosed diabetes, though many are undiagnosed. The highest PCT rate is 2.5 times the lowest. Type 2 diabetes (≈90% of diabetes) increases with age and is strongly associated with obesity, inactivity and ethnicity. Geographical patterns broadly reflect the presence of these risk factors.

Diabetes can lead to long term micro and macro vascular complications including loss of sight. It increases the risk of heart attack and stroke by around a factor of three and end-stage kidney disease by around four.

Compared to people of a similar age, people with Type 1 and Type 2 are 2.6 and 1.6 times, respectively, more likely to die prematurely. This results in 24,000 excess deaths per year[1].
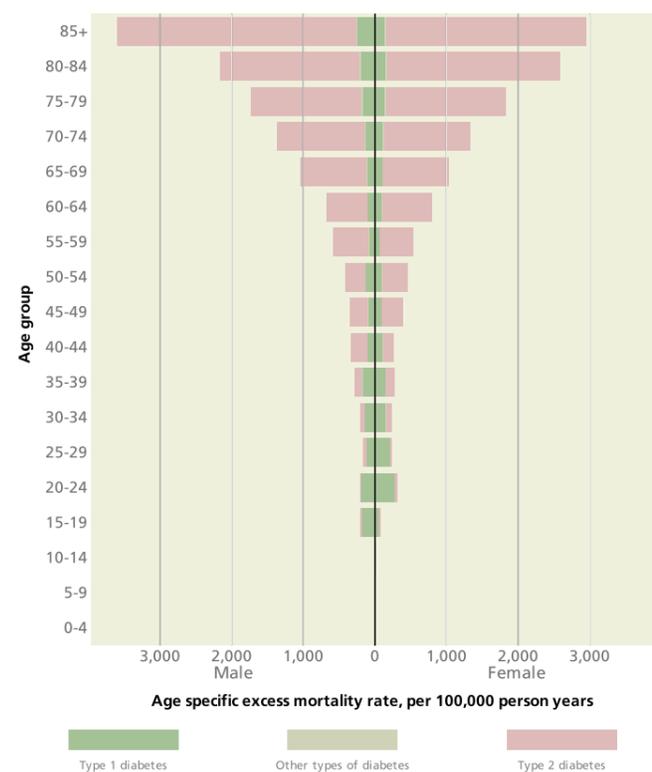
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1 The NHS Information Centre, National Diabetes Audit 2007-2008 Mortality Analysis.

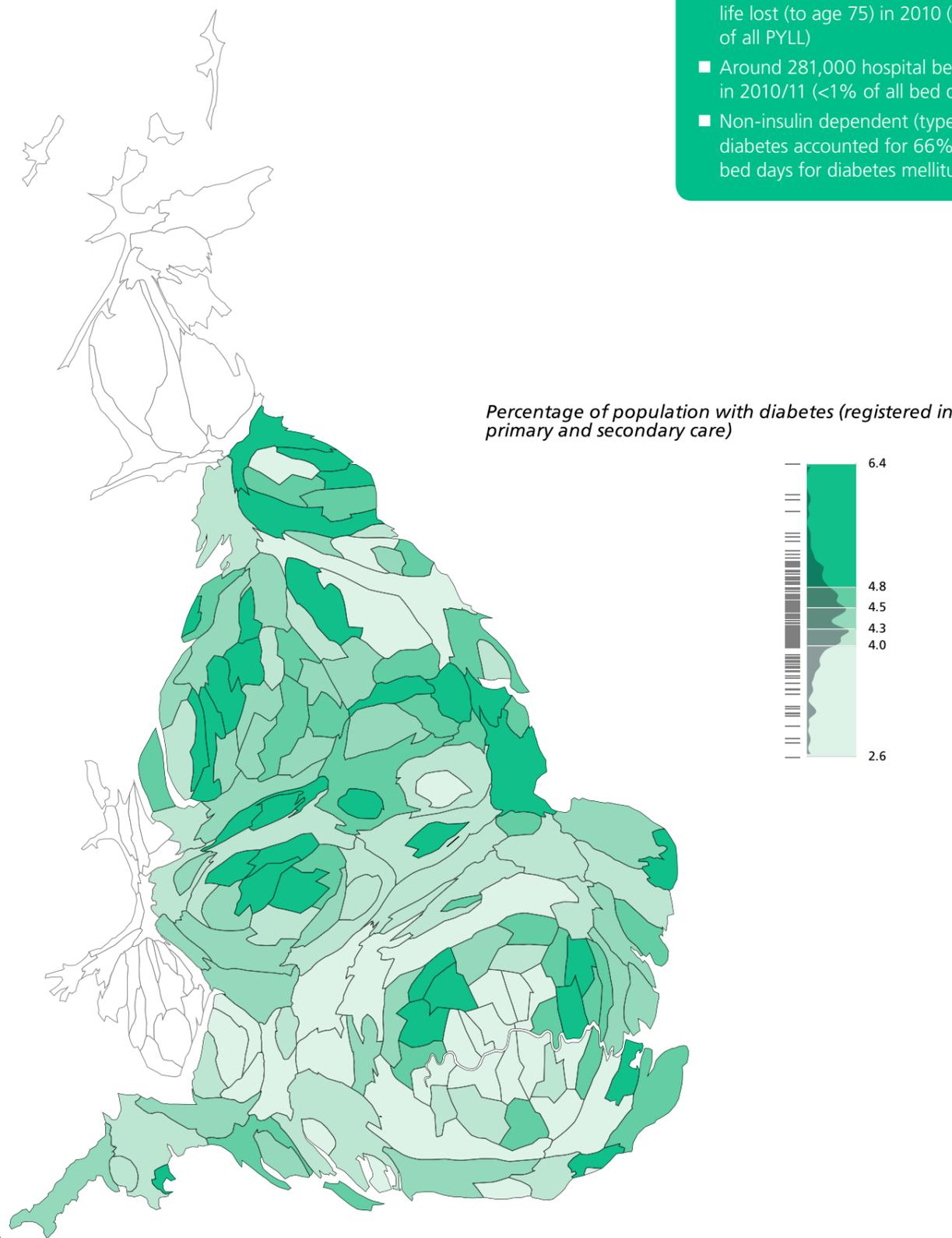**Prevalence of diabetes by type and age, England, 2009/10**
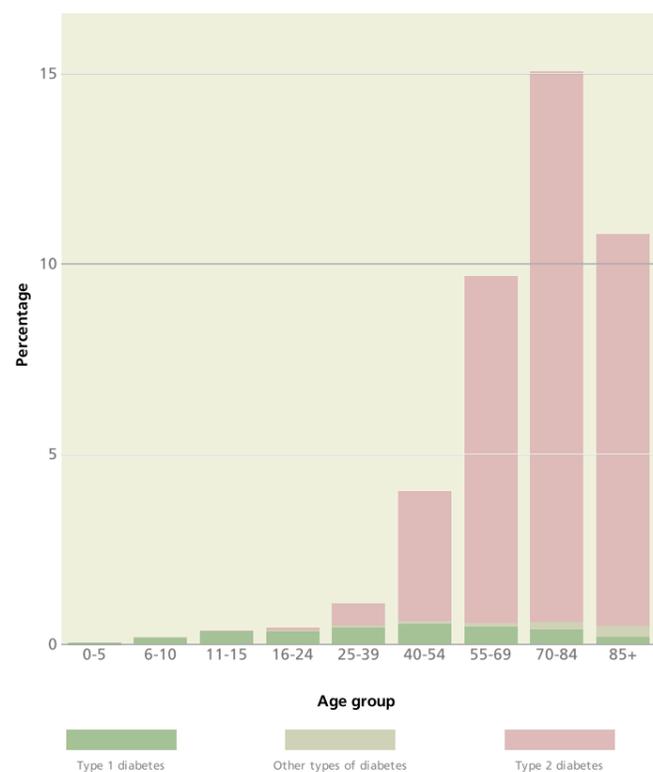
Source: National Diabetes Audit 2009/10, Health and Social Care Information Centre. Crown Copyright © 2012.

Excess mortality in persons with diabetes, compared to the general population, by age and sex, England, November 2008 - October 2009

Source: National Diabetes Audit data matched to ONS death registrations. (Analysis by Health and Social Care Information Centre. Crown Copyright © 2012)

Prevalence of all types of diabetes by primary care trust, England, 2009/10

Percentage of population with diabetes (registered in primary and secondary care)

Source: National Diabetes Audit 2009/10, Health and Social Care Information Centre. Crown Copyright © 2012.

Key facts
- Around 18,100 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 281,000 hospital bed days in 2010/11 (<1% of all bed days)
- Non-insulin dependent (type 2) diabetes accounted for 66% of bed days for diabetes mellitus

Learning disabilities refers to the presence from childhood of significant general difficulty in learning and understanding (see also congenital anomalies), excluding specific learning difficulties such as dyslexia. Around 190,000 adults are registered with a GP as having learning disabilities but it is estimated there are approximately 300,000 children and 900,000 adults affected[1].

The rate of people with learning disability registered with GPs varies geographically by PCT. The highest rate is around three times that of the lowest.

The rate of learning disabilities varies across age ranges. Low numbers in those aged under nine reflects incomplete recognition. The peak in males aged 10–19 years may reflect a new group of survivors of premature birth. The sharp reduction after the age of 49 reflects reduced life expectancy. The median age of death of people with a learning disability is 25 years younger than that of the general population. Poverty, less healthy lifestyles, worse access to services and (for some) genetic predisposition are likely to contribute to this.

To reduce health inequalities, it is helpful to have more responsive services emphasising early detection of problems, such as annual health checks.

1 Learning Disability Observatory. (www.improving healthandlives.org)

Estimated prevalence of persons with learning disabilities by age and sex, England, March 2012
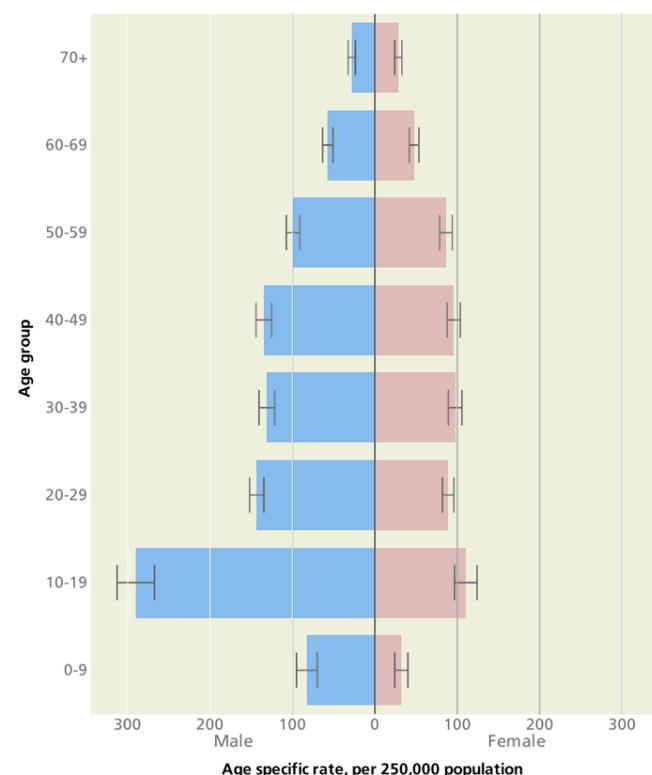
Source: Learning Disability registers for the City of Sheffield (all ages) and the City and County of Leicestershire (aged 20 and over). (Analysis by NEPHO)
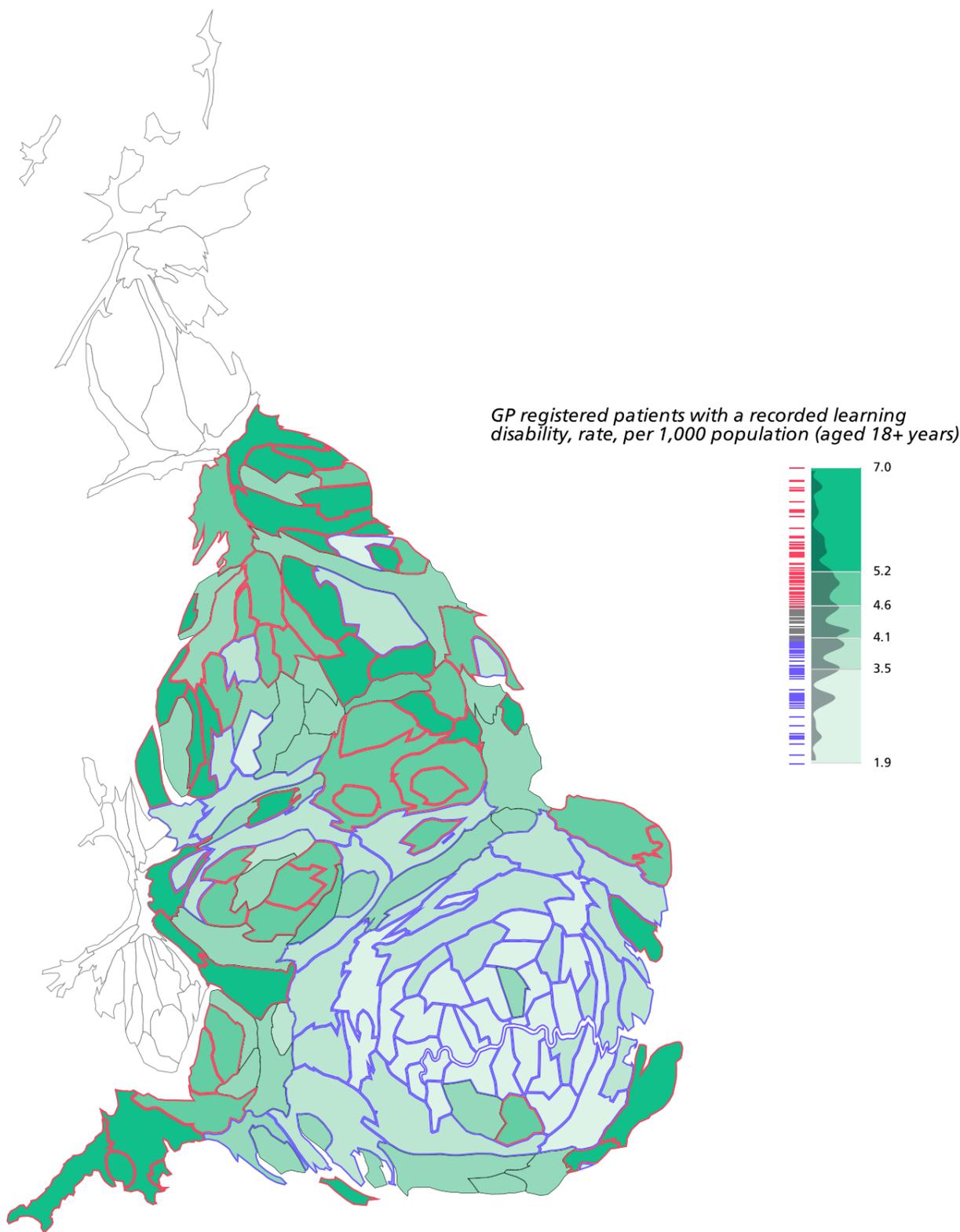
Trend in median age at death for persons with learning disabilities, England, 2006 to 2010

With definite learning disability

No definite learning disability
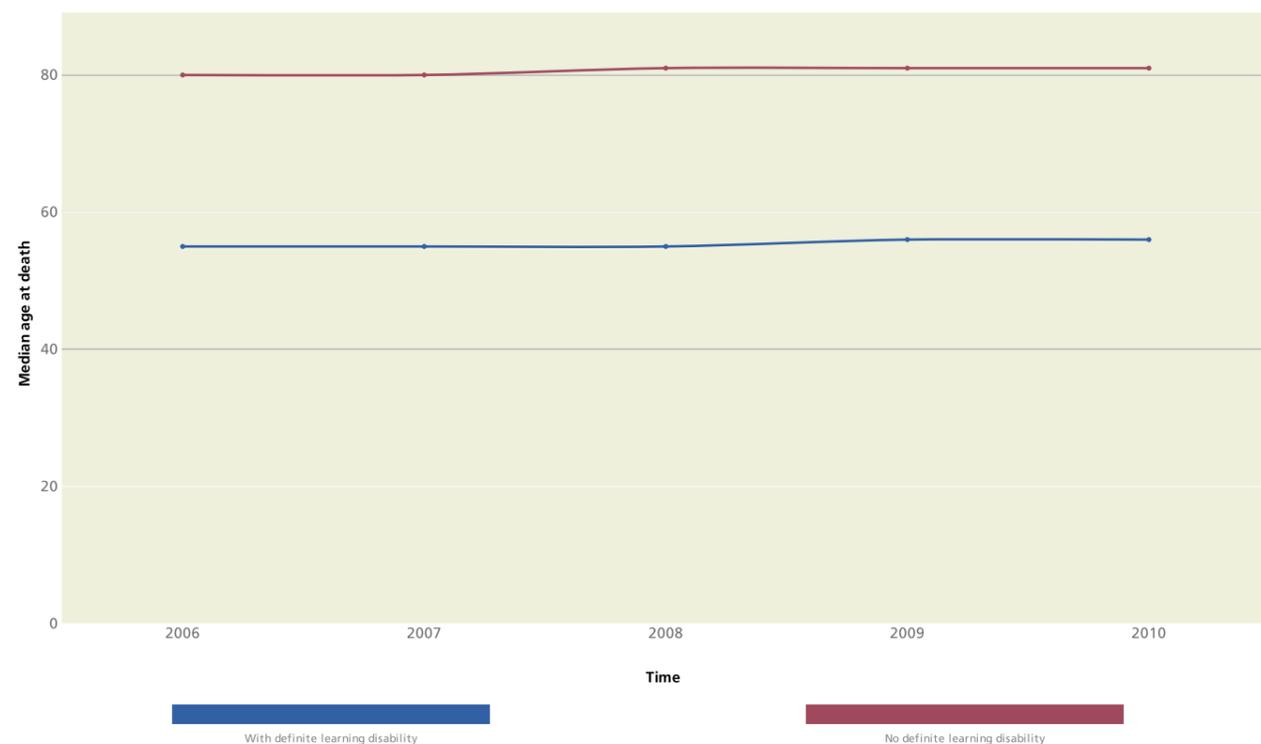
Source: Death registrations and 2006 to 2010 population estimates, ONS. (Analysis by NEPHO)

Prevalence of learning disabilities in persons aged 18 years and over by primary care trust, England, 2010/11

GP registered patients with a recorded learning disability, rate, per 1,000 population (aged 18+ years)

7.0
5.2
4.6
4.1
3.5
1.9

Source: Quality and Outcomes Framework (QOF), Health and Social Care Information Centre. Crown Copyright © 2012. (Provided by NEPHO)
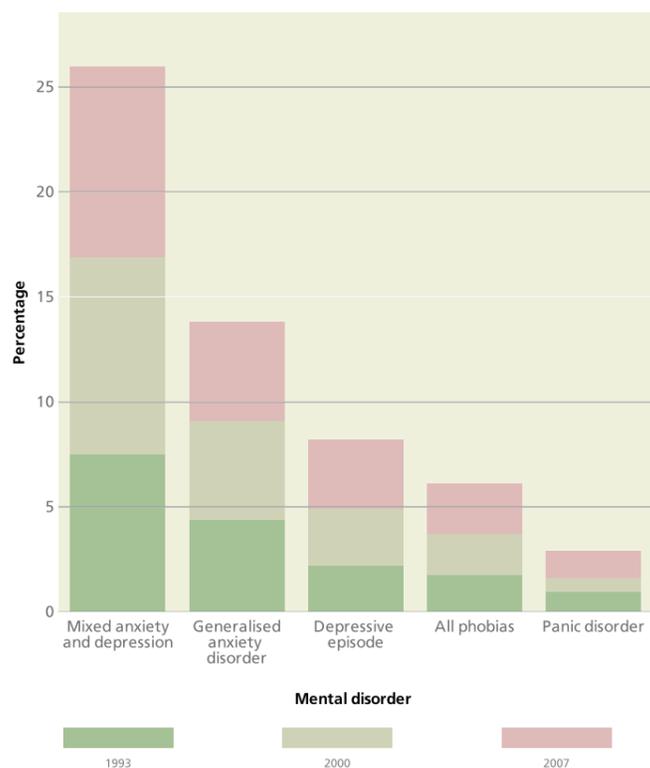
'Mental health problems' describes all diagnosable mental illnesses/disorders, including personality disorders, common mental disorders such as depression and anxiety, developmental disorders and other less common conditions such as psychosis. They vary in severity, may manifest at different ages, may present as behavioural problems and may be acute or chronic. Dementia is examined separately in this report.

The rate of people with severe mental health problems (schizophrenia, bipolar disorder and other psychoses) registered with a GP varies geographically, ranging from 0.5% to 1.5% of those registered (with an average of 0.8%). It is likely that this does not represent the total population with severe mental health problems.

Trends in prevalence and service use for mental health problems have been informed by English psychiatric morbidity surveys since 1993. These studies show a slight increase and, since 2000, a plateauing of common mental disorders in adults. They also show a strong association between deprivation and many mental health problems which are likely to be both a cause and a result of deprivation.
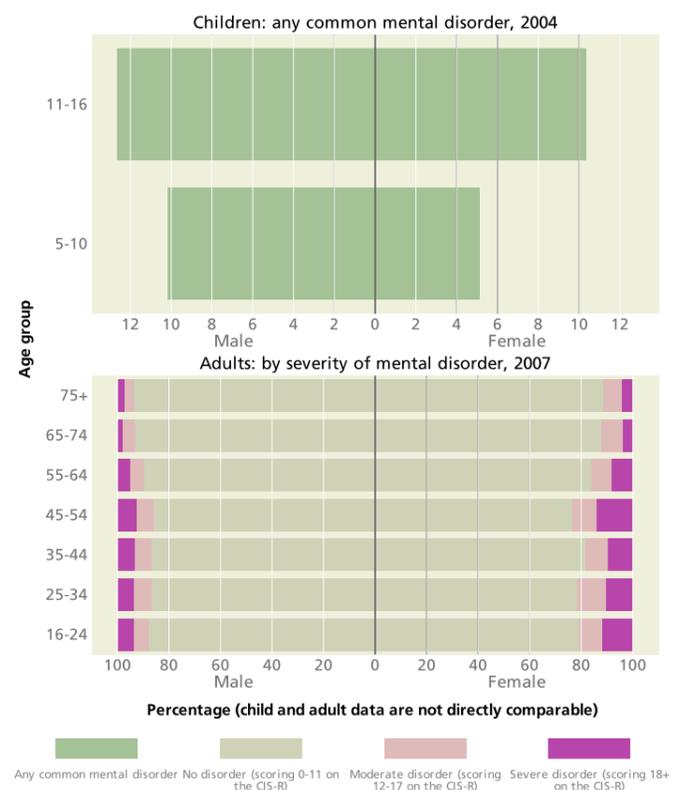
Many evidence-based treatments exist for mental health problems but to be effective these need to be accessible and timely.

Proportion of children and adults who have a common mental disorder by age and sex, England, 2004 and 2007

Children: any common mental disorder, 2004

Adults: by severity of mental disorder, 2007

Percentage (child and adult data are not directly comparable)

Any common mental disorder | No disorder (scoring 0-11 on the CIS-R) | Moderate disorder (scoring 12-17 on the CIS-R) | Severe disorder (scoring 18+ on the CIS-R)

Source: Mental Health of Children and Young People, 2004; Adult Psychiatric Morbidity Survey, 2007. (Provided by Professor Brugha, University of Leicester)

Trend in common mental disorders in persons aged 16 years and over, England, 1993, 2000 and 2007

1993 | 2000 | 2007

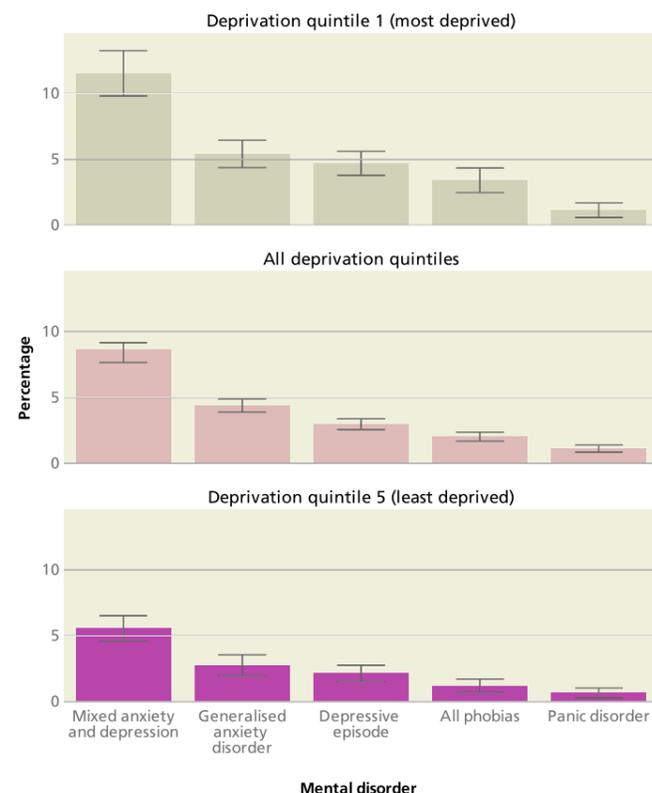*Source: Adult Psychiatric Morbidity Surveys, 1993, 2000, 2007. (Provided by Professor Brugha, University of Leicester)*

Prevalence of specific common mental disorders in persons aged 16 years and over by deprivation, England, 2007

Deprivation quintile 1 (most deprived)

All deprivation quintiles

Deprivation quintile 5 (least deprived)

Source: Adult Psychiatric Morbidity Survey, 2007. (Provided by Professor Brugha, University of Leicester)

Prevalence of severe mental health problems by primary care trust, England, 2010/11
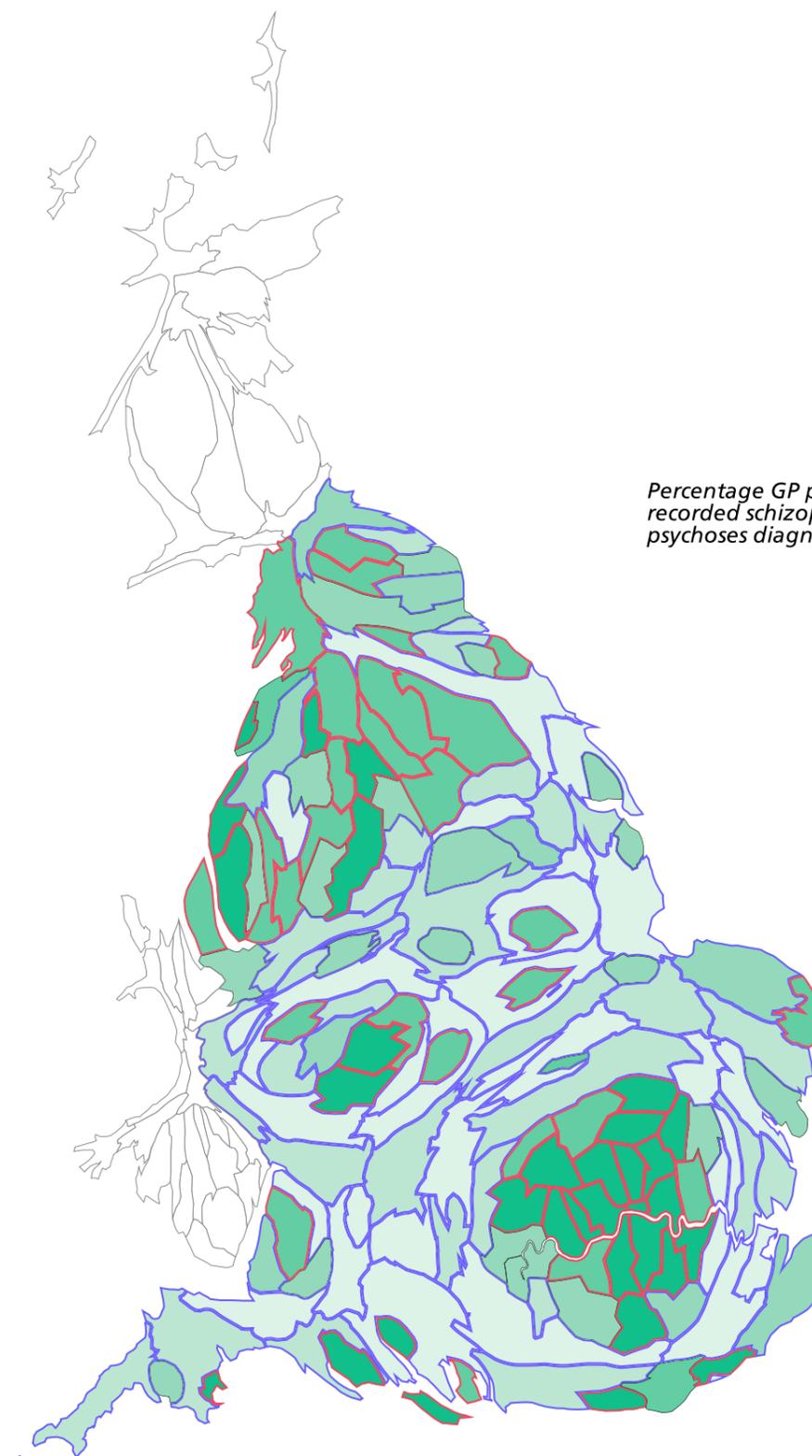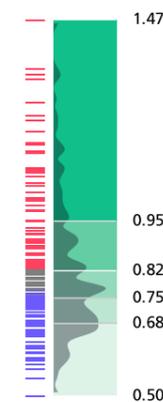
Percentage GP practice registered patients with recorded schizophrenia, bipolar disorder or other psychoses diagnosis

1.47
0.95
0.82
0.75
0.68
0.50

Source: Quality and Outcomes Framework (QOF), Health and Social Care Information Centre. Crown Copyright © 2012. (Provided by NEPHO)

Dementia is a clinical syndrome describing progressive loss of abilities including memory, language, reasoning and activities of daily living. The main causes are Alzheimer's disease and cerebrovascular dementia (which may be experienced in combination). Less common disorders are Lewy body dementia and fronto temporal dementia. Younger adults can be affected by dementia but the major risk factor is age. To understand local burden, crude rates may be more useful than age standardised rates.

Rates (GP registered) vary by Primary Care Trust, with the highest rate being around four times that of the lowest rate. This reflects different rates of diagnosis and variation in the distribution of elderly populations.

Dementia is a terminal disorder, with people living for 7 to 12 years after diagnosis. However, many die with, rather than of, dementia. Crude mortality rates have been increasing substantially faster than age standardised rates, reflecting the aging population and higher numbers of older people with dementia.

To improve the quality of life of people with dementia, there is a need for timely diagnosis and appropriate access to services across health and social care. Integral to this is support for carers.

**Average annual mortality due to dementia by age and sex, England, 2008-10**

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)
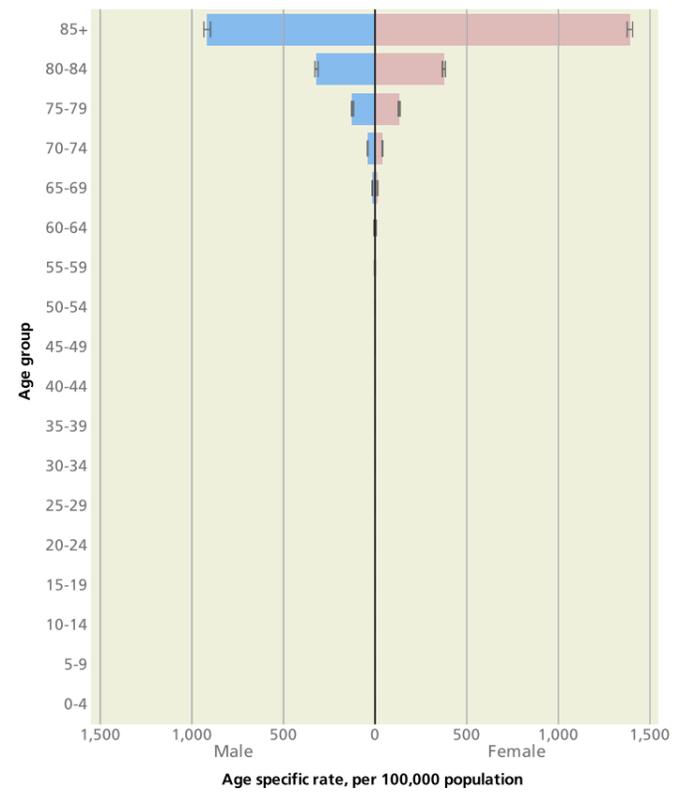
**Trend in mortality due to dementia by sex, England, 2001 to 2010**
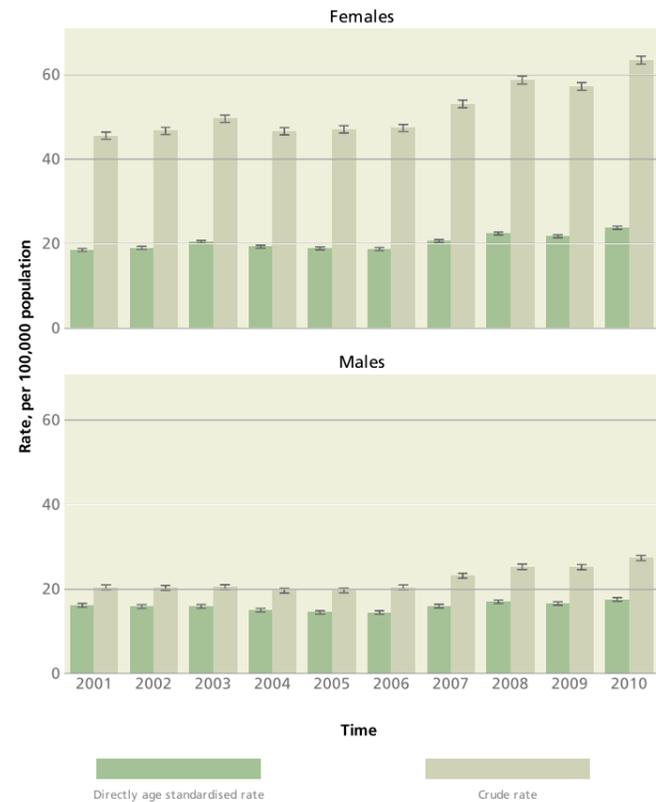
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to dementia by deprivation, England, 2001 to 2010
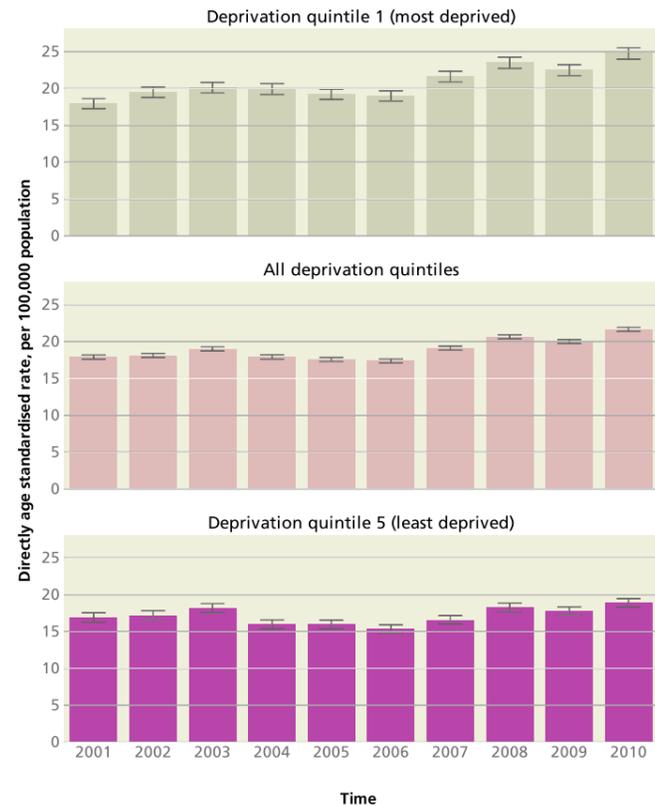
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Prevalence of dementia by primary care trust, England, 2010/11
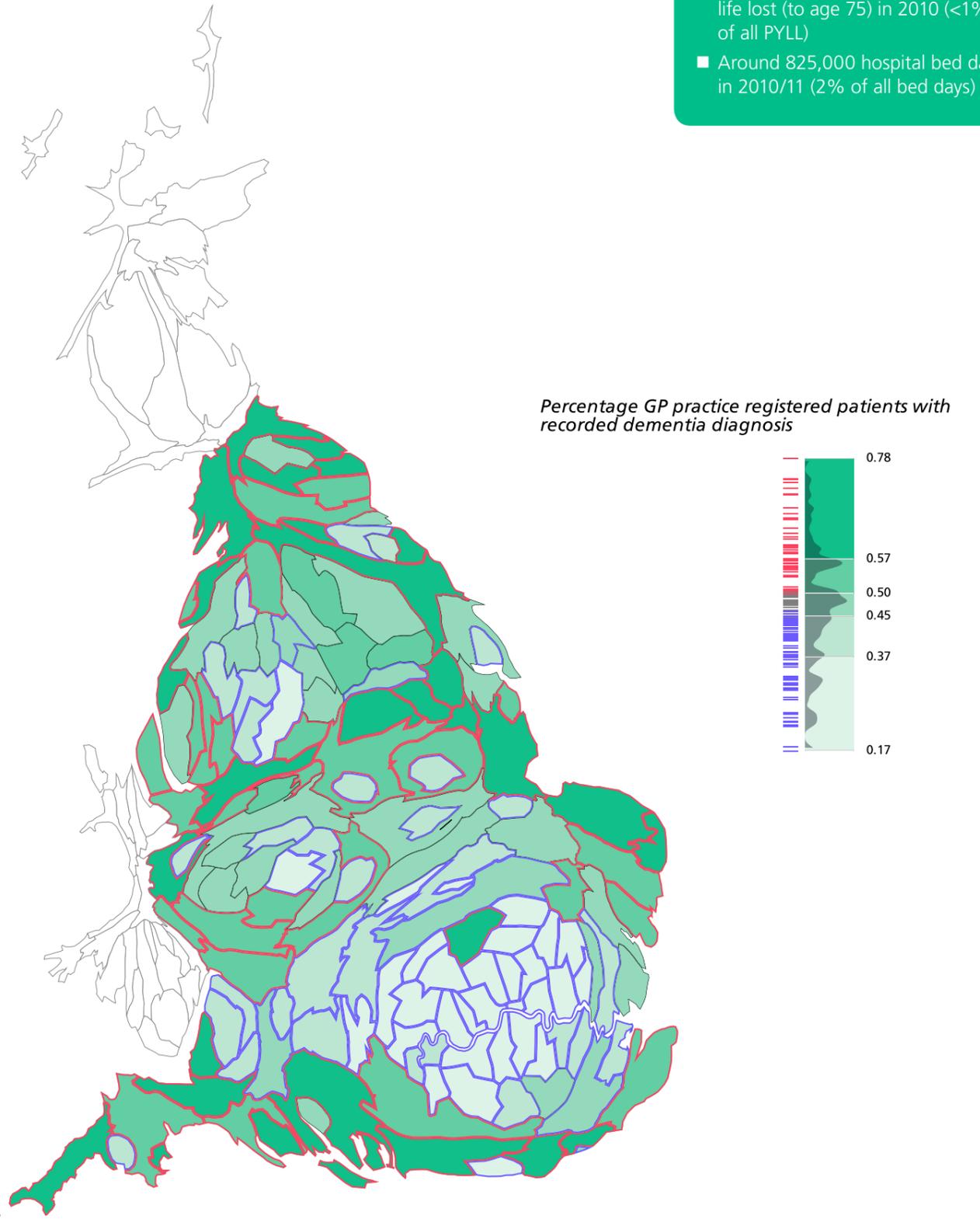
Percentage GP practice registered patients with recorded dementia diagnosis

Source: Quality and Outcomes Framework (QOF), Health and Social Care Information Centre. Crown Copyright © 2012. (Provided by NEPHO)

Key facts
- Around 11,400 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 825,000 hospital bed days in 2010/11 (2% of all bed days)

Sensory organ diseases, such as sight impairment and loss of hearing, are often preventable. National, systematically collected data for sensory organ diseases is currently difficult to obtain.

Individuals with vision below a certain threshold can be offered registration with Social Services. This involves completion of a certificate of vision impairment (CVI) by a consultant ophthalmologist, which includes the cause of sight loss. CVIs are collected centrally but participation in this scheme, and certification, is voluntary,

CVI rates in England increase with age in both sexes, and there is wide geographical variation. Potentially preventable causes include age related macular degeneration (wet and dry), glaucoma and diabetic eye disease. These accounted for 59% of all CVIs in 2010/11.

The National Survey of Hearing and Communication 2011 examined hearing in the over 60s. It showed that 45% of men and 39% of women had some sort of hearing impairment in their 'better hearing' ear. Over 50% of those with severe hearing impairment in their 'better hearing' ear reported not having any hearing aid.

Certification of visual impairment (due to preventable and non-preventable eye diseases) by age and sex, England, 2010/11
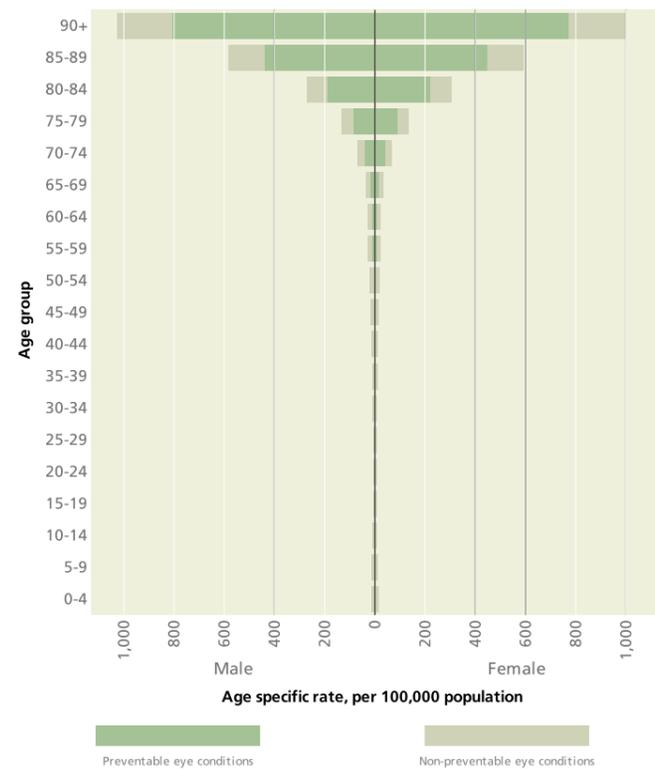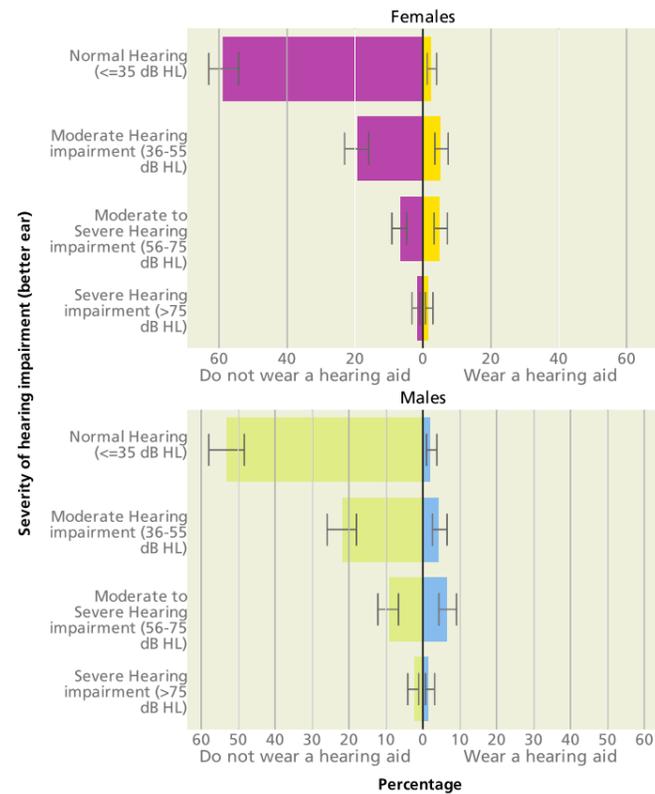

Source: Certificates of Vision Impairment (CVI) - Certifications office (RNIB, Guide Dogs, RCOpth), NIHR Moorfields Biomedical Research Centre.

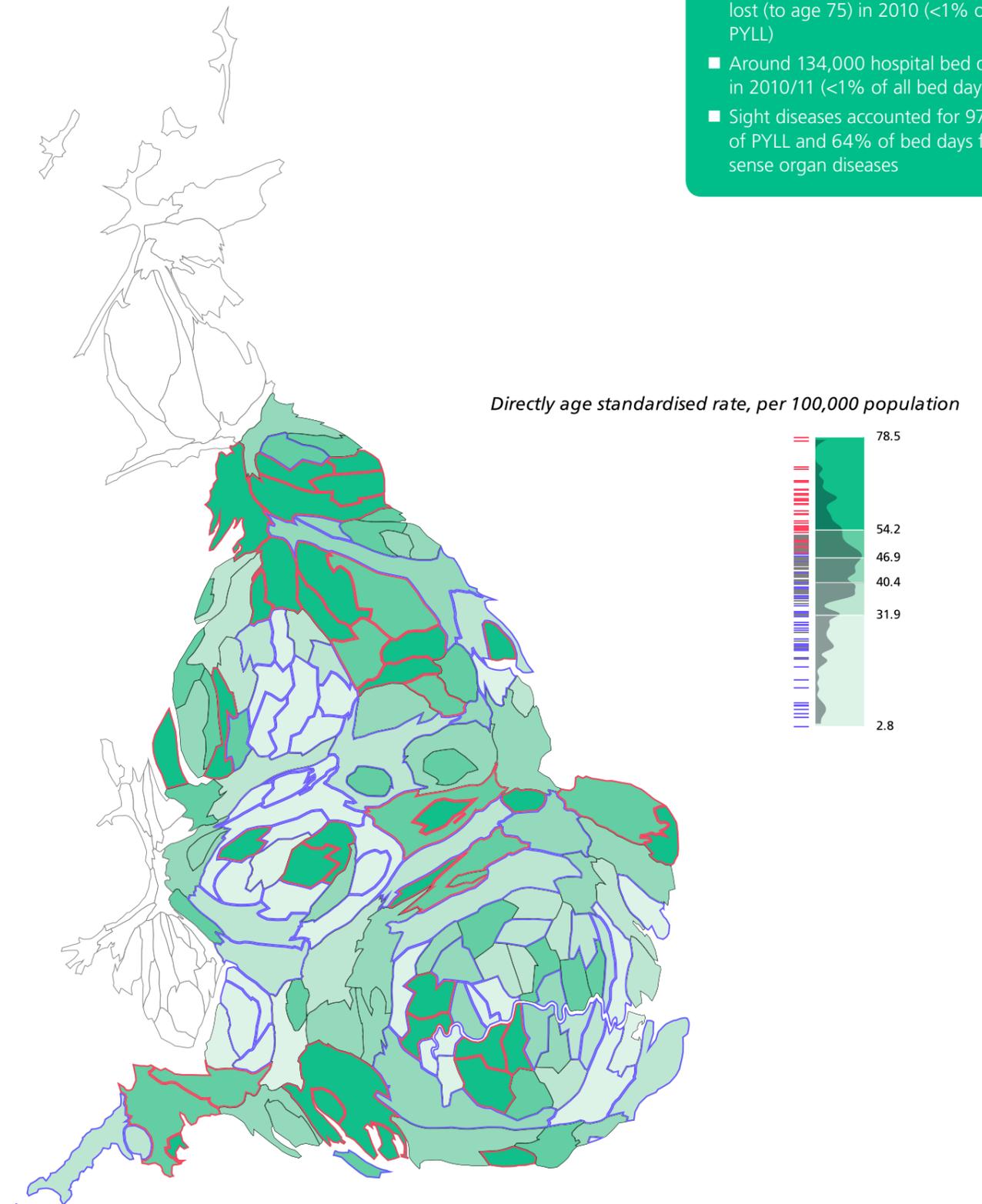**Trend in certification of visual impairment rates, England, 2007/08 to 2010/11**
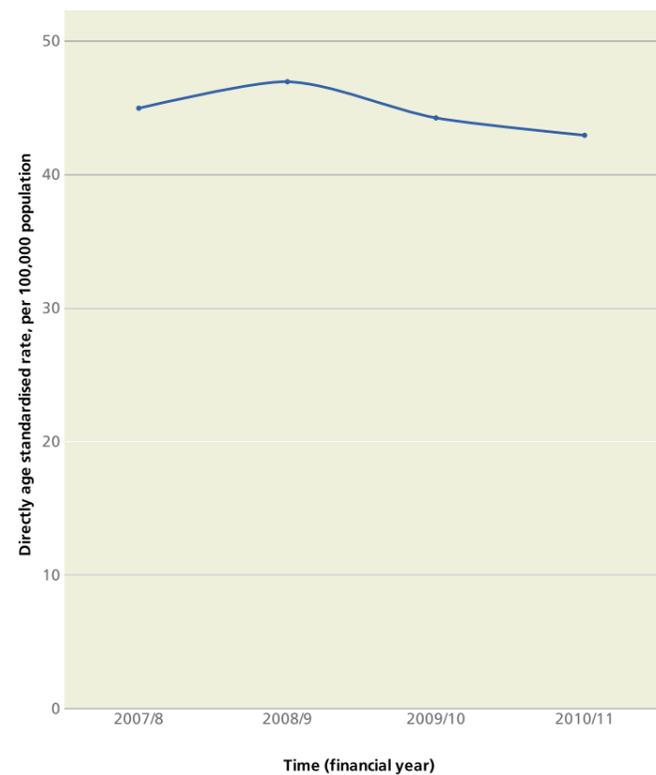
Source: Certificates of Vision Impairment (CVI) - Certifications office (RNIB, Guide Dogs, RCOpth), NIHR Moorfields Biomedical Research Centre.

Over 60s hearing impairment (by severity) with or without hearing aids by sex, 2011


Source: National Survey of Hearing and Communication, 2011. (unpublished, funded by the CSO office and the NHS).

Certification of visual impairment rates by primary care trust, England, 2010/11

Directly age standardised rate, per 100,000 population

78.5
54.2
46.9
40.4
31.9
2.8

Source: Certificates of Vision Impairment (CVI) - Certifications office (RNIB, Guide Dogs, RCOpth), NIHR Moorfields Biomedical Research Centre.

Key facts
- Less than 300 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 134,000 hospital bed days in 2010/11 (<1% of all bed days)
- Sight diseases accounted for 97% of PYLL and 64% of bed days for sense organ diseases
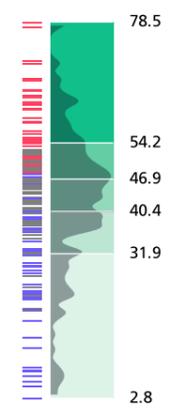
Cardiovascular disease – all
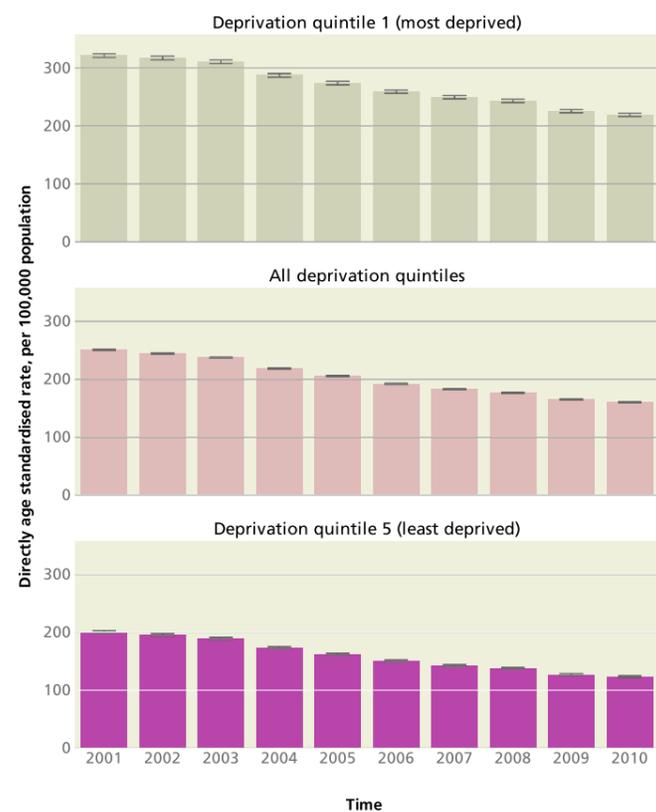
Mortality, morbidity and wellbeing

Cardiovascular disease (CVD) is a general term for a disease of the heart or blood vessels. In 2010, CVD was responsible for around one in three premature deaths (under 75) in men and one in five premature deaths in women. Coronary heart disease (CHD) and stroke are the main causes of CVD mortality.

In 2010, 35% of deaths in men, and 16% in women, from CVD occurred in under 75s, though the premature mortality rate from CVD fell by 36% between 2001 and 2010. CVD mortality varies geographically by local authority, with the highest rate 2.5 times that of the lowest. There is a clear North/South divide, and rates are 1.4 times higher in the most deprived areas than the least deprived.

The majority of people affected by CVD are from a white ethnic background, with crude rates higher than in other ethnic groups. However, CVD risk is higher for Pakistani and Irish males.

Most deaths due to CVD could be prevented through lifestyle changes. Identifying people with medical risks (e.g. diabetes, high blood pressure, high cholesterol, familial hypercholesterolemia, previous CVD event) and ensuring they receive effective treatment will help to reduce mortality due to CVD.

Average annual mortality due to cardiovascular diseases (and sub-categories) by age and sex, England, 2008-10
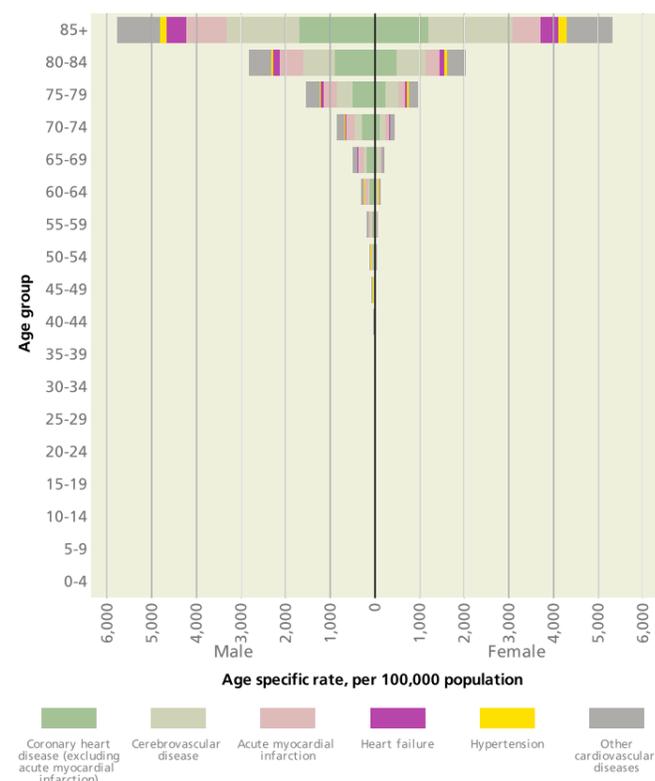
*Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)*

Trend in mortality due to cardiovascular diseases by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Prevalence of cardiovascular disease in persons aged 16 years and over by sex and selected ethnic groups, England, 2004
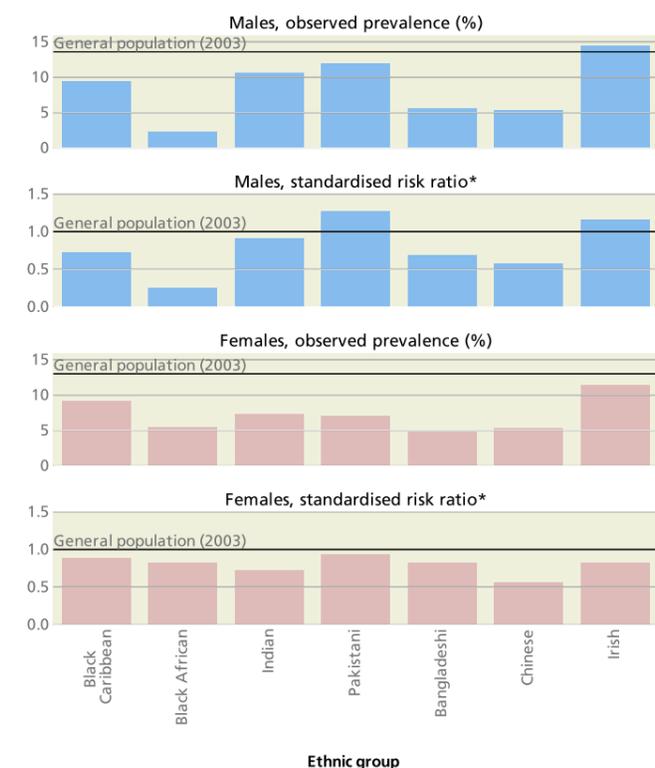

*Source: Health Survey for England 2003, 2004 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO). *Standardised risk ratios are based on ethnic group age standardised prevalence compared with general population*

Estimated prevalence of cardiovascular diseases in persons aged 16 years and over by upper tier local authority, England, 2009
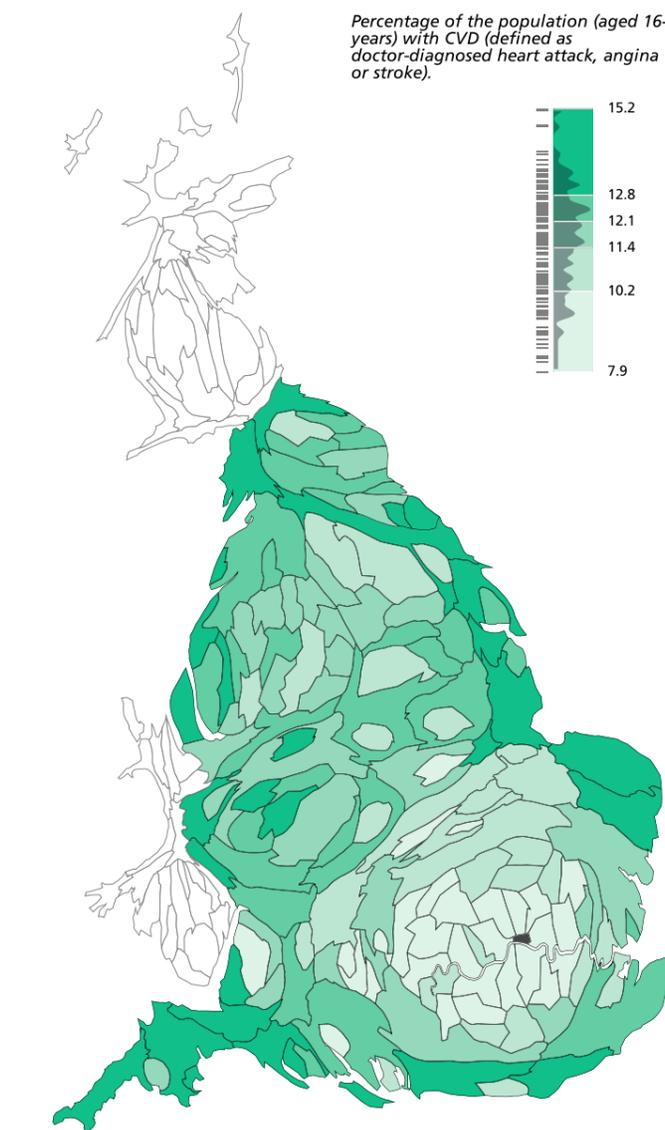
Source: APHO CVD prevalence model. (Provided by ERPHO)

Average annual mortality due to cardiovascular diseases by upper tier local authority, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)
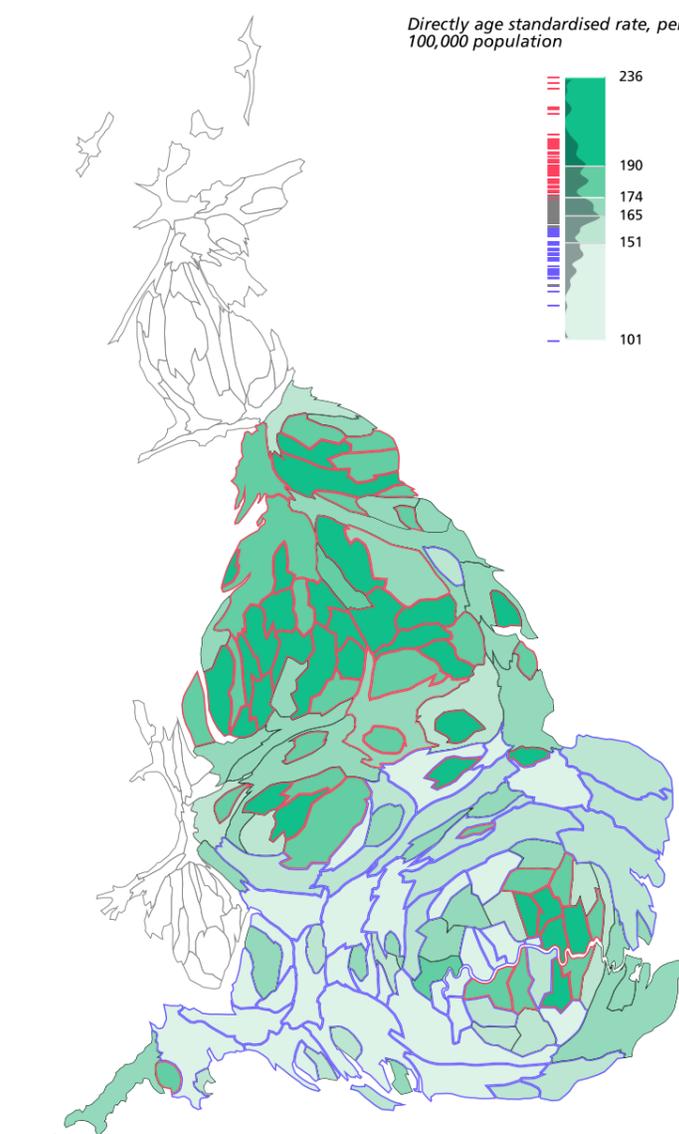
Key facts

- Around 429,800 potential years of life lost (to age 75) in 2010 (19% of all PYLL)
- Around 5,663,000 hospital bed days in 2010/11 (13% of all bed days)
- Main causes – PYLL: coronary heart disease including AMI (52%); stroke (17%)
- Main causes – bed days: stroke (30%); coronary heart disease including AMI (21%)

Coronary heart disease (CHD) occurs when the coronary arteries are interrupted by a build-up of fatty substances (aheroma). This can cause a heart attack. CHD was the biggest single cause of death in 2010, responsible for around 65,000 deaths.

In 2010, CHD accounted for 44% of all mortality from cardiovascular disease (CVD), and 54% of under 75 deaths. 31% of all CHD mortality was in under 75s.

Estimated prevalence rates of CHD generally reflect the North/South divide seen for all cardiovascular diseases. People of South Asian origin are at higher age adjusted risk of CHD than the general population.

Effective identification and treatment of CHD (particularly in primary care) should continue the reduction in CHD mortality. Early identification and treatment of associated risk factors such as high blood cholesterol will support this.

The incidence of CHD could substantially reduce with wider adoption of preventative behaviours such as eating a healthy diet, maintaining a healthy weight, exercising regularly, not smoking and avoiding harmful drinking.

Prevalence of coronary heart disease (angina or heart attack) by age and sex, England, 2006
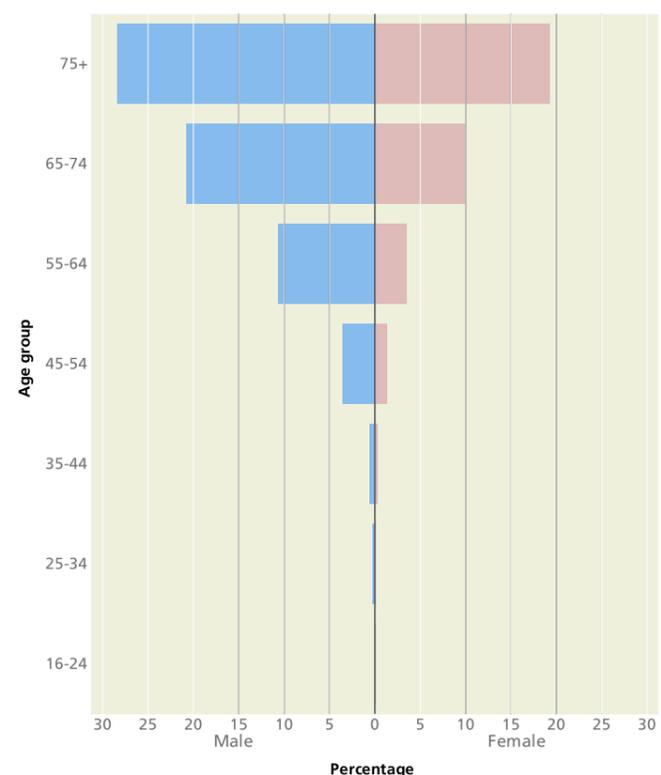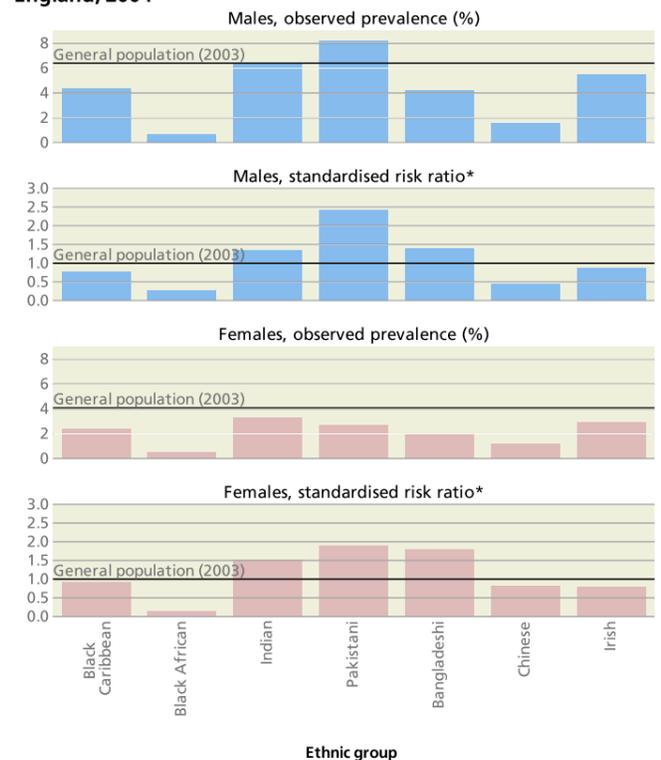

Source: Health Survey for England 2006 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO)

Trend in prevalence of coronary heart disease ((angina or heart attack) in persons aged 16 years and over by sex, England, 1994 to 2006
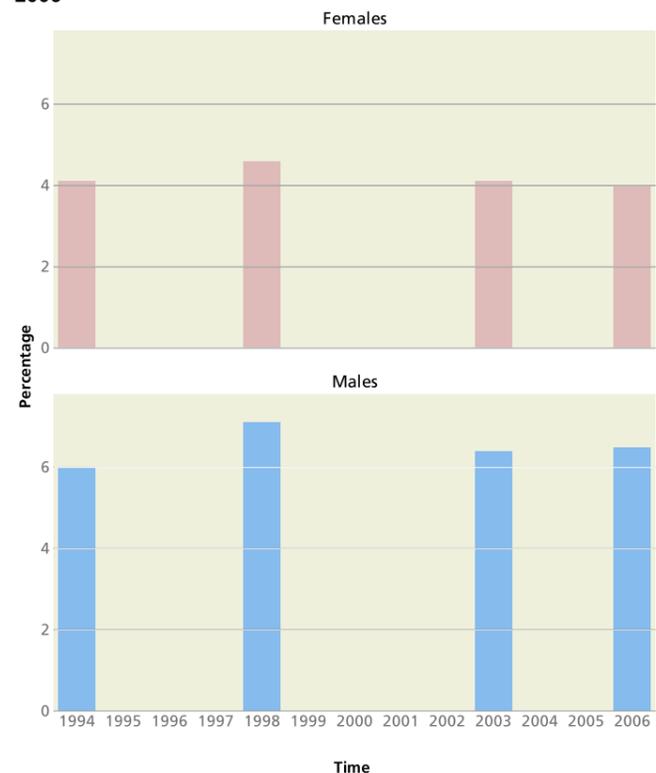
Source: Health Survey for England 1994, 1998, 2003, 2006 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO)

Prevalence of coronary heart disease (angina or heart attack) in persons aged 16 years and over by sex and selected ethnic groups, England, 2004

*Source: Health Survey for England 2003, 2004 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO). *Standardised risk ratios are based on ethnic group age standardised prevalence compared with general population*

Estimated prevalence of coronary heart disease (angina or heart attack) in persons aged 16 years and over by upper tier local authority, England, 2009

Key facts

- Around 222,900 potential years of life lost (to age 75) in 2010 (10% of all PYLL)
- Around 1,166,000 hospital bed days in 2010/11 (3% of all bed days)
- Acute myocardial infarction accounted for 41% of PYLL and 33% of bed days for coronary heart disease

Percentage of the population (aged 16+) with CHD (defined as doctor-diagnosed heart attack or angina)

Source: APHO CHD prevalence model. (Provided by ERPHO)

Cardiovascular disease (CVD) includes cerebrovascular diseases (CBVD). Stroke is the most common CBVD. The two main types are ischaemic stroke (85%) where a clot blocks an artery carrying blood to the brain and haemorrhagic stroke (15%) caused by bleeding into the brain. The risk of ischaemic stroke increases with age. Haemorrhagic strokes tend to occur in younger people and are more often fatal or severely disabling than ischaemic stroke.

There were 74,000 emergency admissions for stroke in 2010/11, 89% of all CBVD emergency admissions. Most people with severe strokes survive to admission. Rates of emergency admissions were lower in 2010/11 than in 2001/02, but have shown an increase since 2007/08. This is likely to be due to raised public awareness of symptoms and better coding for admissions.

Hospital emergency admission rates for stroke vary geographically by PCT with the highest rate almost 3 times that of the lowest. The geographical distribution of stroke reflects that of risk factors, particularly high blood pressure.

Wider adoption of preventative behaviours will help to reduce the population risk of stroke. Effective secondary prevention for high risk groups e.g. people with high blood pressure, cholesterol levels and/or a history of CVD will also reduce levels of illness and mortality.

Emergency hospital admissions due to stroke by age and sex, England, 2010/11
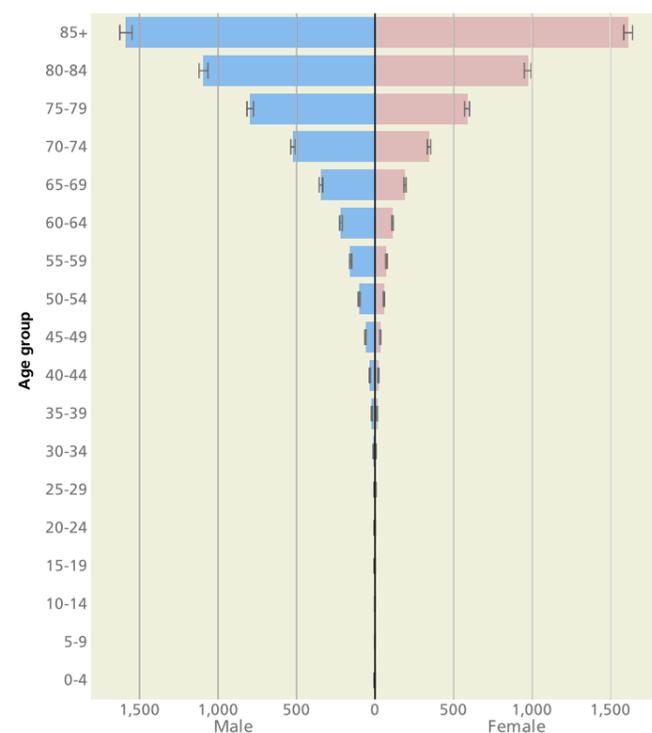
Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Trend in rate of emergency hospital admissions due to stroke, England, 2001/02 to 2010/11
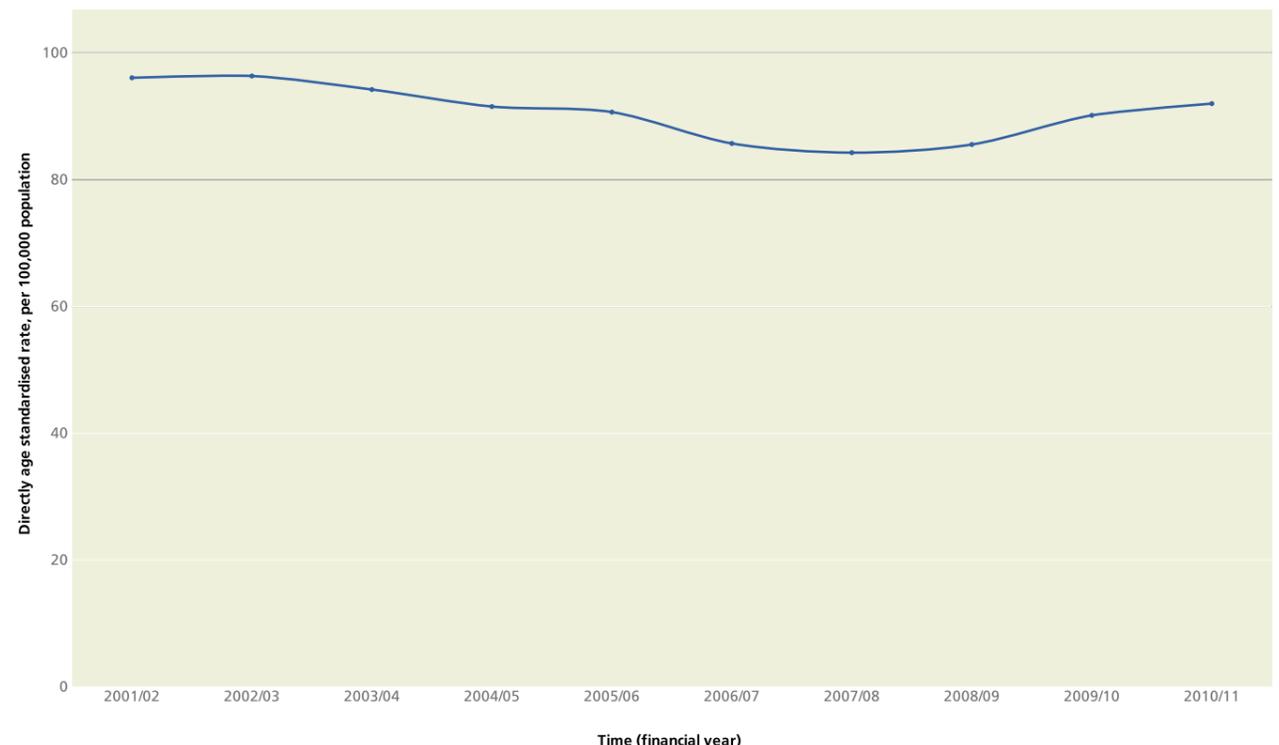
Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre.Crown Copyright © 2012. 2001 to 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Rate of emergency hospital admissions due to stroke by upper tier local authority, England, 2010/11
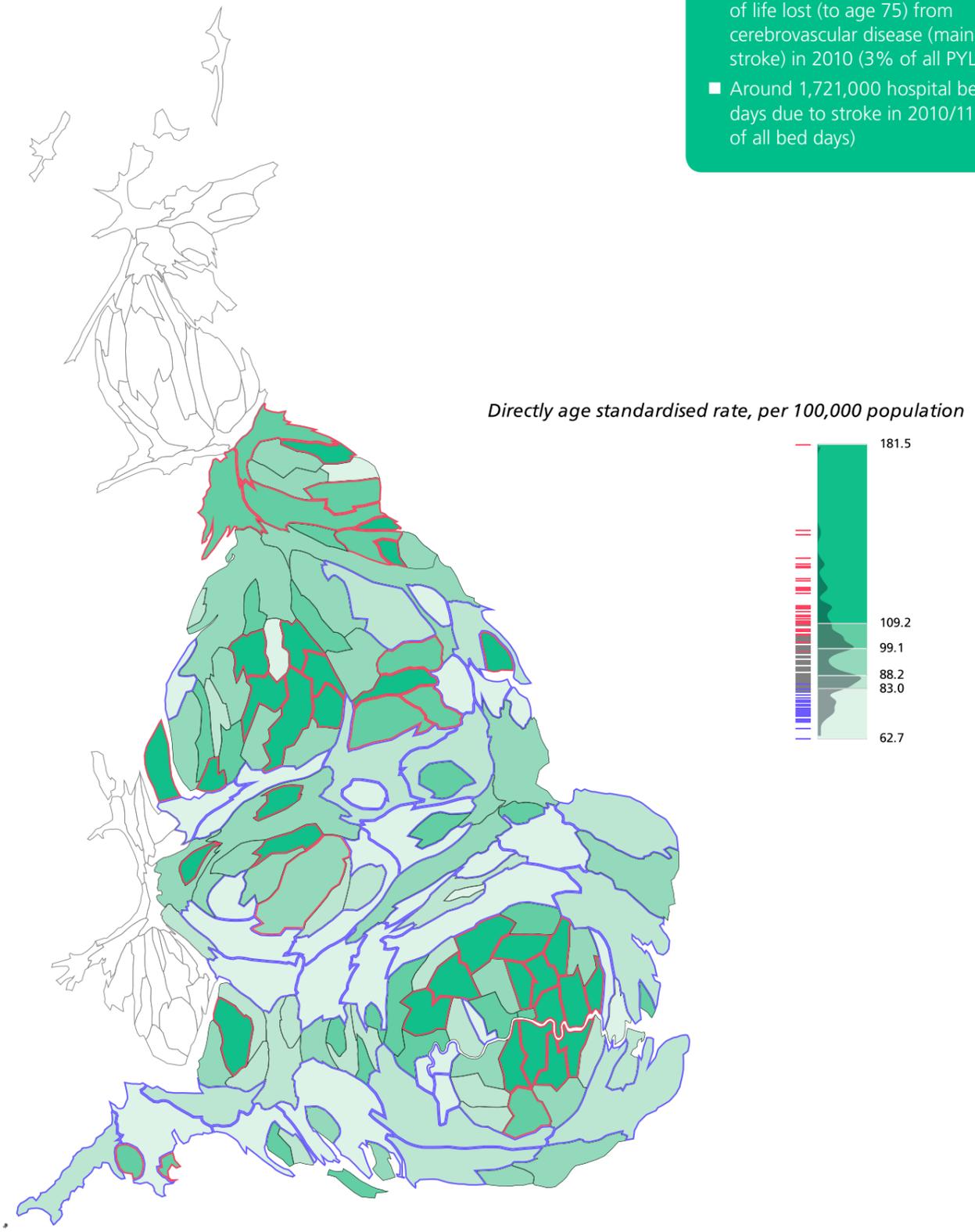
Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Key facts
- Around 74,400 potential years of life lost (to age 75) from cerebrovascular disease (mainly stroke) in 2010 (3% of all PYLL)
- Around 1,721,000 hospital bed days due to stroke in 2010/11 (4% of all bed days)

Respiratory diseases affect the airways, lungs and respiratory muscles that are involved in gas exchange. They include both infectious diseases and chronic respiratory diseases such as Chronic Obstructive Pulmonary Disorder (COPD) and asthma. They are among the most common causes of death in young infants and the very old.

Exposure to occupational hazards, urban air pollution, smoking and second-hand smoke (which increases risk of acute bronchiolitis in infants) all increase the risk of respiratory disease.

Mortality due to respiratory diseases varies geographically, reflecting the urban/rural split and smoking patterns. An overall reduction over time is likely to be influenced by reductions in smoking. In 2010, infectious respiratory diseases accounted for over 40% of all mortality due to respiratory diseases.
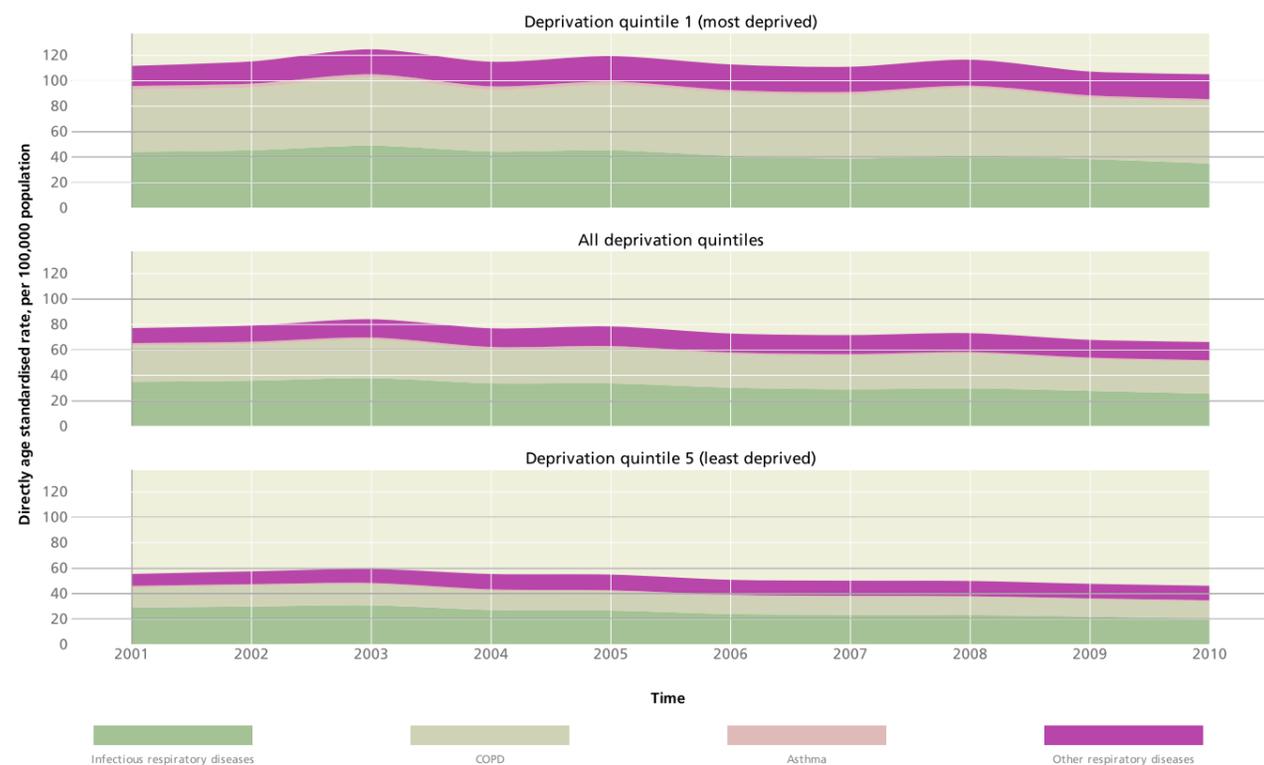
Respiratory health can be protected by ensuring appropriate standards for air pollution and occupational hazards are monitored and enforced. This is conducted through the Health and Safety Executive (HSE) and local environmental health. Respiratory health is also supported by promoting smoking cessation and ensuring high uptake rates for pneumococcal and annual influenza vaccinations.

Annual average mortality due to respiratory diseases (and sub-categories) by age and sex, England, 2008-10
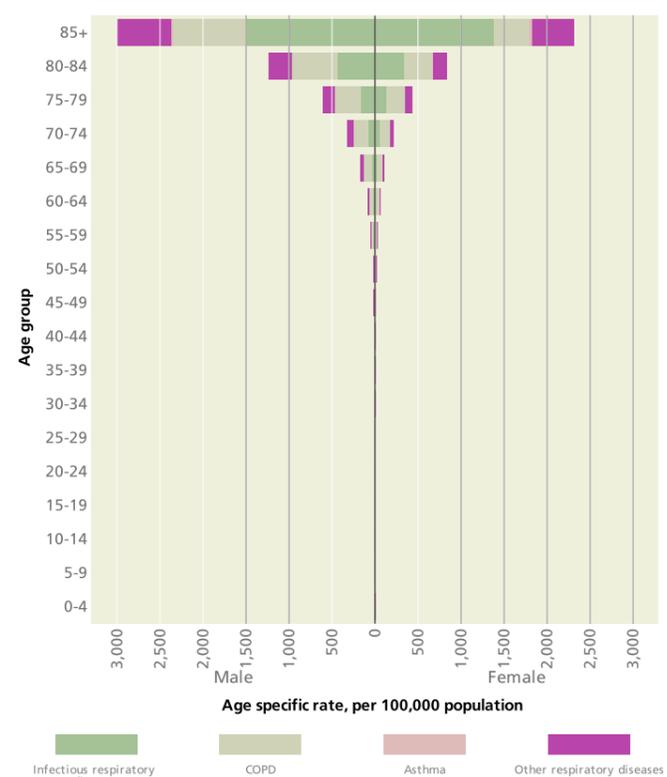
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to respiratory diseases (and sub-categories) by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to respiratory diseases by upper tier local authority, England, 2008-10
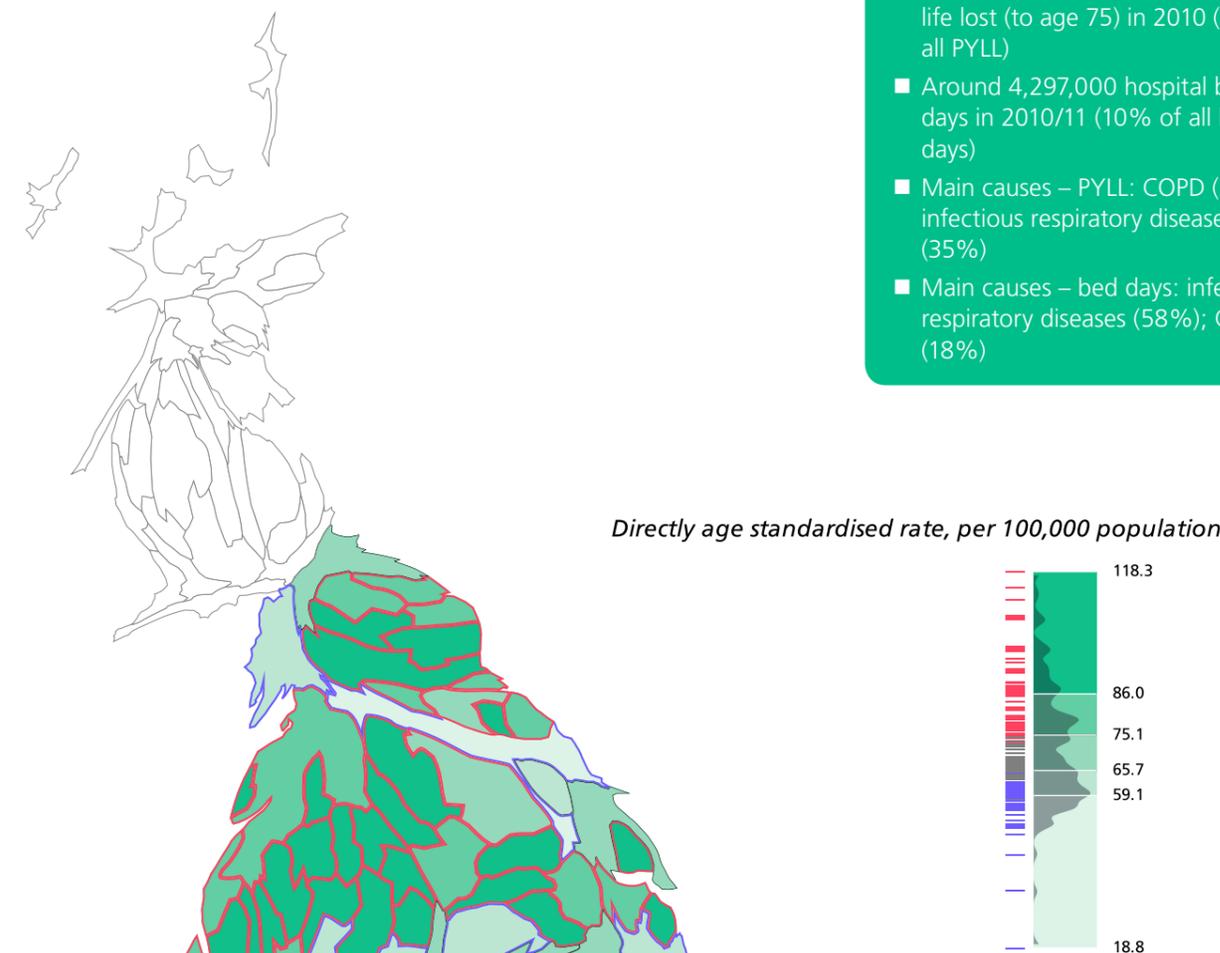
Directly age standardised rate, per 100,000 population

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 144,300 potential years of life lost (to age 75) in 2010 (6% of all PYLL)
- Around 4,297,000 hospital bed days in 2010/11 (10% of all bed days)
- Main causes – PYLL: COPD (38%); infectious respiratory diseases (35%)
- Main causes – bed days: infectious respiratory diseases (58%); COPD (18%)

Chronic Obstructive Pulmonary Disease (COPD) is a group term for some chronic lung diseases such as chronic bronchitis and emphysema. Asthma also affects breathing due to inflammation of the airways, and triggers can cause acute attacks.

Geographical patterns of COPD reflect smoking patterns and exposure to some occupational hazards. Both COPD and asthma (in children and adults) exhibit a clear relationship with deprivation, with higher rates of both in the most deprived areas.

The most common cause of COPD is smoking. Smoking cessation leads to a gradual reduction in risk. The most effective preventative approach for smokers is to encourage smoking cessation.

For those with COPD, secondary prevention, such as quitting smoking and receiving influenza vaccinations, is advisable. Onset of asthma can occur at any age. Around one third of childhood-onset asthmatics remain symptomatic into adulthood. Neither COPD nor asthma can be cured, but symptoms (particularly for asthma) can be treated.
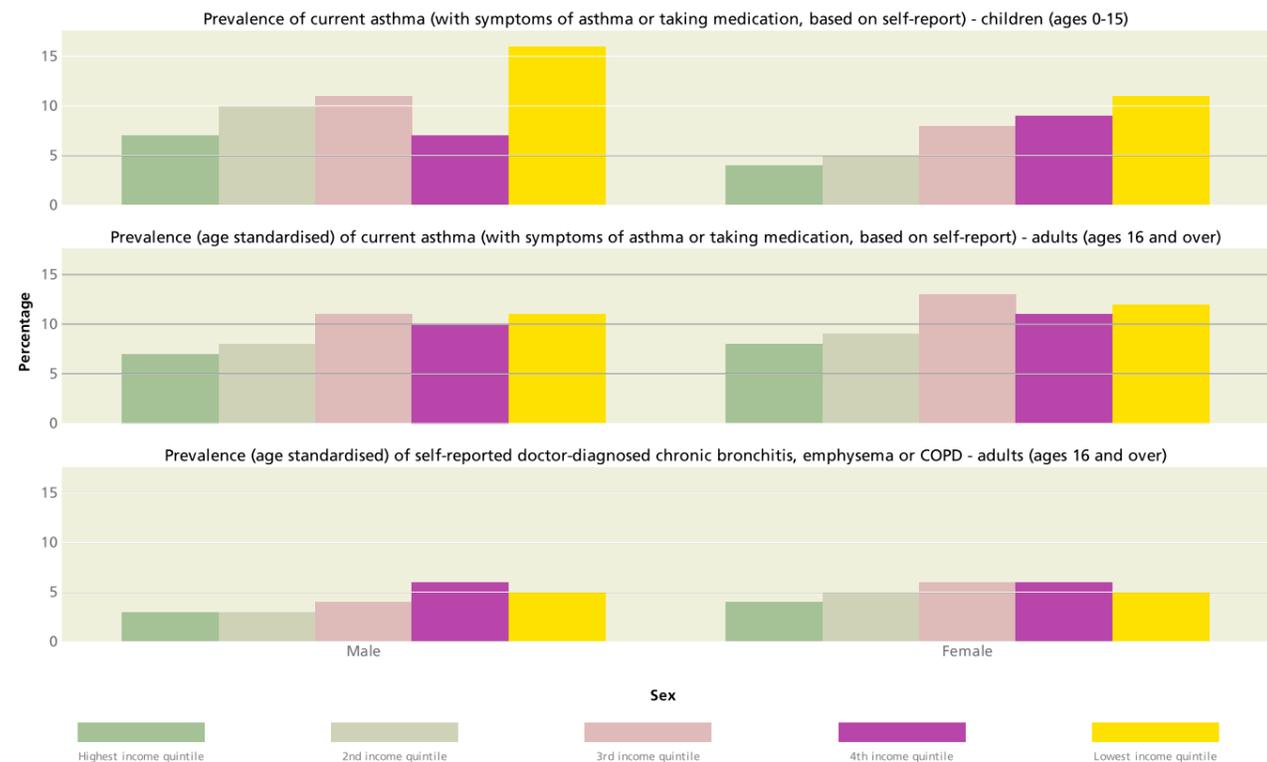
For asthma, controlling exposure to triggers, particularly second-hand smoke and air pollution, will help prevent acute events. Given effective symptom control exists, early identification and provision of integrated care models is key to managing asthma.

Prevalence of asthma and COPD by age and sex, England, 2010
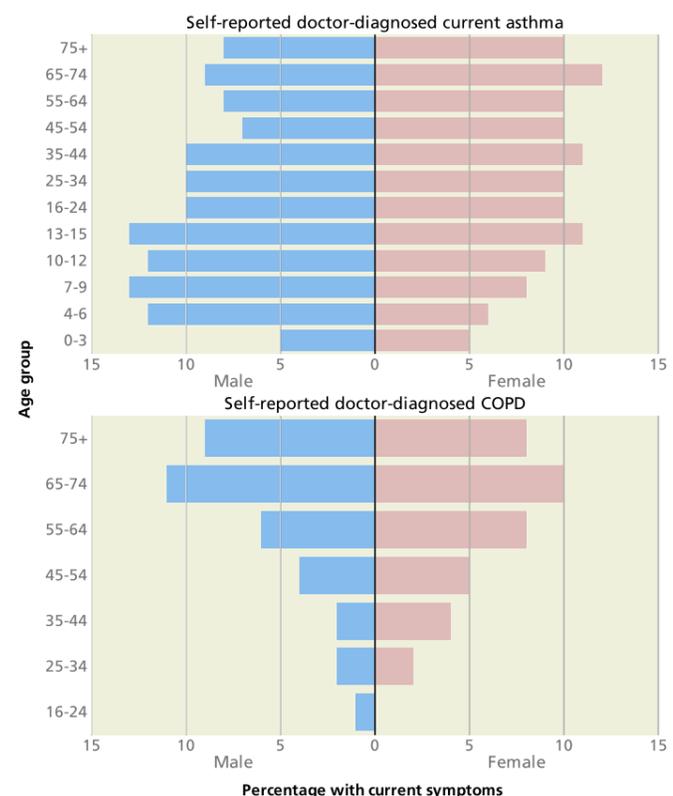
Self-reported doctor-diagnosed current asthma

Self-reported doctor-diagnosed COPD

Source: Health Survey for England 2010 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO)

Prevalence of asthma and COPD by sex and equivalised household income, England, 2010

Prevalence of current asthma (with symptoms of asthma or taking medication, based on self-report) - children (ages 0-15)

Prevalence (age standardised) of current asthma (with symptoms of asthma or taking medication, based on self-report) - adults (ages 16 and over)

Prevalence (age standardised) of self-reported doctor-diagnosed chronic bronchitis, emphysema or COPD - adults (ages 16 and over)

Highest income quintile · 2nd income quintile · 3rd income quintile · 4th income quintile · Lowest income quintile

Source: Health Survey for England 2010 Copyright © 2012, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved. (Provided by ERPHO)

Estimated prevalence of COPD in persons aged 16 years and over by upper tier local authority, England, 2009

Percentage of population (aged 16 years and over) with chronic bronchitis, emphysema or COPD
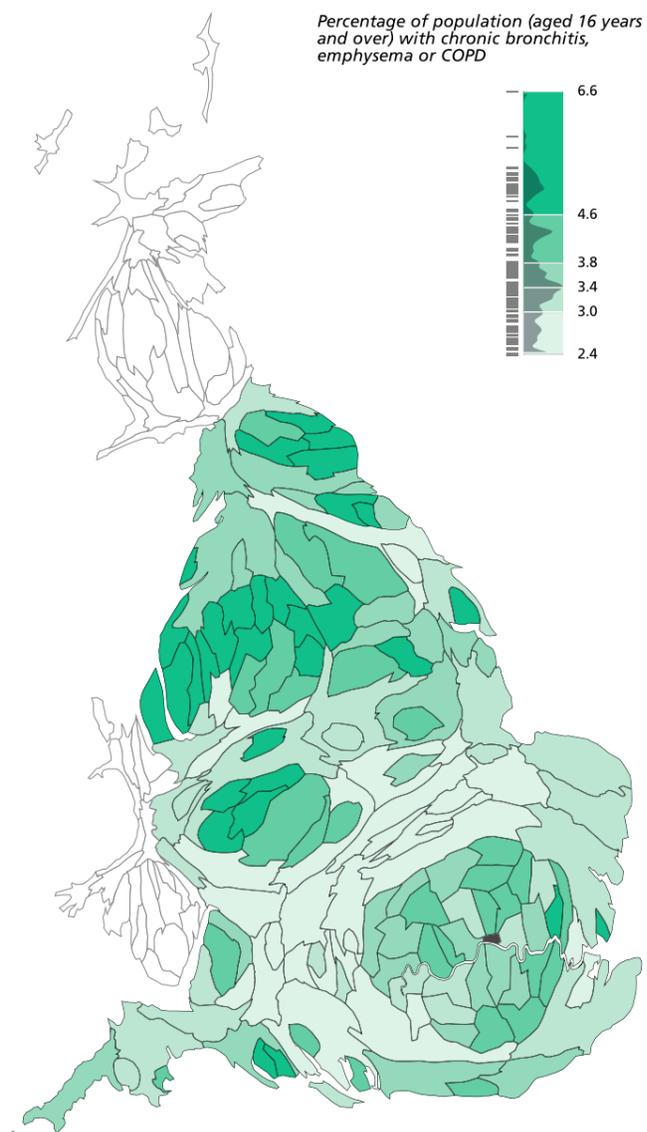
Source: APHO COPD prevalence model. (Provided by ERPHO)

Rate of emergency hospital admissions for asthma in 0 to 17 years olds by primary care trust, England, 2010/11
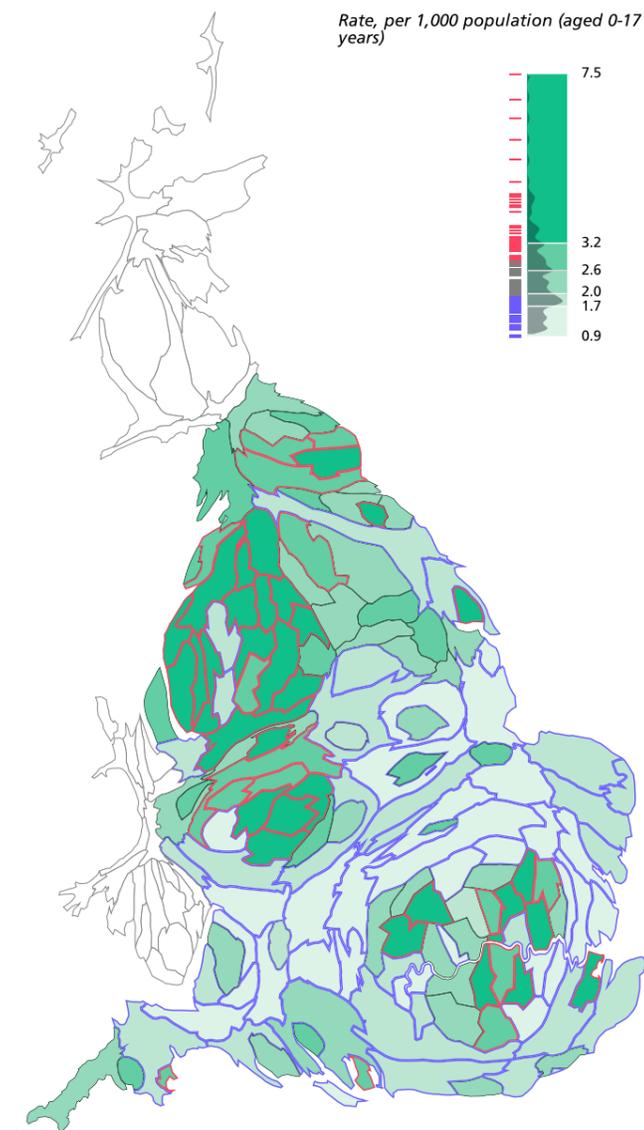
Rate, per 1,000 population (aged 0-17 years)

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre.Crown Copyright © 2012. 2010 population estimates supplied by ONS. (Provided by Chimat)

Key facts

- Around 54,800 potential years of life lost (to age 75) in 2010 and 777,000 hospital bed days in 2010/11 due to COPD (2% of all PYLL / bed days)
- Around 6,600 potential years of life lost (to age 75) in 2010 and 163,000 hospital bed days in 2010/11 due to asthma (<1% of all PYLL / bed days)

This section refers to all disorders in the ICD10 chapter 'Diseases of the digestive system', excluding diseases of the oral cavity, salivary glands and jaws, plus 'oesophageal varices' as part of the Gastrointestinal (GI) bleeding category.

There has been a slight downward trend in mortality from most digestive diseases in recent years. The notable exception is mortality from cirrhosis of the liver, which showed a generally upward trend, with rates in 2010 significantly higher than those of 2001. In 2010, the rate of digestive diseases in the most deprived areas was 2.6 times that of the least deprived. Making an equivalent comparison, mortality from cirrhosis was nearly four times higher in the most deprived areas.

Between 2001/02 and 2010/11, rates of hospital admissions for digestive diseases increased by nearly a third. It is unclear whether this reflects increasing prevalence of digestive disorders or a change in clinical treatment or coding of admissions. Of the 1.5 million hospital admissions in 2010/11, GI bleeding, diverticular disease and inflammatory bowel disease each accounted for 6%, appendicitis 3% and cirrhosis 1%.

Average annual mortality due to digestive diseases (and sub-categories) by age and sex, England, 2008-10
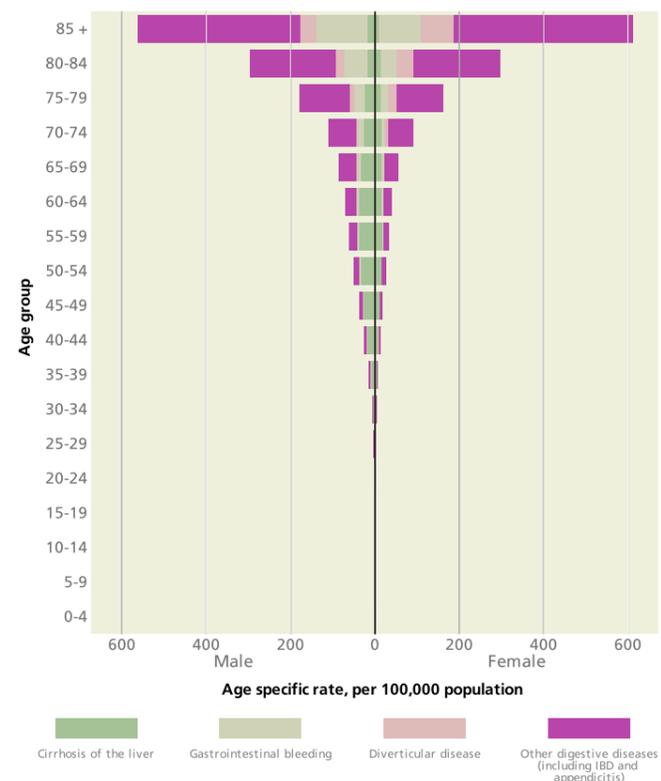
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to digestive diseases (and sub-categories) by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to digestive diseases by upper tier local authority, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 173,800 potential years of life lost (to age 75) in 2010 (8% of all PYLL)
- Around 3,370,000 hospital bed days in 2010/11 (8% of all bed days)
- Main cause – PYLL: cirrhosis of the liver (59%)

Trend in rate of emergency hospital admissions due to digestive diseases, England, 2001/02 to 2010/11
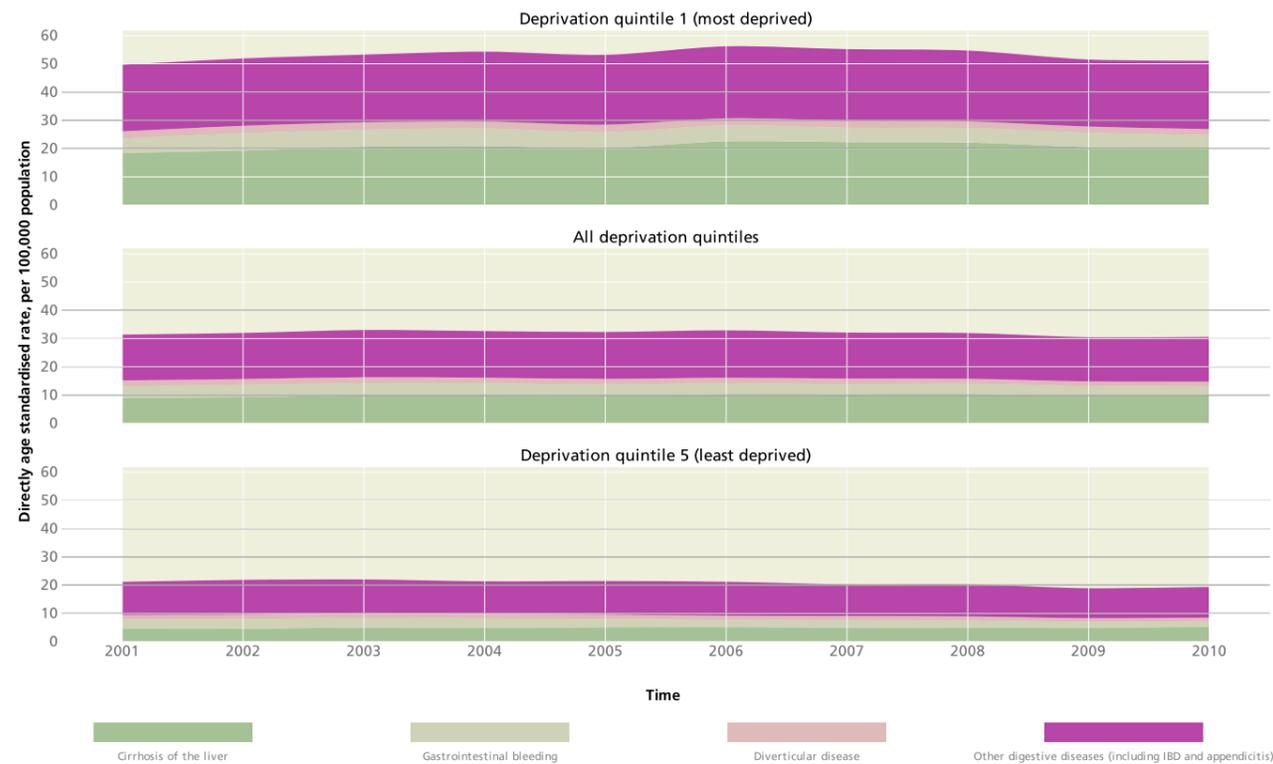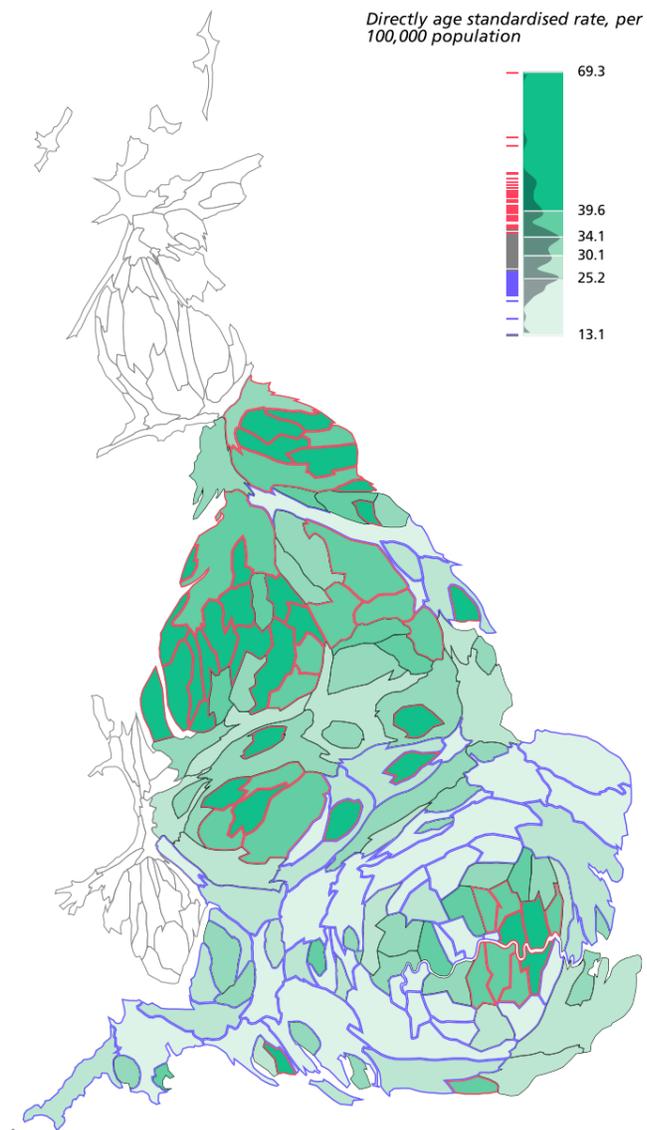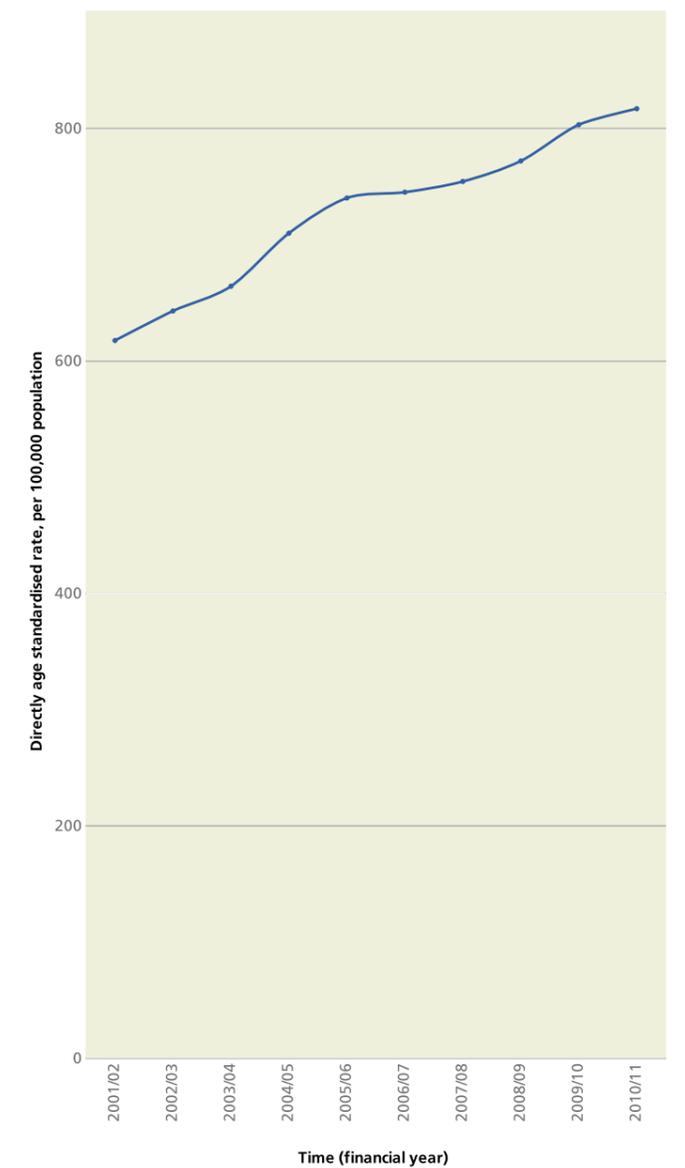

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2001 to 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Liver disease is one of the few major causes of premature mortality that is increasing.

Liver disease refers to damage likely to interfere with vital liver functions and results in progressive scarring (fibrosis). Cirrhosis (an advanced stage of fibrosis) confers additional risk of liver failure, variceal haemorrhage or liver cancer. It accounts for 83% of deaths from 'diseases of the liver'. Mortality rates for liver disease vary widely by local authority, though even the lowest rates remain higher than UK rates in the 1980s.

Where a local authority age standardised liver disease mortality rate is higher than 20 per 100,000 population, this is likely to be due to local alcohol culture or undiagnosed hepatitis infection. This is the case in 50 local authorities. Between 2001 and 2010, there was a general upward trend in mortality from liver disease from 13.9 to 16.6 per 100,000 population.

The four main drivers of increasing liver disease (alcohol, obesity and chronic hepatitis B and C infection) are preventable. Long-term reduction of mortality due to liver disease requires concerted public health action on these drivers, better awareness amongst the public of their liver health, and greater effort by service providers to proactively detect early signs of liver disease.

Average annual mortality due to liver disease (and sub-categories) by age and sex, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to liver disease (and sub-categories) by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to liver disease by upper tier local authority, England, 2008-10

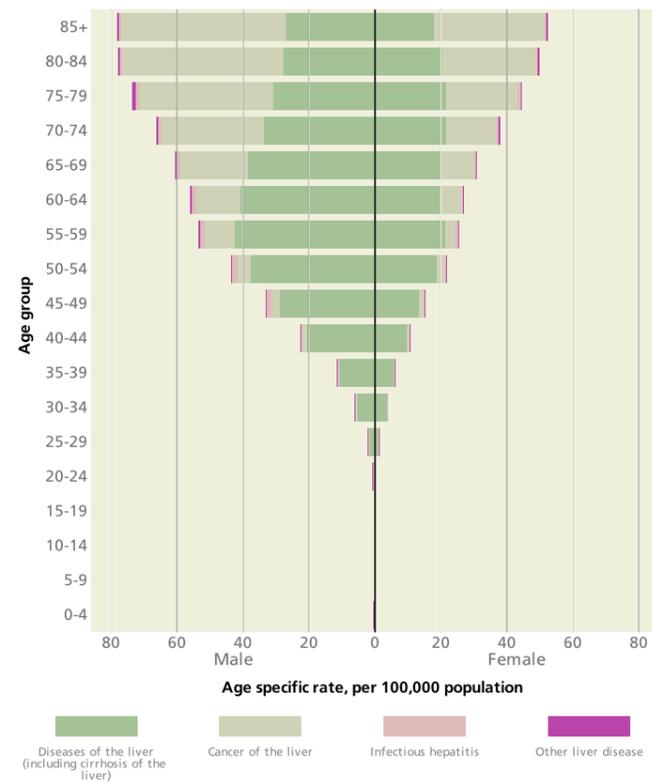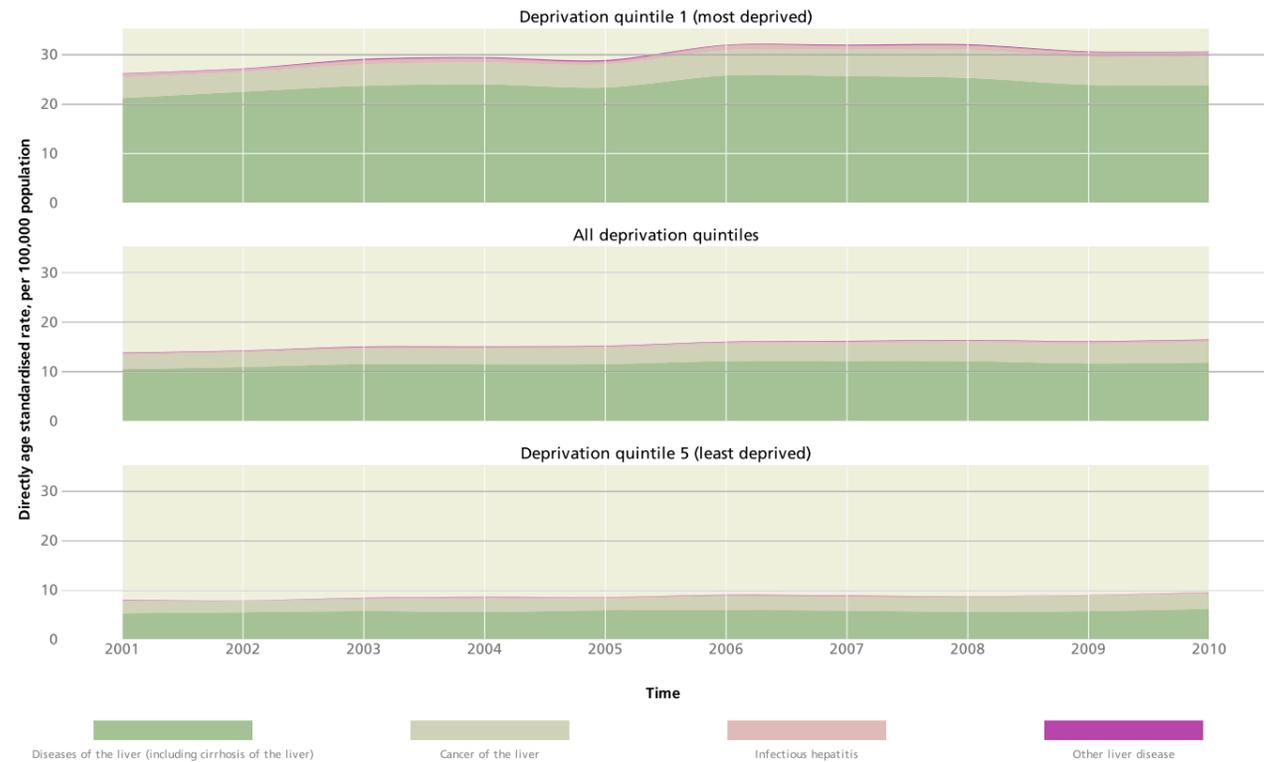*Directly age standardised rate, per 100,000 population*

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 141,600 potential years of life lost (to age 75) in 2010 (6% of all PYLL)
- Around 360,000 hospital bed days in 2010/11 (<1% of all bed days)
- Diseases of the liver (including cirrhosis) accounted for 83% of PYLL and 77% of bed days for liver disease

Chronic kidney disease (CKD) is a common genitourinary disease. CKD is defined as reduced kidney excretory function or the presence of kidney damage (proteinuria) for more than 3 months. The 2009-10 Health Survey for England estimates prevalence of 'CKD 3-5' (about 50% loss of function) as 6% of men and 7% of women. CKD rates increase with age, and to a much lesser extent with deprivation.

CKD may progress to end stage kidney failure, potentially requiring renal replacement therapy (RRT), i.e. dialysis or transplantation, but the most common outcome is cardiovascular mortality. Other risks of CKD include anaemia, infection, fractures and reduced quality of life as kidney function fails.

2008-10 mortality rates for all genitourinary diseases (including CKD) show geographical variation, appearing to mirror socioeconomic demographic patterns.

The downward trend in mortality rates since 2007 coincides with the introduction of a national primary care prevention strategy and stabilisation of the RRT acceptance rate. Reduced mortality could be due to falling incidence rates of CKD or reduced mortality in those developing CKD, or both.

The downward mortality trend can be supported by ensuring access to services for those with CKD, particularly those requiring RRT.

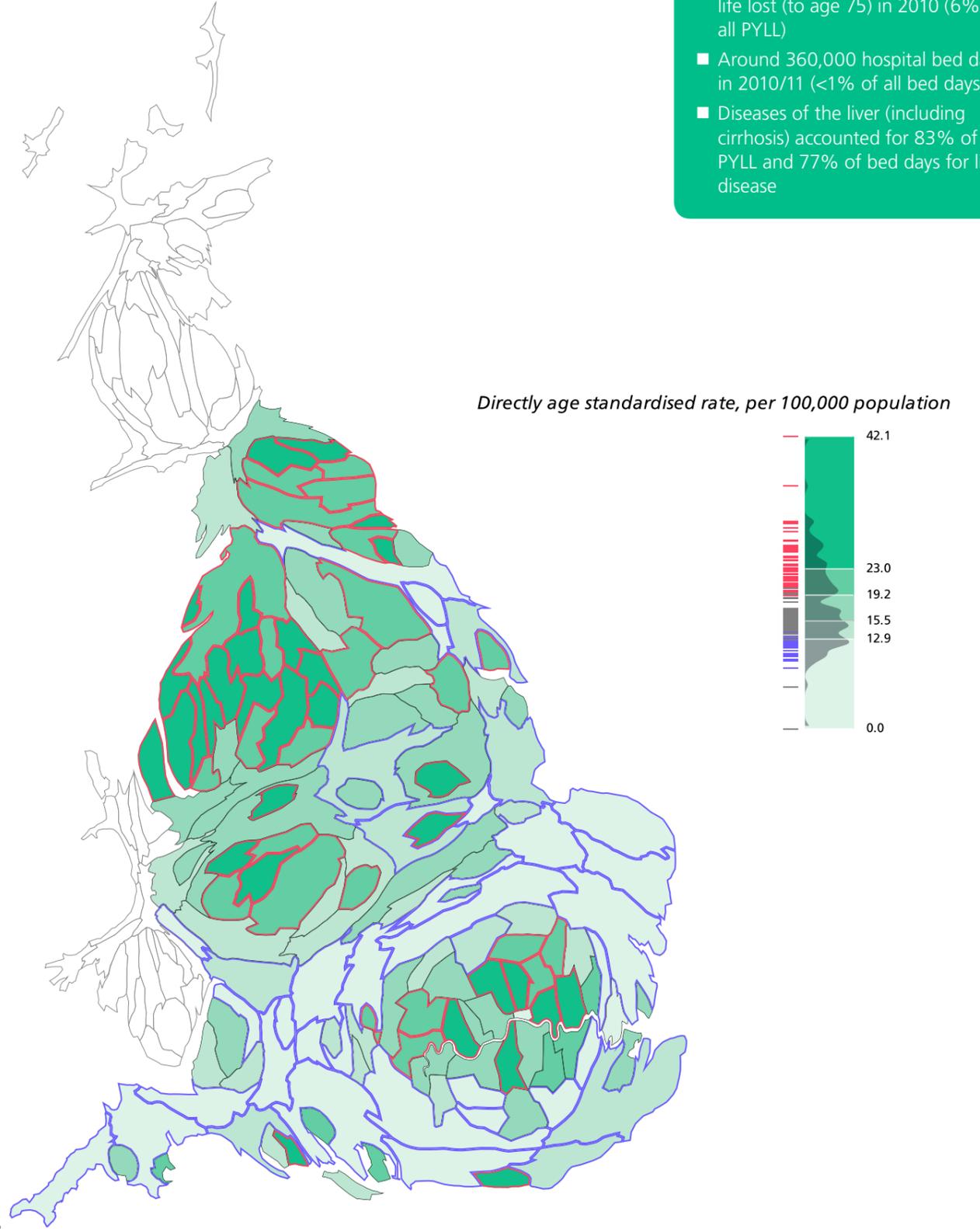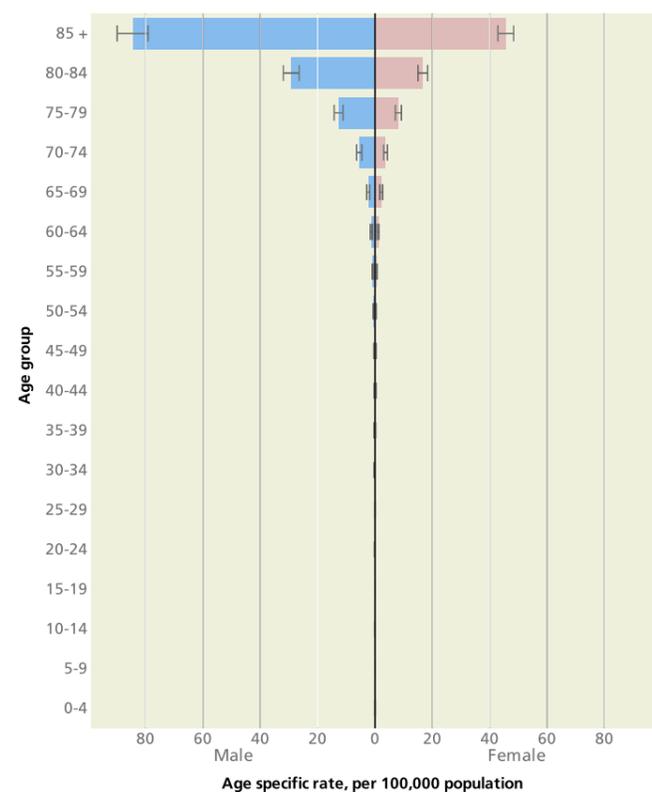**Average annual mortality due to chronic kidney disease by age and sex, England, 2008-10**

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to chronic kidney disease by deprivation, England, 2001 to 2010
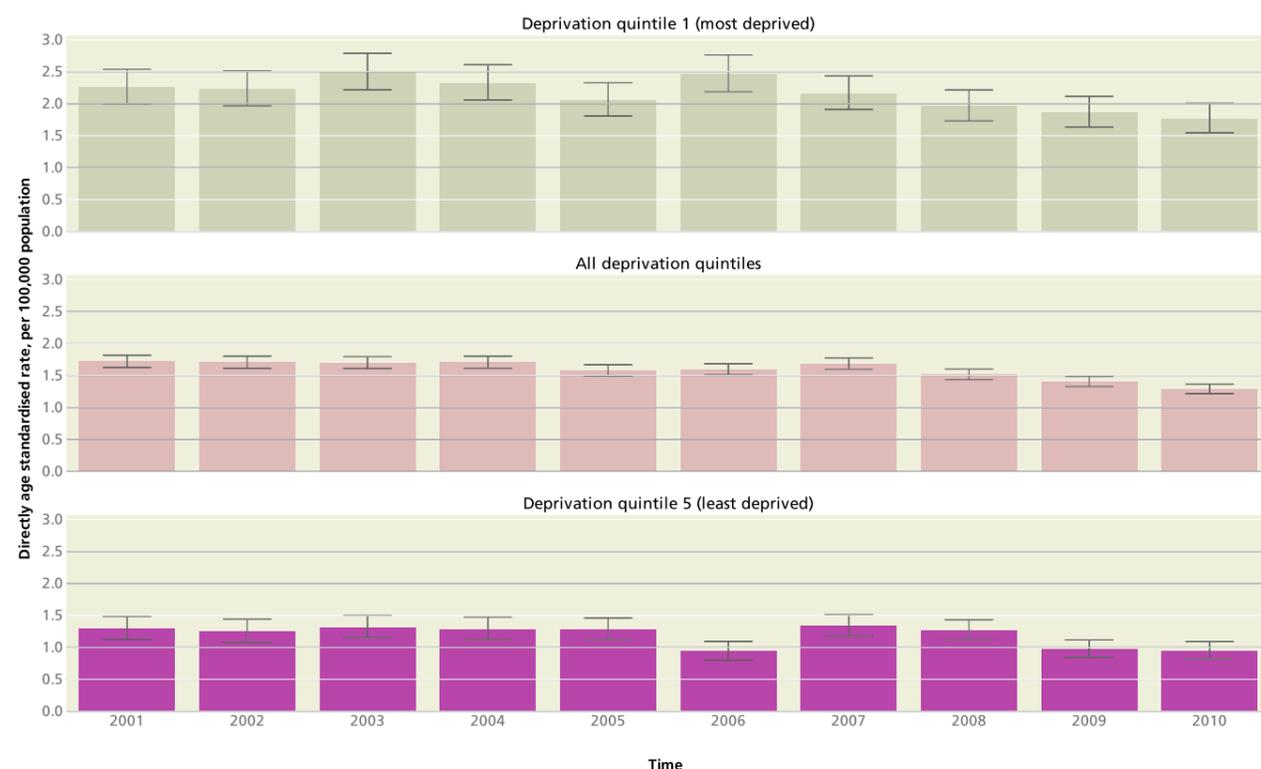
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to genitourinary diseases by upper tier local authority, England, 2008-10
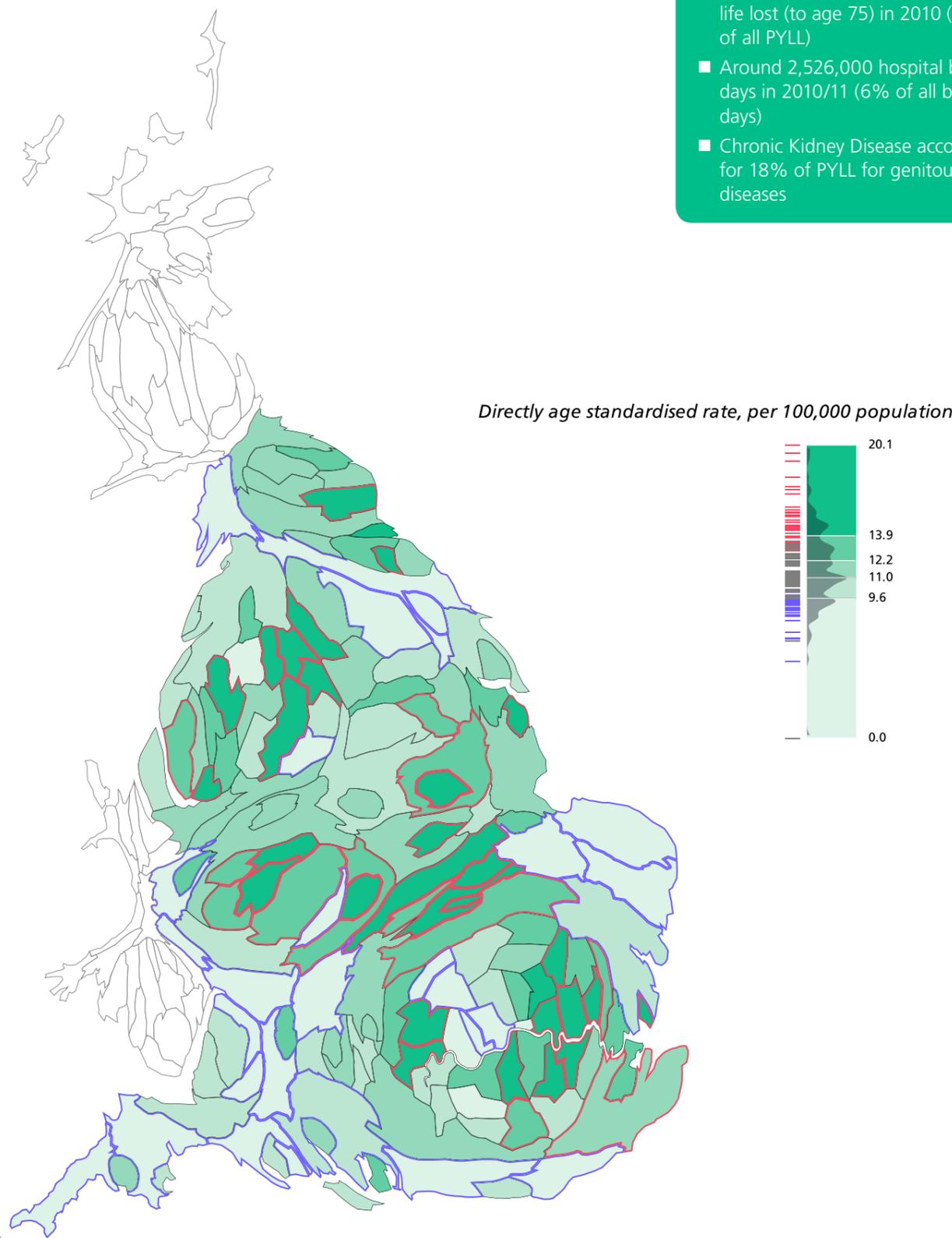
Directly age standardised rate, per 100,000 population

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 16,100 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 2,526,000 hospital bed days in 2010/11 (6% of all bed days)
- Chronic Kidney Disease accounted for 18% of PYLL for genitourinary diseases

The ICD 10 chapter definitions of 'diseases of the skin and subcutaneous tissues' (L00-L99) is used to calculate the key facts presented here. 'Skin conditions' additionally include benign and malignant skin lesions and skin infections. Whilst rarely fatal, skin conditions cause substantial loss of quality of life.

In 2010 an estimated 24% of the population of England and Wales presented to their GP with a skin condition. Skin conditions were the most common reason for a new GP consultation[1]. Most GP consultations regarding the skin are due to ten categories of common conditions.

The most common skin conditions presenting to GPs are skin infections and eczema; 20% of children under one year old present with eczema[1]. Primary care data suggests that skin disease is neither increasing nor decreasing.

GPs refer around 6% of patients with skin conditions for specialist advice.

National, systematically collected data from specialist dermatology centres is not available. However, it is likely that skin lesions/cancer are the most common reason for referral to specialist care[2].

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1 RCGP Research and Surveillance Unit, personal communication.

2 Schofield et al (2009) Skin conditions in the UK: a Health Care Needs Assessment, University of Nottingham.

Prevalence of common skin conditions in persons presenting in primary care by age and sex, England, 2010
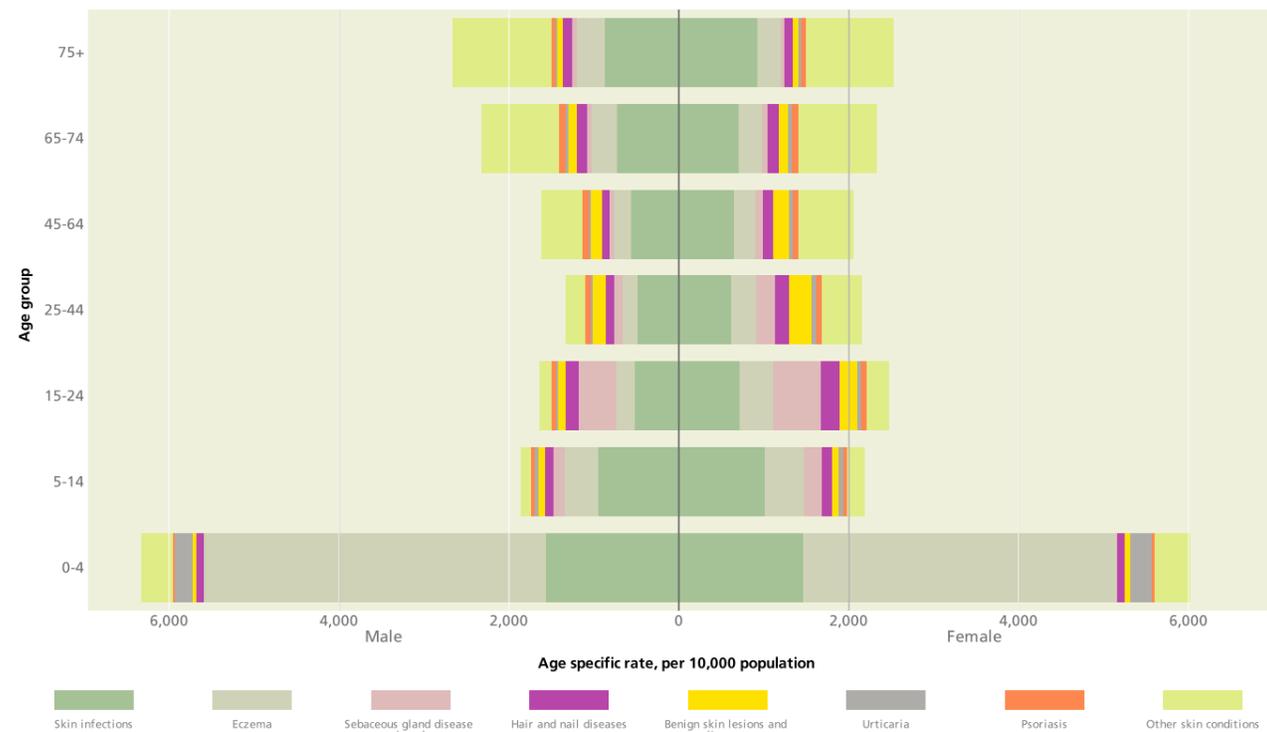
Source: Dr D Fleming, RCGP Research and Surveillance Unit. (Provided by Dr J Schofield & Professor H Williams, University of Nottingham)

Common skin conditions in persons presenting in primary care, England, 2010
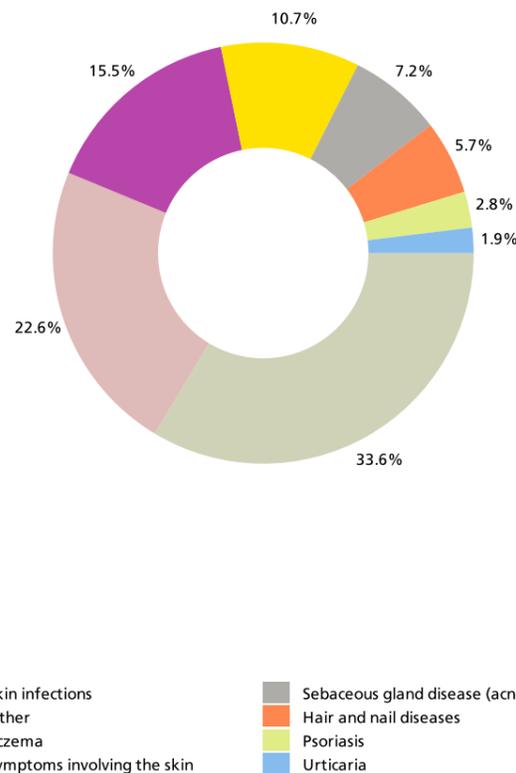
- Skin infections
- Other
- Eczema
- Symptoms involving the skin
- Sebaceous gland disease (acne)
- Hair and nail diseases
- Psoriasis
- Urticaria

Source: Dr D Fleming, RCGP Research and Surveillance Unit. (Provided by Dr J Schofield & Professor H Williams, University of Nottingham)

Key facts
- Around 4,300 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 868,000 hospital bed days in 2010/11 (2% of all bed days)

Skin conditions seen by specialists, England, 2009

- Skin lesions
- Other
- Eczema
- Psoriasis
- Acne vulgaris
- Urticaria
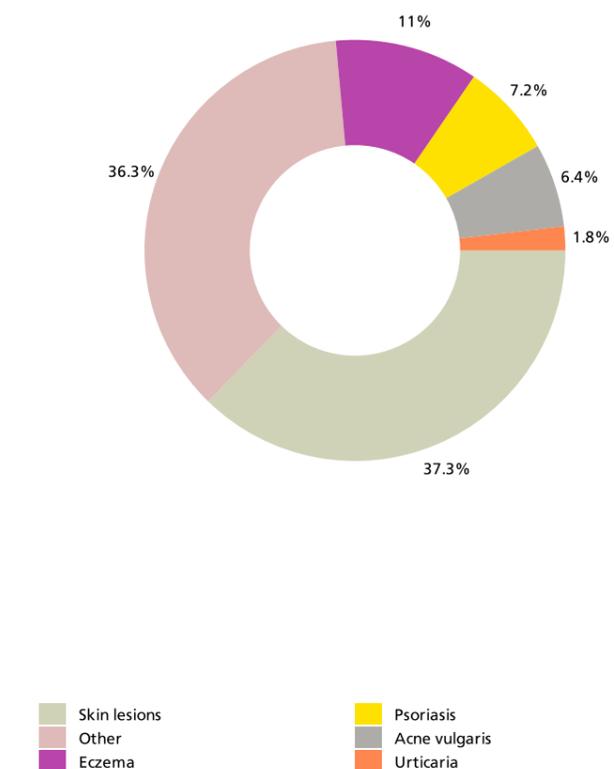
Source: Schofield JK, Grindlay D, Williams HC. Skin conditions in the UK: a Health Care Needs Assessment. Centre of Evidence Based Dermatology, University of Nottingham, 2009

Disorders of joints, muscles and bones are major causes of pain and disability. National data on the full extent and impact of some musculoskeletal diseases are often difficult to obtain. Two key conditions are osteoporosis and rheumatoid arthritis (RA).

Osteoporosis is a progressive, preventable condition of bone fragility, particularly prevalent in post-menopausal women. In the over 65s, hip fracture is mostly due to falls in those with osteoporosis. Differing geographical rates for hip fractures probably reflect the underlying prevalence of osteoporosis.

There were 50,000 emergency admissions for hip fracture in 2010/11 and an estimated 60,000 hip fractures[1]. Bone strength can be increased through physical activity, good nutrition, avoiding smoking and avoiding harmful drinking.

RA, an auto-immune disease, is a severe form of arthritis. Just under 0.5% of GP registered patients have a recorded diagnosis. This probably underestimates the prevalence. It can manifest at any age, but usually manifests in 50-80 year olds. Rates are highest in the South West, possibly reflecting underdiagnosis in other regions. Early identification and treatment prevents pain, disability and lasting skeletal damage.

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1 Personal communication, 2012, National Hip Fracture Database

Age at first rheumatoid arthritis diagnosis, United Kingdom, 1995-2010
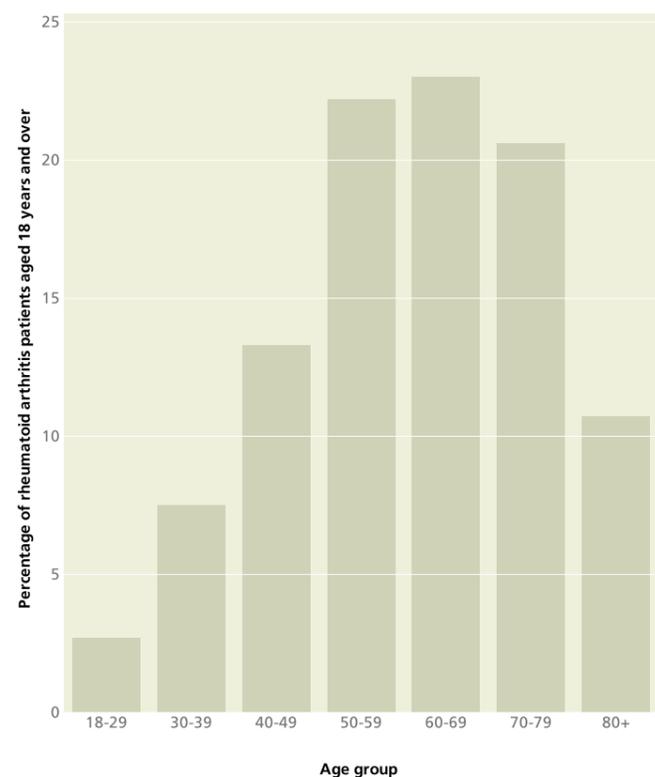
Source: General Practice Research Database. (Provided by Ms G Round & Professor N Arden, University of Oxford)

Rate of emergency hospital admissions due to hip fractures in persons aged 65 years and over by age and sex, England, 2010/11

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Trend in rate of emergency hospital admissions due to hip fractures in persons aged 65 years and over, England, 2001/02 to 2010/11

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2001 to 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)

Incidence of rheumatoid arthritis diagnosis in persons aged 18 years and over by region, England, 2009
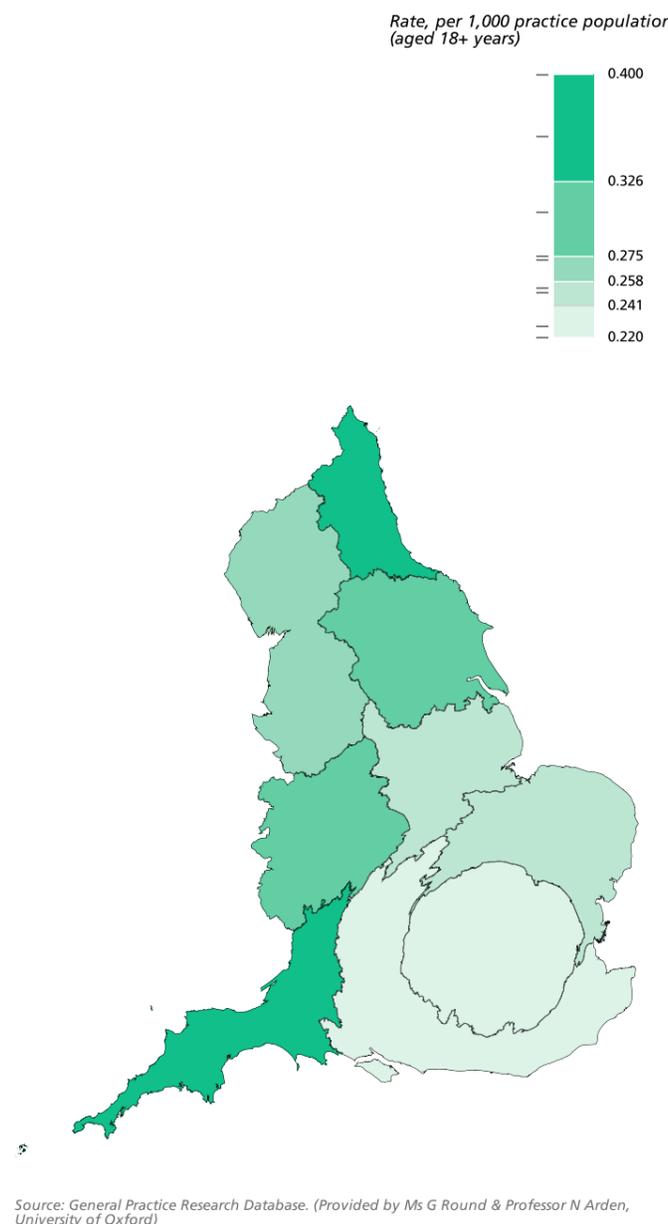
Rate, per 1,000 practice population (aged 18+ years)

Source: General Practice Research Database. (Provided by Ms G Round & Professor N Arden, University of Oxford)

Rate of emergency hospital admissions due to hip fractures in persons aged 65 years and over by upper tier local authority, England, 2010/11

Directly age standardised rate, per 100,000 population (aged 65+ years)

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2010 population estimates supplied by ONS. (Analysis by PHOs, led by EMPHO)
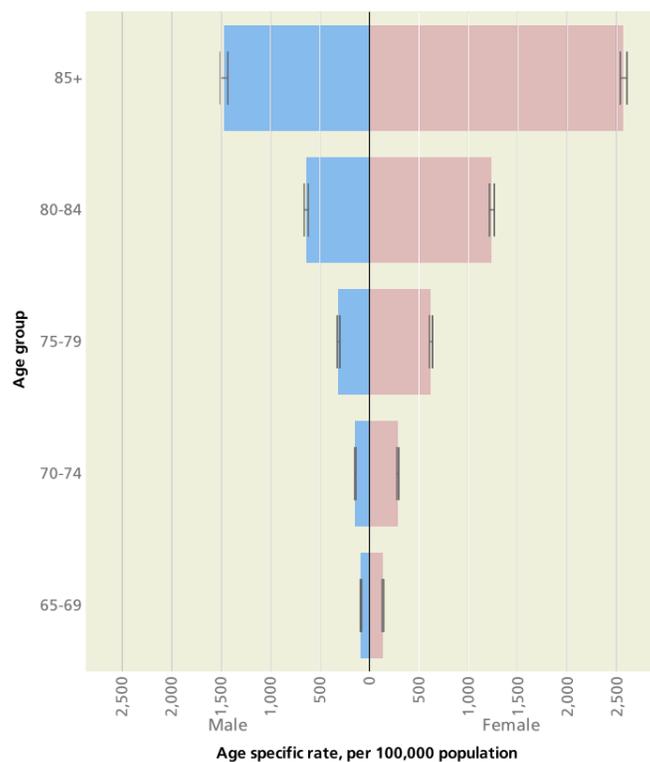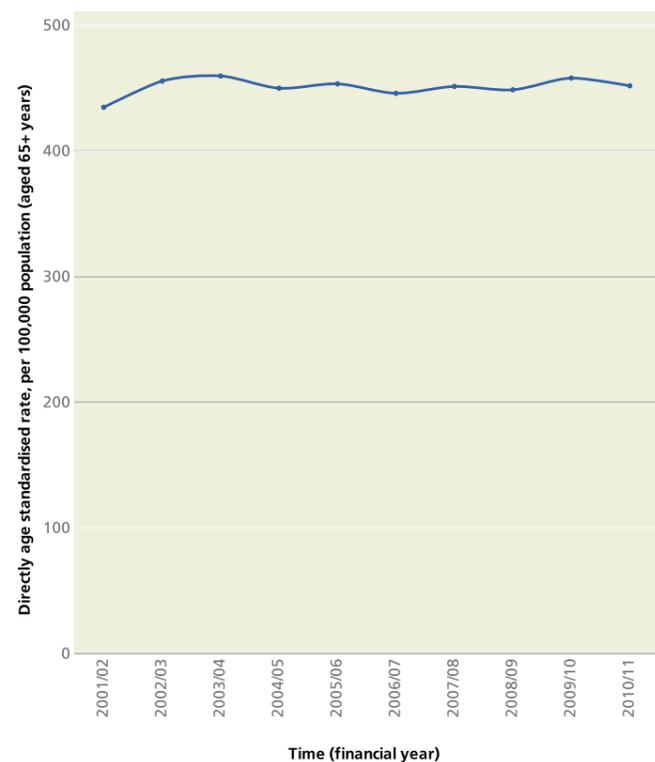
Key facts

- Around 11,800 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 2,212,000 hospital bed days in 2010/11 (5% of all bed days)
- Osteoarthritis accounted for 38% of bed days for musculoskeletal diseases
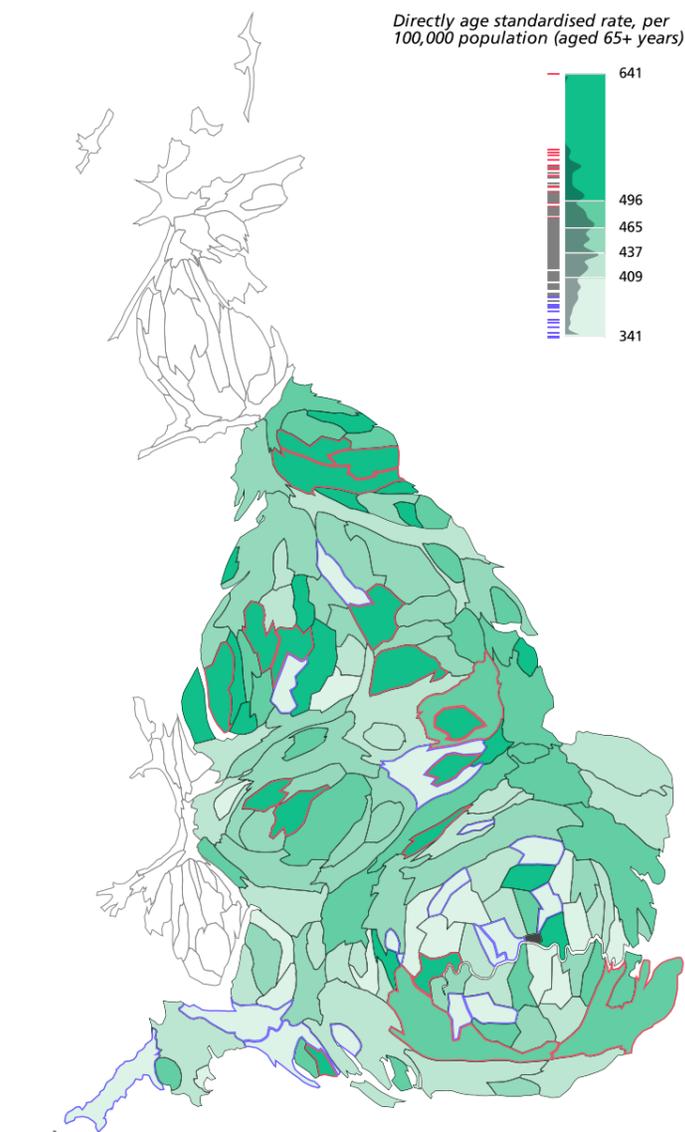
There are more children who are free from obvious dental decay than those who have at least one decayed, missing or filled tooth (dmft in deciduous teeth/DMFT in permanent teeth), 69% of 5 years olds and 67% of 12 year olds.

However, around a third of all children display some degree of poor dental health. On average, five year olds with experience of dental caries have had 3.5 teeth affected. There is wide variation between PCTs, with 18% to 53% of five year olds having had dental caries experience.

Variation is also seen across PCTs in 12 year olds, with 13% to 56% having had dental caries experience. Overall, 33% of children have had dental caries experience, and for those affected the average number of decayed, missing or filled teeth is 2.2[1].

Good dental health starts in childhood. To address geographic and socioeconomic differences in child dental health, further action is needed to promote dental hygiene and improve children's diets, particularly limiting the quantity of, and frequency of, consumption of sugary foods and acidic foods. The use of toothpaste with the most effective fluoride content should be encouraged. At a community level, there is evidence for the effectiveness of water fluoridation.

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1 NHS DEP for England: Oral Health Survey 5-year olds, 2007/08; Oral Health Survey of 12 year old children 2008/09

Dental caries experience in 5 and 12 year olds by deprivation, England, 2007/08 and 2008/09 respectively

5 yr old children, dmft (deciduous teeth), 2007/08

12 yr old children, DMFT (permanent teeth), 2008/09
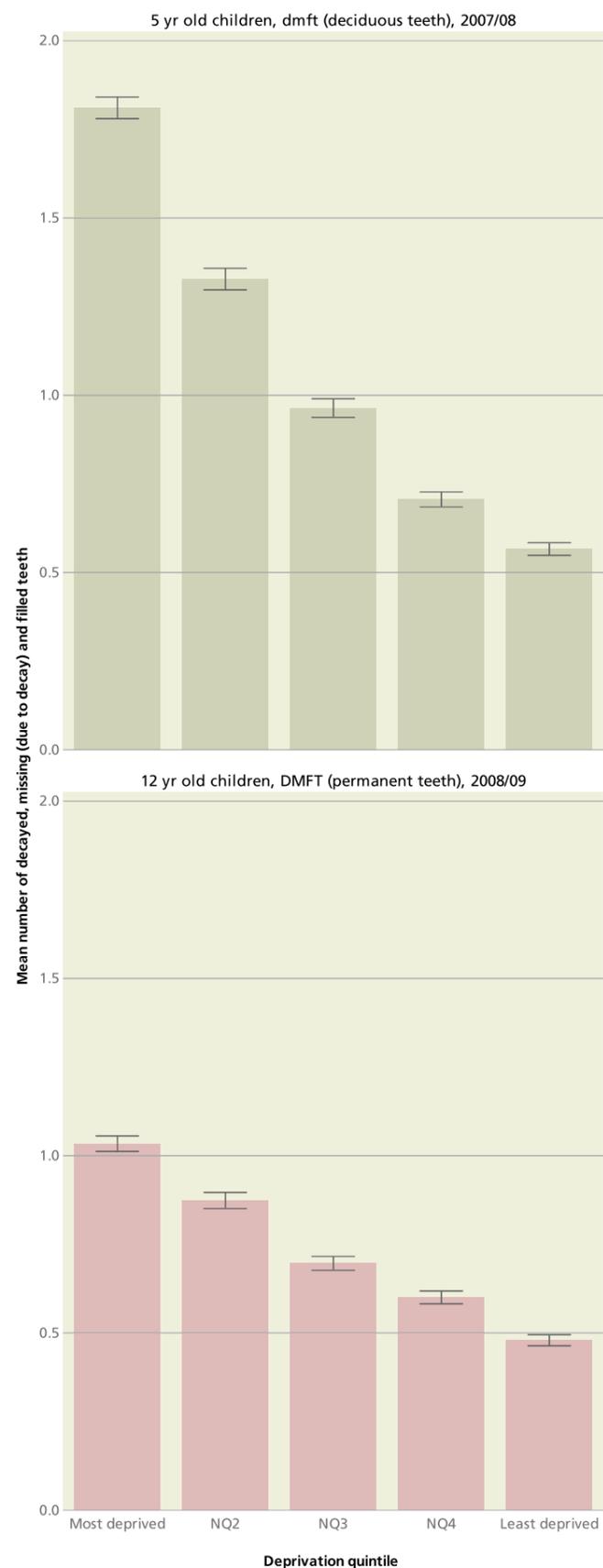
Source: Oral Health Survey of five-year-old children 2007/08, and Oral Health Survey of twelve-year-old children 2008/09. NHS Dental Epidemiology Programme for England. (Provided by NWPHO & TDO)

Proportion of 5 year olds with dental caries experience by primary care trust, England, 2007/08

Percentage of 5 year olds

53.4
40.7
34.4
29.8
24.6
17.7
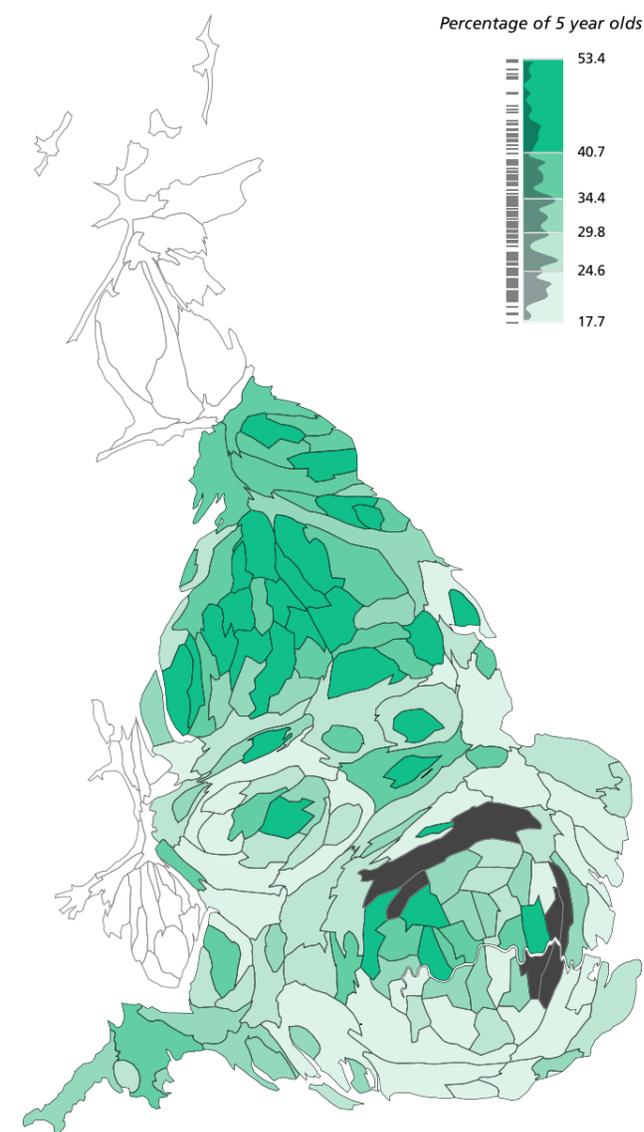
Source: Oral Health Survey of five-year-old children 2007/08. NHS Dental Epidemiology Programme for England. (Provided by NWPHO & TDO)

Proportion of 12 year olds with dental caries experience by primary care trust, England, 2008/09
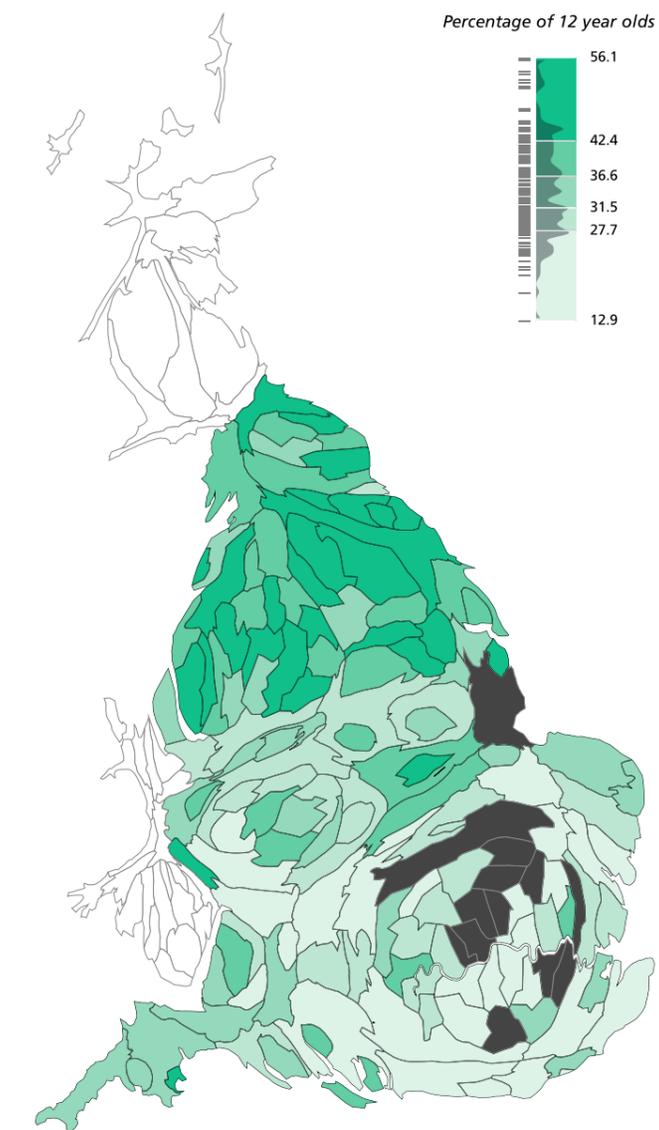
Percentage of 12 year olds

56.1
42.4
36.6
31.5
27.7
12.9

Source: Oral Health Survey of twelve-year-old children 2008/09. NHS Dental Epidemiology Programme for England. (Provided by NWPHO & TDO)

Poor dental health can lead to considerable pain, infection and psychological distress. The retention of 21 or more natural teeth is regarded as the minimum number of teeth consistent with a functional dentition, enabling most individuals to eat in comfort without the need for a partial denture.

In 2009, 71% of adults reported good/very good dental health[1]. This response was more common in younger adults, aged 16-24 (79%), than in older adults aged 75-84 (71%)[1]. Over three quarters of adults from managerial and professional households reported good/very good dental health compared to two thirds from routine and manual occupational households[1].

Around 86% of dentate adults had 21 or more natural teeth. The proportion fell significantly with age, reflecting loss of teeth throughout life. 100% aged 16-24 had 21 or more natural teeth, compared with 91% of 45-54 year olds and 40% of adults aged 75 and over[1].

Further improvements in dental health can be achieved through promoting good oral hygiene, and regular dental checks, while encouraging a reduction in the quantity of, and frequency of, consumption of sugary foods. As smoking causes gum disease, encouraging smoking cessation will improve dental health.

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1 Adult Dental Health Survey, 2009, Health and Social Care Information Centre

Proportion of persons aged 16 years and over with 21 or more natural teeth (or implants) by region, England, 2009
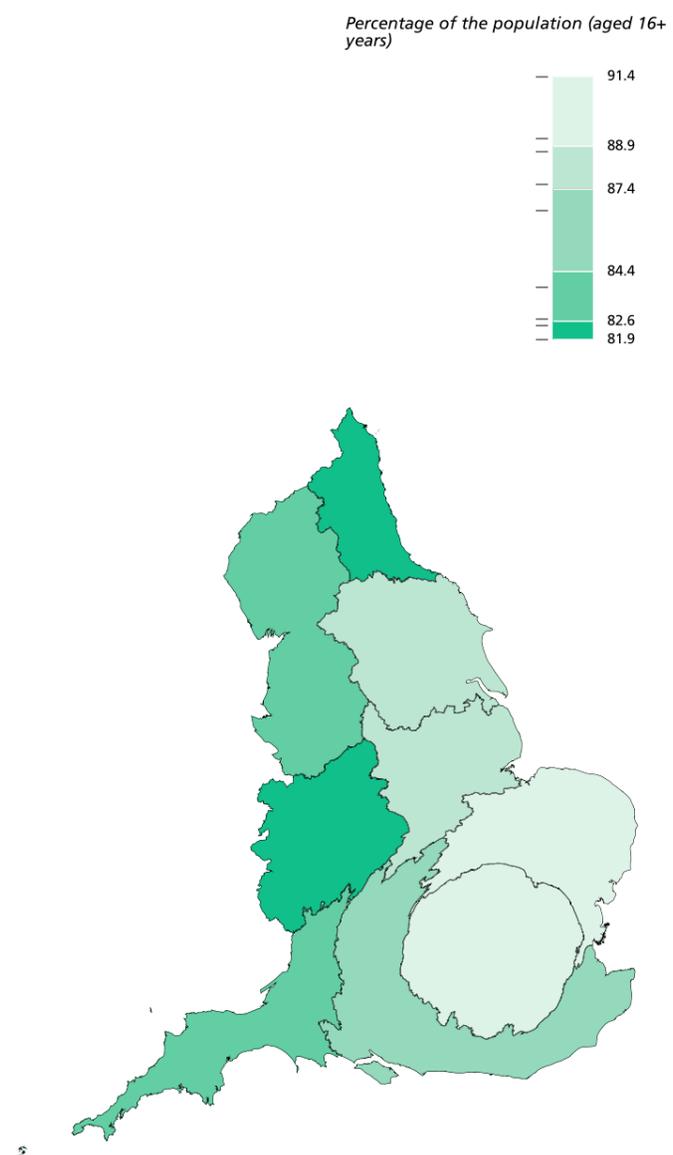
Percentage of the population (aged 16+ years)

	91.4
	88.9
	87.4
	84.4
	82.6
	81.9

Source: Adult Dental Health Survey, 2009, Health and Social Care Information Centre.Crown Copyright © 2012. (Provided by NWPHO & TDO)

Proportion of population aged 16 years and over with self-reported good or very good dental health by region, England, 2009
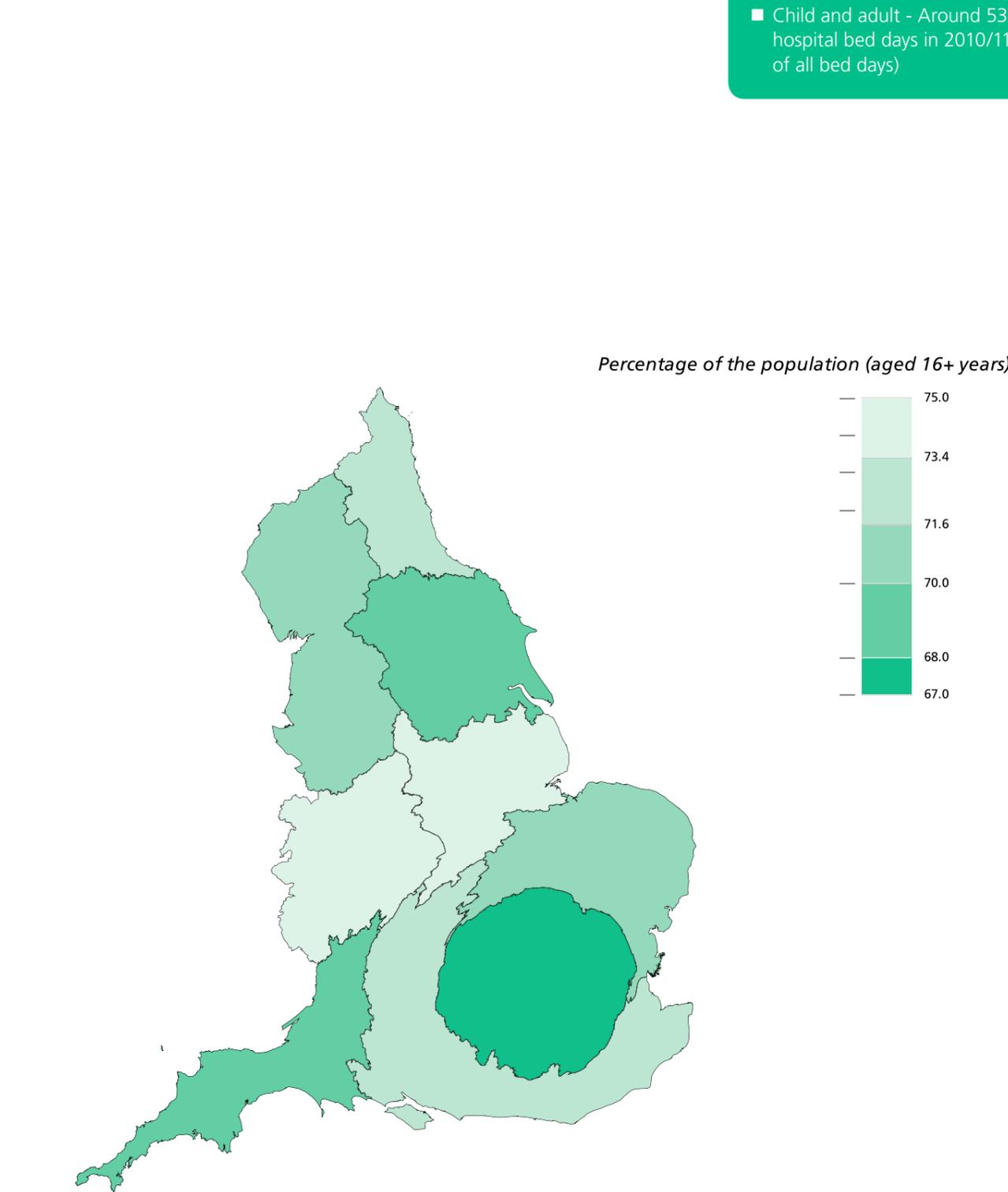
Percentage of the population (aged 16+ years)

	75.0
	73.4
	71.6
	70.0
	68.0
	67.0

Source: Adult Dental Health Survey, 2009. Health and Social Care Information Centre. Crown Copyright © 2012. (Provided by NWPHO & TDO)

Injuries contribute considerably to mortality, to temporary and permanent disability and are financially costly to society. In 2010, there were 15,915 deaths due to injury. In 2010/11, there were 798,024 emergency hospital admissions due to injury.
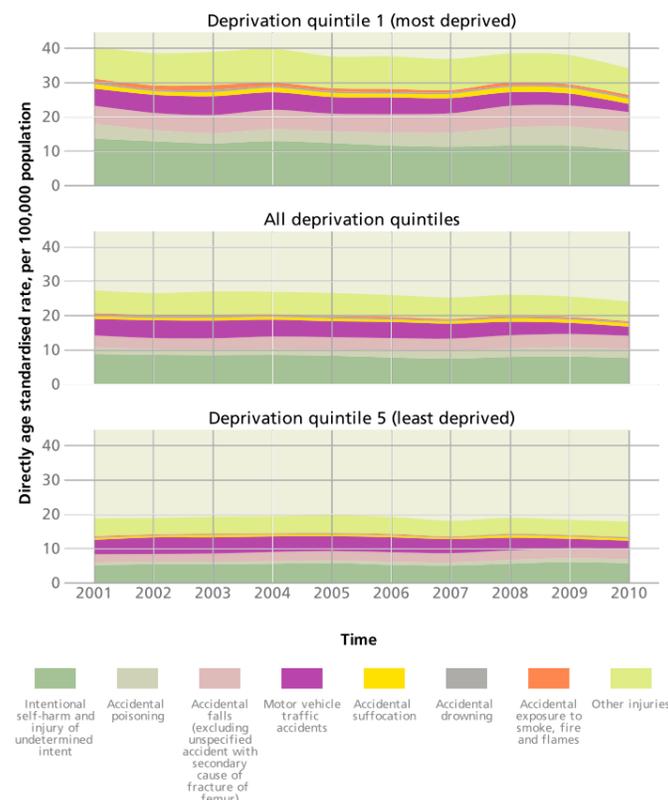
Injuries are a leading cause of death in children. Suffocation is the main cause of death from injury in children under five, whereas motor vehicle traffic accidents lead to most deaths in children over five and teenagers. Self-inflicted injury and injury of undetermined intent are also considerable causes of death in young people.

People aged over 75 experience the highest rates of death and hospital admission due to injury, with falls being the leading cause. Injuries from motor vehicle traffic accidents, self-inflicted injury and suffocation are also of particular concern in this age group.

There is a relationship between injury and deprivation. In 2010, those living in the most deprived areas had nearly twice the rate of mortality due to injury compared to the least deprived.

Injuries are a key public health concern, as they are often preventable. Strategies and policies relating to children, young people and older people need to incorporate injury prevention.

Average annual mortality due to injuries (and sub-categories) by age and sex, England, 2008-10
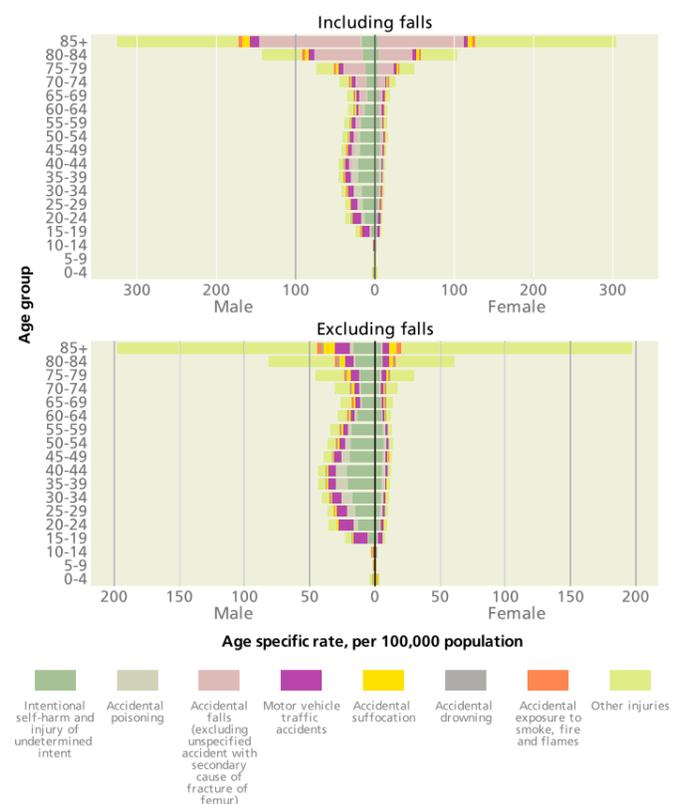
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to all injuries (and sub-categories) by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Emergency hospital admissions due to injuries by type and age, England, 2010/11

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. (Analysis by PHOs, led by EMPHO)

Average annual mortality from all injuries by upper tier local authority, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 304,200 potential years of life lost (to age 75) in 2010 (13% of all PYLL)
- Around 3,441,000 emergency hospital bed days in 2010/11 (8% of all bed days)
- Main causes – PYLL: intentional self-harm/injury of undetermined intent (39%); motor vehicle traffic accidents (16%)
- Main cause – bed days: accidental falls (58%)

Injuries – road traffic accidents

In 2010, there were 1,461 deaths due to motor vehicle traffic accidents. In 2010/11 there were 27,779 emergency hospital admissions and motor vehicle traffic accidents were the leading cause of death from injury in children aged over five and teenagers. Mortality and injury are a particular issue for young people in more deprived areas.

Deaths in 2010 (where the role of the victim was specified) involved 789 (54%) occupants of motor vehicles, 325 (22%) motor cyclists, 232 (16%) pedestrians and 49 (3%) pedal cyclists.

Males accounted for 75% of all motor vehicle traffic deaths in 2008-10, and 96% of motor cyclist deaths. The highest rates of death occurred in those aged 15-24 and 85+. Two thirds of deaths in the younger group were vehicle occupants and only 10% were pedestrians, whereas 46% of the older group were motor vehicle occupants and 45% were pedestrians.

Mortality and serious injury due to motor vehicle traffic accidents have significantly reduced over the last decade. Various road safety campaigns and regulations, including car safety improvements, are likely to have contributed to this. Mortality could be further reduced by continuing to improve road safety for all users, including pedestrians and cyclists.

Average annual mortality due to all motor vehicle traffic accidents (and sub-categories) by age and sex, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Emergency hospital admissions due to motor vehicle traffic accidents by type and age, England, 2010/11

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. (Analysis by PHOs, led by EMPHO)

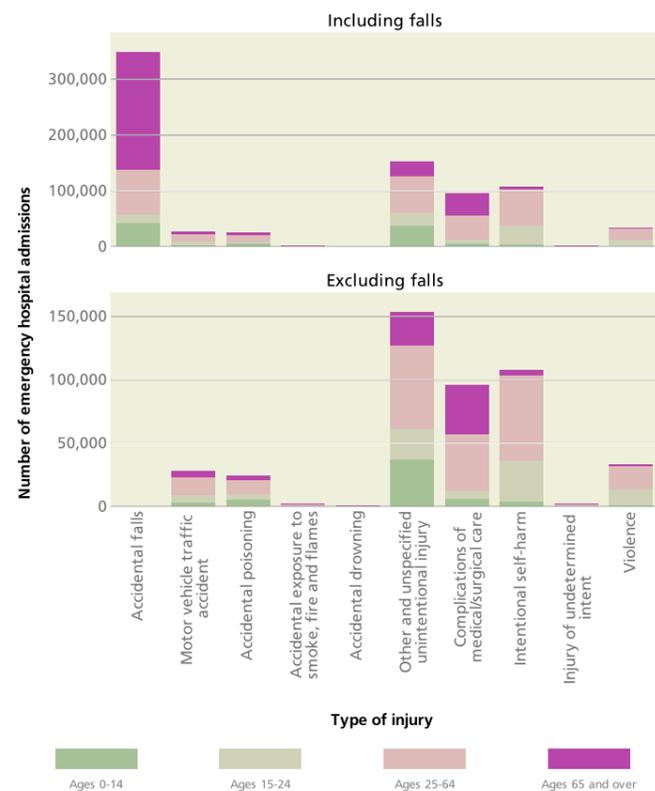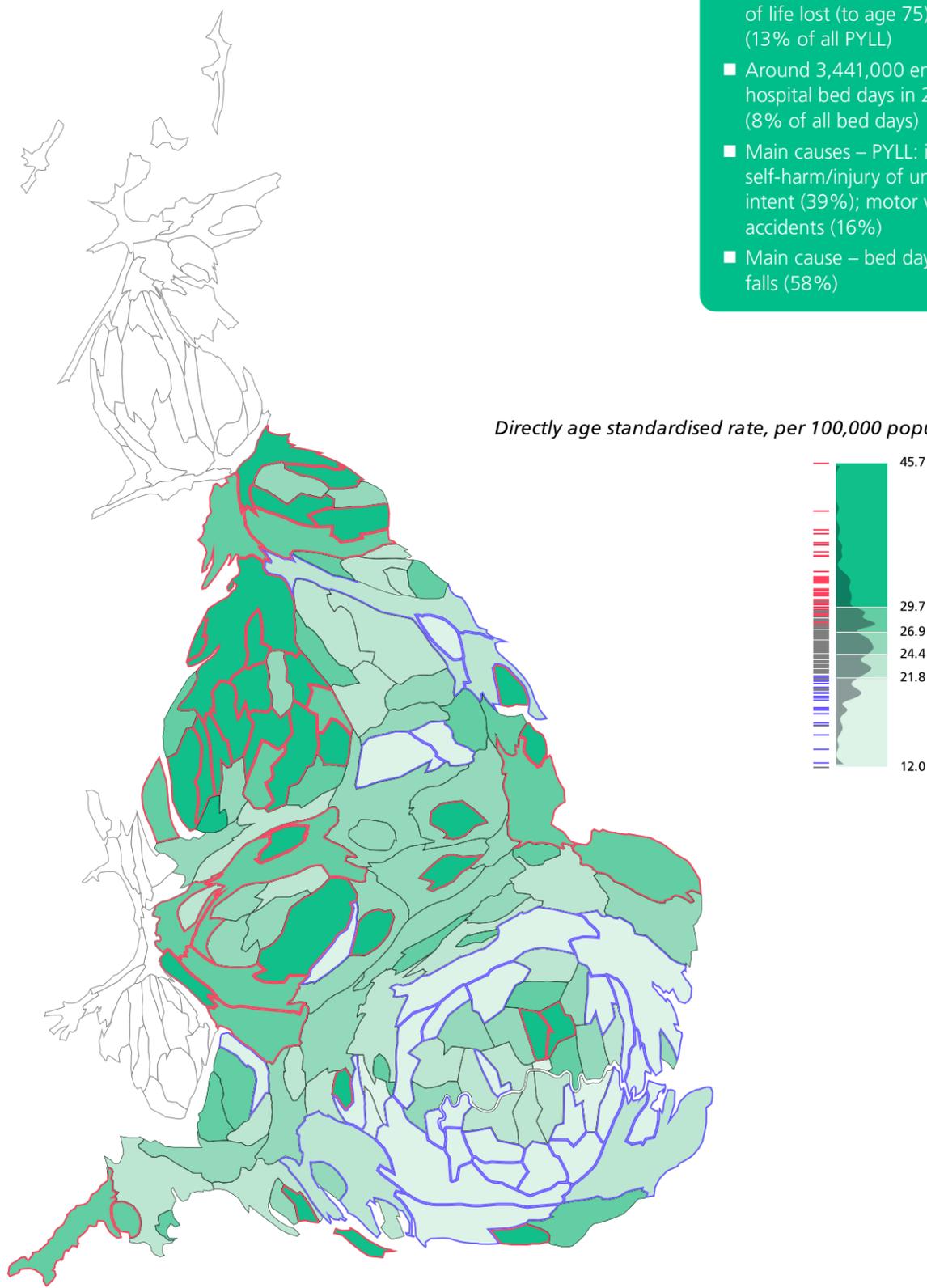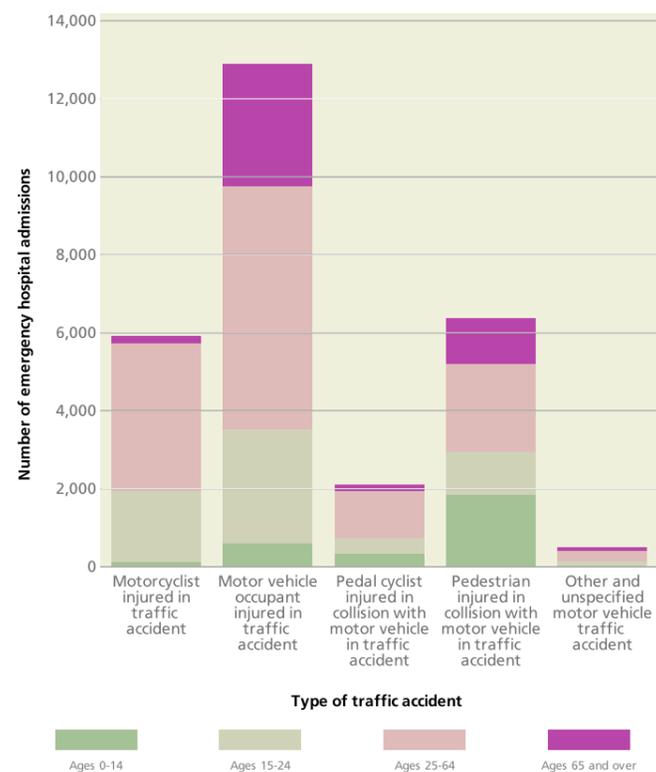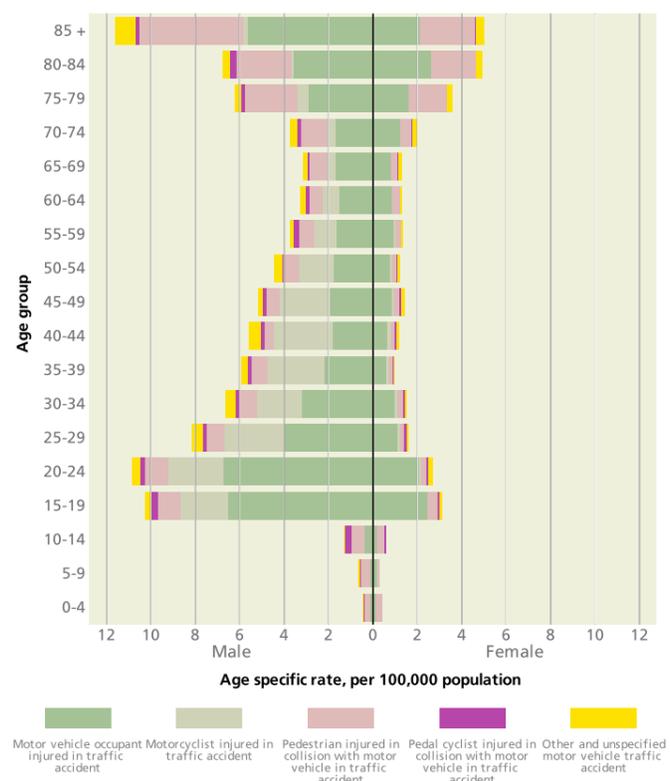**Trend in mortality due to all motor vehicle traffic accidents by deprivation, England, 2001 to 2010**
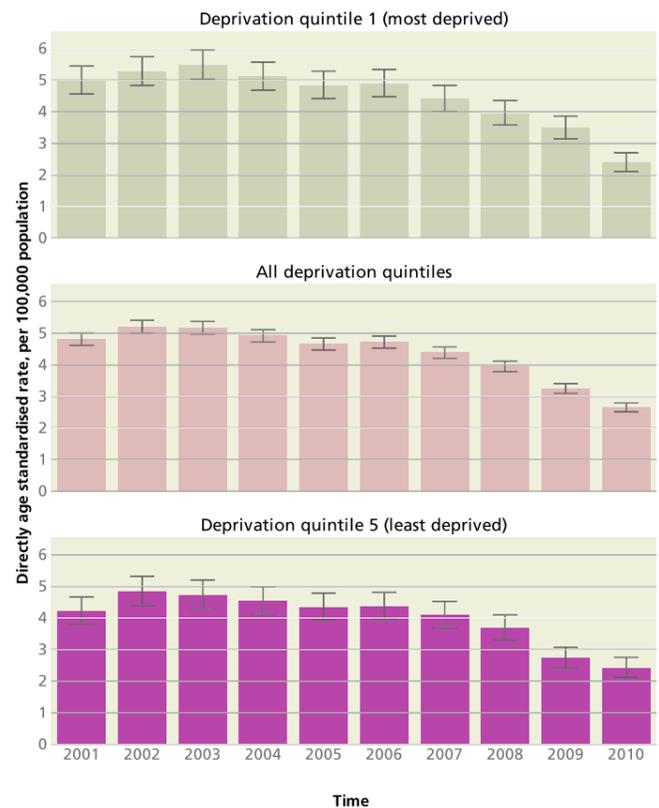
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to all motor vehicle traffic accidents by upper tier local authority, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 48,500 potential years of life lost (to age 75) in 2010 (2% of all PYLL)
- Around 105,000 emergency hospital bed days in 2010/11 (<1% of all bed days)
- Injured motor vehicle occupants accounted for 55% of PYLL and 42% of bed days for motor vehicle traffic accidents. Injured motorcyclists accounted for 24% of PYLL.

Trend in mortality due to all motor vehicle traffic accidents (and sub-categories), England, 2001 to 2010
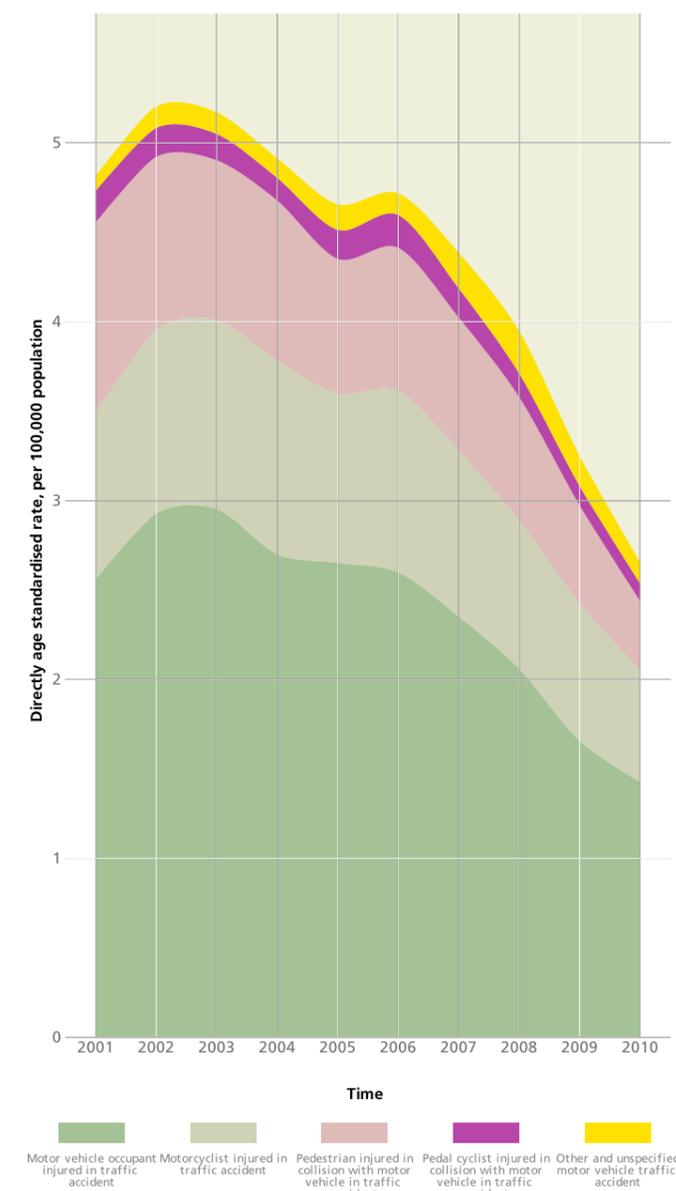
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

In 2010, there were 1,395 deaths recorded as due to accidental poisoning, with 583 (42%) of deaths due to narcotics and hallucinogens, 580 (42%) to other drugs, medicaments and biological substances and 173 (12%) to alcohol. However, alcohol may have played a role in other deaths.

While the reasons are unclear, the recent trend in drug-related deaths recorded as due to mental and behavioural disorders (drug abuse and drug dependence) is downwards and deaths due to accidental poisoning are increasing[1].

Nearly three quarters (73%) of deaths due to accidental poisoning in 2008-10 were in males. The majority of deaths were in 20-59 year olds. The mortality rate for those living in the most deprived area was more than four times higher than the least deprived area in 2010.

In 2010/11 there were 24,226 emergency hospital admissions due to accidental poisoning.

Interventions to prevent accidental poisoning need to be tailored to the type of poisoning. For example, supporting people to avoid or stop illegal drug use and supporting safe use of substances could reduce mortality due to narcotics and hallucinogens.

1 ONS (2011). Statistical Bulletin - Deaths related to drug poisoning in England and Wales, 2010.

**Emergency hospital admissions due to accidental poisoning by type and age, England, 2010/11**

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. (Analysis by PHOs, led by EMPHO)

Average annual mortality due to accidental poisoning (and sub-categories) by age and sex, England, 2008-10
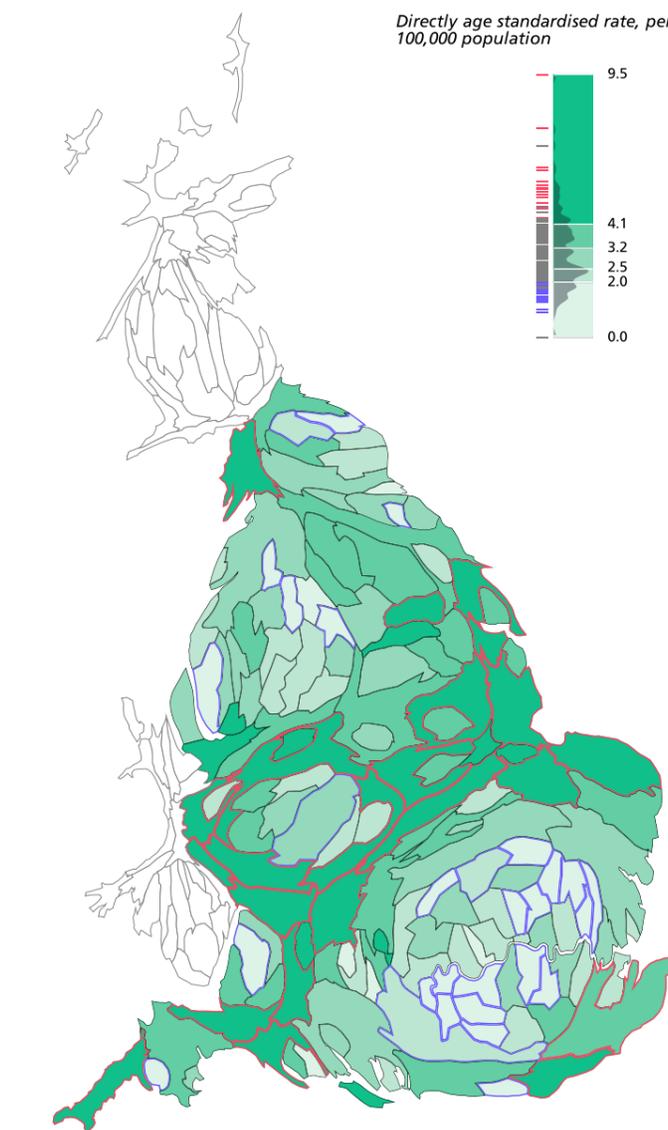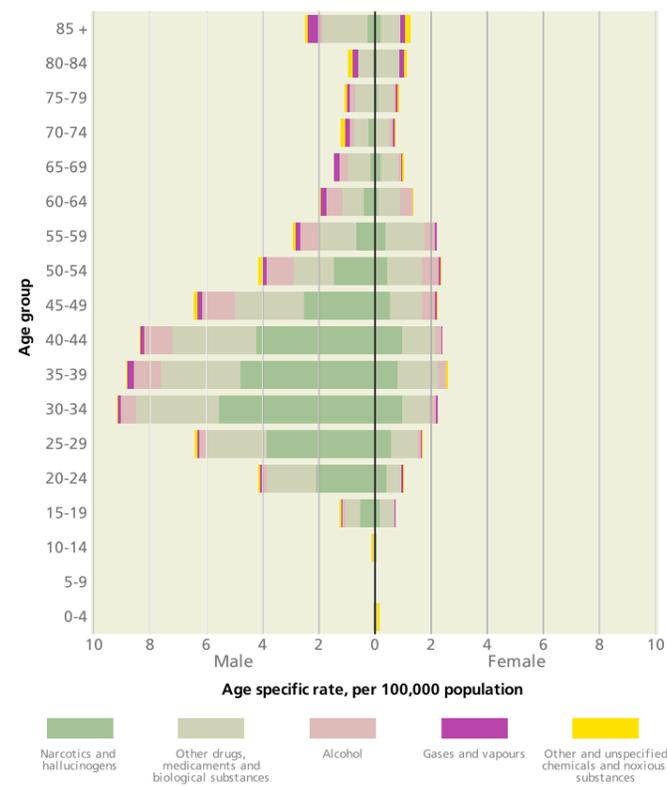

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to accidental poisoning by deprivation, England, 2001 to 2010
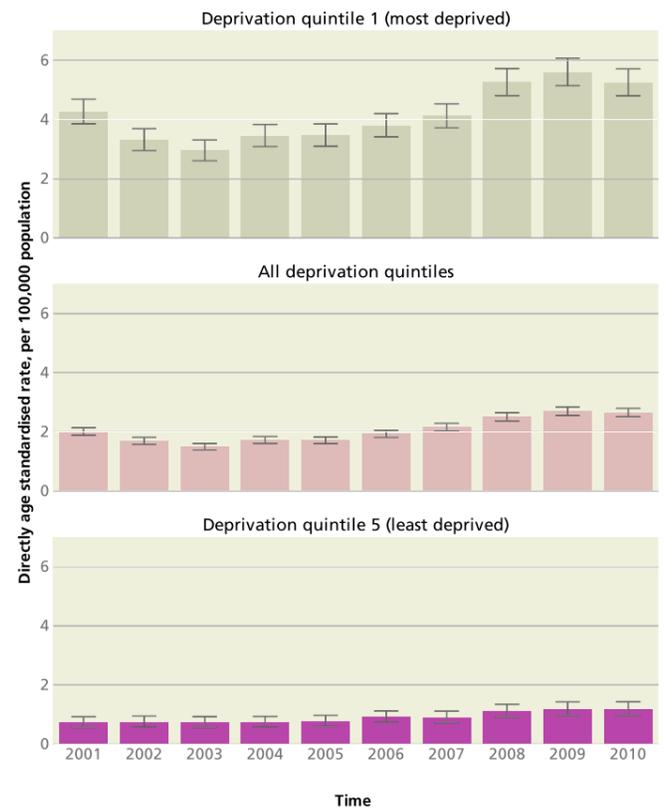
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to accidental poisoning by upper tier local authority, England, 2008-10

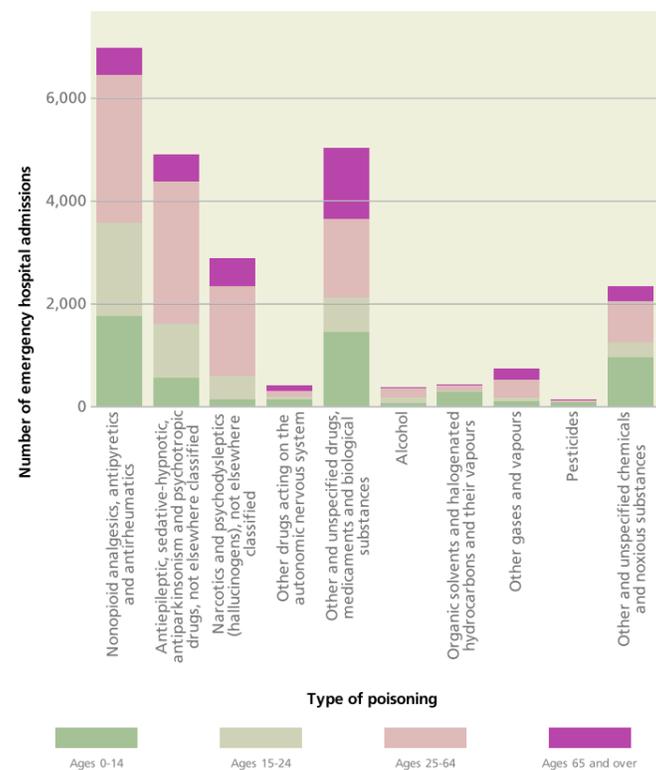Directly age standardised rate, per 100,000 population

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 46,100 potential years of life lost (to age 75) in 2010 (2% of all PYLL)
- Around 34,000 emergency hospital bed days in 2010/11 (<1% of all bed days)
- Main cause – PYLL: narcotics and hallucinogens (47%)
- Main cause – bed days: other drugs, medicaments and biological substances (67%)

Trend in mortality due to accidental poisoning (and sub-categories), England, 2001 to 2010

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

In 2010 there were 3,353 deaths due to falls (plus 1,817 deaths from fractured femur in unspecified accident, which are mostly due to falls) and in 2010/11 there were 348,115 emergency hospital admissions.

Falls are a leading cause of emergency admissions in older people and of admissions due to injuries in children, but the causes differ between age groups. In children injury is often due to misjudgement of risk during play and can also raise issues of safeguarding. In older people it often reflects greater risk and vulnerability to falls, often due to osteoporosis.

Fall injuries in older people, e.g. hip fracture, can lead to loss of mobility and independence, requiring a subsequent move into a care home for many. Older people have the highest rate of deaths due to falls.

The mortality rate due to falls in the most deprived areas is nearly double that of the least deprived areas.

Fall prevention interventions in older people include exercise programmes, use of stair rails and mobility aids and review of diet and medication. For children, they include use of stair gates, window locks and improving play equipment and sports safety.

Average annual mortality due to accidental falls by age and sex, England, 2008-10
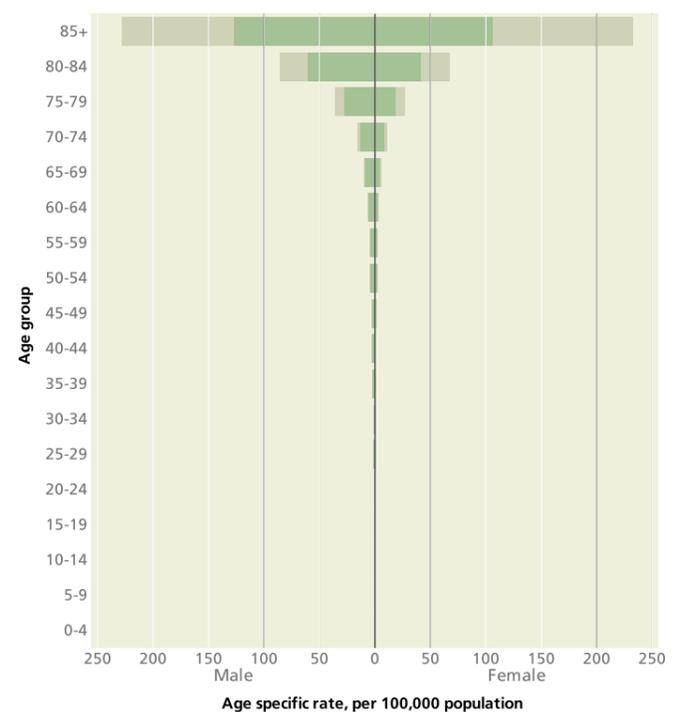
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

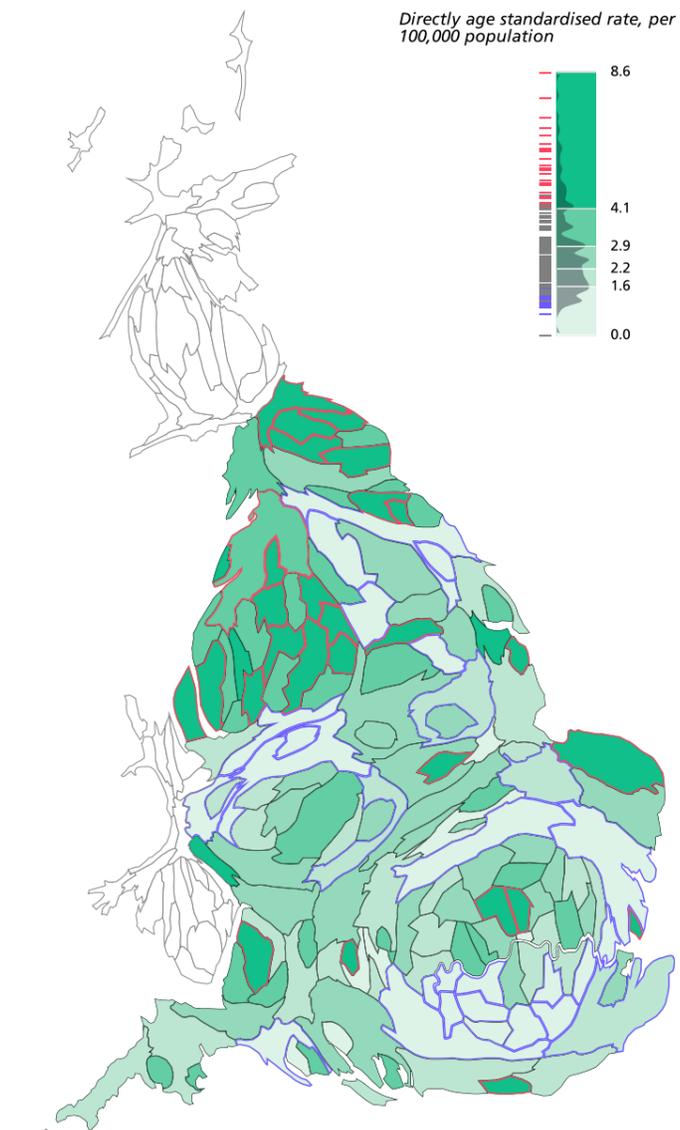**Trend in mortality due to accidental falls by deprivation, England, 2001 to 2010**

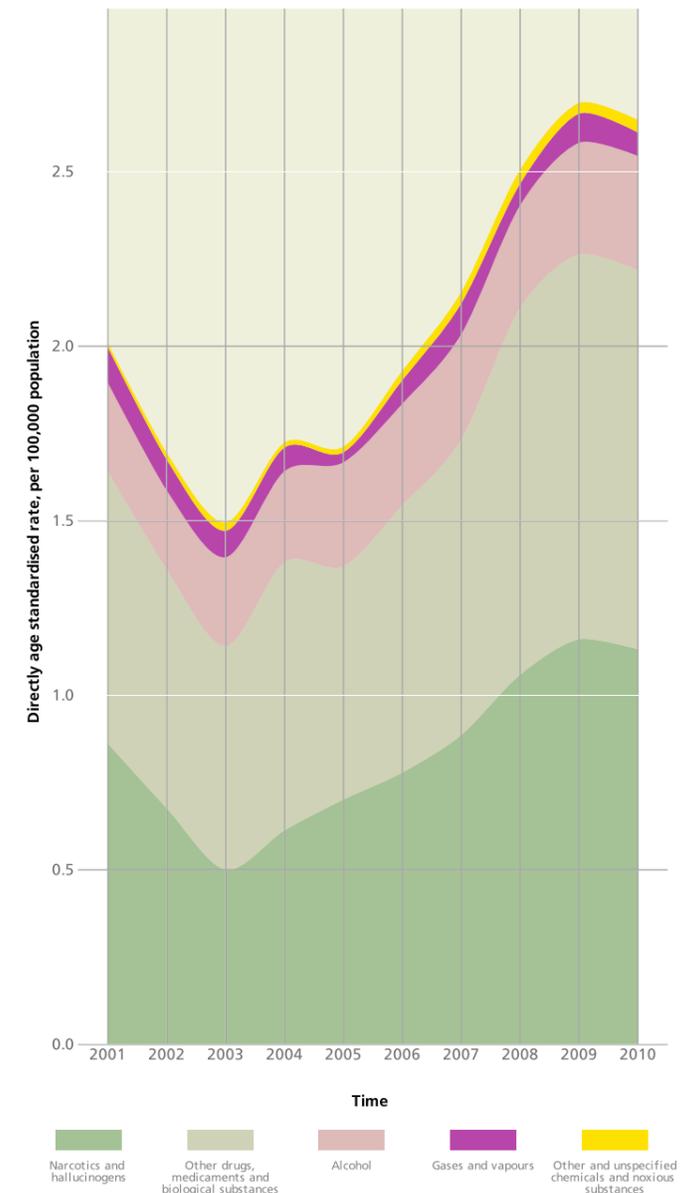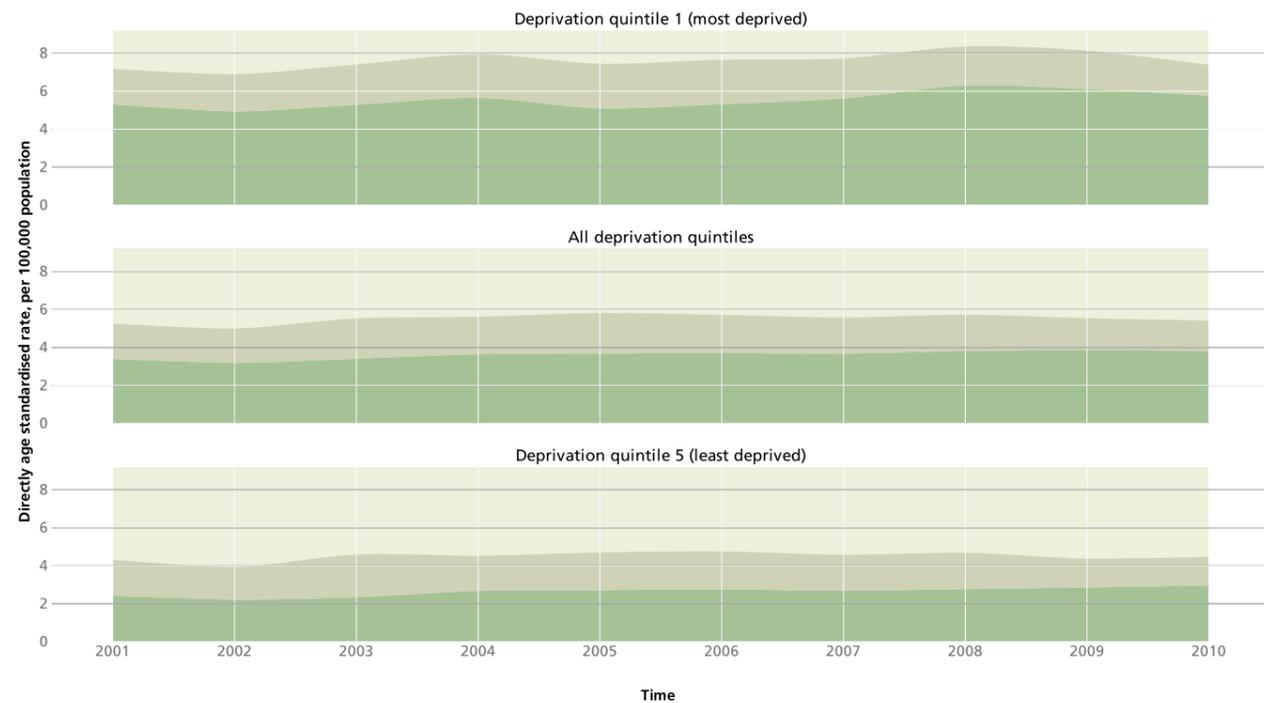Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to accidental falls by upper tier local authority, England, 2008-10
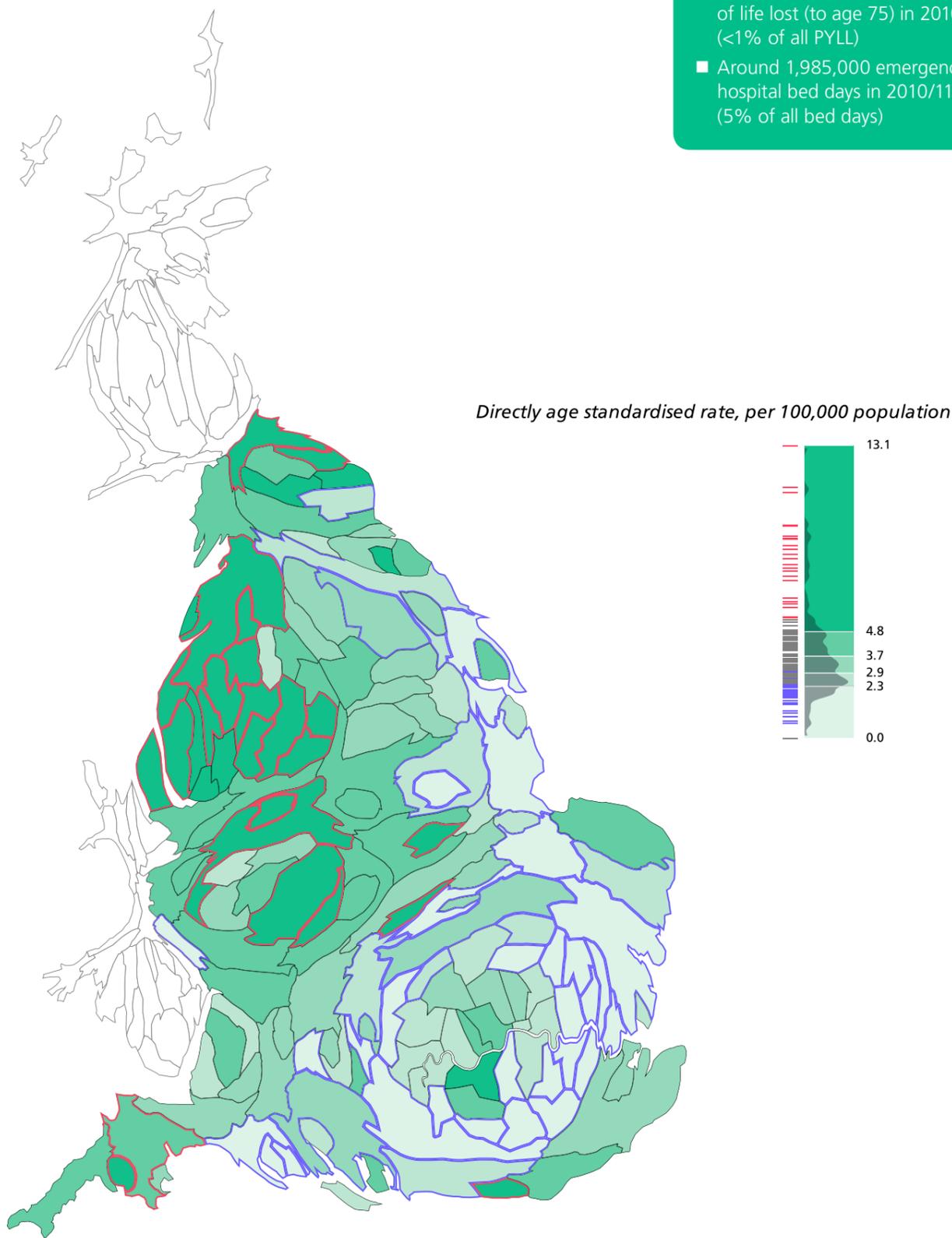
Key facts

- Around 17,000 potential years of life lost (to age 75) in 2010 (<1% of all PYLL)
- Around 1,985,000 emergency hospital bed days in 2010/11 (5% of all bed days)

Directly age standardised rate, per 100,000 population

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Suicide estimates include deaths of undetermined intent as most are likely to be suicides. While death rates are generally low in adolescents and young adults, suicide is a major cause of premature mortality. Self-harm is especially common in young people; it is a clear sign of distress and a risk factor for suicide.

While the long term trend in suicide rates has been declining, the most common method of suicide (hanging, strangulation and suffocation) has been increasing in prevalence (52% of suicides in 2010 compared to 40% in 2001).

Defined by hospital attendance (as opposed to admission), self-harm has been falling for several years; however actual prevalence is difficult to estimate as many self harmers are reluctant to seek medical help. Despite this, deliberate self-harm, particularly drug related poisoning and cutting, is in the top five causes of acute medical admission.

To further reduce suicide mortality rates, local and national action should be joined up. This would encourage a stronger focus on wellbeing for the whole population, and strengthen services for high risk groups such as mental health patients and offenders. Other effective interventions include reducing access to means and tackling local hotspots.

Average annual mortality due to intentional self-harm and injuries of undetermined intent (and sub-categories) by age and sex, England, 2008-10

Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Emergency hospital admissions due to intentional self-harm by type and age, England, 2010/11

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. (Analysis by PHOs, led by EMPHO)

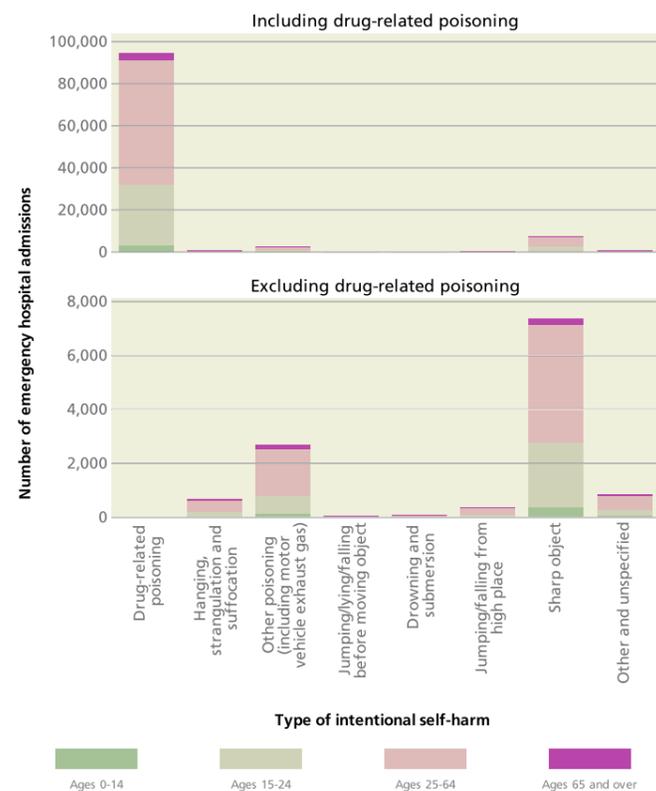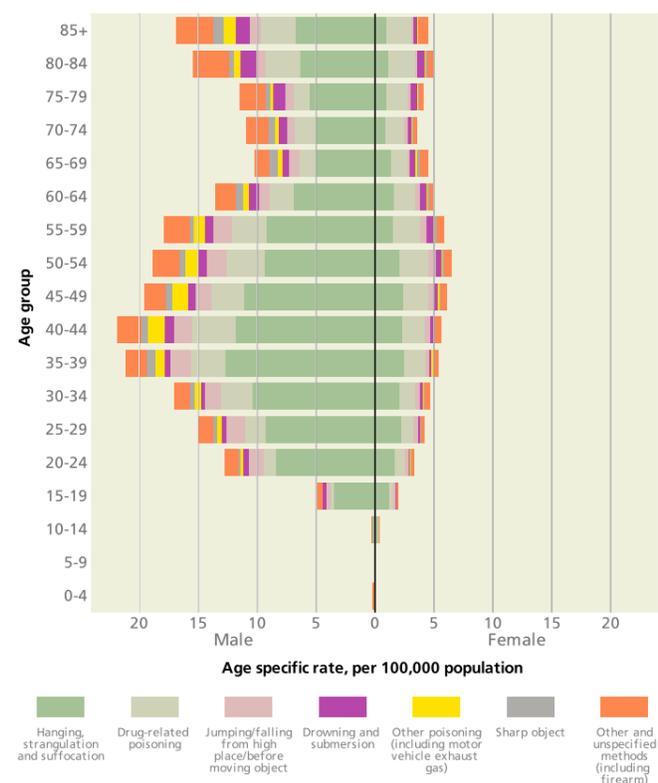**Trend in mortality due to intentional self-harm and injuries of undetermined intent by deprivation, England, 2001 to 2010**
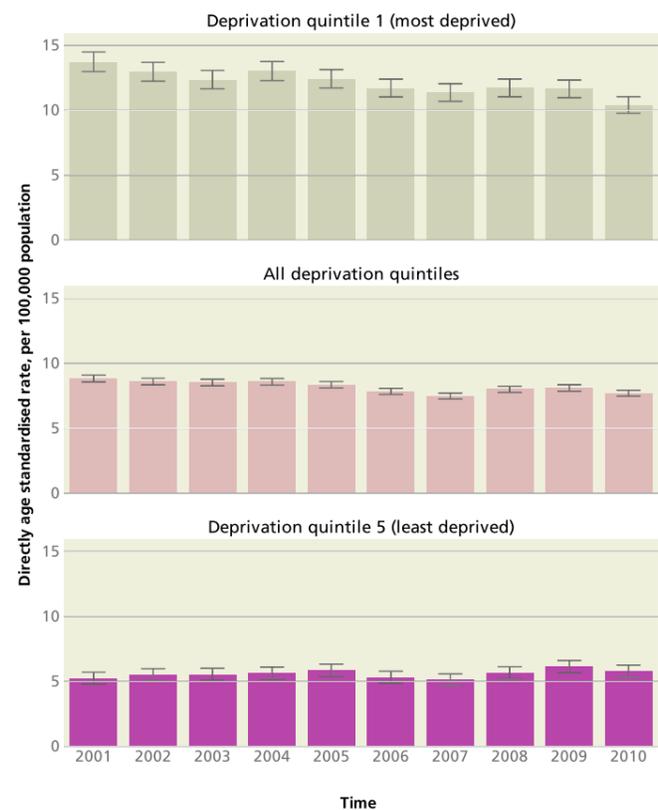
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Average annual mortality due to intentional self-harm and injuries of undetermined intent by upper tier local authority, England, 2008-10
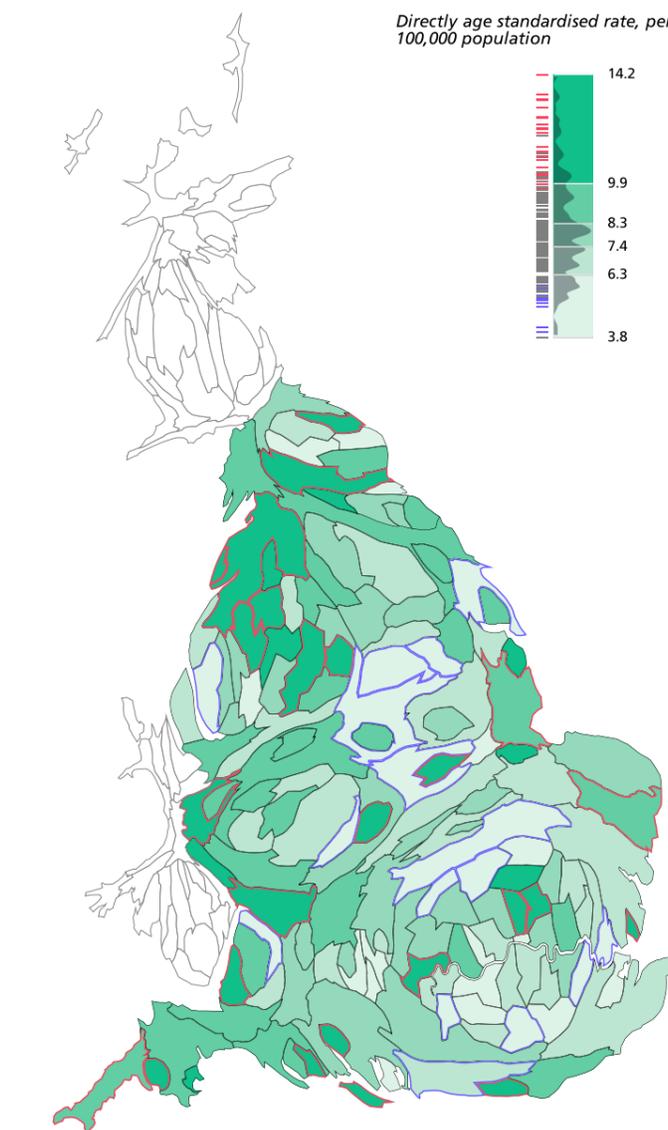
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Key facts

- Around 118,600 potential years of life lost (to age 75) from intentional self-harm/injury of undetermined intent in 2010 (5% of all PYLL)
- Around 124,000 emergency hospital bed days due to intentional self-harm in 2010/11 (<1% of all bed days)
- Main cause – PYLL: suicides by hanging, strangulation/ suffocation (56%)
- Main cause – bed days: drug-related poisoning (75%)

Trend in mortality due to intentional self-harm and injuries of undetermined intent (and sub-categories), England, 2001 to 2010
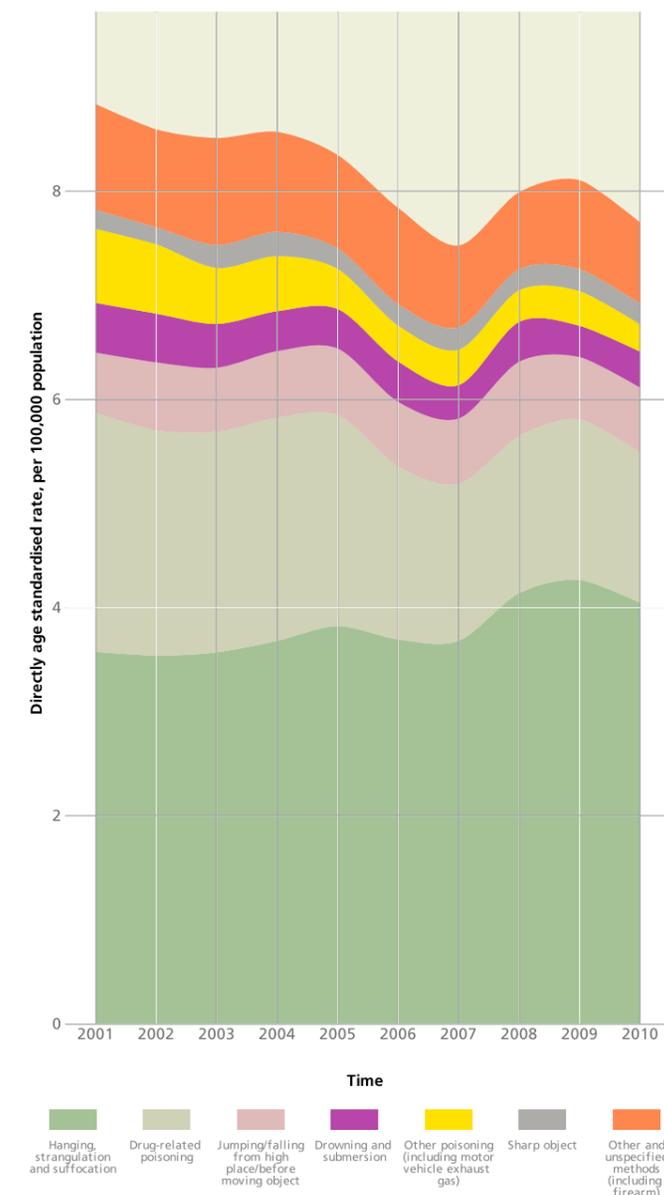
Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Victims of violence often suffer ongoing health, emotional and social problems. Childhood exposure to violence increases the risk of health damaging behaviour later and conditions such as mental illness, obesity, cancer and heart disease. It also increases risks of further violence, as either victim, perpetrator, or both.

In 2010/11, violence resulted in 33,000 emergency hospital admissions and around ten times as many emergency department attendances. Mortality due to violence was significantly lower in 2010 than in 2001, but this has not been a linear decrease.

Mortality rates are highest in young males. Higher rates of hospital admissions and mortality due to violence are associated with deprivation.

Some forms of violence are largely hidden e.g. child abuse, elder maltreatment and intimate partner (domestic) and sexual violence.

Health professionals (particularly midwifery and health visitor services) are well placed to identify and support victims, and to implement primary violence prevention. There is strong evidence that early life interventions, such as nurse home visiting and parenting programmes, can have sustained benefits in preventing violence.

Average annual mortality due to violence by age and sex, England, 2008-10
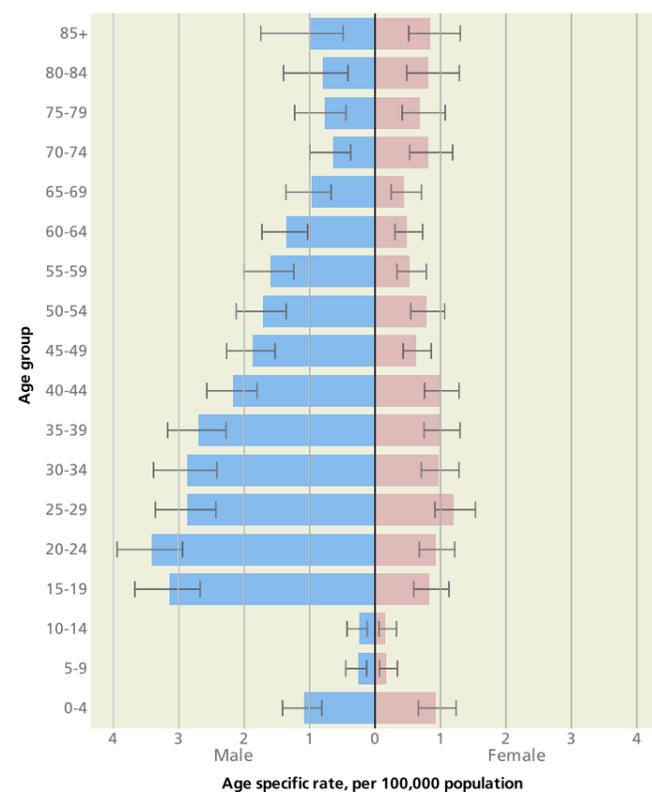
Source: Death registrations and 2008 to 2010 population estimates, ONS. (Analysis by DH)

Trend in mortality due to violence by deprivation, England, 2001 to 2010

Source: Death registrations and 2001 to 2010 population estimates, ONS. (Analysis by DH)

Emergency hospital admissions due to violence by type and age, England, 2010/11
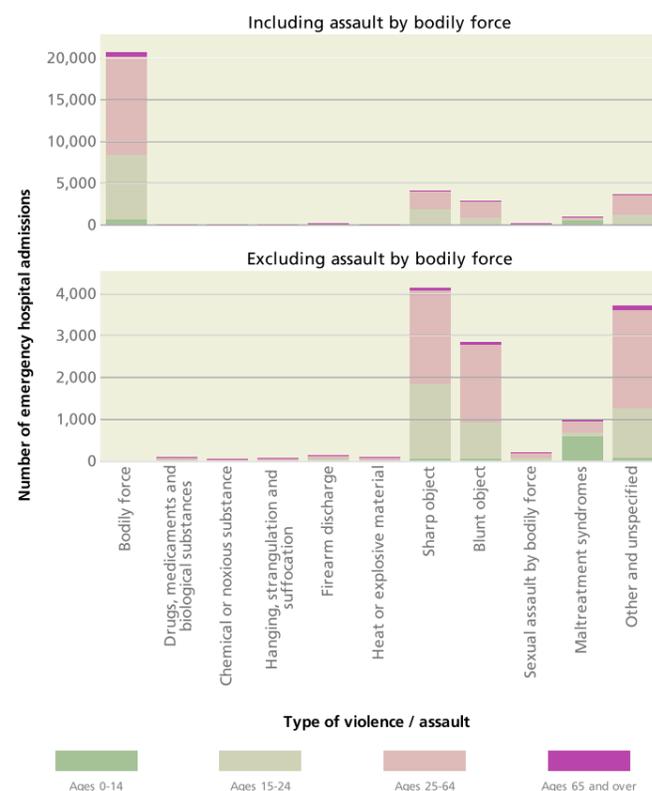

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. (Analysis by PHOs, led by EMPHO)

Average annual emergency hospital admission rates due to violence by upper tier local authority, England, 2008/09 -2010/11

Directly age standardised rate, per 100,000 population

Source: Hospital Episode Statistics (HES), Health and Social Care Information Centre. Crown Copyright © 2012. 2008 to 2010 population estimates supplied by ONS. (Extracted from Injury Profiles produced by PHOs)
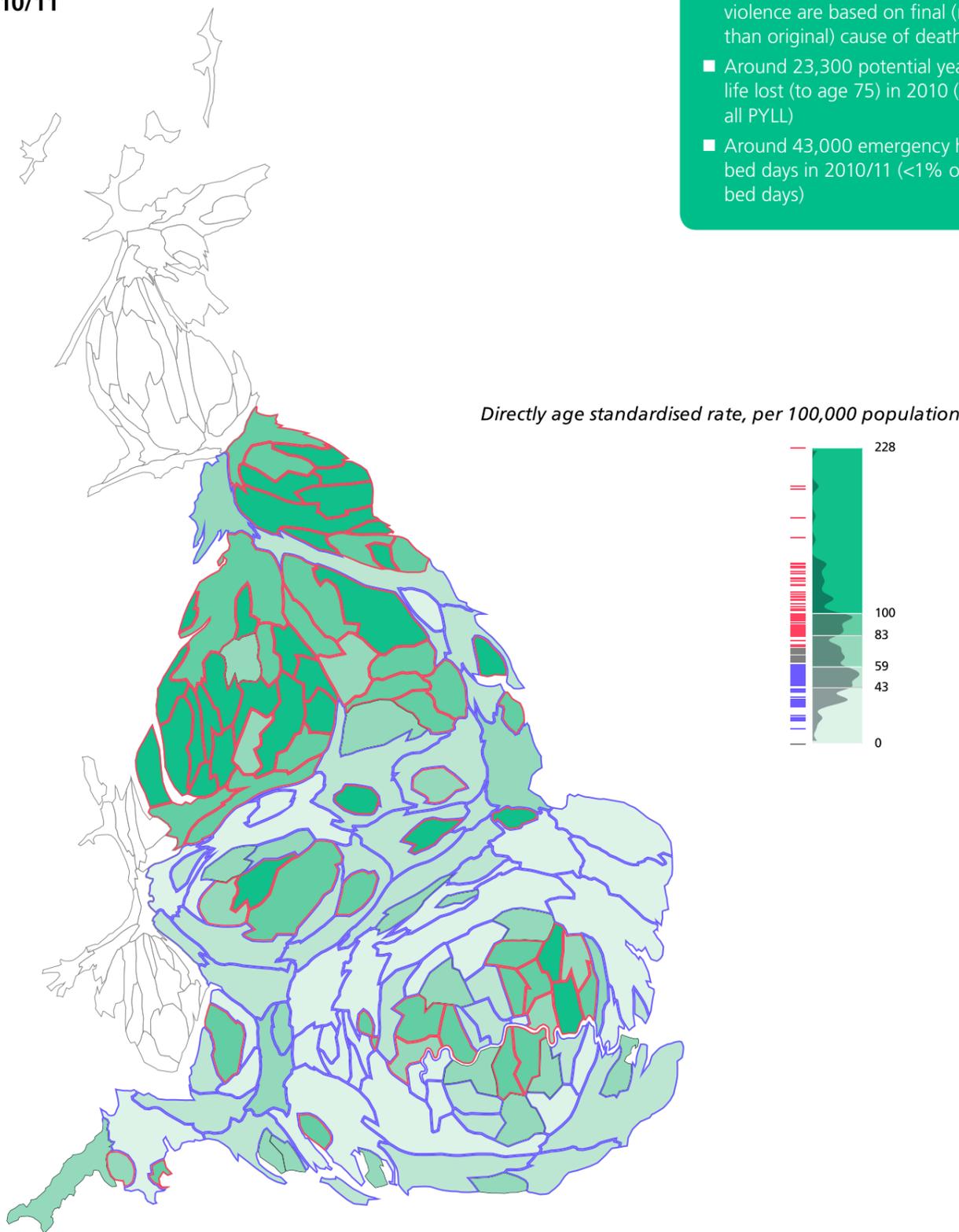
Key facts

- The figures on mortality from violence are based on final (rather than original) cause of death
- Around 23,300 potential years of life lost (to age 75) in 2010 (1% of all PYLL)
- Around 43,000 emergency hospital bed days in 2010/11 (<1% of all bed days)

ICD10 codes for disease/condition categories in Chapter 2

- This list covers categories defined using ICD codes, i.e. relating to deaths (mortality rates, years of life lost), hospital activity (admissions, bed days), and cancer incidence data.

- Chapter 2 topics are listed here in the same sequence in which they appear in the chapter (some adjacent page titles have been grouped).

- Categories shown with an **asterisk** are used for the years of life lost / bed days overall total in 'Key facts'.

- Deaths data are based on 'original' cause of death recorded using the specified ICD codes, except for data on deaths from violence which is based on 'final' cause or if otherwise specified. Data for specific causes excludes neonatal deaths.

- Hospital activity data is based on primary diagnosis in Hospital Episode Statistics (HES), except for injury categories (see injury categories for details).

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
All cause mortality*	All causes	Deaths data: All deaths (including neonatal) Hospital activity data: A00-T98
Sub-categories:	Infectious and parasitic diseases (including otitis media)	A00-B99, G00, G03-G04, N70-N73, J00-J22, H65-H66
	Malignant neoplasms	C00-C97
	Neuropsychiatric conditions	F01-F99, G06-G98
	Cardiovascular diseases	I00-I99
	Respiratory diseases (excluding infectious respiratory diseases)	J30-J99
	Injuries	V01-Y89 (for deaths: plus U50.9)
	Other causes	All causes minus sub-categories above (for deaths: includes all neonatal deaths)
Communicable diseases*	Infectious and parasitic diseases; for deaths and hospital bed days data: including otitis media	A00-B99, G00, G03-G04, N70-N73, J00-J22, H65-H66
	Infectious and parasitic diseases; for hospital admissions data: excluding otitis media	A00-B99, G00, G03-G04, N70-N73, J00-J22
Sub-categories:	Infectious respiratory diseases (including otitis media)	J00-J22, H65-H66
	Intestinal infectious diseases	A00-A09 excluding A05
	HIV	B20-B24
	Tuberculosis	A15-A19, B90
	Viral hepatitis	B16-B19
	Other (including STIs and vaccine preventable diseases)	Infectious and parasitic diseases not included in sub-categories above

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
Tuberculosis*	Tuberculosis	A15-A19, B90
HIV/AIDS*	HIV	B20-B24
Salmonella and VTEC infections*	Salmonella and VTEC infections	A02, A04.3
Campylobacter, cryptosporidiosis, and other GI infections*	Campylobacter, cryptosporidiosis and other GI infections	A04.5, A07.2, A03, A08.0, A08.1, A32, A07.1, A05.1
Meningitis*	Meningitis	A39, G00, G03
Hepatitis – hepatitis B and hepatitis C*	Hepatitis B and C	B16-B19
Sub-categories:	Hepatitis B	B16-B19 excluding B17.1, B18.2
	Hepatitis C	B17.1, B18.2
Respiratory infections*	Respiratory infections (excluding influenza)	J00-J06, J12-J18, J20-J22, H65-H66
Sub-categories:	Upper respiratory tract infections	J00-J06
	Lower respiratory tract infections	J12-J18, J20-J22
Influenza*	Influenza	J09-J11
Maternal, infant and perinatal conditions	Maternal haemorrhage	O44-O46, O67, O72
	Maternal sepsis	O85-O86
	Hypertensive disorders of pregnancy	O10-O16
	Obstructed labour	O64-O66
	Abortion	O00-O07
	Conditions arising during the perinatal period	P00-P96
Sub-categories:	Prematurity and low birthweight	P05, P07, P22, P27-P28
	Birth asphyxia and birth trauma	P03, P10-P15, P20-P21, P24-P26, P29
	Other perinatal conditions	Conditions arising during the perinatal period not included in sub-categories above
All cancers*	Malignant neoplasms (for incidence: excluding non-melanoma skin cancer)	C00-C97 (for incidence: excluding C44)
Sub-categories	Mouth, pharynx and salivary glands	C00-C14
	Oesophagus	C15
	Stomach	C16
	Colon, rectosigmoid junction and rectum	C18-C20
	Liver	C22
	Pancreas	C25
	Larynx	C32
	Trachea, bronchus and lung	C33-C34
	Malignant melanoma of skin	C43
	Breast	C50
	Cervical	C53
	Uterine	C54-55
	Ovarian	C56

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	Prostate	C61
	Testis	C62
	Kidney	C64
	Bladder	C67
	Brain	C71
	Cancer of unknown primary	C77-C80
	Hodgkin disease	C81
	Non-Hodgkin lymphoma	C82-C85
	Multiple myeloma	C90
	Chronic lymphocytic leukaemia	C91.1
	Acute Myeloid Leukaemia	C92.0, C92.4, C92.5, C93.0, C94.0, C94.2
Cancers of the mouth, pharynx and salivary glands*	Cancers of the mouth, pharynx and salivary glands	C00-C14
Oesophageal cancer*	Oesophageal cancer	C15
Sub-categories:	Upper and middle oesophagus	C15.0-C15.1, C15.3-C15.4, plus C15.8-C15.9 with a morphology code 8050-8083
	Lower oesophagus	C15.2, C15.5, plus C15.8-C15.9 with a morphology code 8140-8576
	Oesophagus Not Otherwise Specified (NOS)	Oesophageal cancer not included in sub-categories above
Stomach cancer*	Stomach cancer	C16
Colon and rectal cancers*	Colon, rectosigmoid junction and rectum cancers	C18-C20
Liver cancer*	Liver cancer	C22
Pancreatic cancer*	Pancreatic cancer	C25
Trachea, bronchus and lung cancers*	Trachea, bronchus and lung cancers	C33-C34
Melanoma and other skin cancers*	Melanoma and other skin cancers	C43-C44
	Malignant melanoma of skin	C43
Breast cancer*	Breast cancer	C50
Cervical cancer*	Cervical cancer	C53
	Vulva and vagina cancers	C51-C52
Uterine and ovarian cancer*	Uterine cancer	C54-55
	Ovarian cancer	C56
Prostate cancer*	Prostate cancer	C61
Bladder cancer*	Bladder cancer	C67
Acute Myeloid Leukaemia*	Acute Myeloid Leukaemia	C92.0, C92.4, C92.5, C93.0, C94.0, C94.2
Non-Hodgkin lymphoma*	Non-Hodgkin lymphoma	C82-C85
Diabetes mellitus*		Note: PYLL and hospital bed days not calculated due to data concerns. Mortality data taken for the National Diabetes Audit

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	All diabetes	E10-E14
Sub-categories:	Insulin-dependent diabetes	E10
	Non-insulin dependent diabetes	E11
Mental health problems*	Psychiatric disorder	F04-F69, F80-F99
Dementia*	Dementia	F01-F03, G30-G31
Sense organ diseases*	All sense organ diseases	H00-H61, H68-H93
Sub-categories:	Sight[1]	H00-H59
	Ear	H60-H61, H68-H93
Cardiovascular disease - all*	Cardiovascular diseases[2]	I00-I99
Sub-categories:	Coronary heart disease (including acute myocardial infarction)	I20-I25
	Coronary heart disease (excluding acute myocardial infarction)	I20, I22-I25
	Acute myocardial infarction	I21
	Cerebrovascular disease [Used for deaths data]	I60-I69
	Stroke [Used for hospital activity data]	I61-I64
	Heart failure	I50
	Hypertension	I10-I15
	Other cardiovascular diseases	Cardiovascular diseases not included in sub-categories above
Cardiovascular disease - coronary heart disease*	Coronary heart disease (including acute myocardial infarction)	I20-I25
Sub-categories:	Acute myocardial infarction	I21
Cardiovascular disease - stroke*	Cerebrovascular disease [Used for deaths data]	I60-I69
	Stroke [Used for hospital activity data]	I61-I64
Respiratory diseases - all*	Respiratory diseases	J00-J99
Sub-categories:	Infectious respiratory diseases	J00-J22
	COPD	J40-J44
	Asthma	J45-J46

1 For data on preventable and non preventable sight loss, ICD-9 codes were used to categorize the cause of sight loss. For glaucoma: 365 (and all nested under this) and a bespoke code to identify secondary glaucoma. For diabetes: 362.0, 362.01, 362.02 and a bespoke code to identify diabetic maculopathy. For Age-Related Macular Degeneration (AMD) : 362.5, 362.50, 362.51 and 362.52. The preventable sight loss category is all glaucoma and diabetic maculopathy and AMD cases. Please note that a number of the cases falling into this group may not be preventable.

2 For data from the Health Survey for England informants are classified as having any CVD condition if they reported having any of the following conditions confirmed by a doctor: angina, heart attack, stroke, heart murmur, irregular heart rhythm, 'other heart trouble'. High blood pressure and diabetes are not included in this definition. Informants are classified as having CHD if they reported having angina or a heart attack confirmed by a doctor.

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	Other respiratory diseases	Respiratory diseases not included in sub-categories above
Respiratory diseases - COPD and asthma*	COPD	J40-J44
	Asthma	J45-J46
Digestive diseases (including cirrhosis of the liver)*	Digestive diseases	K20-K92, I85
Sub-categories:	Cirrhosis of the liver	K70, K74
	Gastrointestinal bleeding	I85.0, K22.6, K22.8, K25.0, K25.2, K25.4, K25.6, K26.0, K26.2, K26.4, K26.6, K27.0, K27.2, K27.4, K27.6, K28.0, K28.2, K28.4, K28.6, K92.0, K92.1, K92.2
	Diverticular disease	K57.2-K57.9
	Other digestive diseases (including IBD and appendicitis)	Digestive diseases not included in sub-categories above
Liver diseases*	Liver disease	B15-B19, K70-K77, I81, I85, C22, T86.4
Sub-categories:	Diseases of the liver (including cirrhosis of the liver)	K70-K77
	Cancer of the liver	C22
	Infectious hepatitis	B15-B19
	Other liver disease	Liver diseases not included in sub-categories above
Genitourinary diseases*	Genitourinary diseases	N00-N64, N75-N98
Sub-categories:	Chronic Kidney Disease	N18
Skin diseases*	All skin diseases	L00-L99
Musculoskeletal diseases*	All musculoskeletal diseases	M00-M99
Sub-categories:	Osteoarthritis	M15-M19
	Hip fractures	S72.0, S72.1, S72.2
Dental disease - child and Dental disease - adult*	Dental disease - child and adult	K00-K14
Injuries - all†*	Injuries	V01-Y89 (for deaths: plus U50.9)
Sub-categories presented in mortality chart:	Motor vehicle traffic accidents	V02–V04 (4th digit .1,.9 only), V09.2, V12–V14 (4th digit .3–.9 only), V19 (4th digit .4–.6 only),V20–V28 (4th digit .3–.9 only), V29 (4th digit .4–.9 only), V30–V79 (4th digit .4–.9 only), V80 (4th digit .3–.5 only), V81.1, V82.1, V83–V86 (4th digit .0–.3 only), V87(4th digit .0–.8 only), V89.2

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	Accidental falls (excluding unspecified accident with secondary cause of fracture of femur)	W00-W19
	Accidental poisoning	X40-X49
	Accidental suffocation	W75-W84
	Accidental drowning	W65-W74
	Accidental exposure to smoke, fire and flames	X00-X09
	Intentional self-harm and injuries of undetermined intent	X60-X84, Y10-Y34 (excluding Y33.9 to 2006)
	Other injuries	All injuries not included in sub-categories above
Sub-categories presented in hospital admissions charts:	Motor vehicle traffic accidents	as listed above
	Accidental falls (excluding unspecified accident with secondary cause of fracture of femur)	W00-W19
	Accidental poisoning	X40-X49
	Accidental drowning	W65-W74
	Accidental exposure to smoke, fire and flames	X00-X09
	Other and unspecified unintentional injury	V01-V99 minus motor vehicle traffic accidents, W20-W64, W75-W99, X10-X39, X50-X59
	Complications of medical/surgical care	Y40-Y84
	Intentional self-harm	X60-X84
	Injury of undetermined intent	Y10-Y34
	Violence	X85-Y09
Injuries - road traffic accidents†*	Motor vehicle traffic accidents	V02–V04 (4th digit .1,.9 only), V09.2, V12–V14 (4th digit .3–.9 only), V19 (4th digit .4–.6 only), V20–V28 (4th digit .3–.9 only), V29 (4th digit .4–.9 only), V30–V79 (4th digit .4–.9 only), V80 (4th digit .3–.5 only), V81.1, V82.1, V83–V86 (4th digit .0–.3 only), V87(4th digit .0–.8 only), V89.2
Sub-categories:	Motor vehicle occupant injured in traffic accident	V30–V79 (4th digit .4–.9 only), V83–V86 (4th digit .0–.3 only)
	Motorcyclist injured in traffic accident	V20–V28 (4th digit .3–.9 only), V29 (4th digit .4–.9 only)
	Pedestrian injured in collision with motor vehicle in traffic accident	V02–V04 (4th digit .1,.9 only), V09.2
	Pedal cyclist injured in collision with motor vehicle in traffic accident	V12–V14 (4th digit .3–.9 only), V19 (4th digit .4–.6 only)

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	Other and unspecified motor vehicle traffic accident	Motor vehicle traffic accidents not included in sub-categories above
Injuries – poisonings†*	Accidental poisoning	X40-X49
Sub-categories:	Narcotics and hallucinogens	X42
	Other drugs, medicaments and biological substances	X40-X41, X43-X44
	Nonopioid analgesics, antipyretics and antirheumatics	X40
	Antiepiletic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not elsewhere classified	X41
	Other drugs acting on the autonomic nervous system	X43
	Other and unspecified drugs, medicaments and biological substances	X44
	Alcohol	X45
	Gases and vapours	X46-X47
	Organic solvents and halogenated hydrocarbons and their vapours	X46
	Other gases and vapours	X47
	Other and unspecified chemicals and noxious substances	X48-X49
	Pesticides	X48
	Other and unspecified chemicals and noxious substances	X49
Injuries - falls*	Note: hospital activity (admissions, bed days) data are based on diagnosis (any position) S00-T98 plus cause code as specified	
	Accidental falls (excluding unspecified accident with secondary cause of fracture of femur)	W00-W19
	Unspecified accident with secondary cause of fracture of femur [Used for hostial activity data]	X59 (underlying cause) with S72 (secondary cause)
Injuries - suicide and self-harm†*	Intentional self-harm and injuries of undetermined intent [Used for deaths data]	X60-X84, Y10-Y34 (excluding Y33.9 to 2006)
	Intentional self-harm [Used for hospital activity data]	X60-X84
Sub-categories:	Hanging, strangulation and suffocation	X70 (for deaths: plus Y20)
	Drug-related poisoning	X60-X64 (for deaths: plus Y10-Y14)

CHAPTER 2 TOPIC	CATEGORY	ICD 10 CODE
	Jumping/falling from high place/before moving object	X80-X81 (for deaths: plusY30-Y31)
	Jumping/falling from high place	X80 (for deaths: plus Y30)
	Jumping/lying/falling before moving object	X81 (for deaths: plus Y31)
	Drowning and submersion	X71 (for deaths: plus Y21)
	Other poisoning (including motor vehicle exhaust gas)	X65-X69 (for deaths: plus Y15-Y19)
	Sharp object	X78 (for deaths: plus Y28)
	Other and unspecified method	For deaths data: Intentional self-harm and injuries of undetermined intent not included in sub-categories above For hospital activity data: Intentional self-harm not included in sub-categories above
Injuries – violence*	Notes: 1) Data on deaths from violence is based on 'final' cause of death 2) Hospital activity (admissions, bed days) data is based on diagnosis (any position) S00-T98 plus cause code as specified EXCEPT for map of hospital admissions due to violence by upper tier local authority, which is based on cause code only	
	Violence	X85-Y09 (for deaths: plus U50.9)
Sub-categories:	Drugs, medicaments and biological substances	X85
	Chemical or noxious substance	X86-X90
	Hanging, strangulation and suffocation	X91
	Firearm discharge	X93-X95
	Heat or explosive material	X96-X98
	Sharp object	X99
	Blunt object	Y00
	Bodily force	Y04
	Sexual assault by bodily force	Y05
	Maltreatment syndromes	Y06-Y07
	Other and unspecified	Violence not included in sub-categories above

† Note: hospital activity (admissions, bed days) data is based on diagnosis (any position) S00-T98 plus cause code as specified