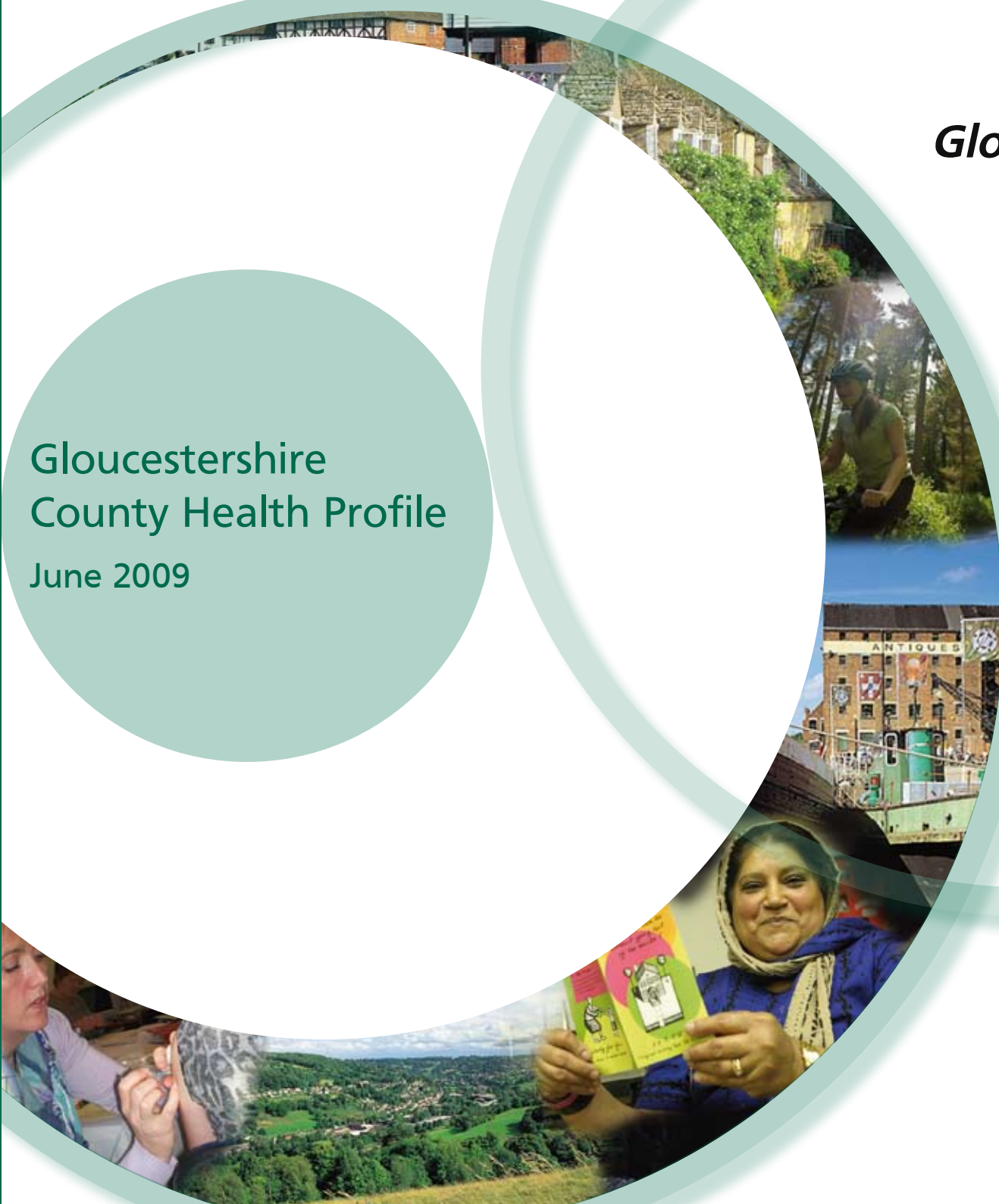


# gloucestershire healthy living

Gloucestershire  
County Health Profile  
June 2009



**NHS**

*Gloucestershire*



Gloucestershire  
Conference

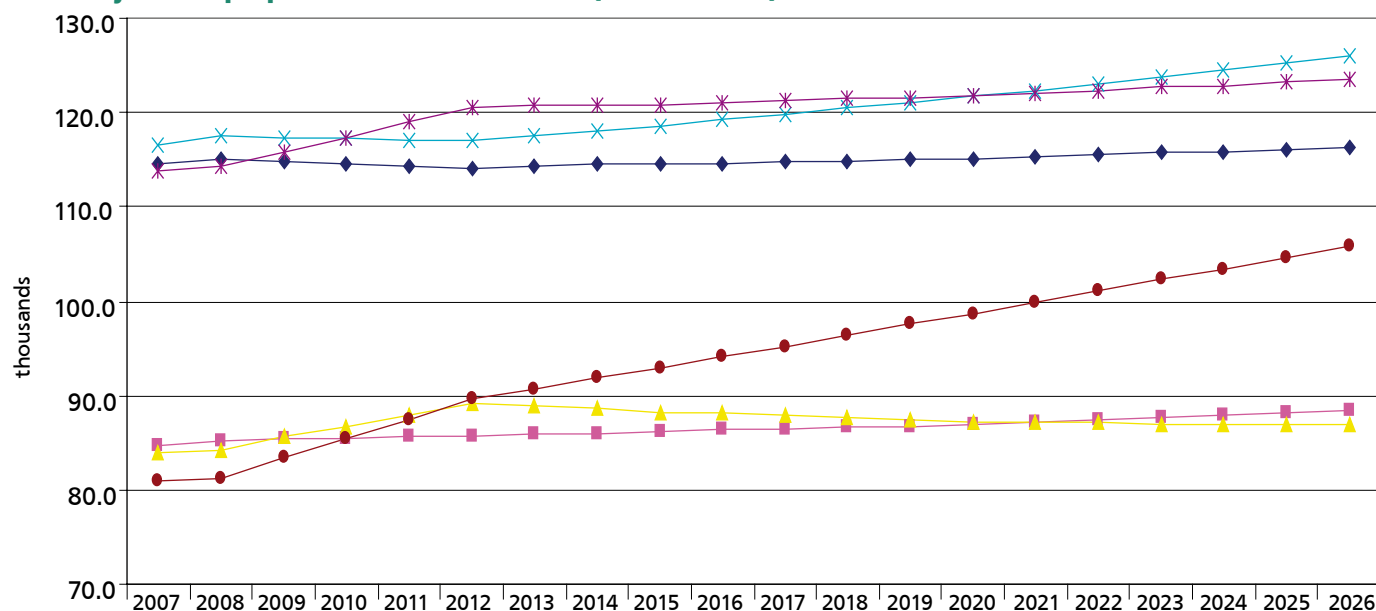
# A picture of Gloucestershire – now and in the future

Gloucestershire is a diverse county with a population of approximately 597,500 residents. It is mainly rural, with two major urban centres of Gloucester and Cheltenham at its heart. Nearly 40% of the county's population live in Gloucester and Cheltenham.

Estimates suggest that the county's resident population will increase by between 8 and 12% by 2026 to around 647,200<sup>1,2</sup>.

The age structure of the population varies within the county, with some districts having a 'younger' profile than others. These profiles are described in more detail in the area profiles for each district. Figure 1 shows the projected population change for each district in Gloucestershire between 2007 and 2026.

**Figure 1: Projected population in districts (thousands) 2007-2026**



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
◆ Cheltenham	114.5	115.1	114.9	114.6	114.4	114.1	114.3	114.5	114.5	114.6	114.7	114.9	115.0	115.1	115.4	115.6	115.7	115.8	116.1	116.4
■ Cotswold	84.8	85.2	85.4	85.5	85.7	85.8	85.9	86.0	86.1	86.3	86.5	86.6	86.8	86.9	87.2	87.4	87.6	87.9	88.1	88.5
▲ Forest of Dean	84.1	84.2	85.6	86.8	88.0	89.2	88.9	88.6	88.2	88.1	87.9	87.7	87.4	87.2	87.1	87.1	87.0	86.9	86.9	86.9
✕ Gloucester	116.5	117.5	117.4	117.2	117.1	117.0	117.6	118.1	118.7	119.2	119.8	120.4	121.0	121.7	122.4	123.1	123.9	124.6	125.3	126.1
✱ Stroud	113.9	114.2	115.8	117.4	119.1	120.6	120.8	120.8	120.9	121.1	121.3	121.5	121.6	121.8	122.0	122.4	122.7	122.9	123.2	123.5
● Tewkesbury	80.9	81.3	83.4	85.4	87.5	89.6	90.7	91.8	92.9	94.1	95.2	96.4	97.6	98.7	99.9	101.1	102.3	103.5	104.6	105.8

Source: Gloucestershire Story 2008. Research Team, Gloucestershire County Council

1 Gloucestershire Story, 2008. Research Team Chief Executive Support Unit, Gloucestershire County Council, ONS.

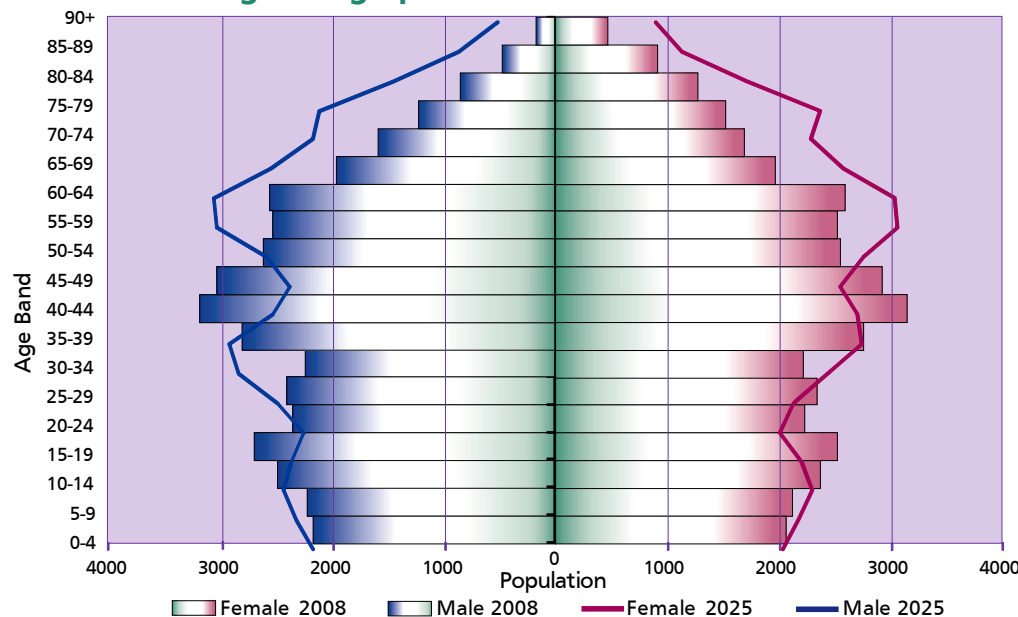
2 ONS.



Overall, the population of Gloucestershire is expected to follow national trends with an increase in the numbers of older people and single person households, creating an increased demand on housing, health and social services. Our older population (65+) is expected to grow by approximately 50% between 2008 and 2025, from 106,800 to 158,200 – an increase of 51,400 people. Figure 2 shows the distribution of the population across age groups for males and females in 2008 (represented by bars) compared with 2025 (represented by the lines).

Within 3 years, people aged over 65 will outnumber people aged under 19 years in our county for the first time

**Figure 2: Gloucestershire Population Pyramid : Showing change in age profile between 2008 and 2025**



Source: eJSNA data

The county's 0-19 population (138,800) is expected to remain almost static between 2008 and 2025, with a predicted increase of only 400 young people. The number of working age people (20 to 64 years old) is projected to increase by only 1.1% (3,700 people)<sup>2</sup>.

2 Gloucestershire JSNA 2008

## Deprivation

Deprivation throughout England can be measured using the Indices of Multiple Deprivation (IMD)<sup>3</sup>. These include 38 indicators of deprivation contained in seven domains relating to:

- income deprivation
- employment deprivation
- health deprivation and disability
- education, skills and training deprivation
- barriers to housing and services
- living environment deprivation
- crime.

The IMD measures the levels of deprivation that people experience within different areas of the country. This information is then used to identify areas where resources may need to be targeted.

Levels of deprivation have been measured for three different types of area throughout England. These are large administrative areas (e.g. counties and London boroughs), smaller administrative areas (e.g. districts and unitary authorities) and localised neighbourhoods called Lower Super Output Areas (LSOA). Lower Super Output Areas are small geographical units (neighbourhoods) with 1,000 to 3,000 residents. They provide a more in-depth appreciation of variations in deprivation at a local level. We have used the latest IMD 2007 as a measure of multiple deprivation at this local neighbourhood level.

The IMD 2007 is an updated version of the IMD 2004 and uses the same methodology. This allows us to compare levels of deprivation in 2007 with those seen in 2004. IMD scores are ranked at a national level and it is therefore a 'relative' score. The results of this comparison are shown in Table 1. According to the IMD 2007:

- Cheltenham appears to have an increased level of deprivation compared to 2004
- Gloucester city also shows increased levels of deprivation compared with 2004

3 See [www.communities.gov.uk](http://www.communities.gov.uk)

- Stroud district shows slight increase in deprivation compared to 2004
- Tewkesbury district has moved out of the least deprived fifth of areas (quintile) of local authorities nationally
- In Cotswold, there is also a slight move towards increased deprivation but it is still, as a district, in the least deprived quintile nationally
- Forest of Dean has improved its ranking showing a slight decrease in deprivation compared to 2004.

**Table 1. Comparison of Gloucestershire's IMD rank scores between 2004 and 2007**  
(the lower the number, the greater the level of deprivation)

District	IMD 2004 rank	IMD 2007 rank
Cheltenham	224	202
Gloucester City	139	118
Stroud	289	280
Tewkesbury	296	279
Cotswold	314	298
Forest of Dean	195	201

Source: eJSNA

The county ranking for Gloucestershire has slipped from 126 (out of 149) to 121, a move towards greater overall relative deprivation, leaving the county just outside the top (least deprived) quintile of county authorities.

A report published by Government Office for the South West (GOSW) Regional Intelligence Team in January 2008 concluded:

*'The most prevalent forms of deprivation in Gloucestershire relate to barriers to housing and services, crime and the living environment. In every domain except one, all or most of the deprived neighbourhoods are in Cheltenham or Gloucester, the exception is the barriers domain, where deprivation affects more rural areas. The most notable difference between 2004 and 2007 for Gloucestershire is the crime domain, where almost twice as many neighbourhoods are now within the most deprived 10% in England.'*

In addition to the changes noted by GOSW, a small but significant worsening in the measures of the employment domain also had a negative impact upon the overall score for the IMD 2007, because of the weighting applied to measures in that domain.

Deprivation in Gloucestershire increased overall between 2004 to 2007 mainly relating to barriers to housing and services, crime and the living environment.

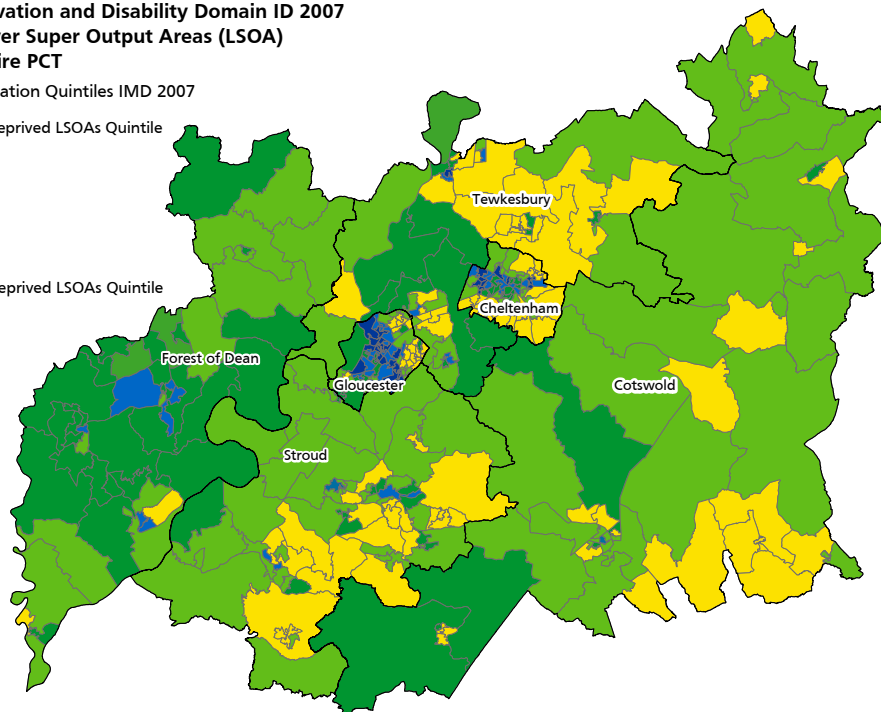
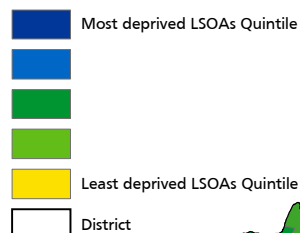
The overall picture shows that Gloucestershire is an affluent county, but with significant pockets of deprivation in both the urban and rural areas as shown in Figure 3.



### Figure 3: Index of Multiple Deprivation 2007

Health Deprivation and Disability Domain ID 2007  
by Lower Layer Super Output Areas (LSOA)  
Gloucestershire PCT

National Deprivation Quintiles IMD 2007



Source: Public Health Intelligence Unit (PHIU)

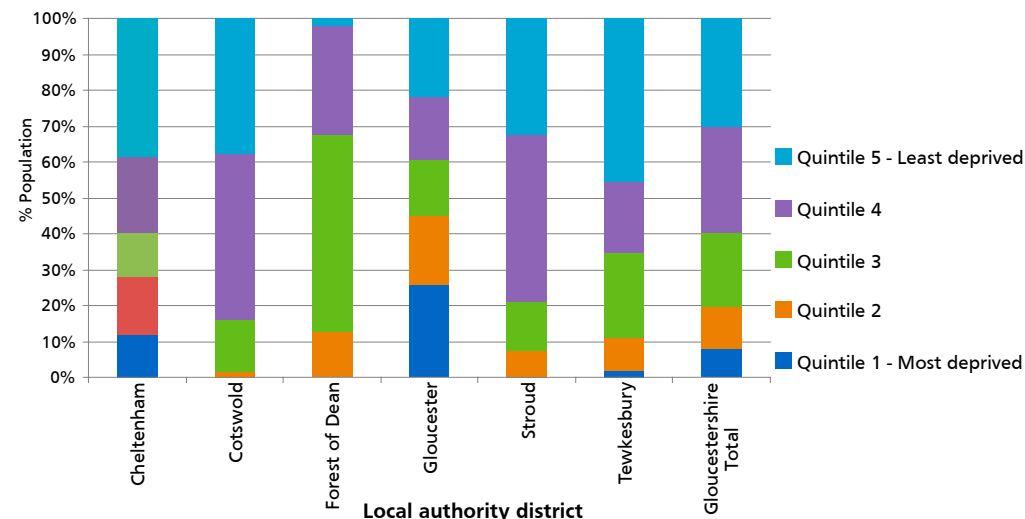
Table 2 shows the proportion of each locality’s patients who are registered with a Gloucestershire family doctor (GP) practice and who are living in neighbourhoods belonging to each of the five deprivation bands. These bands or ‘quintiles’ were derived by arranging all the local neighbourhoods (Lower Level Super Output Areas) in rank order according to their deprivation scores on the Index of Multiple Deprivation, and dividing them into five equal groups. The number of patients registered to Gloucestershire GPs in each district by quintile of deprivation is shown in Figure 4.

### Table 2: Registered patients by district and quintile of deprivation

Local Authority	Quintile 1 - Most deprived	Quintile 2	Quintile 3	Quintile 4	Quintile 5 - Least deprived	Total
Cheltenham	14,099	18,643	14,599	24,459	45,377	117,177
Cotswold	0	1,219	11,584	37,508	30,585	80,896
Forest of Dean	0	9,579	41,141	22,505	1,568	74,793
Gloucester	31,167	23,390	19,163	20,968	26,431	121,119
Stroud	0	8,276	16,113	53,381	37,227	114,997
Tewkesbury	1,394	7,100	18,840	15,787	35,839	78,960
Gloucestershire	46,660	68,207	121,440	174,608	177,027	587,942

Source: eJSNA

### Figure 4: Gloucestershire Population by deprivation bands and district



Source: Exeter extract of GP registered population 30/10/2007

Table 3 shows Gloucestershire’s local neighbourhoods and their populations which make up the most deprived fifth of areas (quintile 1) in Gloucestershire.

**Table 3: Number of residents with a Gloucestershire GP in Gloucestershire's most deprived quintile by Lower Super Output Area 2007**

Local authority	Ward	Number of registered patients in LSOAs in most deprived quintile
Cheltenham	Hester's Way	4,929
	Oakley	3,026
	Springbank	1,810
	St Mark's	1,668
	St Paul's	1,212
	Swindon Village	1,454
<b>Cheltenham Total</b>		<b>14,099</b>
Gloucester	Barnwood	1,605
	Barton and Tredworth	9,300
	Kingsholm and Wotton	1,931
	Matson and Robinswood	8,079
	Moreland	3,384
	Podsmead	1,545
Tewkesbury	Tuffley	1,628
	Westgate	3,695
<b>Gloucester Total</b>		<b>31,167</b>
<b>Tewkesbury Total</b>		<b>1,394</b>
<b>Gloucestershire Total</b>		<b>46,660</b>

Source: IMD 2007

Research shows a strong association between deprivation and ill health. Levels of smoking, obesity, alcohol-related hospital admissions and mental health problems, resulting in poorer health outcomes, are all higher in poorer neighbourhoods. Initial findings from the JSNA indicate that families and children in Gloucestershire are more likely to be living in more deprived areas.

### Health deprivation and disability domain

The health deprivation and disability domain (HDD) scores are weighted to account for 13.5% of the total IMD score. This domain identifies areas with relatively high rates of people who die prematurely, or whose quality

of life is impaired by poor health or who are disabled across the whole population.

In 2007, only 14 neighbourhoods (LSOAs) ranked in the most deprived 20% nationally for the health deprivation and disability domain, significantly fewer than for the IMD as a whole (28), showing that it is the other domains which are having a more marked effect on overall levels of deprivation as measured by the IMD than the health deprivation and disability domain (see below).

**Table 4 – Neighbourhoods in the most deprived quintile for IMD 2007 and the health deprivation and disability domain**

Local Authority	Ward	LSOAs in each ward	LSOAs in most deprived quintile of IMD 2007	LSOAs in most deprived quintile HDD domain
Cheltenham	Hesters Way	4	3	1
	Oakley	4	2	1
	Springbank	4	1	0
	St Mark's	4	1	1
	St Paul's	4	1	1
	Swindon Village	4	1	0
Gloucester	Barnwood	4	1	0
	Barton and Tredworth	7	5	4
	Kingsholm and Wotton	4	1	1
	Matson and Robinswood	7	5	1
	Moreland	7	2	0
	Podsmead	2	1	1
Tewkesbury	Tuffley	4	1	1
	Westgate	3	2	2
<b>Total</b>		<b>65</b>	<b>28</b>	<b>14</b>

The way that the health deprivation and disability domain is measured has remained unchanged since 2004 and therefore comparisons can be made. There have been some quite dramatic changes in the rankings of some

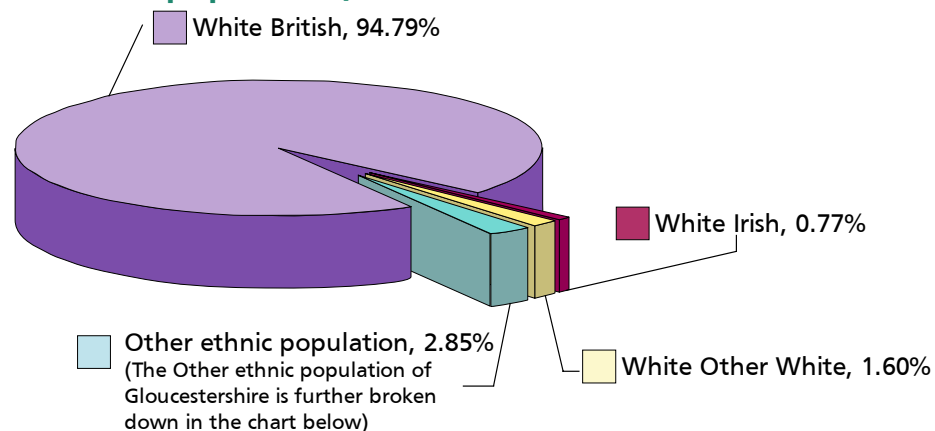
neighbourhoods in Gloucestershire from 2004 to 2007. Overall there has been a net increase in the number of neighbourhoods that have moved to a lower ranking in this domain, but it is difficult to ascertain whether this is due to increased deprivation or the fact that other areas nationally have made greater improvements than we have achieved locally.

It is likely that Gloucestershire has made gains in some areas, (for example reduced mortality rates contributing to less years of potential life lost), but has lost out in other areas (for example emergency admissions have been increasing year on year). The worsening in some areas may well be directly related to the ageing of the population. However, since the health domain is not the main driver of change between the IMD rank scores for 2004 and 2007, further investigation of this domain has not been undertaken at this stage.

### Ethnicity

Using the Office for National Statistics (ONS) system of classifications for ethnic groups, the 2001 Census showed that 94.8% of Gloucestershire people identified themselves as 'White British', with a further 2.4% identified as 'White Irish' or White 'Other' (see Figure 5). The county's 'non-white' 'black and Minority Ethnic' communities made up 2.9% of the population, and were mainly located in the urban areas, with 7.5% of the residents of Gloucester city being from black and minority ethnic communities. Gloucester city had the second highest proportion of black and minority ethnic residents in the South West, exceeded only by Bristol (8.2%). Even though the largest black and minority ethnic community was Asian, the 'White Other' group formed the largest minority ethnic group overall.

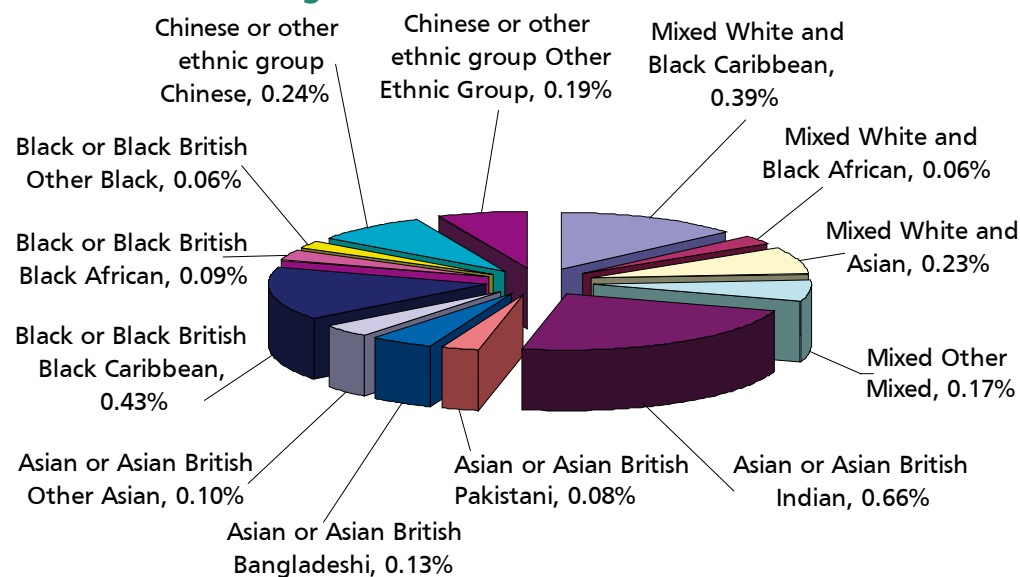
**Figure 5: Gloucestershire population (percentage of county population)**



Source: Census 2001

Figure 6 shows the ethnic minority population of Gloucestershire by ethnic group. Further information on ethnicity is presented in the district profiles.

**Figure 6: Gloucestershire "other" ethnic population by group (as percentage of the county total population excluding "white")**



Source: Census 2001

## Migration

Gloucestershire has recently experienced a sharp increase in the number of economic migrants and their children from Eastern Europe. Since April 2003, 19,913 migrant workers have applied for a National Insurance Number (NINo) in Gloucestershire<sup>4</sup>, with 2006/07 being the peak year for applications.

Although it remains the second largest destination for migrant workers in the South West (after Bristol), Gloucestershire has experienced a 5.5% decline in the number of NINo applications between 2006/07 and 2007/08. Only two districts (Forest of Dean and Tewkesbury) recorded a higher number of applications in 2007/08 than in 2006/07. Eastern Europeans continued to dominate applications in 2007/08 accounting for 58.8% of applications (43.6% Polish). Migrants from Asia and the Middle East represented 9.4% in 07/08 compared with 12% of all migrants in 2006/07. The Polish registrations were, however, 7.2% lower in 07/08 than 2006/07 figures. These changes may reflect the effect of the recent economic downturn in the country.

## Travellers

It is not known exactly how many Gypsies and Travellers there are in the county, as there is no mechanism for registering and counting this ethnic minority group. However a local needs assessment of Gypsies and Travellers estimated there are 2,000 Gypsies and Travellers in the county. This includes 'Show people' and a proportion of Gypsies and Travellers in bricks and mortar accommodation<sup>5</sup>.

The Census, whilst providing significant statistical data every ten years, has to date not included a category of Gypsies and Travellers. The Office for National Statistics is currently considering the inclusion of Gypsies and Travellers as an ethnic category for the 2011 census.

## Households

There were 249,000 households recorded in Gloucestershire in 2006 - a growth rate of 17.6% since 1991. This number is expected to rise further. The number of lone-parent households is forecast to increase moderately by 1,000 between 2007 and 2026 (increase of 6.7%). It is estimated that lone pensioners will account for about half of all one-person households by 2026<sup>6</sup>.



<sup>4</sup> *Migrant Workers in Gloucestershire – Update of Key Statistics Autumn, 2008. The Research Team. Chief Executive’s Support Team. Gloucestershire County Council.*

<sup>5</sup> *Hall, C, 2004, Health Inequalities in Gypsies and Travellers in Gloucestershire*

<sup>6</sup> *Gloucestershire Story, 2008, Research Team Chief Executive Support Unit, Gloucestershire County Council*

# Key issues for Gloucestershire

Summary tables of emerging findings from the eJSNA for the county and each district are provided in the Gloucestershire County Health Profile. This has enabled us to identify some priority issues for Gloucestershire and each district. In addition as we plan for the next twenty years we will need to account for continuous slow population growth and a sharp increase in household numbers in some parts of the county. Other identified key demographic issues for Gloucestershire include an ageing workforce, an overall decrease in the child population, high levels of population turnover and an increasingly diverse population<sup>7</sup>.

## Issues for Gloucestershire

- The biggest challenge for Gloucestershire is its ageing population. It already has a larger proportion of people aged 65 and over compared to England as a whole, and these populations are estimated to increase by 46% compared to 40% nationally by 2025. This means that we will see an increase in conditions such as dementia, heart disease and stroke.
- Although Gloucestershire as a county is not deprived, there are significant areas of deprivation with differences in life expectancy of seven years for women and eight years for men between areas of affluence and deprivation.
- Although our childhood immunisation rates are above the national average, it is important that we increase full uptake of the Measles Mumps and Rubella (MMR) vaccine, in particular, if we are to avoid outbreaks of measles.

Specific public health issues identified in the eJSNA where rates are higher than in England include:

- Levels of overweight children
- Levels of obesity in adults
- The number of adults who smoke
- Smoking during pregnancy
- Mortality rates from suicide and undetermined injury in males.

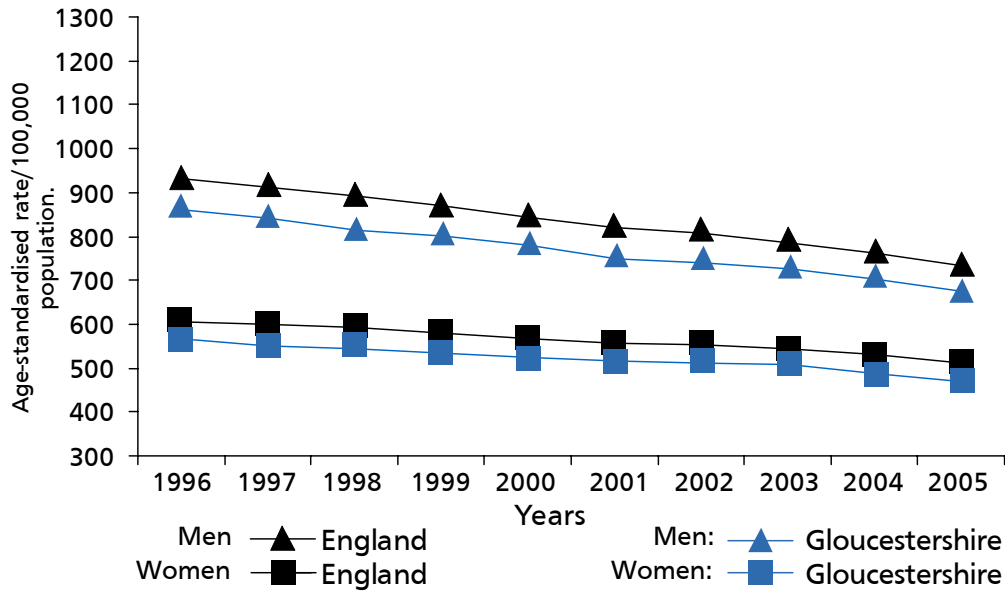
Source: eJSNA

# Morbidity and mortality

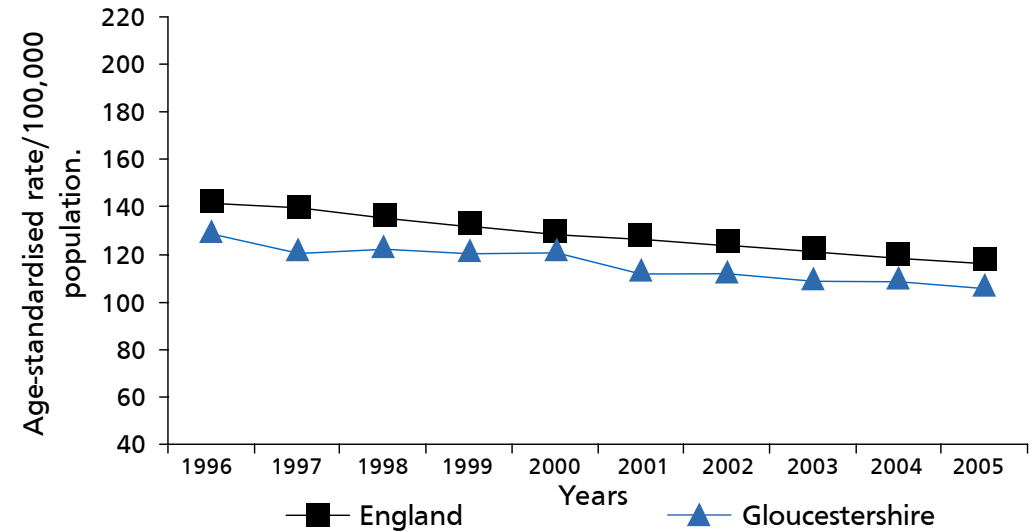
Gloucestershire's health compares favourably with national figures according to the 2001 census. Overall, 70.9% of the Gloucestershire population consider themselves in good health. Only 7.3% feel their health is 'not good', compared to a national figure of 9.2%.

Between 1996-2005, all age all cause mortality, early deaths from cancer and early deaths from heart disease and stroke have been steadily declining in the county and are lower than the average for England. These findings are shown in Figures 7 to 9. Standardised rates have been used as these adjust for the influence of the older population in which there would be a higher number of deaths.

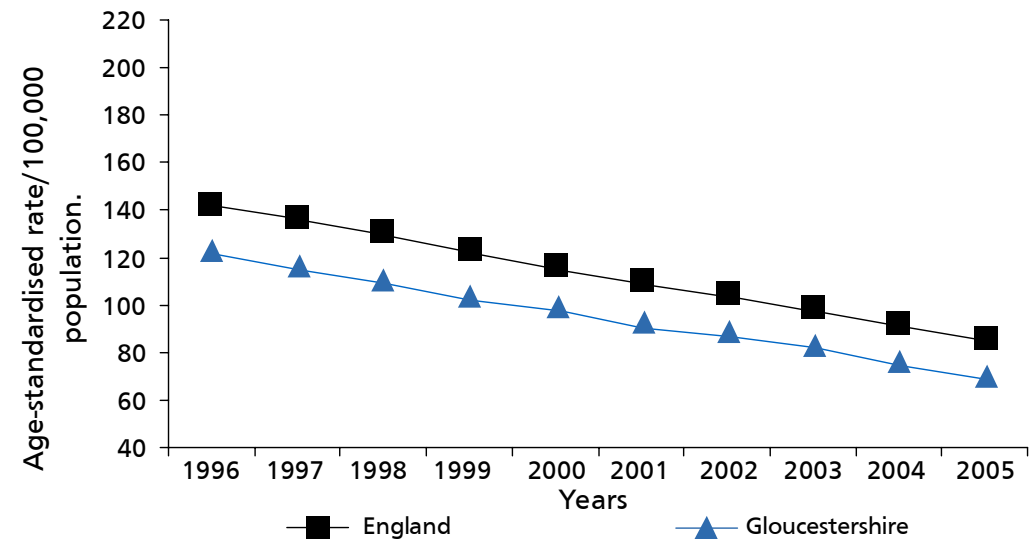
**Figure 7: Trend 1. All age, all cause mortality**



**Figure 8: Trend 2. Early death rates from cancer**



**Figure 9: Trend 3. Early death rates from heart disease and stroke**



While overall health in Gloucestershire is good, there are variations in health between districts in Gloucestershire. Figure 10 below shows the trend in early deaths from cancer for each district in Gloucestershire between 1995 and 2007. It shows that early death rates from cancer have been declining overall in each district except Cheltenham which shows an



increase from 2005, although early death rates from cancer are still below the average for England and Wales. Early deaths from cancer are high in the Forest of Dean and Gloucester compared to the county average and are in line with the average for England and Wales. All other districts have rates below the England and Wales average.

**Figure 10. Mortality from all cancers in Gloucestershire: age-standardised rates for ages under 75**

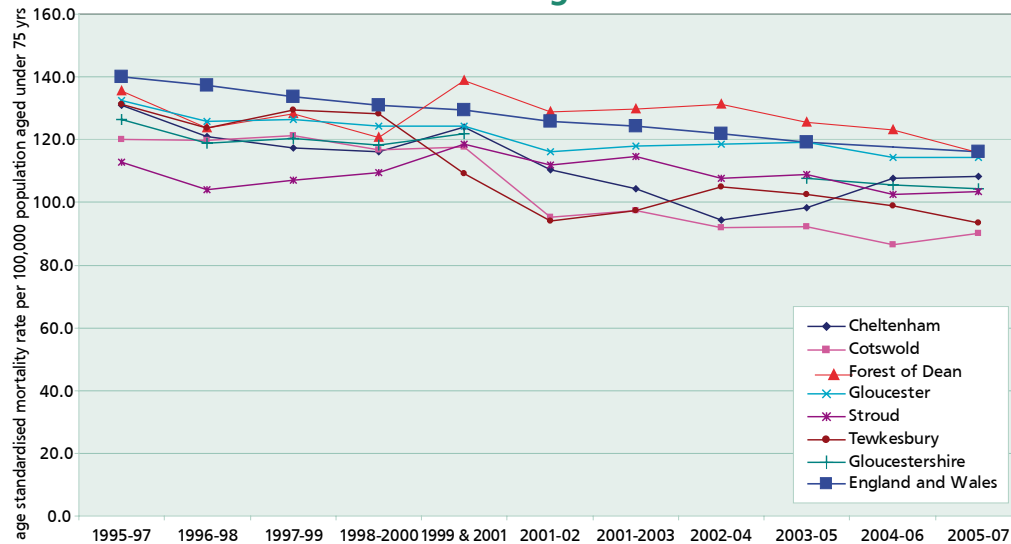
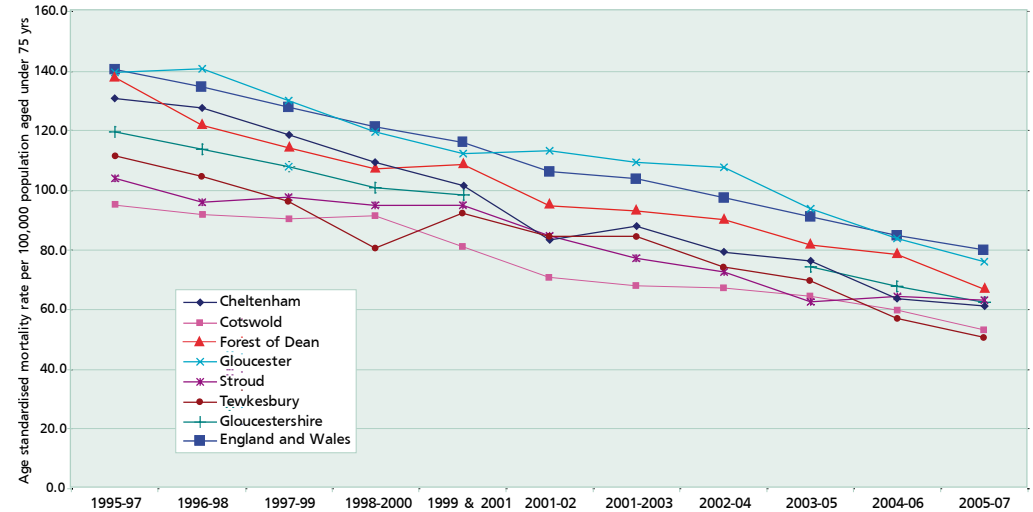


Figure 11 shows the trend in early death rates from all circulatory diseases (heart disease and stroke) in Gloucestershire by district between 1995 and 2007. It shows that early death rates from circulatory diseases have been declining in all districts and are below the England and Wales average with the exception of Gloucester which has the highest rates of early deaths from circulatory diseases in the county, with rates in line with the England and Wales average.

**Figure 11. Mortality from all circulatory diseases in Gloucestershire: Age-standardised rates for ages under 75**



The health challenges we face now are different to those of 100 years ago. Public health interventions, such as improved sanitation, better housing and the introduction of vaccination programmes, mean we are less likely to suffer from infectious diseases. Yet today we face more lifestyle-related illnesses due to lack of physical activity, poor diet, smoking and substance misuse. In addition, increases in sexually transmitted infections and the threat of a pandemic flu continue to present public health challenges.

We are also experiencing the implications of climate change such as warmer, wetter winters and hotter, drier summers, with more droughts, flash floods, severe storms and other extreme weather conditions. These changes may result in increased levels of illness and disease, such as skin cancer and excess deaths from heatwaves, or worsening fuel poverty.

The overall relatively good health and higher life expectancy in Gloucestershire presents us with another challenge: that of taking care of an ageing population living longer but with long-term conditions. With increasing rates of diabetes, cancer, stroke and heart disease, especially among the more deprived populations, prevention and reducing health inequalities remain key challenges to improving long-term health outcomes.

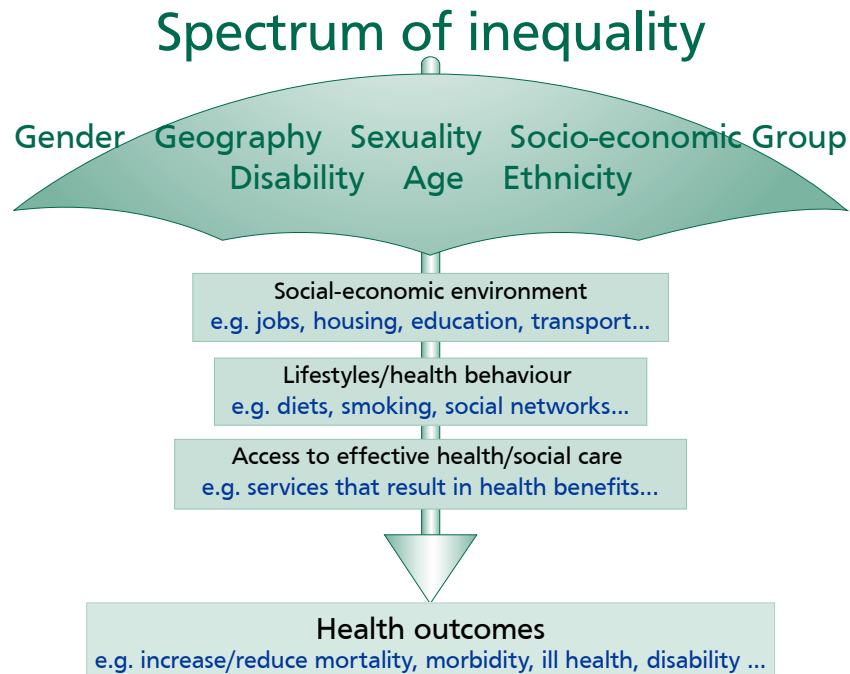
To ensure we meet this century's health needs, we need to identify the main health challenges, both current and in the future, based on population projections.

## Dimensions of inequalities

Inequalities can exist between geographical areas (for example between deprived and affluent areas) or between population groups (such as those between males and females). Nationally the focus has been on socio-economic status, ethnicity, age, gender and disability. Locally we are also concerned with the geographical inequality that rurality poses in terms of access to services.

Lifestyle choices have an important effect on an individual's risk of ill health. But choices may be influenced by wider factors such as income, unemployment, housing, and social and cultural norms. These factors may be particularly relevant when considering preventive and other initiatives in our more deprived communities. Figure 12 summarises the many ways inequalities can impact on health outcomes.

Figure 12: The 'Inequality Umbrella'



Source: London Health Observatory

The Gloucestershire Story 2008 outlines some of these inequalities as shown below:

## Some examples of inequalities in Gloucestershire:

- Rates of prevalence of coronary heart disease are twice as high in our most deprived communities as in our least deprived, as are rates of chronic obstructive pulmonary diseases (bronchitis/emphysema).
- Our most deprived communities spend 50% more per person per week on tobacco than do our least deprived communities.
- Young adults from our most deprived communities are much more likely than other young adults in the county to leave school with no work, education or training destination.
- Infants and young children from our most deprived communities are twice as likely as those from our least deprived communities to be admitted to hospital in an emergency.
- Birth rates are almost 40% higher in our most deprived communities than in our least deprived, with low birth weight babies almost 50% more common.
- Residents of our most deprived communities are significantly more likely than other Gloucestershire residents to experience anti-social behaviour in their neighbourhoods.
- People who live in our most deprived neighbourhoods are much more likely than other residents of the county to become victims of a recorded crime.

Source: Gloucestershire Story 2008

The effects of lifestyle choices which lead to obesity are explored further in one of four separate documents accompanying this report that form the first in a series of **Commissioning Briefings** which we intend to publish throughout the year. These are based on the emerging findings of the eJSNA. The JSNA has identified three other major areas of focus for commissioning in 2009. These include health issues which have a health inequality dimension, including the health of people with learning disabilities, older people and children and young people.

Two key indicators are used to measure health inequalities, Life Expectancy at Birth (LEB), which measures average expected life span, and Infant

Mortality, which measures deaths in babies aged under one year per 1,000 live births. These indicators help to provide a shared understanding of what we mean by health inequalities and allow us to measure progress in this area. The local picture is discussed below.

### Life expectancy

The relatively good health experienced by Gloucestershire residents is reflected in life expectancy measures. The national Public Service Agreement (PSA) target on LEB is shown below. In 2005-07 the average LEB in the county was high, being 82.7 years for females and 78.7 years for males, compared with 81.8 and 77.7 for England.

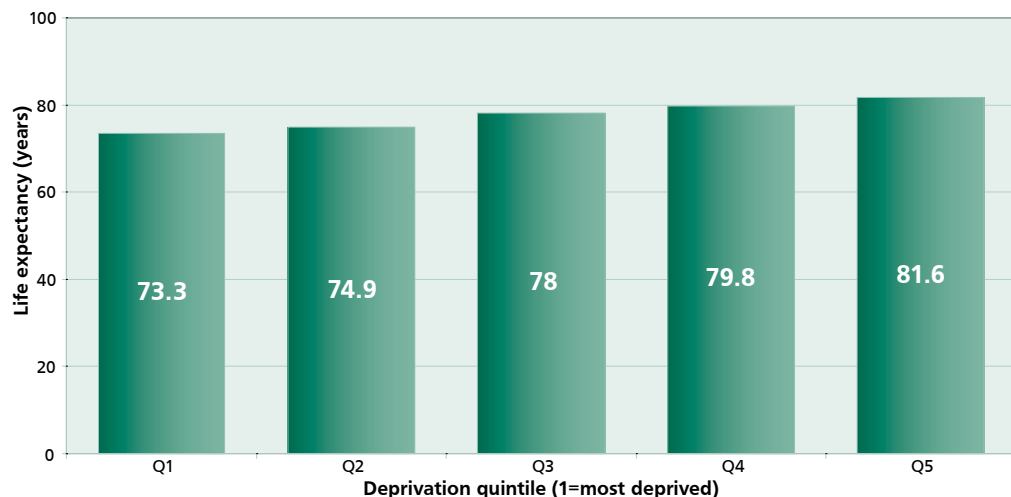
#### The national PSA target on life expectancy at birth

By 2010, increase average life expectancy at birth in England to 82.5 years for women and 78.6 years for men

However, LEB rates differ significantly across the county. These differences are explored in the district Area Profiles.

The most recent data we have shows that male LEB in the most deprived quintile of Gloucestershire is 8.3 years less than in the most affluent quintile (Figure 13).

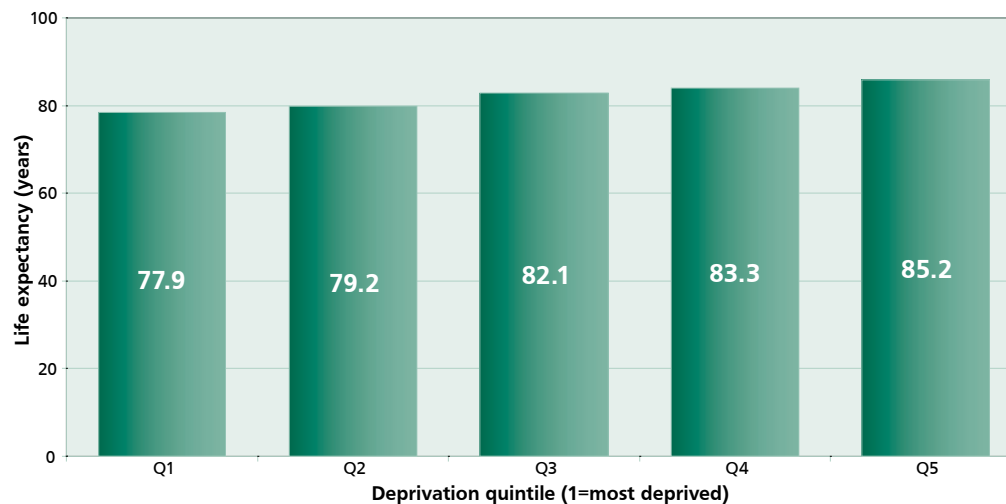
**Figure 13: Life expectancy at birth in Gloucestershire for male children born 2005-07**



Source: ONS (PHMF & PHBF), Exeter database, DCLG 2007

Similarly, a female at birth in one of the most deprived areas of Gloucestershire can expect to have her lifespan shortened by 7.3 years compared to a female in the most affluent areas (Figure 14).

**Figure 14: Life expectancy at birth in Gloucestershire for female children born 2005-2007**

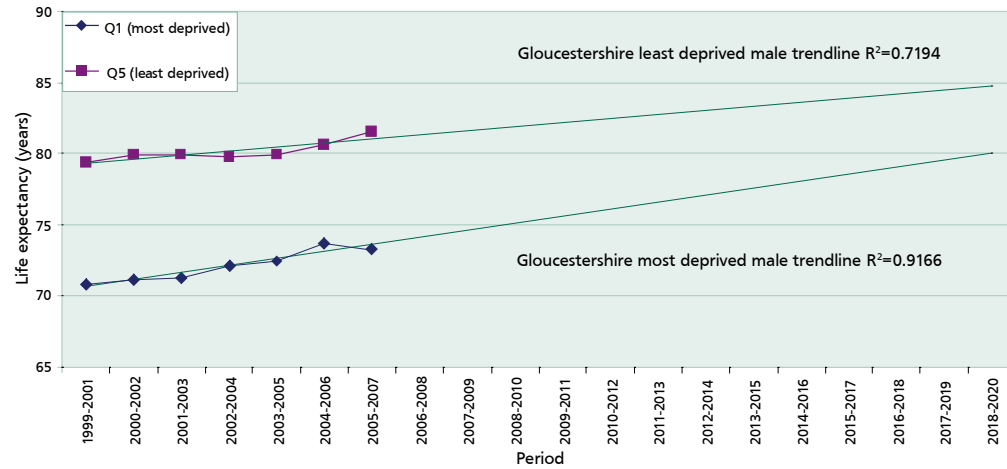


Source: ONS (PHMF & PHBF), Exeter database, DCLG 2007

### Trends in Life Expectancy at Birth in Gloucestershire

Figures 15 and 16 compare trends in males and female LEB between the most and least deprived quintiles in Gloucestershire. Figure 15 shows that between 1991-2007 the overall trend in male LEB increased in both the most and least deprived quintiles in Gloucestershire, however the gap between our most and least deprived areas has not decreased. Figure 16 shows that between 1991-2007 the trend in female LEB increased in the least deprived quintile and decreased (worsened) in the most deprived quintile. Therefore the gap in female life expectancy in Gloucestershire has actually widened.

**Figure 15: Showing trends in Male Life Expectancy at Birth in Gloucestershire' most and least deprived quintiles**

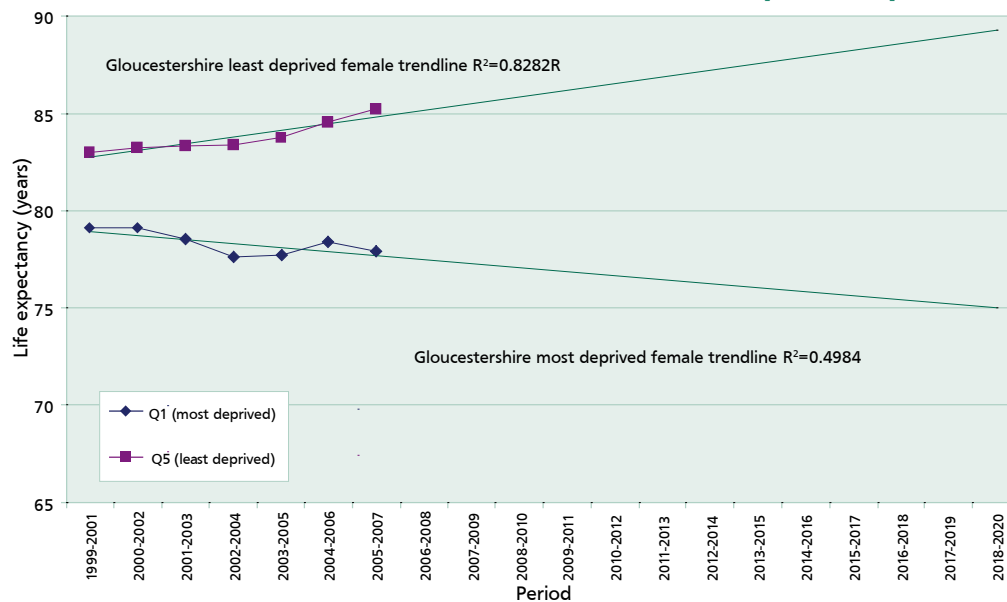


Notes: Life expectancy (years) at birth 1999-2001 to 2003-2005 (3 yr pooled values) from abridged life table technique – resident basis

NB: Change from IMD 2004 to IMD 2007 for calculation of 2005-07 figures

Source: PHIU

**Figure 16: Showing trends in female Life Expectancy at Birth in Gloucestershire' most and least deprived quintiles**



The Association of Public Health Observatories (APHO) has developed a tool to help primary care trusts and local authorities to understand health inequalities within their area<sup>8</sup>. We have used the Health Inequalities Intervention Tool to identify the key diseases that contribute to the life expectancy gap within each district in Gloucestershire and to suggest preventive interventions that will help to close these gaps and save years of life for the county's residents. Our findings are presented in the **district area health profiles**.

It is estimated that more than half of the gap in health inequalities is attributable to smoking. The more deprived people are, the more likely they are to smoke, to inhale more nicotine (even when they smoke the same number of cigarettes as more affluent smokers), and the less likely they are to succeed in quitting<sup>9</sup>. Reducing smoking among the most deprived groups in Gloucestershire is crucial to narrowing the gap in life expectancy between our most and least deprived areas.

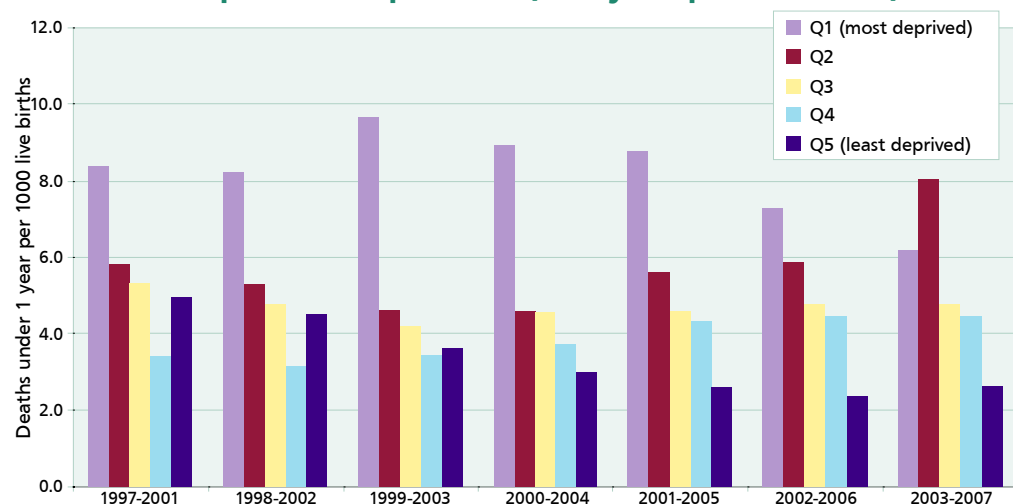
### Infant Mortality

Infant death rates are one of the most sensitive indicators of health inequalities, with long-standing differences between social classes. Reducing this difference is a key national target and will help to break the inter-generational cycle of inequalities. Preventing infant deaths offers an effective approach to increasing life expectancy within a population. In Gloucestershire between 1997 and 2007, there has been a persistent gap in the infant death rate between our most and least deprived fifth of areas (quintiles) with higher rates in our more deprived areas. This is shown in Figure 17.

8 [www.lho.org.uk/HEALTH\\_INEQUALITIES/Health\\_Inequalities\\_Tool.aspx](http://www.lho.org.uk/HEALTH_INEQUALITIES/Health_Inequalities_Tool.aspx).

9 *Beyond Smoking Kills: Protecting Children, Reducing Inequalities*, ASH, October 2008

**Figure 17: Infant mortality in Gloucestershire 1997-2007 by deprivation quintiles (five year pooled rates)**



Source: eJSNA

Overall, Gloucestershire’s infant mortality rate of 4.6 deaths per 1,000 live births, over the period 2005 to 2007, is lower than the England average of 4.9. While there was variation within the districts over this same period, there was no statistically significant difference between them.

During the period 1997 to 2005, babies born in the most deprived areas of Gloucestershire were twice as likely to die in their first year of life compared to those in the most affluent.

### Other Key Health issues to focus on: Infectious Diseases

Table 5 shows the numbers of infectious diseases in Gloucestershire residents that were notified during the time period 2003 to 2008. It shows an increase in the notifications for measles in Gloucestershire over the past few years. This increase mirrors the national picture and is explored further in the Children and Young People’s Commissioning Brief in this report.

**Table 5: Notifications of infectious diseases for Gloucestershire residents (all ages) 2003-2008**

Disease	2003	2004	2005	2006	2007	2008
Measles	24	16	28	14	5	22
Mumps	23	171	1485	113	52	80
Rubella	10	9	3	6	8	7
Pertussis (Whooping cough)	10	8	20	19	23	21
Scarlet fever	19	6	14	23	16	17
Haemophilus influenzae	0	0	0	0	0	0
Food poisoning	732	803	860	982	1235	1032
Dysentery	8	13	21	12	30	21
Viral Hepatitis (Total†)	97	143	131	158	111	217
Hepatitis A	5	7	8	3	2	4
Hepatitis B	7	27	2	6	-	-
Hepatitis C	72	93	94	100	73	146
Meningococcal meningitis	18	25	12	24	24	38
Meningococcal septicaemia	34	17	24	10	2	6
Malaria	2	-	6	3	5	4
Tuberculosis	26	28	39	61	74	76
<b>Total</b>	<b>1003</b>	<b>1239</b>	<b>2643</b>	<b>1425</b>	<b>1585</b>	<b>1541</b>

Data source: Notifications to CCDC, Gloucestershire Health Protection Team, Laboratory reports from Gloucestershire Hospitals NHS Foundation Trust. These data have been combined from appropriate local authority districts to formulate the County population and should be interpreted with caution.

Tuberculosis (TB) notifications have increased markedly in keeping with the national picture. Since 2008, NHS Gloucestershire has commissioned a new TB service which includes a dedicated specialist TB nurse, BCG vaccination team of five nurses and a seven days a week treatment supervision service.

This briefing provides an overview of Gloucestershire as a whole. More detailed information at a district level can be found in the accompanying six area health profiles.

For further information contact:  
Alice Walsh, Deputy Director of Public Health  
[alice.walsh@glos.nhs.uk](mailto:alice.walsh@glos.nhs.uk)



# Appendix 1: Key statistics for Gloucestershire

		Gloucestershire	England
Social Demography	Resident population, 2008 (ONS 2006 based sub-national projection)	586,100	51,487,500
	Resident population, 2008 (local population projection 2008)	597,483	
	Resident population in 2025 (ONS 2006 based sub-national projection)	657,800	58,310,700
	Resident population, 2025 (local population projection 2008)	644,230	
	Percentage of resident over 65 Population 2008 (%) (based on ONS projection)	18.2	16.1
	Percentage of resident over 65 population 2025 (%) (based on ONS projection)	24.0	19.9
	Percentage change in total population 2008 to 2025 (%) (based on ONS projection)	12.2	13.3
	Percentage change in 65 and over population 2008 to 2025 (%) (based on ONS projection)	48.1	40
Health Inequalities	Infant mortality 2004-06 (per 1000 live births)	4.5	5.0
	Life expectancy at birth males (2004-06)	78.4	77.3
	Life expectancy at birth females (2004-06)	82.5	81.6
	Gap in life expectancy between the worst and best areas 2005-07 (years)		
	- males	8.3	n/a
- females	7.3	n/a	
Lifestyle	Estimate of obese adults, 2003-05 (%)	24.3	23.6
	Number of people predicted to have moderate or severe alcohol dependence	1,418	128,566
	Number of people predicted to be dependent on illicit drugs	13,329	1,206,804
	Hospital admissions related to alcohol (Rate per 100,000 population) 2006-07	200.8	260.3
	Binge drinking, 2003-05 (% aged 16 and over)	12.7	18.0
	Estimate adults who smoke, 2003-05 (%)	24.6	24.1
	Smoking in manual compared to non-manual groups: manual	n/a	0.3
	non-manual	n/a	0.2
	Smoking quitters aged 16 and over 2006/07 (per 100,000 population)	561.8	n/a
	5 a day fruit and vegetable consumption persons – SW figures (%)	27.8	n/a
	- males (%)	24.0	n/a
	- females (%)	31.0	n/a
	Physically active, 2005/06 (weighted %, 16 and over)	12.7	11.6

		Gloucestershire	England
Children and Young People	Mothers smoking at delivery 2006/07 (%)	15.9	15.1
	Breast feeding initiation where status is known 2006/07 (%)	75.7	69.2
	MMR immunisation by 2nd birthday 2006/07 (%)	87.2	85.3
	MMR immunisation by 5th birthday 2006/07 (%)	88.3	85.9
	Immunisation for diphtheria, tetanus and pertussis booster at 5 years (%)	86.8	87.0
	Overweight children in reception, 2006/07 (%)	14.6	13.0
	Obese children in reception, 2006/07 (%)	9.6	9.9
	Overweight children in year 6, 2006/07 (%)	14.4	14.2
	Obese children in year 6, 2006/07 (%)	14.9	17.7
	Secondary school pupils who drink and reported that they get drunk frequently (%)	25.0	n/a
	Secondary school pupils who reported to have tried illegal drugs (%)	12.8	n/a
	Secondary school pupils who smoke and reported that they smoke >20 per week (%)	15.6	n/a
Older People	Uptake of pneumococcus vaccine, aged 65 and over (%)	0.1	n/a
	Uptake of influenza vaccine(2006/07), aged 65 and over (%)	74.0	74.0
	Estimates of people aged 65 and over with dementia 2008 (%)	7.4	7.1
Morbidity and Mortality	Cancer prevalence (per 100 registered population)	1.0	0.9
	Mortality rate from cancer in under 75 year olds (per 100,000)	105.5	117.1
	Mortality rate from heart disease, stroke and related diseases in under 75 year olds (per 100,000)	67.9	84.2
	Hypertension prevalence (per 100 registered population)	12.8	12.5
	CHD patients with controlled blood pressure (%)	90.0	88.9
	CHD patients with lipid level< 5.0 (%)	85.7	81.9
	CHD prevalence (per 100 registered population) 2006/07	3.3	3.5
	CHD emergency admissions per 100 on disease register 2006/07	7.8	8.3
	CHD average length of stay 2006/07	8.6	6.7
	Stroke/TIA prevalence (per 100 registered population) 2006/07	1.8	1.6
	Stroke/TIA emergency admissions per 100 on disease register 2006/07	8.0	8.3
	Stroke/TIA average length of stay 2006/07	23.0	19.0
	Heart failure prevalence (per 100 registered population) 2006/07	0.8	0.8
	Heart failure emergency admissions per 100 on disease register 2006-07	10.7	12.5
	Heart failure average length of stay 2006/07	16.0	12.0
	COPD prevalence (per 100 registered population) 2006/07	1.3	1.5
COPD emergency admissions per 100 on disease register 2006/07	10.5	13.1	
COPD average length of stay 2006/07	10.9	7.9	

		Gloucestershire	England
Learning Disability	Number of people on GP register with a Learning Disability 2006/07	2,207	139,264
	Number of people with LD who receive services from CACD 2006/07	1951	n/a
	Number of people with LD receiving specialist LD services from Together 2006/07	1,560	n/a
	Estimated percentage of people with LD with mental health problems	10 to 46	10 to 46
	Estimated percentage of people with LD with challenging behaviour	15.0	15.0
Mental Health	Prevalence of severe mental illness (per 100 registered patients) 2006/07	0.7	0.7
	Mortality rates from suicide and undetermined injury (per 100,000) 2004-06 pooled		
	- persons	9.3	8.3
	- males	15.3	12.5
	- females	3.5	4.0
	Mental Health – Number of people predicted to have moderate or severe alcohol dependence	1418	128,566
	Mental Health – Number of people predicted to be dependent on illicit drugs	13,329	120,6804
Mental Health – Number of people helped to live at home	641	138,515	
Screening	Breast screening coverage aged 53-64 2006/07 (%)	80.4	76.0
	Breast screening uptake aged 50-64 2006/07 (%)	78.0	74.1
	Cervical screening coverage 2006/07 (%)	82.1	79.2

## Appendix 2: Summary Table of eJSNA emerging findings by District

Domain	Indicator	Cheltenham No./Rate	Cotswold No./Rate	Forest No./Rate	Gloucester No./Rate	Stroud No./Rate	Tewkesbury No./Rate	Gloucestershire No./Rate
Social demography	Resident population 2008 (local population projection 2008) % of total Gloucestershire population	115,117 19.3	85,168 14.3	84,243 14.1	117,485 19.7	114,203 19.1	81,265 13.6	597,481 100
	Geographical area (square km) % of total area of Gloucestershire	47 1.7	1,165 43.1	562 20.8	41 1.5	476 17.6	415 15.3	2706 100
	Patients living in national most deprived quintile of neighbourhoods (Indices of Deprivation 2007) (per 1,000 registered patients)	120.3	0.0	0.0	257.3	0.0	17.7	79.4
	Lone parent households (self-reported at 2001 Census) (rate per 1,000)	52.2	37.7	46.5	68.7	47.8	47.4	51.0
	Lone pensioner households (self-reported at 2001 Census) (rate per 1,000)	154.3	167.2	146.4	136.2	146.7	147.6	149.3
	Overcrowded households (calculated from 2001 Census returns) (rate per 1,000)	66.9	29.8	34.9	59.6	33.3	37.6	45.5
	Black and minority ethnic groups Census 2001 (%)	3.3	1.2	0.9	7.5	1.3	1.4	2.9
Lifestyle	Estimate of adults who smoke 2003-05 (%)	22.8	19.2	22.1	26.5	21.0	19.9	24.6
	Deaths from smoking 2004-06 (rate per 100,000 population 35+)	189.9	159.7	200	232.1	188.7	180	191.8
	Estimated healthy eating adults, 2003-05 (%)	30.6	28.5	23.3	23.2	25.6	25.6	n/a*
	Estimate of obese adults, 2003-05 (%)	20.9	22.3	25.6	24.1	22.7	21.8	24.3
	Physically active adults aged 16+, 2005-06 (%)	12.3	14.5	12.5	10.2	14.1	13.0	12.7
	Hospital stays related to alcohol, 2006-07 (directly age standardised rate per 100,000)	240.5	167.7	152.8	266.1	172.2	183.1	200.8
	Road injuries and deaths 2004-06 (crude rate per 100,000 population)	29.8	63.7	74.7	31.8	37.3	62.2	47.3

\*Estimates based on survey data available at district level only.

Domain	Indicator	Cheltenham No./Rate	Cotswold No./Rate	Forest No./Rate	Gloucester No./Rate	Stroud No./Rate	Tewkesbury No./Rate	Gloucestershire No./Rate
Children and young people	Obese children in reception year, 2006-07 (%)	8.8	11.1	8.4	10.2	10.4	10.7	9.6
	Physically active children aged 5-16, 2006-07 (%)	93.9	96.8	87.8	81.3	84.3	80.2	86.8
	Teenage pregnancy (under 18 conception rate/1,000 females)*	26	16.2	35.9	45.3	23.6	29.5	30
Index Independent living	Independent living: Persons receiving CACD Home Care during 2006-07 (rate per 1,000 population)	9.4	7.9	9.9	9.7	10.1	8.1	9.3
	People providing unpaid care (self-reported at 2001 Census)	83.9	95.1	113.9	86.0	99.9	98.3	94.7
Older people	Falls: Over 75s admitted to hospital with a fractured femur 2005-07 (rate per 1,000 aged over 75)	12.3	12.7	14.8	11.9	13.8	12.8	12.8
Morbidity and Mortality	People with limiting Long-Term Illness (self-reported 2001 Census) (rate per 1,000 population)	146.1	150.0	192.9	153.0	148.6	150.2	155.1
	Life expectancy at birth 2005-07 - male	79.1	80.6	77.4	77.9	78.3	79.3	78.7
	Life expectancy at birth 2005-07 - female	82.9	83.3	82.4	81.8	82.7	83.1	82.7
	All age all cause mortality 2005-07 (Age standardised rate per 100,000 population)	534.4	490.0	569.5	595.6	552.6	515.0	542.5
	All cause mortality in under 75s 2005-07 (age standardised rate per 100,000 population)	268.2	218.8	288.3	299.4	251.4	232.9	259.5
	Mortality rate for circulatory diseases in under 75s 2005-07 (age standardised rate per 100,000 population)	61.2	53	66.9	76.2	63.1	50.6	62.2
	Mortality rate for cancer in under 75s 2005-07 (Age standardised rate per 100,000 population)	108.3	90.2	115.8	114.3	103.4	93.4	104.3
Mental Health	Outpatient first attendances: adult mental health: 2006-07 (rate per 1,000 population)	1.9	2.1	2.5	3.4	1.9	2.0	2.3
	Incapacity benefits for mental illness, 2006 (rate per 1,000 working population)	24.7	14.6	23.1	29.0	20.6	14.3	21.8

