

Herefordshire   
Primary Care Trust

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## INTRODUCTION

Once again, the first key message of this report is that people in Herefordshire enjoy above average health: people live longer here than they do elsewhere in the country. However, there is some evidence that increased risk-taking behaviour means that, in the future, health will not be so good. The gap between our mortality rates and those elsewhere is narrowing, and smoking rates, alcohol abuse and obesity levels are all of concern here. There are particularly worrying signs that our young people may be developing lifestyles which are associated with poor health outcome, and smoking, alcohol abuse and obesity are most relevant in this context.

In Herefordshire, as elsewhere, there are links between high social deprivation and poor health outcome. This is a challenge for services, especially in a rural county where social deprivation is not restricted to only one geographical area but is widely dispersed. Nonetheless, the concentration in South Wye and parts of Leominster is such that the PCT and partners should be moving towards targeting resources in those areas, particularly in terms of their early intervention and preventive efforts.

The demographic challenges of an ageing population remain, but a new theme is the lack of knowledge about our immigrant community. Anecdotally, numbers have risen, and many are finding work in the agricultural sector. However, in Herefordshire, as elsewhere in the country, there are no reliable, current and comprehensive figures as to actual numbers and this is a significant knowledge gap for those working to plan and deliver public services.

This has been a year of significant development for the Public Health Department, and we have strengthened the team to meet the demands of the Choosing Health agenda. We have welcomed new staff to the team and, in particular, the health improvement team has been built. We have moved the health promotion resource function into a new site at the Asda/Kindle premises in South Wye, improving our service, and locating it in the South Wye area to improve access for the more deprived communities. We still have not recruited to the Director of Public Health post, but I have been pleased to continue to act up to this role.

In 2007, the Council and PCT have worked together to develop a Public Service Trust, in which public health will be a key element. This will create exciting opportunities for public health staff to work more closely with Council colleagues and to bring public health messages to influence service planning and delivery across the county. A Chief Executive designate of the PST has been appointed and we can look forward with confidence to strengthening the public health voice and improving health outcomes as a consequence of the PST developments.

I would like to place on record my thanks to the Public Health Department and the PCT Board for their support as I have continued to lead the Department. Specific thanks are due to Caron Cooke, Maggie Colwell, Lillian Somerville, Kathryn Millard

and Peter Stebbings for their contribution to this report, and particular note should be made of Lillian Somerville's work on the chapters on Falls and Climate Change, Peter Stebbings' on Alcohol and the Statistical Appendix, and Terri Hill's in typing the report. As ever, though, the overall responsibility for the report is mine and any comments or requests for further copies should be made to me at:

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The report is also available online at [www.herefordshire.nhs.uk](http://www.herefordshire.nhs.uk).

**Dr Frances Howie**  
**Associate Director of Health Improvement**

**October 2007**

# CHAPTER 1

## GENERAL HEALTH OF THE POPULATION

### 1.1 SUMMARY

In general terms, as in previous years, health in Herefordshire is good. People here live longer than they do elsewhere in the country, and babies are less likely to die in the first year of life. However, the gap between life expectancy in Herefordshire and that elsewhere is narrowing. There are some causes of death where local rates are slightly above the national rates, but numbers are small and subject to year-on-year variation. However, the female death rate from stroke, the male death rate from accidents, and the death rates from some skin cancers remain persistently above what might be expected and should be carefully monitored. With regard to children, there was a small increase in numbers of deaths in the first year of life in 2005, and also numbers of babies born with low birth weight. The rates remain below average but a gradual increase in infant mortality is observable using three-year pooled data. Child dental health is poor, and this has been the case for some years.

### 1.2 INTRODUCTION

1.2.1 Detailed figures on mortality and morbidity are set out in the Statistical Appendix. In previous years, Herefordshire's generally good health profile has been demonstrated by comparisons with England and Wales as a whole, and with the West Midlands region. This year, another comparison has been added: a comparator group of local authorities, selected on the basis of having "extremely similar" socio-economic profiles to Herefordshire. More details of this methodology are given in the Statistical Appendix. The four most similar authorities are Mid Devon, North Shropshire, Mendip and Kings Lynn & West Norfolk, for which a comparative average figure was calculated where possible and included in the tables in the Statistical Appendix.

Herefordshire generally performs well even in comparison with these authorities, showing that above average health outcomes exist here even if socio-economic factors are taken into account.

1.2.2 The data relating to general health measures are given in the Statistical Appendix and show 95% confidence intervals. These give the range of values within which the true value is likely to lie - the wider the confidence interval, the less precise the estimate. If the confidence intervals do not overlap when comparing two values, then there is a statistically significant difference. If they do overlap, the differences are

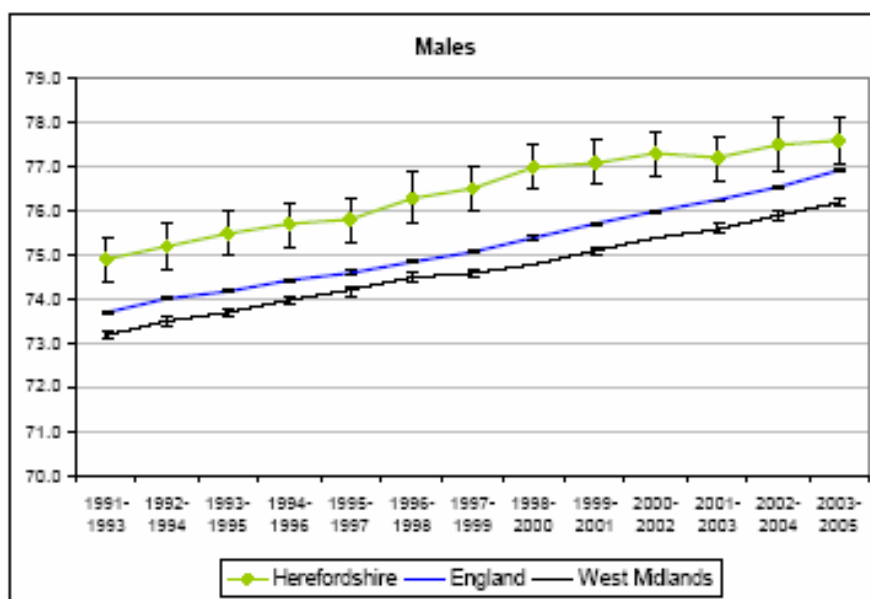
unlikely to be statistically significant and are likely to be of limited consequence. Confidence intervals are particularly wide when values are small.

### 1.3 LIFE EXPECTANCY

1.3.1 People in Herefordshire have an above average life expectancy. The national target is to increase life expectancy to 78.6 years for men and 82.5 years for women by 2010. In Herefordshire, based on 2003-2005 data, life expectancy for males at birth is 77.6 years, and for females is 82.4 years.

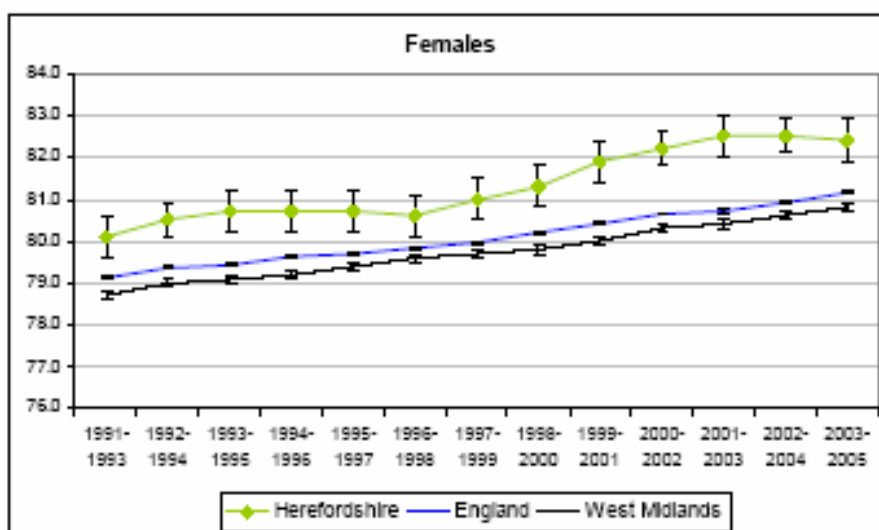
1.3.2 Although life expectancy in Herefordshire has been persistently higher than it is in England or the West Midlands since 1991/1993, the gap between Herefordshire and the others is narrowing. In women, the trend of increasing life expectancy has changed and since 2001 a levelling-off and minor decrease is observable.

**Table 1: Life expectancy for males**



Source: ONS, Crown Copyright

**Table 2: Life expectancy for females**



Source: ONS, Crown Copyright

## 1.4 DEMOGRAPHY

1.4.1 Population numbers grew more quickly in Herefordshire than in England or in the West Midlands as a whole over the final twenty years of the last century; however the latest population estimates released in August 2007 indicate a slowing of the local population growth rate thus far this century:

**Table 3: Population Change 1981-2005 (5 year bands)**

	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005
England	0.5	1.1	1.1	1.5	2.1
West Midlands	-0.1	0.7	0.5	0.1	1.3
Herefordshire	2.4	3.8	3.3	4.0	1.4

Source: ONS Mid-Year Estimates

1.4.2 The total county population estimate at mid 2006 is now 177,816 compared with a census population in 2001 of 174,862; an increase of 1.7%.

1.4.3 As noted in previous reports, the elderly population in Herefordshire is increasing more quickly than it is in England and Wales, and the 25-34 year age group is falling more rapidly (see Chart 2 of the Statistical Appendix). The birth rate too is lower than elsewhere. In 2005, the fertility rate here was 52.8 live births per 1,000 women aged 15-44 years, compared with 58.4 in England and Wales, and 60.7 in the West Midlands.

## 1.5 **MORTALITY**

- 1.5.1 Age standardised death rates are shown in the Statistical Appendix (Table 6). The Herefordshire rate is 576.27 (per 100,000 population), compared with 660.30 in the West Midlands, and 635.70 in England and Wales.
- 1.5.2 Children's death rates are shown in the Statistical Appendix (Tables 11-13). In 2005, the number of deaths in childhood increased. However, the number has reduced in 2006. The numbers remain small and year-on-year variation is to be expected.

**Table 4: Childhood Mortality Numbers: 5-14 years**

2002	2003	2004	2005	2006
3	4	5	6	3

Source: Public Health Department, Herefordshire PCT

Infant mortality may be rising but again numbers are small. The most recent 2006 data is available for Herefordshire but is not yet available for comparator PCTs or national comparisons. The actual numbers are shown below:

**Table 5: Infant mortality: 0-12 months**

Age	Year					Total
	2002	2003	2004	2005	2006	
<7 days	3	1	3	7	3	17
<28 days	0	0	1	1	2	4
<1 year	3	3	5	4	2	17
Total	6	4	9	12	7	38

Source: Public Health Department, Herefordshire PCT

Analysis of the pooled data, using three year periods, shows a rise:

**Table 6: Pooled infant mortality: 0-12 months**

Age	Year		
	2002-2004	2003-2005	2004-2006
<7 days	7	11	13
<28 days	8	13	17
<1 year	19	25	28
Infant mortality rate per 1,000 live births	3.9	5.0	5.5

Source: Public Health Department, Herefordshire PCT



The number of stillbirths plus deaths under 7 days has also risen: from 27 in 2002-2004 to 28 in 2003-2005 to 36 in 2004-2006. The perinatal mortality rate has therefore risen from 5.5 in 2002-2004, to 5.6 in 2003-2005, to 7.1 in 2004-2006. Although the rate is still low, (compared with a 2003-2005 national rate of 8.2), this increase should be carefully monitored.

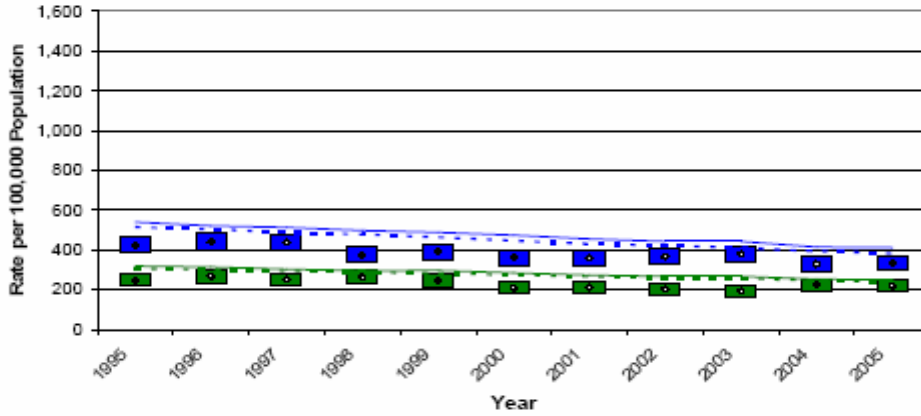
- 1.5.3 Age standardised death rates for selected causes of death are shown in the Statistical Appendix (Table 7). These focus on the monitoring data for national targets. Herefordshire rates are significantly below national and regional averages for circulatory disease and malignant neoplasms, but may be slightly above average for suicide although confidence limits are wide, and are significantly above average for accidents among males compared to England.
- 1.5.4 More detailed standardised mortality ratios based on 2003-2005 pooled data in the Statistical Appendix (Table 9) show that SMRs are above average in three key areas: stroke, all accidents and land transport accidents.
- 1.5.5 Stroke has been highlighted in previous years. The female SMR for 2003-2005 is 133 in Herefordshire, with confidence intervals of 122-144; for males, the SMR is 115 with confidence intervals of 102-128.
- 1.5.6 Accidents again have been a persistently high rate. 2003-2005 data shows a male SMR of 133 with confidence intervals of 106-164. The male SMR for land transport accidents is 163, though with very wide confidence intervals (114-277).
- 1.5.7 Herefordshire's directly standardised mortality rates fall into the lowest 10% of all West Midlands PCTs for the following causes of death: coronary heart disease, stroke, cardiovascular disease, accidental falls and cancers.

Figure Legend

o	Directly Standardised Rate or crude rate (males, females or all persons)
■	Males (95% Confidence Interval)
■	Females (95% Confidence Interval)
■	All persons (95% Confidence Interval)
—	West Midlands Male
—	West Midlands Female
—	West Midlands All persons
---	England and Wales Male
---	England and Wales Female
---	England and Wales All persons

**Table 7:**

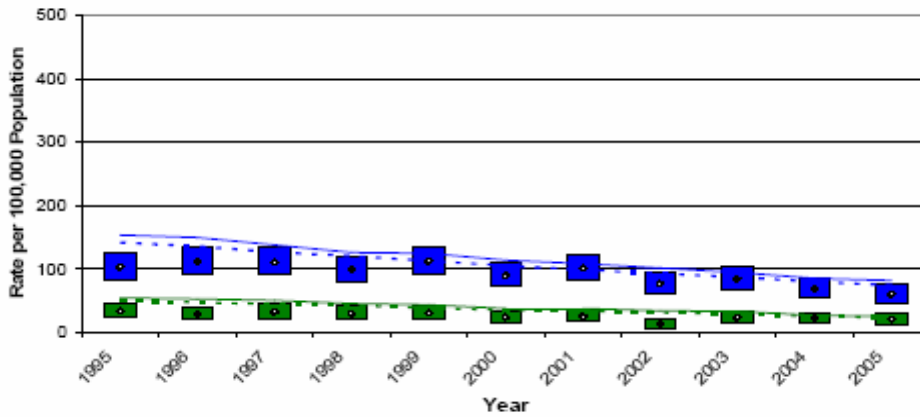
**Directly Standardised Mortality Rates for All Causes  
 Herefordshire PCT, under 75, Males & Females, 1995 to 2005**



Source: West Midlands Key Health Data 2006/2007

**Table 8:**

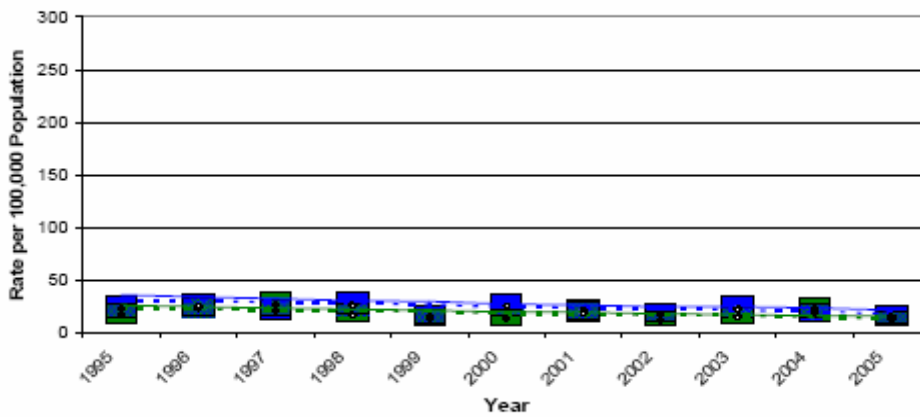
**Directly Standardised Mortality Rates for CHD (ICD9 410-414, ICD10 I20-I25)  
 Herefordshire PCT, under 75, Males & Females, 1995 to 2005**



Source: West Midlands Key Health Data 2006/2007

**Table 9:**

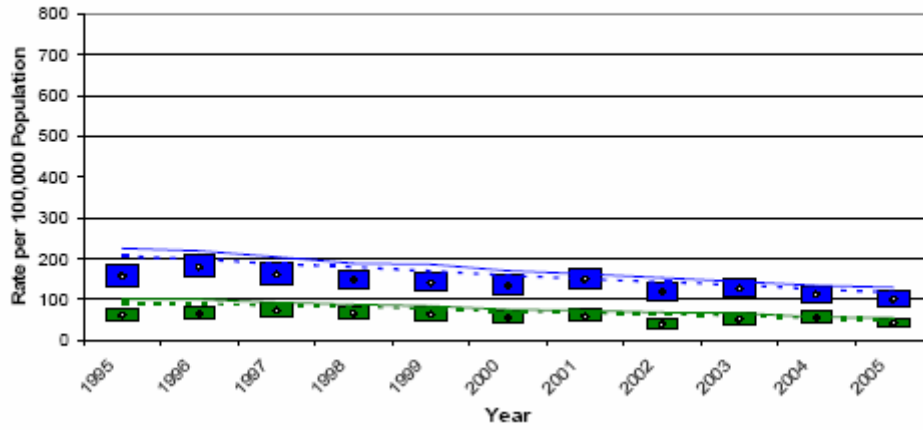
**Directly Standardised Mortality Rates for Stroke (ICD9 430-438, ICD10 I60-I69)  
 Herefordshire PCT, under 75, Males & Females, 1995 to 2005**



Source: West Midlands Key Health Data 2006/2007

**Table 10:**

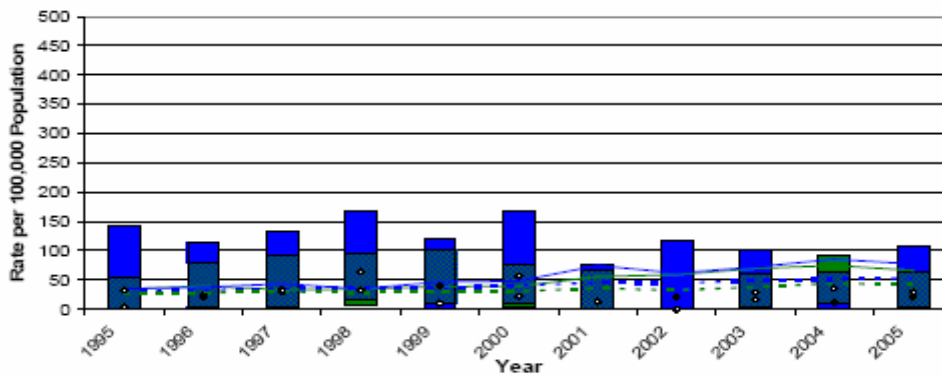
**Directly Standardised Mortality Rates for CVD (ICD9 390-459, ICD10 I00-I99)  
 Herefordshire PCT, under 75, Males & Females, 1995 to 2005**



Source: West Midlands Key Health Data 2006/2007

**Table 11:**

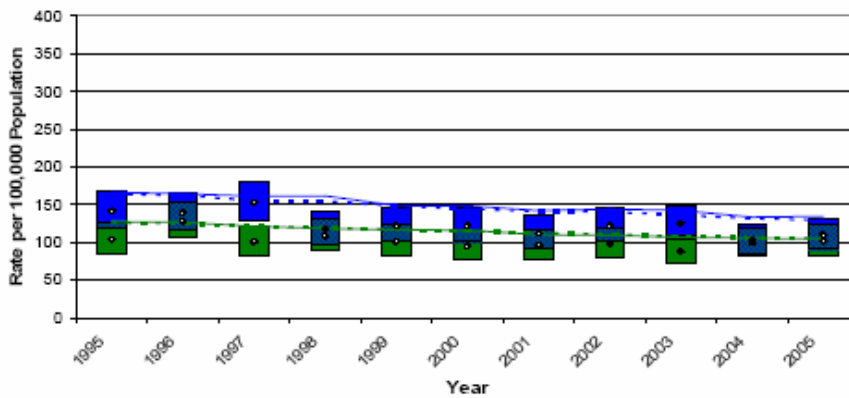
**Directly Standardised Mortality Rates for Accidental Falls (ICD9 E880-E888,  
 ICD10 W00-W19)  
 Herefordshire PCT, 75 and over, Males & Females, 1995 to 2005**



Source: West Midlands Key Health Data 2006/2007

**Table 12:**

**Directly Standardised Mortality Rates for Cancers (ICD9 140-208 ICD10 C00-C97)  
 Herefordshire PCT, under 75, Males & Females, 1995 to 2005**



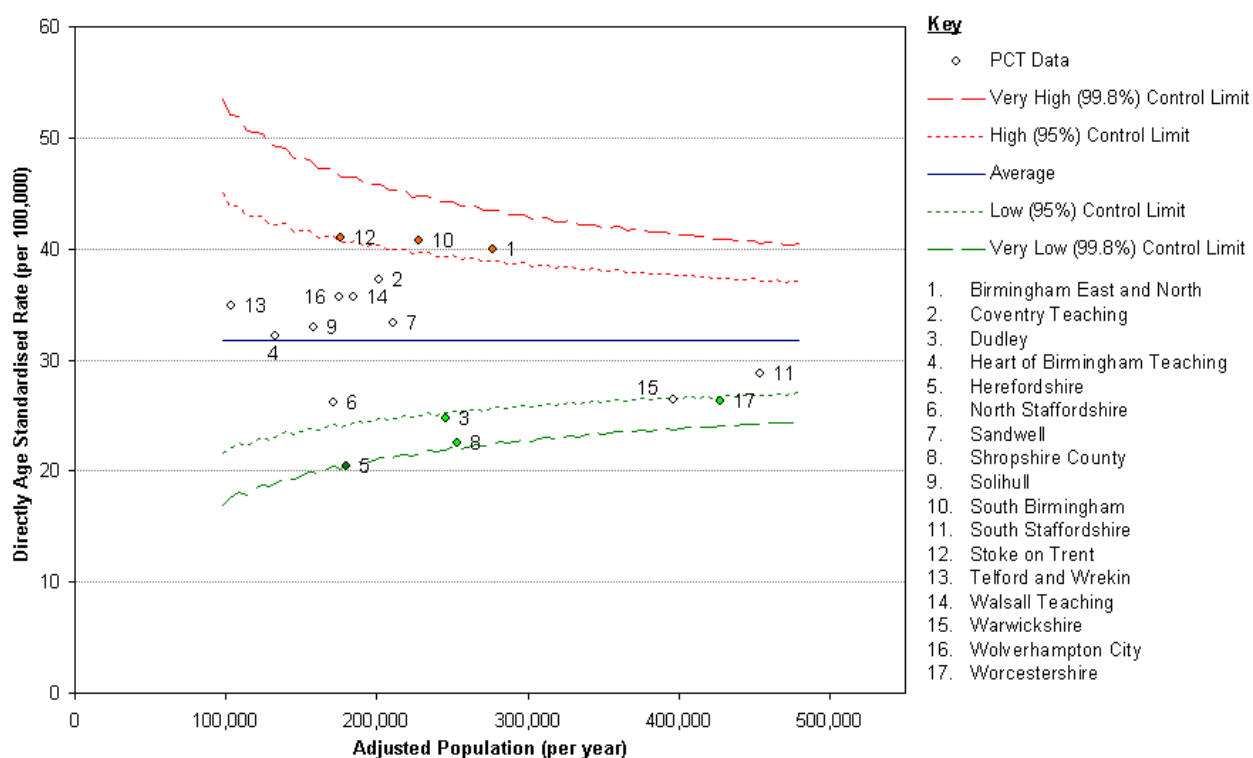
Source: West Midlands Key Health Data 2006/2007

### 1.5.8 Cancer Incidence and Mortality

Incidence rates for cancers are generally very low in Herefordshire too. Herefordshire has a significantly lower incidence of all malignant cancers for men than the West Midlands region; and of lung cancer among both men and women. It may be significantly lower than regional incidence rates in prostate cancer. (Source: Key Health data)

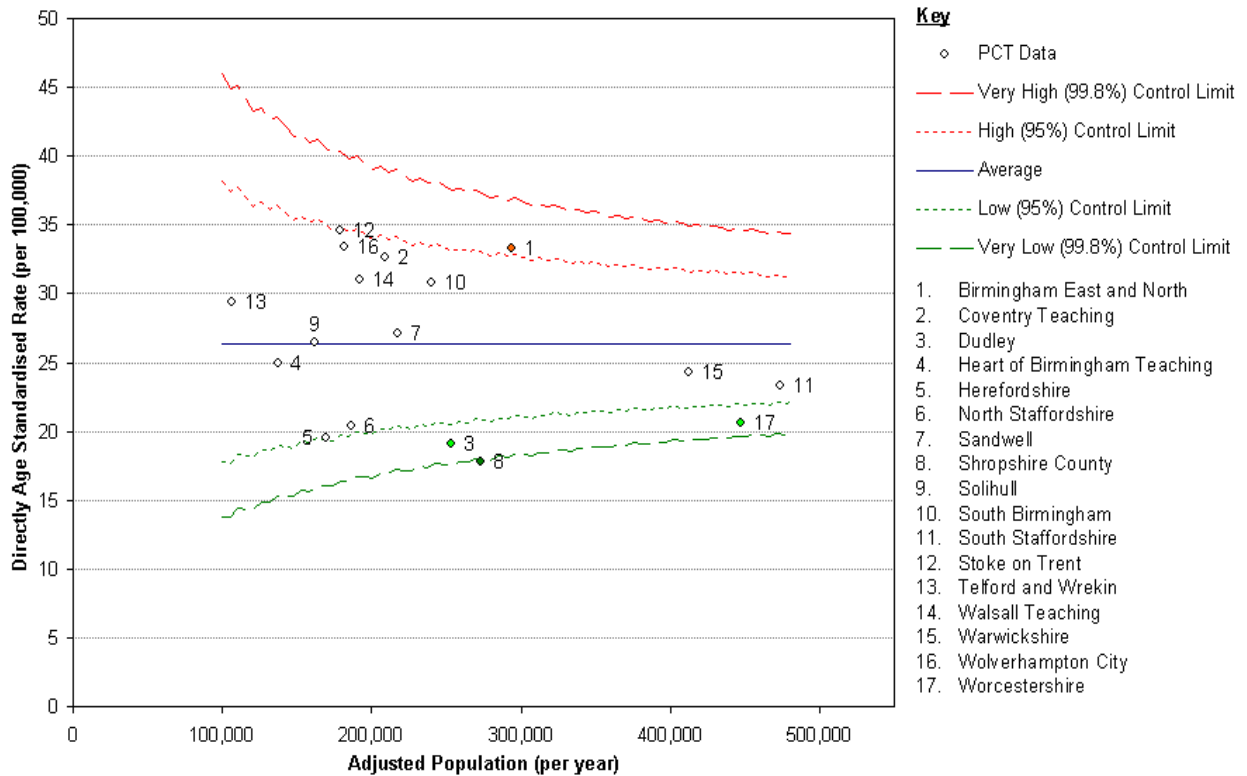
1.5.9 There are some instances where there is a statistically low incidence of cancer, but mortality rates are no better than average, and these should be monitored. These are: lung cancer among women; male prostate cancer; and upper GI cancers in men. Average mortality rates in these areas of low or very low incidence suggest there may be a worse prognosis locally for these patients than might be expected. There may, however, be other causes such as data incompleteness, and so these figures should be treated with caution.

**Table 13: Incidence of lung cancer in women (2003-2005)**



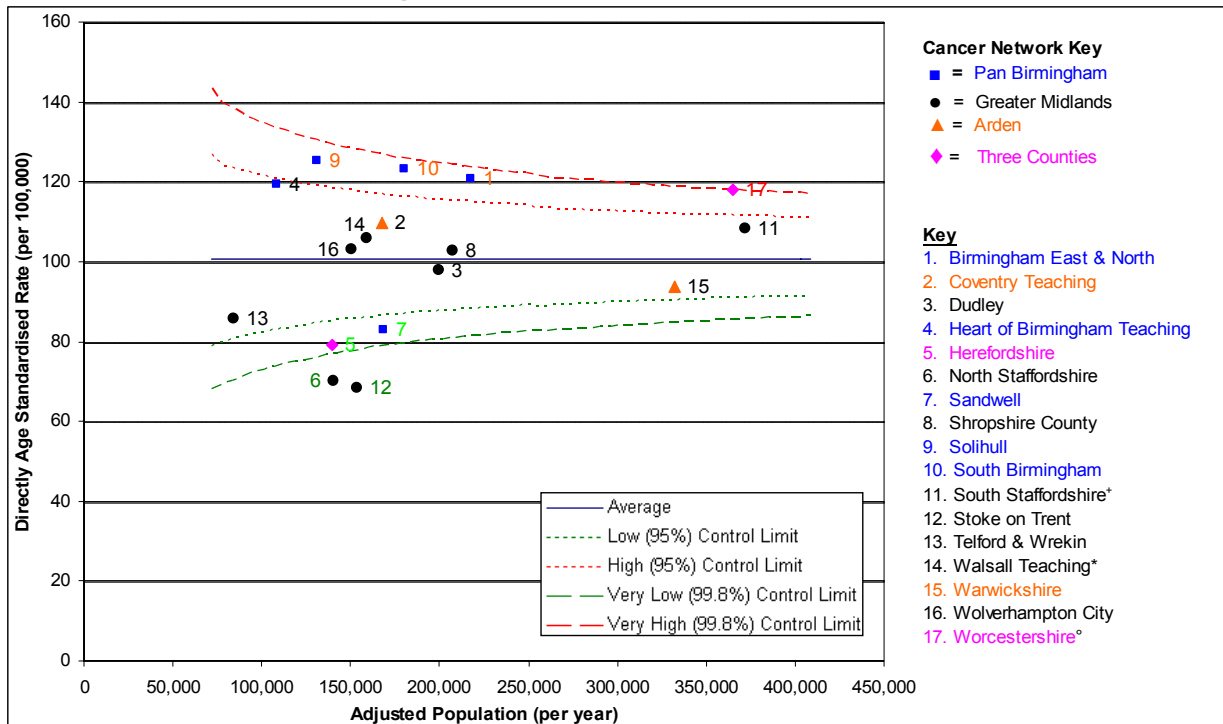
Source: West Midlands Key Health Data 2006/2007

**Table 14: Mortality from lung cancer in women (2003-2005)**



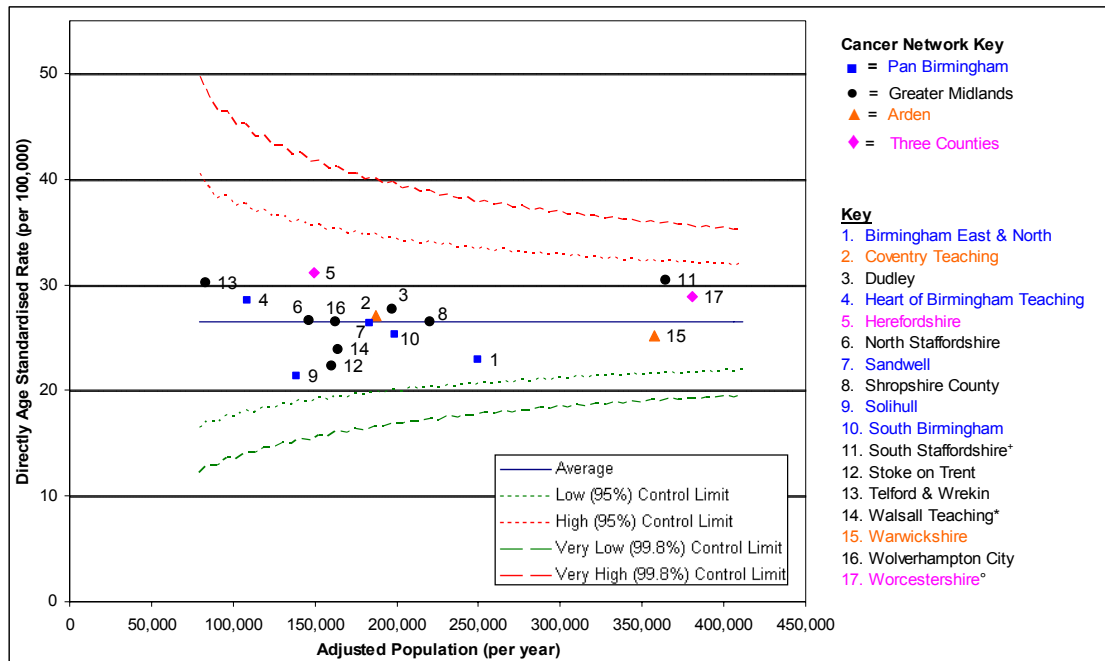
Source: West Midlands Key Health Data 2006/2007

**Table 15: Incidence of prostate cancer (2003-2005)**



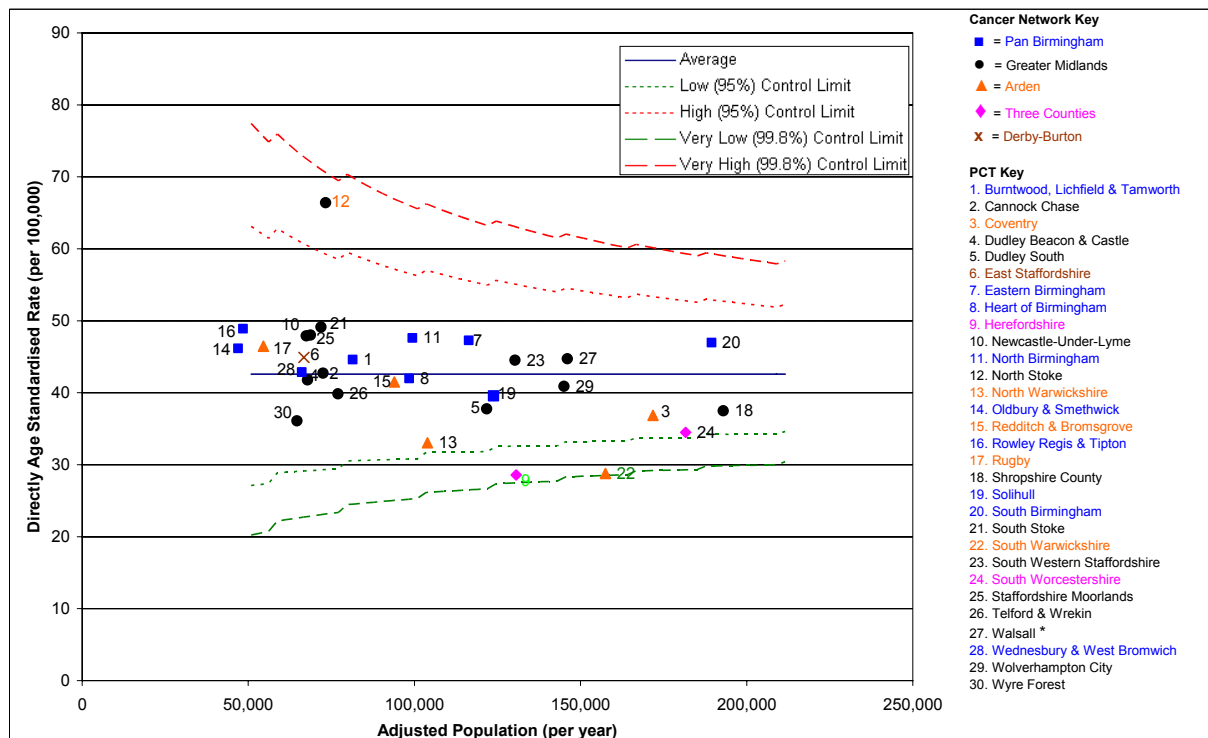
+ South Staffordshire PCT includes the former East Staffordshire PCT, part of the Derby-Burton cancer network  
 \* Walsall Teaching PCT has been allocated to Greater Midlands Cancer Network however due to patient flows it may also be included in Pan Birmingham Cancer Network  
<sup>o</sup> Worcestershire PCT includes the former Redditch & Bromsgrove, South Worcestershire and Wyre Forest PCTs of Arden, 3 Counties and Greater Midlands Cancer Network respectively  
 Source: West Midlands Cancer Intelligence Unit

**Table 16: Mortality from prostate cancer (2003-2005)**



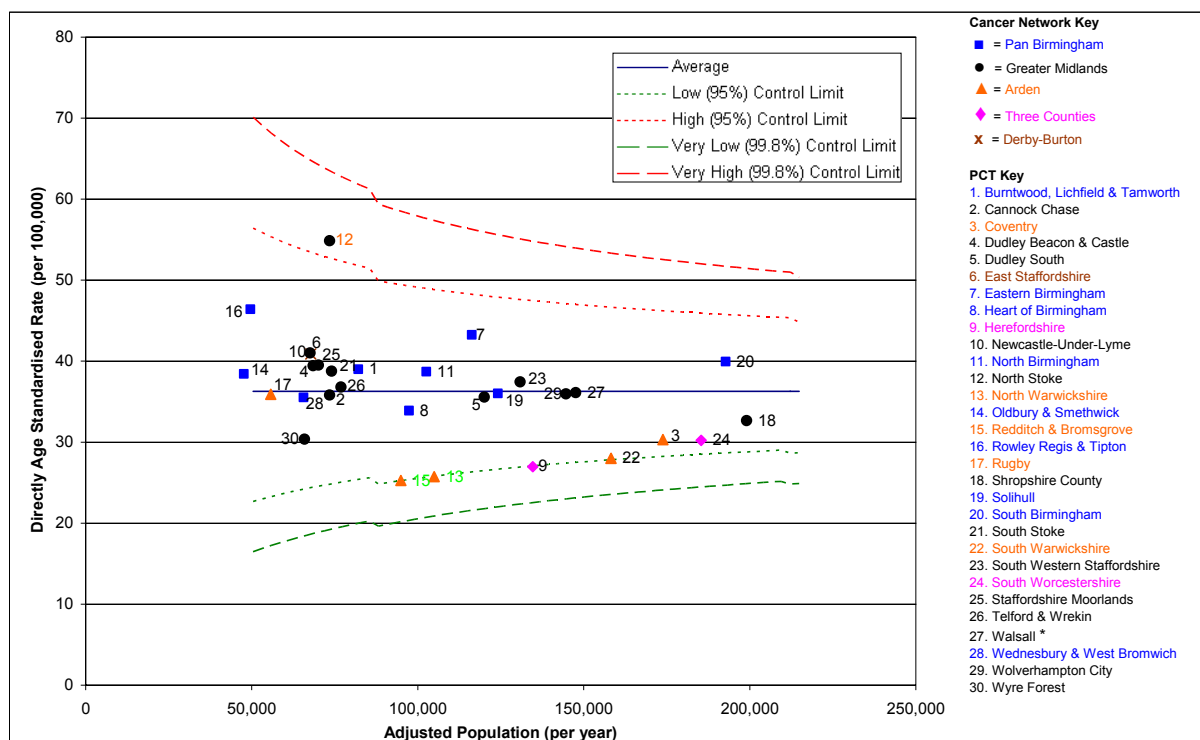
+ South Staffordshire PCT includes the former East Staffordshire PCT, part of the Derby-Burton cancer network  
 \* Walsall Teaching PCT has been allocated to Greater Midlands Cancer Network however due to patient flows it may also be included in Pan Birmingham Cancer Network  
 ° Worcestershire PCT includes the former Redditch & Bromsgrove, South Worcestershire and Wyre Forest PCTs of Arden, 3 Counties and Greater Midlands Cancer Network respectively  
 Source: West Midlands Cancer Intelligence Unit

**Table 17: Incidence of upper GI cancers in men (2002-2004)**



\* Walsall PCT has been allocated to Greater Midlands Cancer Network however due to patient flows it may also be included in Pan Birmingham Cancer Network  
 Source: West Midlands Cancer Intelligence Unit

**Table 18: Mortality from upper GI cancers in men (2002-2004)**



\* Walsall PCT has been allocated to Greater Midlands Cancer Network however due to patient flows it may also be included in Pan Birmingham Cancer Network

Source: West Midlands Cancer Intelligence Unit

### 1.5.10 Mortality and social deprivation

Figures showing local links between higher social deprivation and increased mortality rates are given in Chapter 2 below, in the section on social deprivation at paragraph 2.6.

### 1.5.11 Hospital admissions

There has been a significant rise in unscheduled admissions data.

**Table 19: Numbers of unscheduled hospital admissions: Herefordshire, 2002-2006**

2002	10,766
2003	10,872
2004	10,734
2005	12,414
2006	13,252
% change	23.1

Source: Public Health Department, Herefordshire PCT

This is slightly above the national increase in unscheduled admissions of 19.8%.

Emergency admissions accounted for 31.3% of all admissions in Herefordshire in 2005-2006, compared with 36.7% nationally.

**Table 20: Numbers of hospital admissions in Herefordshire, 2002-2006**

	All English PCTs	Herefordshire PCT
2002/2003	11.41m	35,778
2003/2004	11.70m	37,817
2004/2005	12.10m	36,408
2005/2006	12.68m	40,473
% change	11.1	13.1

Source: Public Health Department, Herefordshire PCT

#### 1.5.12 Numbers of deaths

Numbers of deaths from selected causes are shown in the Statistical Appendix (Table 8). It should be noted that the number of deaths from breast cancer increased in 2005, and will be monitored.

Although actual numbers of female deaths from stroke are falling, the mortality rate still remains above the average.

#### 1.5.13 Years of life lost

Mortality data also allows an analysis of years of life lost up to the age of 75 years. This gives more weight to causes of premature death, such as suicide and accidents. Table 10 of the Statistical Appendix shows that cancers account for 36% of all years of life lost, circulatory diseases for 24%, and coronary heart disease for 13%. Although the actual numbers of deaths due to suicide, all accidents and land transport accidents are low such events account, respectively, for 7%, 11% and 7% of all years of life lost.

#### 1.5.14 Dental health

Previous public health reports have drawn attention to the poor dental health of the Herefordshire population. The mean number of decayed, missing or filled teeth in 5-year olds in 2005/2006 was 1.78 in Herefordshire, compared with 1.02 in the West Midlands and 1.51 in England and Wales.

As a result of recommendations in previous reports, the PCT has asked the Strategic Health Authority to commission a feasibility study into fluoridation of the water supply in Herefordshire. There is clear evidence that this would bring about a significant improvement in the county's dental health. The results of the feasibility study will be produced by the end of 2007, and a decision will be taken by the Strategic Health Authority as to whether or not to continue to explore the possibility. A



very clear statutory process is set out for considering fluoridation, including full public consultation.

In 2007/2008 the PCT has identified additional investment for dental public health, and consultant and nurse public dental health time will be made available to develop preventive work, aimed in the first instance at children and young people.

The PCT has continued to invest in improved dental access. There are now seven dental access centres, plus a mobile unit, and the number of WTE equivalent dentists working in these has increased from eleven to fifteen during 2007/2008. Additional capacity has recently been developed in South Wye, which has taken 4,000 patients directly from the central waiting list. The orthodontic waiting list has been unacceptably high, and the PCT has recently commissioned additional capacity to reduce this. Within the Dental Access Centres, all children are given priority and looked after children have the highest priority of all.

#### 1.6 **RECOMMENDATIONS**

- To continue to highlight the above average mortality rates due to stroke; all accidents; and land transport accidents, and to work with partners to address these.
- To work with partners to improve the poor dental health of children.



## CHAPTER 2

# CHOOSING HEALTH PRIORITIES

### 2.1 SUMMARY

This chapter considers four key areas in which risk-taking behaviour is likely to produce poor health outcomes: sexual health; smoking; drinking alcohol; and obesity. In general, people in Herefordshire take slightly fewer risks in these areas than do people elsewhere in the West Midlands. However, a significant number of people here do take risks, and the levels of risk-taking are far higher in some social groups than in others, with age, gender, and social deprivation all being key variables. Major challenges lie ahead in tackling worrying patterns of behaviour, particularly with regard to obesity and alcohol abuse.

### 2.2 SEXUAL HEALTH

2.2.1 The national targets are:

- By 2008, everyone referred to a Genito-Urinary Medicine (GUM) Clinic should be able to have an appointment in 48 hours.
- A national chlamydia screening programme should be in place by 2007, and there should be an increase in the percentage of people aged 15-24 accepting screening by 2007.
- Reduce teenage conception by 50% from 1998 by 2010, and by 10% by 2004.

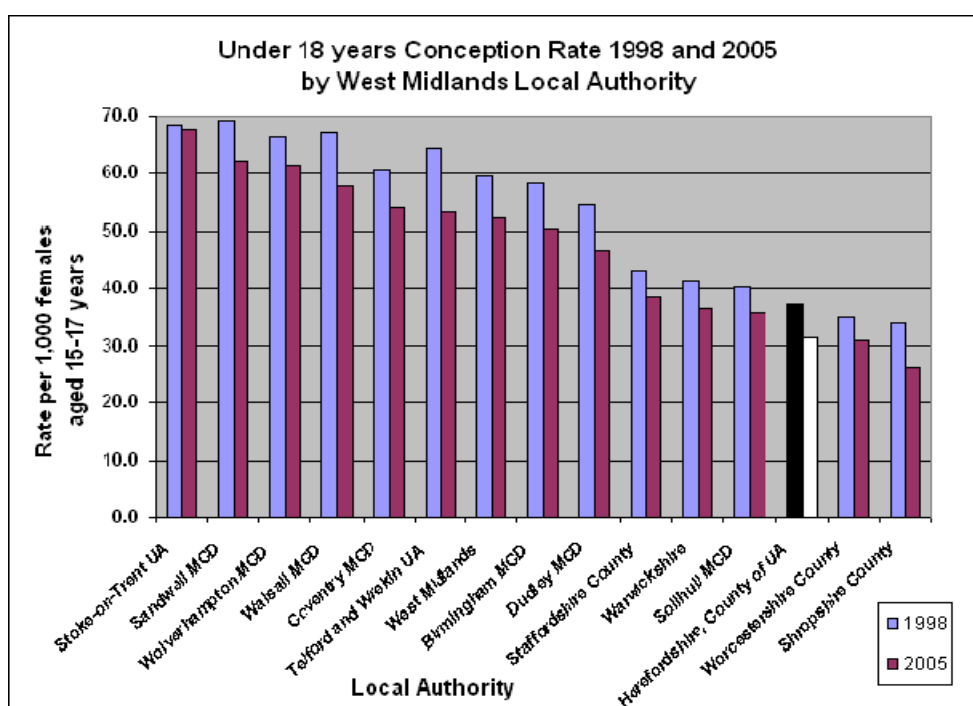
2.2.2 During 2007, significant investment has been made in the sexual health services in Herefordshire, using the "Choosing Health" budget. Two new satellite clinics have been opened in the market towns, one at Ross-on-Wye and one at Leominster. New administrative systems have been introduced in Gaol Street, where the main GUM service is based, and these include working towards a paperless system, and maximising the use of text messaging. Waiting times have, as a consequence, fallen significantly.

2.2.3 After considerable delays, a chlamydia screening programme has been introduced, making full use of school nurses and pharmacies. In previous reports, I drew attention to the fact that chlamydia screening in Herefordshire still uses the enzyme-linked immune sorbet assay (ELISA) method of testing, which has a significantly reduced specificity compared with the nucleic acid amplification test (NAAT). The NAAT system has still not been introduced. However, tests from the target screening population are being sent out of county as we work towards the 2007 target in a staged way. The local hospital still analyses a proportion of

tests and this remains a matter of concern. It is expected that NAAT will be available locally in 2008.

- 2.2.4 The teenage conception rate remains an important public health target. However, Herefordshire is unlikely to halve the 1998 rate by 2010. It was particularly low at that time, and was one of the lowest in the West Midlands. The actual reduction in the rate between 1998 and 2005 was 15.6%.

**Table 21: Under 18 conception rates by West Midlands local authority**



Source: Teenage Pregnancy Unit

The pooled data for 2003-2005 shows a teenage pregnancy rate (per 1000 women aged 15-17 years) of 32.9. This remains below the national (41.8) and regional (45.8) rates, and has dropped from the 2000-2002 rate of 36.9. The average annual numbers of conceptions in 2000-2002 were 115, compared with 110 in 2003-2005.

- 2.2.5 A particularly successful initiative, "Young Mums to Be", provides a multi-agency approach to supporting young mothers and has been successful in engaging young fathers too. This has received national recognition, and the Learning and Skills council are now taking steps to mainstream the provision.
- 2.2.6 A number of specific initiatives to improve the sexual health of young people have developed this year. The hours of drop-in clinic services for young people have increased, and the number of 4Us clinics has increased from four to six. These are based in schools, and are located in areas which have been hot spots in the past. A virtual tour of the Gaol

Street Clinic is now available via the award winning Sexfaqs website, which continues to be a source of information and opportunity to ask questions anonymously via the internet, and attracts a high number of hits. In 2006/2007, there were 163,617 hits.

## **2.3 SMOKING**

2.3.1 The national targets are:

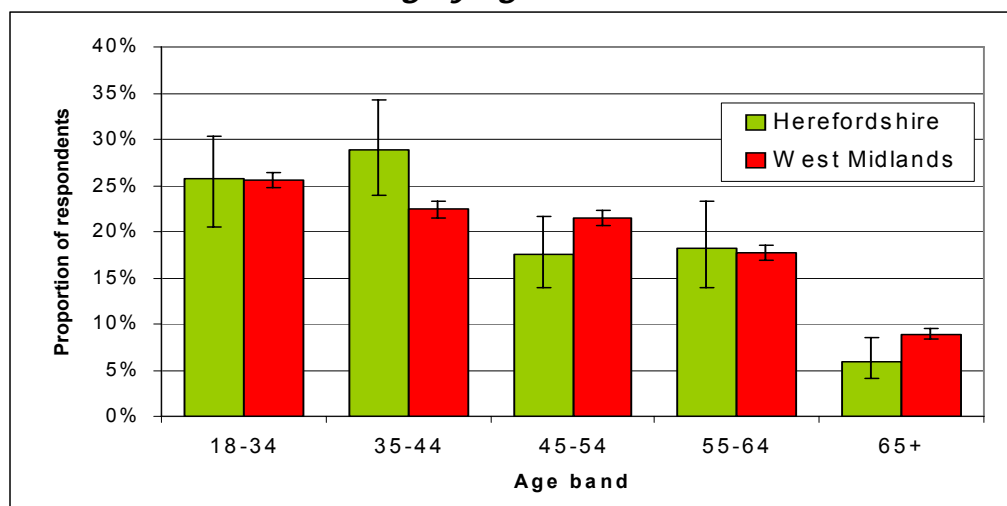
- To reduce smoking among young adults (16+ years) from 26% in 2002 to 21% or less by 2010.
- To reduce smoking in routine and manual groups from 31% in 2002 to 26% or less by 2010.
- Reduce smoking among children aged 11-15 years from 13% to 9% or less by 2010.
- Reduce the percentage of women who smoke during pregnancy from 23% to 15% by 2010.

2.3.2 Locally, the Department of Health has set a 2007/2008 target of helping 1,200 smokers to quit successfully at the 4-week stage. In 2006/2007, the target was 1,100, and this was narrowly exceeded, with 1,110 quitting.

2.3.3 The data available to measure the percentage of smokers varies in terms of reliability. The adult and child rates are only known through survey data. However, the percentage of pregnant women who smoke is collected and recorded reliably on an individual basis.

The most recent Adult Regional Lifestyles Survey showed that 21% of the adult population in Herefordshire smoked in 2005 (West Midlands Regional Observatory, "Regional Lifestyles Survey 2005"). Prevalence is higher among men (25%), than it is among women (19%). However, this is likely to be an under-estimate, given the low response rate for the survey as a whole, and the fact that it is a self-completion questionnaire. The survey also shows the highest smoking rate in Herefordshire is among 35-44 year olds (29%) and that this is significantly higher than the regional average for the age band (22%).

**Table 22: Prevalence of smoking by age band**



Source: Herefordshire Council RLS Report

In Autumn 2006, a Teenage Lifestyles Survey was carried out, involving 3853 young people (Years 7, 8, 9 and 10; aged 11-15 years) in 16 of our secondary schools. This showed that 7% of respondents had smoked at least one cigarette in the last seven days, and that 8% say they smoke regularly or occasionally. However, some rates are far higher. 10% of 15-year old boys said they smoked, and 25% of 15-year old girls did. 44% of the sample said that there is at least one person who smokes regularly at home.

The percentage of women who smoke while pregnant varies from year to year. Although the rate for the last two financial years has been static at 17%, it is near to the 15% target required by 2010 in the Smoking Kills (1998) White Paper.

One feature of the local service is that the Stop Smoking midwife specialist focuses her work on women from lower income groups and hard to reach groups. She not only works with pregnant women, but also with partners and close family members, knowing that this will improve the mothers' chances of quitting successfully, as well as protecting the babies' health. This will also help reduce the risks of second hand smoke to other children in the home. During 2006 – 2007 there were 154 pregnant women referred to the specialist midwife, 121 of these setting quit dates and 34 quit at 4 weeks (28%). Although this midwife promotes total quitting rather than reducing cigarette consumption, she also supports women who are able to reduce to 1-2 cigarettes daily and have vastly reduced carbon monoxide readings but are not recorded in quit rates. This will reduce the adverse effects of smoking on the pregnancy. Of the non-pregnant people that the midwife saw, 119 set quit dates and 61 were quit at 4 weeks (51%). The majority of these interventions take place in the woman's home, on a weekly basis, with additional phone support. Nicotine Replacement Therapy is

given directly to the woman under the guidance of a Patient Group Direction which removes the need for her to make additional visits to pharmacies. Herefordshire's Stop Smoking in Pregnancy service has been cited as an example of best practice, and quit rates from this service have been presented to the Department of Health, the National Institute of Clinical Excellence and are also going to be mentioned in a forthcoming Audit of Smoking Cessation Services in Scotland.

The Stop Smoking Service is a well-staffed and active one and has always exceeded the local targets set by the Department of Health. Pharmacists, too, are engaged in this work and 21 out of the 25 county pharmacists deliver smoking cessation services. This year, however, the target was only exceeded by 10, and this reflects a national picture. It is known that, at any one time, 70% of smokers want to quit and that, in any one year, about a third of them make a quit attempt. Using the age banded figures from the Lifestyles Survey, this would equate to approximately 18,988 smokers in Herefordshire wanting to quit at any one time and approximately 6,329 making a quit attempt in any one year. The service works to NICE guidelines, and delivers training on both brief interventions and intensive support to a range of health and partner staff. The aim of the brief interventions training is to raise awareness, knowledge and skill so that colleagues feel confident in identifying smokers, assessing readiness to quit and referring on to the Stop Smoking Service. Intensive support training is aimed at nurses (practice and school) and pharmacists, so that they can deliver smoking cessation services directly. A separate training module has been developed for midwives, student midwives, and Surestart, to ensure that they can deliver enhanced quitting support to pregnant women. It is important to continue to empower professional staff in this area, so that encouraging quitting becomes the business of everyone who works in the health services. The Stop Smoking Service has a good working relationship with the staff at the County hospital and Stonebow unit. Dedicated members of the stop smoking service regularly visit wards and departments and follow up referrals in the community. As well as health professionals, there is also opportunity to engage with social care and education colleagues.

This year has been an exciting one in terms of tackling smoking because of the introduction on 1<sup>st</sup> July of the national legislation to ban smoking from enclosed public spaces and a further legislative change on 1<sup>st</sup> October which makes it illegal to sell cigarettes to those aged under 18 years of age. It is important that the implementation of this is enforced. In the Teenage Lifestyle Survey, 36% of Year 10 girls had bought their last cigarettes from a shop, even though it was illegal to do so. In Herefordshire, a multi-agency "Smoke-Free Herefordshire" group was established to lead the work towards effective implementation of the new legislation, and this has worked well. Chaired by a PCT non-executive director, and supported by the Director of Environment Services at the

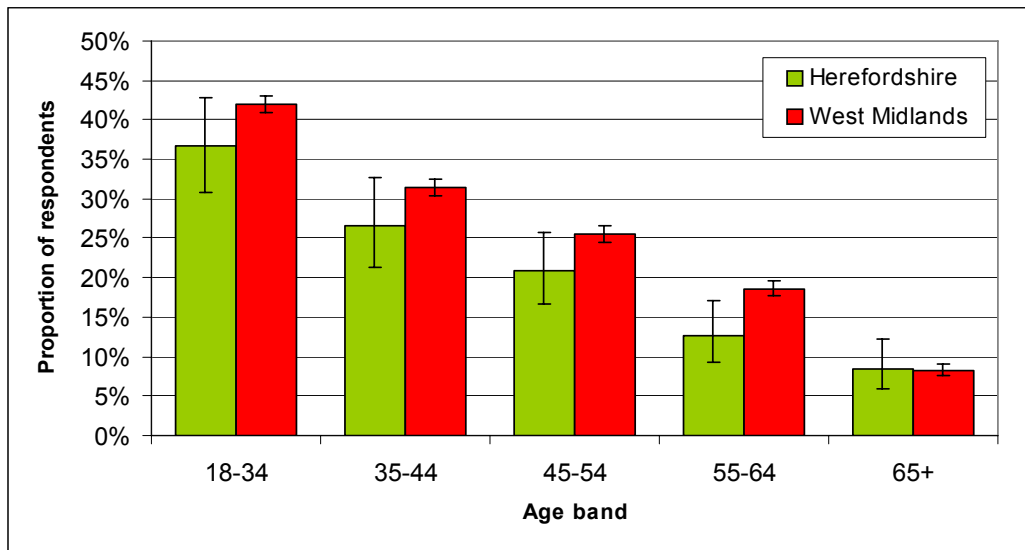
Council, and Director of Public Health at the PCT, the group has identified a work programme and joint investment plan, identifying money in both agencies to deliver the agenda. The national legislation has been kept high on the agencies' agendas. A successful roadshow was delivered around the county, involving local authority and health colleagues, to inform the general public about the legislation and encourage quitting. Well attended events were held too for local employers. The Council employed two enforcement officers to focus on implementation of the legislation, and this has been effective despite one local publican featuring in the national and local media because of his opposition to it. Although an increase in numbers using the Stop Smoking Service had been expected, numbers of quitters have not changed significantly from previous years. Our challenge remains to reach those people who do want to quit, and to target young and middle-aged people so that health benefits of quitting can be maximised.

## **2.4 SENSIBLE DRINKING**

- 2.4.1 There are no national targets, but the recommended intake is that men should drink no more than 21 units a week and no more than 4 on any one day, and women no more than 14 a week and not more than 3 in any one day. Binge drinking is defined by the Office for National Statistics as 8 or more units a day for men and 6 or more units for women.
- 2.4.2 The Regional Lifestyles Survey 2005 shows that 17% of adults in Herefordshire (compared with 20% regionally) reported drinking more than the recommended amounts each week. There is a gender related difference: 23% of men and 11% of women drink at that level.
- 2.4.3 Data on binge drinking show that 23% of people in Herefordshire drank at binge drinking levels on at least one day in the previous week. This is lower than the regional figure of 28%. The rates of binge drinking are higher in men; 32% of men and 15% of women in Herefordshire compared with regional binge drinking rates of 36% for men and 19% for women. The following table shows the marked correlation between age and binge drinking, with the highest rates being among men aged 18-34 years.



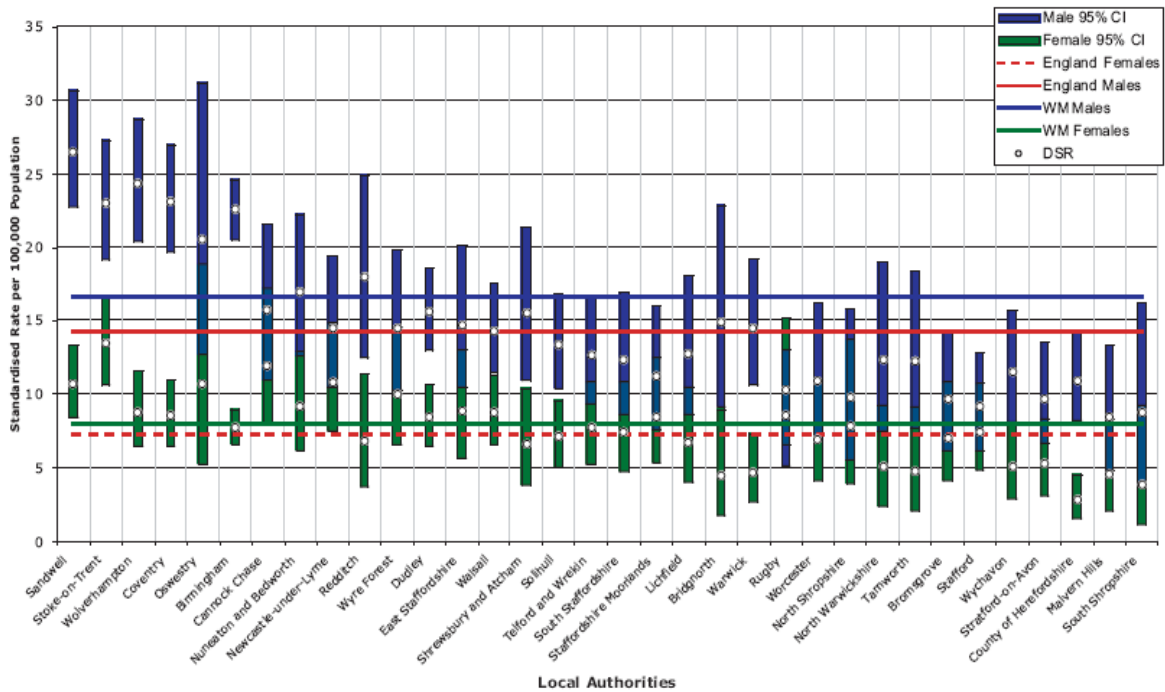
**Table 23: Prevalence of binge drinking**



Source: Herefordshire Council RLS Report

2.4.4 In Herefordshire, mortality rates for alcohol related conditions are low, relative to elsewhere in the West Midlands.

**Figure 1: Directly standardised mortality rates per 100,000 population for alcohol related mortality by gender and West Midlands Local Authorities, all ages, 2000-2004**



Source: PHO mortality files, ONS; UKACR and ONS mid-year population estimates, ONS

2.4.5 However, relative to comparator authorities, though the female rate is still lower, the male rate is no better than comparators.

**Table 24: Mortality from alcohol-related conditions per 100,000 population, 2002-2004**

	Herefordshire	Comparator Authorities	West Midlands	England
Males	48.4	48.3	56.0	50.2
Females	20.8	26.6	30.1	28.0

Source: North West Public Health Observatory: Local Alcohol Profiles for England

2.4.6 The gender difference is apparent again in terms of length of life lost. Reduced life expectancy in terms of months of life lost has been calculated from alcohol-related deaths of those aged less than 75 years between 2002 and 2004. In Herefordshire, there were 165 such deaths among men in these years and 120 among women. The following table shows an average of almost 10 months of life lost among men, and 3 months among women.

**Table 25: Average months of life lost attributable to alcohol, 2002-2004**

	Herefordshire	Comparator Authorities	West Midlands	England
Males	9.7	9.0	10.9	9.6
Females	3.0	5.2	5.5	5.1

Source: North West Public Health Observatory: Local Alcohol Profiles for England

2.4.7 Male mortality under 75 years from chronic liver disease including cirrhosis under 75 years is higher than that in comparator authorities, and should be monitored although rates are based on small numbers (31 male deaths and 10 female deaths in the three year period). Again, female mortality is lower.

**Table 26: Under 75 years mortality from chronic liver disease, DSR per 100,000 population, 2003-2005**

	Herefordshire	Comparator Authorities	West Midlands	England
Persons	6.7	5.0	11.0	9.7
Males	10.6	6.3	14.7	13.0
Females	2.9	3.8	7.3	6.5

Source: North West Public Health Observatory: Local Alcohol Profiles for England

2.4.8 The same trends are clear from an analysis of alcohol related hospital admissions: Herefordshire rates overall are low, but considerably higher for men than for women. The first table deals with alcohol related admissions, which includes all specific conditions but also those where alcohol is casually implicated, such as accidents. The second deals with alcohol specific admissions only.

**Table 27: Alcohol related hospital admissions, DSR per 100,000 population, 2004/2005**

	Herefordshire	Comparator Authorities	West Midlands	England
Males	669	757	782	826
Females	366	444	437	462

Source: North West Public Health Observatory: Local Alcohol Profiles for England

In 2004-2005 there were 658 male admissions and 442 female alcohol-related admissions.

**Table 28: Alcohol specific hospital admissions, DSR per 100,000 population, 2004/2005**

	Herefordshire	Comparator Authorities	West Midlands	England
Males	236	240	285	306
Females	113	128	127	145

Source: North West Public Health Observatory: Local Alcohol Profiles for England

Again rates must be treated with caution as the numbers of alcohol-specific admissions (97 for females and 202 for males) are relatively low.

2.4.9 A different, and concerning, picture emerges from analysis by age, again highlighting gender differences: for males under 18, the male admission rate is significantly above England, the West Midlands and comparator authorities. However, there are very small numbers here (18 male and 12 female admissions between 2002 and 2005) and so this is a marker for closer scrutiny, rather than evidence of a clear trend.

**Table 29: Under 18 years alcohol specific hospital admissions per 100,000 population, 2002-05**

	Herefordshire	Comparator Authorities	West Midlands	England
Males	63	55	52	49
Females	53	52	60	59

Source: North West Public Health Observatory: Local Alcohol Profiles for England

2.4.10 Alcohol is implicated in 40% of all reported crime and 70% of stabbings and beatings. The following table shows rates of crimes recorded by the Home Office as attributable to alcohol. This shows that although there is a low level of crime attributable to alcohol in Herefordshire, when compared with the region and England as a whole, the rates are slightly above those in comparator authorities.

**Table 30: Crime attributable to alcohol per 1,000 population, 2005-2006**

	Herefordshire	Comparator Authorities	West Midlands	England
Recorded crime	6.19	5.74	10.12	10.45
Violent crime	4.97	4.45	7.18	7.33
Sexual offences	0.13	0.09	0.15	0.15

*Source: North West Public Health Observatory: Local Alcohol Profiles for England*

In Herefordshire in 2005-2006, there were 3,065 incidents of alcohol related disorder, compared with 2,290 in 2004-2005. However, numbers of alcohol related violent crimes have fallen from 1,421 in 2004-2005 to 1,226 in 2005-2006.

2.4.11 Analysis of hospital admissions of Herefordshire residents during the five year period 2002-2006 reveals in excess of 1,500 alcohol specific admissions, an average of approximately 315 per year. The growth in the number of admissions year-on-year represents a consistent and worsening trend; in 2006 alone admissions rose by almost 50% on the previous year from 348 to 516.

**Table 31: Numbers of alcohol related admissions, 2002-2006**

Year	Number
2002	204
2003	242
2004	255
2005	348
2006	516

*Source: Public Health Department, Herefordshire PCT*

From 2003 onwards, males have accounted for approximately 70% of these admissions (360 out of 516 in 2006).

Analysis by age shows that most of the alcohol-specific admissions are from the middle age bands:

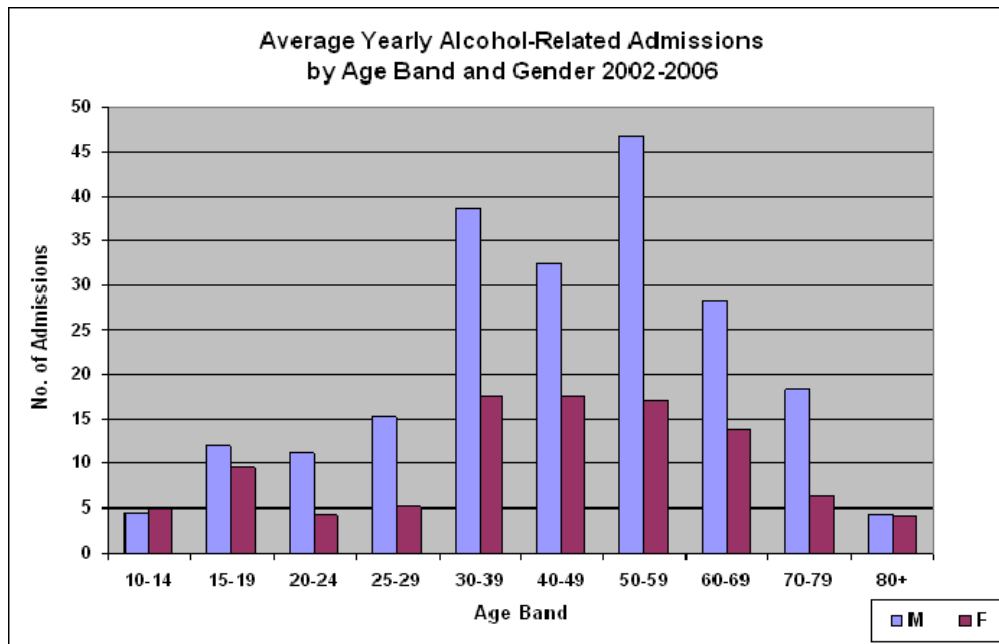
**Table 32: Percentage of alcohol-specific hospital admissions, 2002-06 by age band**

Age	Percentage of all alcohol-specific admissions
<16 years	5.0
16-24 years	9.9
25-34 years	13.0
35-44 years	19.2
45-54 years	19.2
55-64 years	16.5
65-74 years	11.7
75+	5.4

Source: Public Health Department, Herefordshire PCT

Although admissions of under 16 year olds account for only 5% of all admissions, the actual number has risen from 9 in 2002 to 30 in 2006. More girls than boys were admitted from the 14 and 15 year old cohort, and numbers within this group have risen sharply from an average of 4 female admissions per year between 2002 and 2004, to 19 female admissions in 2006.

**Table 33: Alcohol-related admissions 2002-06, by age band and gender**



Source: Public Health Department, Herefordshire PCT

Very clear links can be seen between social deprivation and alcohol abuse leading to alcohol-related admission. Analysis of admissions by deprivation quartile reveals that 732 (46.8%) of all admissions in the five-year period were of patients from areas comprising the most deprived quartile of Herefordshire (ie. patients with a postcode located

within the 29 most deprived Super Output Areas). The most deprived quartile of Herefordshire accounts for almost half of all alcohol-related admissions despite making up less than a quarter (24.7%) of the county population at the last Census.

In contrast, all three other less deprived quartiles combined (ie. the remaining 87 Super Output Areas) totalled 833 admissions or just 53.2% of the Herefordshire total despite representing over three quarters of the county population. There was no marked difference in admission numbers between these three quartiles which seems to indicate excessive alcohol consumption only correlates with deprivation among the most deprived communities.

**Table 34: Percentage of alcohol-related hospital admissions 2002-06, by deprivation quartile**

Quartile 1 (least deprived)	17.5%
Quartile 2	18.6%
Quartile 3	17.1%
Quartile 4 (most deprived)	46.8%

*Source: Public Health Department, Herefordshire PCT*

By analysing the 18 most deprived Super Output Areas within the most deprived quartile (ie. those commonly acknowledged to represent communities suffering pronounced deprivation within Herefordshire such as the South Wye of Hereford City and parts of Leominster), it is possible to establish the link further. These most deprived 18 SOAs represent approximately 15% of the total Herefordshire population, yet accounted for 37.3% (584) of all admissions in 2002-2006. Expressed in terms of a directly standardised rate (to the European Standard Population) in order to allow for any differences in the age structure of each population, the admission rate per 100,000 for the whole of Herefordshire is 176.4 per 100,000 compared to an equivalent rate for the "deprived 18" grouping of 460.0 per 100,000.

- 2.4.12 The numbers of adults exceeding the sensible levels of drinking is perhaps not surprising, given that the majority of respondents were found in the 2002 West Midlands Adult Health and Lifestyle Survey, to be unaware of the limits. Only 14% of men in Herefordshire identified the "safe" maximum number of weekly alcohol units correctly, and in total two-thirds of male respondents either didn't know the weekly limit or thought it to be greater than 21 units. For women, 16% knew the correct maximum limit, but again almost 70% either didn't know the weekly limit or thought it to be greater than 14 units.
- 2.4.13 The Teenage Lifestyles Survey showed that alcohol consumption is an issue for young people too. Overall, 26% had at least one alcoholic drink in the week before the survey and percentages were highest among the

Year 10s. The national reference sample figure for England and Wales for Year 10s was 43%.

**Table 35: Percentage of pupils reporting at least one alcoholic drink in the week before the survey**

	Year 7	Year 8	Year 9	Year 10
Male	11%	22%	30%	42%
Female	7%	16%	29%	48%

Source: Health Related Behaviour Survey, Herefordshire Partnership, Autumn 2006

Overall, 18% had two or more units of alcohol in the previous week.

**Table 36: Percentage of pupils reporting two or more units of alcohol in the previous week**

	Year 7	Year 8	Year 9	Year 10
Male	4%	13%	21%	35%
Female	3%	9%	21%	37%

Source: Health Related Behaviour Survey, Herefordshire Partnership, Autumn 2006

The figures concerning the percentage of pupils who reported having got drunk on at least one day in the previous week show relatively high levels among Year 10 pupils, and in particular among Year 10 girls.

**Table 37: Percentage of pupils reporting getting drunk on at least one day in the previous week**

	Year 7	Year 8	Year 9	Year 10
Male	3%	4%	9%	16%
Female	1%	3%	10%	25%

Source: Health Related Behaviour Survey, Herefordshire Partnership, Autumn 2006

- 2.4.14 An estimation of the total numbers of alcoholic units consumed in the previous seven days indicated that, among Year 9 and Year 10 pupils, 10% of males and 6% of females drank more than the recommended weekly maximum for an adult woman (14 units).
- 2.4.15 The PCT is responding to this evidence of increasing risk-taking behaviour related to alcohol in a number of ways. The health promotion effort to challenge alcohol abuse is focused on young people and two programmes "Bottling It Up" and Out of It" use Theatre in Education workshop techniques to explore the use of alcohol; its various effects and consequences; and identify strategies for safe and sustainable use. These programmes were researched, designed and developed in Herefordshire in partnership with the Catalyst Theatre in Education Company. Major tours of both productions are scheduled for 2008. During 2008, a new piece of work will centre on Hereford's main Further

and Higher Education campus, working with students and staff to develop an educational resource that is young person peer led and which promotes a safer relationship to alcohol. Project partners include the PCT, the Bulmer Foundation and the Catalyst Company.

- 2.4.16 The local Community Alcohol Service (CAS) consists of 3.5 staff plus one session a week from the public health improvement manager. A new development from September 2007 is a drop-in self-referral service on Thursday mornings. This is based at the Asda site (Kindle Centre), and is staffed by a volunteer who has been trained and is supported by the CAS.
- 2.4.17 The PCT is currently working with CAS to set up a two year pilot scheme of an alcohol advisory nurse, based in the County Hospital. This post will be funded by "Choosing Health" money and by the Bulmer Foundation. The nurse will see clients in A&E, in clinics, and on the wards, offering brief interventions and support to medical and nursing staff. This is one response to the rising numbers of alcohol related admissions.
- 2.4.18 An important strand in the work to tackle the rising alcohol problem is the "Understanding Alcohol" training which is provided by Public Health and CAS. This is free-of-charge, held monthly, and available for those in statutory and non-statutory organisations. It aims to train staff as health educators and to be able to make a brief intervention. An advanced course has been run since 2005 for those who want to develop beyond the basic level.
- 2.4.19 There are opportunities here for more partnership working, building on the already successful joint initiatives. In particular, work with the Criminal Justice system can be developed, to tackle the increase in binge drinking among the younger age groups. The Community Safety and Drugs Partnership took a lead in developing an Arrest Referral Scheme in 2004 and this provides quick access to the CAS by self-referral, bail condition, or fixed penalty for an alcohol related offence. Offenders attend one session for screening, education and advice. The fixed penalty scheme involves two sessions and enables offenders to have their fine cancelled.

## **2.5 OBESITY**

- 2.5.1 Nationally, numbers of people who are obese and overweight are rising and this has serious consequences for public health. As the percentage of the population which is obese rises, so to does the burden on health care services. The Chief Medical Officer in his 2002 annual report referred to obesity as a time bomb and noted that obesity levels in England have tripled in the last two decades. At the moment, there is no national target for reducing adult obesity, although there are two pieces of Department of Health advice which are linked to this:



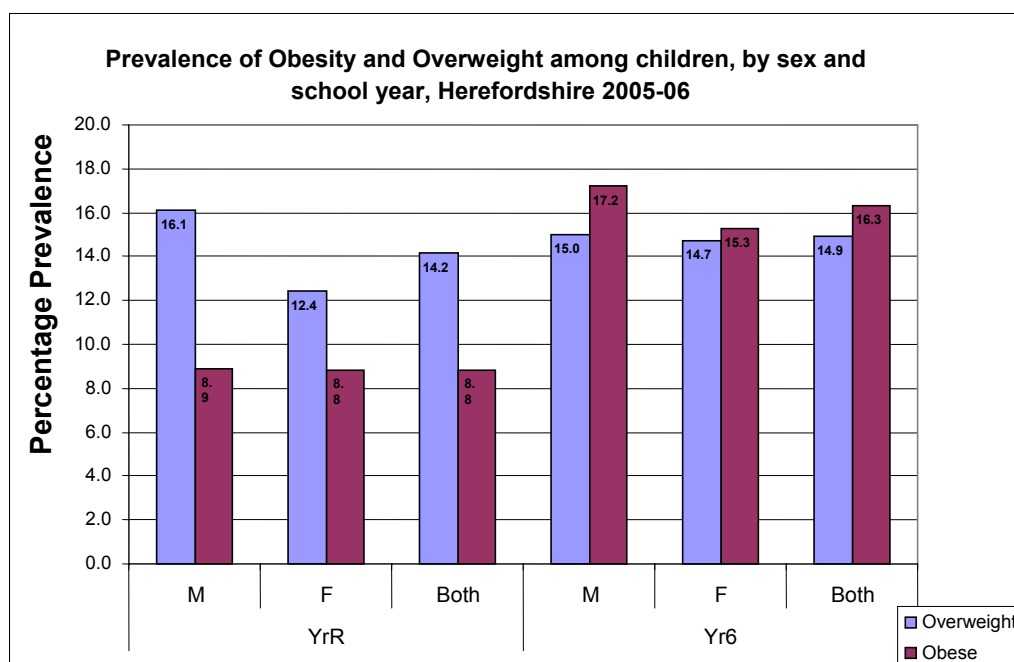
- To eat 5 or more pieces of fruit or vegetables a day.
- For adults, to take 30 minutes exercise 5 times per week.

For children, a specific national target relates to children's weight, and delivery of this is tasked to the Department of Health, DfES and the Department of Culture, Media and Sport:

- To halt the year-on-year rise on obesity among children under 11 years by 2010 in the context of a broader strategy to tackle obesity in the population as a whole.

- 2.5.2 In Summer 2006 the first national weighing and measuring of all Reception and Year 6 children took place. This is an essential data collection exercise, which will inform service planning as well as enable progress towards the national target to be monitored. In Herefordshire, the PCT, through its schools and School Nursing Services, did particularly well in achieving a high level of coverage. 83.9% of Reception and Year 6 children were weighed and measured, compared with the national average of 48% and a regional average of 50.3%. In all, 2803 children in Herefordshire were weighed and measured, out of the 3,340 registered in Reception and Year 6.
- 2.5.3 Herefordshire PCT's figures show that 8.7% of Reception and 16.3% of Year 6 children were obese. This is slightly below the figures for the West Midlands SHA area (10.2% and 17.6% respectively) and the figures for England as a whole (10.0% and 17.3% respectively). The figures for girls (8.8% in Reception and 15.3% in Year 6) are slightly below those of boys (8.9% and 17.2% respectively).
- 2.5.4 The data show that 14.2% of Reception year children were overweight, and 14.9% were overweight in Year 6. Again, the percentage of boys measured as overweight (15.5%) is higher than in the case of girls (13.6%). The figures for the percentage of children overweight in Herefordshire are slightly higher than they are nationally (12.8% in Reception, 13.8% in Year 6) or regionally (12.5% in Reception and 14.3% in Year 6). However, these comparisons are of limited value because the response rate nationally was far lower than locally, and it is known that overweight and obese children are less likely to consent to being weighed and measured.
- 2.5.5 In all, 22.9% of Reception class children and 31.2% of Year 6 children in Herefordshire were either overweight or obese. The table below summarises the prevalence data, and highlights the significant increase in prevalence between Reception and Year 6.

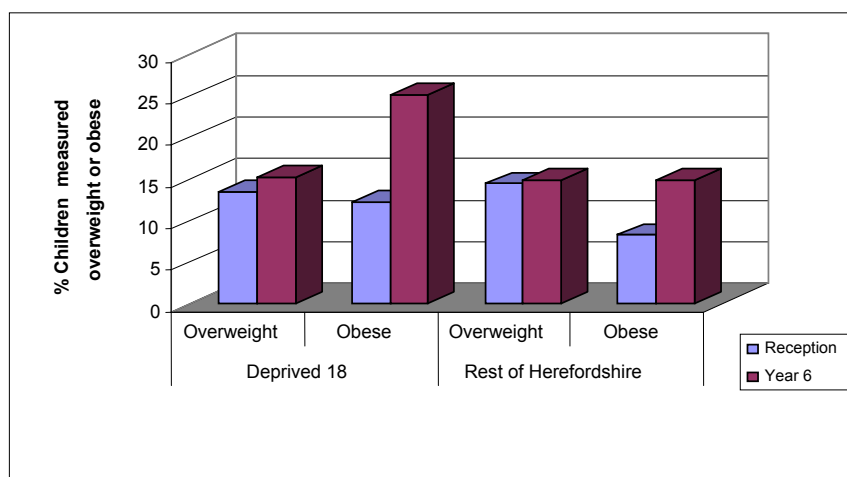
**Table 38: Prevalence of obesity and overweight among children, by sex and school year, Herefordshire 2005-2006**



Source: Public Health Department, Herefordshire PCT

2.5.6 Analysis of the data with regard to social deprivation shows a correlation between obesity and living in an area of high social deprivation. The correlation in terms of overweight is not evident.

**Table 39: Percentage overweight and obese in the most deprived Super Output Areas (Deprived 18) compared to the rest of Herefordshire<sup>1</sup>**



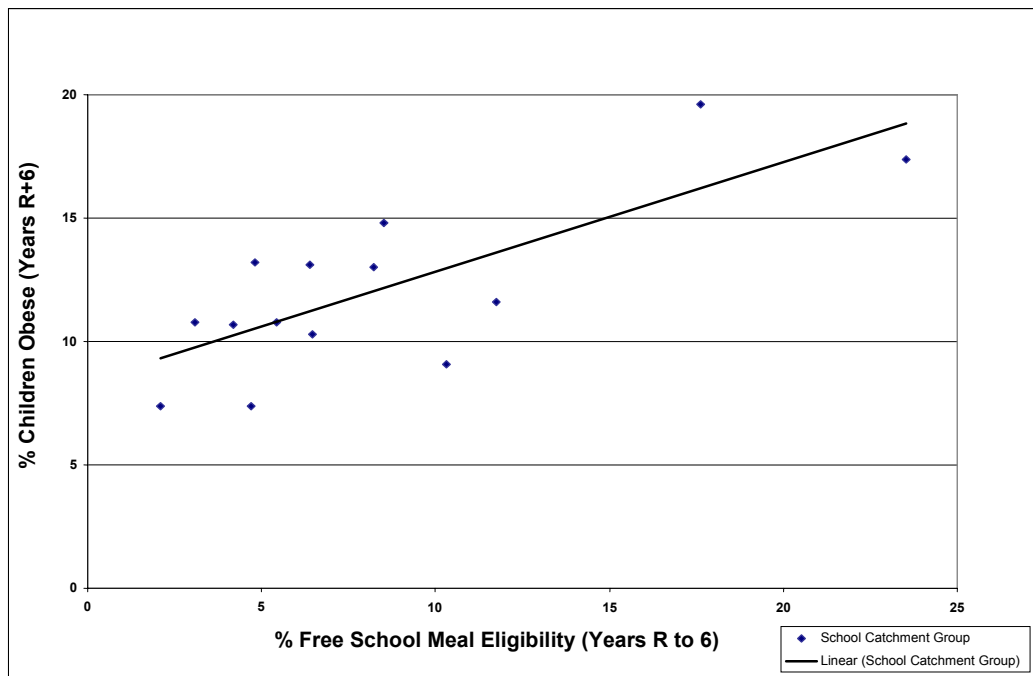
Source: Public Health Department, Herefordshire PCT

<sup>1</sup> Based on the Indices of Multiple Deprivation (IMD) data released in 2004 by the Office of the Deputy PM. The IMD data gives small area deprivation scores for sub-divisions of wards known as Super Output Areas (SOAs). There are 116 SOAs in Herefordshire, each with a population approximating 1,500 and based on areas of similar housing tenure. They have the advantage of distinguishing between very different parts of the same ward (eg. relative poverty and affluence within the Belmont Ward) and are therefore more flexible and sensitive measure of deprivation within the county.

The graph above uses the postcode of the school in order to attempt some preliminary analysis of the impact of social deprivation. The combined figures for children in Reception and Year 6 measured as overweight show there is a similar percentage of children within and without the “Deprived 18” category – 14.4% and 15.0%. However the figures for obesity show a more marked difference: the percentage of children (combined years) from schools within the “Deprived 18” falling into the obese category is 19.3%. The equivalent from areas outside of this group (ie. less deprived) is 11.7%. This proxy is limited by the fact that school catchment areas are clearly much wider than merely the postcode in which the school itself is located, especially in rural and semi-rural areas.

2.5.7 A useful proxy for social deprivation in this instance is free school meal eligibility. Each point in the scatter diagram below represents a cluster group of schools. The aim is to express the correlation between the percentage of children who measured as obese and the percentage of Free School Meal Eligibility within each cluster group’s Reception and Year 6 populations. The line shows a positive association, ie, the higher the rate of eligibility for Free School Meals, the higher the rate of obesity. The two clusters showing the highest correlation to the right of the diagram are Leominster and Wyebridge.

**Figure 2: Child obesity (Year R and 6) by school cluster group against percentage Free School Meal eligibility**



Source: Public Health Department, Herefordshire PCT

2.5.8 Despite the data on obesity relating to primary aged children, the Teenage Lifestyle Survey shows a relatively positive picture in terms of eating fresh fruit and vegetable. 24% of pupils had at least five portions of fruit or vegetables the day before the survey. Herefordshire pupils were more likely than were pupils in a national reference sample to say that they ate fresh fruit and vegetables on most days. 60% of Year 10 girls, for example, reported this, compared with 51% in the reference sample. 41% of boys and 55% of girls in Herefordshire in year 8 said that they eat fruit on most days compared with 28% and 36% in the reference sample.

However, 8% of pupils had no fruit or vegetables at all the day before the survey, and 17% reported having had nothing to eat or drink for breakfast on the day of the survey. 11% had eaten no lunch on the day before the survey.

2.5.9 70% of pupils reported that they had exercised enough to increase their breathing rate three or more times in the week before the survey. This varied between ages and gender.

**Table 40: Percentage of pupils reporting exercising enough to increase their breathing rate three or more times in the week before the survey**

	Year 7	Year 8	Year 9	Year 10
Male	77%	76%	77%	78%
Female	68%	65%	62%	60%

Source: Health Related Behaviour Survey, Herefordshire Partnership, Autumn 2006

However, 8% said they had only exercised to this level once in the week before the survey, and 6% said never.

2.5.10 The PCT has worked on a number of initiatives this year to tackle obesity. It has:

- Employed a Health Improvement Manager to focus on obesity. She is supporting pedometer training for staff; developing well-being support for staff; working with schools to promote healthy eating; inputting to staff induction training; working with community pharmacists to deliver an "apples and pears" campaign; and has established a network of obesity champions across primary care.
- Employed a part-time community food worker who is focusing activity on children and families, working closely with children's centres and encouraging practical cookery skills.
- Continued to support the Wye Wood project. This focuses on maximising the health benefit of woodland and encourages moderate physical activity such as walking, as well as more strenuous activities such as coppicing. An evaluation has

demonstrated that, although numbers involved are small, there has been some success in involving hard-to-reach groups such as young people involved in criminal justice; older people in isolated communities; and those with mental health problems in rural areas. An exciting new aspect to this is possible extension of the work, using charitable and lottery funds, to develop a social enterprise from the marketing of coppiced products.

- Continued to support a breastfeeding project which provides enhanced support to all teenage parents and to all women in the South Wye area. The support is based on a peer support model, together with specialist training for professional staff. Breastfeeding has an important link to obesity, both because breastfed babies are less likely to become obese, and because women who breastfeed are likely to regain their pre-pregnancy weight more quickly than are those who do not breastfeed. Although initiation rates of breastfeeding in the county are relatively high (72.3% of women in 2004-2005, compared with 55.2% in the West Midlands and 67.6% in comparator authorities), these figures reduce significantly by the time the babies are 6 weeks old (by 6 weeks, only 48% of babies in 2005-2006 were breastfed).
- Worked with schools to influence the successful implementation of the new Food in Schools Standards, required from October 2007. This has included supporting a School Meals Strategy Group; training governors; and sending an information pack to every Chair of Governors in the county.
- A slimming club referral pilot scheme has been developed with GP referral from September 2006, to Weight Watchers and Rosemary Conley.
- Building a sustainable Eat 2B Fit group in South Wye. This was piloted last year and is now provided as a three times a year programme. On-going evaluation of outcomes and satisfaction is positive.
- Wide dissemination of NICE obesity guidance across the partner agencies.
- Commencement of PCT based Health in the Workplace initiatives, including a vegetable box scheme; walking at lunchtime; and starting the work on developing a PCT travel plan which would support active ways of getting to work.
- Developed a network of health staff equipped with pedometers to support goal setting to increase physical activity.
- Continued to support LIFT, an exercise referral scheme run in partnership with the Council. Evaluation of the scheme suggests 72% of clients are motivated to begin exercise as a result of wanting to lose weight, and that 35% have lost weight by the completion of the 12-week programme

- 2.5.11 One area of concern is the relatively low BMI recording by GPs. This is a vital source of baseline and monitoring data but the recording level is currently too low to be of full use. It is important that the PCT takes every opportunity to encourage GPs to record BMI.

## 2.6 SOCIAL DEPRIVATION

- 2.6.1 Although Herefordshire is often seen as a relatively affluent area, social deprivation exists here, and there is worrying evidence of related health inequality.

- 2.6.2 Deprivation is usually identified by reference to the Index of Multiple Deprivation 2004. This calculates deprivation by combining a number of indicators across seven domains into a single score and rank for each Super Output Area (SOA1) in England. The seven domains are: income; employment; health and disability; education, skills and training; barriers to housing and services; living environment deprivation; and crime. An SOA has a population of approximately 1,500, and there are 116 SOA1s in Herefordshire.

In terms of overall IMD, there are seven SOAs in Herefordshire which fall within the 25% most deprived in England. Six of these are in Hereford City, and one is in Leominster. One of these in Hereford City and the Leominster SOA fall within the 20% most deprived in England.

- 2.6.3 In general terms, wages in Herefordshire are relatively low, although the employment rate is relatively high. The self-employment rate is also high.

**Table 41: Ratios of median weekly gross full-time earnings (work based)**

	2004	2005	2006
Herefordshire	346.10	351.20	390.60
West Midlands	392.40	402.50	415.50
Ratio of Herefordshire to West Midlands	0.88	0.87	0.94

Source: ONS (State of Herefordshire Report)

Although the 2006 figures suggest a decrease in the gap between local median earnings and those in the West Midlands Region, the figures are based on relatively small samples and may not evidence a trend.

Herefordshire's employment rate was 78% in 2005-2006, compared with 73% regionally and 74% nationally. The self-employment rate in 2005-2006 was 16%, compared with 8% regionally and 10% nationally.

- 2.6.4 Deprivation within certain IMD domains is more concentrated than it is in the overall IMD. In the adult sub-section of the education, skills and training domain, for example, 15 Super Output Areas fall within the 20% most deprived nationally and 4 fall within the 10% most deprived nationally. Three of these are in Hereford City and one is in Leominster.
- 2.6.5 Analysis of mortality data shows that standardised mortality ratios (SMRs) are higher in socio-economically deprived areas - such as the South Wye area of Hereford City or the 18 most deprived Super Output Areas (collectively known as the 'D18') - than they are in the rest of the county. However Tables 42 and 43 indicate that whilst mortality ratios are significantly higher in such areas with regard to males and all persons, they appear only slightly higher for women compared to Herefordshire generally. Men in South Wye and in the D18 have SMRs of 133 and 129 respectively, ie. 33% and 29% higher mortality than men in Herefordshire as a whole.

**Table 42: Standardised Mortality Ratios for South Wye: Registered deaths to persons resident in Herefordshire 2004-2006 against 2001 Census Population (at SOA1 Level)**

	MALES					
	Observed Deaths	Expected Deaths	SMR	CI adj	LL	UL
South Wye	176	133	<b>133</b>	19.6	113	152
Herefordshire	2822	2822	<b>100</b>	3.7	96	104
	FEMALES					
South Wye	139	127	<b>110</b>	18.2	92	128
Herefordshire	2934	2934	<b>100</b>	3.6	96	104
	PERSONS					
South Wye	315	262	<b>120</b>	13.3	107	143
Herefordshire	5756	5756	<b>100</b>	2.6	97	103

Based on 8 South Wye SOA1s excluding Belmont Abbotsmead, Belmont Whitefriars, Broadleys, Hinton Road and Lower Bullingham

NB: Definition of South Wye changed from previous versions to include only D18 SOA1s.

Source: Public Health Department, Herefordshire PCT

**Table 43: Standardised Mortality Ratios for Deprived Herefordshire (D18): Registered deaths to persons resident in Herefordshire 2004-2006 against 2001 Census Population (at SOA1 Level)**

MALES						
	Observed Deaths	Expected Deaths	SMR	CI adj	LL	UL
Deprived Herefordshire	451	349	<b>129</b>	11.9	117	141
Herefordshire	2822	2822	<b>100</b>	3.7	96	104
FEMALES						
Deprived Herefordshire	410	401	<b>102</b>	9.9	92	112
Herefordshire	2934	2934	<b>100</b>	3.6	96	104
PERSONS						
Deprived Herefordshire	861	760	<b>113</b>	7.6	106	121
Herefordshire	5756	5756	<b>100</b>	2.6	97	103

Based on 18 most deprived SOA1s

Source: Public Health Department, Herefordshire PCT

2.6.6 These figures are consistent with the earlier data relating to alcohol, and smoking, in that men from deprived populations have the highest rates. Smoking in particular is known nationally to be key in understanding differences in health outcome between people of different social groups.

#### 2.6.7 Perinatal and infant mortality

There is some evidence that perinatal mortality (stillbirths and deaths in the first week of life) too is higher in the areas of social deprivation. If the county is divided into four quartiles of deprivation, the most deprived quartile accounts for almost 50% of all perinatal mortality (20 out of 42 notifications), including 15 of a total of 28 stillbirths over the four-year period 2003-06.

**Table 44: Perinatal mortality in Herefordshire by social deprivation: 4 years pooled data, 2003-2006**

	Rate	Numbers
Quartile 1 (least deprived)	4.71	7
Quartile 2	4.73	7
Quartile 3	4.80	8
Quartile 4 (most deprived)	9.43	20

Source: Public Health Department, Herefordshire PCT

In South Wye alone, the rate is higher still, at 13.8 (10 cases). This worrying link is evident at regional and national levels too.



However, locally, with regard to infant mortality, there is no such link, and this reflects the need for caution when dealing with small figures.

2.6.8 Hospital admissions data (Table 45) show that rates are often highest among the South Wye population and also are frequently significantly above average in the D18 area. Rate ratios illustrate by gender the number of admissions from each deprivation area per one admission from within the total Herefordshire population; for example for every one male psychiatric admission from the total population there are 2.34 such admissions from the D18 areas.

**Table 45: Hospital admissions 2004-2006 (rates per 1,000)**

	Males			Females		
	Herefordshire	D18	South Wye	Herefordshire	D18	South Wye
All Admissions (ICD10)	<b>177.2</b> (174.7-179.6)	<b>234.7</b> (227.6-241.7)	<b>248.4</b> (238.1-258.7)	<b>231.7</b> (228.8-234.5)	<b>303.1</b> (295.6-310.6)	<b>307.4</b> (296.7-318.1)
Cancer Admissions (C00-C99)	<b>22.3</b> (21.5-23.2)	<b>22.4</b> (19.9-24.9)	<b>14.9</b> (12.2-17.7)	<b>24.6</b> (23.7-25.5)	<b>24.8</b> (22.2-27.3)	<b>27.2</b> (23.2-31.1)
CHD Admissions (I20-I25)	<b>5.77</b> (5.31-6.21)	<b>8.27</b> (6.67-9.86)	<b>7.54</b> (5.23-9.84)	<b>2.14</b> (1.89-2.39)	<b>2.39</b> (1.63-3.14)	<b>2.39</b> (1.26-3.51)
Cerebrovascular Admissions (I60-I69)	<b>1.85</b> (1.61-2.10)	<b>2.92</b> (2.04-3.80)	<b>2.92</b> (1.56-4.27)	<b>1.50</b> (1.30-1.70)	<b>1.82</b> (1.20-2.44)	<b>1.78</b> (0.84-2.73)
Respiratory Admissions (J00-J99)	<b>12.7</b> (11.9-13.4)	<b>17.7</b> (15.4-20.0)	<b>19.4</b> (15.9-22.9)	<b>9.72</b> (9.06-10.4)	<b>15.6</b> (13.5-17.7)	<b>17.0</b> (13.8-20.2)
Psychiatric Admissions (F00-F99)	<b>2.73</b> (2.38-3.09)	<b>6.39</b> (5.00-7.79)	<b>5.18</b> (3.30-7.06)	<b>2.42</b> (2.10-2.74)	<b>4.59</b> (3.45-5.73)	<b>2.95</b> (1.65-4.35)
Paediatric Admissions (0-14 yrs excl. Z75.5 respite care)	<b>159.7</b> (154.0-165.4)	<b>204.7</b> (190.1-219.4)	<b>204.1</b> (183.7-224.3)	<b>121.3</b> (116.1-126.6)	<b>142.6</b> (129.7-155.5)	<b>137.9</b> (120.3-155.4)
	Male Rate Ratios		Female Rate Ratios			
	D18	South Wye	D18	South Wye		
All Admissions (ICD10)	1.32	1.40	1.31	1.33		
Cancer Admissions (C00-C99)	1.00	0.67	1.01	1.10		
CHD Admissions (I20-I25)	1.43	1.31	1.12	1.12		
Cerebrovascular Admissions (I60-I69)	1.58	1.58	1.21	1.19		
Respiratory Admissions (J00-J99)	1.39	1.53	1.60	1.75		
Psychiatric Admissions (F00-F99)	2.34	1.89	1.90	1.22		
Paediatric Admissions (0-14 yrs excl. Z75.5 respite care)	1.28	1.28	1.18	1.14		

Standardised using 2001 Census population against ESP. Includes all admissions with valid Herefordshire postcode minus well baby episodes (Z37\*/Z38\*). Includes respite care Z75.5 except for paediatric admissions.

Source: Public Health Department, Herefordshire PCT

Admission rates shaded red denote a rate statistically significantly higher than the equivalent Herefordshire rate. Total admissions from both deprived areas are significantly above those for Herefordshire as a whole. The same is true for respiratory admissions, male psychiatric admissions, paediatric admissions for boys aged 0-14 years, male CHD admissions in D18, psychiatric admissions for women in D18 and paediatric admissions for girls aged 0-14 years in D18.

It should also be noted that while the cancer admission rates (shaded blue) for men in South Wye is below average, the annual number of admissions is actually increasing.

**Table 46: Cancer admissions, South Wye males**

	2004	2005	2006
Males	59	81	152

Source: Public Health Department, Herefordshire PCT

2.6.9 The PCT works hard to challenge health inequalities. Increasingly, all its services are targeted in areas of greatest social need and development money is targeted in this way. From 2006/2007, for example, an additional £125,000 a year will be invested to develop an enhanced, gold standard nursing service in South Wye and Leominster which are the areas of highest social deprivation. The public health department now employs a Health Improvement Manager who focuses on health inequalities and work in this area includes:

- Establishment of an "Eat & Fit" programme in South Wye. This is a 10-week programme, focusing on supporting overweight people to make sustained lifestyle improvements. This now runs three times a year.
- Working with partners to secure funding for further targeted work. A bid to the Lottery fund has been successful, and others are in the process of being developed or processed.
- Facilitating the Healthier Communities and Older People's Advisory Group of the South Wye Regeneration Partnership to take forward and develop work following on from the period of regeneration funding.
- In September 2007, the PCT employed a Health Trainer Co-ordinator whose role will be to take forward the health trainer initiative locally. This will employ "health trainers" from the local community to support people from an area of social deprivation who want to change their behaviour and make healthier lifestyle choices. "Choosing Health" investment is available to fund the Co-ordinator's post and that of three health trainers in the first instance.
- Developing a drop-in service in South Wye. A pilot health and well-being drop-in session using the health bus, and based at a primary school site, was run in the Summer term 2007. This was used to

understand more about local needs and wants in terms of well-being.

- Finding ways to increase the effectiveness of the “Stop Smoking” service in the deprived areas. Working through the local Children’s Centres is one important link.
- Increasing the NHS visibility in South Wye. The relocation of the health promotion resource facility to the Asda site has been important here, and this has created the opportunity for links to be made with local employers and their workforce.

## **2.7 RECOMMENDATIONS**

- To support the successful introduction of the national chlamydia screening programme.
- To focus attention on supporting pregnant women to stop smoking.
- To highlight locally the trends around alcohol abuse and to work with partners to reduce binge drinking, and hospital admissions, focusing particularly on young people and on people in the more deprived areas.
- To maximise the primary care contribution to tackling obesity, especially in terms of BMI recording, and developing services in the community to which overweight and obese patients can be signposted. The potential of health trainers in this area should also be maximised.
- To ensure that the Public Health Department continues to influence all areas of PCT activity in terms of understanding and challenging the links between high social deprivation and poor health outcome.



## CHAPTER 3 FALLS

### 3.1 SUMMARY

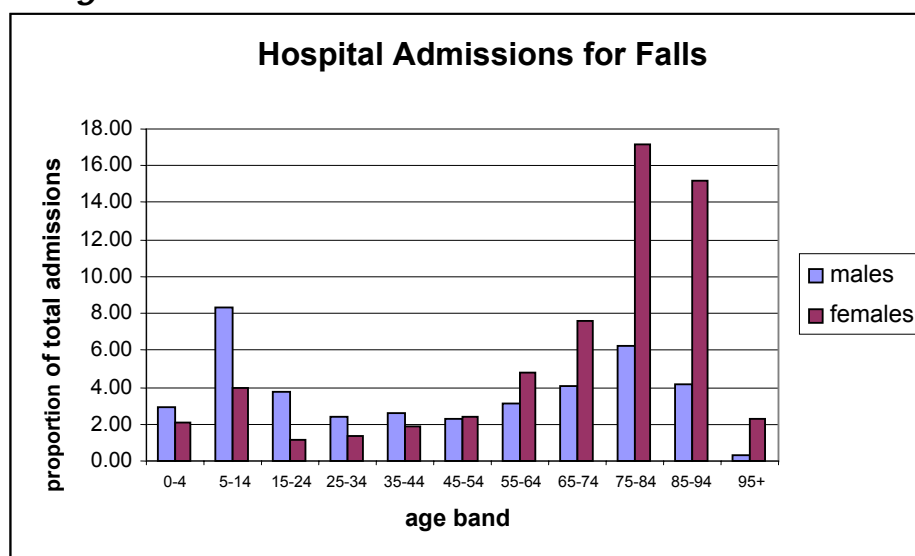
3.1.1 In the 2006 Annual Report of the Director of Public Health, I drew attention to the large percentage of hospital admissions caused by falls, and recommended that further scoping work be done in this area. This chapter reports on this. Falls related injury is a major cause of preventable morbidity and mortality and is a particular issue for children aged 0-14 and older people aged 75 and over. In older people a history of falls is a good predictor of hip fracture, the rate of which is significantly raised in Herefordshire. Studies have shown that a multifaceted approach to falls prevention in older people is particularly effective, combining primary prevention aimed at the general population with more specific interventions targeted at those at risk of fracture who have already fallen.

### 3.2 THE PATTERN OF FALLS IN HEREFORDSHIRE

3.2.1 In the 2006 Annual Report of the Director of Public Health, an analysis of injury-based hospital admissions showed that most (53%) were as a result of falls, and that of these nearly half (49%) occurred at home.

3.2.2 The figure below shows the proportion of hospital admissions for falls by age group and sex for the years 2001/02 to 2006/07 for Herefordshire residents. Over this time period the numbers of hospital admissions for falls in Herefordshire has remained fairly constant.

**Figure 3: Hospital in-patient admissions for falls by age band and gender 2002 to 2007**



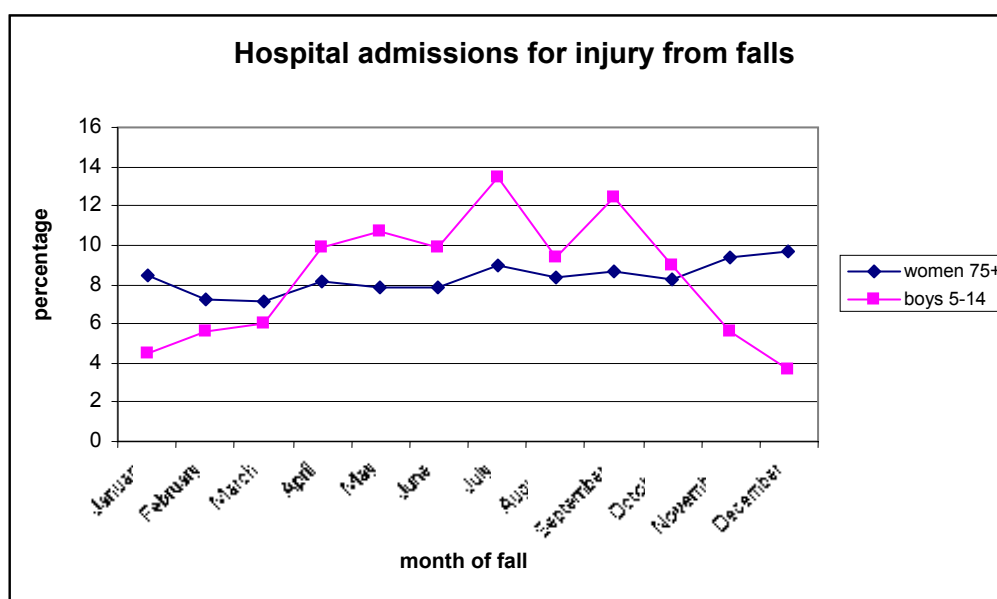
Source: Herefordshire PCT: Public Health Department

3.2.3 The two groups that are most at risk of serious injury through falling are young boys, aged between 5 and 14, who comprise just over 8% of all hospital admissions for falls, and older women aged over 75 who account for nearly 35%.

### 3.3 FALLS IN YOUNG PEOPLE AGED 0-14 YEARS

3.3.1 In boys aged under 15 injuries often relate to active lifestyles. 23% of falls that lead to hospital admission are caused by slips, trips or stumbles. Over 18% are due to falls from playground equipment, with another 8% linked to the use of ice skates, skates or roller boards. This link to activity is reflected in the place falls take place with only 23% taking place in the home and nearly 30% taking place at school or in sports locations. Hospital admissions for injuries related to falls in this age group tend to be higher in the summer months whilst injuries related to falls in older people take place throughout the year and interestingly, with milder winters, show only a slight winter rise.

**Figure 4: Hospital in-patient admissions for falls by month of fall 2002 to 2007**



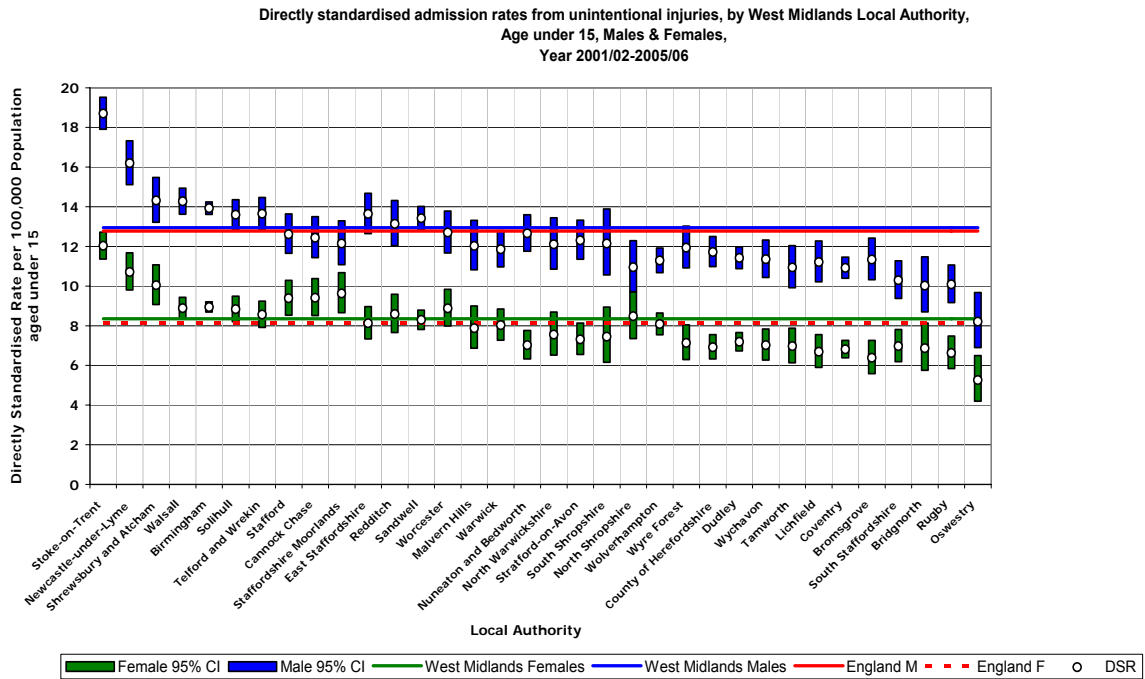
Source: Herefordshire PCT: Public Health Department

3.3.2 The Chief Medical Officer has highlighted the issue of unintentional injury in children across the West Midlands in his report in 2006. The death rate from injury in boys under the age of 15 in the West Midlands as a whole is the third highest in England. Whilst transport accidents account for the majority of these deaths, falls accounts for 4%.

3.3.3 Comparison of hospital admission rates from unintentional injury for children aged under 15 shows that for all Local Authority areas across the West Midlands, boys have significantly higher rates than girls. Rates in

Herefordshire for boys and girls are significantly lower than those found in either England or the West Midlands region.

**Figure 5: Hospital in-patient admissions for unintentional injury by West Midlands Local Authority 2001 to 2006**



Source: West Midlands Public Health Observatory

Although the rates for unintentional injury in children aged under 15 years are low in Herefordshire there is still progress to be made, particularly in relation to falls injury.

3.3.4 The table below shows that young boys who live in the most deprived quartile of Super Output Areas in Herefordshire have significantly raised rates of hospital in-patient admissions for injuries caused by falls. Work is needed to establish what could be achieved in these areas to reduce the rate of injury experienced here to that experienced across the rest of the County.

**Table 47: Directly standardised rates of in-patient hospital admissions for injures from falls in boys aged 0-14 (Herefordshire residents, 2002-2007) by deprivation quartile**

Deprivation quartile (Index of Multiple Deprivation 2004)	Rate per 1,000 population	UCL	LCL
1 (most affluent)	5.63	4.69	6.56
2	5.85	4.88	6.82
3	5.30	4.38	6.22
4 (most deprived)	8.54	7.45	9.63

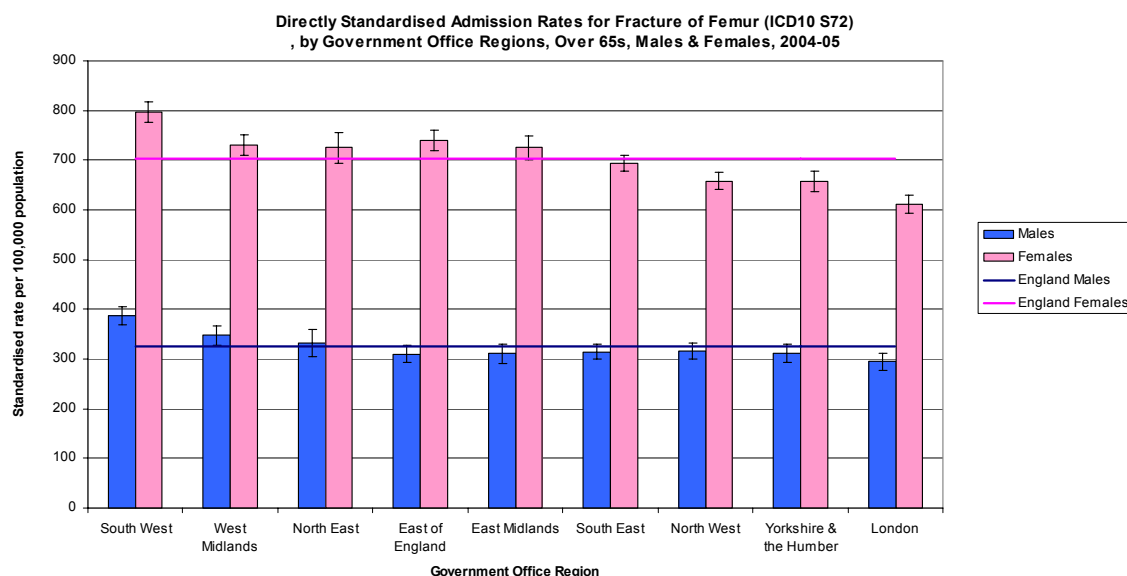
Source: Herefordshire PCT: Public Health Department

### **3.4 FALLS AND HIP FRACTURES IN OLDER PEOPLE**

- 3.4.1 Injury from falls in older people is a particularly important issue for Herefordshire where the age structure of the population is slightly older than elsewhere. Every year around 35% of people over the age of 65, and 45% of people over the age of 80, will have a fall. Of those that fall between 20-30% will suffer moderate to severe injuries.
- 3.4.2 Falls are a major cause of disability and the leading cause of mortality resulting from injury in people aged over 75. But falls can also result in an increased fear of falling and a loss of confidence in being able to move around, a reduced ability to carry out daily activities, increased dependency, increased isolation and depression. Falls prevention not only reduces injury and death but promotes healthy and independent living in the older age groups.
- 3.4.3 A history of falls is a good predictor of hip fracture in older people, but this can be difficult to establish unless the fall is reported. Many injuries will not be serious enough to require in-patient hospital admission but may require treatment through the GP, a minor injuries unit, or an outpatient attendance.
- 3.4.4 The recent Department of Health publication *A recipe for care - not a single ingredient*, states that if every SHA in England invested £2m in falls and bone health early intervention services they could each save £5m in one year (£3m net) in reduced NHS costs by preventing 400 hip fractures. This would not only save lives but would maintain the independent living of hundreds of older people.
- 3.4.5 The West Midlands region has a high rate of hospital admissions for hip fracture - just significantly higher than the rate for England as a whole - in both men and women over the age of 65 years.



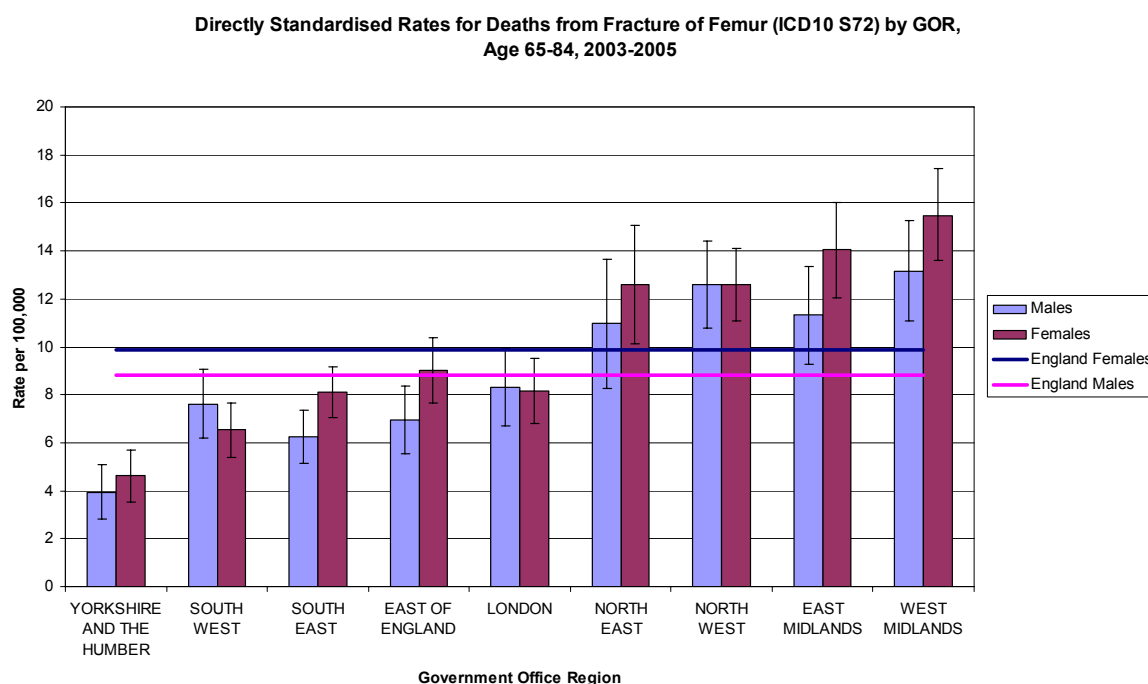
**Table 48: Hospital in-patient admissions for fracture of femur, over 65 years, by Government Office Region 2004 - 2005**



Source: West Midlands Public Health Observatory

3.4.6 The West Midlands also has the highest mortality rate of any Government Office Region from hip fractures in people aged between 65 and 84 years, and also among women aged 85 and over.

**Table 49: Death rate from fracture of femur, age 65-84 years, by West Government Office Regions 2004 to 2005**

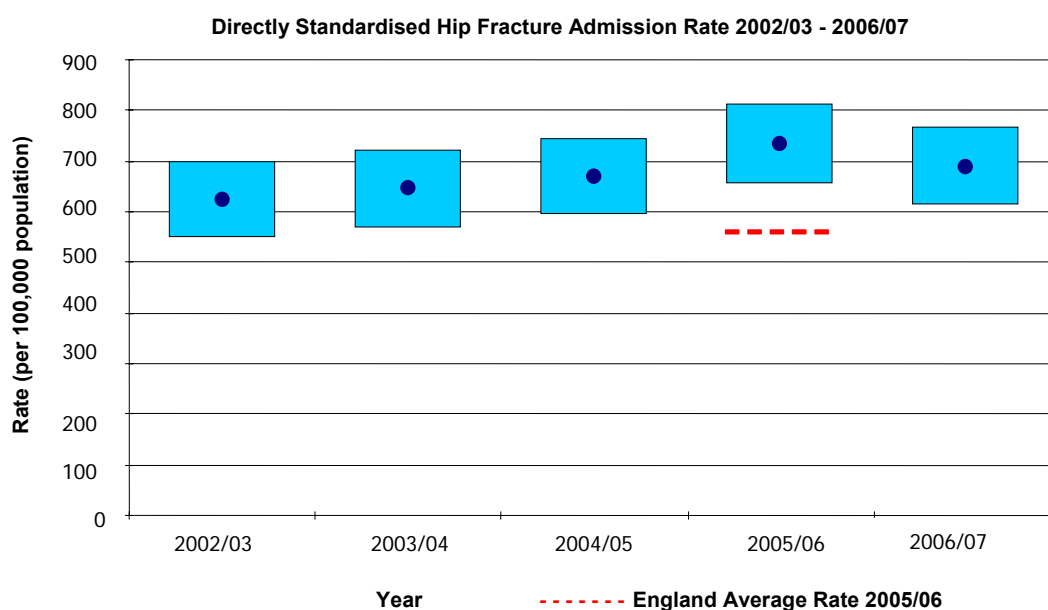


Source: West Midlands Public Health Observatory

3.4.7 In Herefordshire the rate of hip fracture is high. In 2005/06 there were 355 hospital admissions for hip fractures in both men and women aged over 65 living in Herefordshire. This translates to a rate of 780 per 100,000 people which is significantly higher than the regional or England average of 565 per 100,000 people.

3.4.8 The hospital admission rate for hip fracture was particularly high in 2005/06 in Herefordshire, and has generally been higher than in the rest of England in recent years.

**Table 50: Hospital in-patient admissions for Hip Fracture by year (2002 to 2007)**



Source: Herefordshire PCT: Public Health Department

3.4.9 This high rate of hip fracture may have something to do with the rural nature of Herefordshire County. However comparison with other 'very similar' rural areas (defined by ONS as mid Devon, Mendip, North Shropshire and Kings Lynn and West Norfolk local authorities) shows Herefordshire still to be well above their average rate of 666 hip fractures per 100,000 people.

### **FALLS PREVENTION IN OLDER PEOPLE**

3.5.1 The National Services Framework for Older People (2001) introduced a 10 year programme of improvement to be implemented through health and social care partners. Standard 6 of this framework aimed to reduce the number of falls which lead to serious injury whilst ensuring effective treatment and rehabilitation for those who have fallen.

Since then considerable work has been done to establish what interventions might be useful in reducing the incidence of falls in older people which suggest that a multifaceted approach is most effective.

- 3.5.2 Primary prevention can take place at the general population level with an increase in public awareness, increasing home safety awareness and improved health behaviour including the promotion of physical activity and improved diet to improve bone health in older people. These sorts of population based approaches have been shown to produce relative reductions in falls related injury of between 6 and 33%, and to achieve normative changes across whole populations.
- 3.5.3 Older people who have already had a fall resulting in a moderate injury may have been notified through an attendance at their GP, minor injuries unit or hospital Accident and Emergency Department. These individuals should receive a more targeted approach including an information pack, review of medications if they are on multiple medications, an assessment of the risk of osteoporosis, a review of previous falls and their causes, and a home visit assessment if that is appropriate and acceptable to the individual. Different practice exists within the county and a county-wide audit would be useful to establish the current management of these admissions, as a first stage in service improvement.
- 3.5.4 Where appropriate, referral should be made to a specialised falls service to reduce the likelihood of further falls and injury.
- 3.5.5 In Herefordshire PCT the appointment of a Health Improvement Manager focusing on the needs of Older People has recently been made. This, together with the post of Specialised Falls Nurse for the County will provide a strong basis on which to build a county wide falls prevention programme, with population and individual based interventions.

### **3.6 RECOMMENDATIONS**

- Carry out county wide audit to establish action triggered when an older person attends with falls related injury.
- To work with partners to reduce hospital admission rates for hip fractures.
- Identify with partners opportunities to reduce falls related injuries in young children in the most deprived areas of the County



# CHAPTER 4

## CLIMATE CHANGE AND HEALTH

### 4.1 SUMMARY

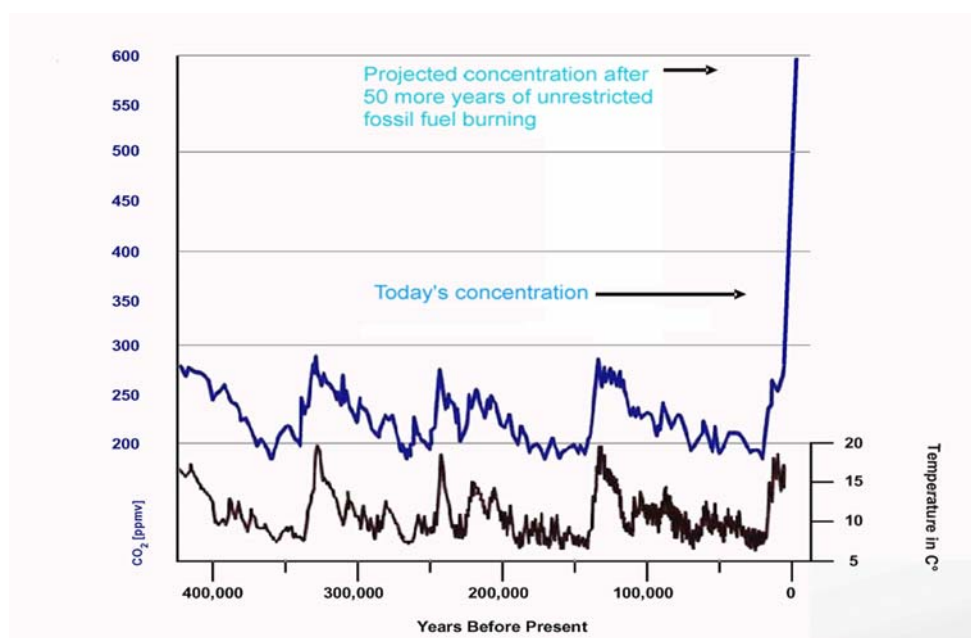
- 4.1.1 Climate change is now acknowledged internationally, nationally and locally as a threat to the health of our population. Action is needed to prepare for changes in climate and the impact that this will have on health, through changing patterns of disease, global impacts on food and population mobility and through increased severe weather events that have direct local impact. Action is also needed to reduce the emissions of greenhouse gases, in particular carbon dioxide, to minimise the changes experienced in the future and to reduce the levels of pollution with adverse consequences for health. This will need the involvement of individuals, communities, organisations and governments, and the NHS must play its full part in developing this agenda.

### 4.2 BACKGROUND TO CLIMATE CHANGE

- 4.2.1 Sir David King, the Government's Chief Scientific Advisor has described climate change as *the most important threat to public health for the 21<sup>st</sup> century*.
- 4.2.2 Although it is impossible to say for certain if any particular weather event is the result of chance or part of an underlying trend, the summer of 2007 has given us a good opportunity to experience what the impact of global climate change might be in Herefordshire in the future.
- 4.2.3 This summer a shift in the north Atlantic jet stream has meant that Europe has been split by climate. To the south there has been a succession of heat waves, each more intense than the last whilst to the north of a line running roughly from the Pyrenees to Bulgaria, three humid months have been punctuated by violent storms and enormous cloudbursts. In Herefordshire this led to some of the worst flooding in living memory.
- 4.2.4 The earth has a global temperature of about 14<sup>0</sup>C, determined by the energy of the sun warming the atmosphere and the earth's surface, balanced against the emission of infra-red radiation which acts to cool the earth. Some of this infra-red radiation can be absorbed by gases in the air and re-radiated back to the earth, an effect known as the greenhouse effect. This has been going on naturally for millions of years and without it our planet would be about 30<sup>0</sup>C cooler than it is now, so totally uninhabitable.

- 4.2.5 The fact that global temperatures change over time is also well known. Gas measurements taken from ice cores drilled from the ice sheets in Greenland have shown that global temperature fluctuations of around 9°C have occurred many times, moving the earth from the ice ages to the interglacial periods like the one we are experiencing now. However, human activity, particularly since the industrial revolution, has had a marked impact on the concentration of the main greenhouse gases present in our atmosphere. The most important of these is carbon dioxide. The concentration of carbon dioxide in the atmosphere has, like temperature, fluctuated with time. Over the last half million years the earth has cycled several times between ice age to warm period, and along with the 9°C temperature shift experienced between these two states the sea level differences have been around 100m.

**Figure 6: Carbon Dioxide and Temperature variation**



Source Hadley Centre for Climate Prediction & Research

- 4.2.6 Over the last 12,000 years our climate has remained very stable, allowing civilisations to prosper. While the concentration of carbon dioxide in the average warm period reached about 220 parts per million (ppm), since the Industrial revolution it has been rising rapidly. Current levels have reached 380 ppm. The graph above shows that this concentration is different from that of the last half a million years, and that this difference will increase dramatically if nothing is done to reduce greenhouse gas emissions in the next 50 years.

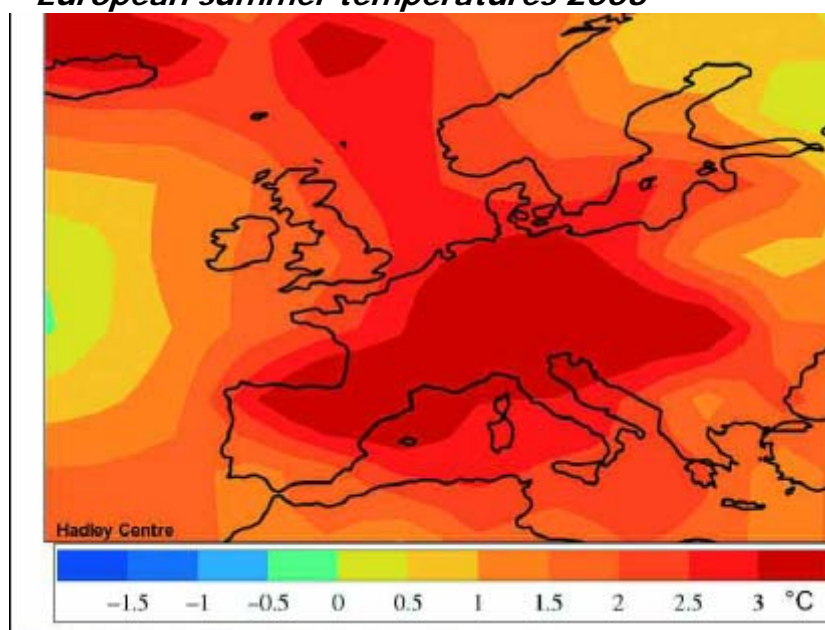
### **4.3 THE IMPACT OF CLIMATE CHANGE ON HEALTH**

- 4.3.1 The Intergovernmental Panel on Climate Change (IPCC) published its latest report in April 2007 stating that it was now too late to avert some

degree of climate change. It predicts a mean temperature increase for the UK of between 2.5 and 3<sup>0</sup>C by the end of the century.

- 4.3.2 Rising global temperatures will have global implications, with increasing crop failures causing a rise in world food prices or even food shortages, and an increasing potential for armed conflict over decreasing natural resources. These global impacts will affect us all but there will also be some direct effects on the UK.
- 4.3.3 Increasing temperatures will be important in Herefordshire, a rural county in which farming is an important activity. Although only 6.7% of people in the county are involved in agriculture (compared to the 11.6% employed in the health and social work sectors) agriculture provides the backbone to the county and has been identified as the most climate sensitive of all the economic sectors.
- 4.3.4 The IPCC have suggested that at a 3<sup>0</sup>C temperature increase, the incidence of skin cancer and cataracts in the UK population would increase by 5,000 and 2,000 per year respectively. Warmer summers could also lead to marked increases in food poisoning and an increase in vector borne diseases such as malaria. Skin cancer rates are already high in the county partly due to high numbers of agricultural workers.
- 4.3.5 Also of concern is the increase in abnormal and extreme weather events that we should expect, bringing increases in death, disability, trauma and distress that are associated with them. With average temperature increasing we should not only expect to see periods of sudden heavy rain and flooding, such as we have experienced this year, but also more frequent and more severe heat waves.

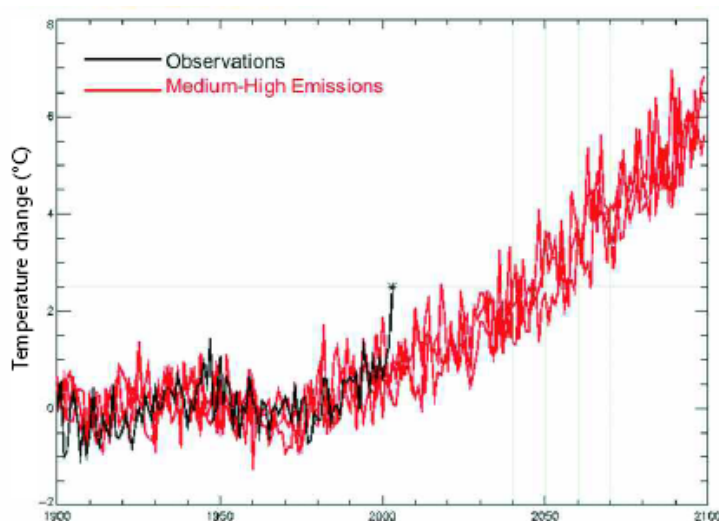
**Figure 7: European summer temperatures 2003**



Source: Hadley Centre for Climate Prediction & Research

- 4.3.6 Heatwaves have serious consequences for health. In 2003 Europe experienced a severe heat wave with temperatures in the UK reaching 38.5°C. Across Europe the heat, together with a lack of preparedness caused more than 35,000 deaths and economic losses in excess of £7.6bn. In England there was a 17% increase in mortality, which rises to 23% if only those aged 75 and over are considered. The most severe effects in the UK were experienced in the South East, with the Midlands and Herefordshire remaining relatively temperate. However, if the increase in mortality had been replicated across Herefordshire there would have been an additional 320 deaths across the county, 296 of which would have been people aged over 75 years.
- 4.3.7 The lesson from 2003 is that preparedness is the key to preventing this impact on our health from rare events such as extreme heat wave. If climate predictions are correct, the abnormal temperatures experienced in 2003 will soon become the norm. The figure below shows that, if the modelled predictions are correct (shown in red) the temperatures recorded in the UK during 2003 (the black line) will become the norm for UK summers by 2040 and seem cool by 2080.

**Figure 8: Predicted modelled temperature change versus measured temperature**



Source: Hadley Centre for Climate Prediction & Research

- 4.3.8 Adaptation to the inevitable change in our climate is an urgent requirement and in public health terms this needs to be seen in the context of population risk where the most at risk are the most vulnerable groups. The government has prioritised heatwave response planning in recent years. The Department of Health published a national Heatwave plan for England in 2006. This identified certain groups that are particularly at risk during a heatwave. These include:



- Older people, especially those aged over 75, and/or living on their own or in a care home;
- People suffering from mental ill health, those with dementia, and those who rely on help from others to manage day to day activities;
- People who are bed bound;
- People taking certain types of medication;
- Babies and young children, especially those under four years of age.

4.3.9 During prolonged periods of extremely hot weather, heat exhaustion and heatstroke are serious risks, can occur suddenly and can lead to organ failure, brain damage or death, with the most vulnerable groups being at greatest risk.

4.3.10 The core elements of the national plan include a 'Heat-Health watch' system that is operated by the Met Office between June and September which will then trigger response from the Department of Health. PCTs and Social Services are asked to identify those most at risk and ensure advice, preventative measures and if necessary, extra help is provided. As well as the statutory sector, the voluntary sector, local communities and families will be important in providing this help where it is needed. Advice and information will also be important for both the public and health and social care professionals. In Summer 2006, the heatwave alert escalation was activated and colleagues worked together on an appropriate response.

4.3.11 Preparedness for such events is essential and in Herefordshire, plans are underway to develop an emergency planning scenario event for April 2008, based around a prolonged and severe heat wave.

4.3.12 Another example of extreme weather events is flooding, and in Summer 2007 Herefordshire experienced the worst flooding for some years. This highlighted the need for agencies to work closely together in response and recover phases, and also that rural areas are particularly vulnerable to problems of access at times of emergency. Although there was no associated morbidity or mortality, the emergency evacuation of a nursing home demonstrated that services can be put under immediate pressure.

#### **4.4 SUSTAINABLE DEVELOPMENT**

4.4.1 There is wide agreement that the need to take action on climate change is urgent. Reducing the human impact on global temperature means making substantial reductions in the production of greenhouse gases in general and of carbon dioxide in particular. The Government has, in its 2003 Energy White Paper committed the UK to reducing CO<sub>2</sub> emissions to 20% below 1990 levels by 2010 and 60% below by 2050. The draft Climate Change Bill proposes to put this into statute.

- 4.4.2 The NHS is also subject to the same reduction, set by the Department of Health in 2001 and specifically related to energy consumption in buildings. By 2010 NHS England should have achieved a 15% reduction in primary energy consumption, but it is already struggling to meet this first step along the way.
- 4.4.3 Each of the following accounts for about ¼ of the UK's carbon emissions.
- Energy used to heat, light and run our homes
  - Transport for shopping, leisure and work
  - Production, transportation and retail of food
  - Production, transportation and retail of non food goods.
- 4.4.4 This means a whole systems approach is needed. Sustainable development is an approach where environmental, social, political and economic issues are taken together and provides a helpful framework in which to consider tackling climate change. *Securing the Future* is the UK Government's strategy for sustainable development and identifies four priority areas:
- Sustainable consumption and production
  - Climate change and energy
  - Protecting natural resources and enhancing the environment
  - Creating sustainable communities and a fairer world.
- 4.4.5 These four areas are all closely interconnected. For example local procurement of fruit and vegetables, of particular relevance to the county, contributes to the economic sustainability of local communities as well as saving transport emissions and costs. The NHS, as one of the largest employers in the county is in a prime position to act as a role model in this area.
- 4.4.6 Commitment in the Choosing Health White Paper has supported the Sustainable Development Commission to develop a Good Corporate Citizen Assessment Model so that NHS organisations can assess and improve their contribution to the environment as well as the local economy and community. This simple, on-line, assessment test is organised around six topic areas (transport, procurement, facilities management, employment and skills, community engagement and new buildings) and provides a useful benchmark for NHS organisations to assess their own contributions to sustainable development, and monitor improvements in a strategic way.
- 4.4.7 Sustainability is already on the agenda for Herefordshire PCT and, together with Herefordshire Council, a Sustainable Transport and Active Travel plan is being developed. NHS staff, patients and visitors will travel 25 billion passenger km in a year. Each year 1.4 million people will miss, turn down or choose not to seek medical help due to transport

difficulties. And lack of physical activity costs the NHS £10.9 billion per year.

- 4.4.8 The PCT Travel plan aims to lead by example in encouraging staff and visitors to get out of cars and onto bikes and public transport. It will include a review of potential on-site walking or cycle paths, improved public transport links and car sharing schemes. A staff questionnaire has already been circulated at PCT Headquarters at Belmont, the largest site in terms of PCT staff, and will include other sites in due course.

#### **4.5 HEREFORDSHIRE DECLARATION ON CLIMATE CHANGE**

- 4.5.1 Herefordshire PCT is part of the Herefordshire Partnership and is a signatory of the Hereford Declaration on Climate Change. This Declaration on Climate Change states that climate change is acknowledged as one of the key drivers of change within our communities now and for generations to come.

The declaration signatories acknowledge that:

- Evidence continues to mount that climate change is occurring and that it will have far reaching effects on Herefordshire's economy, environment and society.

The declaration signatories endorse the:

- Herefordshire Climate Change Strategy and Action Plan as a way of helping to combat the negative impacts of climate change
- Recognition that businesses, organisations and individuals need to adapt
- Fact that there are benefits to combating climate change such as opportunities to reduce our energy costs and improve our local environment
- Encouragement of others to follow our example.

The declaration signatories commit to:

- Work with Herefordshire Environment Partnership to produce and implement a Carbon Management Action Plan and Adaptation Management Action Plan
- Monitor our CMAP and AMAP and report these results to HEP
- Investigate all opportunities for reducing our ecological footprint and ensure that climate change awareness is part of our daily business decisions and actions.
- Work with other partners where appropriate to achieve low carbon solutions.

4.5.2 Herefordshire Partnership, through its Herefordshire Environment Partnership, developed Herefordshire's Climate Change Strategy, *2020 Vision*, in 2006. The key elements to this strategy are:

- Raising awareness and understanding of the issues so that people can make informed choices about their behaviour
- Helping local education centres, especially schools, to include climate change as part of their curricula
- Encouraging individuals and organisations to take responsibility for their actions
- Encouraging energy efficiency both in the home and in the workplace
- Sharing the good practice from around Herefordshire

4.5.3 In developing our work to meet the public health challenge of climate change, it is important that the PCT plays its full part in delivery of Herefordshire's climate change strategy.

#### 4.6 **RECOMMENDATIONS**

- Work with the Herefordshire Environmental Partnership to monitor progress against the Carbon Management Action Plan and Adaptation Management Action Plan
- The PCT should take the Good Corporate Citizen Self Assessment Test and routinely monitor progress, becoming a role model for sustainability.

# CHAPTER 5

## HEALTH PROTECTION

### 5.1 SUMMARY

5.1.1 Immunisation and screening uptake rates are generally average but every effort should be made to increase uptake. In particular, flu and MMR immunisation should be encouraged, and breast screening round length time should be monitored. Pandemic flu development work continues and is important, given the serious health consequences of a pandemic. Emergency planning activity has had a high profile this year and this will need to continue to be supported as the work moves into the Council as a key part of closer working.

### 5.2 CERVICAL SCREENING

5.2.1 The 5-year coverage rate is 81.5%, compared with a national standard of 80%. In 2006, the variation between General Practices in terms of coverage rates narrowed. The range was 76-86%, compared with a 2005 range of 66.2-83%.

5.2.2 The time from screening to result notification fell in the 2006/07, and this has been attributed to staff shortages during the summer period, and changes in administration systems. Two particular GP surgeries are outliers in terms of turnaround times (44% and 31% at four weeks), and these will be investigated further.

**Table 51: Time from screening to result notification**

National Standard	Hereford		
	2004/05	2005/06	2006/2007
80% to receive results within four weeks	18.4%	86.8%	79%
100% to receive results within six weeks	56.4%	98.7%	96.7%

*Source: KC53 coverage: Sexual Health Service, Herefordshire PCT*

5.2.3 Incidence of and mortality from cervical screening remains relatively low and stable:

**Table 52: Incidence of invasive cervical cancer (ICD10 C53) 2001-05 Herefordshire**

Year	Number of cases
2001	5
2002	4
2003	6
2004	6
2005	4

Source: Cancer Information Service

**Table 53: Incidence of invasive cervical cancer for pooled years 2001-2003, 2002-2004, 2003-2005**

	Total cases	Average cases per year	Directly Age Standardised Rate (European Standard Population, Females only)	Confidence Intervals	
				Lower	Upper
<b>Herefordshire</b>					
2001-2003	15	5.0	5.62	2.65	8.60
2002-2004	16	5.3	5.43	2.51	8.36
2003-2005	16	5.3	5.52	2.56	8.49
<b>West Midlands</b>					
2001-2003	848	282.7	9.51	8.85	10.17
2002-2004	800	266.7	9.02	8.37	9.67
2003-2005	772	257.3	8.85	8.21	9.50

Source: Cancer Information Service

**Table 54: Mortality from cervical/uteri cancer (ICD10 C53)**

No. of deaths	West Midlands	Herefordshire
2001-2003	312	6
2002-2004	311	6
2003-2005	293	6

### 5.3 **BREAST SCREENING**

5.3.1 The NHS Breast Screening Programme sets a minimum standard of 90% of eligible women whose first offered appointment is within 36 months of their previous screen. For the Hereford and Worcester service, this standard was exceeded in 2004-2005 (90.7%), and 2005-2006 (95.8%). In 2006-2007, this fell to 90.4% and has decreased in the first two quarters of 2007 (62.8% and 72.9%). However, the percentage being offered an appointment within 38 months was 98.6% in the first quarter and 98.9% in the second. Delivery of a fourth mobile unit to the service was made in August 2007, which was later than anticipated. It is anticipated that the standard will be met by the end of October 2007.

- 5.3.2 The coverage rate for women aged 53-64 years in 2004-2005 was 83.7%, and in 2005-2006 82.99%, compared with West Midlands rates of 77.95% and 77.97% respectively.

#### **5.4 NEWBORN HEARING SCREENING PROGRAMME**

- 5.4.1 In 2007, the local service received its first Quality Assurance visit and detailed feedback is still awaited. Verbal feedback, however, was positive. Screening was offered to 99.9% of the target population, compared with a national standard of 99%.

- 5.4.2 Screening outcome was set by 3 months in 97.8% of the screening population, compared with a national target of 95%. However, outcomes set by 5 weeks were just below target at 94.6% and by 4 weeks at 90.7%. The figures for the latest quarter suggest the target will be met in 2007-2008.

#### **5.5 IMMUNISATION**

##### 5.5.1 MMR

In 2006-2007, the percentage of two year olds who were vaccinated for MMR was 83.7%. This shows a rise against the 2004-2005 figure of 78.3%, and the 2005-2006 figure of 81.5% but falls short of the national standard of 95% which is required to achieve herd immunity.

Although uptake is disappointingly low, it should be noted that it varies significantly between practices. Of the 24 GP practices in Herefordshire, 3 achieved coverage rates of 95% or over; 5 achieved 90-94%; and only 3 were below 75%. There is no simple correlation between uptake and deprivation, and the practice which serves the most deprived section of the South Wye community achieved 83.3% coverage.

##### 5.5.2 Flu

The winter uptake programme in 2006/2007 was slightly lower than it was in 2005/2006. 2005/2006 uptake was boosted by national press stories about the threat of bird flu, and this effect diminished by 2006/2007. The uptake for those aged 65 years and over was 73% compared with 78% in 2005/2006. The national target is 70%.

The under 65 years rate seems low for Herefordshire, at 29.3%, compared with an England average of 42.1%. This relates only to "at risk" groups under 65 years, who are the only younger people recommended for vaccination. However, further analysis of this apparently low uptake has shown that one practice entered its entire practice population as the denominator figure, rather than the "at risk" population. This gives an incorrect percentage uptake figure of 4.9%,

which depresses the county figure significantly. If this practice is excluded from the county figures, the Herefordshire average is 49.2% which compares well with the national average.

In January 2007, PCTs were asked to offer flu vaccination to poultry workers and this was done, via employers, and using a DEFRA database. The uptake was disappointingly low at 16%. However, the PCT investigated low uptake further and it seemed workers felt it was too late in the year to be vaccinated and also that they were unconvinced of the need for vaccination, given that there was no bird flu outbreak.

## 5.6 **PANDEMIC FLU**

- 5.6.1 Since last year, planning and preparedness for a possible outbreak of pandemic flu has continued locally, regionally, and nationally. Locally, a Herefordshire Pandemic Influenza Committee meets regularly bringing together partners from across the health community as well as all Category 1 responders under the Civil Contingencies Act. A multi-agency workshop was held once regional guidance was published in draft form, and a scenario exercise is planned for November 2007. Nationally, a Department of Health Czar for pandemic flu has been appointed and she has met with flu leads regionally, updating the knowledge base and building networks. A regular newsletter is produced and this is actioned locally.
- 5.6.2 Worldwide, the number of human cases of avian influenza fell slightly in the first 7 months of 2007. Mortality rates, once infected, remain high.

***Table 55: Cumulative number of confirmed human cases of avian influenza A (H5N1) reported to WHO***

	<b>Laboratory confirmed cases</b>	<b>Deaths</b>
2003	4	4
2004	46	32
2005	98	43
2006	115	79
up to 14/08/07	57	35
<b>Total</b>	<b>320</b>	<b>193</b>

*Source: World Health Organisation at [www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)*

The Department of Health has recommended again in 2007-2008 that poultry workers locally receive vaccination against seasonal flu, to reduce the chances of a mutation of a new influenza strain in the body of a poultry worker who is exposed to both avian and seasonal flu at the same time.



Throughout the year, local training on infection control and pandemic flu has been provided; national guidance for education settings has been cascaded; and information has been made available to the general public via local media.

## **5.7 EMERGENCY PLANNING**

- 5.7.1 The Civil Contingencies Act of 2004 sets out police force boundaries as the unit within which partner agencies will plan, respond, and co-operate on matters of civil resilience. The West Mercia Local Resilience Forum (LRF) has been established to ensure the requirements of the 2004 legislation are met, and to provide strategic direction for emergency planning across Shropshire, Herefordshire and Worcestershire. The LRF has continued to develop during the past year at both strategic and tactical levels. A dedicated website for sharing information between the public, media and partners has been set up at [www.westmerciaprepared.org](http://www.westmerciaprepared.org). The LRF has a number of sub-groups and the Emergency Planning Officer for the Herefordshire and Worcestershire PCTs has been active in these.
- 5.7.2 At the county level, a group meets regularly to consider response arrangements. This is the Herefordshire Emergency Response to a Major Incident Team (HERMIT), and PCT representation is high. The Primecare (out of hours GP provider service) manager also attends the group. In an emergency, this group would operate as Silver command and so its effective functioning in "peace time" is an important part of our preparedness activity.
- 5.7.3 During the last year, the PCT Major Incident Plan has been reviewed, and amended to include the former PCT Emergency Plan for Provider Services. This was approved by the PCT Board in March 2007.
- 5.7.4 The Civil Contingencies Act required business continuity plans to be in place, and the first PCT Business Continuity Plan was approved in November 2006. Work continues with primary care practices and other independent practitioners to produce business continuity plans.
- 5.7.5 It is essential that emergency plans are tested, and that learning from the tests is maximised. In 2006/2007, a number of exercises took place:
- Exercise Cold Play (November 2006). This was a desk top exercise, based on pandemic flu;
  - Exercise Mitre (January 2007). This focused on an extreme flooding event;
  - Exercise Winter Willow (February 2007). This was a national exercise, in which the LRF participated as an observer;

- Exercise Mappa (March 2007). This was a communications exercise to test the arrangements for cascading vital information in the event of an emergency.
- Exercise Madrid (March 2007). This was designed to test and raise awareness of business continuity issues.

5.7.6 During 2006/2007, the PCT has been in discussion with the Council and others about the possible formation of a Public Service Trust (PST) to bring together the commissioning and public health functions of the two organisations in order to improve service delivery and outcome. As part of this work, a sub-group on Public Health was established, led by the Associate Director of Health Improvement at the PCT. This group has reviewed emergency planning arrangements within the PCT, Hereford Hospitals Trust, and the Council and concluded that these would be made more resilient by creating a single health emergency planner post, managed within the Council's Emergency Planning Team, via a Memorandum of Understanding.

Recruitment to this post was made in October 2007.

## **5.8 RECOMMENDATIONS**

- To monitor the progress of emergency planning for health after its relocation to the Council Emergency Planning Team.
- To continue to play a full role in the organisation of, and participation in, emergency planning exercises.
- To encourage the uptake of seasonal influenza vaccination by poultry workers.
- To take action to ensure primary care data returns on vaccination uptake are robust.

## CHAPTER 6

# LAST YEAR'S RECOMMENDATIONS

### 6.1 SUMMARY

Work has taken place in all the areas identified in last year's report. However, progress has been variable. In particular, NAATs test for chlamydia, the development of primary care services in South Wye, and identifying the health needs of ethnic priorities remain important.

### 6.2 ***"Maintain and develop a sun safe health promotion programme, with a particular focus on men."***

This work has continued throughout the year, and information was available at the first men's health day to be held in Herefordshire, based at the new Asda store.

### 6.3 ***"Undertake a scoping study on falls prevention work"***.

This work is reported on in Chapter 3 of this report.

### 6.4 ***"Work with partners to improve cycling safety"***.

Closer work with partners at the Council has been a priority this year. One result of this has been that sun screen and "safe-in-the-sun" advice is now included in the packs given to all those who complete the cycle training course. Another has been the involvement of the PCT as a partner in supporting "Connect 2", a bid to develop a safe cycle crossing of the Wye, connecting to Rotherwas. Another has been to develop PCT support for those who wish to cycle to work. The public health department is learning from the experience of the Council here and a travel plan is underway which will be one mechanism to take this work forward.

### 6.5 ***"Introduce NAAT testing for chlamydia screening as a matter of urgency"***.

As described in Chapter 2 above, NAATs testing is now available out of county, and a staged approach to in-county provision has been adopted. This remains a priority.

### 6.6 ***"Encourage the use of brief interventions around smoking cessation"***

This work has continued throughout the year, through the Stop Smoking Team's training programme.

- 6.7** *“Encourage the use of brief interventions around sensible alcohol consumption, especially aimed at men”.*  
This work has continued throughout the year, through the Alcohol Awareness” programme run by the Public Health Department. This runs monthly and trains workers to deliver brief interventions.
- 6.8** *“Develop dedicated capacity for a work programme to challenge obesity”.*  
A part-time Health Improvement Manager for obesity was recruited to the public health department, taking up post in December 2006.
- 6.9** *“Increase provision of primary health services in South Wye”.*  
This work remains a priority. In early 2007, a pilot drop-in well-being service was offered from the health bus, sited by a primary school in South Wye. This has allowed learning about local need and discussions are underway about the possibility of nurse-led provision. During 2007, a new dental access centre has been established in South Wye, based at the Asda site, and this will relieve dental access problems. The Health Information Service has been moved to a new site at Asda and this too affords new access opportunities for those living in South Wye, giving easier access to healthy lifestyles and other health related information.
- 6.10** *“Increase health promotion services to the lesbian, gay, bisexual and transgender (LGBT) population”.*  
As described in Chapter 2, an outreach worker for this population was appointed in September 2007, after full consultation with the LGBT community.
- 6.11** *“Work with partners to identify the health needs of people from ethnic minorities, including encouragement of ethnic coding”.*  
This work remains important, although work has taken place in the year both to encourage ethnic coding and to work as part of a local network to share what data is known.
- 6.12** *“Increase the uptake of flu and pneumococcal immunisation”*  
Despite media campaigns, and personal letters in the case of poultry workers, uptake in 2006/2007 was disappointing. This remains an important area of mainstream delivery, especially in the context of preparedness for pandemic flu.

# CHAPTER 7

## SUMMARY OF THIS YEAR'S RECOMMENDATIONS

### Chapter 1

- To continue to highlight the above average mortality rates due to stroke; all accidents; and land transport accidents, and to work with partners to address these.
- To work with partners to improve the poor dental health of children.

### Chapter 2

- To support the successful introduction of the national chlamydia screening programme.
- To focus attention on supporting pregnant women to stop smoking.
- To highlight locally the trends around alcohol abuse and to work with partners to reduce binge drinking, and hospital admissions, focusing particularly on young people and on people in more deprived areas.
- To maximise the primary care contribution to tackling obesity, especially in terms of BMI recording, and developing services in the community to which overweight and obese patients can be signposted. The potential of health trainers in this area should also be maximised.
- To ensure that the Public Health Department continues to influence all areas of PCT activity in terms of understanding and challenging the links between high social deprivation and poor health outcome.

### Chapter 3

- Carry out a county wide audit to establish action triggered when an older person attends with falls related injury.
- To work with partners to reduce hospital admission rates for hip fractures.
- Identify with partners opportunities to reduce falls-related injuries in young children in the most deprived areas of the County

### Chapter 4

- Work with the Herefordshire Environmental Partnership to monitor progress against the Carbon Management Action Plan and Adaptation Management Action Plan
- The PCT should take the Good Corporate Citizen Self Assessment Test and routinely monitor progress, becoming a role model for sustainability.

## **Chapter 5**

- To monitor the progress of emergency planning for health after its relocation to the Council Emergency Planning Team.
- To continue to play a full role in the organisation of, and participation in, emergency planning exercises.
- To encourage the uptake of seasonal influenza vaccination by poultry workers.
- To take action to ensure primary care data returns on vaccination uptake are robust.

## STATISTICAL APPENDIX

This section contains a selection of information relating to the resident population of Herefordshire. Commentary boxes are included under some of the tables to highlight key points.

***Unless otherwise stated***, the source of these statistics is the Compendium of Clinical Health Indicators updated in July 2007. The data from this source generally concerns events in or up to 2005. Other statistics from this source (including certain tables which have been included in previous Annual Reports but are not in this year's selection) can be obtained from the Director of Public Health's office.

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### **Abbreviations used in the tables**

- E&W England & Wales
- WMR West Midlands Region
- ICD-10 International Classification of Diseases, tenth revision – see "technical notes" on next page
- 95% CI 95% confidence interval. Confidence intervals assess the level of uncertainty caused by chance variation. Rates based on small numbers of observations (events) have wider confidence intervals than rates based on larger numbers of observations. Essentially, the 95% CI shows the range of values within which we are 95% certain that the true rate would lie if we were basing the calculated rate upon observations from an infinitely large sized population. If the local area's confidence intervals do not overlap with the national rate, it is likely that their indicator value is genuinely different from the national rate. (see also "technical notes" on next page.)
- LL-UL Lower limit/upper limit (of a confidence interval range)

## **Technical Notes**

- **International Classification of Diseases:** From January 2001 information on cause of death has been coded to IDC10, the tenth revision of this classification system. Standardised mortality ratios, directly age-standardised rates and years of life lost are usually presented as the pooled average of the last three years for which data are available. In this report these are the years 2003, 2004 and 2005.
- **Age-standardised rates:** Age standardisation facilitates comparisons between different geographical areas by controlling for differences in the age structure of the populations. A standardised rate is calculated either by applying the age-specific death rates for the population of interest to a standard population model (direct standardisation) or by applying the age-specific death rates for a standard population to the population structure of interest (indirect standardisation). In all statistics from the National Centre for Health Outcomes Development website, directly age-standardised rates are standardised to the European Standard population; while for indirectly standardised rates (standardised mortality ratios or SMRs), the reference population is that of England & Wales.
- **Standardised Mortality Ratio (SMR):** The ratio of the actual number of deaths in an area to the "expected" number of deaths if the age-standardised mortality rates for England & Wales were applied to the area's population, multiplied by 100. Therefore, the SMR for England & Wales as a whole is 100: higher figures indicate higher mortality and lower figures indicate lower mortality than England & Wales as a whole.
- **Use of confidence intervals around population-based rates:** Most health professionals are aware that estimates based on a random sample of a population are subject to error due to sampling variability, and that confidence intervals can be used to describe the uncertainty in an estimate derived from a sample. However, we have sometimes been asked why confidence intervals are also used around population-based rates, such as death rates, because these are based on actual counts relating to the whole population (and not on samples of the population). This is because rates and percentages based on a full population count can also be considered as estimates subject to error. For example, a rate observed in a single year can be considered as a sample or estimate of a true or underlying rate. Random error may be particularly important when the rate or percentage is based on a small number of events in the numerator. The larger the numerator, the better the observed rate will estimate the underlying rate. Obviously, the rate observed in any one year does describe what actually happened in that year, but there is a danger of misinterpreting comparisons or trends. We would want to try to base health policy decisions on the underlying rate, rather than on annual rates which may be subject to random fluctuation, and the use of confidence intervals can help us to interpret when changes or differences in rates are meaningful.



- Use of “comparator authorities”: Following a national re-organisation of PCT boundaries, this year we have included a comparison with **local authorities** of a similar socio-economic profile to Herefordshire, as well as a comparison with the West Midlands Region and England. To compare authorities the Squared Euclidean Distance (SED) has been used as a similarity measure, based on six main census dimensions: demographic, household composition, housing, socio-economic, employment and industry sector. Two Local Authorities X and Y, are said to be similar if the “distance” between them based on these Census characteristics is small. Two local authority areas are considered to be:
  - **Extremely similar** if the SED is less than 2.66646 ie within 1% of the total range.
  - **Very similar** if they have an SED of less than 2.5% of the range.
  - **Similar** if they have an SED of less than 5% of the range.
  - **Somewhat similar** if they have an SED of less than 10% of the range.
  - **Not similar** if they are more than 10% of the total range apart.

Using these definitions, the local authority districts which are most similar to Herefordshire are Mid Devon (SED of 1.01); North Shropshire (SED 1.17), Mendip (SED 1.21) and Kings Lynn & West Norfolk (SED 1.37). An average was calculated where possible from the health data of these four authorities and is shown in the “comparator authorities” column.

## **DEMOGRAPHY**

**Table 1: Estimates of resident population of Herefordshire PCT mid-2006: published August 2007**

age group	males	females	persons	% population	WMR (%)	E & W (%)
0-4	4451	4115	8566	4.8	5.9	5.7
5-14	10813	10230	21043	11.8	12.7	12.2
15-24	9855	9179	19034	10.7	13.3	13.0
25-44	20789	21366	42155	23.7	27.4	28.5
45-64	25155	25555	50710	28.5	24.5	24.4
65-74	9043	9684	18727	10.5	8.6	8.4
75-84	5414	7406	12820	7.2	5.7	5.7
85+	1471	3290	4761	2.7	1.9	2.0
All ages	86991	90825	177816	100	100	100
WMR Total	2636713	2728725	5365438			
E & W total	26178781	27211463	53390244			

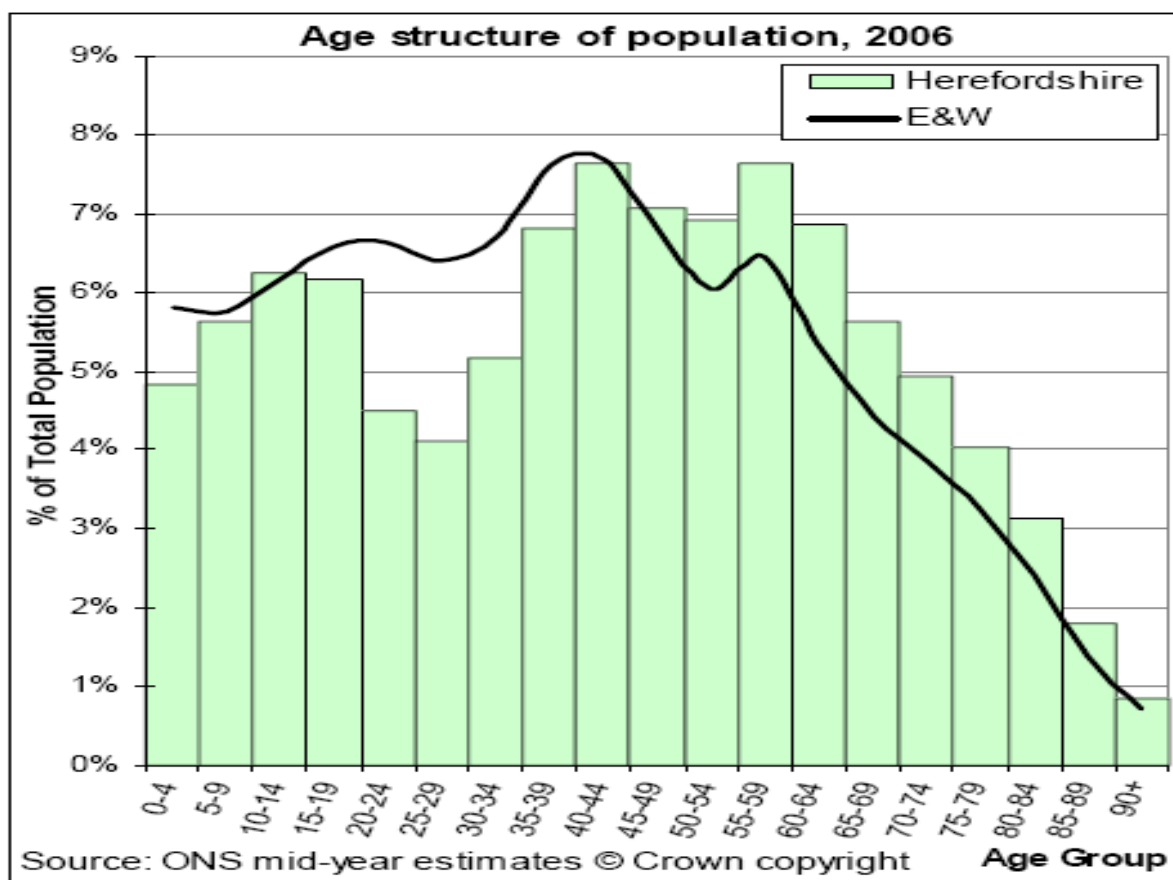
The Office for National Statistics (ONS) publishes official estimates of population for local authority districts in England and Wales annually. Over the last few years ONS has undertaken a review of its methodologies, with particular focus on the international migration component of local population change. The new methodology has been used for the first time in the production of the 2006 mid-year estimates (see Table 1 above) published in August 2007. At the same time, ONS published revised population estimates for the years mid-2002 to mid-2005. Changes to the methodology render all previous mid-year estimates obsolete. The revised Herefordshire estimate for mid-2005 is 177,300 – 1,500 or 0.8% fewer people than the original estimate of 178,800.

Throughout this year's Statistical Appendix health indicator data generally covers the three-year period 2003-2005. Due to the very recent release of the latest revised population estimates and the imminent deadline for publication of this Report it has been decided to persist with rates calculated against previous population estimates based on the old methodology. This will maintain consistency with previous Appendices. It is anticipated that future editions of the Statistical Appendix will calculate rates against population estimates derived from the new ONS methodology.

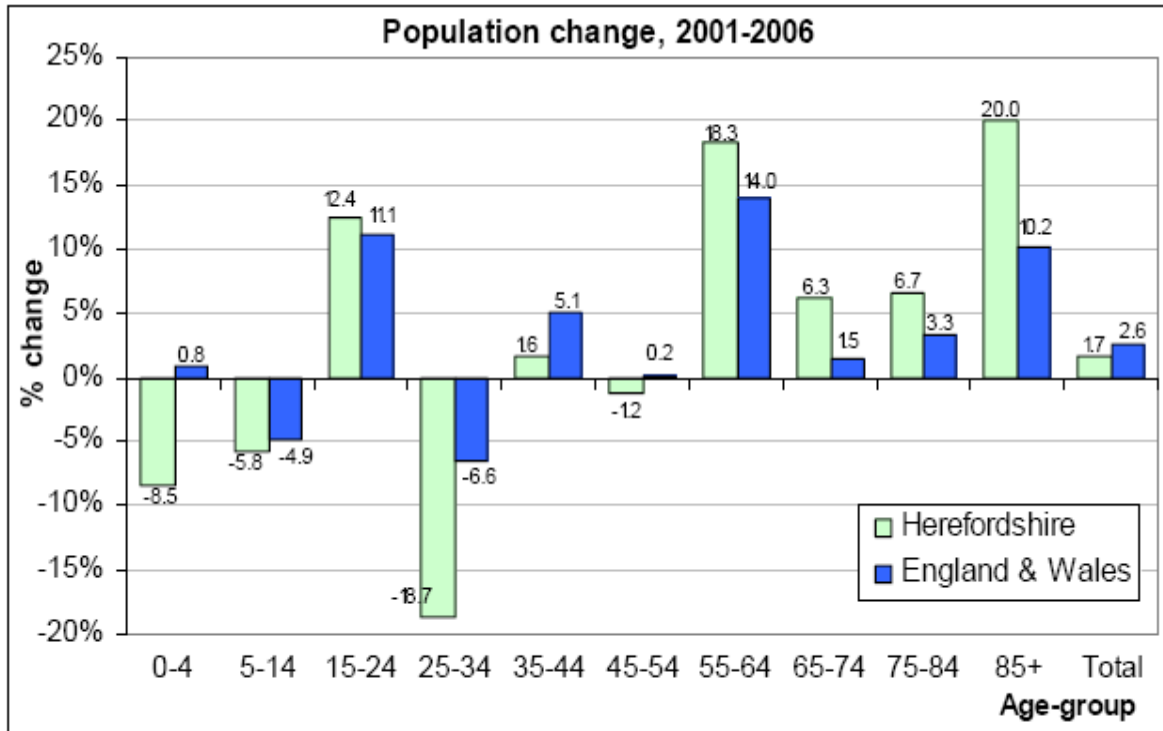
**Table 2: Census population 2001**

Age group	Males	Females	Persons	% population	WMR (%)	E&W (%)
0-4	4,816	4,673	9,489	5.4	6.1	5.9
5-14	11,491	10,844	22,335	12.8	13.4	12.9
15-24	8,588	8,253	16,841	9.6	12.3	12.2
25-44	22,783	22,991	45,774	26.2	28.1	29.1
45-64	23,237	23,608	46,845	26.8	24.2	23.8
65-74	8,355	9,263	17,618	10.1	8.5	8.4
75-84	4,874	7,135	12,009	6.9	5.6	5.6
85+	1,199	2,752	3,951	2.3	1.8	1.9
All ages	85,343	89,519	174,862	100	100	100
WMR total	2,527,111	2,692,197	5,267,308			
E&W total	25,325,926	26,715,990	52,041,916			

**Chart 1: Age Structure of Herefordshire population, 2006 mid-year estimate**



**Chart 2: Percentage Population Change by Age Group in Herefordshire, mid-2001 – mid-2006**



Source: Population Estimates Unit, ONS © Crown Copyright.

## **FERTILITY AND BIRTH STATISTICS**

**Table 3: Birth statistics for Herefordshire**

	Herefordshire	Comparator Authorities	WMR	E&W
Number of live births in 2005	1,654	-	65,956	645,835
% live births by maternal age in 2005:				
11-15	0.3	-	0.2	0.2
16-19	6.9		8.0	6.8
20-24	16.5		21.6	18.9
25-34	52.6		53.2	54.6
35-39	19.3		14.0	16.1
40+	4.4		2.9	3.4
Average number of stillbirths in 2003-2005	5.7	-	388	3,569
Stillbirth rate 2003-2005 (per 1,000 total births)	3.4	4.8	5.9	5.6
95% CI	2.1-5.4	-	5.6-6.3	5.5-5.7
Percent of births 2005 (live & still) under 1500 grams	1.6	1.2	1.6	1.5
95% CI	1.1-2.4	-	1.6-1.7	1.5-1.5
Percent of births 2005 (live & still) under 2500 grams	6.7	6.5	8.8	7.9
95% CI	5.6-8.0	-	8.6-9.0	7.8-8.0
General fertility rate in 2005 (Live births per 1,000 women aged 15-44)	52.8	58.8	60.7	58.4

**Table 4: Abortion statistics for Herefordshire**

	Herefordshire		WMR	E&W
	Number	Rate per thousand	Rate per thousand	Rate per thousand
Abortion rate (and average number of abortions) by maternal age 2003-2005				
<18 yrs	45	13.5	18.6	17.8
18-19	43	22.8	33.3	31.2
20-24	90	24.4	32.4	31.4
25-29	59	15.4	22.7	22.8
30-34	52	9.8	14.8	14.7
35+	60	4.5	6.5	6.8
All ages	350	11.2	17.1	16.8
Percent of abortions by gestational age in 2005	%		%	%
Gestation (weeks): 4-9	82.8	279	64.1	66.5
10-12	13.4	45	23.7	22.8
13+	3.9	13	12.2	10.7
Proportion of abortions carried out under NHS (directly or via agency) and privately in 2005	%		%	%
NHS	89.9	303	90.1	84.4
Non-NHS	10.1	34	9.9	15.6

**Table 5: Teenage conception rates (2003-2005)**

	<b>Number of conceptions 2003-2005</b>	<b>Rate (per 1000 women aged 15-17)</b>	<b>Average conceptions per year</b>
Herefordshire	331	32.9	110
WMR	14,622	45.8	4,874
E&W	126,547	41.8	42,182

No district local authority level data published.

Source: ONS and Teenage Pregnancy Unit – February 2007

## **MORTALITY**

**Table 6: Death rates**

		<b>Herefordshire PCT</b>	<b>Comparator Authorities</b>	<b>WMR</b>	<b>E&amp;W</b>
Directly age-standardised death rates (per 100,000 population) and observed number of deaths from all causes for the years 2003-2005 pooled					
Males	Rate	705.57	706.73	799.29	762.40
	(95% CI LL-UL)	679.35-731.79	-	793.74-804.83	760.68-764.11
	Number of deaths	2,840	-	77,871	741,282
Females	Rate	472.74	492.47	547.84	533.96
	(95% CI LL-UL)	453.95-491.53	-	543.85-551.84	532.71-535.21
	Number of deaths	3,001	-	83,366	821,529
Persons	Rate	576.27	587.93	660.30	635.70
	(95% CI LL-UL)	560.61-591.93	-	656.99-663.60	634.67-636.73
	Number of deaths	5,841	-	161,237	1,562,811
<p>Death rates are adjusted to take account of the age structure of the population. The age-standardised death rates for Herefordshire (for males, females and persons) are all significantly lower than those for both the West Midlands and England and Wales.</p>					

**Table 7: Age Standardised Death Rates for selected causes**

Directly Standardised Rates (standardised to European Standard Population)					
Average annual age-standardised mortality rates per 100,000 population for the years 2003-2005 pooled					
		Herefordshire PCT	Comparator Authorities	WMR	England
<b>All circulatory diseases (ICD10 I00-I99) in persons under 75</b>					
Males	Death rate per 100,000 per annum	113.93	111.67	136.55	126.78
	(95% CI LL-UL)	102.32-125.55	-	134.05-139.04	125.99-127.58
	Number of deaths	379	-	11,532	97,743
Females	Death rate per 100,000 per annum	50.21	51.49	60.08	56.44
	(95% CI LL-UL)	42.84-57.58	-	58.48-61.67	55.93-56.94
	Number of deaths	184	-	5,554	48,103
Persons	Death rate per 100,000 per annum	81.35	80.83	97.22	90.45
	(95% CI LL-UL)	74.53-88.17	-	95.76-98.69	89.98-90.91
	Number of deaths	563	-	17,086	145,846
<b>All malignant neoplasms (ICD10 C00-C97) in persons under 75</b>					
Males	Death rate per 100,000 per annum	112.67	117.54	137.05	132.64
	(95% CI LL-UL)	101.13-124.21	-	134.55-139.56	131.82-133.45
	Number of deaths	373	-	11,553	101,923
Females	Death rate per 100,000 per annum	96.53	94.54	105.76	106.62
	(95% CI LL-UL)	85.71-107.36	-	103.58-107.93	105.90-107.34
	Number of deaths	321	-	9,257	86,423
Persons	Death rate per 100,000 per annum	104.22	105.58	120.68	118.95
	(95% CI LL-UL)	96.34-112.11	-	119.03-122.33	118.41-119.49
	Number of deaths	694	-	20,810	188,346
<b>Suicide, self inflicted injury &amp; injury undetermined, all ages (ICD10 X60-X84, Y10-Y34 excl. YY33.9)</b>					
Males	Death rate per 100,000 per annum	14.89	13.19	12.38	12.86
	(95% CI LL-UL)	10.01-19.76	-	11.60-13.15	12.60-13.11
	Number of deaths	39	-	994	9,867
Females	Death rate per 100,000 per annum	3.87	4.81	4.10	4.28
	(95% CI LL-UL)	1.40-6.35	-	3.66-4.54	4.14-4.43
	Number of deaths	10	-	353	3,524
Persons	Death rate per 100,000 per annum	9.29	8.92	8.17	8.48
	(95% CI LL-UL)	6.56-12.01	-	7.72-8.61	8.34-8.63
	Number of deaths	49	-	1,347	13,391



<b>Accidents (ICD10 V01-X59), all ages</b>					
Males	Death rate per 100,000 per annum	30.59	26.75	23.41	21.46
	(95% CI LL-UL)	23.72-37.46	-	22.37-24.45	21.13-21.78
	Number of deaths	88	-	2,033	17,418
Females	Death rate per 100,000 per annum	11.94	12.85	12.00	10.59
	(95% CI LL-UL)	8.59-15.29	-	11.38-12.62	10.40-10.79
	Number of deaths	69	-	1,805	14,151
Persons	Death rate per 100,000 per annum	21.26	19.60	17.74	16.01
	(95% CI LL-UL)	17.46-25.06	-	17.14-18.33	15.82-16.19
	Number of deaths	157	-	3,838	31,569

<ul style="list-style-type: none"> <li>• These figures give the monitoring data for the “Our Healthier Nation” national targets. For this reason, figures for England are given as a comparison rather than for E&amp;W. “Our Healthier Nation” is the national health strategy for England.</li> <li>• Mortality rates for circulatory diseases in people aged under 75 and for cancers in people aged under 75 in Herefordshire are significantly lower than the rates for England.</li> <li>• Mortality rates for accidents in Herefordshire are still significantly higher than the rates for England for males and overall, though this is accounted for by male rather than female deaths.</li> </ul>
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**Table 8: Numbers of deaths from selected causes, 2003-2005**

	2003	2004	2005
All malignant neoplasms	486	479	524
Lung cancer	80	83	75
Malignant melanoma of skin	13	2	3
Other malignant neoplasm of skin	2	2	2
Breast cancer	33	36	53
Cervical cancer	1	2	3
Coronary heart disease	368	346	351
Stroke	309	278	248
Accidents	47	53	57
Land transport accidents	17	16	14
Suicide, self inflicted injury and injury undetermined	12	18	19
Suicide and self inflicted injury	11	17	17
All causes, aged 0-14	11	14	18
All causes, aged 15-64	255	255	264
All causes, aged 65-74	340	328	309
All causes, all ages	1,948	1,884	2,009

**Table 9: SMRs for Selected Causes of Death: 2003-2005 pooled**

	Herefordshire PCT		Comparator Authorities	WMR		England
	SMR	95% CI		SMR	95% CI	
<b>All malignant neoplasms (ICD10 C00-C97)</b>						
Males	88	82-95	93	102	101-103	100
Females	91	85-98	90	99	98-101	100
Persons	90	85-94	92	101	100-102	100
<b>Lung cancer (ICD10 C33-C34)</b>						
Males	66	55-77	78	102	100-105	100
Females	70	57-85	56	91	88-94	100
Persons	67	59-77	69	98	96-100	100
<b>Malignant melanoma of skin (ICD10 C43)</b>						
Males	88	40-167	136	101	89-104	100
Females	105	48-199	101	102	89-117	100
Persons	96	57-151	120	102	93-111	100
<b>Other malignant neoplasm of skin (ICD10 C44)</b>						
Males	116	32-298	71	92	72-116	100
Females	92	11-333	78	114	87-147	100
Persons	107	39-233	73	101	84-119	100
<b>Breast cancer (female) (ICD10 C50)</b>						
Females	93	77-111	100	102	99-106	100
<b>Cervical cancer (ICD10 C53)</b>						
Females	56	21-122	114	105	93-118	100
<b>Coronary Heart Disease (ICD10 I20-I25)</b>						
Males	96	89-104	99	103	101-104	100
Females	88	80-97	106	100	98-101	100
Persons	93	87-98	102	101	100-103	100
<b>Stroke (ICD10 I60-I69)</b>						
Males	115	102-128	99	113	111-116	100
Females	133	122-144	113	107	105-109	100
Persons	126	117-134	107	110	108-111	100
<b>Accidents (ICD10 V01-X59)</b>						
Males	133	106-164	120	111	106-115	100
Females	117	91-149	100	122	116-127	100
Persons	126	107-147	110	115	112-119	100
<b>Land Transport accidents (ICD10 V01-V89)</b>						
Males	163	114-227	169	111	103-119	100
Females	154	80-269	193	106	93-120	100
Persons	161	118-214	174	110	103-117	100

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<b>Suicide, self-inflicted injury &amp; injury undetermined (ICD10 X60-X84, Y10-Y34, excl. Y33.9)</b>						
Males	112	80-153	101	96	90-102	100
Females	77	37-142	98	95	86-106	100
Persons	103	76-136	100	96	91-101	100
<b>Suicide &amp; self-inflicted injury (ICD10 X60-X84)</b>						
Males	144	101-200	122	101	94-108	100
Females	110	50-209	139	91	79-104	100
Persons	136	99-182	126	98	92-105	100
<b>All causes (ages 0-14) (ICD10 A00-Y99)</b>						
Males	122	81-178	103	130	122-138	100
Females	95	54-154	88	119	110-128	100
Persons	110	80-149	96	125	119-131	100
<b>All causes (ages 15-64) (ICD10 A00-Y99)</b>						
Males	85	78-93	85	106	104-108	100
Females	80	71-90	90	104	102-106	100
Persons	83	77-89	87	105	104-106	100
<b>All causes (ages 65-74) (ICD10 A00-Y99)</b>						
Males	86	79-93	88	106	104-108	100
Females	90	82-99	85	102	100-104	100
Persons	88	82-93	87	104	103-105	100
<b>All causes (all ages) (ICD10 A00-Y99)</b>						
Males	93	89-96	93	105	104-106	100
Females	91	87-94	95	103	102-103	100
Persons	92	89-94	94	104	103-104	100

- Generally (considering both sexes together), mortality rates are significantly lower in Herefordshire than both nationally and regionally for all cancers, for lung cancer specifically, for coronary heart disease, and for all causes of death across all ages.
- They are significantly higher in Herefordshire than nationally for strokes and land transport accidents.

**Table 10: Years of life lost for selected causes of death**

Years of life lost up to age 75 (YLL), and directly standardised average annual YLL rates per 10,000 European Standard population aged under 75 (SYLL rate), 2003-2005 (pooled)						
	Herefordshire PCT			Comparator Authorities	WMR	E&W
	YLL	% of total YLL	SYLL rate	SYLL rate		
All causes (ICD10 A00-Y99)	22612.5	100	433.5	427.1	493.8	472.9
All malignant neoplasms (ICD10 C00-C97)	8058.5	36	143.7	141.3	159.1	156.9
Lung cancer (ICD10 C33-C34)	1255.5	6	20.1	21.9	29.3	29.7
All circulatory diseases (ICD10 I00-I99)	5378.5	24	93.2	89.7	115.2	107.7
Stroke (ICD10 I60-I69)	1246.5	6	21.2	16.0	22.5	20.5
Coronary heart disease (ICD10 I20-I25)	2864.5	13	48.7	51.5	65.8	60.1
Accidents (ICD10 V01-X59)	2484	11	59.8	60.2	38.3	39.0
Land transport accidents (ICD10 V01-V89)	1580	7	39.0	46.3	23.5	21.4
Suicide and injury undetermined (ICD10 X60-X84, Y10-Y34 excl. Y33.9)	1471	7	34.4	31.0	27.2	28.2

• Looking at mortality data in this way gives more weight to deaths that occur at younger ages.

## **INFANT AND CHILDHOOD MORTALITY RATES**

**Table 11: Perinatal Mortality Rate**  
(Stillbirths and deaths under 7 days per 1000 total births in 2003-2005 pooled)

	Number	Rate	95% CI
Herefordshire	28	5.6	(3.8-8.0)
Comparator Authorities	-	7.5	-
WMR	1931	9.8	(9.4-10.3)
E&W	15676	8.2	(8.1-8.3)

**Table 12: Number of infant deaths and mortality rates in infancy**  
(per 1000 live births in 2003-2005 pooled)

	Infant aged under 1 year (Infant mortality rate)			Infant aged under 28 days (Neonatal mortality rate)			Infant aged under 7 days (Early neonatal mortality rate)		
	Number	Rate	95% CI	Number	Rate	95% CI	Number	Rate	95% CI
Herefordshire	25	5.0	(3.4-7.4)	13	2.6	(1.5-4.5)	11	2.2	(1.2-4.0)
Comparator Authorities	-	5.7	-	-	3.5	-	-	3.0	-
WMR	1333	6.8	(6.5-7.2)	966	4.9	(4.6-5.3)	783	4.0	(3.7-4.3)
E&W	9725	5.1	(5.0-5.2)	6662	3.5	(3.4-3.6)	5121	2.7	(2.6-2.8)

**Table 13: Childhood mortality rates in 2003-2005 pooled**  
(per 100,000), and Number of deaths 2003-2005

	1-4 years		5-14 years	
	Number	Rate (2003-2005 pooled)	Number	Rate (2003-2005 pooled)
Herefordshire	3	14.2	15	22.7
Comparator Authorities	-	15.8	-	7.9
WMR	191	25.7	241	11.7
E&W	1627	22.7	2294	11.6

- All these calculated rates for Herefordshire are based on relatively small and fluctuating numbers of events, and hence the confidence intervals around the rates can be wide. The sharp rise in the numbers of infant deaths in this three-year period will be closely monitored.