

# Public Health Summary Report 2010

Version 1.0  
Health and Wellbeing Services

July 2011

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If you need help to understand this document, or would like it in another format or language, please call Clare Wichbold on 01432 347661 or e-mail [clare.wichbold@herefordpct.nhs.uk](mailto:clare.wichbold@herefordpct.nhs.uk)



## 1. Introduction

This report summarises the 2010 information and will be published with the JSNA as an electronic report rather than as a full publication. The information normally summarised in the local statistical appendix of the Director of Public Health Annual Report is given as an appendix to this report as a population health overview.

## 2. Herefordshire Population Health Improvement Plan – background

In general, people in Herefordshire enjoy relatively good health. However, despite this, too many people suffer avoidable ill health or die prematurely from preventable conditions. In addition to the resulting unnecessary suffering for individuals and their families and carers, this also leads to unnecessary time off school or work and avoidable costs for society (for example, spending on health and social care, benefits payments, lost productivity for businesses).

During 2010/11 the Public Health Directorate led on the development of a new Population Health Improvement Plan (HIP) for Herefordshire. At the same time, structural changes were made to the Public Health Directorate, with the move of Environmental Health and Trading Standards and Emergency Planning to the Directorate.

At the beginning of this process, although a range of health improvement activities were in place, these were not coordinated and there were no strategic population health improvement plans in place locally from which the 2010/11 HIP could be developed. The process of developing a local HIP therefore had to start from scratch. With the new structures, it meant that as well as health improvement, regulatory services could form part of the armoury to tackle health and wellbeing issues in the county. This is reflected in the achievements for the annual report.

The aim of the HIP was to create a single strategic plan for improving population health and preventing avoidable illness and early death in Herefordshire by:

- identifying the top priority topic areas for population health improvement;
- bringing together and reviewing existing activity contributing to health improvement across a wide range of partner organisations;
- identifying new activity required to improve population health based on evidence of effectiveness and using a structured framework which addresses the wide range of underlying influences on health;
- identifying funding for existing and new activity;
- bringing existing and new activities together to form the basis from which longer-term plans for Population Health Improvement could be developed.

The HIP identified, and brought together into a single plan, nine priority areas which influence the main causes of avoidable illness and premature death in Herefordshire, namely:

- Smoking;
- Alcohol;
- Healthy Diet;
- Physical activity;
- Oral health;
- Infectious diseases;
- Sexual health, including teenage pregnancy;
- Accidents and injuries;
- Mental wellbeing.

Each section was structured to include the wide range of actions required to improve health using the following framework:

- Encouraging a healthy start in life;
- Reducing exposure to risk factors;
- Enforcement and ensuring a supportive environment;
- Inequalities;
- Advocacy;
- Early diagnosis and treatment.

Under each of these sections and their subheadings, the HIP brought together existing initiatives already being undertaken across the county and identified new priorities areas for action. As the HIP was the most comprehensive investigation into health improvement for 2010, it has therefore been used to form the basis of this Public Health Annual Report.

### **2.1 The importance of the underlying wider determinants of health**

Because of the fundamental influence of wider determinants such as socio-economic and environmental factors on population health, the 2010/11 HIP was not limited to health services and attempts to capture existing and proposed activity across a wide range of partner organisations. In this annual report, we have tried to identify the part which other organisations and individuals played in population health improvement. This includes GPs, the community and voluntary sector, allied health professionals, businesses, and the public.

It is important to recognise that both the development and the implementation of the HIP has involved, and continues to require, joint working across a wide range of partners. Health is about much more than expecting individuals to adopt a more healthy lifestyle by giving them information or education. Whilst this has a role, we also need to make sure that people are encouraged and supported towards better health by the community, their surroundings and environment in which they live and work. Crucially, it is important to recognise the role of the wider socio-economic and environmental determinants (the “causes of the causes”) which underpin health and to work with partners who have influence over these determinants in order that action is taken to address them.

### **2.2 Overall progress: development of a written plan**

During 2010/11 a “baseline” HIP was completed as planned. This was an iterative process resulting in a “live” HIP document which formed a sound basis for future plans. This process brought together existing initiatives and new ideas for action together into a structured plan covering the nine priority areas listed above.

### **2.3 Involving stakeholders**

Work to develop and implement the HIP involved and engaged a range of local partners. This process helped to foster a greater shared understanding locally that health is everyone’s business and that everyone has a part to play in working towards achieving good health and wellbeing for the whole population. Whilst the development of the HIP was coordinated by Public Health, stakeholders were involved both in its development and in work to implement it.

For example, views were sought on all sections of the plan from a wide range of stakeholders at the Health and Wellbeing Conference held at the Point 4 centre in June 2010 and individual sections of the plan have been reviewed and/or received input and comments via a range of channels – for example, the Smoking Strategy

Group and Dental Clinical Engagement Group were consulted about the Smoking and Oral Health sections respectively.

## **2.4 Action to improve health**

It is widely recognised that improving health relies on action at a range of levels including changes to individual behaviour, community action, environmental improvements, regulation and enforcement, policy and service development. Whilst this requires the coordinated, long-term efforts of a wide range of people and partners, as individuals, communities, professionals, interest groups and organisations, considerable progress has been locally in developing the shared understanding and responsibility necessary for tackling the wider determinants influencing health. The joint work that took place to develop and implement the HIP provides a sound foundation for future partnership working for health.

Most of the major causes of ill-health and mortality in Herefordshire are influenced by lifestyle behaviours including smoking, diet and physical activity. A range of simple, affordable and cost-effective interventions have the potential to improve population health in Herefordshire significantly and include:

- identifying and treating hypertension, high cholesterol levels and diabetes at an early stage for example via NHS Health Checks programme;
- supporting smokers to quit;
- supporting people who are overweight or obese to lose weight and
- reducing tooth decay in children by promoting appropriate use of fluoride toothpaste and professionally-applied fluoride varnish.

It will be important that these (and other) simple measures continue to feature in our plans for population health improvement and that these are implemented on an “industrial scale” if we are to have the greatest impact on population health and great potential for saving future health and social care costs.

## **2.5 Prioritisation**

A prioritisation process was also been undertaken to identify priority areas for action within each section of the HIP (the methodology for this process took into account strategic priorities, evidence-base, inequalities and community engagement). This prioritisation process identified ‘best buys’ and key target groups where efforts should be focused in order to achieve maximum population health gain including the regional QIPP priorities on alcohol and tobacco.

Activity in relation to different sections of the HIP was prioritised throughout 2010/11. For example efforts to reduce smoking prevalence were a high priority because of the major impact of smoking on population health. This means that there was more progress in implementing some sections (notably smoking, oral health, physical activity and diet) than in others (for example, accidents and mental wellbeing).

## **3. Smoking: achievements to date**

- Implementation of a new hub and spoke model for the Stop Smoking Service. This has involved a changed role for the Stop Smoking Team (Specialist Stop Smoking Service) which now focuses primarily on providing training and support for a network of Stop Smoking providers across the county along with specialist stop smoking advice for smokers with more complex needs and for groups of quitters.
- New management arrangements have been put in place for the Specialist Stop Smoking Team.

- A Service Specification for the Specialist Stop Smoking Service has been developed.
- Continued development of a network of trained Stop Smoking advisers across the county in GPs practices, pharmacies, HALO leisure centres.
- Implementation of stop smoking database within the “hub”.
- Stop Smoking providers trained in HALO leisure centres across the county.
- Service Level Agreements agreed with HALO and pharmacies.
- Inclusion of brief intervention for smoking within the 2011/12 CQUIN.
- Pilot completed for provision of Stop Smoking advice in a local dental practice and development of an SLA for this new service provider.
- Development of a workplace-based stop smoking pilot scheme with local employer Amey Herefordshire, as part of the national *Healthy Places, Healthy Lives* programme.
- Training provided for staff in brief intervention, including HHT and community health staff as part of 2010/11 CQUIN.
- Established a multi-agency Smoking Strategy (Tobacco Alliance) Group including representatives from the public, private and voluntary sectors.
- Tobacco seizures of over 350,000 cigarettes in Hereford City and 14kg of tobacco and 25,000 cigarettes in Ross on Wye through partnership working by Environmental Health and Trading Standards officers and Customs and Excise staff
- During 2010/11 the Specialist Stop Smoking Service has trained 187 people to be able to provide brief interventions for stop smoking (compared to 0 in 2008/09 and 2009/10) and 105 people to be able to provide Stop Smoking Advice (compared to an average of 43/year between 2004/05 and 2009/10).

### **3.1 Ongoing areas of work**

- Continuing development of a network of trained Stop Smoking advisers across the county in GPs practices, pharmacies, and HALO leisure centres.
- Roll-out of database to “spoke” providers.
- Promotion of new “hub and spoke” model.
- Develop and implement local communications/social marketing plans based on national campaigns eg Quit Kit, No Smoking Day.
- Further roll-out of workplace-based stop smoking.
- Implement a Local Enhanced Service (LES) to increase provision of smoking cessation services in primary care through GP practices.
- Further movement towards formal commissioner/provider relationship with Specialist Stop Smoking Service.
- Development of further capacity in brief intervention in range of settings/providers including secondary care.
- Implementation of Patient Group Directions (PGD) and staff training for varenicline (Champix).

### **3.2 Priorities for prevention: Reduce the prevalence of smoking**

- Increase the routine provision of brief intervention by a range of providers and in a range of settings across the county;
- Increase provision of Stop Smoking Services in primary care and in locality settings;
- Increase provision of brief intervention and Stop Smoking Services from a range of providers within a new hub and spoke model of service delivery
- Target high risk groups, including pregnant women, people with chronic disease and those living in deprived communities.

### **3.3 Priority areas where progress has not yet been made**

- Develop further workplace-based smoking cessation activities, building on the *Healthy Places, Healthy Lives* pilot including within NHS and HC.
- Delivery of smoking prevention and cessation interventions for children and young people.

### **4 Alcohol: achievements to date**

- Inclusion of Identification and Brief Advice (brief intervention for alcohol) in 2011/12 CQUIN.
- Training programme established for structured Intervention and Brief Advice (IBA)
- Trading Standards officers worked closely with the police to carry out four evenings of covert underage test purchasing of alcohol in licensed premises which led to reviews being made as well as fixed penalty notices being issued.
- Over 1800 primary school children attended the Crucial Crew at Hereford Racecourse in June 2010, receiving information on alcohol, drugs, smoking, and personal and road safety, with Trading Standards being a key partner.

#### **4.1 Ongoing areas of work**

- Develop primary care LES for alcohol services and service model for Level 2 primary care based alcohol service.
- Increase capacity and provision of structured IBA on alcohol in primary and secondary care and in locality settings.
- Provision of advice and treatment for harmful alcohol consumption, ensuring adequate capacity within existing specialist alcohol services to meet additional demand resulting from the structured brief interventions.
- Case management of frequent admissions due to alcohol.
- Undertake a needs assessment/service review of specialist alcohol services.
- Alcohol liaison nurse to identify and manage patients frequently admitted to hospital due to alcohol (including providing family support) – supported by new alcohol admissions database.

#### **4.2 Priorities for prevention: Reduce alcohol related harm to health**

- Increase provision of structured brief interventions on alcohol in primary and secondary care and in locality settings;
- Ensure adequate capacity within existing specialist alcohol services to meet additional demand resulting from the structured brief interventions;
- Build on existing good practice in the delivery of social marketing interventions for young people;
- Case management of frequent admissions due to alcohol.

#### **4.3 Priority areas where progress has not yet been made**

- Develop a service specification for the delivery of IBA in secondary care.
- Building on existing good practice in the delivery of social marketing interventions for young people.
- Evaluate the impact of existing social marketing campaigns and look to identify future funding opportunities.

## **5 Healthy Diet and Physical Activity: achievements to date**

- Launch of local Change for Life programme.
- Pilot of NHS Health Checks programme in local GP practices implemented.
- Local implementation of national Healthy Start programme.
- Completion of a number of MEND and post-MEND programmes for overweight children.
- Completion of the Lottery-funded Living Well programme aimed at children and their families in South Wye and Leominster

### **5.1 Ongoing areas of work**

- Continued promotion and roll-out of Healthy Start.
- Implementation of Start4Life and the Unicef Baby Friendly initiative.
- Build on local Change4Life programme including promotion of Ten Top Tips.
- Evaluation of interventions to manage and support children who are overweight and obese to lose weight, including MEND programme.
- Increase opportunities for physical activity including opportunities for walking, cycling and dancing.
- Increase the provision of lifestyle coaching support through development and implementation of a new Health Trainer service specification.
- Development of obesity care pathway to identify, manage and support people who are overweight or obese.
- Development of a children's obesity care pathway.
- Evaluation of pilot of NHS Health Checks programme.
- Roll-out of NHS Health Checks - depending on outcome of evaluation.

### **5.2 Priorities for prevention: Encourage healthy diets**

- Focusing on the local implementation of the Change4Life brand.

## **6 Increase physical activity**

- Increase physical activity in children;
- Increase physical activity in adults at risk of cardiovascular disease.

### **6.1 Priority areas where progress has not yet been made**

- Launch the middle-age strand of Change4Life.
- Increase workforce capacity to deliver healthy lifestyle advice and support.
- Develop further local social marketing plans based on Change4Life.
- Develop care pathways to increase physical activity for those identified as at low/medium or high risk of cardiovascular disease from the NHS Health Checks programme, based on the Let's Get Moving programme.

## **7 Oral Health: achievements to date**

- Implementation of Herefordshire "Brushing for Life" programme (fluoride toothpaste/toothbrush distribution to pre-school children, delivered by Health Visitors). As at February 2011, 1,597 B4L packs had been issued to local preschool children.
- Implementation started of school-based supervised toothbrushing programme for nursery and reception children. 878 children in 13 local schools are now taking part in this programme with 2 schools due to join the scheme once training has been completed (as at March 2011).
- Work with local dental practices to increase the use of fluoride varnish

- Completion of training programme in oral health and the application of fluoride varnish for a cohort of local dental nurses.
- Provision of educational update for dental team staff as part of the local post-graduate programme.

### **7.1 Ongoing areas of work**

- Further roll-out of the school-based supervised toothbrushing programme for nursery and reception children.
- Continue work with local dental practices to increase the use of fluoride varnish.
- Establish mechanism for ongoing provision of Brushing for Life programme and supervised school-based toothbrushing programmes.

### **7.2 Priorities for prevention: Improve oral health**

- Reduce dental caries in children by ensuring optimal exposure to fluoride in line with *Delivering better oral health: an evidence-based toolkit for prevention* (DH, 2009)

### **7.3 Priority areas where progress has not yet been made**

- Establish mechanism for ongoing monitoring of prevention in practice including provision of fluoride varnish as part of routine contract monitoring.
- Promote key oral health messages via communication/social marketing campaigns.
- Increase awareness of oral cancer.
- Explore options for provision of general health improvement, eg stop smoking within dental practices.

## **8 Sexual Health: achievements to date**

- Completion of Sexual Health Needs Assessment and development of sexual health strategy.
- Expansion of Chlamydia Screening programme to involve a third sector organisation. This led to more than fivefold increase uptake from 4.3% (in 2007-08) to 23.2% (in 2009-10).
- Received funding from the Strategic Health Authority (SHA) to develop training for practice nurses and GPs in Long Acting Reversible Contraception (LARC) in primary care.

### **8.1 Ongoing areas of work**

- Developing a new sexual health service model employing a tiered approach.
- Implement a Local Enhanced Service to deliver Chlamydia screening through the GP walk-in centre.
- Implement a Local Enhanced Service to increase the provision of Long-Acting Reversible Contraception (LARC) in primary care.
- Review and revise the sexual health service specification in line with the recommendations from the sexual health needs assessment, including development of new service specification for specialist sexual health service in line with National strategy and local context.

## **8.2 Priorities for prevention: reduce the prevalence of sexually transmitted infections and reduce the number of teenage pregnancies**

- Increase uptake of Chlamydia screening;
- Increase uptake of Long Acting Reversible Contraception (LARC);
- Improve access to sexual health services, particularly in deprived communities.

## **8.3 Priority areas where progress has not yet been made**

- Undertake a social marketing campaign to increase uptake of LARC and Chlamydia screening.

## **9 Infectious Diseases: achievements to date**

- Roll-out of local MMR catch-up programme that led to increase of MMR uptake by 6.4% from 73.9% (in 2007-08) to 81.3% (in 2009-10).
- Launch of the Nurse-led immunisation service 6 month pilot in October 2010.
- Implementation of HPV Immunisation programme in September 2008.
- Implementation of Swine Flu vaccination programme in September 2009.
- Development of Pandemic flu plan and management of a) swine flu outbreak in 2009 and b) sharp rise in the flu cases in January 2011.
- Launch a local campaign to increase flu vaccine uptake in December 2010 that led to an uptake rate of 74% (provisional data) in individuals aged 65 and over against set target of 70%.
- Development and implementation of Herefordshire Health Care Associated Infection Strategy 2011-14.
- Development and implementation of Norovirus Toolkit. This ensures the effective and prompt management of diarrhoea and vomiting cases in the community reducing pressure on secondary care.
- Validation of the Infectious Disease Outbreak Plan through a multiagency table-top exercise in February 2011.

## **9.1 Ongoing areas of work**

- Evaluation of the Nurse-led immunisation service pilot to inform future commissioning of this service.
- Establishing outreach vaccinations service to deliver vaccinations in a range of settings.
- Undertaking work to increase vaccination uptake rates in traveller communities, working with the county council Travellers' Service.
- Locally enhanced national campaigns to promote respiratory hygiene.
- Promotion of hand hygiene campaign.
- Provision of infection prevention and control service in nursing and residential care homes.
- Infection Control Audits across primary care.
- Review of pandemic flu plan.

## **9.2 Priorities for prevention: reduce the burden of infectious disease**

- Increase vaccine uptake rates;
- Increase access to immunisation services in deprived communities to reduce health inequalities;
- Local campaigns to promote respiratory and hand hygiene.

### **9.3 Priority areas where progress has not yet been made**

- n/a

### **10 Accidents: achievements to date**

- Reduction in road traffic deaths at Herefordshire level.
- Falls strategy completed and new service commissioned.
- Accidents and injuries partnership group convened involving representation from a wide range of agencies.
- Herefordshire Council's Environmental Health (Commercial) team carried out a major investigation during the period April 2010 to February 2011 into a fatality at Kington Agricultural Show, which led to a successful prosecution.

### **10.1 Ongoing areas of work**

- Develop an accidents and injuries action plan supported by needs analysis
- To link with the Maximising Independence workstream to ensure the Falls Strategy is implemented and links to reablement, telecare and risk stratification to prevent increases in fractured neck of femur.
- Resolution of performance issues with new falls service
- Use of A&E data systems to identify accident hot-spots

### **10.2 Priorities for prevention: Reduce accidents and injuries**

- Develop a co-ordinated approach to reducing accidents and injuries within the county;
- Use A&E data systems to identify accident hot-spots;
- Evaluate current interventions to reduce accidents and injuries.

### **10.3 Priority areas where progress has not yet been made**

- Evaluation of current interventions to reduce accidents and injuries.
- Implementation of evidence based interventions in schools.

### **11.1 Mental Wellbeing: achievements to date**

- In depth review of deaths from suicide in recent years completed providing enhanced local understanding and no local evidence of specific pattern.
- Local roll out of the acclaimed Triple P (Positive Parenting Programme) supporting mental wellbeing from early children through parenting.
- A process of engaging with stakeholders and initiating local discussions on mental wellbeing has been started through the Health and Wellbeing Conference in June 2010.
- The council's environmental protection team, which covers noise nuisance, smoke offences, public health nuisance such as rats, and drainage issues, dealt with 1,884 service requests in 2010.
- However, this is an area in which there has been limited progress to date

## **11. 2 Ongoing areas of work**

- A shared understanding of mental “wellbeing” and the difference between mental health and mental wellbeing has been established between the Staying Healthy and Mental Health/Learning Disability workstreams.

## **11. 3 Priority areas where progress has not yet been made**

This is an area for further development. From 1 April 2011, <sup>2</sup>gether NHS Foundation Trust became the main provider of mental health, substance misuse and learning disability services within Herefordshire. Links will be developed between Public Health and the new provider to ensure that mental wellbeing and mental health are clearly defined and GPs, organisations and individuals are appropriately supported.

## **12 Looking ahead**

Since the 2010/11 HIP was developed, fundamental changes to public services, including to the delivery of health services, local services and public health have been introduced including the NHS and the Public Health White Papers.<sup>1, 2</sup> Some of the funding streams identified in the 2010/11 HIP have been reduced or withdrawn. The impact of these changes and the current financial challenges will need to be considered in the development of the future HIP. The updated plans will also need to take account of emerging new structures for the delivery of services across the public, private and third sectors, including new structures within local government (including the introduction of a Health and Wellbeing Board), the NHS and new arrangements for the delivery of public health. The restructuring to include Environmental Health and Trading Standards in the Public Health Team will continue to pay dividends around shared working practices.

A life-course approach is recommended for 2011/12 as this would build on the conceptual framework used in the 2010/11 HIP and be aligned to the national approach to health improvement and reducing health inequalities outlined in the Marmot Review.<sup>3</sup> This life-course perspective shows how wider determinants of health operate at every level of development throughout someone’s life, from childhood through to adulthood, and this will influence health, as well as provide the basis for the continuation of good health or development of illness during the later stages of life.

## **13 What priorities have we identified for 2011/12 – 2012/13?**

It is important that local plans for health improvement are updated in line with local needs and in the context of local and national policy. The 2010/11 HIP has provided a foundation for the development of future health improvement plans. In order to build on the current HIP and develop comprehensive plans for health improvement during 2011/12-2012/13, the priorities previously identified will need to be reviewed in the light of local needs as identified.

The following key issues, for example are highlighted in the 2010 JSNA and remain priorities for 2011/12 onwards:

- smoking remains the single most important cause of avoidable ill-health and premature death;

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<sup>1</sup> Equity and excellence: liberating the NHS

<sup>2</sup> Healthy lives, healthy people: our strategy for public health in England

<sup>3</sup> The Marmot Review: Fair Society, Healthy Lives.

- rates of alcohol-related hospital admissions are increasing;
- obesity is emerging as a major contributing factor to poor health, disability and premature death. Herefordshire has a higher rate of obesity amongst adults than England generally and it is particularly concerning that more than one in four 11 year-old children are overweight or obese.

These priorities need to be reflected in the updated plans for 2011/12 onwards.

## **14 Have any other priorities emerged?**

### **14.1 Herefordshire localities**

Future plans for health improvement need to be closely aligned to the localities agenda in Herefordshire, both in terms of identifying the health needs of local communities and in implementing initiatives to address these needs.

Testing of the effectiveness of public health data collection and analysis around localities has been investigated for smoking, alcohol and falls data. In future annual reports, data will be provided on a locality basis to enable progress to be monitored in relation to the new local structures.

### **14.2 Economic climate**

The potential of preventative health approaches to deliver significant cost-savings to both the NHS and wider public services is increasingly being recognised. This has been considered in identifying the priorities outlined previously. There will, however, continue to be a need to keep this under review and to ensure that the system as a whole delivers the most clinically and cost-effective interventions to ensure we are maximising value for money, and making real progress in reducing the burden of preventable disease in the Herefordshire population.

## **15 Acknowledgements**

Thankyou to Hilary Sharpe and Alison Merry for producing the text for the report. Thanks must also go to Peter Stebbings for production of the data tables and graphics in the accompanying Population Health Overview, and to Paul Nicholas for providing the information on the activities of regulatory services.

## Appendix 1: Population Health Overview

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 December 2010. The data from this source generally concerns events over the period 2007-2009. Other statistics from this source 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 2007, 2008 and 2009.
- 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”: we have included a comparison with **PCTs** of a similar socio-economic profile to Herefordshire, as well as a comparison with the West Midlands Region and England. To assess similarity of authorities the Squared Euclidean Distance (SED) is used as a means of comparison. It is based on six main census dimensions: demographic, household composition, housing, socio-economic, employment and industry sector. Two local authorities 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.

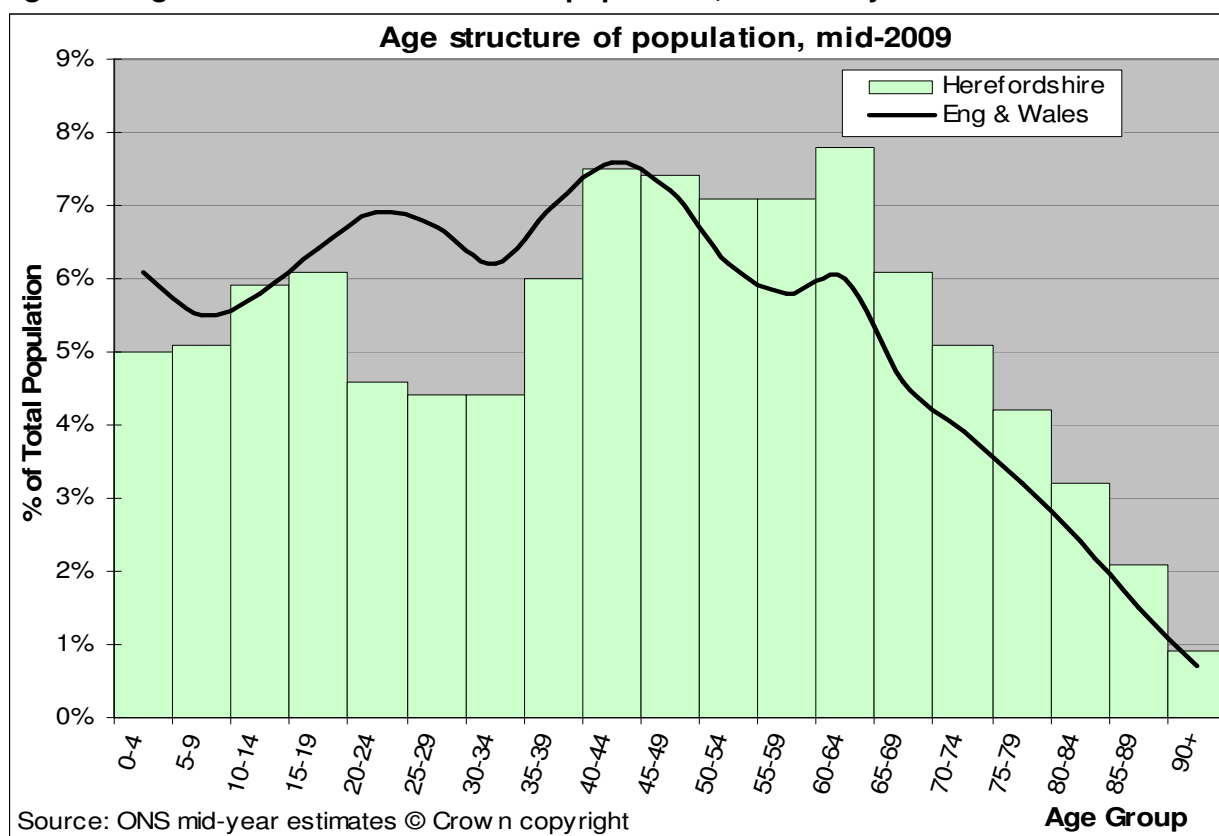
Using these definitions, the PCTs which are currently most similar to Herefordshire are Shropshire County (SED of 0.54); Somerset (SED 0.87), Lincolnshire Teaching (SED 1.28) and East Riding of Yorkshire (SED 1.55). An average was calculated from the health data from these four areas and is shown in the “comparator PCTs” column where possible.

## DEMOGRAPHY

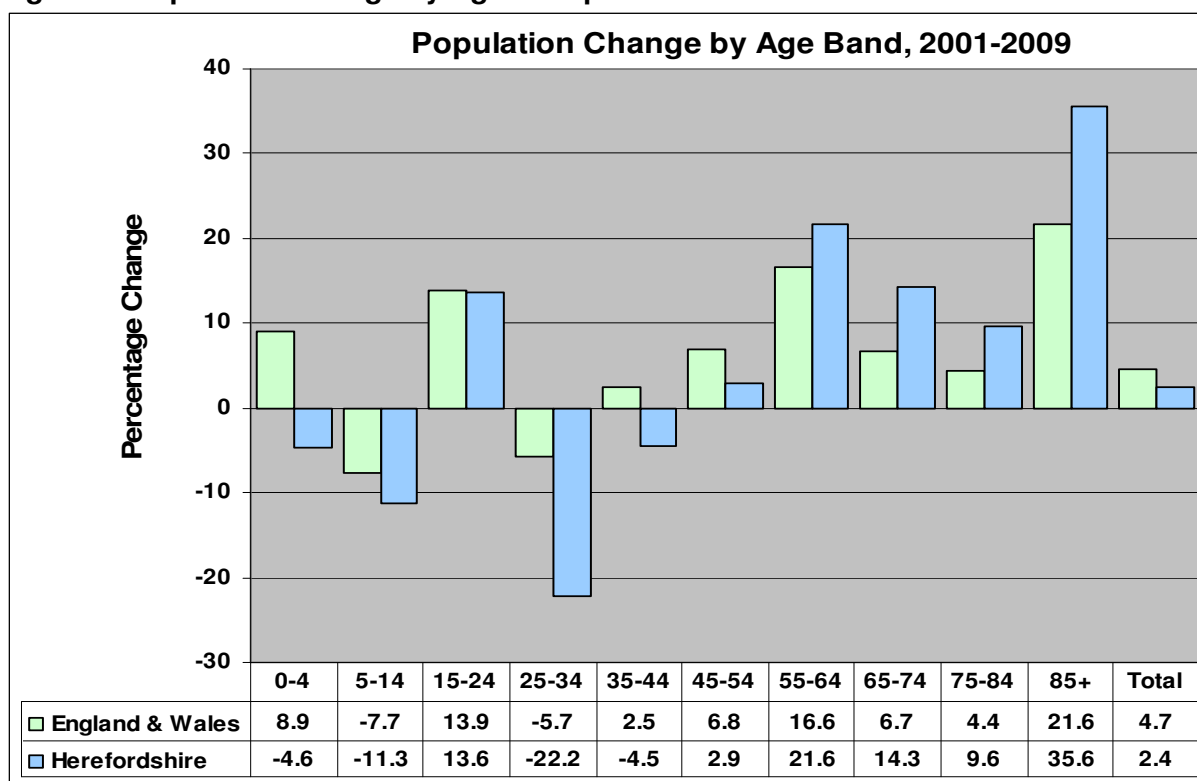
**Table 1: Resident population of Herefordshire, 2009 mid-year estimate: published June 2010**

Age Group	Males	Females	Persons	% Population	WMR (%)	E&W (%)
0-4	4759	4244	9003	5.0	6.3	6.1
5-14	10130	9681	19811	11.1	11.8	11.4
15-24	9877	9263	19140	10.7	13.5	13.3
25-44	19793	20204	39997	22.3	26.3	27.6
45-64	25755	26664	52419	29.3	25.2	25.3
65-74	9808	10361	20169	11.3	9.0	8.5
75-84	5829	7377	13206	7.4	5.7	5.6
85+	1730	3647	5377	3.0	2.2	2.3
All ages	87681	91441	179122	100	100	100
WMR	2671088	2759991	5431079			
E&W	26980113	27828947	54809060			

**Figure 1: Age structure of Herefordshire population, 2009 mid-year estimate**



**Figure 2: Population Change by Age Group in Herefordshire mid-2001 to mid-2009**



Source: ONS mid-year estimates © Crown copyright.

Herefordshire's total population growth over the period 2001 to 2009 (2.4%) has been below the national rate (4.7%), but there are much larger differences evident within individual age-groups. Population change has mainly been in the same direction as the national trend with the exception of the 0-4 and 35-44 age bands, but often of a greater magnitude.

The number of under 5's fell by around 5% (400 children) in Herefordshire over the period, compared to an increase of almost 9% nationally. Numbers of people in the older age groups have grown much more rapidly in Herefordshire than in England and Wales as a whole. In 2009, there were 15% more people aged 65 and over living in the county than there were in 2001 (an increase of 5,100 people), in comparison with a near 8% increase nationally. The most notable increase locally was in those aged 85+ years (36%) – although relatively small numbers comprise this age group (5,400 in 2009).

## FERTILITY AND BIRTH STATISTICS

**Table 2: Birth rates**

	Herefordshire	Comparator PCTs	WMR	E&W
Number of live births in 2009	1,824	-	71,042	705,995
% live births by maternal age in 2009:				
11-15	0.1	0.2	0.2	0.1
16-19	5.8	7.2	7.1	6.0
20-24	19.4	20.7	22.1	19.3
25-34	52.5	52.5	53.7	54.6
35-39	18.0	15.8	13.8	16.2
40+	4.2	3.7	3.2	3.8
Stillbirth rate 2007-2009 (per 1,000 total births)	3.5	4.6	5.6	5.1
95% CI	(2.2 – 5.5)	-	(5.3 – 5.9)	(5.0 – 5.2)
Percent of births 2009 (live & still) under 1500 grams	1.4	1.2	1.7	1.4
95% CI	(1.0 – 2.1)	-	(1.6 – 1.8)	(1.4 – 1.4)
Percent of births 2009 (live & still) under 2500 grams	6.8	6.7	8.5	7.5
95% CI	(5.7 – 8.0)	-	(8.3 – 8.8)	(7.4 – 7.5)
General fertility rate in 2009 (Live births per 1,000 women aged 15-44)	61.9	60.5	66.1	63.7

**Table 3: Abortion rates: 2009**

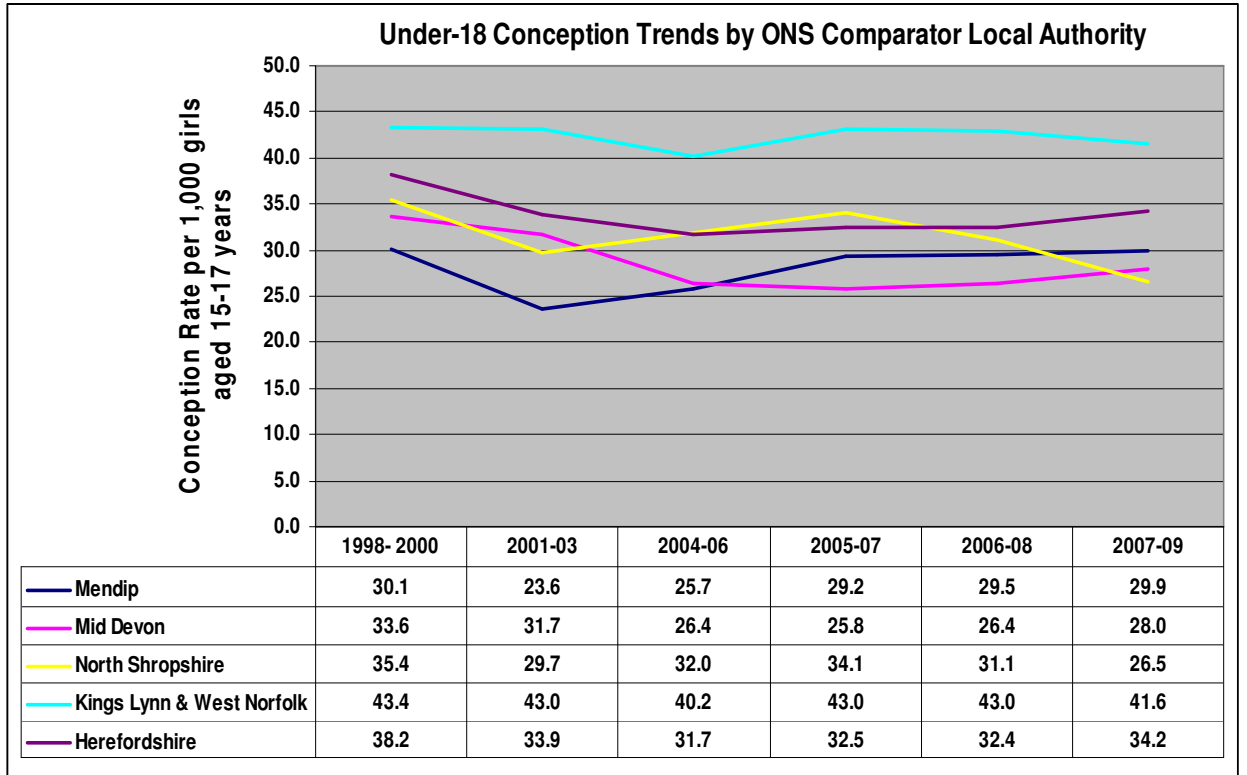
	Herefordshire		Comparator PCTs	WMR	E&W
	No.	Rate	Rate	Rate	Rate
Abortion rate per 1000 females (and number of abortions) by maternal age 2009					
<18 yrs	59	17.4	15.2	20.1	17.6
18-19	55	26.7	24.3	35.3	31.6
20-24	135	33.4	24.6	33.5	30.0
25-29	77	20.8	15.8	24.3	22.8
30-34	61	14.9	10.8	17.1	15.7
35+	72	5.6	4.4	6.9	6.6
Crude rate per 1000 female population (aged 15-44 years)	459	17.2	13.2	19.2	17.5
Percent of abortions by gestational age in 2009	No.	%	%	%	%
Gestation (weeks): 3-9	358	78.0	62.8	76.3	74.7
10-12	63	13.7	25.8	13.8	15.8
13+	38	8.3	11.4	9.9	9.4
Proportion of abortions carried out under NHS (directly or via agency) and privately in 2009	No.	%		%	%
NHS	438	95.4	-	97.0	93.9
Non-NHS	21	4.6	-	3.0	6.1

**Table 4: Teenage conception rates: 2007-2009 pooled**

	No. of conceptions 2007-2009	Rate (per 1000 girls aged 15-17)	% Leading to abortion
Herefordshire	346	34.2	52
Comparator Authorities*	-	31.5	48
West Midlands	14,356	45.3	49
E&W	122,572	40.3	49

\*derived from the four most similar local authorities according to ONS Area classifications – Mid Devon, Mendip, North Shropshire and Kings Lynn & West Norfolk.

Source: ONS & DfE



## MORTALITY

**Table 5: Total death rates**

		Herefordshire	Comparator PCTs	WMR	E&W
Directly age-standardised death rates (per 100,000 population) and observed number of deaths from all causes, 2007-2009 pooled					
Males	Rate (95% CI LL-UL)	<b>624.63</b> (600.78 – 648.47)	<b>633.25</b> -	<b>707.16</b> (702.12 – 712.20)	<b>676.76</b> (675.20 – 678.32)
	No. of deaths	2,787	-	-	-
Females	Rate (95% CI LL-UL)	<b>436.65</b> (418.96 – 454.33)	<b>460.91</b> -	<b>491.76</b> (488.03 – 495.48)	<b>480.34</b> (479.18 – 481.50)
	No. of deaths	3,045	-	-	-
Persons	Rate (95% CI LL-UL)	<b>523.16</b> (508.63 – 537.70)	<b>539.90</b> -	<b>590.05</b> (586.99 – 593.10)	<b>569.67</b> (568.72 – 570.62)
	No. of deaths	5,832	-	-	-

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 of the West Midlands and England and Wales.

**Table 6: 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, 2007-2009 pooled					
		Herefordshire	Comparator PCTs	WMR	England
<b>All circulatory diseases (ICD10 I00-I99) in persons under 75</b>					
Males	Death rate per 100,000 per annum (95% CI LL-UL)	<b>86.22</b> (76.44 – 95.99)	<b>86.71</b> -	<b>105.06</b> (102.90 – 107.22)	<b>99.44</b> (98.75 – 100.13)
	No. of deaths	309	-	-	-
Females	Death rate per 100,000 per annum (95% CI LL-UL)	<b>37.15</b> (30.69 – 43.61)	<b>38.08</b> -	<b>44.49</b> (43.13 – 45.85)	<b>43.22</b> (42.79 – 43.66)
	No. of deaths	136	-	-	-
Persons	Death rate per 100,000 per annum (95% CI LL-UL)	<b>60.98</b> (55.18 – 66.78)	<b>61.77</b> -	<b>74.02</b> (72.76 – 75.29)	<b>70.49</b> (70.08 – 70.89)
	No. of deaths	445	-	-	-
<b>All malignant neoplasms (ICD10 C00-C97) in persons under 75</b>					
Males	Death rate per 100,000 per annum (95% CI LL-UL)	<b>116.12</b> (104.68 – 127.56)	<b>115.95</b> -	<b>128.55</b> (126.17 – 130.92)	<b>124.02</b> (123.25 – 124.79)
	No. of deaths	409	-	-	-
Females	Death rate per 100,000 per annum (95% CI LL-UL)	<b>92.20</b> (81.88 – 102.52)	<b>96.52</b> -	<b>102.07</b> (99.97 – 104.17)	<b>101.21</b> (100.53 – 101.89)
	No. of deaths	324	-	-	-
Persons	Death rate per 100,000 per annum (95% CI LL-UL)	<b>103.76</b> (96.08 – 111.44)	<b>105.96</b> -	<b>114.78</b> (113.20 – 116.36)	<b>112.07</b> (111.56 – 112.59)
	No. of deaths	733	-	-	-
<b>Suicide, self inflicted injury &amp; injury undetermined, all ages (ICD10 X60-X84, Y10-Y34 excl. Y33.9)</b>					
Males	Death rate per 100,000 per annum (95% CI LL-UL)	<b>12.27</b> (7.88 – 16.66)	<b>12.17</b> -	<b>12.00</b> (11.24 – 12.76)	<b>12.18</b> (11.93 – 12.42)
	No. of deaths	33	-	-	-
Females	Death rate per 100,000 per annum (95% CI LL-UL)	<b>4.19</b> (1.82 – 6.56)	<b>3.95</b> -	<b>3.46</b> (3.06 – 3.86)	<b>3.63</b> (3.50 – 3.76)
	No. of deaths	15	-	-	-
Persons	Death rate per 100,000 per annum (95% CI LL-UL)	<b>8.16</b> (5.68 – 10.64)	<b>7.95</b> -	<b>7.68</b> (7.25 – 8.11)	<b>7.85</b> (7.71 – 7.98)
	No. of deaths	48	-	-	-

<b>Accidents (ICD10 V01-X59), all ages</b>					
Males	Death rate per 100,000 per annum (95% CI LL-UL)	<b>37.85</b>	<b>22.00</b>	<b>23.96</b>	<b>21.23</b>
		(30.32 – 45.38)	-	(22.93 – 24.98)	(20.91 – 21.54)
	No. of deaths	115	-	-	-
Females	Death rate per 100,000 per annum (95% CI LL-UL)	<b>10.57</b>	<b>10.79</b>	<b>11.34</b>	<b>10.16</b>
		(7.40 – 13.73)	-	(10.75 – 11.93)	(9.97 – 10.45)
	No. of deaths	64	-	-	-
Persons	Death rate per 100,000 per annum (95% CI LL-UL)	<b>24.05</b>	<b>16.36</b>	<b>17.60</b>	<b>15.65</b>
		(19.97 – 28.14)	-	(17.02 – 18.18)	(15.47 – 15.83)
	No. of deaths	179	-	-	-

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&W. “Our Healthier Nation” is the national health strategy for England.

Mortality rates from circulatory diseases and from cancers in persons aged under 75 years in Herefordshire are significantly lower than equivalent national and regional rates.

Mortality rates from accidents in Herefordshire for males are still significantly higher than nationally and regionally.

**Table 7: Total deaths in Herefordshire by selected causes: 2007-2009**

	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>All malignant neoplasms</b>	555	522	502
<b>Lung cancer</b>	91	100	89
<b>Malignant melanoma of skin</b>	13	12	5
<b>Other malignant neoplasm of skin</b>	4	4	1
<b>Breast cancer</b>	38	39	37
<b>Cervical cancer</b>	4	3	3
<b>Coronary heart disease</b>	285	312	288
<b>Stroke</b>	221	242	256
<b>Accidents</b>	54	71	54
<b>Land transport accidents</b>	17	25	18
<b>Suicide, self inflicted injury and injury undetermined</b>	14	18	16
<b>Suicide and self inflicted injury</b>	13	17	11
<b>All causes, aged 0-14</b>	7	11	5
<b>All causes, aged 15-64</b>	271	285	279
<b>All causes, aged 65-74</b>	298	307	277
<b>All causes, all ages</b>	<b>1,974</b>	<b>1,983</b>	<b>1,875</b>

**Table 8: SMRs for selected causes of death: 2007-2009 pooled**

	Herefordshire PCT		Comparator PCTs	WMR		England
	SMR	95% CI	SMR	SMR	95% CI	SMR
<b>All malignant neoplasms (ICD10 C00-C97)</b>						
Males	93	86-99	96	103	102-105	100
Females	91	84-98	96	100	99-102	100
Persons	92	87-96	96	102	101-103	100
<b>Lung cancer (ICD10 C33-C34)</b>						
Males	74	63-86	88	102	100-105	100
Females	74	61-89	82	92	89-95	100
Persons	74	66-83	85	98	96-100	100
<b>Malignant melanoma of skin (ICD10 C43)</b>						
Males	122	68-202	115	97	86-108	100
Females	151	84-248	92	92	80-104	100
Persons	135	91-193	105	94	86-103	100
<b>Other malignant neoplasm of skin (ICD10 C44)</b>						
Males	205	83-423	124	100	79-124	100
Females	84	10-305	100	104	79-135	100
Persons	156	71-296	115	102	85-120	100
<b>Breast cancer (female) (ICD10 C50)</b>						
Females	88	73-106	101	103	100-107	100
<b>Cervical cancer (ICD10 C53)</b>						
Females	107	51-197	87	103	90-116	100
<b>Coronary Heart Disease (ICD10 I20-I25)</b>						
Males	94	86-102	95	101	99-102	100
Females	90	81-99	96	95	93-97	100
Persons	92	86-98	95	98	97-100	100
<b>Stroke (ICD10 I60-I69)</b>						
Males	110	96-124	101	110	107-113	100
Females	134	122-146	108	107	104-109	100
Persons	124	115-134	105	108	106-110	100
<b>Accidents (ICD10 V01-X59)</b>						
Males	163	134-195	98	115	110-119	100
Females	103	79-132	94	120	115-126	100
Persons	135	116-156	96	117	113-121	100
<b>Land Transport accidents (ICD10 V01-V89)</b>						
Males	289	215-380	135	121	112-131	100
Females	143	65-271	175	92	79-108	100
Persons	251	191-323	145	114	107-122	100
<b>Suicide, self-inflicted injury &amp; injury undetermined (ICD10 X60-X84, Y10-Y34, excl. Y33.9)</b>						

Males	99	68-139	103	98	92-105	100
Females	136	76-225	105	95	85-106	100
Persons	108	80-144	104	97	92-103	100
<b>Suicide &amp; self-inflicted injury (ICD10 X60-X84)</b>						
Males	106	70-155	104	101	94-108	100
Females	186	101-311	111	95	82-109	100
Persons	125	89-169	105	100	94-106	100
<b>All causes (ages 0-14) (ICD10 A00-Y99)</b>						
Males	52	26-94	97	129	122-138	100
Females	77	40-134	99	118	109-127	100
Persons	63	40-94	98	124	119-130	100
<b>All causes (ages 15-64) (ICD10 A00-Y99)</b>						
Males	94	86-102	90	107	105-108	100
Females	88	79-99	93	104	102-106	100
Persons	92	86-98	91	106	104-107	100
<b>All causes (ages 65-74) (ICD10 A00-Y99)</b>						
Males	87	80-94	89	105	103-106	100
Females	83	75-93	90	103	101-105	100
Persons	85	80-91	89	104	103-105	100
<b>All causes (all ages) (ICD10 A00-Y99)</b>						
Males	93	89-96	95	105	104-105	100
Females	93	90-97	97	102	101-103	100
Persons	93	91-96	96	103	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.

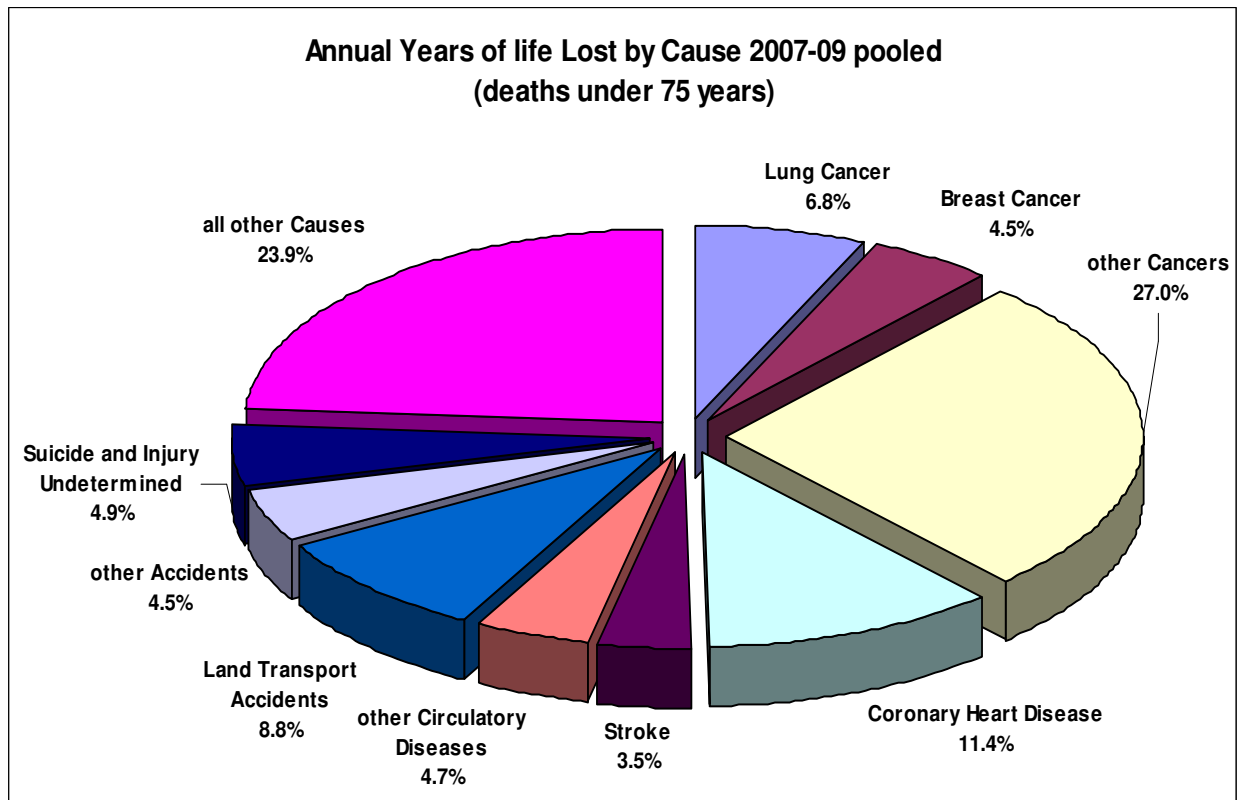
Rates are significantly higher in Herefordshire than nationally for strokes and accidents (including land transport accidents).

**Table 9: Years of life lost by 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), 2007-2009 pooled						
	Herefordshire PCT			Comparator PCTs	WMR	E&W
	YLL	% of total YLL	SYLL rate	SYLL rate	SYLL rate	SYLL rate
All causes (ICD10 A00-Y99)	22272	100	412.98	413.81	459.84	435.73
All malignant neoplasms (ICD10 C00-C97)	8524	38.3	144.33	140.76	151.09	146.76
Lung cancer (ICD10 C33-C34)	1504	6.8	24.48	24.12	28.73	28.43
All circulatory diseases (ICD10 I00-I99)	4364	19.6	73.92	76.57	92.76	88.61
Stroke (ICD10 I60-I69)	770	3.5	12.80	13.26	16.84	15.68
Coronary heart disease (ICD10 I20-I25)	2542	11.4	41.10	39.77	51.02	47.43
Accidents (ICD10 V01-X59)	2973	13.3	70.73	46.44	38.00	37.31
Land transport accidents (ICD10 V01-V89)	1966	8.8	48.94	29.52	19.28	16.78
Suicide and injury undetermined (ICD10 X60-X84, Y10-Y34 excl. Y33.9)	1097	4.9	24.80	25.52	25.27	25.71

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

**Figure 1 Annual years of life lost by cause 2007-09**



## Infant and Childhood Mortality Rates

**Table 10: Perinatal mortality rate**

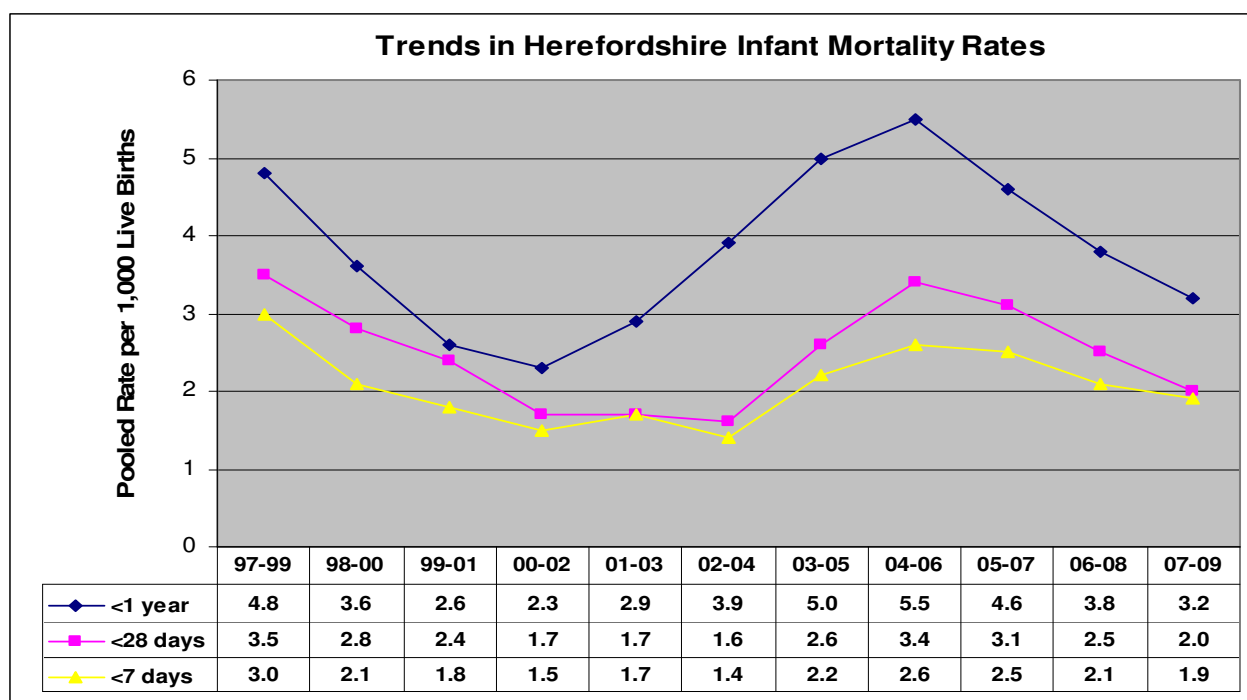
(Stillbirths and deaths under 7 days per 1000 total births 2007-2009 pooled)

	No. deaths	Rate	95% CI
Herefordshire	29	5.4	3.7 – 7.7
Comparator PCTs	-	6.7	-
West Midlands	-	9.2	8.8 – 9.6
E&W	-	7.6	7.5 – 7.7

**Table 11: Number of infant deaths and mortality rates in infancy**

(per 1000 live births 2007-2009 pooled)

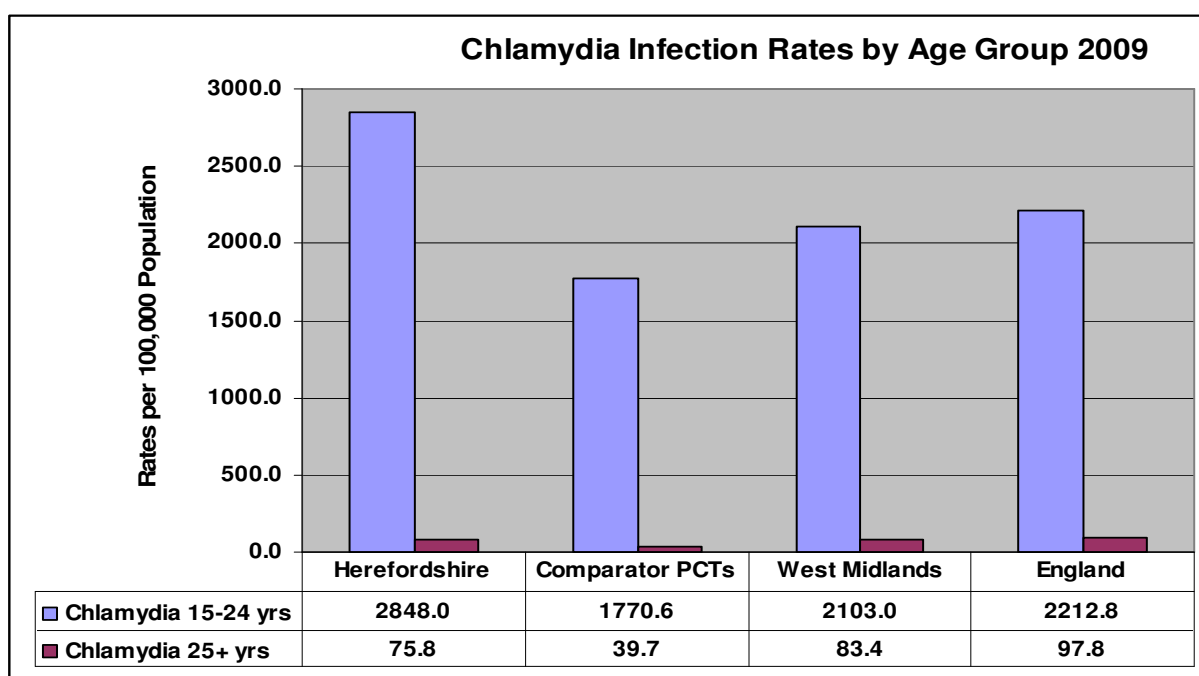
	Aged under 1 year (Infant mortality rate)			Aged under 28 days (Neonatal mortality rate)			Aged under 7 days (Early neonatal mortality rate)		
	No.	Rate	95% CI	No.	Rate	95% CI	No.	Rate	95% CI
Herefordshire	17	3.2	2.0 – 5.1	11	2.0	1.1 – 3.7	10	1.9	1.0 – 3.4
Comparator PCTs	-	4.5	-	-	3.1	-	-	2.2	-
WMR	-	6.2	5.8 – 6.5	-	4.5	4.2 – 4.8	-	3.6	3.4 – 3.9
E&W	-	4.7	4.6 – 4.8	-	3.2	3.1 – 3.3	-	2.5	2.4 – 2.5

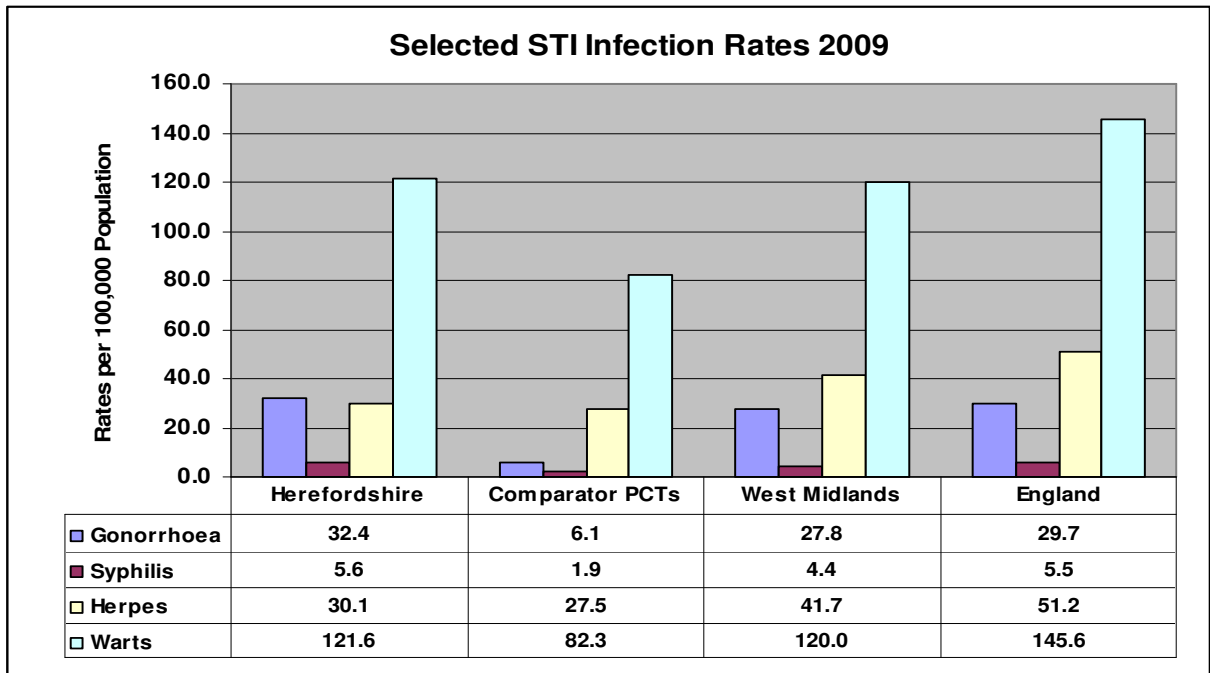


**Table 12: Number of child deaths and mortality rates in childhood (per 100,000 population 2007-2009 pooled)**

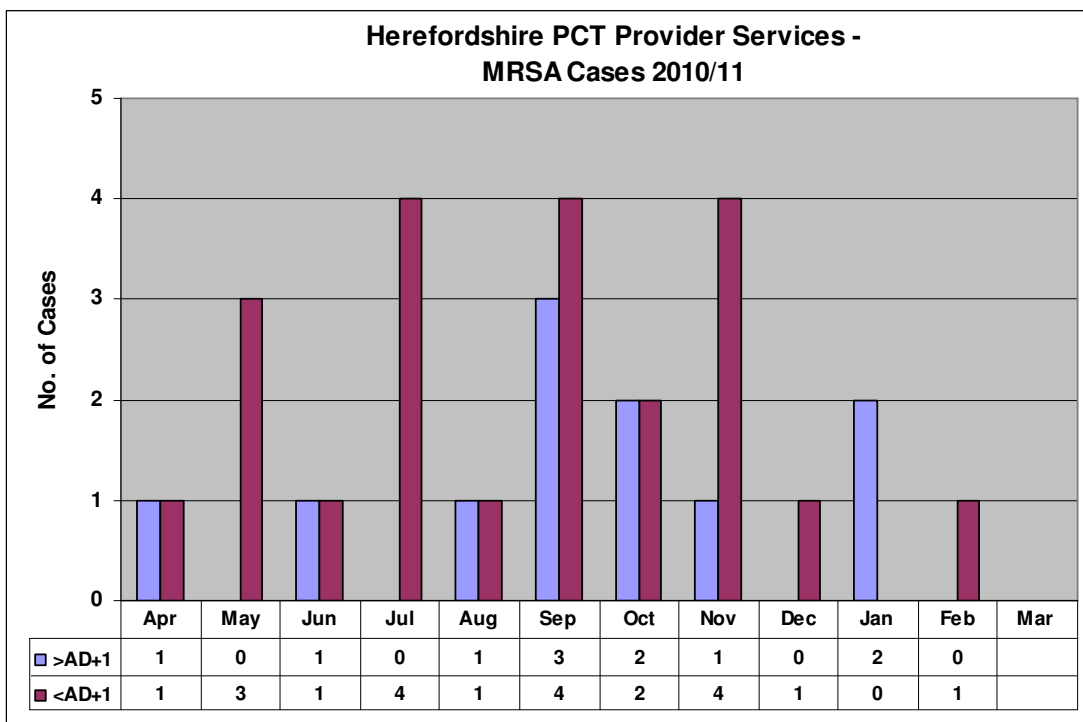
	1-4 years		5-14 years	
	No.	Rate	No.	Rate
<b>Herefordshire</b>	1	18.8	0	3.3
<b>Comparator PCTs</b>	-	20.4	-	11.8
<b>West Midlands</b>	-	22.6	-	10.8
<b>E&amp;W</b>	-	20.2	-	10.5

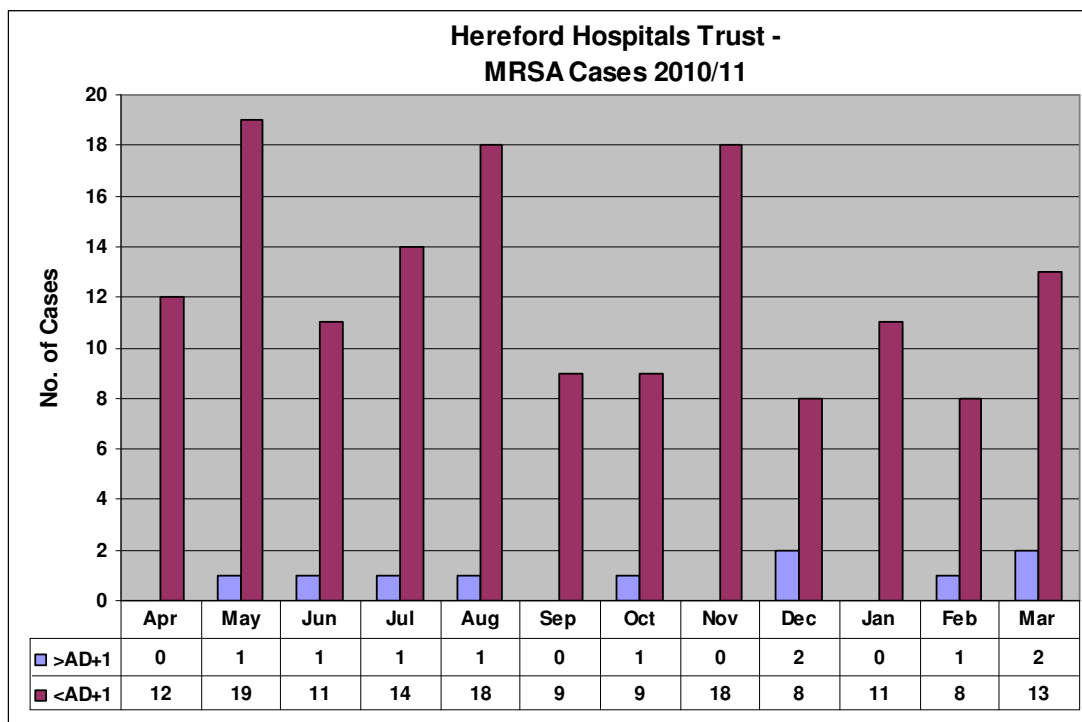
All these calculated rates for Herefordshire are based on relatively small and fluctuating numbers of events, and accordingly the confidence intervals around the rates can be wide.



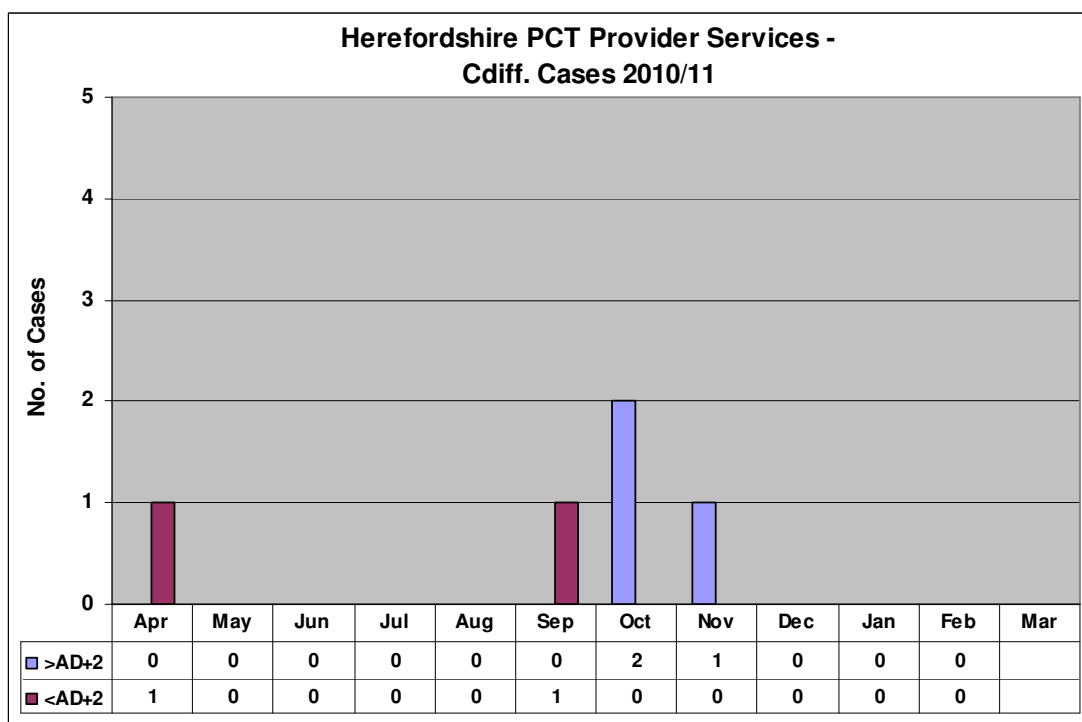


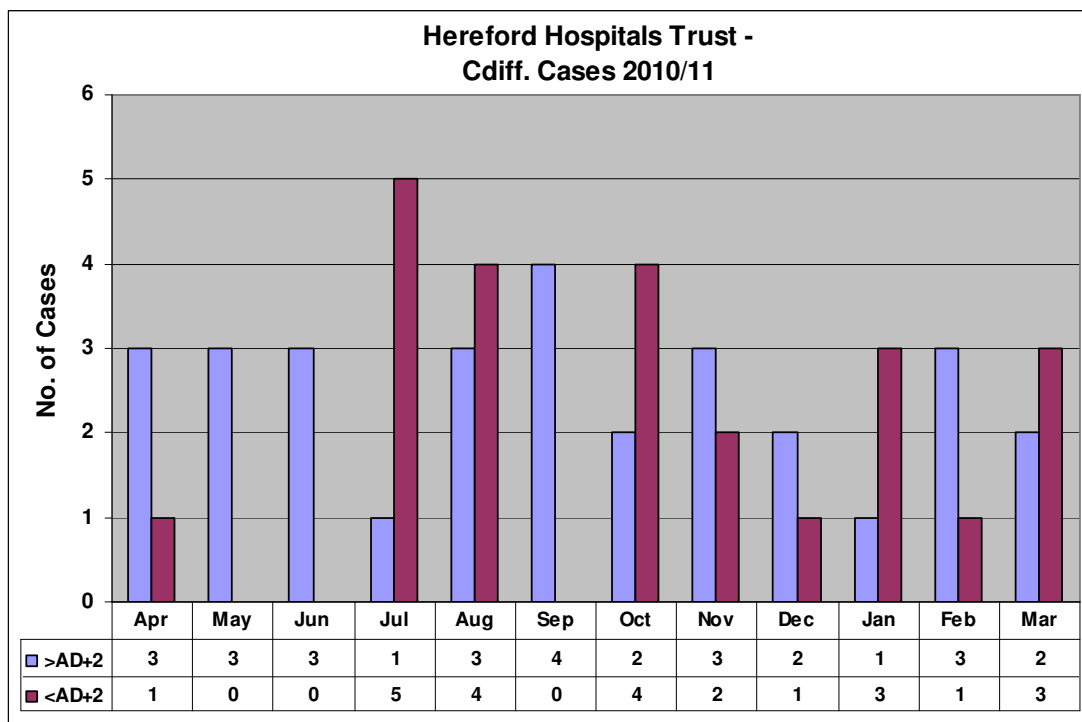
Source: Health Protection Agency, Centre for Infections





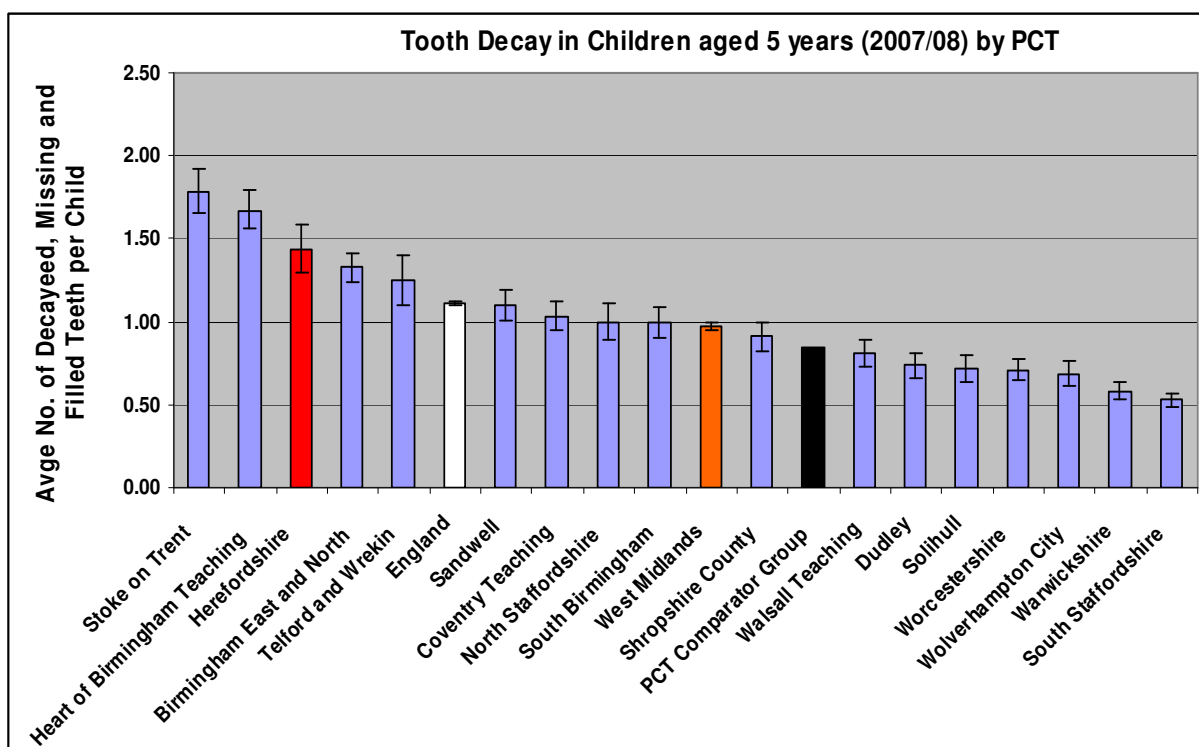
MRSA will now be reported as pre or post day of admission plus 1 day (<AD+1 or >AD+1) rather than pre or post 48 hrs. This is to standardise the definitions used to apportion cases in line with national reporting systems. MRSA will be apportioned to a hospital when the specimen date is on or after the third day of admission where the day of admission is day 1. This definition has been applied to all new cases of MRSA identified this financial year.





The term pre and post 48 hrs will no longer be used when describing acquisition of *C. difficile*. It will now be reported as pre and post day of admission plus 2 days (AD+2). *C. difficile* infections will be apportioned to a hospital where the specimen date is on, or after the fourth day of the admission, where the day of admission is day 1.

Source: HHT/PCT Infection Protection and Control



Source: NHS Dental Epidemiology Programme for England

Highest sample rate in the Region (83.6%); one of the highest in the country (England average 66.8%). Third highest rate of decay in the West Midlands (1.44 teeth per child) compared to West Midlands average of 0.97 teeth and England (1.11). Comparator group of most similar PCT's recorded just 0.84 dmf teeth per child.