



SMOKING

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Herefordshire Council Strategic Intelligence Team

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SUMMARY - KEY MESSAGES

Smoking Behaviour

Smoking prevalence in Herefordshire has shown a decline in recent years and in 2016 the local figure was 14 per cent compared to 20 per cent in 2010; in 2015/16 there were an estimated 27,000 smokers aged 15 and above across Herefordshire.

Among the Herefordshire population males are a third more likely to smoke than females.

Relatively low levels of smoking prevalence occur in rural and semirural areas with higher levels recorded in Hereford and market towns.

Prevalence of smoking in adults in routine and manual occupations in Herefordshire is significantly higher than that recorded for the adult population as a whole.

In line with the national pattern the prevalence of smoking in pregnancy in Herefordshire has fallen almost by a half since 2006/07 and since 2014/15 has been below the "national ambition" of 11 per cent.

In 2014/15 almost six per cent of 15 year olds in Herefordshire reported that they smoked cigarettes which was lower than the figures of 8.2 and 7.0 across England as a whole and the West Midlands respectively.

Smoking Ill Health and Mortality

In 2015/16 there were 2,015 smoking attributable hospital admissions in Herefordshire which represents an admission rate of 1,567 per 100,000 population, a figure significantly lower than the national rate.

The admission rate for males was approximately 50 per cent higher than that for females.

Between 2010/11 and 2011/12 the average cost per capita of each smoking attributable hospital admission in Herefordshire was £32.75 compared to £37.47 for England and £34.89 for the West Midlands.

The local smoking attributable mortality rate has shown a general decrease, falling from 265 per 100,000 population to 235 per 100,000 between 2007 and 2015 and has been consistently lower than the national and regional rates.

In 2013-15 lung cancer was the underlying cause of 29 per cent of smoking related deaths in Herefordshire, while chronic obstructive pulmonary disease (31 per cent), heart disease (12 per cent) and stroke (3.6 per cent) were also important.

As of September 2016 the estimated total annual cost of smoking-related sickness in Herefordshire is £9.2 million.

Smoking Cessation

Since 2011/12 the number of smokers setting a quit date in Herefordshire has fallen steadily which mirrors the national and regional patterns.

In 2015/16 the proportion of smokers in Herefordshire setting a quit date successfully quitting was 51 per cent, the same figure recorded nationally and regionally.

INTRODUCTION

Smoking is the most important cause of preventable ill health and premature mortality in the UK. Smoking is a major risk factor for many diseases, such as lung cancer, chronic obstructive pulmonary disease and heart disease. It is also associated with cancers in other organs, including lip, mouth, throat, bladder, kidney, stomach, liver and cervix. Exposure to second-hand smoke (passive smoking) can also lead to a range of diseases, many of which are fatal, with children especially vulnerable to the effects of passive smoking.

The proportion of adults smoking in England has shown a steady decline between 2000 and 2015 from 28.6 to 19.4 per cent¹. In 2014, there were 78,000 deaths of adults aged 35 and over in England attributable to smoking compared to 90,000 in 2004. The 2014 figure represents 17 per cent of all deaths compared to 19 per cent in 2004. Over the same ten year period the number of hospital admissions attributable to smoking rose from 452,000 to 475,000².

Between 2005 and 2015 the price of tobacco has risen by 89 per cent. Over the same period the price of tobacco has increased by 41 per cent relative to retail prices while household disposable income has risen by 3 per cent with the consequence that tobacco has become 27 per cent less affordable over this time. Statistics describing national household expenditure indicate that between 1985 and 2015 the amount spent on tobacco nearly trebled while the expenditure as a proportion of total household expenditure decreased by almost 50 per cent². In 2013 estimated tobacco sales in Herefordshire totalled £51 million³.

In 2015/16 the UK government collected £9.5 billion in tobacco duties⁴, while it has been estimated the cost of smoking to the NHS is in excess of £5 billion per year⁵. In addition to the direct impact on the NHS there are indirect impacts on society as a whole with an estimate for 2010 of a total national financial burden £14 billion associated with smoking. Consequently, reducing the prevalence of cigarette smoking is a priority and in 2011 the government set a target for England of reducing adult smoking prevalence in England by 18.5% by the end of 2015⁶, a target which was subsequently met⁷.

This report provides an overview of smoking statistics for Herefordshire. Primary data sources are Public Health England (PHE) and NHS Digital unless otherwise stated.

¹ Adult Smoking Habits in England. ONS Dataset. Released 7 March 2017.

Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/datasets/adultsmokinghabitsinengland>

² Statistics on Smoking England 2016. HSCIC. Published 27 May 2016

Available at: <http://content.digital.nhs.uk/catalogue/PUB20781/stat-smok-eng-2016-rep.pdf>.

³ PHE Local Tobacco Control Profiles.

Available at: <http://www.tobaccoprofiles.info/>

⁴ HMRC TAX & NIC RECEIPTS Monthly and annual historical record. HMRC. Released 21 March 2017.

Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/600490/Feb17_Receipts_NS_Bulletin_Final.pdf

⁵ Allender, S., Balakrishnan, R., Scarborough, P. Webster, P. and Rayner, M. (2009). The burden of smoking-related ill health in the UK. *Tobacco Control*, **0**, 1-7.

Available at: http://www.parliament.scot/S3_HealthandSportCommittee/Inquiries/2009.07.17BMA.pdf

⁶ Healthy Lives, Healthy People: A Tobacco Control Plan for England. MH Government. Published 9 March 2011.

Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213757/dh_124960.pdf

⁷ Adult smoking habits in the UK: 2015. ONS Statistical Bulletin. Released 7 March 2017.

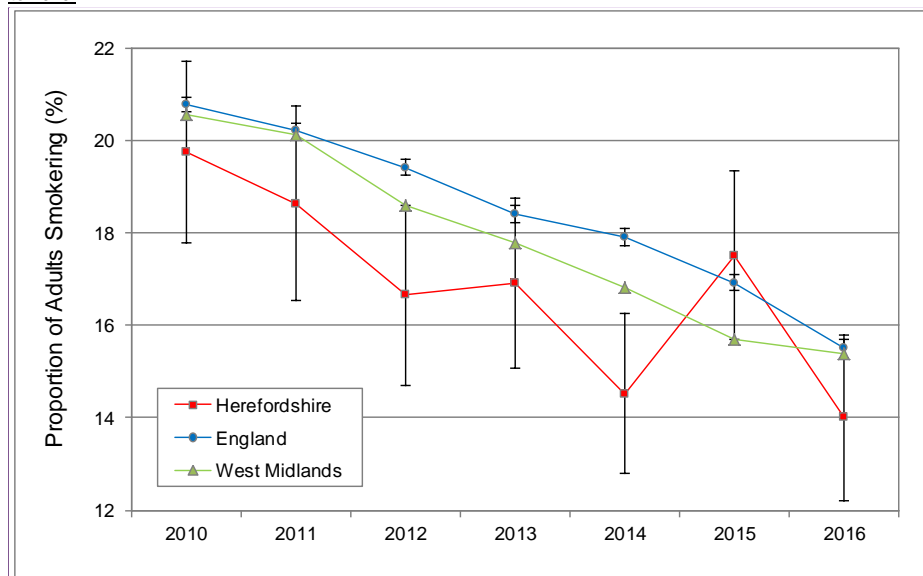
Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2015>

SMOKING BEHAVIOUR

PREVALENCE - ADULTS

Information on the prevalence of adult smokers (18 years and older) has been collected as part of the Integrated Household Survey (IHS) up until 2014 and since 2012 as part of the Annual Population Survey (APS). Therefore the ONS announced it would no longer produce the IHS. Instead the questions formerly regarded as the IHS core will continue to be asked in the APS. According to these data between 2010 and 2016 the proportion of adults in Herefordshire who were self-reported smokers showed a general fall from 19.8 to 14.0 per cent, while over the same period the figures for both England and the West Midlands fell (Figure 1). With the exception of 2015 the local prevalence was below those recorded nationally and regionally; in 2015 the local figure was higher than both of these figures, although not significantly so.

Figure 1: Prevalence of adult self-reported smokers in Herefordshire, England and the West Midlands, 2012 to 2015.



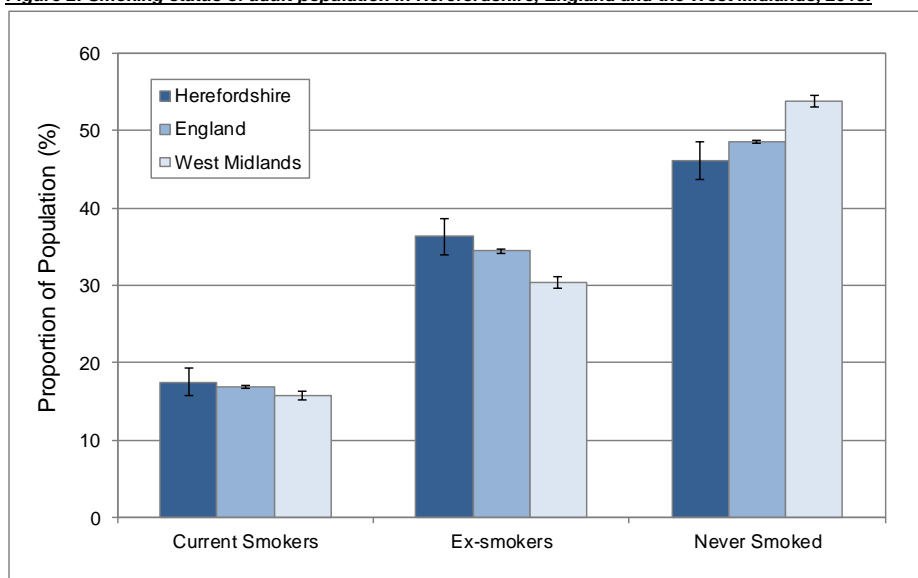
Source: PHE – Local Tobacco Control Profiles for England/APS/IHS

Information from the APS on smoking status shows that in 2016 approximately twice as many individuals in Herefordshire were ex-smokers (36.2 per cent) compared to those who were current smokers (17.5 per cent) with the remaining never having smoked (Figure 2). Similar patterns were observed for England and the West Midlands, although the Herefordshire figures for ex-smokers and those never having smoked were significantly higher and lower respectively compared to those recorded nationally. Results of the Herefordshire Health and Well-being survey undertaken in 2011 indicated that males more likely to smoke than females with almost 60 per cent of males being either current or ex-smokers compared to 44 per cent of females, of which two fifths were current smokers for both genders⁸.

⁸ Herefordshire Health and Well-being Survey, 2011. Themed Report – Smoking. April 2013. Herefordshire Council. Available at: <https://factsandfigures.herefordshire.gov.uk/media/9956/smoking.pdf>

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Figure 2: Smoking status of adult population in Herefordshire, England and the West Midlands, 2015.



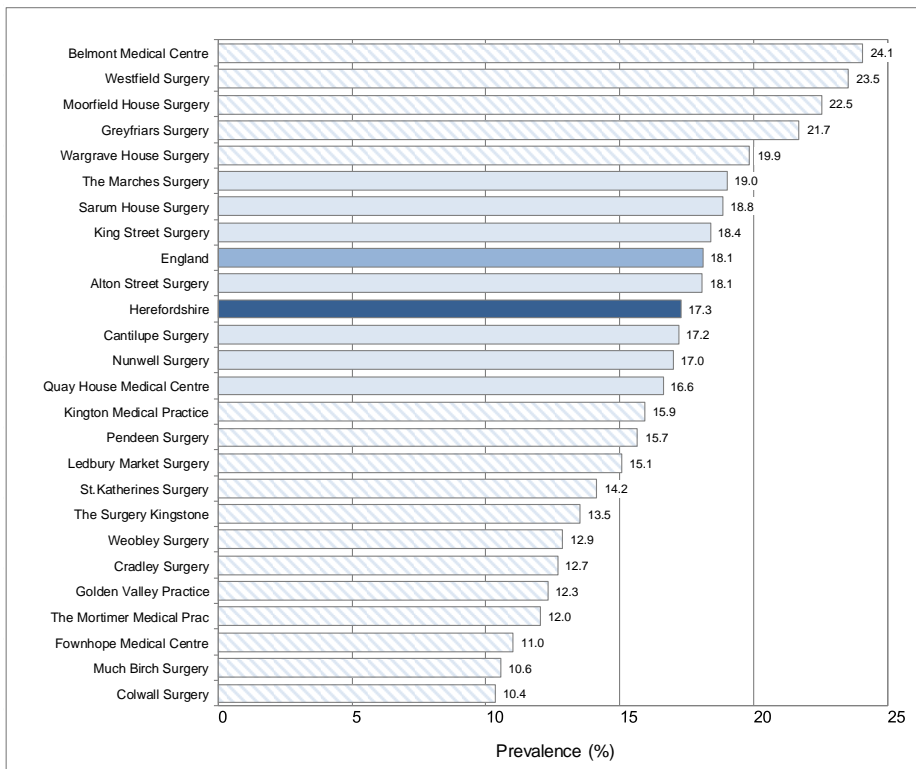
Source: PHE – Local Tobacco Control Profiles for England/APS

According to the Quality and Outcomes Framework (QOF)⁹ in 2015/16 there were 27,000 smokers aged 15 and above across Herefordshire. This local figure represented 17.3 per cent of the population in this age group, a figure significantly lower than those recorded both the nationally (18.1 per cent) and regionally (18.3 per cent). The proportion of patients over 15 years of age recorded as smokers at Herefordshire GP practices as measured QOF in 2015/16 varied between 10.4 per cent at Colwall and 24.1 per cent at Belmont in Hereford (Figure 3). Eight practices across the county reported smoking prevalence greater than the national average, of which five were significantly higher than the national prevalence. Of the 16 practices where the smoking prevalence was lower than that recorded across England as a whole the prevalence at 12 were significantly lower than the national figure. When compared to index of multiple deprivation score (IMD 2015) there was some correlation between higher prevalence of smoking and greater levels of deprivation ($r = 0.51$, $p = 0.01$).

When looking at spatial patterns of smoking prevalence across the county it is evident that the highest levels occur predominantly in Hereford which includes four of the five practices reporting smoking prevalence significantly higher than the national figure. While the population of Hereford represents 40.7 per cent of the county population aged 15 the city represents 47.0 per cent of all smokers in this age group; the overall smoking prevalence in Hereford was 20.0 per cent compared to the county figure of 17.3 per cent. Smoking prevalences significantly lower than the England figure were predominantly recorded in rural and semi-rural practices. When plotting the smoking prevalence at each practice geographically the pattern described above is evident with low levels occurring in rural and semirural areas with higher level generally recorded in Hereford and market towns (Figure 4). This is also reflected in the prevalence in CCG localities with City (which includes all eight city practices) having significantly higher prevalence (20.0 per cent) than elsewhere; the lowest prevalence (14.3 per cent) occurred in South and West (covering Ross-on-Wye and the Golden Valley).

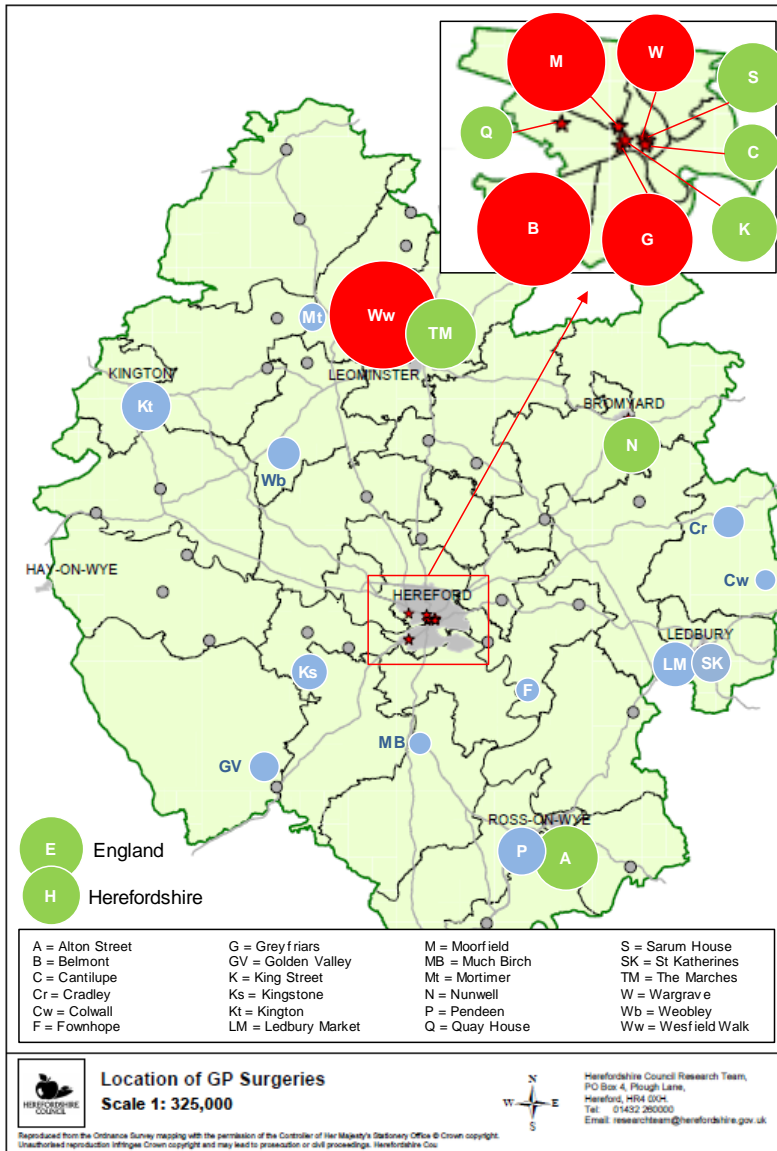
⁹ It has been demonstrated that the proportion of patients recorded as smokers correlates well with IHS smoking prevalence and is a good estimate of the actual smoking prevalence in GP practice lists.

Figure 3: Prevalence of smoking in patients registered in Herefordshire GP practices, 2015/16 (shaded bars = significantly different from England prevalence).



Source: PHE – National General Practice Profiles

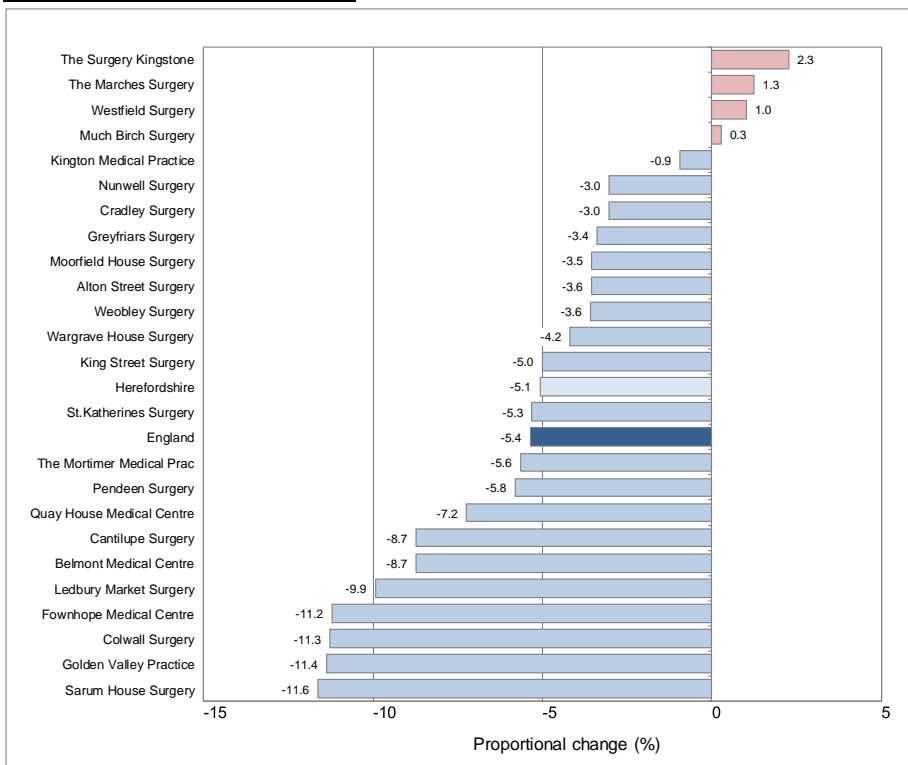
Figure 4: Prevalence of smoking in patients registered in Herefordshire GP practices, 2015/16 - circle size proportional to prevalence. (blue = significantly lower than England; green = no different than England; red = significantly higher than England)



Source: PHE – National General Practice Profiles

Between 2013/14 and 2015/16 according to QOF the numbers of smokers in Herefordshire fell from 28,100 to 27,000, while the proportional change in the prevalence of smoking fell by 5.1 per cent compared with a national fall of 5.4 per cent. Smoking prevalence at 20 Herefordshire practices fell by between 0.9 per cent at Much Birch and 11.6 per cent at Sarum House in Hereford (Figure 5). At the four practices where smoking prevalence increased the rises were marginal with the highest figure of 2.3 per cent being recorded at Kingstone.

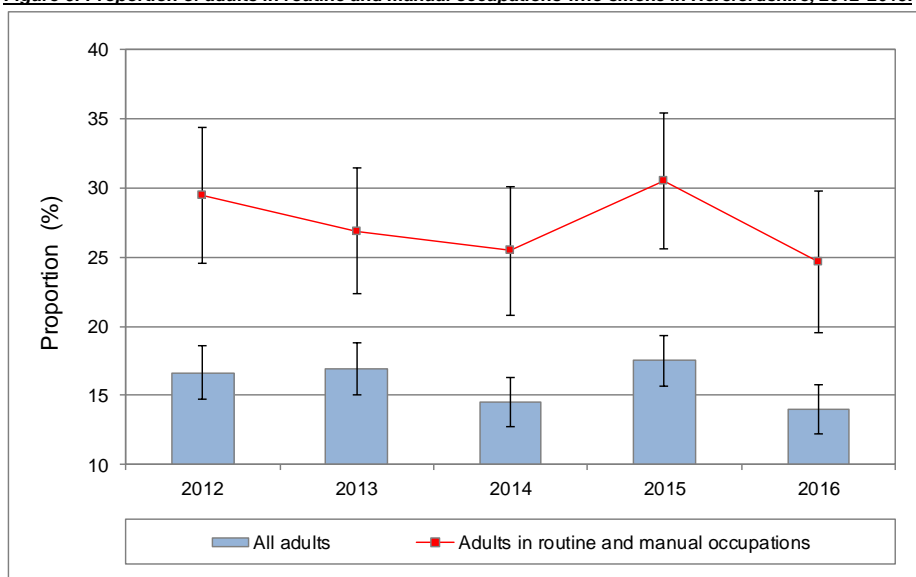
Figure 5: Proportional change in prevalence of smoking between 2013/14 and 2015/16 in patients registered in Herefordshire GP practices.



Source: Herefordshire Council Intelligence Unit

Between 2012 and 2016 the prevalence of smoking in adults in routine and manual occupations in Herefordshire was significantly higher than that recorded for the adult population as a whole, being on average over 70 per cent greater than the overall adult population figure (Figure 6). However, over this period the prevalence of smoking in adults in routine and manual occupations showed a general fall from 29.5 per cent to 24.6 per cent.

Figure 6: Proportion of adults in routine and manual occupations who smoke in Herefordshire, 2012-2015.



Source: PHE – Local Tobacco Control Profiles for England/APS

SMOKING DURING PREGNANCY

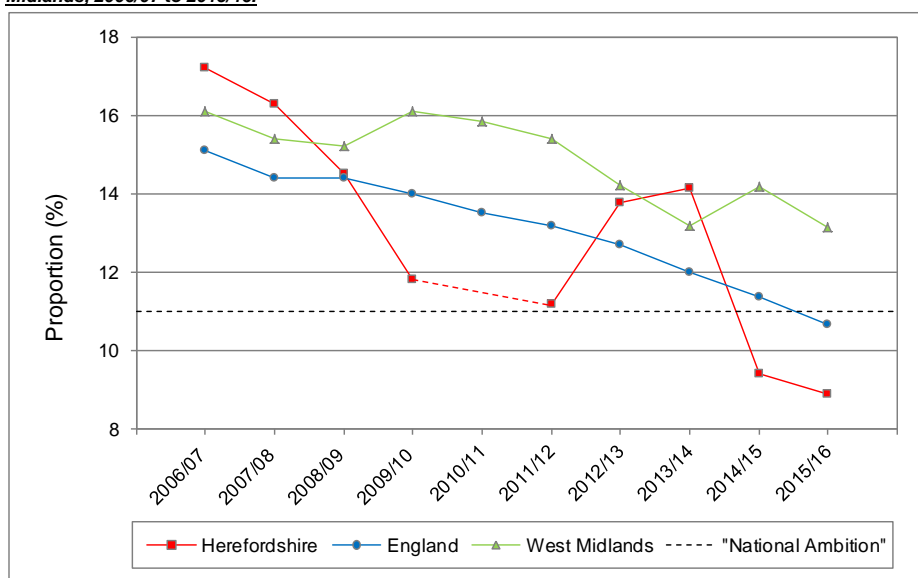
Smoking in pregnancy has well known detrimental effects for the growth and development of the baby and health of the mother. Smoking during pregnancy can cause serious pregnancy-related health problems. These include complications during labour and an increased risk of miscarriage, premature birth, stillbirth, low birth-weight and sudden unexpected death in infancy. Encouraging pregnant women to stop smoking during pregnancy may also help them kick the habit for good, and thus provide health benefits for the mother and reduce exposure to second-hand smoke by the infant. The Tobacco Control Plan contained a national ambition to reduce the rate of smoking throughout pregnancy to 11% or less by the end of 2015¹⁰.

In 2015/16 there were 1,727 maternities in Herefordshire of which 153 were recorded as smoking at time a delivery, which represents 8.9 per cent of all maternities over the period. This shows a proportional decrease of 48 per cent since 2006/07, although the decreasing trend is not consistent over this period (Figure 7). Both the national and regional figures for women smoking at the time of delivery fell between 2006/07 and 2015/16 showing proportional decreases of 30 and 18 per cent

¹⁰ Healthy Lives, Healthy People: A Tobacco Control Plan for England. MH Government. Published 9 March 2011. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213757/dh_124960.pdf

respectively and while the local prevalence was higher than these headline figures in 2006/07 it was lower than both in 2015/16. In both 2014/15 and 2015/16 the Herefordshire prevalence of women smoking at time of delivery was below the national ambition of 11 per cent as set by the government's Tobacco Control Plan, while across England as a whole the figure only dropped below the national ambition figure in 2015/16. In Herefordshire the prevalence of women smoking at time of delivery was below the national ambition of 11 per cent in both 2014/15 and 2015/2016, while across England as a whole the figure only dropped below the national ambition figure in 2015/16; since 2006/07 the figure for the West Midlands has been consistently higher than the guideline, despite showing an appreciable fall over this period. In 2015/16 half of all CCGs returned figures equal to or better than the national ambition with Herefordshire ranked 75th lowest out of 211 CCGs across England.

Figure 7: Proportion of mothers smoking at the time of delivery in Herefordshire, England and the West Midlands, 2006/07 to 2015/16.

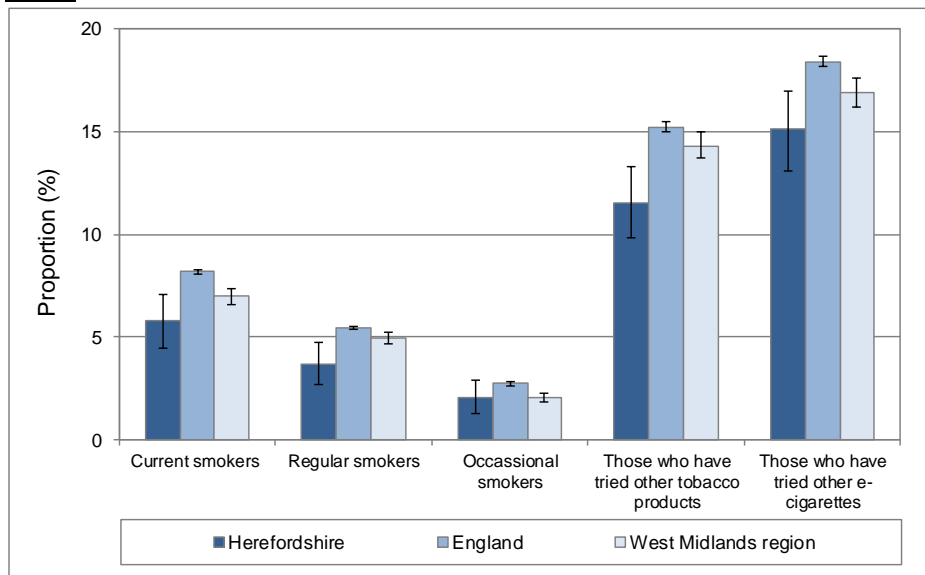


Source: NHS Digital – Statistics on Women's Smoking Status at Time of Delivery (SATOD)

PREVALENCE - CHILDREN

The What About YOUTH? survey is designed to collect robust local authority (LA) level data on a range of health behaviours amongst 15 year-olds with the initial survey undertaken in 2014/15. As part of the survey respondents were asked whether they smoked cigarettes and how often they smoked. In Herefordshire 5.8 per cent of 15 year olds reported that they smoked cigarettes which was lower than the figures of 8.2 and 7.0 across England as a whole and the West Midlands respectively; similarly, the local proportion of 15 year olds reported as regular smokers (3.7 per cent) was lower than the national and regional figures (Figure 8). In addition 11.5 per cent of 15 year olds in Herefordshire had tried other tobacco products compared to the national and regional figures of 15.2 and 14.3 per cent respectively, while 15.1 per cent had tried e-cigarettes in Herefordshire compared to 18.4 per cent nationally and 16.9 per cent regionally.

Figure 8: Smoking status of 15 year old populations in Herefordshire, England and the West Midlands, 2014/15.



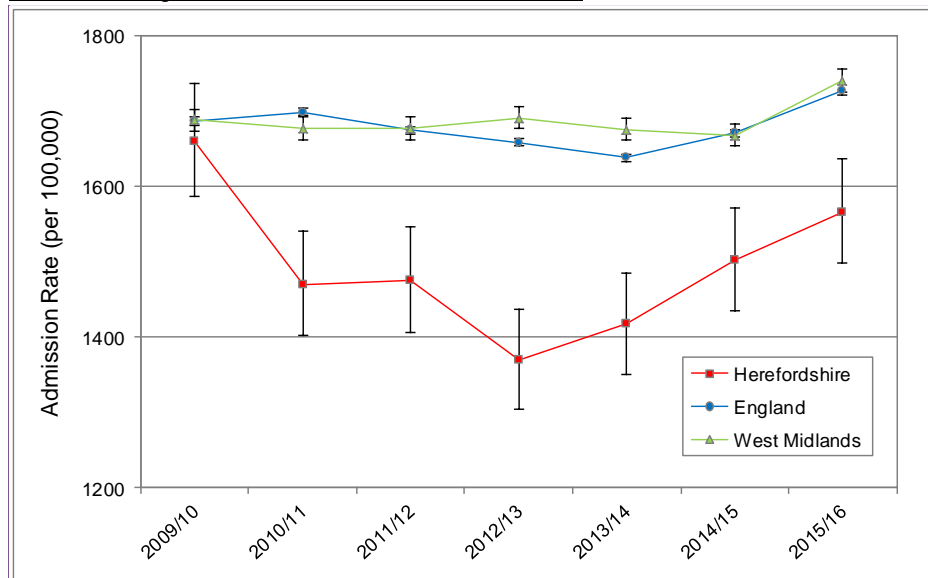
Source: What About YOUth? Survey

SMOKING ILL HEALTH AND MORTALITY

SMOKING ATTRIBUTABLE HOSPITAL ADMISSIONS

Between 2009/10 and 2012/13 the local admission rate for those aged 35 and over showed a decreasing trend, falling from 1,660 to 1,370 per 100,000 over the three year period (Figure 9). However, the rate subsequently increased so that in 2015/16 a figure of 1,567 per 100,000 was recorded which was not significantly lower than that reported in 2009/10. Over this seven year period both the national and regional rates remained relatively consistent with both figures being significantly higher than that recorded in Herefordshire with the exception of 2009/10 when no appreciable differences were evident between the three figures. The Herefordshire rate for 2015/16 represents 2,015 admissions of which 58 per cent were males and 42 per cent females. The major causes of all smoking attributable admissions were lung cancer which represented 19.4 per cent of admissions, chronic airway obstruction (12.8 per cent) and ischaemic heart disease (11.0 per cent).

Figure 9: Directly standardised smoking attributable hospital admission rates in those aged 35 and over for Herefordshire, England and the West Midlands, 2009/10 to 2015/16.



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Source: PHE – Local Tobacco Control Profiles for England

In order to examine the spatial pattern across the county in 2015/16 crude rates for smoking attributable admissions in each MSOA¹¹ were mapped. The highest rates were evident in and around Ross-on-Wye and Bromyard, parts of which are among the most deprived areas in Herefordshire¹². The highest rate of 168 admissions per 100,000 population was recorded in the Ross Doughnut, while for Ross-on-Wye the figure was 146 per 100,000; in Greater Bromyard the rate was 141 admissions per 100,000 population (Figure 10). While the admission rate in other deprived areas, particularly South Wye West, were moderately high, although in others, such as Leominster, the rates were lower than the county average.

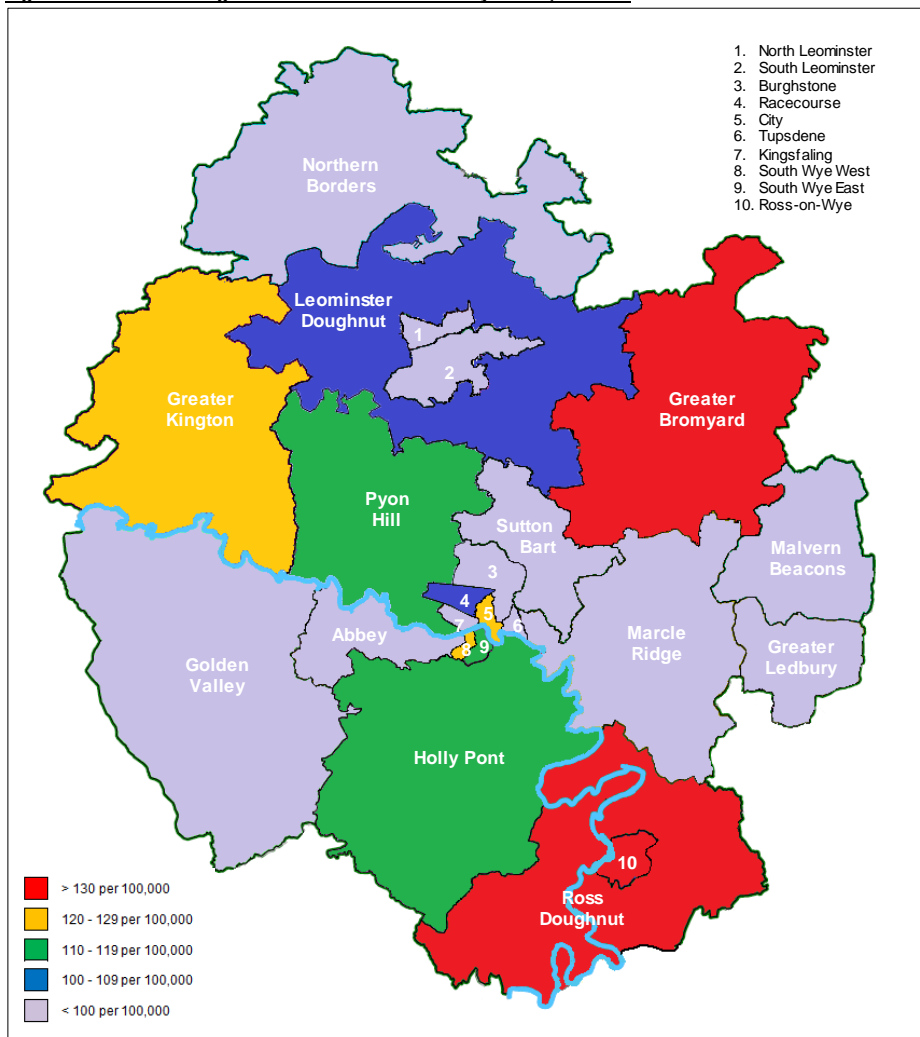
Between 2010/11 and 2011/12 the cost per capita of each smoking attributable hospital admission was lower than the national and regional figures with an average over the period of £32.75 compared to £37.47 for England and £34.89 for the West Midlands.

¹¹Middle Super Output Area (MSOA) - statistical geographic boundaries designed to improve the reporting of small area statistics in England and Wales; the minimum population is 5,000 and the mean is 7,200.

¹² Income Deprivation – Facts and Figures about Herefordshire.

Available at: <https://factsandfigures.herefordshire.gov.uk/about-a-topic/inequalities-and-deprivation/income-deprivation.aspx>

Figure 10: Crude smoking attributable admission rate by MSOA, 2015/16.



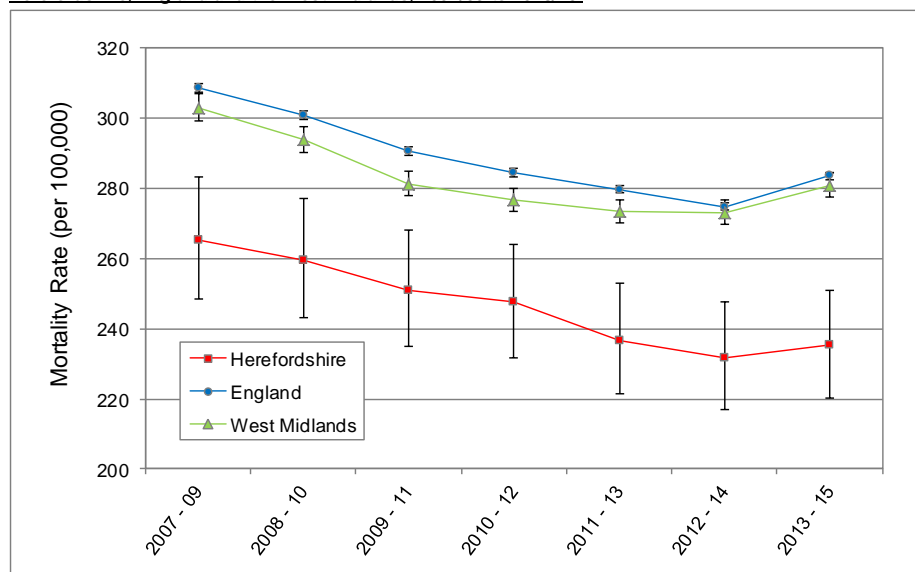
Source: Herefordshire Council Intelligence Unit

SMOKING-ATTRIBUTABLE DEATHS

Smoking is the biggest single cause of preventable mortality and morbidity in the world and in England accounts for 1 in 6 of all deaths. There are appreciable inequalities in smoking related deaths across England with areas reporting the highest smoking attributable mortality rates having rates approximately three times higher than those with the lowest rates. Between 2013 and 2015 there were 925 smoking attributable deaths in Herefordshire in those aged 35 and over, a figure which has remained relatively consistent since 2007-09. However, over this period the local smoking attributable mortality rate has shown a general decrease, falling from 265 per 100,000 population to 235 per 100,000 and has been consistently lower than the national and regional rates both of which have shown downward temporal trends (Figure 11). The temporal trend evident in the local mortality rate follows that for reported smoking prevalence, although, as there are only four comparable temporal data points, this correlation cannot be considered statistically significant ($r = 0.94$, $p = 0.06$). In Herefordshire males represent approximately two thirds of all smoking attributable deaths, a pattern evident both nationally and regionally.

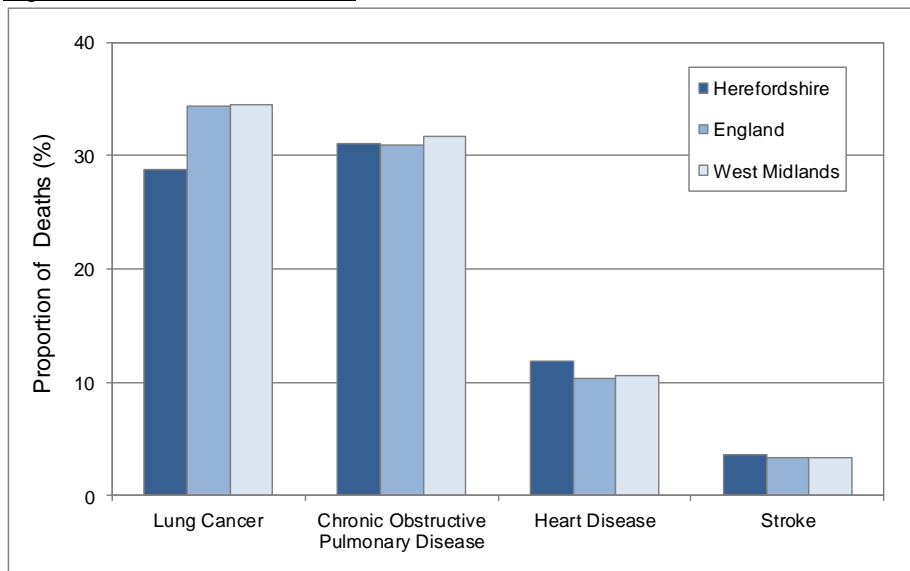
Smoking is a major risk factor for many diseases, such as lung cancer, chronic obstructive pulmonary disease and heart disease. It is also associated with cancers in other organs, including lip, mouth, throat, bladder, kidney, stomach, liver and cervix. In 2013-15 lung cancer was the underlying cause of 29 per cent of smoking related deaths in Herefordshire which was slightly lower than the national and regional figures which were both 34 per cent (Figure 12). The local proportions for deaths associated with chronic obstructive pulmonary disease (31 per cent), heart disease (12 per cent) and stroke (3.6 per cent) were broadly similar to those recorded for England and the West Midlands.

Figure 11: Directly standardised smoking attributable mortality rates in those aged 35 and over for Herefordshire, England and the West Midlands, 2007/09 to 2013/15.



Source: PHE – Local Tobacco Control Profiles for England

Figure 12: Proportion of smoking attributable mortality represented by specific causes in Herefordshire, England and the West Midlands, 2013/15.



Source: PHE – Local Tobacco Control Profiles for England

COST OF SMOKING-RELATED SICKNESS

As of September 2016 the estimated total annual cost of smoking-related sickness in Herefordshire is £9.2 million¹³. This figure can be broken down as:

- *Costs to local economy (productivity losses)* - £2.8 million .The represents the cost of productivity losses associated with 33,800 days that smokers in Herefordshire were not able to work over the previous 12 months as a direct result of smoking-related sickness.
- Social care costs to look after patients suffering from smoking-related strokes - £2,800 per episode;
- *Costs to non-smokers i.e. passive smoking* - Adults £283,000
Children £63,000
- *Healthcare costs* - £6.1 million. The cost to the local health sector is the result of an additional:
 - 30,000 GP consultations;
 - 9,300 practice nurse consultations;
 - 5,500 outpatient visits;
 - 1,250 hospital admissions; and
 - 17,000 prescriptions.

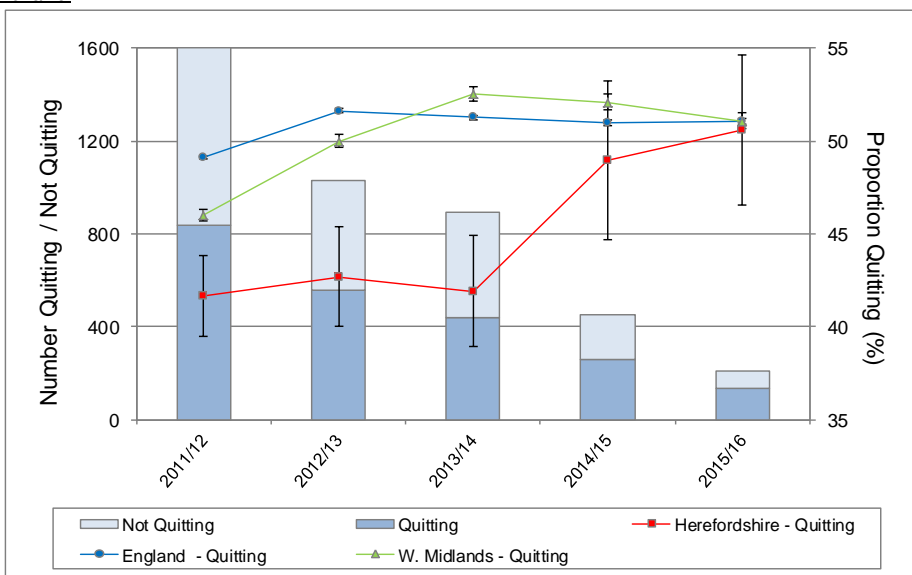
¹³ Estimated using NICE Return on Investment tool for Tobacco Control v3.0.
Available at: <https://www.nice.org.uk/about/what-we-do/into-practice/return-on-investment-tools/tobacco-return-on-investment-tool>

SMOKING CESSATION

NHS Stop Smoking Services in England offer support to help people quit smoking. This can include intensive support through group therapy or one-to-one support. As part of the process individuals are helped to form an action plan and set a quit date followed by weekly follow-ups. Individuals are considered to have successfully quit smoking at the 4 week follow-up if they self-report that they have not smoked at all since two weeks after the quit date. Carbon Monoxide (CO) validation is also undertaken with the level of carbon monoxide in the bloodstream providing an indication of the level of use of tobacco; CO validation is attempted on all individuals who self-report as having successfully quit at the 4 week follow-up, except for those who were followed up by telephone.

Since 2011/12 the number of smokers setting a quit date in Herefordshire has fallen steadily which mirrors the national and regional patterns, which is likely in large part be due to the increased use of e-cigarettes which have become widely available, while the fall in smoking prevalence may also be a contributory factor. Between 2011/12 and 2013/14 the proportion of smokers in Herefordshire setting a quit date successfully quitting was lower than those recorded nationally and regionally (Figure 13). However, since 2013/14 the local figure has increased so that the 2015/16 figure of 51.1 per cent was the same as both the national and regional proportions.

Figure 13: Number of individuals setting a quit date in Herefordshire who successfully quit smoking and those who failed to quit and proportion quitting in Herefordshire, England and West Midlands, 2011/12 to 2015/16.



Source: PHE – Local Tobacco Control Profiles for England / NHS Digital / Herefordshire Council Research Unit

In 2015/16 92 per cent of self-reported quitters in Herefordshire were confirmed as having quit by CO validation, which means that 46 per cent of those setting a quit date were CO validated quitters compared to 36 and 41 per cent in England and the West Midlands respectively.

In 2015/16 135 women set a quit date with NHS Stop Smoking Services in Herefordshire compared to 126 men in 2015/16 (135 women compared to 126 men). Of those setting a quit date 50.3 per cent of women successfully quit (self-reported) compared to 50.8 per cent of men.