



SEXUAL HEALTH

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Herefordshire Council Strategic Intelligence Team

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SUMMARY - KEY MESSAGES

Teenage Pregnancy

- The number of **under 18 conceptions** in Herefordshire has shown a consistent fall since 2007-09.
- Since 2009 under 18 conception rate has fallen, mirroring the national pattern and in 2012-14 were broadly similar to national and comparator rates.
- Under 18 conception rates are generally higher in more deprived areas of Herefordshire, particularly north Leominster and South Wye.
- Both the number and rate of **under 18 abortions** in Herefordshire have declined since 2007-09, with the abortion rate in 2012-14 being similar to national and comparator figures.
- The **under 18 birth rate** in Herefordshire has shown a general decrease since 2009 following national and comparator temporal patterns with the local rate being similar to elsewhere.

Abortions

- There were 400 abortions in Herefordshire in 2015, a figure similar to previous years.
- The 2015 local abortion rate of 13.4 per 1,000 population was significantly lower than the national rate.
- In 2015 almost half of all abortions in Herefordshire were to women in their 20s.

Sexually Transmitted Infections

- In 2015 there were 925 new cases of sexually transmitted infections (STIs) diagnosed in Herefordshire, corresponding to a rate of 494 per 100,000 population which ranked 128th highest out of 150 local authorities and was significantly lower than the national rate.
- The detection rate for **chlamydia** in Herefordshire in 2015 (1,440 per 100,000) significantly lower than the national rate and was ranked 121st highest out of 150 local authorities.
- **Genital warts** diagnostic rate in Herefordshire has fallen since 2012 and the 2015 rate of 90 per 100,000 was significantly lower than the national rate and was ranked 134th highest out of 150 local authorities.
- Between 2009 and 2015 the **genital herpes** diagnostic rate in Herefordshire showed a general upward trend with a rate of 49 per 100,000 population recorded in 2015 which was ranked 96th highest out of 150 local authorities and was broadly similar to the national figure.
- Since 2009 the local **gonorrhoea** diagnostic rate has shown some variability and in 2015 was 24 per 100,000 a figure significantly lower than that for England, and was ranked 131st highest out of 150 local authorities.
- The local diagnostic rate for **syphilis** has varied considerably between 2009 and 2015. The rate of 3.2 per 100,000 was ranked 110th highest out of 150 local authorities and was significantly lower than the national rate.

Human Papillomavirus and Cervical Cancer

- Between 2014/15 and 2015/16 there was a marginal increase in the coverage of the initial dose of the **Human Papillomavirus vaccine** in Herefordshire from 81 to 83 to per cent, although the local rate was significantly lower than the national rate in both years.
- Between 2001-03 and 2012-14 there has been a marginal increase in the **cervical cancer** incidence rate in Herefordshire with the 2015 rate of 6.7 per 100,000 being broadly similar to the national rate.

Pelvic Inflammatory Disease

- For the year 2014/15 there were 67 Pelvic Inflammatory Disease admissions in Herefordshire at a rate of 222 per 100,000 population, a figure broadly similar to both those reported nationally and in the comparator group.

HIV

- Between 2011 and 2015 the number of diagnosed HIV cases in Herefordshire rose from 56 to 79, which corresponds to an increase in the prevalence rate from 0.55 to 0.77 per 1,000 population.
- The local diagnosis rate has consistently been significantly lower than the national rate.
- In 2015 the local HIV diagnosis rate was ranked 10th highest out of 14 local authorities in the West Midlands.
- The most common exposure route to HIV in Herefordshire is via sex between men (58 per cent) with heterosexual contact (37 per cent) also important.

INTRODUCTION

Sexual health is a key public health issue and the Department of Health (DoE) has outlined its ambition for good sexual health in A Framework for Sexual Health Improvement in England¹. This framework describes key principles of best practice in sexual health commissioning for use to local authorities, the NHS Commissioning Board (NHS CB) and Clinical Care Commissioning Groups (CCGs) with the aim of improving the sexual health of the whole population.

This report presents data describing recent trends in the sexual health of the population of Herefordshire. Data was obtained primarily from the Office for National Statistics (ONS), Public Health and England (PHE), with epidemiological data derived from Department of Health and Genitourinary Medicine Clinic Activity Dataset (GUMCADv2) and the Chlamydia Testing Activity Dataset (CTAD), both of which are managed by PHE. Comparisons with national, regional and comparative areas are also included.

TEENAGE PREGNANCY

TEENAGE CONCEPTION

Most teenage pregnancies are unplanned and around half end in an abortion. As well as it being an avoidable experience for the young woman, abortions represent an avoidable cost to the NHS. For many teenagers bringing up a child is extremely difficult and often results in poor outcomes for both the teenage parent and the child, in terms of the baby's health, the mother's emotional health and well-being and the likelihood of both the parent and child living in long-term poverty.

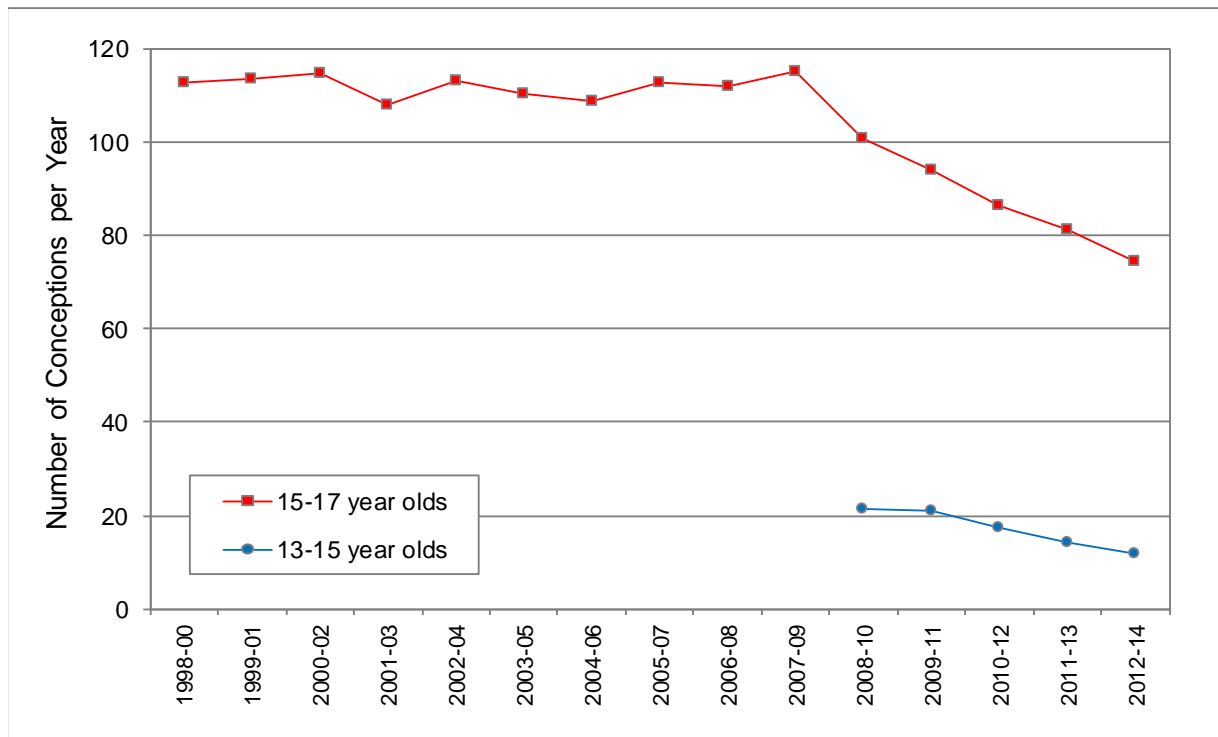
The three year rolling average number of conceptions in girls age 15 to 17 in Herefordshire remained relatively constant between 1998-2000 and 2007–2009 with the figure ranging between 108 and 15 per year (Figure 1). However, subsequently the numbers fell consistently year on year to a minimum of 74 conceptions per year in 2012–2014. Data for conception in girls aged 13 to 15 are only available from 2008 onwards with the three year rolling mean showing a consistent annual fall from 21 conception per year in 2008-2010, to 12 per year in 2012-2014 (Figure 1).

The three year rolling average conception rate in Herefordshire in girls aged 15 to 17 has shown a general fall from 38.2 per 1,000 in 1998-00, to 23.1 per 1,000 in 2012-14, which represents a 39.5 per cent fall over this period (Figure 2). Similar patterns were evident both nationally and in the comparator group² where rates fell by 44.6 and 39.8 per cent respectively. However, throughout this period the local rate was consistently lower than that reported nationally, although the differences were only statistically different between 2001-03 and 2008-10. Over this time the Herefordshire rate was consistently higher than that recorded for the comparator group, although the differences were not significantly different. Over the period 2012-14 the rate in Herefordshire of 23.1 conceptions per 1,000 girls aged 15 to 17 (which corresponds to 74 conceptions annually) was not significantly different from the rate recorded nationally rate of 24.9 per 1,000 girls or the comparator group rate of 18.1 per 1,000 girls.

¹ A Framework for Sexual Health Improvement in England, Department of Health 2013. Available at: <https://www.gov.uk/government/publications/a-framework-for-sexual-health-improvement-in-england>

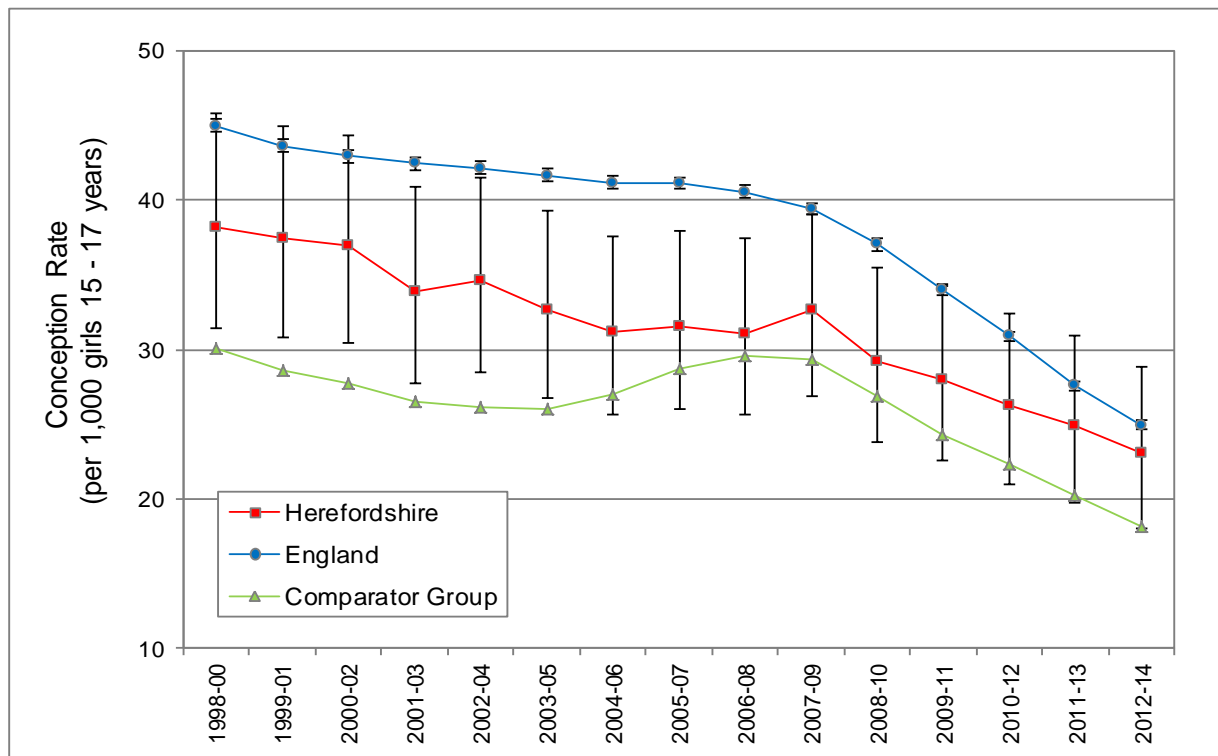
² The comparator group is comprised the five most similar Unitary Authorities (UA) in England based on the most recent ONS Area classification and is determined using the CIPFA nearest neighbour classification model ; the UAs considered in decreasing level of similarity are Shropshire, East Riding of Yorkshire, Wiltshire, Cheshire East and Rutland.

Figure 1: Three year rolling average number of teenage conceptions in Herefordshire, 1998-2000 to 2012-2014.



Source: ONS

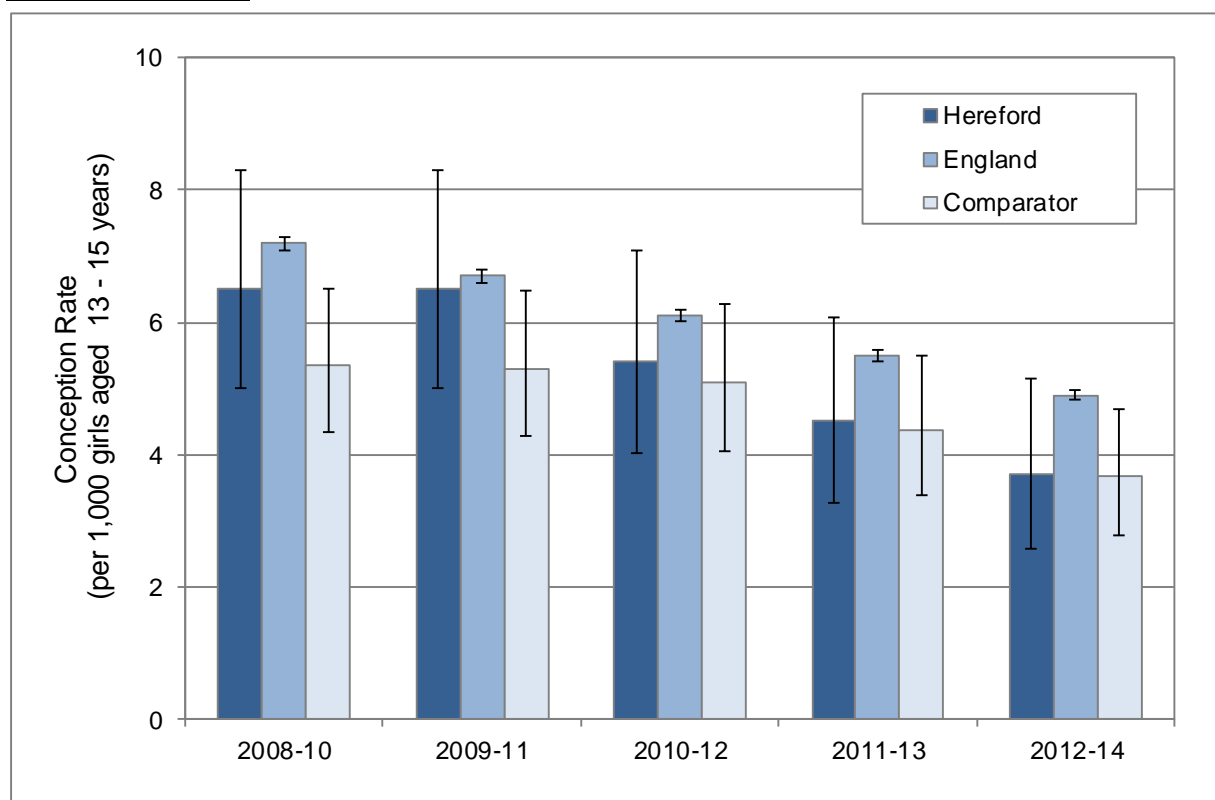
Figure 2: Conception rates in 15 to 17 year old girls in Herefordshire, England and comparator group, 1998-00 to 2012-14.



Source: ONS

Since 2008-10 the three year rolling average conception rate in Herefordshire in girls aged 13 to 15 has fallen from 6.5 per 1,000 girls to 3.7 per 1,000 girls, which represents a proportional fall of 43.1 per cent (Figure 3). Downward patterns were evident both nationally and in the comparator group, although the proportional falls were lower at 31.7 and 31.9 per cent respectively. Throughout this period the local rate was consistently lower than that reported nationally and higher than in the comparator group, although the differences were not statistically different. Over the period 2012-14 the rate in Herefordshire of 3.7 conceptions per 1,000 girls (which corresponds to 21 conceptions annually) was not significantly different from the rate recorded nationally rate of 4.9 per 1,000 girls or the comparator group rate of 3.7 per 1,000 girls.

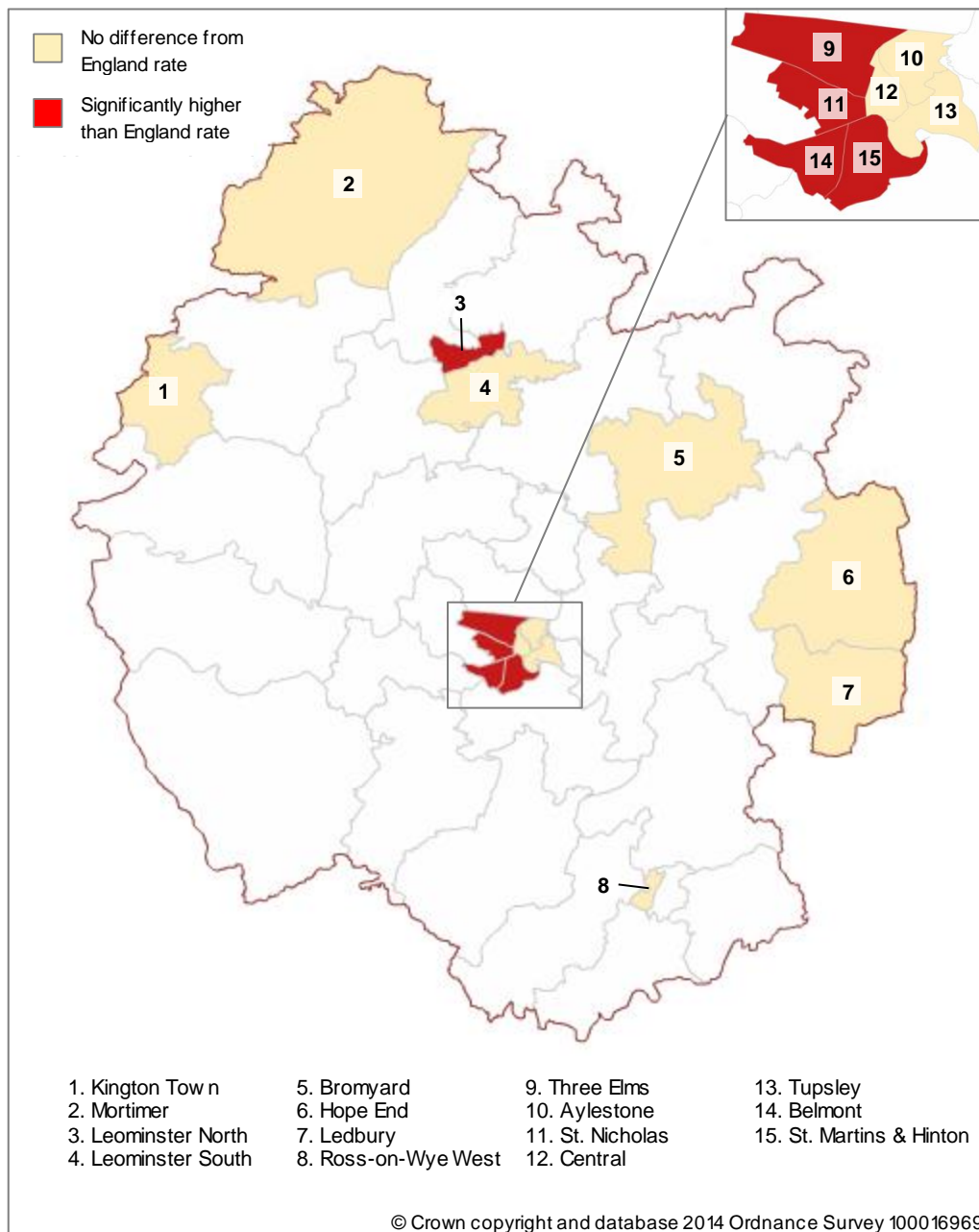
Figure 3: Conception rates in 13 to 15 year old girls in Herefordshire, England and comparator group, 2008-10 to 2012-14.



Source: ONS

Throughout much of Herefordshire teenage conception data at the ward level is suppressed due to small numbers and the possibility of individuals being identifiable at this level. However, where information is available (generally in areas of higher population) this can be benchmarked against the national figure. In 2012-14 the teenage conception rate in parts of Hereford and also Leominster were significantly higher than the rate for England (Figure 4). In Hereford the wards concerned were to the in south east Wye (Belmont and St. Martins and Hinton) and to the west of the city centre (Three Elms and St. Nicholas), while in Leominster a significantly higher rate was recorded in Leominster North. Examining the level of deprivation in these areas those in south east Wye and Leominster North are in the most deprived quintile for Herefordshire, while those in north Hereford are generally within the 20 per cent most deprived areas of the county. It is interesting to note that other areas of both Hereford and Leominster where data are available teenage conception rates are not significantly different from the national figure and these areas are within the least deprived areas of Herefordshire.

Figure 4: Teenage Conception rates in Herefordshire wards compared to national rate, 2012-14.

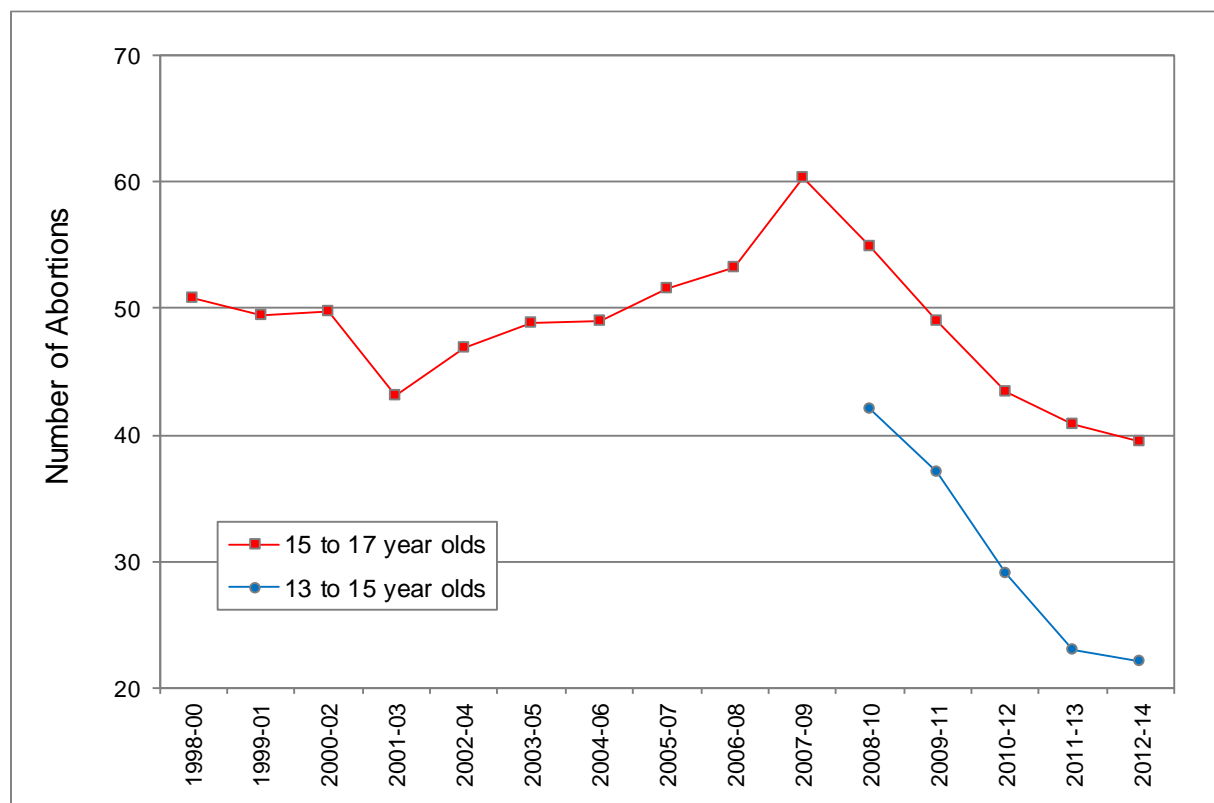


Source: ChiMat

TEENAGE ABORTIONS

Between 1998-2000 and 2004–2006, despite a trough in 2001-2003, the three year rolling average number of abortions in girls aged 15 to 17 in Herefordshire remained relatively constant, before rising to a peak of 60 in 2007-2009 (Figure 4). Subsequently, the number fell consistently to a low of 39 recorded in 2012-2014. Data for abortions in girls aged 13 to 15 are only available from 2008 onwards with the three year rolling mean showing a consistent annual fall from 42 abortions per year in 2008-2010 to 22 per year in 2012-2014 (Figure 5).

Figure 5: Three year rolling average number of teenage abortions in Herefordshire, 1998-2000 to 2012-2014.

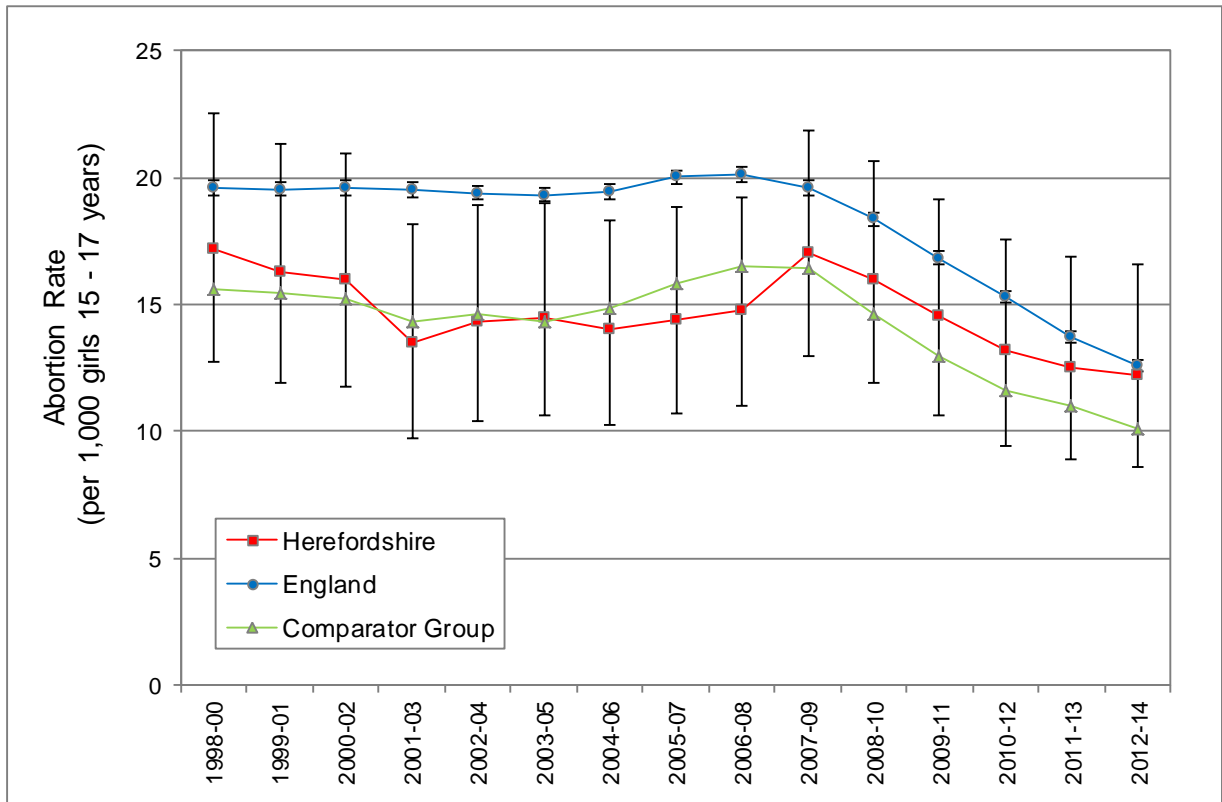


Source: ONS

The three year rolling average abortion rate in Herefordshire in girls aged 15 to 17 has shown some variability with a decline from 17.2 per 1,000 in 1998-00 to 13.5 per 1,000 in 2001-03 (Figure 6). Subsequently, the rate remained relatively consistent before it increased to 17.1 per 1,000 girls in 2007-2009, after which a consistent fall was evident with a low of 12.2 per 1,000 girls was recorded in 2012-2014. Over this whole period the abortion rate decreased proportionally by 29 per cent, a pattern reflected both nationally and in the comparator group where rates fell by 36 and 35 per cent respectively. Throughout this period the local rate was consistently lower than that reported nationally, although the differences were only statistically different between 2001-03 and 2006-08. Over this time the Herefordshire rate was broadly similar to that recorded for the comparator group. Over the period 2012-14 the rate in Herefordshire of 12.2 abortions per 1,000 girls aged 15 to 17 (which corresponds to 39 conceptions annually) was close to the rate recorded nationally rate of 12.6 per 1,000 girls, while higher than the comparator group figure of 10.1 per 1,000 girls, although not significantly so.

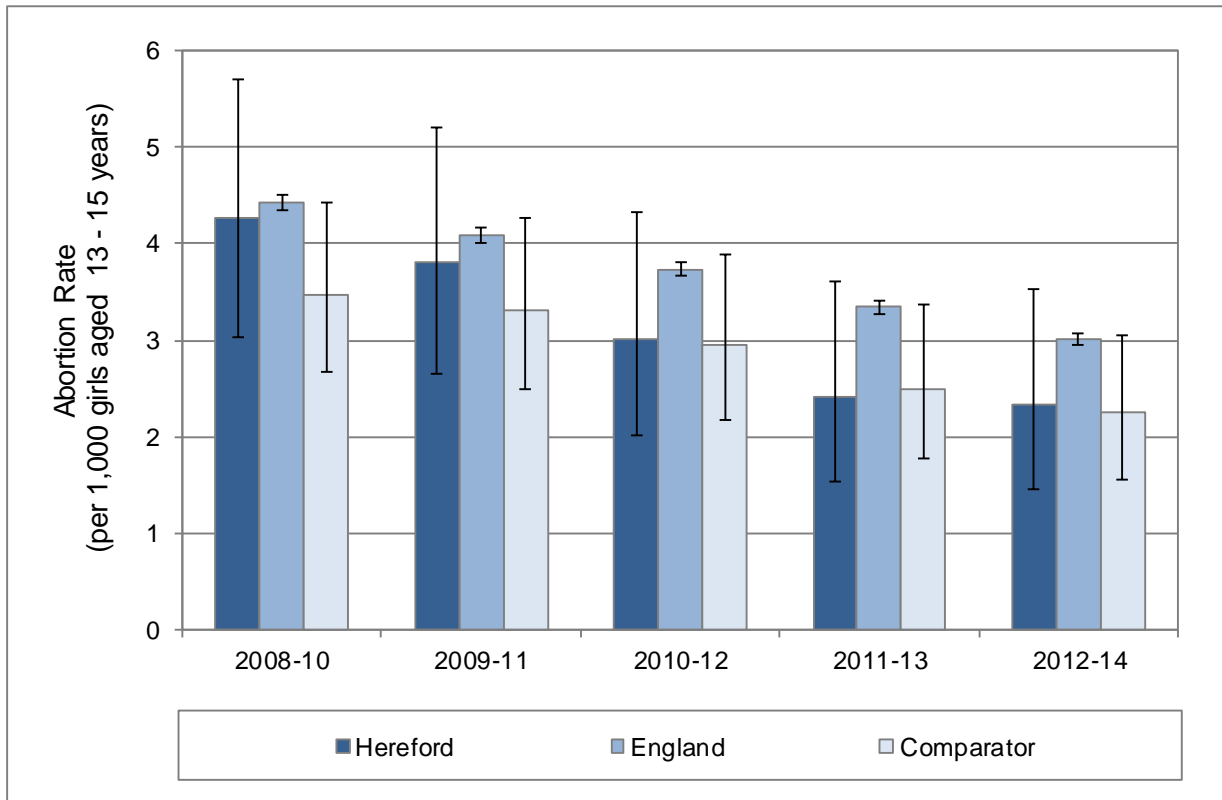
Since 2008-10 the three year rolling average abortion rate in Herefordshire in girls aged 13 to 15 has fallen from 4.3 per 1,000 girls to 2.3 per 1,000 girls, which represents a proportional fall of 45 per cent (Figure 7). Downward patterns were evident both nationally and in the comparator group, although the proportional falls were lower at 32 and 36 per cent respectively. Throughout this period the local rate was consistently lower than that reported nationally, although the differences were not statistically different. Over the period 2012-14 the rate in Herefordshire of 2.3 abortions per 1,000 girls (which corresponds to 7 abortions annually) was not significantly different from the rate recorded nationally of 3.0 per 1,000 girls or the comparator group rate of 2.2 per 1,000 girls.

Figure 6: Abortion rates in 15 to 17 year old girls in Herefordshire, England and comparator group, 1998-00 to 2012-14.



Source: ONS

Figure 7: Abortion rates in 13 to 15 year old girls in Herefordshire, England and comparator group, 2008-10 to 2012-14.

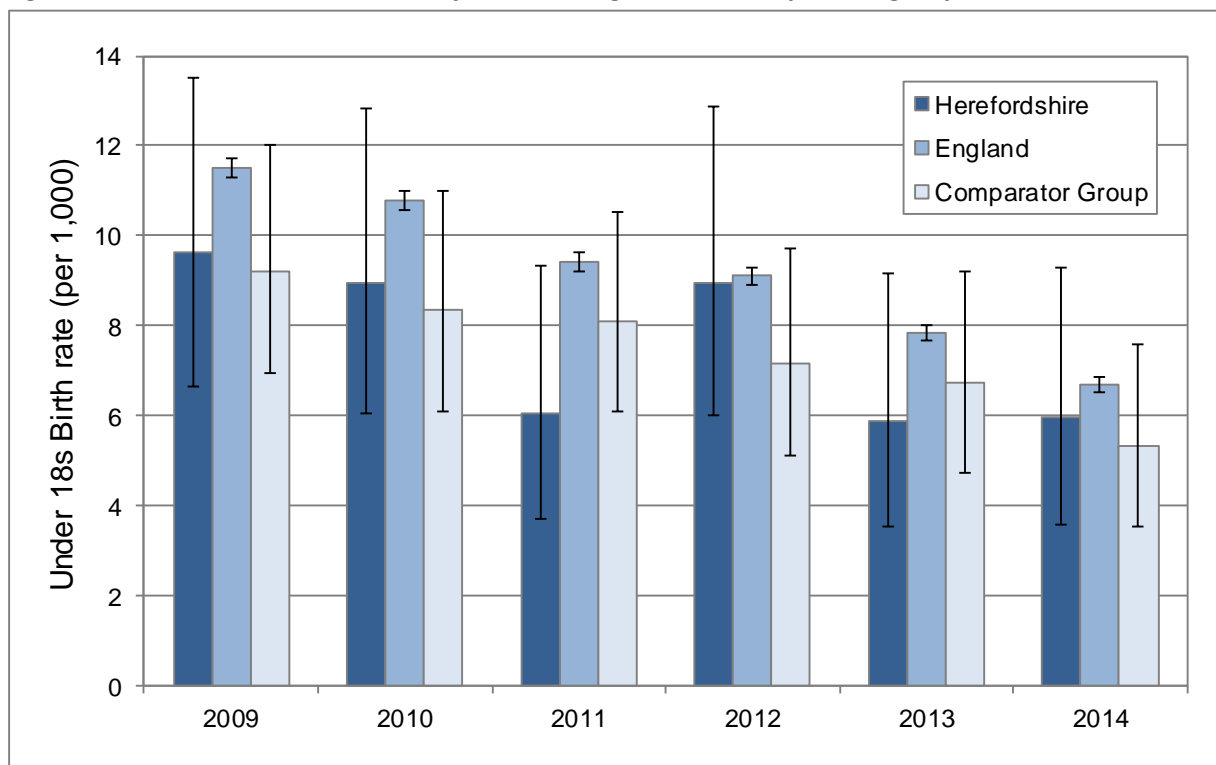


Source: ONS

TEENAGE BIRTHS

Between 2009 and 2014 the under 18s birth rate in Herefordshire showed a general downward trend falling proportionally by 38 per cent from 9.6 to 6.0 per 1,000 population (Figure 8). Similar temporal patterns were also observed in the rates for England and the comparator group, which, over the same period, both fell proportionally by 42 per cent. Throughout this period the local rate was not significantly different from either national or comparator group rates. In 2015/16 there were 17 under 18 births, of which six were to mothers from the most deprived quartile in the county and one to a mother from the least deprived quartile.

Figure 8: Under 18s birth rate in Herefordshire, England and comparator group, 2009 to 2014.

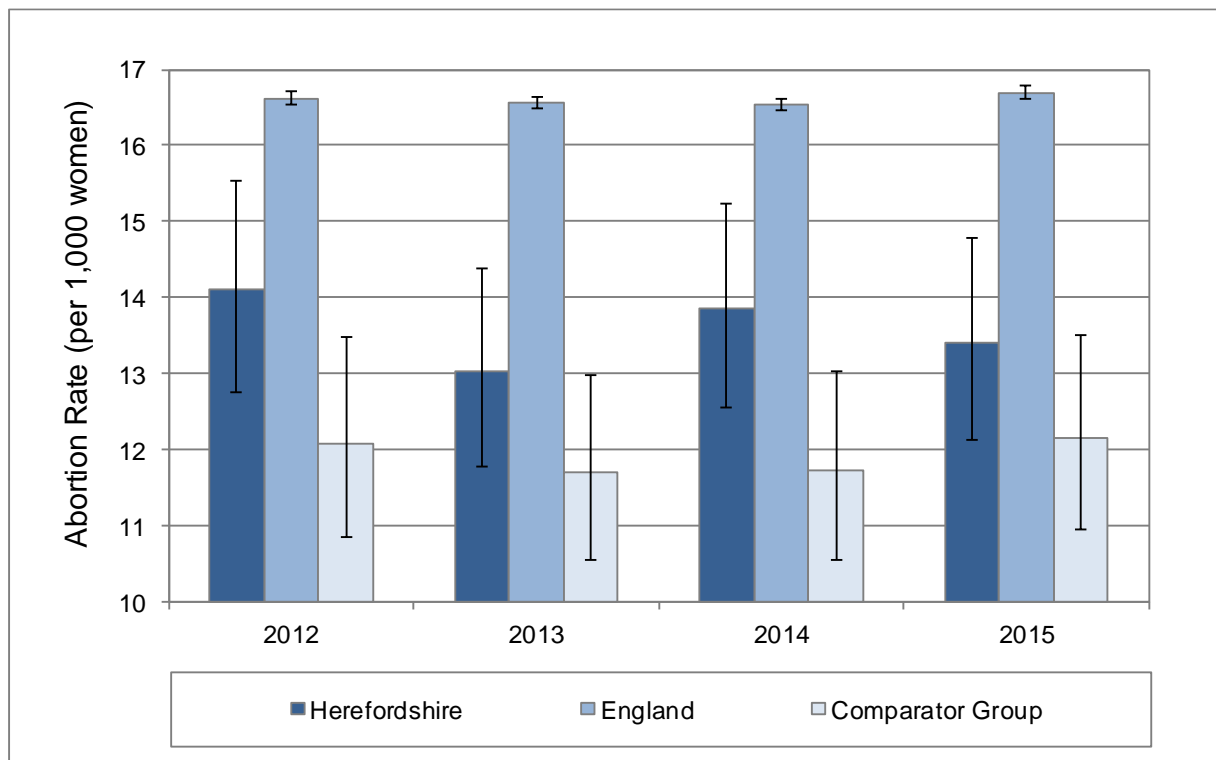


Source: PHE - Sexual and Reproductive Health Profiles

ABORTIONS

In 2015 the Herefordshire rate was 13.4 per 1,000 females which corresponds to a total of 404 abortions. Between 2012 and 2015 the abortion rate in Herefordshire in women between 15 and 44 years of age has remained relatively consistent, ranging between 13.0 and 14.1 per 1,000 females in 2013 and 2012 respectively (Figure 9). The England and comparator rates were also consistent over this period, although the local rate was consistently significantly lower than the national figure while the local and comparator rates were broadly similar.

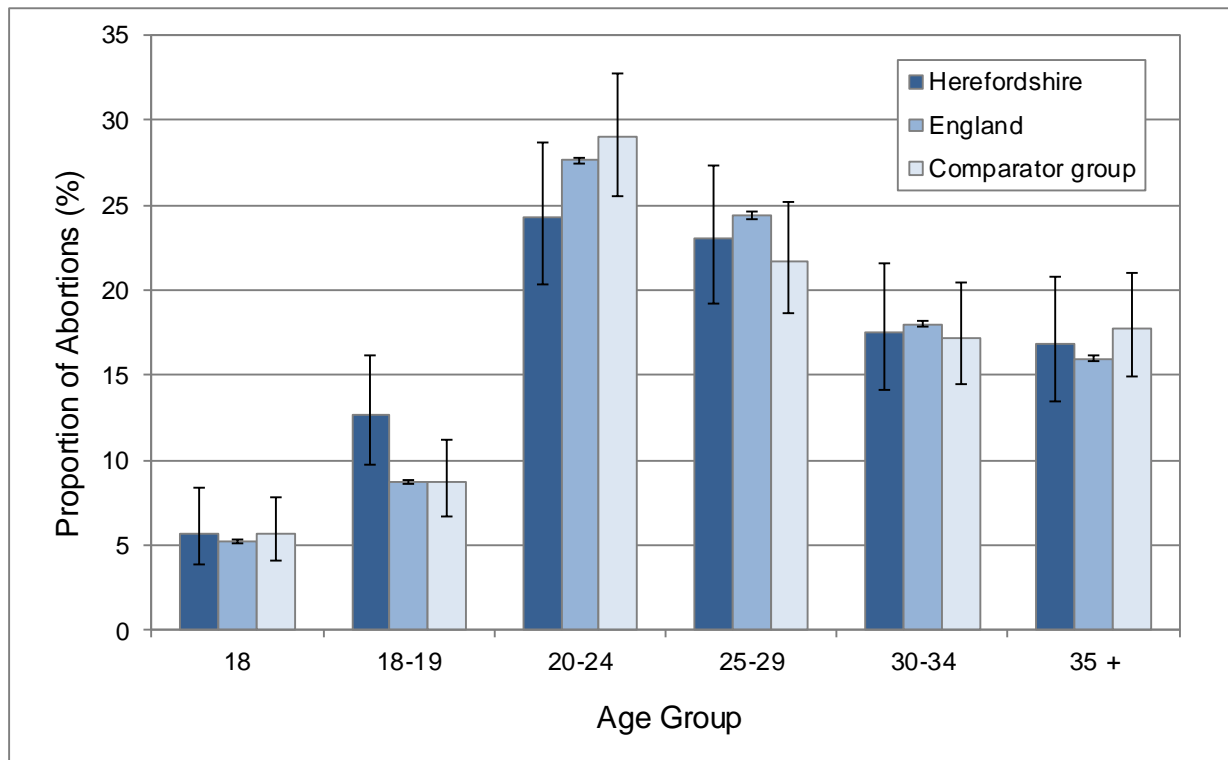
Figure 9: Abortion rates in 15 to 44 year old females in Herefordshire, England and comparator group, 2012 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

When considering the age at which abortions were performed in 2015 in Herefordshire in 47.3 per cent were performed on women in their 20s, while nationally and in the comparator group the proportions were 52.1 and 50.7 per cent respectively (Figure 10). However, through the age ranges considered the only local proportion significantly different from the national figure was for 18 to 19 year olds where the Herefordshire figure was 12.6 per cent compared to 8.7 per cent for England. In 2015 the proportions of abortions performed in each group in Herefordshire were broadly similar to those in the comparator group.

Figure 10: Proportion of abortions occurring in different age groups in Herefordshire, England and comparator group, 2015.

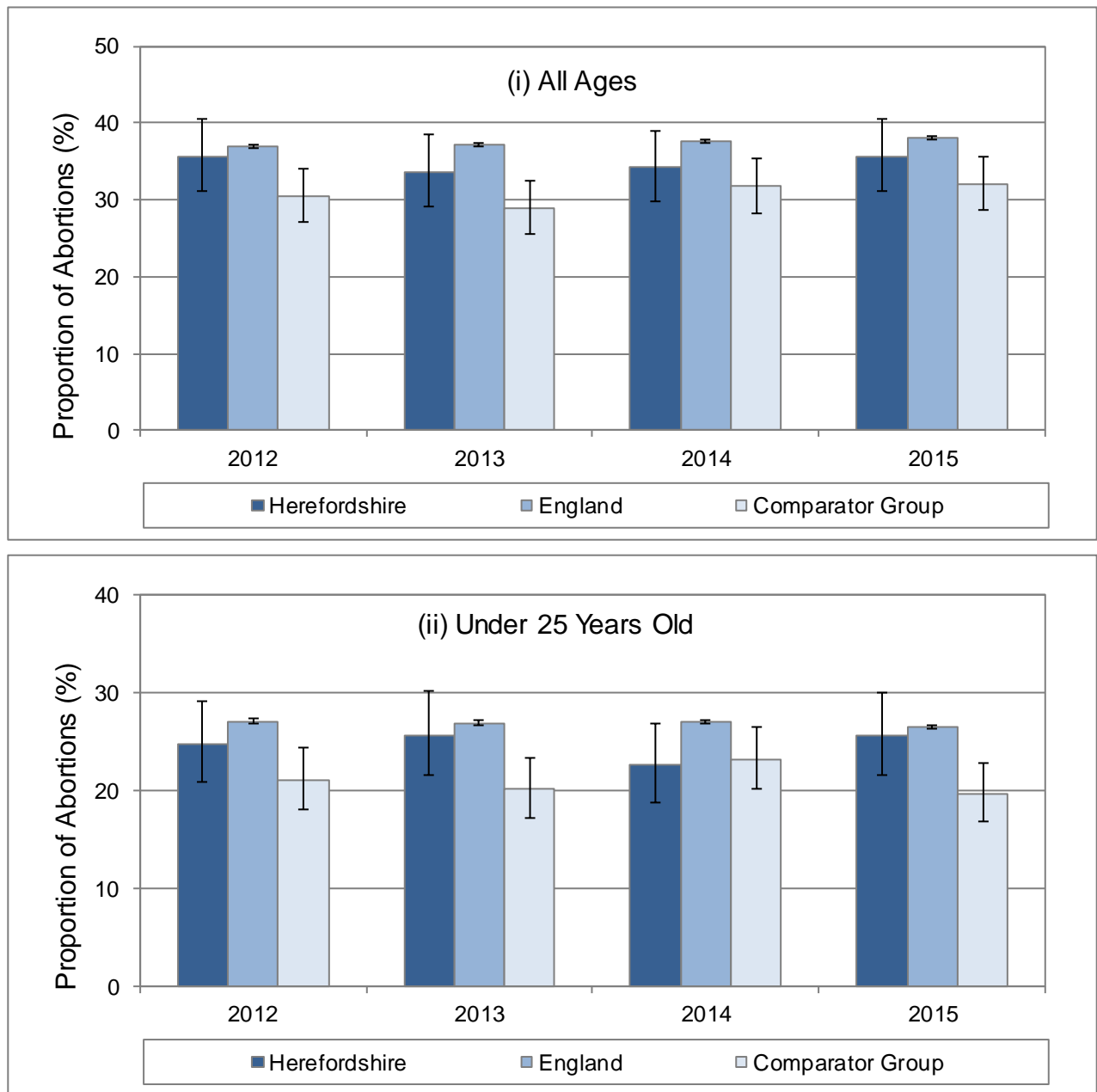


Source: Department of Health - Abortion statistics, England and Wales: 2015

Between 2012 and 2015 the proportion of abortions in Herefordshire represented by repeat abortions showed little variation ranging between 33.7 and 35.7 per cent (Figure 11). While the Herefordshire proportions were consistently less than the national figures throughout this period the local figures were consistently higher than the comparator group, although in both cases the differences were not significant. Over the same period the proportion of abortions in Herefordshire represented by repeat events in women under 25 years of age showed a similar pattern to that described above with the local figure being consistently less than the national figure and consistently higher than the comparator group, although again, differences were not significant.

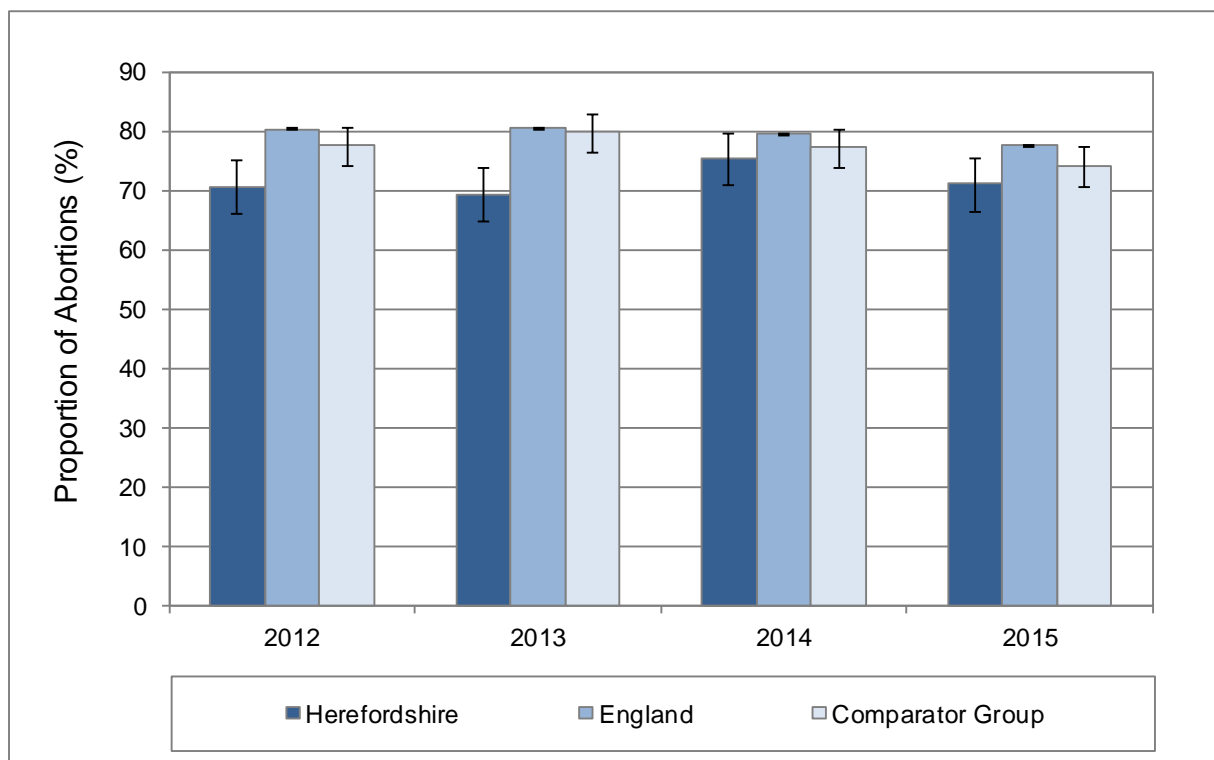
The earlier abortions are performed the lower the risk of complications. Prompt access to abortion, enabling provision earlier in pregnancy, is also cost-effective and an indicator of service quality. In Herefordshire in 2015 the proportion of all NHS-funded abortions performed under 10 weeks gestation was 70.6 per cent, which was significantly lower than the national figure of 80.3 per cent, a pattern evident since 2012 (Figure 12). The local figure has also been lower than that for the comparator group since 2012, although not significantly so.

Figure 11: Proportion of all abortions represented by repeat abortions in women of all ages and in women under 25 years of age in Herefordshire, England and comparator group, 2012 to 2015.



Source: Department of Health - Abortion statistics, England and Wales: 2015

Figure 12: Proportion of all NHS funded abortions performed under 10 weeks in Herefordshire, England and comparator group, 2012 to 2015.

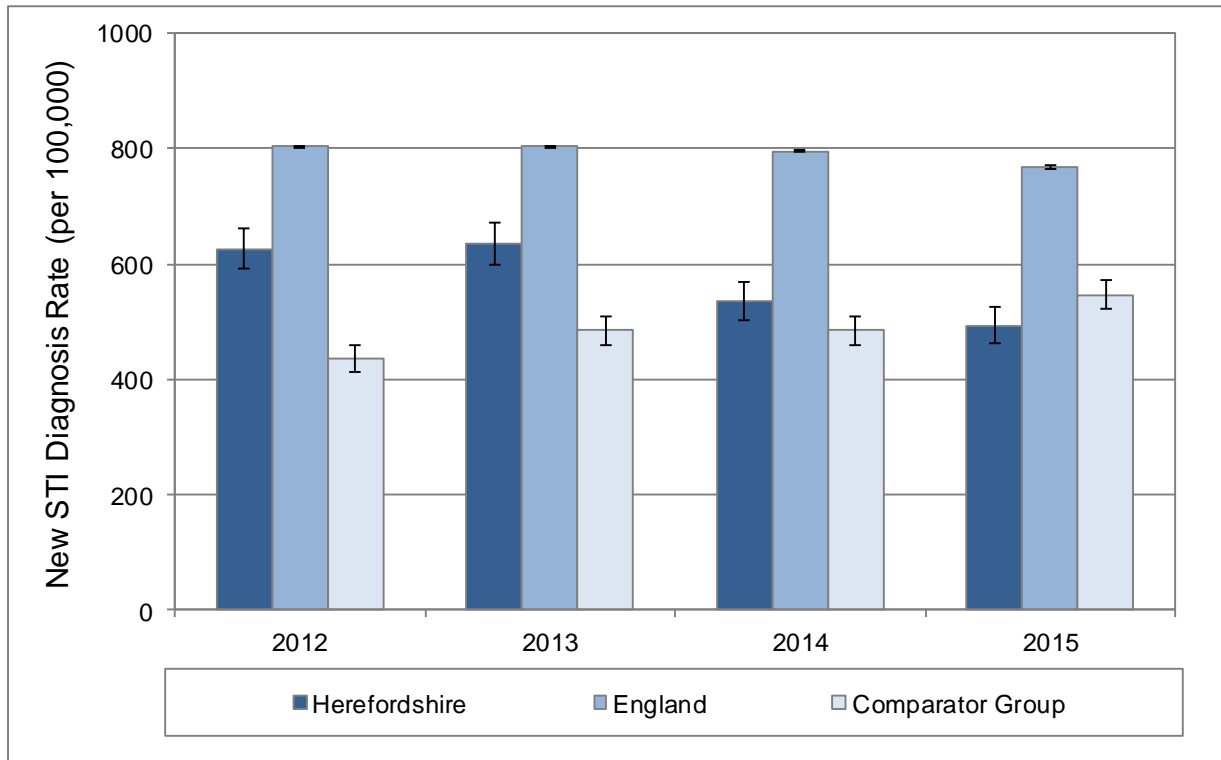


Source: Department of Health - Abortion statistics, England and Wales: 2015

SEXUALLY TRANSMITTED INFECTIONS

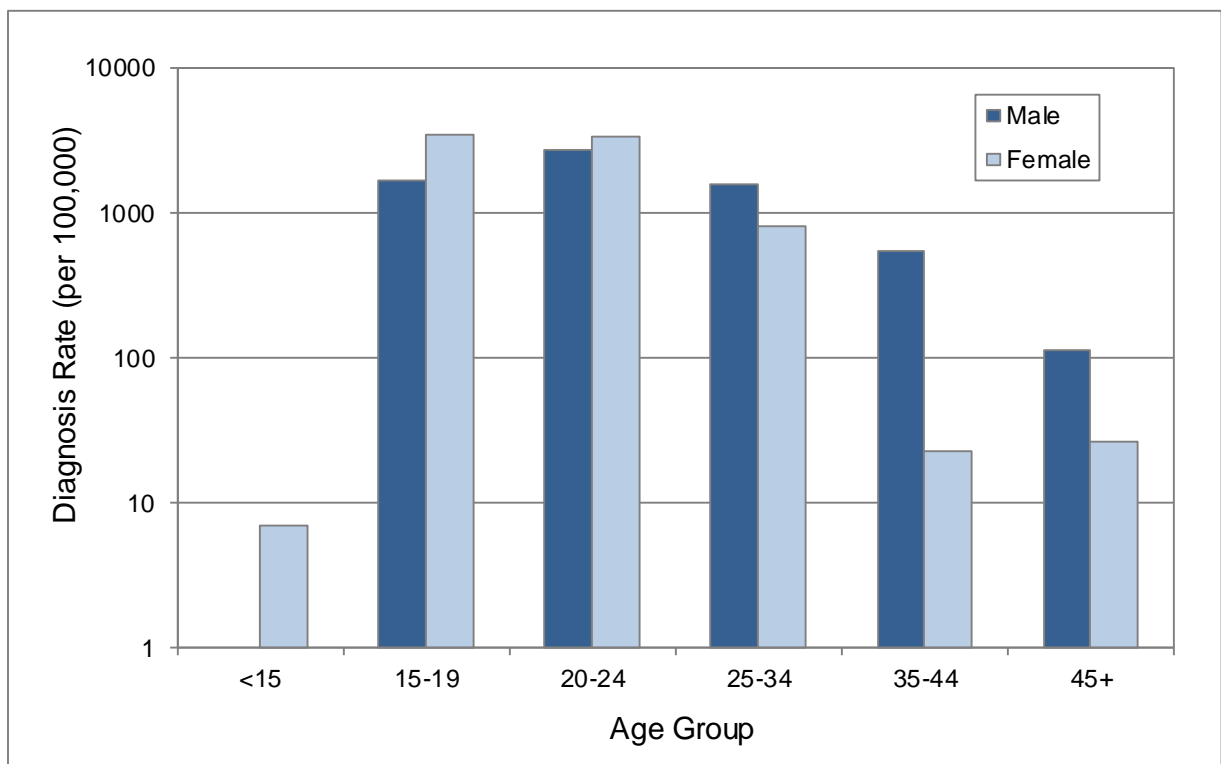
In 2015 there were 925 new cases of sexually transmitted infections (STIs) diagnosed in Herefordshire, corresponding to a rate of 494 per 100,000 population which ranked 128th highest out of 150 local authorities. The Herefordshire rate has shown a general decline between 2012 and 2015 falling proportionally by 21 per cent with the 2015 figure being significantly lower than those recorded in 2012 and 2013 (Figure 13). Throughout this period the local rate has been significantly lower than that for England and while the national rate has also fallen (4 per cent) over this period, the Herefordshire rate has fallen faster so that in 2015 the local rate was 36 per cent lower than the national rate compared to 22 per cent lower in 2012. The rate of new STI diagnoses in the comparator group has shown a significant increase between 2012 and 2015, so that while being lower than the Herefordshire rate between 2012 and 2014, in 2015 the comparator group rate was lower than that for Herefordshire. Across England, young people are more likely to be diagnosed with an STI than older age groups, a pattern reflected in Herefordshire where in 2013, 62 per cent of all diagnosed STIs were in 15 to 24 year olds (Figure 14).

Figure 13: Diagnosis rate for new STI cases in Herefordshire, England and comparator group, 2012 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

Figure 14: Diagnosis rate for STIs in Herefordshire, 2013 (data displayed on a log scale).



Source: PHE

CHLAMYDIA

Chlamydia is the most common bacterial sexually transmitted infection in England, with rates substantially higher in young adults than any other age group. The majority of infections are asymptomatic and can have serious health consequences (including infertility) if left untreated. The chlamydia detection rate is one indicator within the Public Health Outcomes Framework (PHOF) and is a measure of chlamydia control activity in England, aimed at reducing the incidence of reproductive issues caused by chlamydia infection. This detection rate reflects both coverage and the proportion testing positive at all sites, both in genitourinary medicine (GUM) settings and outside of GUM.

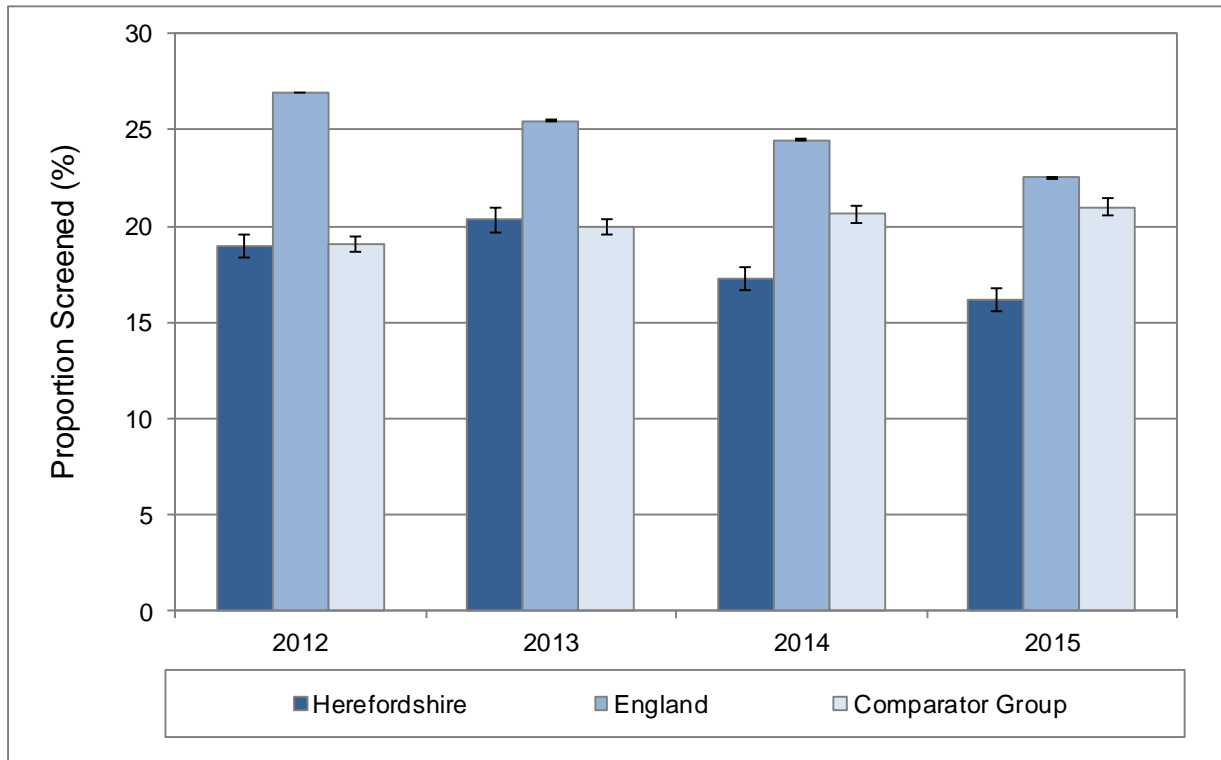
By diagnosing and treating asymptomatic chlamydia infections, chlamydia screening can reduce the duration of infection, which will reduce an individual's chance of developing complications, and also reduce the time when someone is at risk of passing the infection on, which in turn will reduce the spread of chlamydia in the population. The National Chlamydia Screening Programme (NCSP) recommends that all sexually active under 25 year old men and women be tested for chlamydia annually or on change of sexual partner (whichever is more frequent).

In Herefordshire between 2012 and 2013 the proportion 15 to 24 year olds screened for chlamydia increased significantly from 19.0 to 21.3 per cent, which was followed by consistent falls over the next two years to 16.2 per cent recorded in 2015 (Figure 15). Over this four year period the figure for England fell year on year from 26.9 to 22.6 per cent, although the local proportion was consistently significantly lower than the national figure. The proportion of 15 to 24 years olds screened in the comparator group increased steadily between 2012 and 2015 with a figure of 21.0 per cent recorded in 2015 being significantly higher than that recorded in Herefordshire (16.2 per cent). In 2015 the proportion of 15 to 24 year olds screened for chlamydia was ranked 137th highest out of 150 local authorities.

Public Health England (PHE) recommends that local authorities should be working towards achieving a detection rate of at least 2,300 per 100,000 population aged 15-24. The recommendation was set as a level that would encourage high volume screening and diagnoses, be ambitious but achievable, high enough to encourage community screening, rather than genitourinary medicine (GUM) only diagnoses, and would be likely to result in continued reduction in chlamydia prevalence reduction.

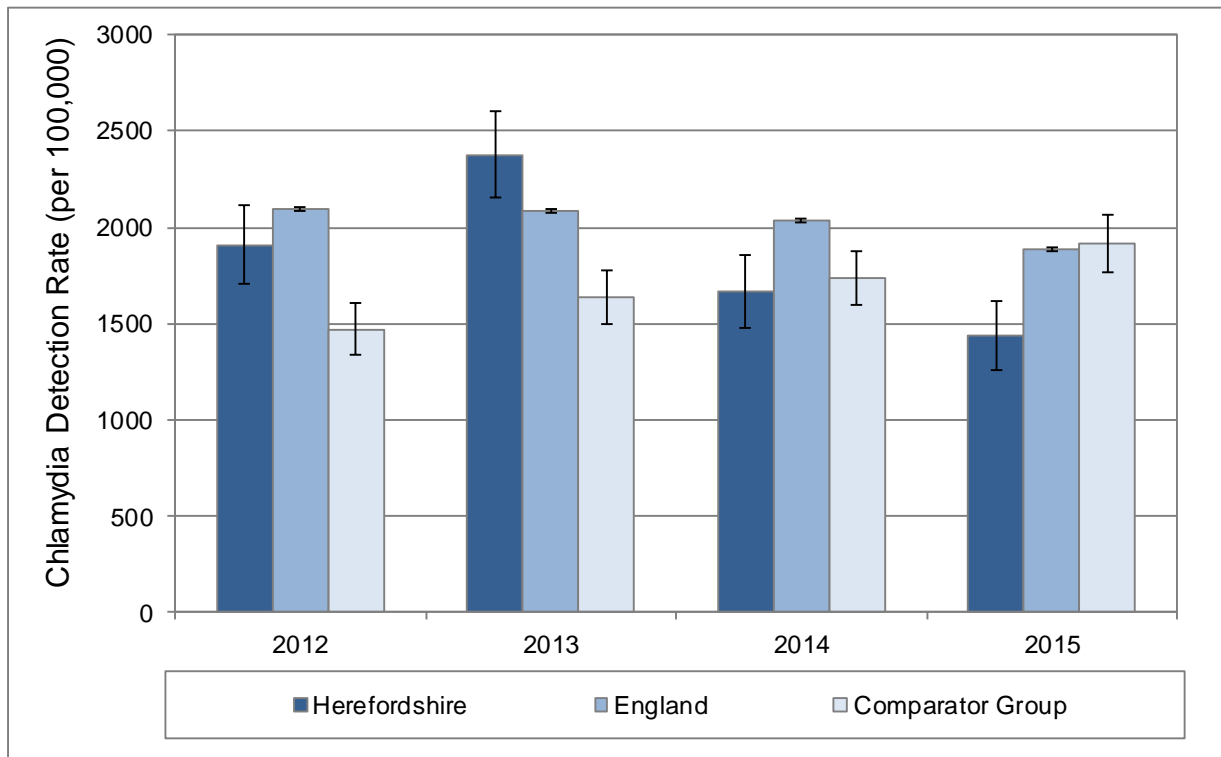
Between 2012 and 2013 the Herefordshire chlamydia detection rate in 15 to 24 year olds rose from 1,909 per 100,000 population to 2,376 per 100,000, a figure above the PHE target (Figure 16). However, in the subsequent two years the local rate fell by 40 per cent to 1437 per 100,000 population, a figure significantly lower than both the PHE target and the rates recorded nationally in 2012 and 2013. Between 2012 and 2015 the national chlamydia rate also fell, although by only 10 per cent. These local and national patterns resulted in the Herefordshire rate going from being significantly higher than the national rate in 2013 to significantly lower than the national figures recorded in both 2014 and 2015. Between 2012 and 2015 the comparator group chlamydia detection rate rose consistently from 1469 to 1915 per 100,000 population going from being significantly lower than the Herefordshire rate in 2012 to significantly higher in 2015. The 2015 local chlamydia detection rate was ranked 121st highest out of 150 local authorities.

Figure 15: Proportion of 15 – 25 year olds screened for chlamydia in Herefordshire, England and comparator group, 2012 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

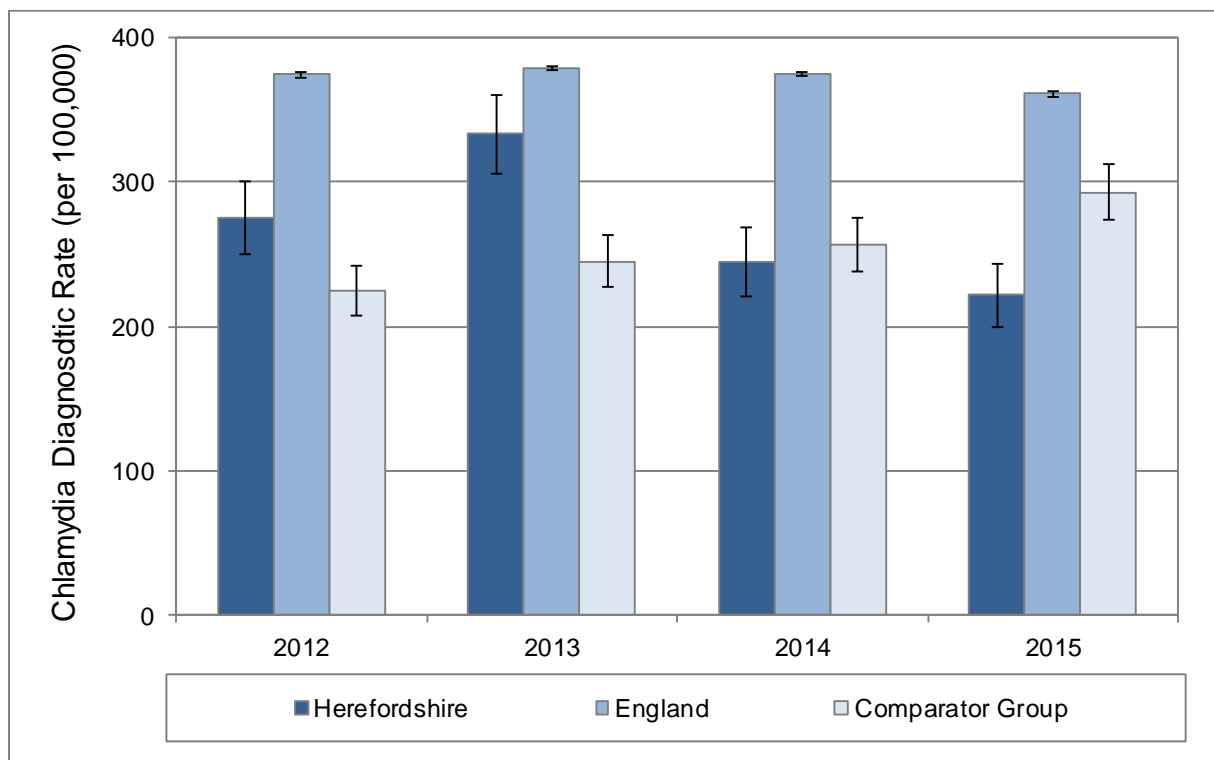
Figure 16: Chlamydia detection rate in 15 to 24 year olds in Herefordshire, England and comparator group, 2012 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

The Herefordshire chlamydia diagnostic rate for all ages showed a rise between 2012 and 2013, although fell subsequently to a low of 222 infections per 100,000 population, a pattern which mirrors that for detection rate described above (Figure 17). The national and comparator group diagnostic rates also follow similar temporal trends to the respective detection rates. However, throughout this period the local diagnostic rate was significantly lower than the national rate. The 2015 local chlamydia diagnostic rate was ranked 137th highest out of 150 local authorities.

Figure 17: Chlamydia diagnostic rate (all ages) in Herefordshire, England and comparator group, 2012 to 2015.



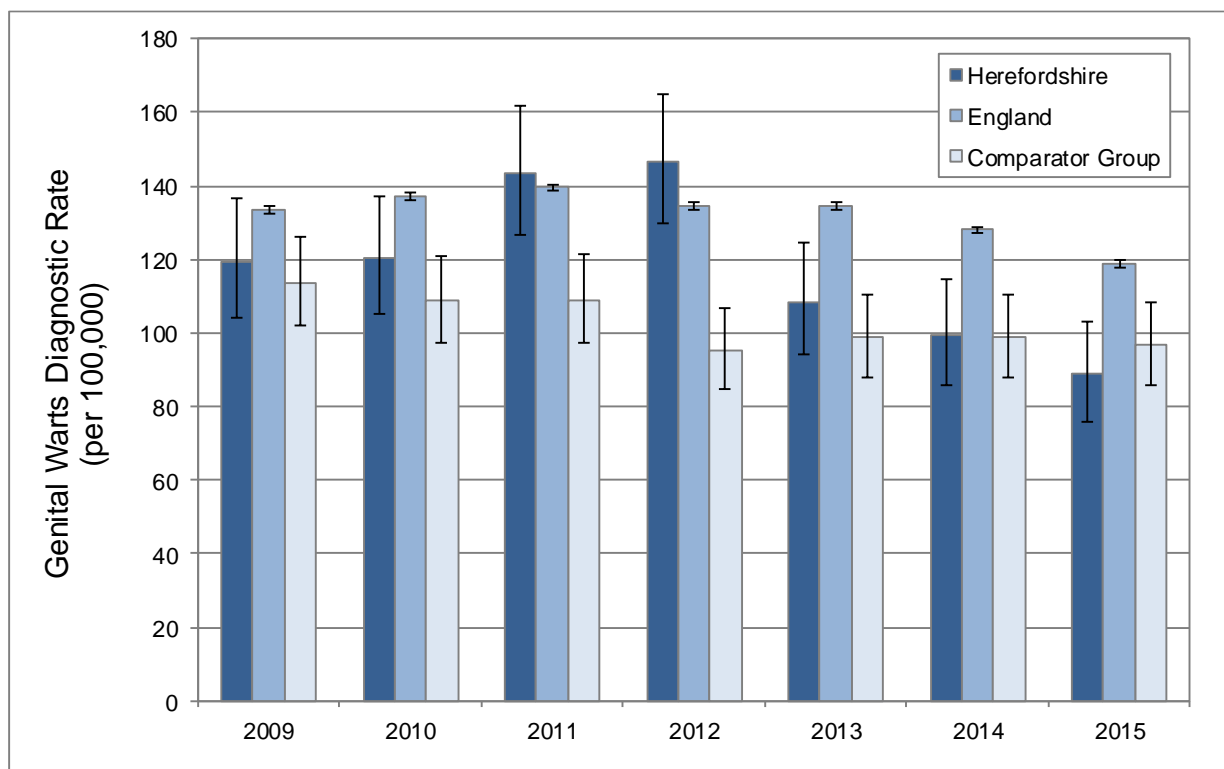
Source: PHE - Sexual and Reproductive Health Profiles

There are clear correlations ($r > 0.97$) in Herefordshire between detection and diagnosis rates indicating that the efficacy of the programmes in Herefordshire could be increased to improve diagnosis and treatment of chlamydia. Certainly, the downward trend in all metrics locally would indicate that more resource is required to meet target set by PHE and improve the prevalence of chlamydia across the county.

GENITAL WARTS

Genital warts are the second most commonly diagnosed STI in England and are caused by viral skin infection caused by the human papilloma virus (HPV). Although around 30 different types of HPV can affect the genital skin, most cases of infection with HPV cause no visible symptoms and approximately 90 per cent of all cases of genital warts are caused by two strains of the virus – type 6 and type 11. Between 2009 and 2012 the Herefordshire genital warts diagnostic rate increased from 120 to 147 per 100,000 population; in subsequent years, a fall in the rate was evident with a figure of 89, per 100,000 recorded in 2015 (Figure 18). The national rate followed a similar temporal trend, although since 2013 the Herefordshire rate has been significantly lower than that recorded for England. The genital warts diagnostic rate in the comparator group has shown a general fall between 2009 and 2015, although in 2015 there was no significant difference between the comparator group and local rate. In 2015 the Herefordshire genital warts diagnosis rate was ranked 134th highest out of 150 local authorities.

Figure 18: Genital warts diagnostic rate (all ages) in Herefordshire, England and comparator group, 2009 to 2015.

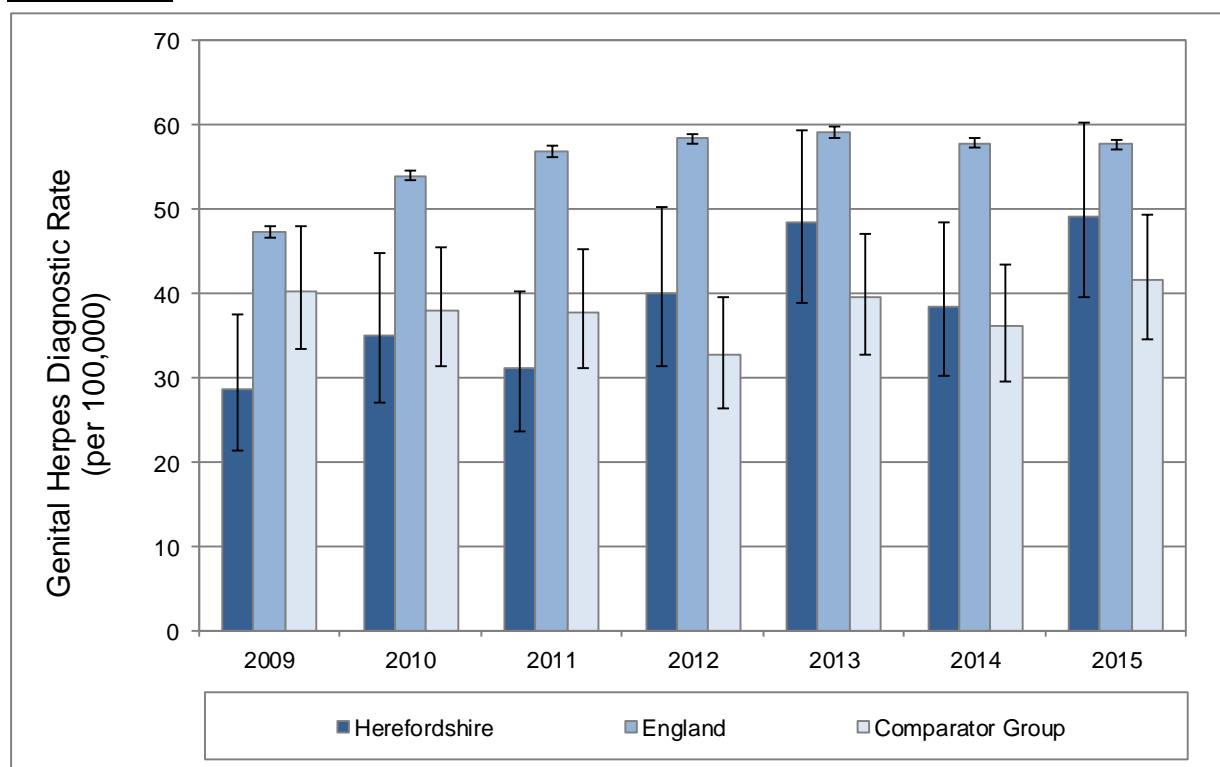


Source: PHE - Sexual and Reproductive Health Profiles

GENITAL HERPES

Genital herpes is the most common ulcerative sexually transmitted infection seen in England, particularly in people aged between 20 and 24 years. Infections are frequently due to herpes simplex virus (HSV) type 2, although HSV-1 infection is also seen. While there is no cure for genital herpes symptoms can be controlled by antiviral medicines, although the condition can cause problems during pregnancy. Between 2009 and 2015 the genital herpes diagnostic rate in Herefordshire showed some variability, although a general upward trend was evident with the rate increasing from 28.5 to 49 per 100,000 population in 2009 and 2015 respectively, which represents a proportional increase of 72 per cent (Figure 19). Nationally, from 2009 the diagnostic rate showed an increase, although since 2012 the rate has plateaued between 57 and 59 per 100,000 population with a proportional increase over the period as a whole of 22 per cent. However, throughout this period the local rate has been consistently lower than that for England, although in 2015 this difference was not significant. In 2015 the Herefordshire genital herpes diagnosis rate was ranked 96th highest out of 150 local authorities.

Figure 19: Genital herpes diagnostic rate (all ages) in Herefordshire, England and comparator group, 2009 to 2015.

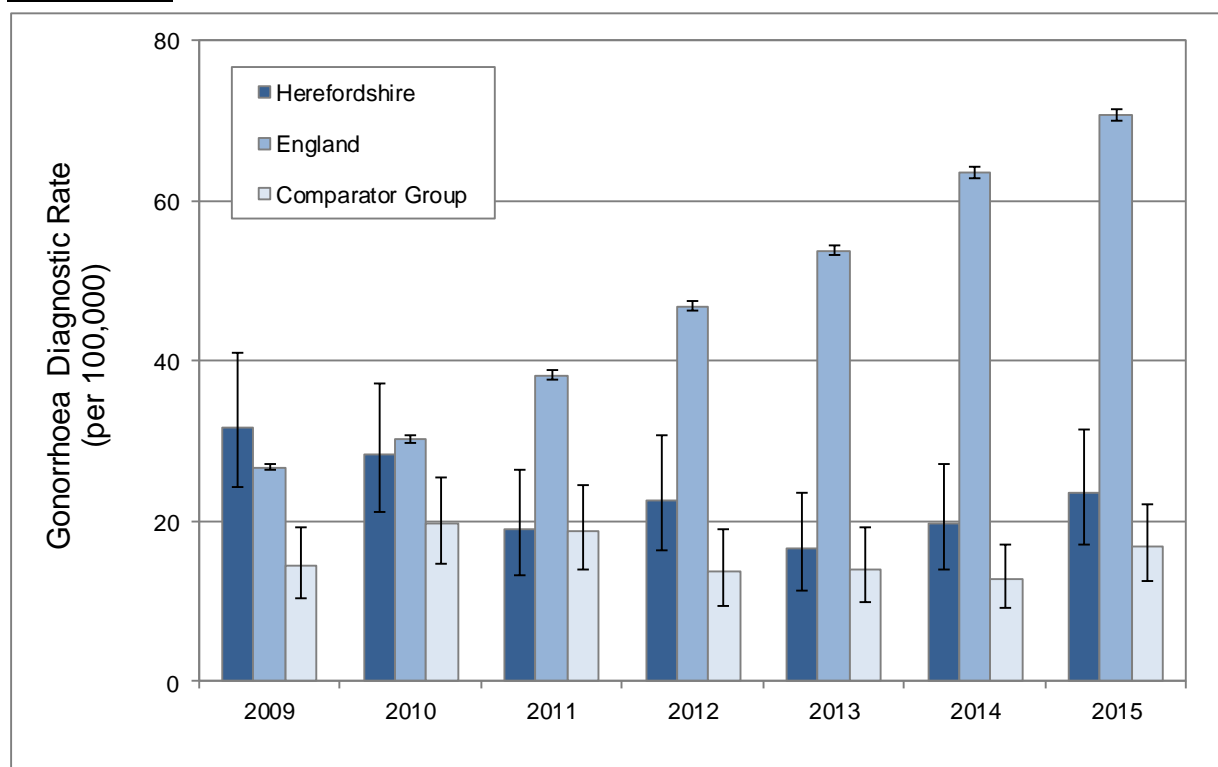


Source: PHE - Sexual and Reproductive Health Profiles

GONORRHOEA

Gonorrhoea is caused by bacteria *Neisseria gonorrhoeae* used to be known colloquially as 'the clap'. As the majority of cases are diagnosed in GUM settings Gonorrhoea is used as a marker for rates of unsafe sexual activity and, consequently, the number of cases can be employed as a measure of access to STI treatment. Between 2009 and 2013 the gonorrhoea diagnostic rate in Herefordshire showed a general decrease with a proportional fall of 48 per cent from 31.8 to 16.7 per 100,000 population (Figure 20). Over the subsequent two years the local rate increased to 23.5 per 100,000 population, a figure not significantly different from that recorded in 2009. Over this whole period the national gonorrhoea diagnostic rate almost trebled rising from 26.7 to 70.7 per 100,000 population, and since 2011 has been significantly higher than the local rate. Within the comparator group the gonorrhoea diagnostic rate has shown some variability since 2009 with distinct temporal pattern evident; since 2010 the local and comparator group diagnostic rates have been broadly similar. In 2015 the Herefordshire gonorrhoea diagnosis rate was ranked 131st highest out of 150 local authorities.

Figure 20: Gonorrhoea diagnostic rate (all ages) in Herefordshire, England and comparator group, 2009 to 2015.



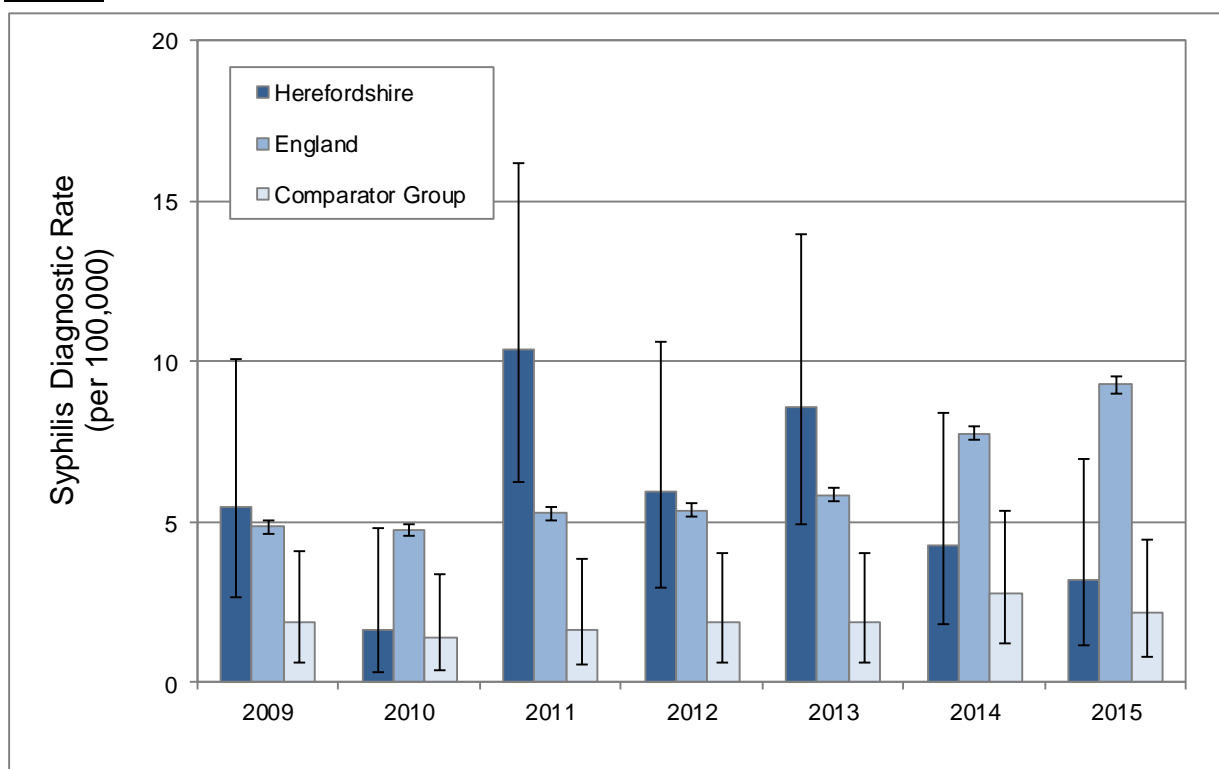
Source: PHE - Sexual and Reproductive Health Profiles

SYPHILIS

Currently, numbers of infectious syphilis diagnoses are at their highest since the mid-1950's. Although the character of the underlying epidemics has changed substantially with the current epidemic having a high proportion of primary and secondary cases which indicates that infection is detected and managed at an earlier stage of infection. Syphilis is a particularly important public health issue in men who have sex with men (MSM) as this group represents seven out of 10 of all cases diagnosed nationally³. The local rate of syphilis diagnosis has shown considerable variability between 2009 and 2015 ranging over an order of magnitude from 1.64 per 100,000 population in 2013 to 10.34 per 100,000 population recorded the following year (Figure 21). Over the same period the national syphilis diagnostic rate has increased steadily from 1.86 to 9.28 per 100,000 population in 2009 and 2015 respectively, although only in 2015 was the national rate significantly higher than that for Herefordshire. Since 2012 the comparator group diagnostic rate has been lower than the local rate, although the differences were not significant. In 2015 the Herefordshire gonorrhoea diagnosis rate was ranked 110th highest out of 150 local authorities. It is interesting to note that the highest Herefordshire diagnostic rate of 10.34 per 100,000 population was ranked as the 8th highest that year out of 150 local authorities.

³ Recent epidemiology of infectious syphilis and congenital syphilis. *Infection Reports*, 7(44). November 2013.

Figure 21: Syphilis diagnostic rate (all ages) in Herefordshire, England and comparator group, 2009 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

It is useful to examine the latest STI diagnosis rates for Herefordshire relative to the five most similar comparator authorities making up the comparator group, as this provides the most relevant benchmark against which to monitor local performance. These data are given in Table 1 and shows the STI diagnosis rates for Herefordshire are moderate compared to the other local authorities with all rates being within 16 per cent of the average for all five authorities. When ranking the authorities for all new STI diagnoses the overall highest rate occurs in Cheshire East with Herefordshire third.

Table 1: STI diagnostic rates per 100,000 population in Herefordshire and CIPFA comparator authorities, 2015. (figures in red denote highest rate)

Local Authority	Chlamydia	Genital Warts	Genital Herpes	Gonorrhoea	Syphilis	STIs
Herefordshire	221.7	88.7	49.2	23.5	3.21	494.2
Shropshire	207.3	77.4	38.1	18.7	3.55	382.8
East Riding of Yorkshire	290.7	85.4	38.3	29.6	0.89	519.7
Wiltshire	245.9	92.9	35.8	20.1	2.07	484.1
Cheshire East	434.8	104.0	55.3	24.1	2.14	733.9
Rutland	205.1	86.8	36.8	10.5	5.26	376.1

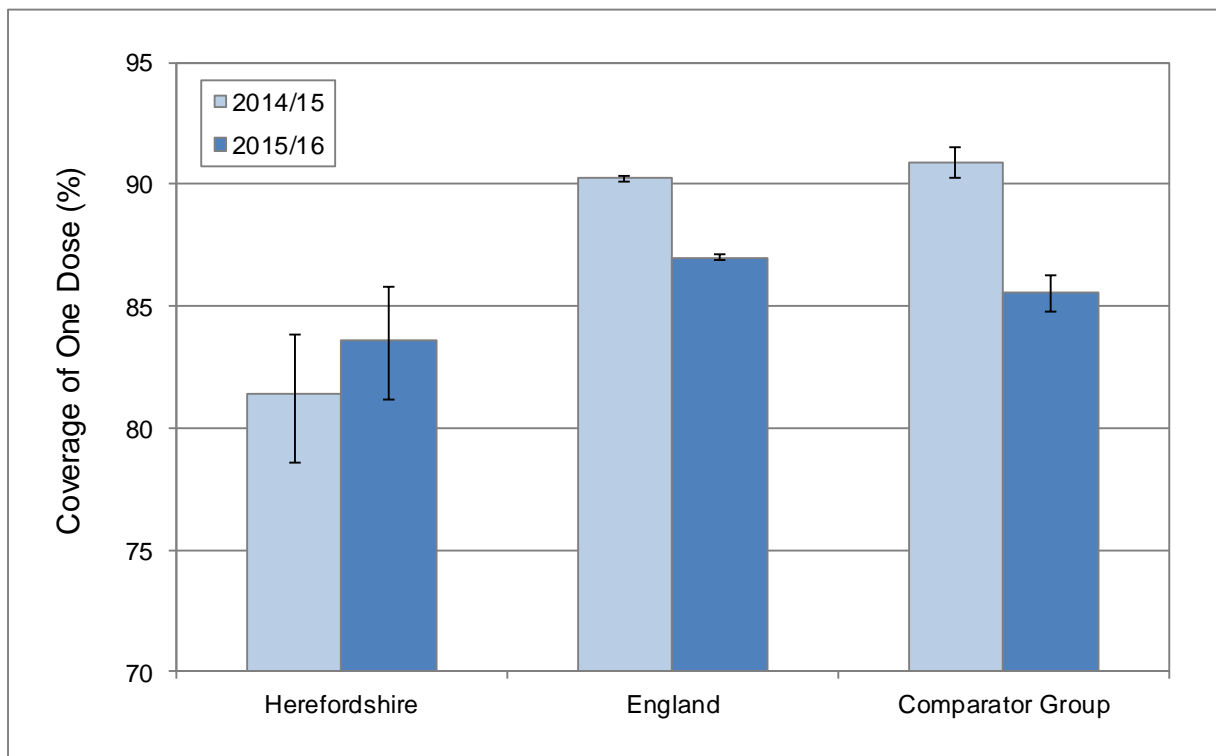
Source: PHE - Sexual and Reproductive Health Profiles

HUMAN PAPILOMAVIRUS AND CERVICAL CANCER

There are more than 100 different types of the human papillomavirus (HPV) and while many may be harmless some can cause abnormal changes to the cells of the cervix, which can eventually lead to cervical cancer. The HPV vaccine protects against the two high-risk HPV strains – 16 and 18 – that cause over 70 per cent of all cases of cervical cancers. All 12-13 year old girls in the UK are offered HPV vaccination through the national HPV immunisation programme which was introduced in 2008. While immunisation initially involved a three dose vaccination programme, from September 2014 it has been run as a two-dose schedule. The first HPV vaccine dose is usually offered to females in Year 8 (aged 12–13 years) and the second dose 12 months later in Year 9. Due to the change in the vaccination schedule coverage data collected from 2014/15 onwards are not directly comparable to previous years.

Between 2014/15 and 2015/16 the coverage of the initial dose of the HPV vaccine in Herefordshire increased from 81.4 to 83.6 per cent, although the difference between the two years was not significant (Figure 22). However, for England coverage decreased over this time, although the national figure in both years was significantly higher than that for Herefordshire. Coverage in the comparator group also fell, and although the figure in both years was higher than that for Herefordshire the difference was only significant in 2014/15. In 2014/15 the coverage for two doses in Herefordshire was 81.4 per cent which was significantly lower than the national rate (85.1 per cent), although broadly similar to the comparator group (82.6 per cent).

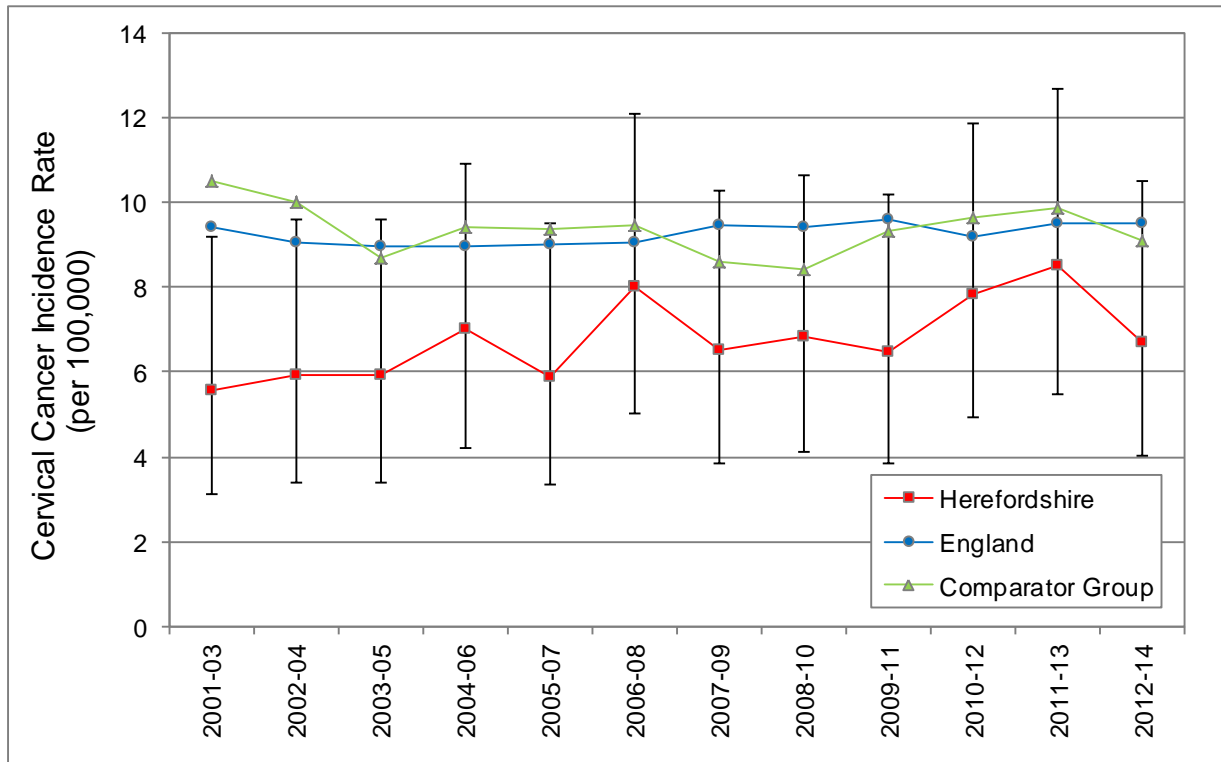
Figure 22: HPV vaccine initial dose coverage in Herefordshire, England and comparator group, 2014/15 to 2015/16.



Source: PHE

Between 2001-03 and 2012-14 the cervical cancer prevalence in Herefordshire showed some variability (Figure 23). Although an upward temporal trend was evident there was no significant difference between the values recorded throughout this period. The local figure was consistently lower than those for England and the comparator group, both of which showed no consistent temporal patterns over this period.

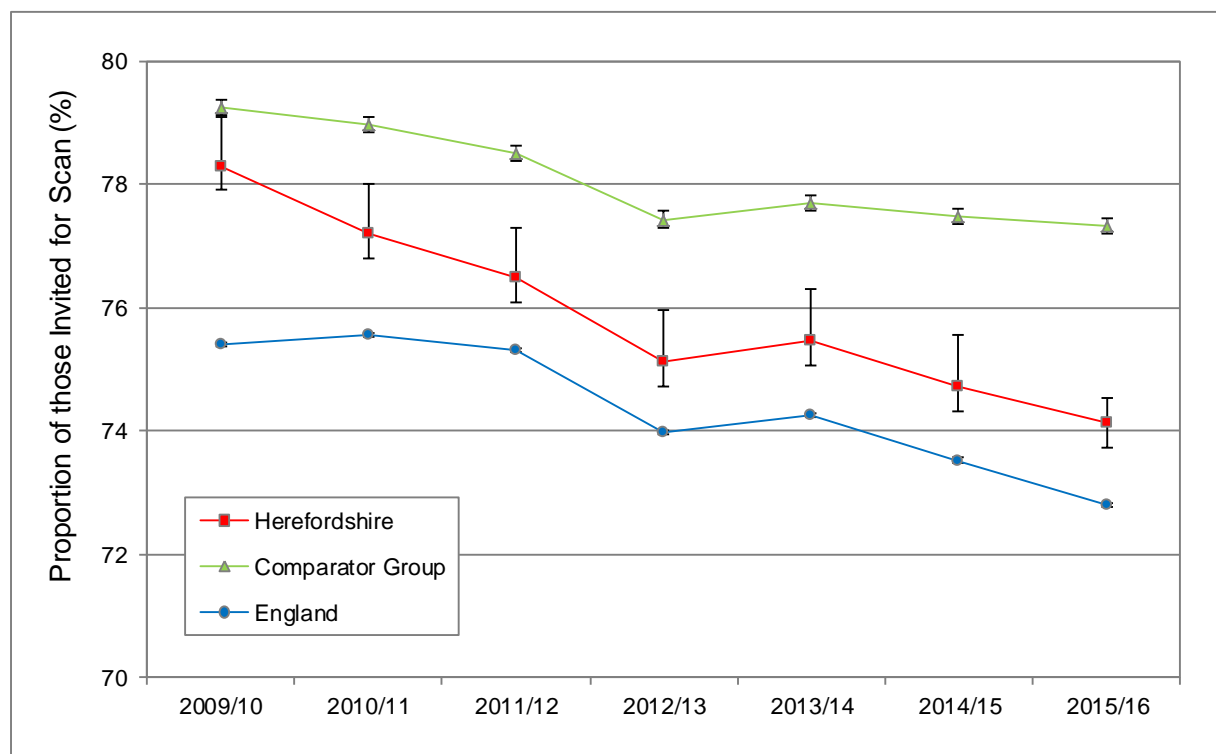
Figure 23: Incidence of cervical cancer in Herefordshire, England and comparator group, 2001-03 to 2012-14.



Source: CancerStats

Between 2009/10 and 2015/16 the proportion of woman in Herefordshire aged 25 to 69 who underwent cervical screening within the target periods of the previous 42 months (if aged 24-49) or 66 months (if aged 50-64) has declined from 78.3 to 74.1 per cent, a proportional fall of 5.3 per cent (Figure 24). Over the same period both the national and comparator group rates have fallen, although more slowly than locally. Throughout this period the Herefordshire rate has been consistently higher than the national rate while being lower than the comparator rate.

Figure 24: Rate of cervical screening in 25 - 69 year olds within target period, 2009/10 - 2015/16.



Source: PHE – Cancer Services

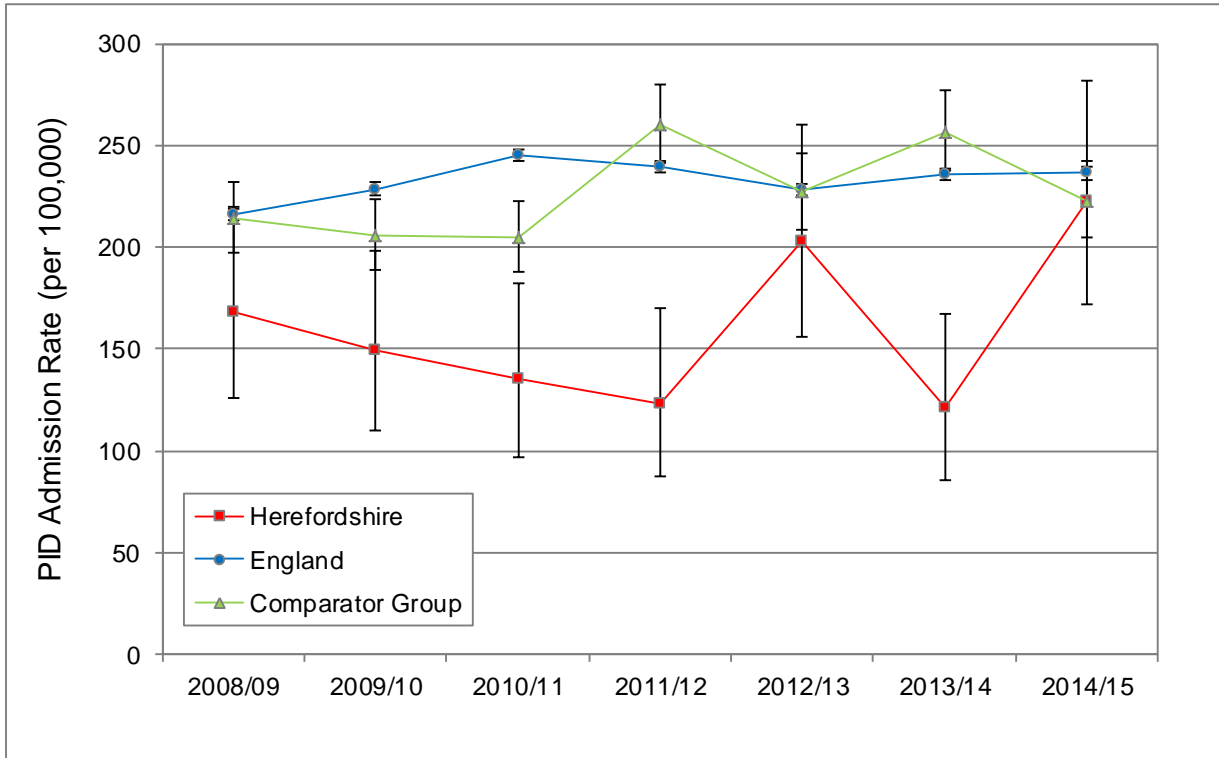
PELVIC INFLAMMATORY DISEASE

Pelvic inflammatory disease (PID) comprises a range of upper genital tract inflammatory disorders in women that result from the spread of microorganisms from the lower to the upper genital tract can result in serious complications such as ectopic pregnancy, infertility and chronic pelvic pain. Untreated STIs can lead to PID with chlamydia being one of the main causes

The Sexual and Reproductive Health Profiles published by Public Health England include an indicator which measures hospital admissions caused by pelvic inflammatory disease (ICD10 N70-74) among females aged 15 - 44 years. Since 2008/09 the local rate of admissions has shown some variability between 122 and 222 per 100,000 population recorded in 2013/14 and 2014/15 respectively, although no significant difference is evident between years (Figure 25). The national admission rate has been more stable over this period and was significantly higher than the Herefordshire rate throughout much of this time. However, the latest available data shows Herefordshire to have recorded 67 PID admissions in the year 2014/15 at a rate of 222 per 100,000 population, a figure broadly similar to both those reported nationally and in the comparator group.

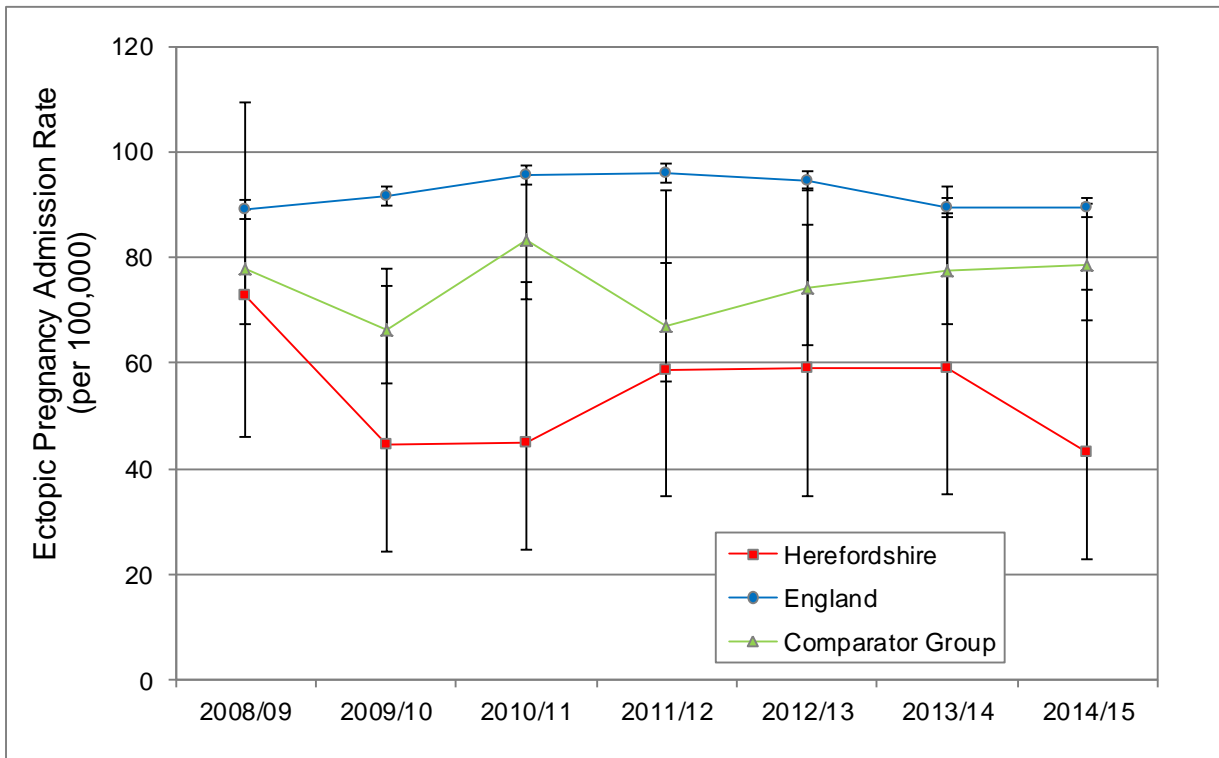
Ectopic pregnancy is a common, occasionally life-threatening condition that affects 1 in 80 pregnancies and occurs when a fertilised ovum implants outside the womb. The most common place for an ectopic pregnancy is the Fallopian tube, although there are many other sites where an ectopic pregnancy can be located. Ectopic pregnancies usually result in hospital admission. In most years since 2008/09 the local rate of ectopic pregnancy admissions has been significantly lower than the national rate and in 2014/15 the Herefordshire rate (43 per 100,000 population) was than less than half of the national figure (90 per 100,000) – Figure 26.

Figure 25: Rate of pelvic inflammatory disease admissions in Herefordshire, England and comparator group, 2008/9 to 2014/15.



Source: PHE - Sexual and Reproductive Health Profiles

Figure 26: Rate of ectopic pregnancy admissions in Herefordshire, England and comparator group, 2008/9 to 2014.

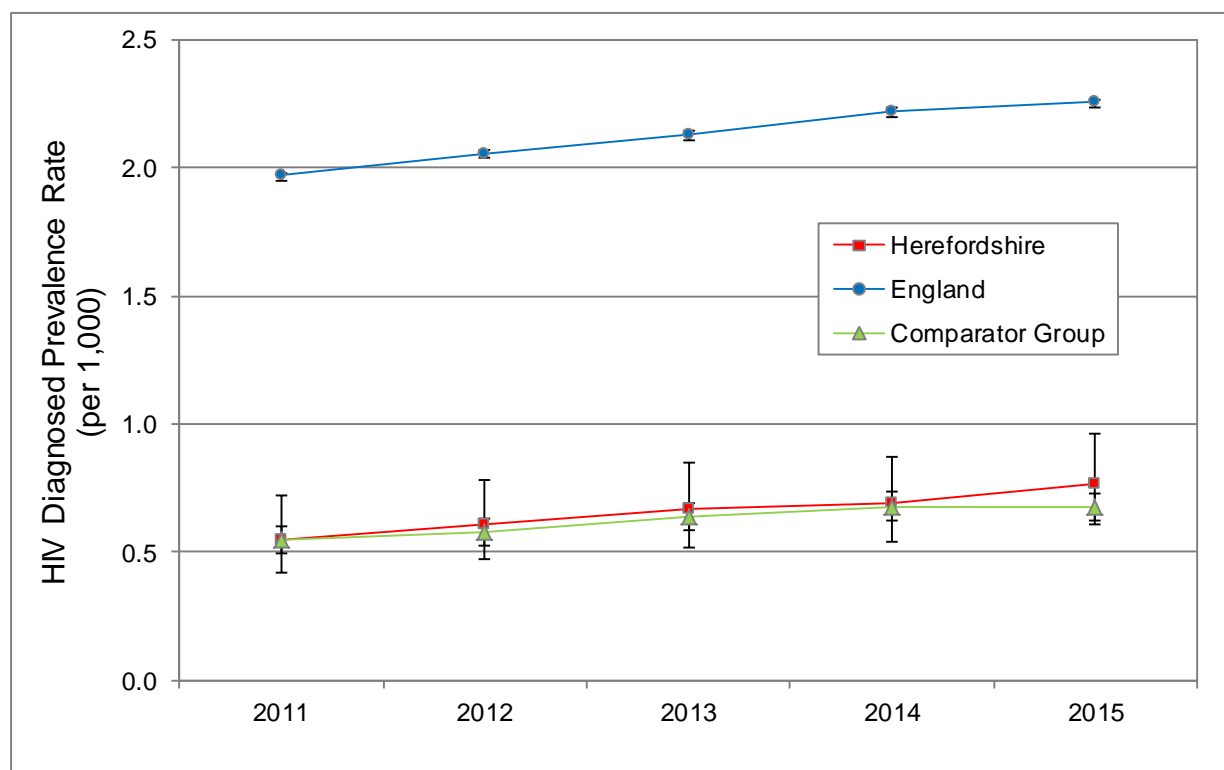


Source: PHE - Sexual and Reproductive Health Profiles

HIV

Over the five year period between 2011 and 2015 the number of diagnosed HIV cases in individuals aged between 15 and 59 in Herefordshire rose from 56 to 79, which corresponds to an increase in the prevalence rate from 0.55 to 0.77 per 1,000 population, a proportional increase of 40 per cent (Figure 27). Throughout this period the prevalence rate for England increased proportionally by 15 per cent, although the national figure was consistently significantly higher than the local rate, being on average over three times the Herefordshire rate. Since 2011 the local rate has been similar to that for the comparator group which showed a proportional increase of 23 per cent between 2011 and 2015.

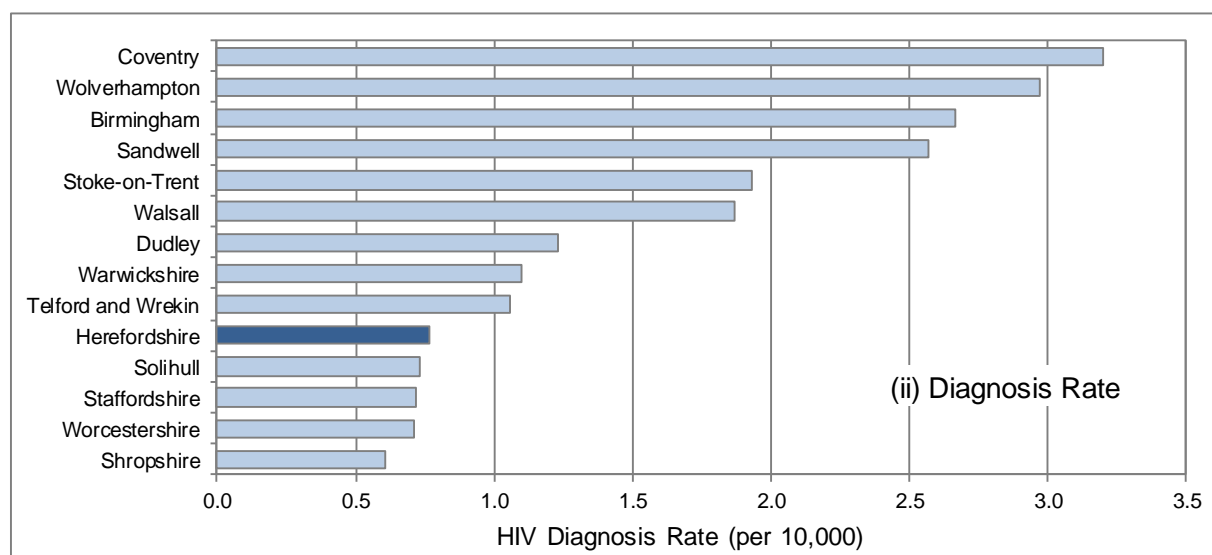
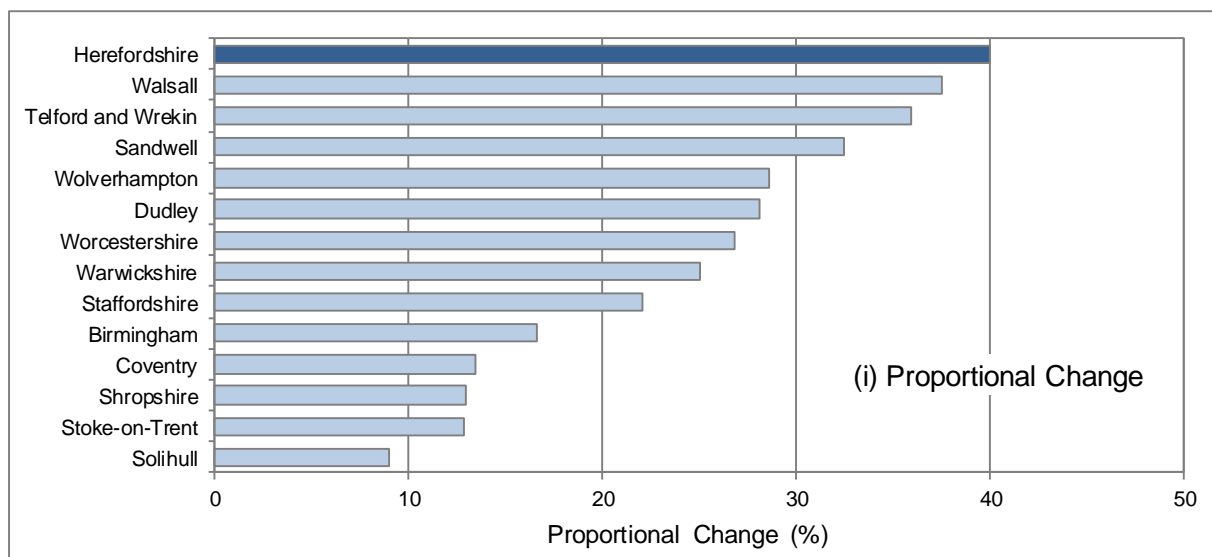
Figure 27: HIV diagnosis prevalence rate in Herefordshire, England and comparator group, 2011 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

When considering the rate of change in HIV prevalence rate between 2011 and 2015 across the West Midlands as a whole, the 40 per cent increase observed in Herefordshire was the highest in the region being over four times greater than the lowest increase of 9.0 per cent observed in Solihull (Figure 28). However, the local prevalence rate recorded in 2015 was ranked as the 10th highest out of 14 local authorities in the West Midlands representing less than a quarter of the highest rate of 3.2 per 1,000 population recorded at Coventry. In 2011 the Herefordshire rate was ranked 13th highest out of 14 local authorities.

Figure 28: HIV diagnosis prevalence rate in local authorities in the West Midlands in 2015 and proportional change in rate between 2011 and 2015.

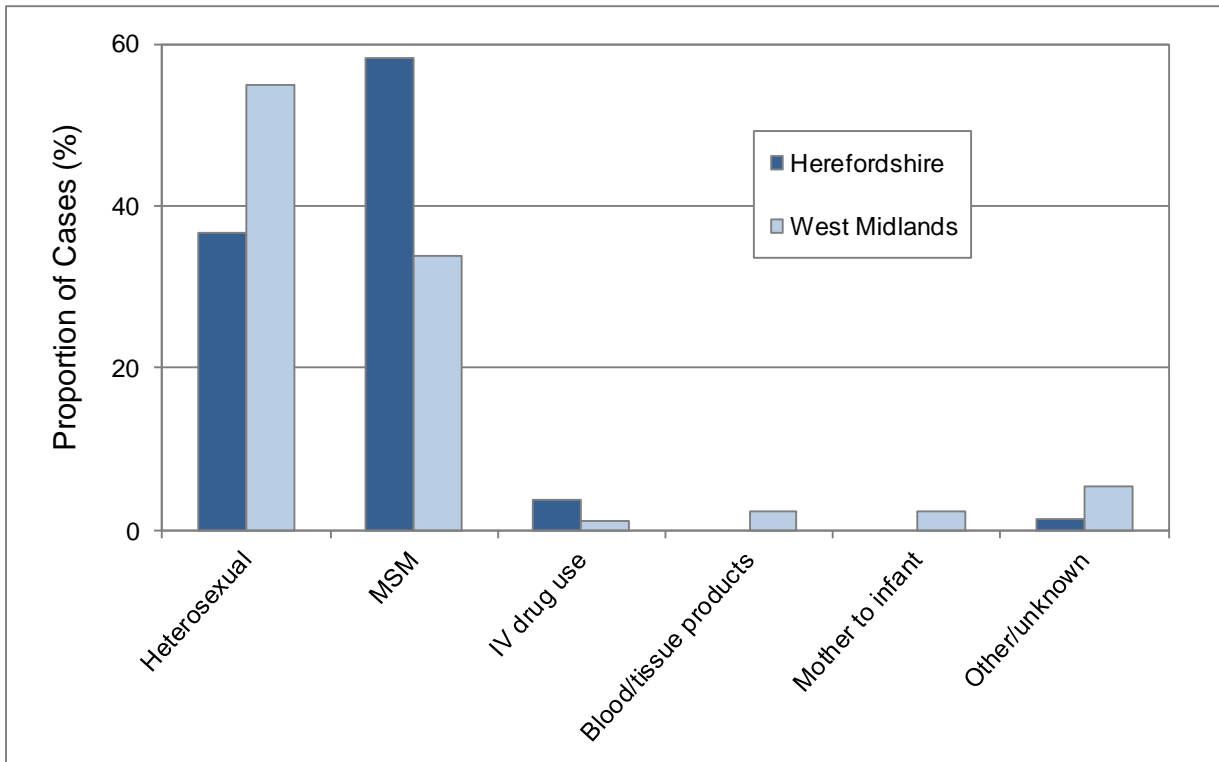


Source: Herefordshire Council SIT

In Herefordshire the probable exposure route for 58 per cent of HIV cases is via men having sex with other men (MSM) compared to 34 per cent across the West Midlands. Heterosexual contact is responsible for 37 per cent of cases locally compared to 55 per cent in the West Midlands (Figure 29). Exposure via intravenous drug use is responsible for 3.8 per cent of local cases but only 1.1 per cent of regional cases. Of other exposure routes blood and tissue products and mother to infant account for 5 per cent of regional cases while no local cases are related to these exposure routes.

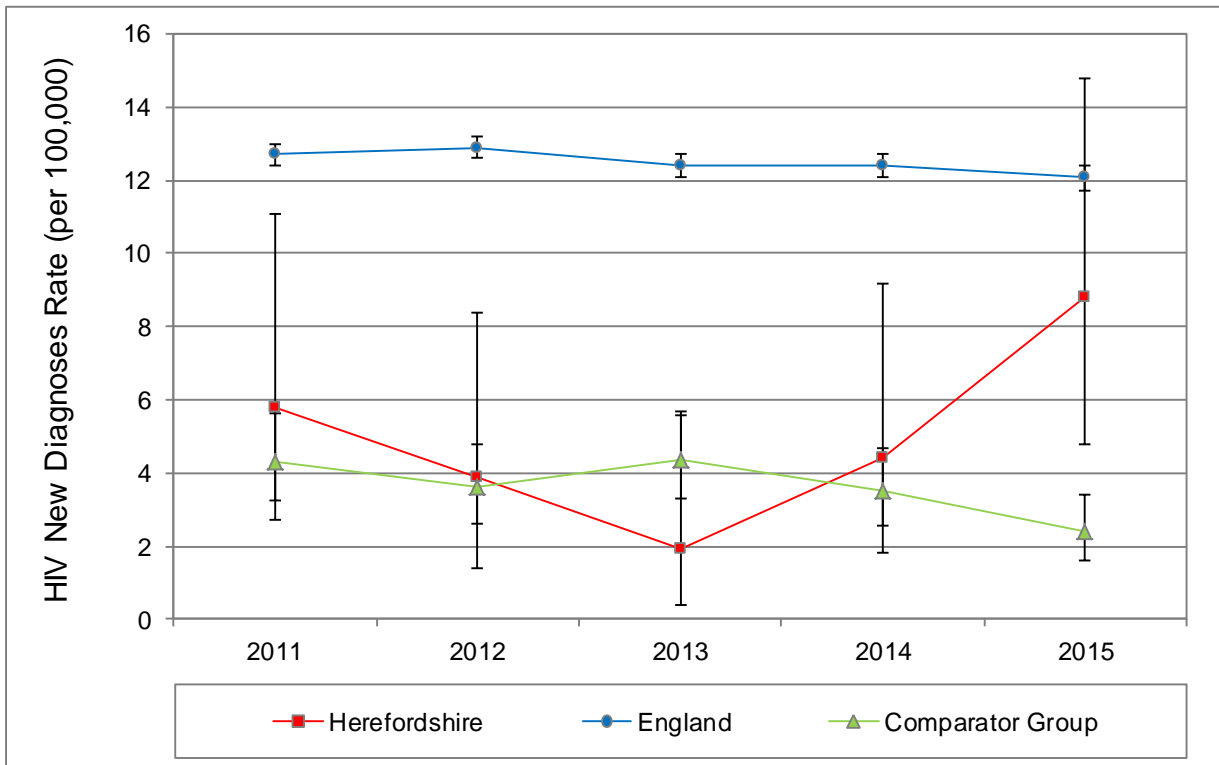
Between 2011 and 2015 the rate of new HIV diagnoses in Herefordshire showed some variability with a minimum of 1.9 per 100,000 population recorded in 2013 and a maximum of 8.8 per 100,000 in 2015 (Figure 30). Over this period the national rate remained relatively consistent between 12 and 13 per 100,000 population, figures which up to 2014 were significantly higher than the local rate; in 2015 no significant difference between the local and national rates was evident. The diagnosis rate of new cases in the comparator group showed a gradual fall between 2011 and 2015 decreasing proportionally by 44 per cent. Up to 2014 the Herefordshire rate was close to that for the comparator group, although in 2015 it was significantly higher than the comparator group figure.

Figure 29: Proportion of HIV cases related to probable exposure routes in Herefordshire and the West Midlands.



Source: PHE

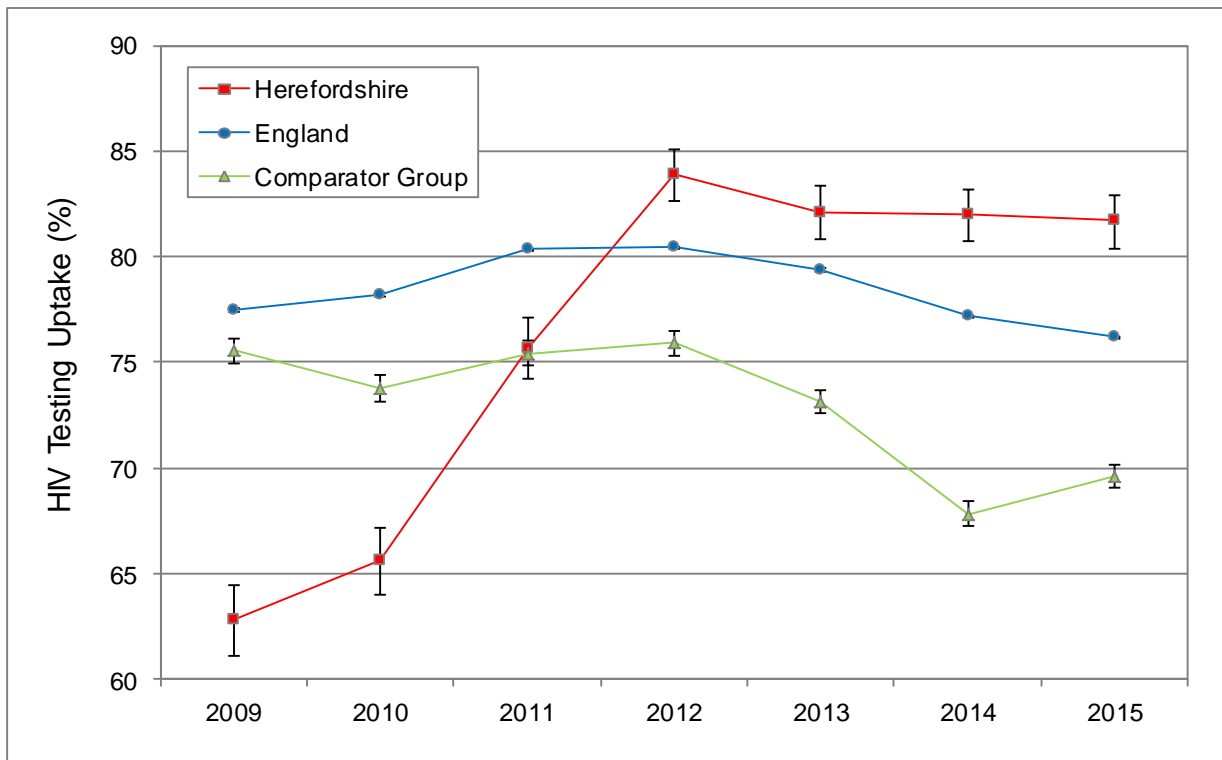
Figure 30: Rate of new HIV diagnoses in Herefordshire, England and comparator group, 2011 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles

A visit to a genitourinary medicine (GUM) clinic including all subsequent attendances in the following six weeks is termed a GUM episode for which HIV testing is offered as appropriate. Between 2009 and 2015 the number of HIV tests offered in Herefordshire increased from 3,111 to 3,662 indicating a proportional increase of 18 per cent; increases were also observed for England and the comparator group with proportional increases of 42 and 35 per cent respectively. The number of HIV tests accepted as a proportion of those offered in Herefordshire increased by a third between 2009 and 2012, rose from 63 to 84 per cent; the figure remained relatively stable in subsequent years (Figure 31). Over the same period the national figure showed little variation while a general fall was evident in the comparator group figure. In 2009 and 2010 the local proportion of HIV tests accepted in Herefordshire were significantly lower than those recorded nationally and in the comparator group, although from 2012 onwards the Herefordshire proportion was significantly higher than these two rates.

Figure 31: Proportion of HIV tests accepted in Herefordshire, England and comparator group, 2009 to 2015.



Source: PHE - Sexual and Reproductive Health Profiles