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# **Spotlight on Sexually Transmitted Infections in the West Midlands 2017 data**

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Published: March 2019  
PHE publications  
gateway number: GW-218

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# 1 Executive summary

This report summarises the epidemiology of new sexually transmitted infection (STI) diagnoses in the West Midlands in 2017 using data from the Genitourinary Medicine Clinic Activity Dataset (GUMCAD) and from the Chlamydia Testing Activity Dataset (CTAD). Trend data from 1996 to 2007 have been drawn from the West Midlands STI Surveillance Project (WMSTIP).

In 2017, there were 35,635 new diagnoses of sexually transmitted infection (STIs) in the West Midlands, a decrease of 7% compared to 2016. This is a larger decrease than the national trend, a 1% decrease from 2016 to 2017.

The incidence rate of new STI diagnoses amongst residents of the West Midlands was below the national rate for England in 2017 (West Midlands 613.3 per 100,000; England 743.1 per 100,000; England rate excluding London 631.5 per 100,000).

Diagnoses of chlamydia have decreased (-8%) between 2016 and 2017. Although GUM clinic diagnoses remained fairly stable (-1%), community diagnoses decreased by 18%, possibly reflecting a decrease in testing in non-GUM services. Chlamydia infections are responsible for half of all new STIs in the West Midlands and are particularly common in those aged under 25. An increase in health promotion in the community and a focus on increased testing in community settings, especially those targeting the 15-24 years age group, remain important in order to detect and control chlamydia infections.

The overall diagnosis rate for gonorrhoea has increased gradually over the last ten years. Between 2016 and 2017, a 14% increase was observed (females 12%; males 15%), including a 20% increase in diagnoses among men who have sex with men (MSM) (2016: 754; 2017: 905). The highest rates in 2017 were reported in Birmingham, Coventry and Walsall. This increase is of concern given the ongoing circulation of high-level azithromycin resistant *Neisseria gonorrhoeae*<sup>1</sup> and more recently the emergence of extensively drug resistant *N. gonorrhoeae*<sup>2</sup>.

There was a 6% increase in syphilis diagnoses in 2017 compared to 2016, the fifth successive annual increase. Men who have sex with men represented 67% of all syphilis diagnoses in 2017. The highest rates in 2017 were reported in Sandwell, Stoke-on-Trent, Walsall and Birmingham. Enhanced Surveillance remains important to identify

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<sup>1</sup> Fifer H et al. Failure of Dual Antimicrobial Therapy in Treatment of Gonorrhea. *New England Journal of Medicine* (2016); 374(25):2504-6. Available from: [www.nejm.org/doi/10.1056/NEJMc1512757?url\\_ver=Z39.88-2003&rfr\\_id=ori%3Arid%3Acrossref.org&rfr\\_dat=cr\\_pub%3Dwww.ncbi.nlm.nih.gov&](http://www.nejm.org/doi/10.1056/NEJMc1512757?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dwww.ncbi.nlm.nih.gov&)

<sup>2</sup> Public Health England. Multi-drug resistant gonorrhoea in England: 2018. Available from: [www.gov.uk/government/publications/multi-drug-resistant-gonorrhoea-in-england-2018](http://www.gov.uk/government/publications/multi-drug-resistant-gonorrhoea-in-england-2018)

clusters and clinics are encouraged to provide full (anonymised) exposure details to help identify clusters requiring action. The continuing rise of syphilis in MSM also remains a concern. Public Health England (PHE) will be publishing an Action Plan, with recommendations for PHE and partner organisations to address the continued increase in syphilis diagnoses in England.

There has been a 14% decrease in anogenital warts (female decrease 14% vs males decrease 14%) and the rate of diagnoses are at the lowest since 1996. HPV vaccine coverage for females aged 12 to 13 with at least one dose in the West Midlands was 86.2% for 2016/17, compared to 85.4% for 2015/16.

For 2 doses (females age 13 to 14) uptake was 82.3% for 2016/2017 and 86.0% for 2015/2016. In 2016/2017, the lowest uptake of 2 doses was reported in Birmingham (75.6%) and Sandwell (77.4). This reduction is an expected positive effect of the HPV vaccination programme in adolescent girls. Young heterosexual men stand to benefit from the female only HPV vaccination through herd protection. This is not necessarily the case for MSM and as a result, a targeted HPV vaccination pilot programme for MSM ran from June 2016 to March 2018 in selected Sexual Health Services (SHSs) and HIV clinics across England<sup>3</sup>. Following the success of the pilot a national rollout of targeted HPV vaccination for MSM attending specialist SHSs and HIV clinics started in April 2018.

In 2017, over half (53%) of all new STIs were diagnosed in individuals aged under 25 years. Females and males aged 20-24 years had the highest diagnosis rates for all new STIs combined. High quality relationships and sex education (RSE) in education settings equips young people with the information, skills and values to maintain their sexual health and contributes to wider health, emotional wellbeing and safeguarding. PHE is conducting and managing a number of initiatives to address this inequality; funding an online resource<sup>4</sup> and a telephone helpline<sup>5</sup> to provide advice on contraception, pregnancy and STIs. PHE has also recently launched a health promotion campaign to promote condom use and positive sexual relationships among 16-24 year olds<sup>6</sup>.

Men and women of Black and Mixed ethnicity had significantly higher diagnosis rates than men and women of all other ethnic groups for all new STI diagnoses in 2017. The high rates among Black and Mixed ethnic groups is most likely the consequence of a complex interplay of cultural, economic and behavioural factors emphasising the importance of ensuring that prevention activities appropriately target these communities.

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<sup>3</sup> Public Health England. HPV vaccination for men who have sex with men (MSM) programme (2018). Available from: [www.gov.uk/government/collections/hpv-vaccination-for-men-who-have-sex-with-men-msm-programme](http://www.gov.uk/government/collections/hpv-vaccination-for-men-who-have-sex-with-men-msm-programme)

<sup>4</sup> Sexwise. Available from: [sexwise.fpa.org.uk](http://sexwise.fpa.org.uk)

<sup>5</sup> Sexwise. Helplines. Available from: [sexwise.fpa.org.uk/where-to-get-help/helplines](http://sexwise.fpa.org.uk/where-to-get-help/helplines)

<sup>6</sup> NHS. Available from: [www.nhs.uk/protect-against-stis-use-a-condom/home](http://www.nhs.uk/protect-against-stis-use-a-condom/home)

Birmingham, Coventry, Walsall, Sandwell and Stoke-on-Trent had a higher diagnosis rate for all new STIs combined compared to the West Midlands average in 2017. Birmingham and Coventry had the highest rates for gonorrhoea, chlamydia and anogenital herpes, Sandwell and Stoke-on-Trent had the highest rates of syphilis and Coventry and Warwickshire the highest rates anogenital warts. Strengthened local prevention activities need to focus on groups at highest risk, including young adults, black ethnic minorities and MSM. Local areas should enable young women to be tested for chlamydia when accessing contraceptive services and emphasise for those aged under 25 who are sexually active the need for repeat screening annually and on change of sexual partner.

No upper tier local authority in the West Midlands reached the recommended chlamydia diagnostic rate of 2,300 per 100,000 population aged 15 to 24 years in 2017 (designed as a measure of the adequacy of community chlamydia screening and reported as part of the Public Health Outcomes Framework), although the nearest was Telford and Wrekin (2,188 per 100,000 population aged 15 to 24 years). Those furthest from the recommended level were Wolverhampton, Shropshire, Herefordshire and Staffordshire.

From 2016 to 2017, the proportion of eligible new episodes at specialist sexual health services in the West Midlands that included the offer of a HIV test fell from 78% to 71%. The lowest proportions were in Wolverhampton, Sandwell and Dudley in 2017. Uptake of offered HIV tests in the West Midlands was 81% in both 2016 and 2017 with the lowest proportions reported in Telford and Wrekin, Shropshire and Worcestershire in 2017. HIV test coverage (the proportion of attendees at specialist sexual health services who received a HIV test) fell from 69% in 2016 to 63% in 2017, with the lowest coverage in Wolverhampton and Sandwell.

Early diagnosis of STIs and HIV leads to fewer complications and reduced transmission to sexual partners. Rapid, open access to testing, treatment and partner notification can reduce the risk of complications and the spread of infection.

Regular testing for HIV and STIs in the following groups can also contribute:

- anyone under 25 who is sexually active should be screened for chlamydia annually, and on change of sexual partner
- MSM should test annually for HIV and STIs and every 3 months if having condom less sex with new or casual partners
- black ethnic minority men and women should have an STI screen, including an HIV test, annually if having condom less sex with new or casual partners

Health promotion, access to services, testing/re-testing, treatment and partner notification and education remain vital for STI prevention, through improving risk awareness and encouraging safer sexual behaviour. Consistent and correct condom use substantially reduces the risk of being infected with an STI. Prevention efforts

should include condom provision, ensuring open access to sexual health services with STI screening and robust contact tracing. For most infections, a whole population approach is needed, but with particular emphasis on young people, MSM and black ethnic groups. Effective commissioning of high quality sexual health services, as highlighted in the Framework for Sexual Health Improvement in England, will promote delivery of these key messages.

## 2 Trends in new STI diagnoses

In 2017, there were 35,635 new diagnoses of sexually transmitted infection (STIs) diagnosed at sexual health services<sup>7</sup> in the West Midlands.

Numbers of new STIs diagnosed in West Midlands residents decreased by 7% in 2017 compared to 2016 (Table 1). However, there were differences between specific STIs. Increases were observed for gonorrhoea (14%) and syphilis (6%). Overall cases of chlamydia (GUM and community diagnoses) have decreased by 8%; as well as the number of new diagnosed cases of anogenital herpes (3%) and diagnosed cases of anogenital warts (14%). All other new STIs<sup>†</sup> diagnoses have decreased by 14% between 2016 and 2017.

**Table 1: Number of new STI diagnoses by gender, West Midlands residents, 2016 and 2017.** Data sources: GUMCAD, CTAD

New STI Diagnoses	Females			Males			All Persons <sup>‡</sup>		
	2016	2017	% change	2016	2017	% change	2016	2017	% change
Chlamydia (all sources)	11,531	10,672	-7%	7,639	7,058	-8%	19,250	17,790	-8%
<i>of which GUM diagnoses</i>	6,323	6,405	1%	5,754	5,491	-5%	12,081	11,902	-1%
<i>of which community diagnoses</i>	5,208	4,267	-18%	1,885	1,567	-17%	7,169	5,888	-18%
Gonorrhoea	1,347	1,505	12%	2,030	2,344	15%	3,378	3,855	14%
Anogenital herpes (first episode)	1,862	1,816	-2%	1,021	991	-3%	2,884	2,807	-3%
Syphilis (primary, secondary, early latent)	44	43	-2%	324	348	7%	368	391	6%
Anogenital warts (first episode)	2,425	2,091	-14%	3,135	2,694	-14%	5,560	4,786	-14%
All other new STI diagnoses <sup>†</sup>	3,203	2,820	-12%	3,796	3,184	-16%	7,002	6,006	-14%
<b>Total new STI diagnoses</b>	<b>20,412</b>	<b>18,947</b>	<b>-7%</b>	<b>17,945</b>	<b>16,619</b>	<b>-7%</b>	<b>38,442</b>	<b>35,635</b>	<b>-7%</b>

<sup>†</sup> Includes chancroid / LGV / donovanosis, new HIV diagnoses, molluscum contagiosum, mycoplasma genitalium, non-specific genital infection, pelvic inflammatory disease and epididymitis (non-specific), scabies / pediculosis pubis, shigella (flexneri, sonnei and unspecified) and trichomoniasis.

<sup>‡</sup> Includes diagnoses in patients of unknown gender.

Diagnosis rates for each of the 5 main STIs diagnosed at sexual health services in the West Midlands are shown in Figure 1.

**Gonorrhoea:** The diagnosis rate for gonorrhoea has increased gradually since 1996 and in 2017 reached the highest rate yet (67.7 per 100,000).

<sup>7</sup> Sexual health services (SHSs) include both specialist (level 3) and non-specialist (level 1 & 2) SHSs. Specialist SHSs refers to genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH). Non-specialist SHSs refers to SRH services, young people's services, online sexual health services, termination of pregnancy services, pharmacies, outreach and general practice, and other community-based settings.



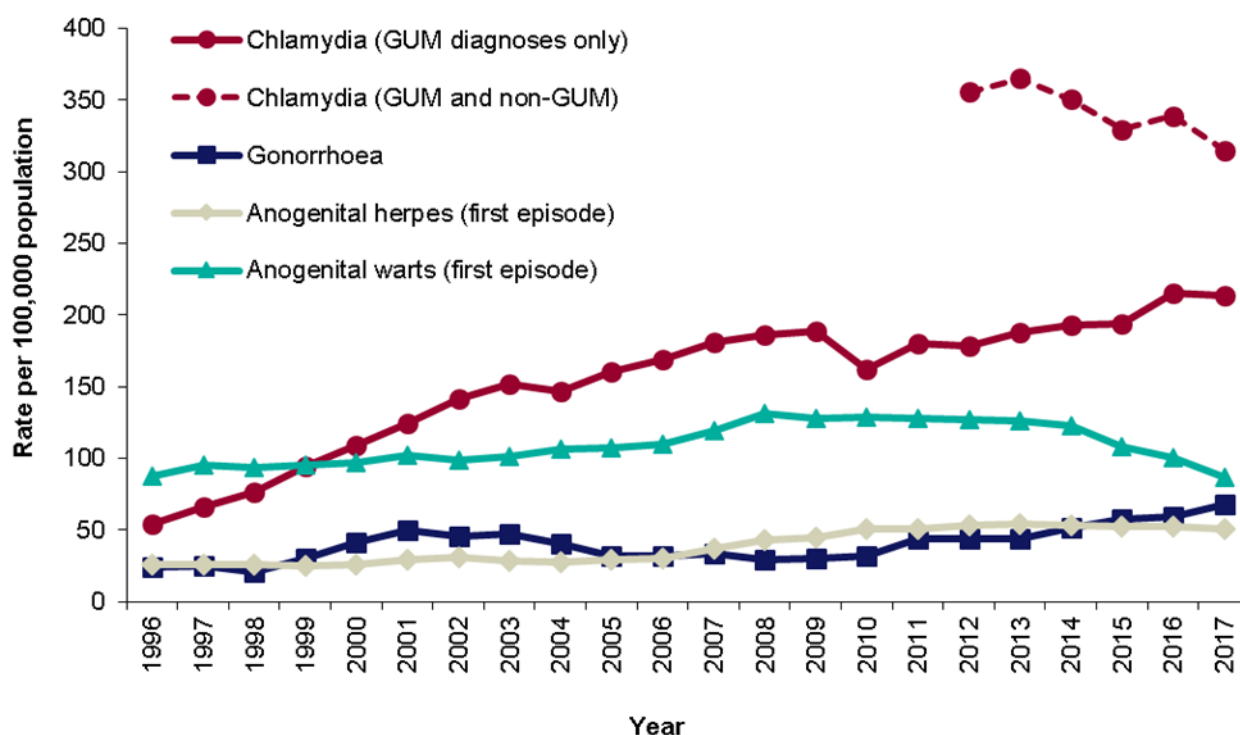
**Chlamydia:** In 2017, the GUM diagnostic rate for chlamydia was 213.7 per 100,000 population; although this was slightly lower than the rate in 2016 (215.6), it was still high by historical standards. The combined rate of GUM and non-GUM diagnoses fell from 339.0 in 2016 to 315.0 in 2017.

**Anogenital herpes:** The diagnosis rate for anogenital herpes has remained stable over the last 10 years with a rate of 51.2 per 100,000 population in 2017.

**Anogenital warts:** The diagnosis rate for anogenital warts has decreased since the peak in 2008 (131.6 per 100,000 population) to 2017 (87.3 per 100,000 population).

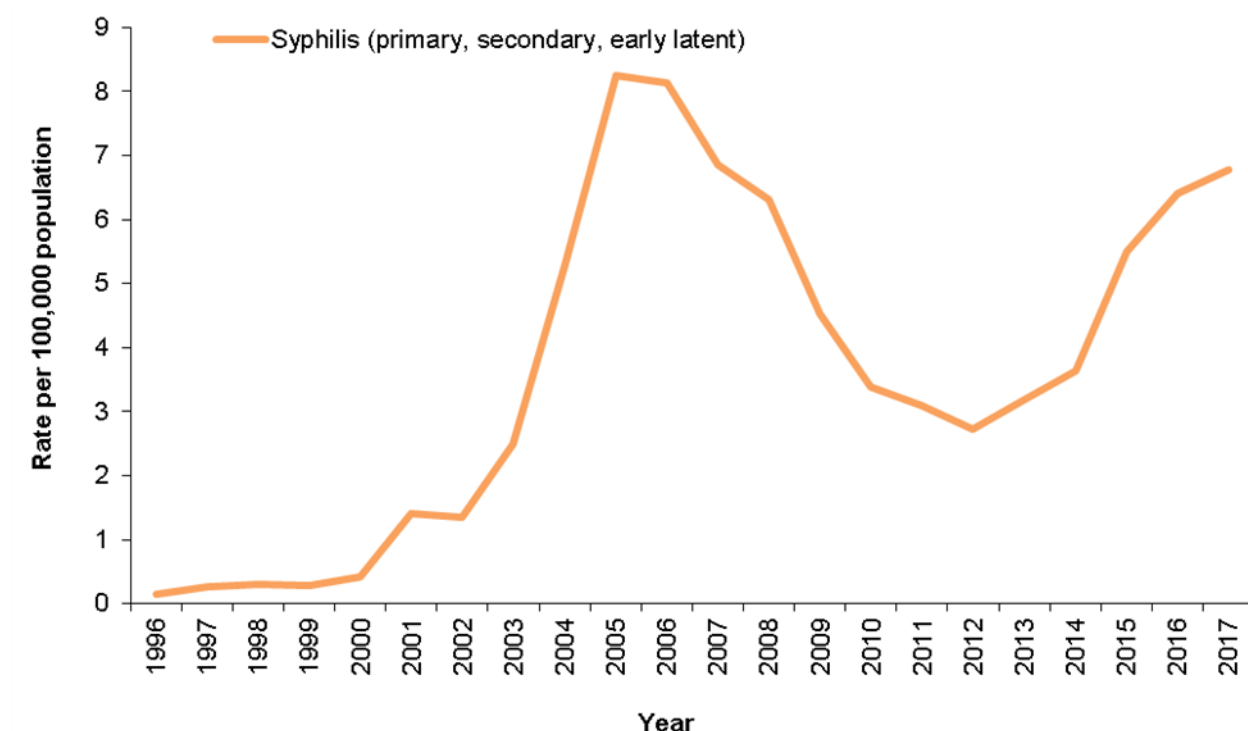
**Syphilis:** The diagnosis rates for syphilis have increased rapidly from very low levels in 2000 (0.4 per 100,000 population) to a peak in 2005 (8.3 per 100,000 population), before falling sharply until 2012. Rates have increased annually for the last 5 years and in 2017 the rate for syphilis was 6.8 per 100,000 population.

**Figure 1a: STIs diagnosed at sexual health services in the West Midlands, rates per 100,000 population: Chlamydia, Gonorrhoea, Anogenital herpes and Anogenital warts, 1996-2017.** Data sources: GUMCAD, CTAD, WMSTIP



Note: From 1996 to 2012 data are for GUM diagnoses only; from 2012 to 2017 data are for GUM and non-GUM diagnoses.

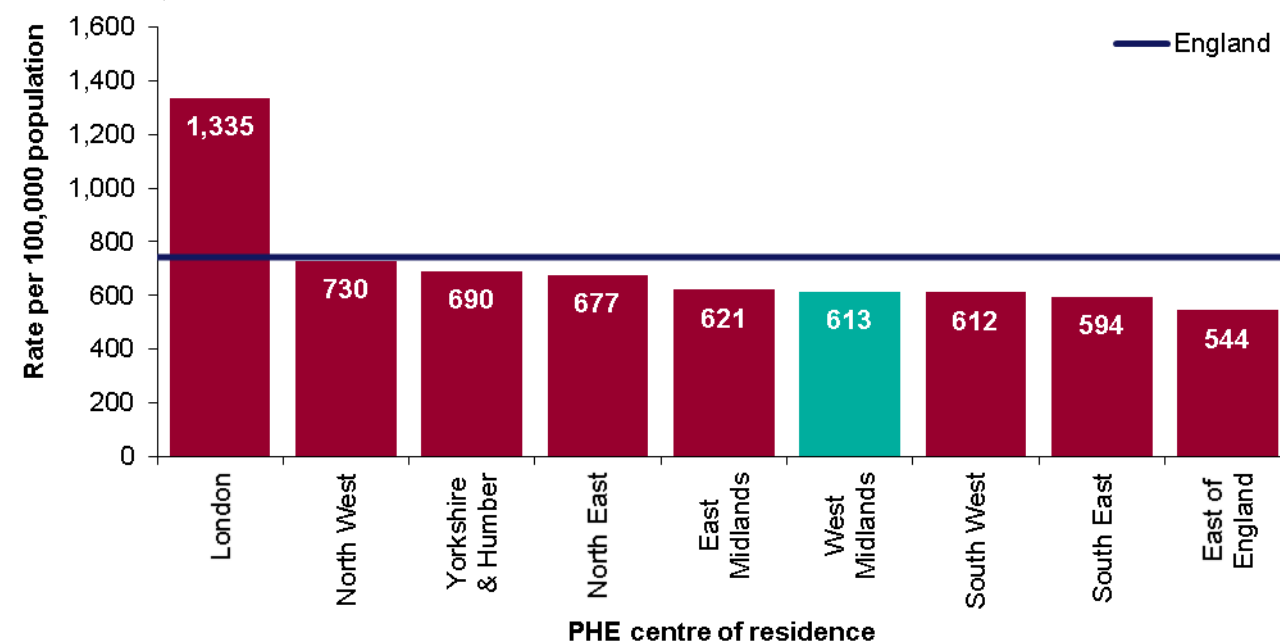
**Figure 1b: STIs diagnosed at sexual health services in the West Midlands, rates per 100,000 population: Syphilis, 1996-2017.** Data sources: GUMCAD, WMSTIP



Note: From 1996 to 2012 data are for GUM diagnoses only; from 2012 to 2017 data are for GUM and non-GUM diagnoses.

The rate of new STI diagnoses amongst residents of the West Midlands was below the national rate for England in 2017 (West Midlands, 613.3 per 100,000; England, 743.1 per 100,000; the England rate excluding London was 631.5 per 100,000) (Figure 2).

**Figure 2: Diagnosis rate for all new STIs per 100,000 population by PHE centre of residence, 2017.** Data sources: GUMCAD, CTAD



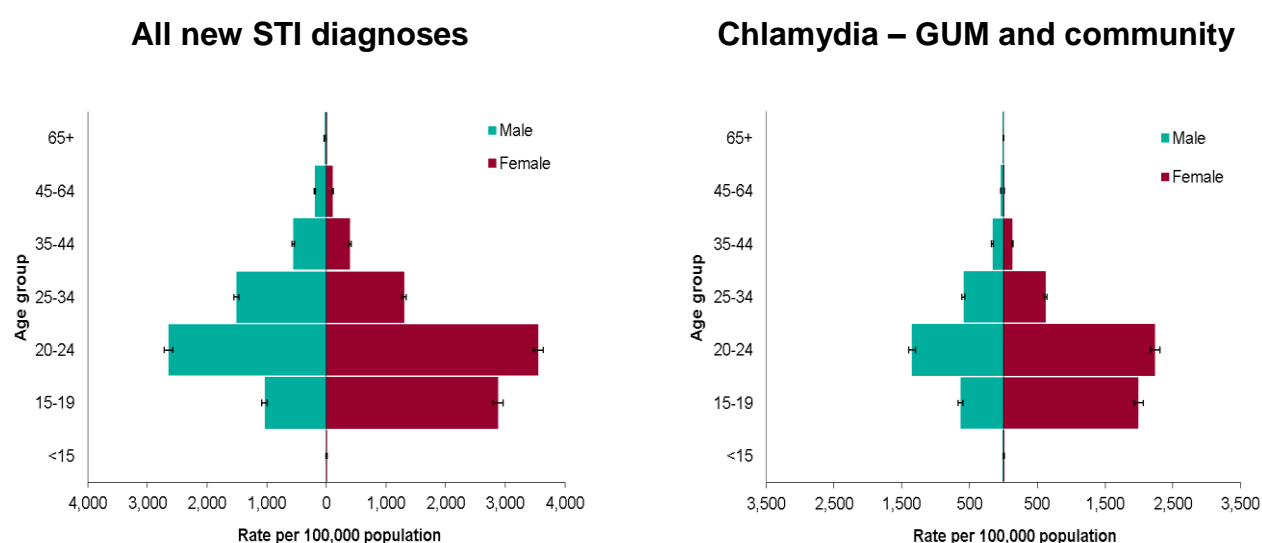
### 3 New STI diagnoses by age group

Overall, rates of new STI diagnoses in 2017 were highest in the 20-24 age groups in both males and females. Figure 3 shows the age group/sex distribution for the top 5 STIs and all new STIs for 2017.

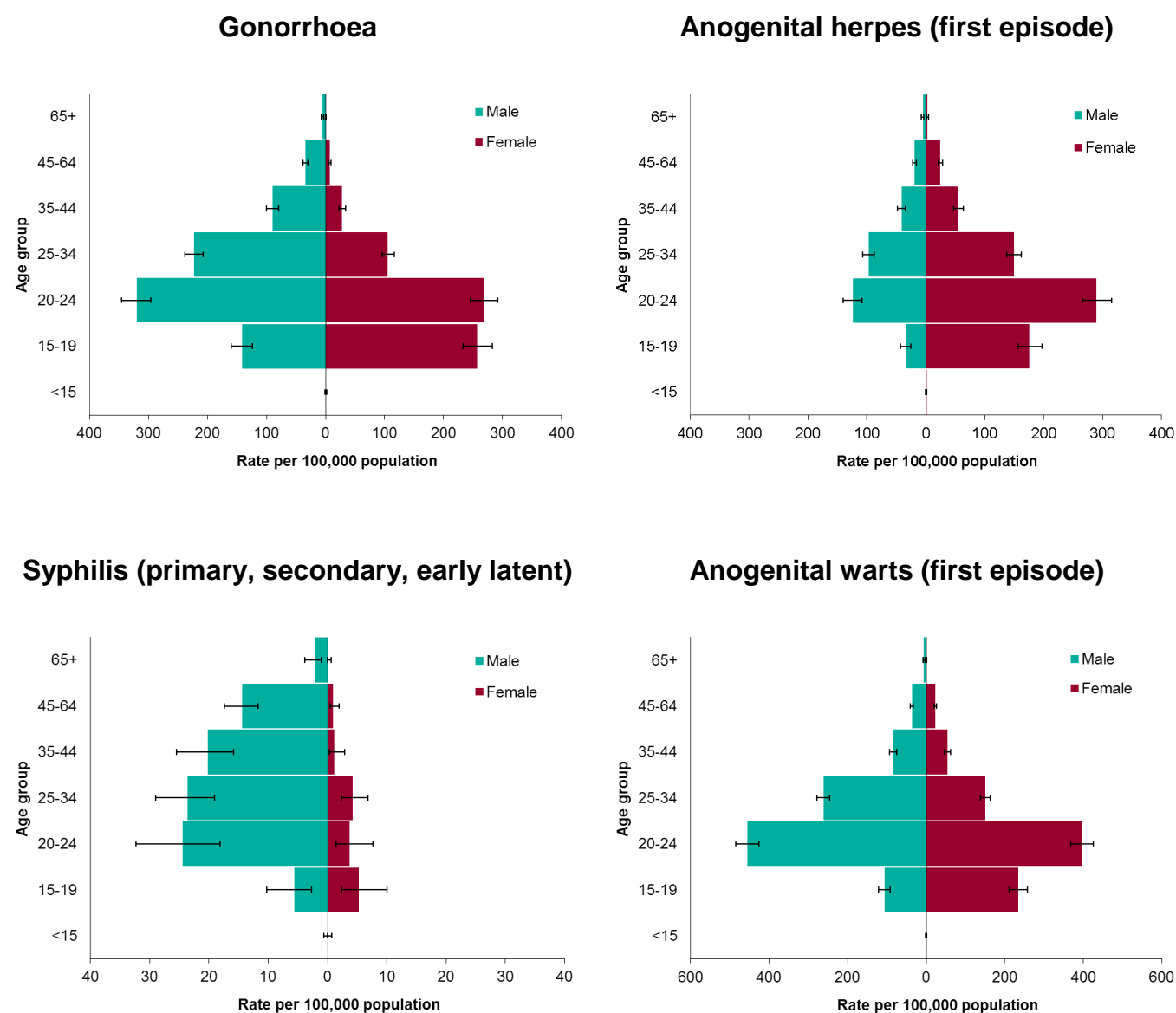
Just under two thirds (62%) of all new STI diagnoses in females in 2017 were in those aged under 25 years, this varied between the different STIs from 37% of syphilis diagnoses to 72% of chlamydia diagnoses. In males, 43% of all new STIs were diagnosed in those aged under 25 years, ranging from 17% of syphilis diagnoses to 55% of chlamydia diagnoses.

Males (all ages) accounted for the majority of cases of syphilis (89%), gonorrhoea (61%) and anogenital warts (56%) in 2017, while females accounted for the majority of cases of anogenital herpes (65%) and chlamydia (60%).

**Figure 3: Rates of new STI diagnoses per 100,000 population by age group and gender, West Midlands residents, 2017.** Data sources: GUMCAD, CTAD



**Figure 3 (continued): Rates of new STI diagnoses per 100,000 population by age group and gender, West Midlands residents, 2017.** Data sources: GUMCAD, CTAD

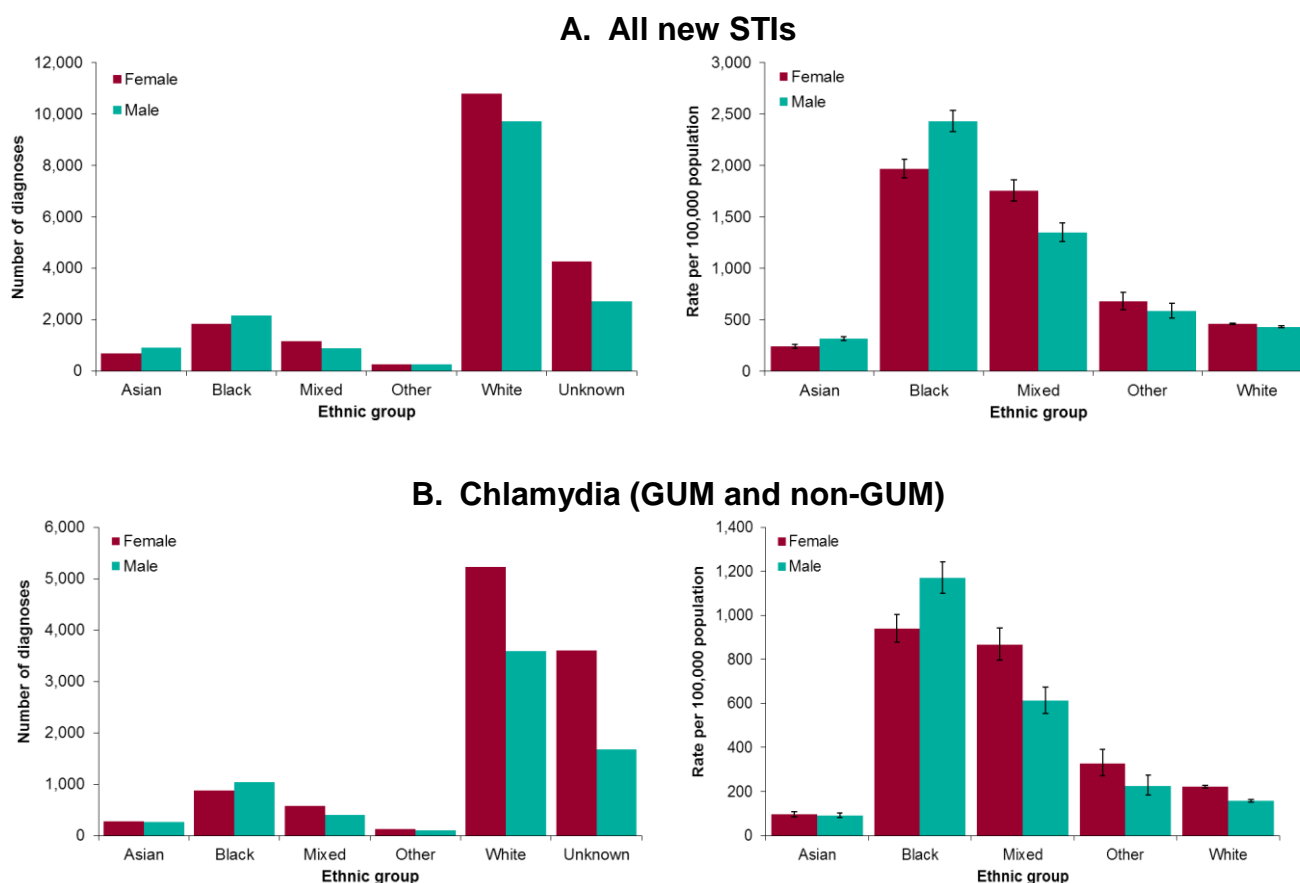


## 4 New STI diagnoses by ethnic group

For both male and female West Midlands residents, the highest number of all new STI diagnoses in 2017 were seen in the white ethnic group (72% of all new diagnoses where ethnicity was recorded) (Figure 4A). However, for all new STIs combined the diagnosis rate per 100,000 population was significantly higher in the black ethnic group (combined males and females), than for all other ethnic groups (combined males and females). For the 5 main STI diagnoses, the white population accounted for 64% of gonorrhoea diagnosis, 83% of syphilis diagnosis, 83% of anogenital warts diagnosis and 79% of anogenital herpes diagnosis, where ethnicity was recorded (Figure 4B-F).

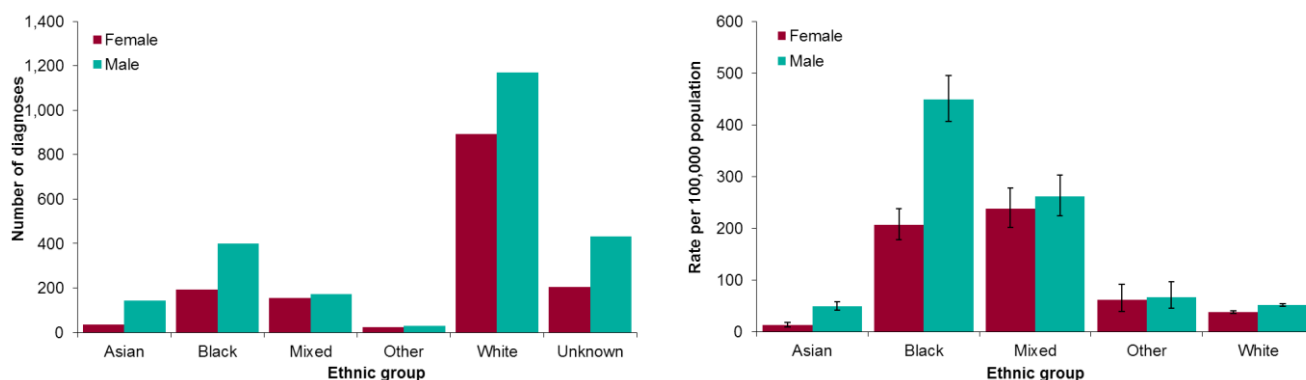
However, when comparing the rate per 100,000 population, men and women of black ethnicity were significantly more likely to be diagnosed with all infections when compared to those of white ethnicity. Men and women of mixed ethnicity were significantly more likely to be diagnosed with all infections apart from syphilis when compared to those of white ethnicity.

**Figure 4: Numbers and rates per 100,000 population of new STIs by ethnic group and gender, West Midlands residents, 2017.** Data sources: GUMCAD, CTAD

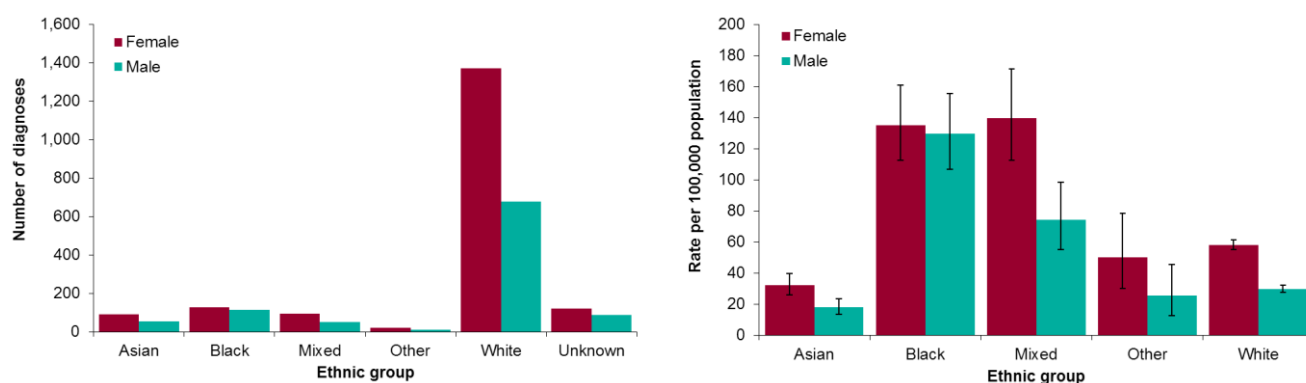


**Figure 4 (continued): Numbers and rates per 100,000 population of new STIs by ethnic group and gender, West Midlands residents, 2017.** Data sources: GUMCAD, CTAD

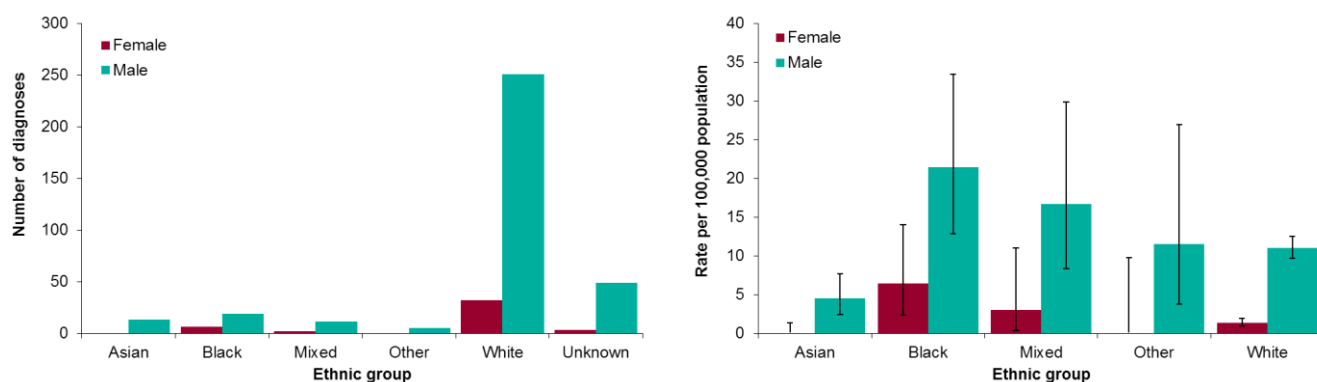
### C. Gonorrhoea



### D. Anogenital herpes (first episode)

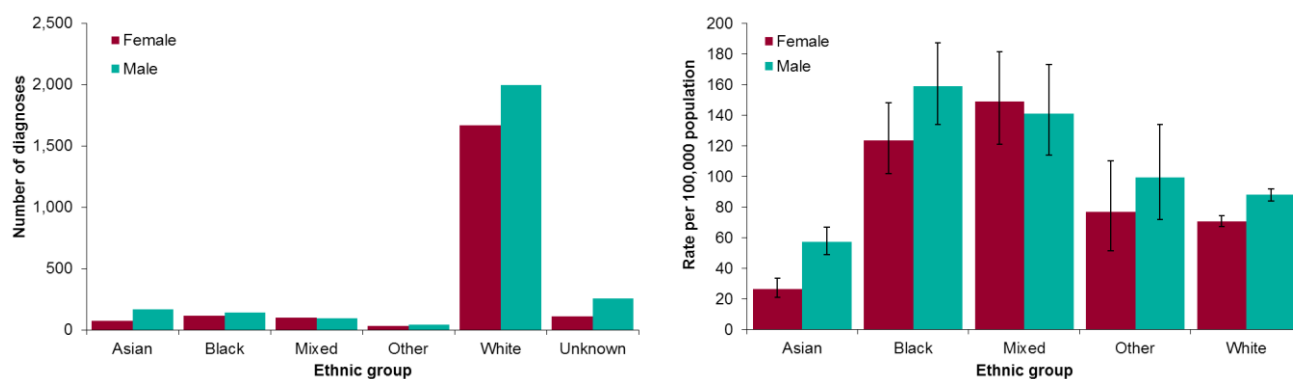


### E. Syphilis (primary, secondary and early latent)



**Figure 4 (continued): Numbers and rates per 100,000 population of new STIs by ethnic group and gender, West Midlands residents, 2017.** Data sources: GUMCAD, CTAD

### F. Anogenital warts (first episode)



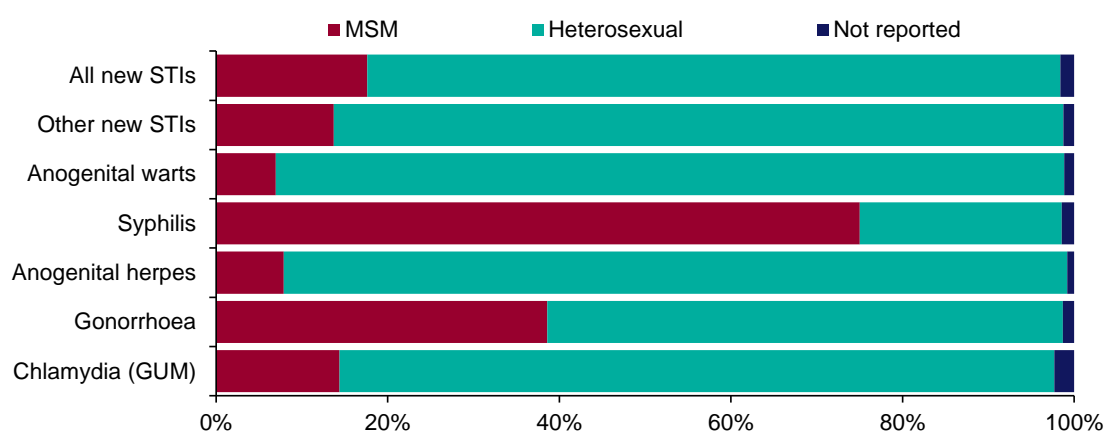
## 5 Men who have sex with men

The number of new STIs diagnosed in men who have sex with men (MSM) increased by 6% from 2016 to 2017, with the largest increases observed for gonorrhoea (20%), chlamydia (9%) and herpes (8%). A decrease in diagnosis was observed for warts (-23%) and all new other STIs (-5%). Cases of syphilis remained similar between 2016 and 2017 (1% increase). In 2017, 18% of all new STIs diagnosed in men were in MSM, including three-quarters of syphilis cases (75%) and over a third of gonorrhoea cases (39%) (Table 2). These data include all diagnoses made in specialist and non-specialist sexual health services reported to the Genitourinary Clinic Activity Dataset (GUMCAD).

**Table 2: Number of STI diagnoses in men who have sex with men and percentage of all male diagnoses, West Midlands residents, 2016 and 2017.** Data source: GUMCAD

New STI Diagnoses	Number of diagnoses		% change 2016 to 2017	MSM diagnoses as % of all male diagnoses	
	2016	2017		2016	2017
Chlamydia (reported to GUMCAD)	749	815	9%	13%	14%
Gonorrhoea	754	905	20%	37%	39%
Anogenital herpes (first episode)	72	78	8%	7%	8%
Syphilis (primary, secondary, early latent)	259	261	1%	80%	75%
Anogenital warts (first episode)	244	187	-23%	8%	7%
All other new STI diagnoses	459	437	-5%	12%	14%
<b>Total new STI diagnoses</b>	<b>2,537</b>	<b>2,683</b>	<b>6%</b>	<b>16%</b>	<b>18%</b>

**Figure 5: Percentage of all male diagnoses by sexual orientation and STI, West Midlands residents, 2017.** Data source: GUMCAD



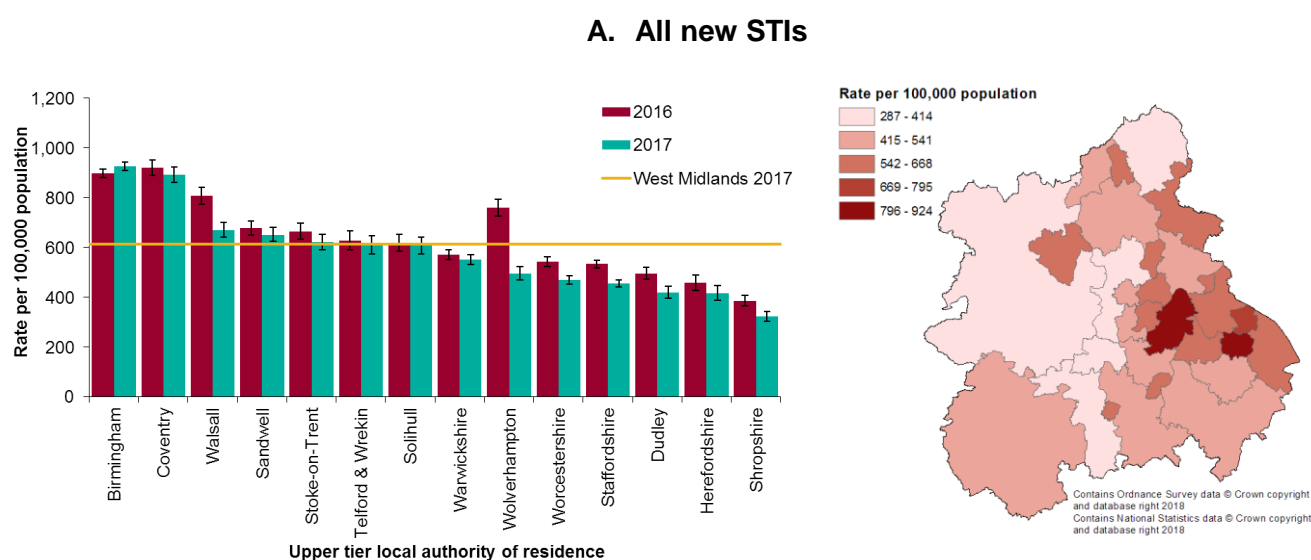


## 6 Geographical distribution of new STI diagnoses

The geographical distribution of new STI diagnoses varies by infection (Figure 5A-F). By upper tier local authority of residence, Birmingham had the highest diagnosis rate per 100,000 for all new STIs combined, followed by Coventry and Walsall. The lowest rates were observed in Herefordshire and Shropshire. By individual STI in 2017, rates of chlamydia and gonorrhoea were highest in Birmingham followed by Coventry; rates of anogenital herpes were highest in Coventry followed by Birmingham; rates of anogenital warts were highest in Coventry followed by Warwickshire and rates of syphilis were highest in Sandwell followed by Stoke-on-Trent.

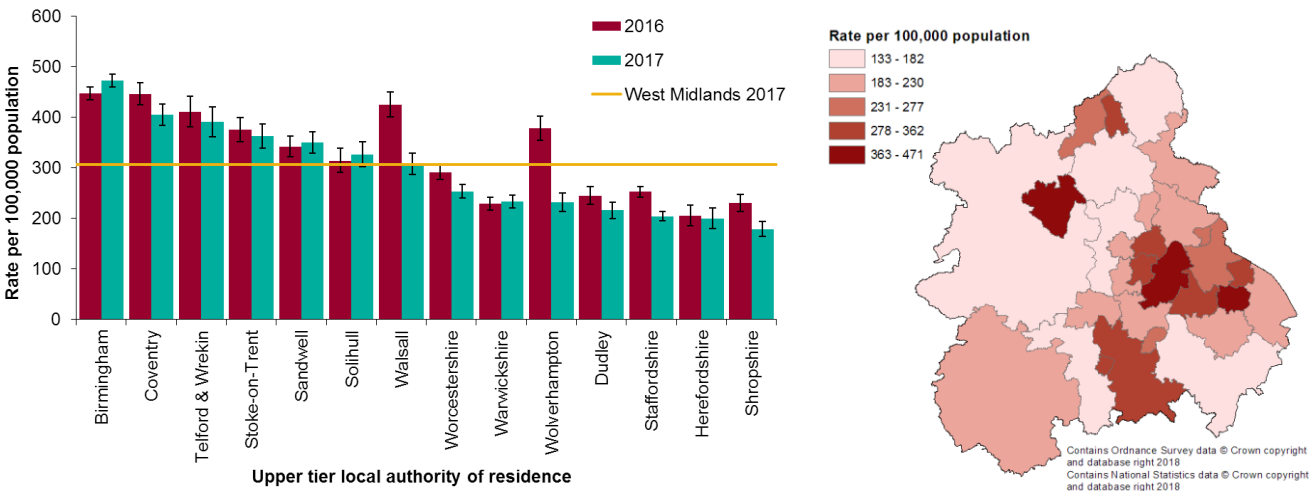
Between 2016 and 2017, there was a statistically significant increase in the diagnostic rate of gonorrhoea in Birmingham and a statistically significant decrease in all new STIs in Wolverhampton mainly driven by a decrease in chlamydia and anogenital warts diagnoses. Numbers and rates by upper tier local authority of residence are provided in the appendices.

**Figure 6: Rates of STI diagnoses by upper tier local authority of residence, West Midlands, 2016 and 2017 (chart) and lower tier local authority of residence, West Midlands, 2017 (map), West Midlands.** Data sources: GUMCAD, CTAD

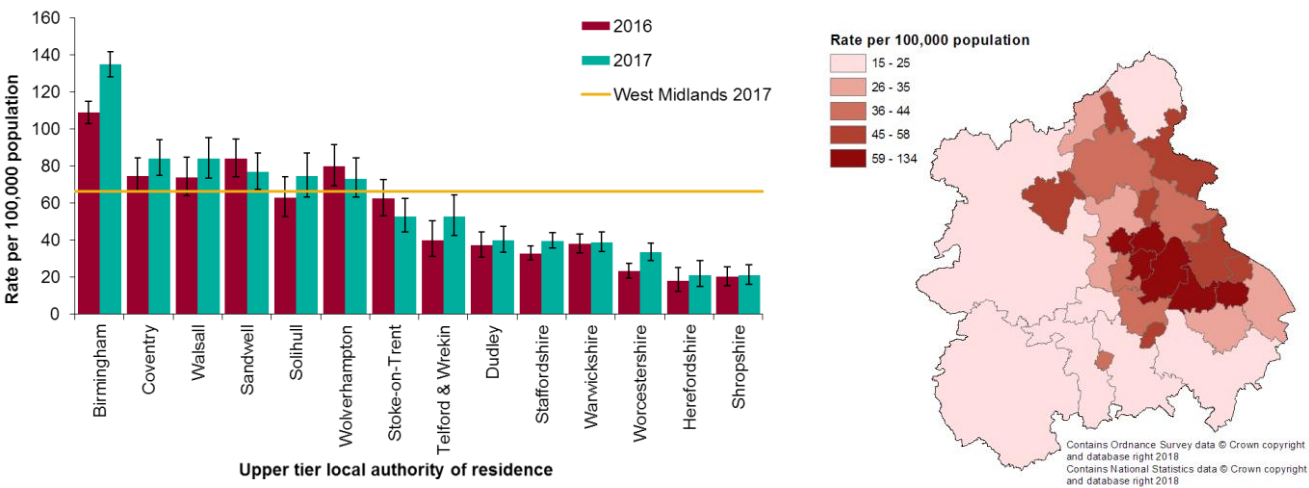


**Figure 6 (continued): Rates of STI diagnoses by upper tier local authority of residence, West Midlands, 2016 and 2017 (chart) and lower tier local authority of residence, West Midlands, 2017 (map), West Midlands. Data sources: GUMCAD, CTAD**

**B. Chlamydia (GUM and non-GUM)**



**C. Gonorrhoea**

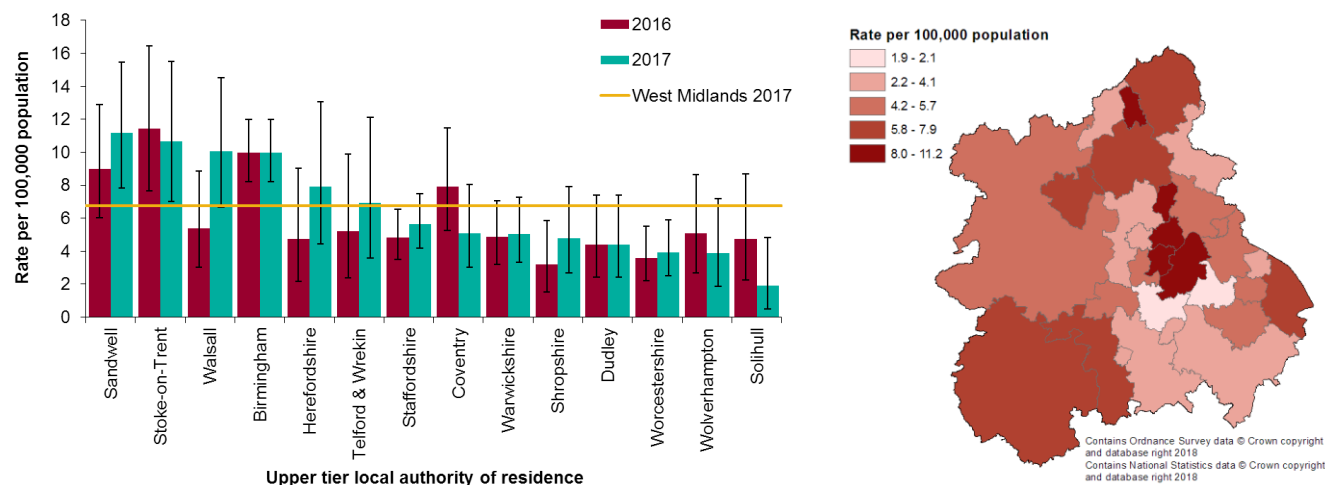


**Figure 6 (continued): Rates of STI diagnoses by upper tier local authority of residence, West Midlands, 2016 and 2017 (chart) and lower tier local authority of residence, West Midlands, 2017 (map), West Midlands. Data sources: GUMCAD, CTAD**

### D. Anogenital herpes (first episode)

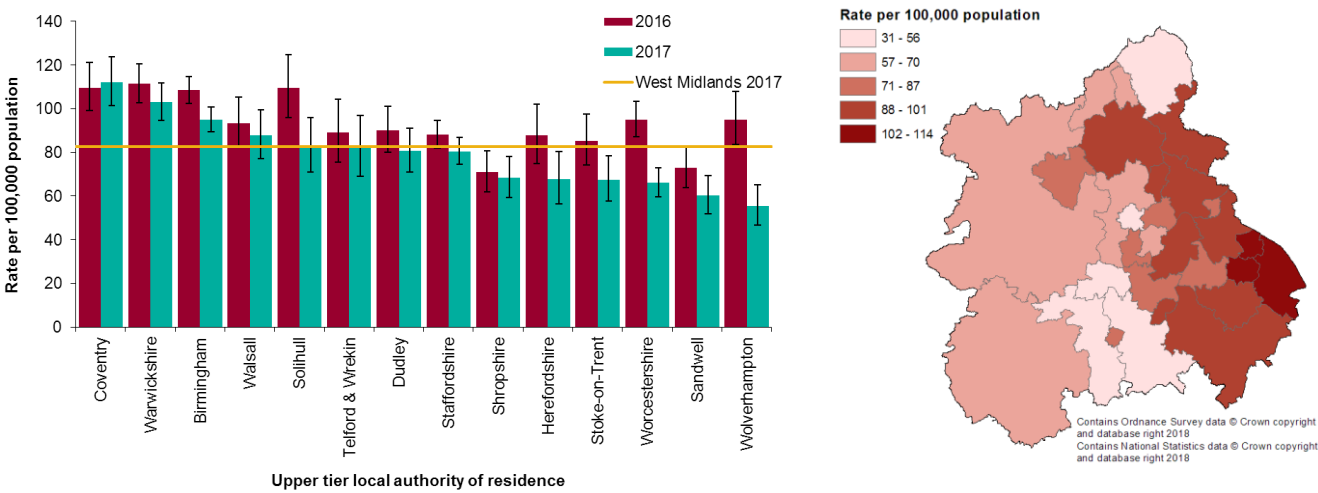


### E. Syphilis (primary, secondary and early latent)



**Figure 6 (continued): Rates of STI diagnoses by upper tier local authority of residence, West Midlands, 2016 and 2017 (chart) and lower tier local authority of residence, West Midlands, 2017 (map), West Midlands. Data sources: GUMCAD, CTAD**

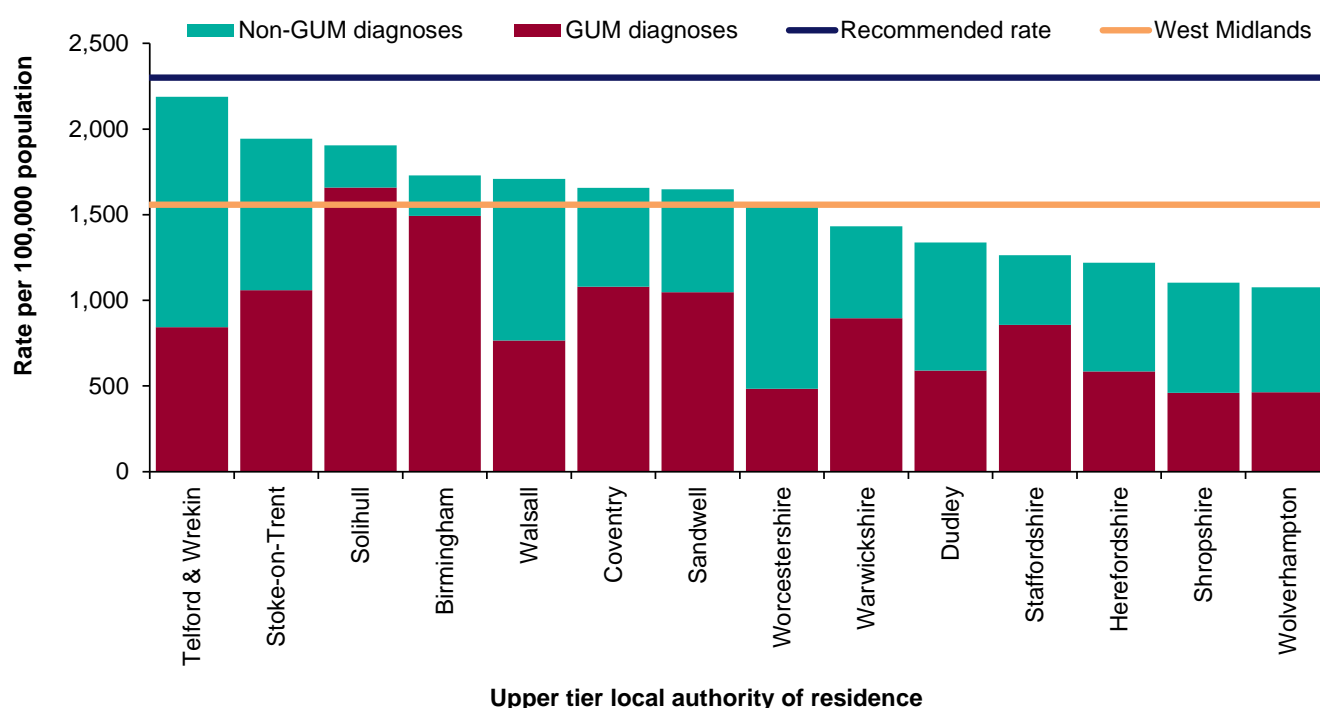
**F. Anogenital warts (first episode)**



## 7 Chlamydia diagnostic rate in young adults

Public Health England recommends that local areas should be working towards achieving a chlamydia diagnostic rate of at least 2,300 per 100,000 population aged 15-24 years. In 2017, no upper tier local authority in the West Midlands achieved the recommended rate. Telford and Welkin had the highest diagnostic rate and Wolverhampton had the lowest diagnostic rate in the West Midlands (Figure 7).

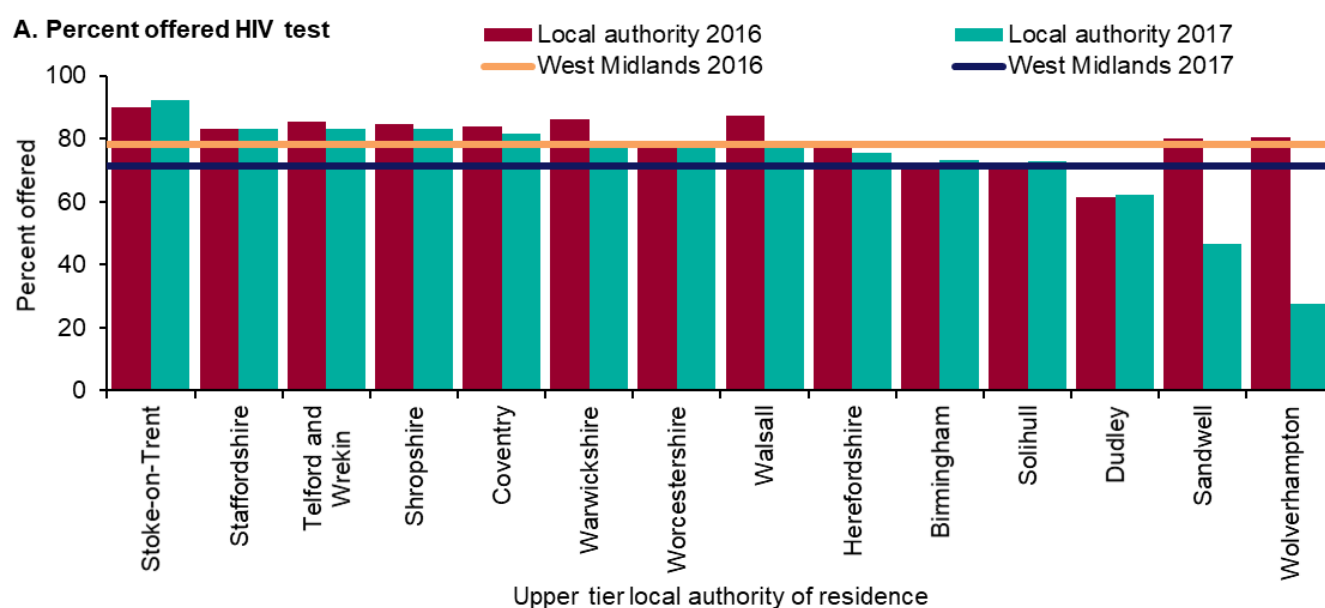
**Figure 7: Chlamydia diagnosis rate per 100,000 population in 15-24 year olds by upper tier local authority of residence, West Midlands, 2017.** Data sources: GUMCAD and CTAD



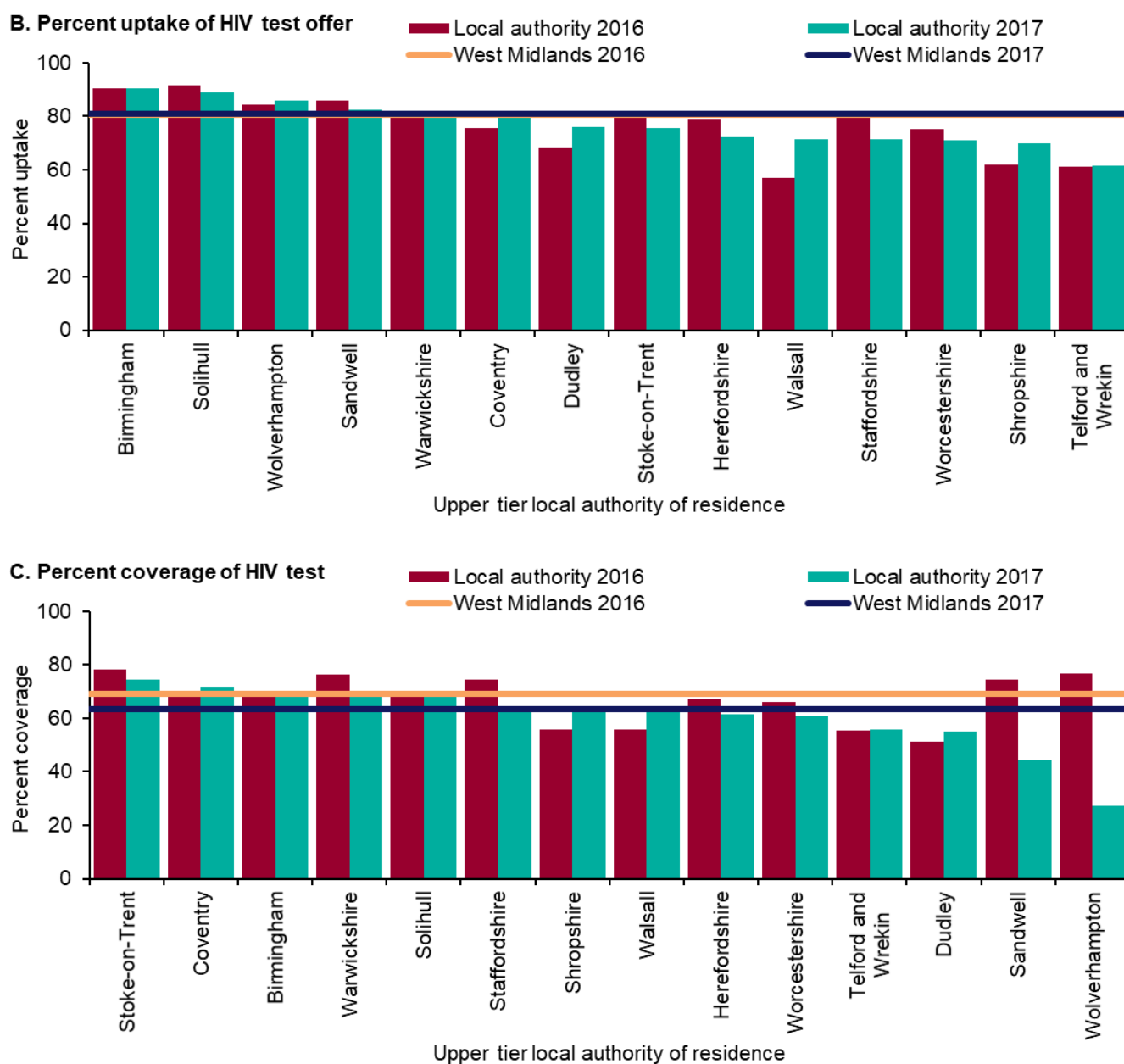
## 8 Offer, uptake and coverage of HIV testing in GUM clinics

Across the West Midlands from 2016 to 2017, the proportion of eligible new episodes at specialist sexual health services that included the offer of a HIV test fell from 78% to 71%. The lowest proportions were in Wolverhampton, Sandwell and Dudley in 2017 (Figure 8A). Uptake of offered HIV tests in the West Midlands was 81% in both 2016 and 2017 with the lowest proportions reported in Telford and Wrekin, Shropshire and Worcestershire in 2017 (Figure 8B). HIV test coverage (the proportion of attendees at specialist sexual health services who received a HIV test) fell from 69% in 2016 to 63% in 2017, with the lowest proportions in 2017 were reported in Wolverhampton, Sandwell and Dudley (Figure 8C).

**Figure 8A-8C: Offer, uptake and coverage of HIV testing in GUM clinics by upper tier local authority of residence, West Midlands, 2016 and 2017.** Data source: GUMCAD



**Figure 8A-8C (continued): Offer, uptake and coverage of HIV testing in GUM clinics by upper tier local authority of residence, West Midlands, 2016 and 2017.** Data source: GUMCAD



## 9 Information on data sources

For more information on local sexual health data sources please access the PHE guide: [www.gov.uk/government/publications/sexual-and-reproductive-health-in-england-local-and-national-data](http://www.gov.uk/government/publications/sexual-and-reproductive-health-in-england-local-and-national-data)

### Genitourinary Medicine Clinic Activity Dataset (GUMCAD)

This disaggregate reporting system collects information about attendances and diagnoses at specialist (Level 3) and non-specialist (Level 2) sexual health services including enhanced GP services. Information about the patient's area of residence is collected along with demographic data and other variables. GUMCAD superseded the earlier KC60 system and can provide data from 2009 onwards. GUMCAD is the main source of data for this report. The data extract used was produced in April 2017.

Due to limits on how much personally identifiable information sexual health clinics are able to share, it is not possible to deduplicate between different clinics. There is a possibility that some patients may be counted more than once if they are diagnosed with the same infection (for infection specific analyses) or a new STI of any type (for new STI analyses) at different clinics during the same calendar year.

### Chlamydia Testing Activity Dataset (CTAD)

CTAD collects data on all NHS and LA/NHS-commissioned chlamydia testing carried out in England. CTAD is comprised of all chlamydia (NAATs) tests for all ages (with the exception of conjunctival samples), from all venues and for all reasons. CTAD enables unified, comprehensive reporting of all chlamydia data, to effectively monitor the impact of the NCSP through estimation of the coverage of population screening, proportion of all tests that are positive and detection rates. The data extract used was produced in February 2017.

### West Midlands STI Surveillance Project (WMSTIP)

An anonymised disaggregate dataset collecting information on diagnoses made at 19 of the 21 GUM clinics in the West Midlands. Data for the 2 GUM clinics that did not participate in the project are taken from KC60 returns. The WMSTIP ceased data collection when GUMCAD became operational in 2008.

### Calculations

Confidence Intervals were calculated using Byar's method:  
[fingertips.phe.org.uk/profile/guidance](http://fingertips.phe.org.uk/profile/guidance)

Office for National Statistics (ONS) mid-year population estimates for 2016 were used as a denominator for rates for 2017. ONS ceased producing estimates of population by ethnicity in 2011. Estimates for that year were used as a denominator for rates for 2016.



## 10 Further information

As of this year, all analyses for this report include data from non-specialist (Level 2) sexual health services (SHSs) and enhanced GP services as well as specialist (Level 3) SHSs.

Please access the online 'Sexual and Reproductive Health Profiles' for further information:  
[fingertips.phe.org.uk/profile/sexualhealth](https://fingertips.phe.org.uk/profile/sexualhealth)

For more information on local sexual health data sources please access the PHE guide:  
[www.gov.uk/government/publications/sexual-and-reproductive-health-in-england-local-and-national-data](https://www.gov.uk/government/publications/sexual-and-reproductive-health-in-england-local-and-national-data)

Local authorities have access to LA sexual health epidemiology reports (LASERs) and the HIV and STI portal.

## 11 About the Field Service

The Field Service (FS) supports Public Health England Centres and partner organisations through the application of epidemiological methods to inform public health action.

FS does this in 2 main ways. Firstly, by providing a flexible expert resource available, as and when needed, to undertake epidemiological investigations for key health protection work. Secondly, through the expert analysis, interpretation and dissemination of surveillance information to PHE Centres, local health partners, service providers and commissioners of services.

Within the FS network, excellence and innovation is encouraged. We foster academic collaborations and take active part and lead in research, development and training.

You can contact your local FS team at: [fes.westmidlands@phe.gov.uk](mailto:fes.westmidlands@phe.gov.uk)

If you have any comments or feedback regarding this report or the Field Service, please contact: [WMSexualHealth@phe.gov.uk](mailto:WMSexualHealth@phe.gov.uk)

## 12 Acknowledgements

We would like to thank the following:

- local sexual health services for supplying the SHS data
- local laboratories for supplying the CTAD data
- PHE Centre for Infectious Disease Surveillance and Control (CIDSC) HIV and STI surveillance teams for collection, analysis and distribution of data

# 13 Appendices

**Appendix 1: Number of new STIs diagnosed and percentage change by upper tier local authority of residence, West Midlands, 2016 and 2017.** Data sources: GUMCAD, CTAD

Upper tier local authority of residence	Chlamydia (GUM and non-GUM)			Gonorrhoea			Anogenital herpes (first episode)			Syphilis			Anogenital warts (first episode)			All new STIs <sup>†</sup>		
	2016	2017	% change	2016	2017	% change	2016	2017	% change	2016	2017	% change	2016	2017	% change	2016	2017	% change
Birmingham	5,031	5,316	6%	1,225	1,517	24%	594	672	13%	112	112	0%	1,219	1,067	-12%	10,094	10,421	3%
Coventry	1,576	1,430	-9%	264	297	13%	273	236	-14%	28	18	-36%	387	396	2%	3,249	3,150	-3%
Dudley	779	686	-12%	118	127	8%	103	72	-30%	14	14	0%	286	256	-10%	1,577	1,335	-15%
Herefordshire	388	378	-3%	34	40	18%	90	64	-29%	9	15	67%	166	128	-23%	868	789	-9%
Sandwell	1,105	1,130	2%	271	248	-8%	127	110	-13%	29	36	24%	235	194	-17%	2,187	2,103	-4%
Shropshire	721	560	-22%	63	66	5%	106	86	-19%	10	15	50%	222	214	-4%	1,211	1,013	-16%
Solihull	665	692	4%	133	158	19%	110	111	1%	10	4	-60%	232	175	-25%	1,311	1,285	-2%
Staffordshire	2,192	1,774	-19%	285	344	21%	408	466	14%	42	49	17%	765	698	-9%	4,625	3,953	-15%
Stoke-on-Trent	950	919	-3%	158	134	-15%	172	147	-15%	29	27	-7%	216	171	-21%	1,683	1,575	-6%
Telford & Wrekin	711	676	-5%	69	91	32%	72	67	-7%	9	12	33%	154	142	-8%	1,088	1,055	-3%
Walsall	1,185	857	-28%	206	234	14%	154	157	2%	15	28	87%	260	245	-6%	2,253	1,869	-17%
Warwickshire	1,276	1,299	2%	211	216	2%	372	332	-11%	27	28	4%	620	573	-8%	3,183	3,077	-3%
Wolverhampton	971	594	-39%	205	188	-8%	92	87	-5%	13	10	-23%	244	142	-42%	1,950	1,273	-35%
Worcestershire	1,700	1,479	-13%	136	195	43%	211	200	-5%	21	23	10%	554	385	-31%	3,163	2,737	-13%
<b>West Midlands</b>	<b>19,250</b>	<b>17,790</b>	<b>-8%</b>	<b>3,378</b>	<b>3,855</b>	<b>14%</b>	<b>2,884</b>	<b>2,807</b>	<b>-3%</b>	<b>368</b>	<b>391</b>	<b>6%</b>	<b>5,560</b>	<b>4,786</b>	<b>-14%</b>	<b>38,442</b>	<b>35,635</b>	<b>-7%</b>

<sup>†</sup>All new STIs comprise chlamydia, gonorrhoea, anogenital herpes (first episode), syphilis (primary, secondary and early latent), anogenital warts (first episode), chancroid / LGV / donovanosis, new HIV diagnoses, molluscum contagiosum, mycoplasma genitalium, non-specific genital infection, pelvic inflammatory disease and epididymitis (non-specific), scabies / pediculosis pubis, shigella (flexneri, sonnei and unspecified) and trichomonias.

**Appendix 2: New STI diagnosis rate per 100,000 population by upper tier local authority of residence, West Midlands, 2016 and 2017.**  
Data sources: GUMCAD, CTAD

Upper tier local authority of residence	Chlamydia (GUM and non-GUM)		Gonorrhoea		Anogenital herpes (first episode)		Syphilis		Anogenital warts (first episode)		All new STIs†	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Birmingham	446.0	471.2	108.6	134.5	52.7	59.6	9.9	9.9	108.1	94.6	894.8	923.8
Coventry	446.2	404.9	74.7	84.1	77.3	66.8	7.9	5.1	109.6	112.1	919.8	891.8
Dudley	245.3	216.0	37.2	40.0	32.4	22.7	4.4	4.4	90.1	80.6	496.6	420.4
Herefordshire	204.7	199.4	17.9	21.1	47.5	33.8	4.7	7.9	87.6	67.5	458.0	416.3
Sandwell	342.5	350.2	84.0	76.9	39.4	34.1	9.0	11.2	72.8	60.1	677.9	651.8
Shropshire	229.3	178.1	20.0	21.0	33.7	27.4	3.2	4.8	70.6	68.1	385.2	322.2
Solihull	313.4	326.2	62.7	74.5	51.8	52.3	4.7	1.9	109.3	82.5	617.9	605.7
Staffordshire	253.0	204.7	32.9	39.7	47.1	53.8	4.8	5.7	88.3	80.6	533.8	456.2
Stoke-on-Trent	374.5	362.3	62.3	52.8	67.8	58.0	11.4	10.6	85.2	67.4	663.5	620.9
Telford & Wrekin	409.3	389.1	39.7	52.4	41.4	38.6	5.2	6.9	88.6	81.7	626.3	607.3
Walsall	424.9	307.3	73.9	83.9	55.2	56.3	5.4	10.0	93.2	87.8	807.9	670.2
Warwickshire	228.3	232.4	37.7	38.6	66.5	59.4	4.8	5.0	110.9	102.5	569.4	550.5
Wolverhampton	376.3	230.2	79.5	72.9	35.7	33.7	5.0	3.9	94.6	55.0	755.8	493.4
Worcestershire	291.3	253.5	23.3	33.4	36.2	34.3	3.6	3.9	94.9	66.0	542.1	469.1
<b>West Midlands</b>	<b>331.3</b>	<b>306.2</b>	<b>58.1</b>	<b>66.3</b>	<b>49.6</b>	<b>48.3</b>	<b>6.3</b>	<b>6.7</b>	<b>95.7</b>	<b>82.4</b>	<b>661.6</b>	<b>613.3</b>

†All new STIs comprise chlamydia, gonorrhoea, anogenital herpes (first episode), syphilis (primary, secondary and early latent), anogenital warts (first episode), chancroid / LGV / donovanosis, new HIV diagnoses, molluscum contagiosum, mycoplasma genitalium, non-specific genital infection, pelvic inflammatory disease and epididymitis (non-specific), scabies / pediculosis pubis, shigella (flexneri, sonnei and unspecified) and trichomoniasis.