



Public Health
England

Protecting and improving the nation's health

Spotlight on sexually transmitted infections in the East Midlands 2017 data

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: [@PHE_uk](https://twitter.com/PHE_uk)
Facebook: www.facebook.com/PublicHealthEngland



© Crown copyright 2019

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogil.io). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published: January 2019
PHE publications
gateway number: 2018739

PHE supports the UN
Sustainable Development Goals



Contents

About Public Health England	2	
1. Summary	4	
Implications for prevention		5
PHE's key messages		8
2. Charts, tables and maps	9	
2.1 Overview		9
2.3 Geography		15
2.4 Testing and Services		18
3. Information on data sources	21	
3.1 GUMCAD		21
3.2 CTAD		21
3.3 New STIs		21
3.4 Calculations		22
4. Further information	23	
5. About the Field Service	24	
6. Acknowledgements	25	

1. Summary

Sexually transmitted infections (STIs) represent an important public health problem in the East Midlands. Out of 9 Public Health England (PHE) centres, including London, the East Midlands has the fifth highest rate of new STIs in England.

More than 29,300 new STIs were diagnosed in East Midlands residents in 2017, representing a rate of 621 diagnoses per 100,000 population. Rates by upper tier local authority ranged from 483 new STI diagnoses per 100,000 population in Rutland to 1,217 new STI diagnoses per 100,000 population in Nottingham.

The number of new STIs diagnosed in East Midlands residents remained the same between 2016 and 2017. Rises were seen in the numbers of most of the 5 major STIs: syphilis increased by 10%, gonorrhoea by 17%, chlamydia by <1% and genital herpes by 4%. Genital warts decreased by 5%.

PHE recommends that local areas should be working towards achieving a chlamydia detection rate of at least 2,300 per 100,000 among individuals aged 15 to 24 years. This is an indicator in the Public Health Outcomes Framework (PHOF). In 2017 the chlamydia diagnosis rate among East Midlands residents aged 15 to 24 years was 1,848 per 100,000 residents.

Men and women have similar rates of new STIs (587 and 651 per 100,000 residents respectively).

Where gender and sexual orientation are known, men who have sex with men (MSM) account for 8% of East Midlands residents diagnosed with a new STI in a specialist sexual health service (SHS)¹ (67% of those diagnosed with syphilis and 27% of those diagnosed with gonorrhoea).

STIs disproportionately affect young people. East Midlands residents aged between 15 and 24 years accounted for 58% of all new STI diagnoses in 2017.

The white ethnic group has the highest number of new STI diagnoses: over 19,500 (83%). Although only 3% of new STIs are in black Caribbeans, they have the highest rate: 2,248 per 100,000, which is 5 times the rate seen in the white ethnic group.

¹ 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) services. 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.

Where country of birth was known, 88% of East Midlands residents diagnosed in a specialist SHS in 2017 with a new STI were UK-born.

Implications for prevention

The impact of STIs remains greatest in young heterosexuals aged 15 to 24 years, black ethnic minorities and MSM.² PHE is conducting and managing a number of initiatives to address this inequality.

Access to high quality information is essential for good sexual health. PHE has funded an online resource³ and a telephone helpline⁴ to provide advice on contraception, pregnancy and STIs.

The high rates of STIs among young people are likely to be due to greater rates of partner change.⁵ Statutory, high-quality relationship and sex education at all secondary schools will equip young people with the information and skills to improve their sexual health.^{6,7,8} PHE recently launched a health promotion campaign to promote condom use and positive sexual relationships among 16 to 24 year olds.⁹ The vast majority of areas in England have condom schemes which distribute condoms to young people (mostly under 20 years of age) through a variety of outlets with an estimated coverage of 6% in under 20 year olds.¹⁰

There has been a long term decline in the chlamydia detection rate among 15 to 24 year olds and notable variations by geographic area, often reflecting rates of testing. Given the large drops in testing nationally, and the high positivity of women within sexual and reproductive health services, it is likely that some infected women are going undiagnosed.

Local authorities with detection rates below the PHOF recommended indicator of 2,300 per 100,000 population should consider means to promote chlamydia screening to most effectively detect and control chlamydia infections. Local areas should focus on

² Sexually transmitted infections and screening for chlamydia in England, 2017. Public Health England https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf

³ <https://sexwise.fpa.org.uk>

⁴ <https://sexwise.fpa.org.uk/where-to-get-help/helplines>

⁵ Mercer CH et al. Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). *The Lancet* 2013; 382(9907):1781- 94.

⁶ Macdowall W et al. Associations between source of information about sex and sexual health outcomes in Britain: findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3). *BMJ Open* 2015; 5(3): e007837. DOI: 10.1136/bmjopen-2015-007837. PubMed PMID: PMC4360826.

⁷ Sex Education Forum. SRE - the evidence: <http://www.sexeducationforum.org.uk/media/28306/SRE-the-evidence-March-2015.pdf>. Accessed 31 May 2018.

⁸ Department for Education. Policy paper: Relationships education, RSE and PSHE: <https://www.gov.uk/government/publications/relationships-education-rse-and-pshe>.

⁹ <https://www.nhs.uk/protect-against-stis-use-a-condom/home>

¹⁰ Ratna N, A N, Hadley A, Brigstock-Barron O. Condom Distribution Schemes in England 2015/16: <https://www.gov.uk/government/publications/condom-distribution-schemes-in-england>.

embedding chlamydia screening for 15 to 24 year olds into a variety of non-specialist SHSs and community-based settings, focusing on those which serve the populations with the highest need based on positivity. They should also emphasise the need for repeat screening annually and on change of sexual partner, as well as the need for re-testing after a positive diagnosis within 3 months of initial diagnosis; and ensure treatment and partner notification standards are met.

To support local areas and improve their chlamydia detection rate in 15 to 24 year olds, PHE developed the chlamydia care pathway (CCP) to outline comprehensive case management for an episode of chlamydia testing, diagnosis and treatment.¹¹ CCP support is delivered through facilitated workshops, the aim of which is to create action plans for how services might be improved or resources redistributed to most effectively identify infected individuals.

The increase in gonorrhoea diagnoses between 2016 and 2017 is of note due to the ongoing circulation of high-level azithromycin resistant gonorrhoea.¹² Additionally, the first detected case of extensively drug resistant *Neisseria gonorrhoeae* with resistance to ceftriaxone and high-level resistance to azithromycin, the 2 antibiotics used as front-line dual therapy, was detected in the UK in March 2018.¹³

To detect any further importations or local circulation of similar multi-drug resistant strains, clinical laboratories should continue to refer *N. gonorrhoeae* isolates with resistance to ceftriaxone or azithromycin to the PHE Reference Bacteriology at Colindale for confirmation. General Practitioners (GPs) are reminded to refer all suspected cases of gonorrhoea to specialist SHSs for appropriate management.¹⁴

Syphilis among MSM is continuing to rise. There is evidence that condomless sex associated with HIV sero-adaptive behaviours (which include selecting partners perceived to be of the same HIV sero-status) is leading to increased STI transmission.^{15,16} PHE will publish an Action Plan, with recommendations for PHE and partner organisations, to address the continued increase in syphilis diagnoses in England.

¹¹ Public Health England. NCSP: chlamydia care pathway: <https://www.gov.uk/government/publications/ncsp-chlamydia-care-pathway>.

¹² Fifer H et al. Failure of Dual Antimicrobial Therapy in Treatment of Gonorrhoea. *New England Journal of Medicine* 2016; 374(25): 2504-6. DOI: 10.1056/NEJMc1512757. PubMed PMID: 27332921

¹³ Public Health England. Multi-drug resistant gonorrhoea in England: 2018: <https://www.gov.uk/government/publications/multi-drug-resistant-gonorrhoea-in-england-2018>.

¹⁴ Royal College of General Practitioners (Sex; Drugs; HIV and Viral Hepatitis Group), British Association for Sexual Health and HIV. Sexually Transmitted Infections in Primary Care 2013 (RCGP/BASHH). Lazaro N: <http://www.rcgp.org.uk/clinical-and-research/resources/a-to-z/clinical-resources/sexually-transmitted-infections-in-primary-care.aspx>

¹⁵ Aghaizu A et al. Sexual behaviours, HIV testing, and the proportion of men at risk of transmitting and acquiring HIV in London, UK, 2000–13: a serial cross-sectional study. *The Lancet HIV*. 2016; 3(9): e431-e40. DOI: [http://dx.doi.org/10.1016/S2352-3018\(16\)30037-6](http://dx.doi.org/10.1016/S2352-3018(16)30037-6)

¹⁶ Daskalopoulou M et al. Condomless sex in HIV-diagnosed men who have sex with men in the UK: prevalence, correlates, and implications for HIV transmission. *Sexually Transmitted Infections* 2017. DOI: 10.1136/sextrans-2016-053029.

Nationally, the rate of acute bacterial STIs in HIV-positive MSM is up to 4 times that of MSM who were HIV-negative or of unknown HIV status.¹⁷ This suggests that rapid STI transmission is occurring in dense sexual networks of HIV-positive MSM. Sero-adaptive behaviour increases the risk of infection with STIs, hepatitis B and C, and sexually transmissible enteric infections like *Shigella* spp. For those who are HIV negative, sero-adaptive behaviour increases the risk of HIV seroconversion as national figures indicate that 13% of MSM who are infected with HIV are unaware of their infection.¹⁸

As MSM continue to experience high rates of STIs they remain a priority for targeted STI prevention and health promotion work. HIV Prevention England¹⁹ have been contracted to deliver, on behalf of PHE, a range of activities which include promoting condom use and awareness of STIs, which are particularly aimed at MSM.

The continued reduction in genital warts is associated with the high coverage of HPV (human papillomavirus) vaccination in adolescent girls through the National HPV Vaccination Programme. While young heterosexual men stand to benefit from female only HPV vaccination through herd protection, this is not necessarily the case for MSM.

As a result, a targeted HPV vaccination pilot programme for MSM ran from June 2016 to the end of March 2018 in 42 specialist SHSs and HIV clinics across England.²⁰ The experience of this pilot supported the decision to proceed to a phased national rollout of targeted HPV vaccination for MSM attending specialist SHSs and HIV clinics, from April 2018. While a national impact on genital warts in this population is not expected to be seen for some time, HPV vaccination of MSM will provide direct protection against HPV infection with the aim of reducing the incidence of genital warts and HPV-related cancers.

The high rate of STI diagnoses among black ethnic communities is most likely the consequence of a complex interplay of cultural, economic and behavioural factors. Data from a national probability sample indicate that men of black Caribbean or any other black backgrounds are most likely to report higher numbers of recent sexual partners and concurrent partnerships. This, coupled with assortative sexual mixing patterns, may be maintaining high levels of bacterial STIs in these communities.²¹ HIV Prevention England also delivers, on behalf of PHE, prevention activity targeted at black ethnic communities.

¹⁷ Malek R et al. Contribution of transmission in HIV-positive men who have sex with men to evolving epidemics of sexually transmitted infections in England: an analysis using multiple data sources, 2009-2013.

¹⁸ Towards elimination of HIV transmission, AIDS and HIV-related deaths in the UK. PHE. 2017 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/675809/Towards_elimination_of_HIV_transmission_AIDS_and_HIV_related_deaths_in_the_UK.pdf

¹⁹ <http://www.hivpreventionengland.org.uk>

²⁰ <https://www.gov.uk/government/publications/hpv-vaccination-pilot-form-men-who-have-sex-with-men-MSM>

²¹ Wayal S et al. Examining ethnic variations in sexual behaviours and sexual health markers: evidence from a British national probability sample survey. *The Lancet Public Health* 2017; 2(10): e458-e472.

Health promotion 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, and should focus on groups at highest risk such as young people, black ethnic minorities and MSM. 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.

PHE's key messages

- strengthened local and national services for the prevention, diagnosis, treatment, and care of STIs need to be delivered to the general population as well as focus on groups with greater sexual health needs, including young adults, black ethnic minorities and MSM
- local authorities should encourage and enable young women to be tested for chlamydia when they access contraceptive services
- an informed and positive attitude to sexual health will be enhanced by statutory, high-quality relationship and sex education (RSE) in secondary schools; RSE will also equip young people with the skills to maintain their sexual health and overall wellbeing
- immunisation for HPV in young girls and MSM as well as immunisation against hepatitis A and hepatitis B in MSM will reduce the risk of infection with these viruses
- consistent and correct use of condoms can significantly reduce risk of STIs
- the availability of condoms should be promoted through media campaigns as well as through local services including condom distribution schemes
- regular testing for HIV and STIs is essential for good sexual health:
 - 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 condomless sex with new or casual partners
 - black ethnic minority men and women should have an STI screen, including an HIV test, annually if having condomless sex with new or casual partners

Open-access to services that provide rapid treatment and partner notification can reduce the risk of STI complications and infection spread.

2. Charts, tables and maps

2.1 Overview

The rate of new STI diagnoses made within the East Midlands lies in the middle of all the centres when compared to the rest of England as seen in Figure 1.

Diagnoses of chlamydia remains the highest amongst all STIs. Since 2013, there has been a small overall decline in the number of chlamydia diagnoses in the East Midlands. Syphilis and gonorrhoea have also shown increases since 2013, 198% and 26% respectively. Between 2016 and 2017 the number of new STIs has remained level as has the number of new chlamydia diagnoses. Genital herpes, syphilis and gonorrhoea have shown a small increase (4%, 10% and 17% respectively) and genital warts has decreased (-5%) in the number of diagnoses. This overall shows STI figures in the East Midlands are relatively stable over recent years.

Figure 1: New STI diagnoses by Public Health England centre (PHEC) of residence: England 2017. Data sources: GUMCAD, CTAD

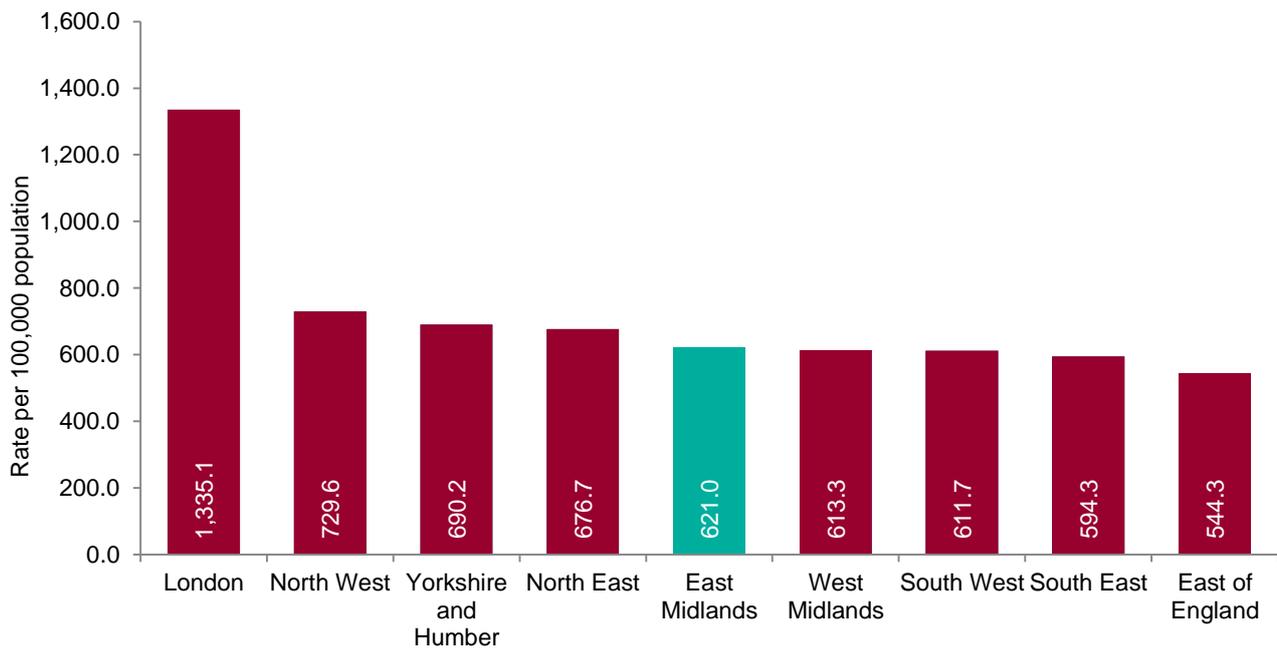


Figure 2: Number of diagnoses of the 5 main STIs: East Midlands residents, 2013-2017.
Data sources: GUMCAD, CTAD*

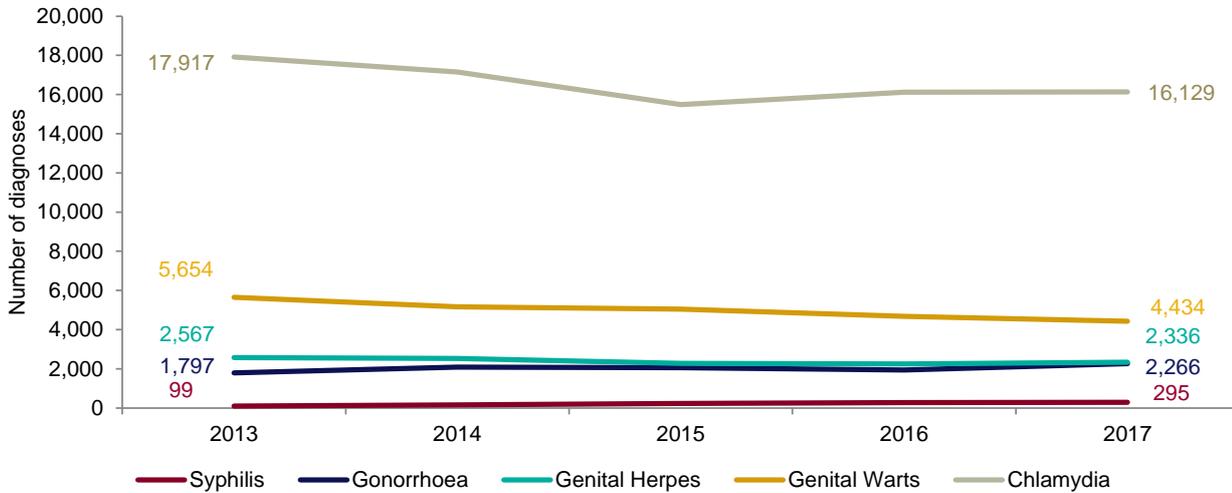


Figure 3: Diagnosis rates of the 5 main STIs: East Midlands residents, 2013-2017. Data sources: GUMCAD, CTAD*

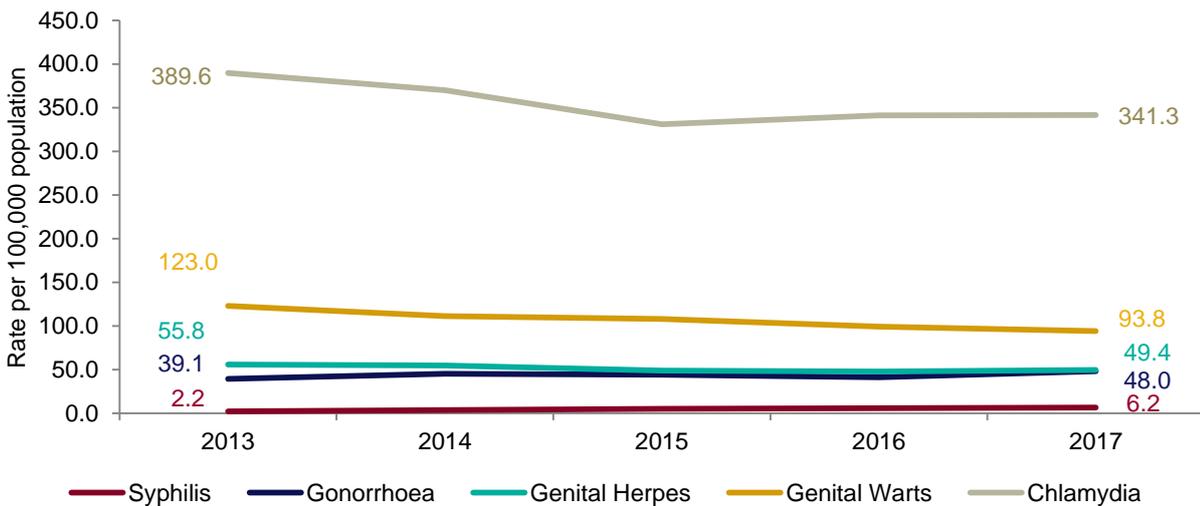


Table 1: Percentage change in new STI diagnoses: East Midlands residents. Data sources: GUMCAD, CTAD*

Diagnoses	2016	2017	% change 2013-2017	% change 2016-2017
New STIs	29,254	29,344	-18%	0%
Syphilis	267	295	198%	10%
Gonorrhoea	1,940	2,266	26%	17%
Chlamydia	16,116	16,129	-10%	0%
Genital Herpes	2,254	2,336	-9%	4%
Genital Warts	4,676	4,434	-22%	-5%

* Any increase in gonorrhoea diagnoses may be due to the increased use of highly sensitive nucleic acid amplification tests (NAATs) and additional screening of extra-genital sites in MSM.
Any decrease in genital wart diagnoses may be due to a moderately protective effect of HPV-16/18 vaccination.
Any increase in genital herpes diagnoses may be due to the use of more sensitive NAATs.
Increases or decreases may also reflect changes in testing practices.

2.2 Risk groups

Young adults (ages 15 to 24) are still at highest risk of acquiring STIs compared to the other age groups with most cases occurring amongst the 20 to 24 year old age group. As 15 to 24 year olds are the focus of chlamydia screening, the rate of infections amongst younger people is likely to be higher as well as their rate of attendance to level 3 Sexual Health Services. Therefore, possibly complicating the picture. Young females have a greater rate of infection than young males, particularly comparing males and females in the 15 to 19 age group. This may be an artefact of testing where, perhaps, young females might be more likely to present to testing sites and attending contraceptive services, or due to behavioural differences between young males and females.

The pattern of infections in the over 25s has a different picture, when comparing males and females, as above 25 there are more new infections amongst males than females. The greater number of new infections amongst males could be due to the number of MSM cases contributing to the figures. The numbers of new STIs amongst MSMs has increased both over the longer and shorter terms (table 3). 57% between 2013 and 2017 and 6% between 2016 and 2017.

Over the long term, between 2013 and 2017, the greatest increase has been in the number of syphilis infections, 273%, followed by an 85% increase in gonorrhoea. Over the short term, chlamydia has increased by 21% and gonorrhoea by 20%, genital herpes has remained level but syphilis and genital warts have decreased (-4% and -9% respectively). The recent decrease in syphilis diagnoses could be a sign of increased efforts to control the spread of this infection following the increases seen across the UK over 2015 and 2016 predominantly amongst this risk group.

Table 2 shows that the highest proportion of new STIs occur amongst the white ethnic group representing 83% of new infections, with the smallest proportions being amongst the black Caribbean (3%) and black African (4%) groups. However, Figure 5, which looks at the rate of infections within these ethnic groups, shows that black ethnic groups, particularly the black Caribbean ethnicity, actually are at greater risk than any other ethnic group.

Figure 4: Rate of new STIs per 100,000 residents by age group in the East Midlands, 2017. Data sources: GUMCAD, CTAD

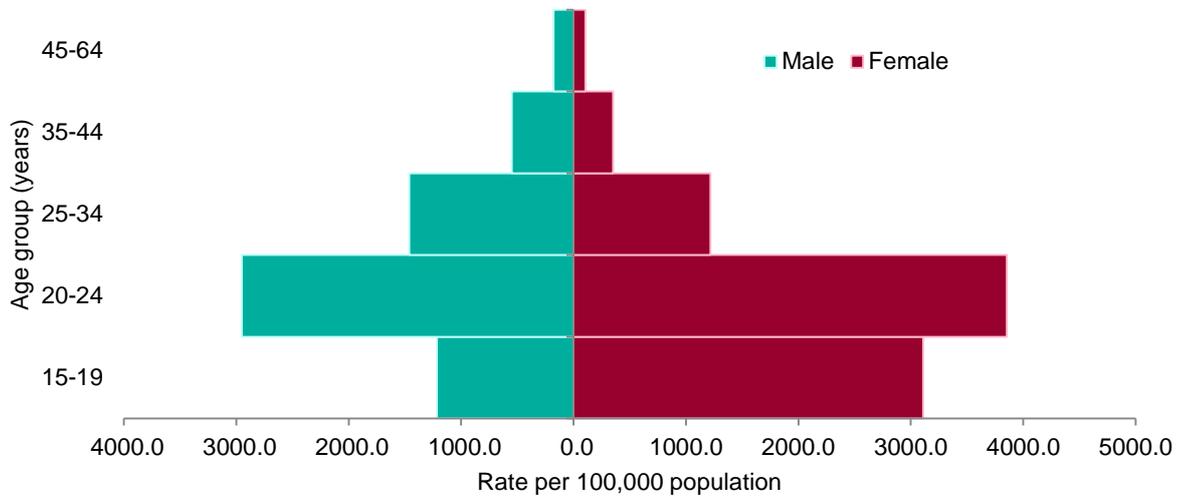


Figure 5: Rates by ethnicity per 100,000 population of East Midlands residents diagnosed with a new STI: 2017. Data sources: GUMCAD, CTAD

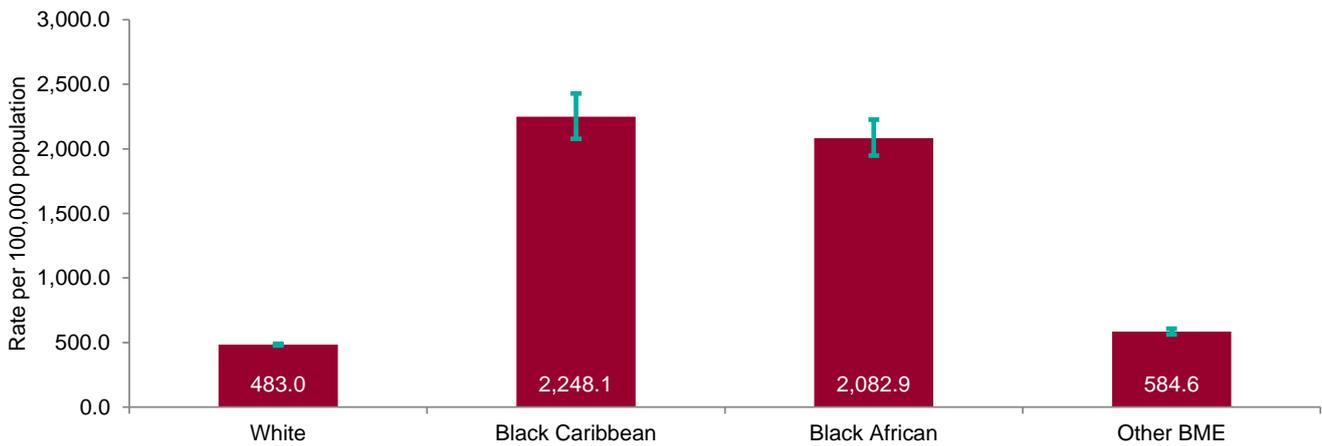


Table 2: Proportion of East Midlands residents diagnosed with a new STI by ethnicity: 2017 Data sources: GUMCAD, CTAD

Ethnic group	Number	Percentage excluding unknown
White	19,542	83%
Black Caribbean	650	3%
Black African	870	4%
Other BME	2,433	10%
Unknown	5,849	

Figure 6: Proportions of East Midlands residents diagnosed with a new STI in specialist SHSs by world region of birth: 2017. Data sources: GUMCAD data only

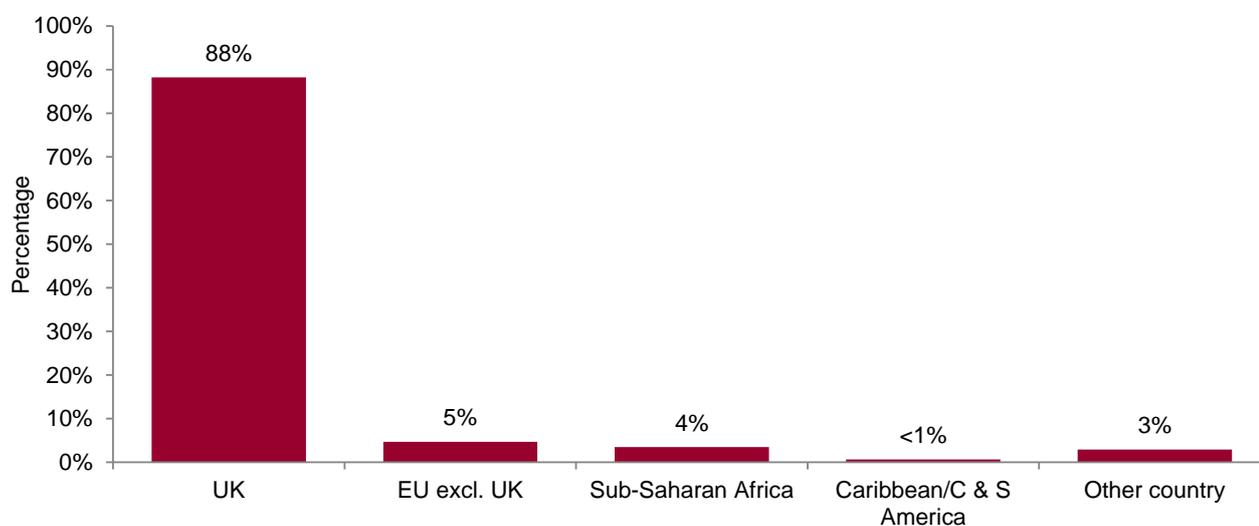


Figure 7: Diagnoses of the 5 main STIs among MSM in specialist SHSs: East Midlands residents, 2013-2017. Data source: GUMCAD data only^{¶¶}

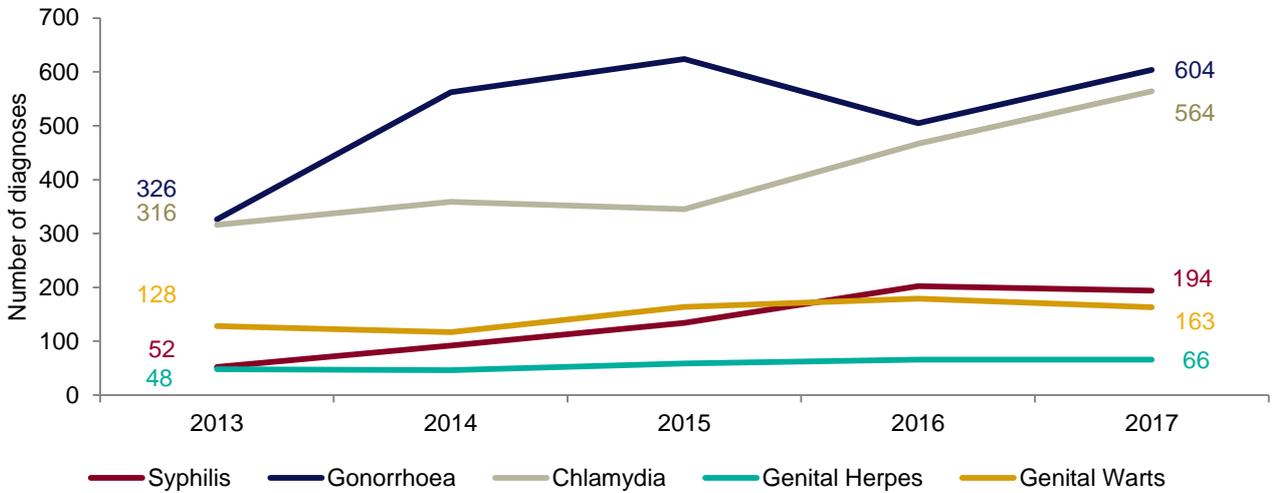


Table 3: Percentage change in new STI diagnoses in MSM diagnosed in specialist SHSs: East Midlands residents. Data sources: GUMCAD data only^{¶¶}

Diagnoses	2017	% change 2013-2017	% change 2016-2017
New STIs	1,849	57%	6%
Syphilis	194	273%	-4%
Gonorrhoea	604	85%	20%
Chlamydia	564	78%	21%
Genital Herpes	66	38%	0%
Genital Warts	163	27%	-9%

^{¶¶} GUMCAD started in 2009. Reporting of sexual orientation is less likely to be complete for earlier years, so rises seen may be partly artefactual.

Any increase in gonorrhoea diagnoses may be due to the increased use of highly sensitive nucleic acid amplification tests (NAATs) and additional screening of extra-genital sites in MSM.

Any decrease in genital wart diagnoses may be due to a moderately protective effect of HPV-16/18 vaccination.

Any increase in genital herpes diagnoses may be due to the use of more sensitive NAATs.

Any increase or decrease may reflect changes in testing.

2.3 Geography

The highest rate of infections occurred in Nottingham, both including and excluding chlamydia data for 15 to 24 year olds. Nottingham’s rate including chlamydia data is both significantly higher than any of the other local authorities within the East Midlands as well as the England and East Midlands rates. Where the chlamydia figures are removed, Figure 8b, the rates for upper tier local authorities are closer together. Derby is greater than Leicester and Nottinghamshire is greater than Leicestershire, unlike in Figure 8a.

Nottingham has the highest chlamydia detection rate. However this has decreased since 2016, and is now below the indicator rate of 2,300 per 100,000 population along with all the other East Midlands upper tier local authorities. Most upper tier authorities have seen a decline in their detection rates. Changes in services and reporting of chlamydia data may have affected the figures across the East Midlands. However, PHE East Midlands is working with local colleagues to ensure data quality improves and the Public Health indicators are more robust.

The highest rates of gonorrhoea remain in the main cities within the East Midlands.

Figure 8a: Rate of new STI diagnoses per 100,000 population among East Midlands residents by upper tier local authority of residence: 2017. Data sources: GUMCAD, CTAD

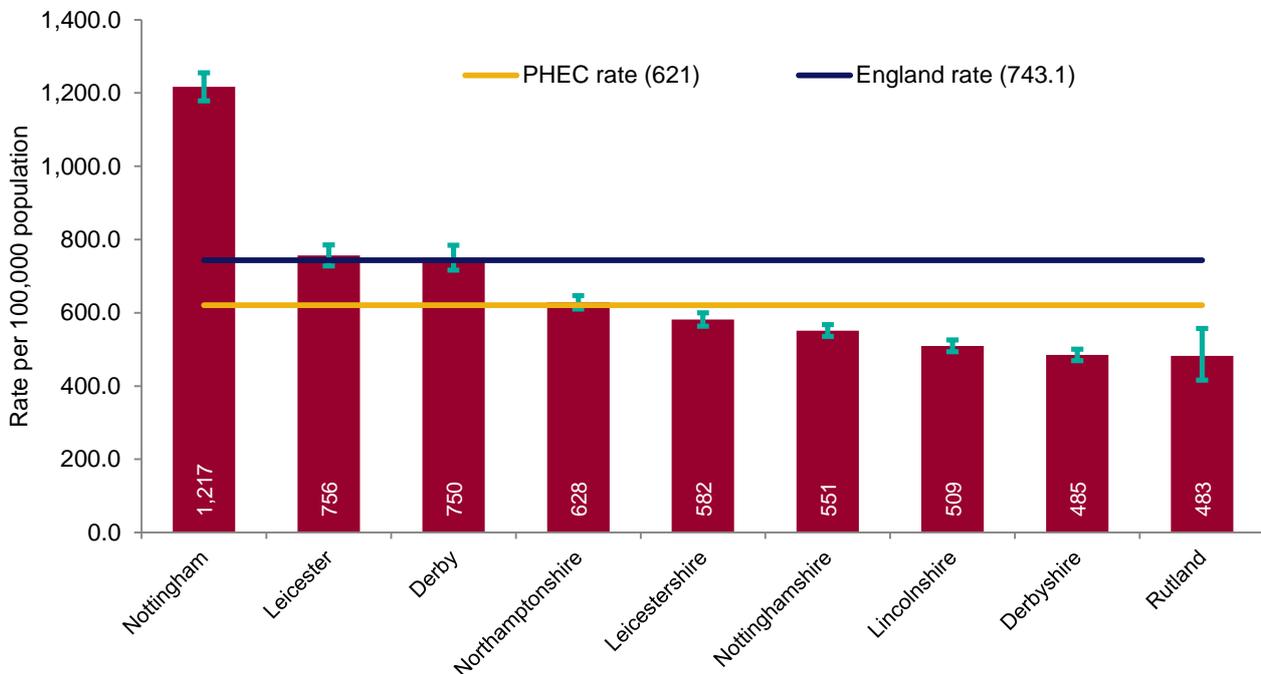


Figure 8b: Rate of new STI diagnoses (excluding chlamydia diagnoses in persons aged 15-24 years) per 100,000 population aged 15-64 years among East Midlands residents by upper tier local authority of residence: 2017. Data sources: GUMCAD, CTAD

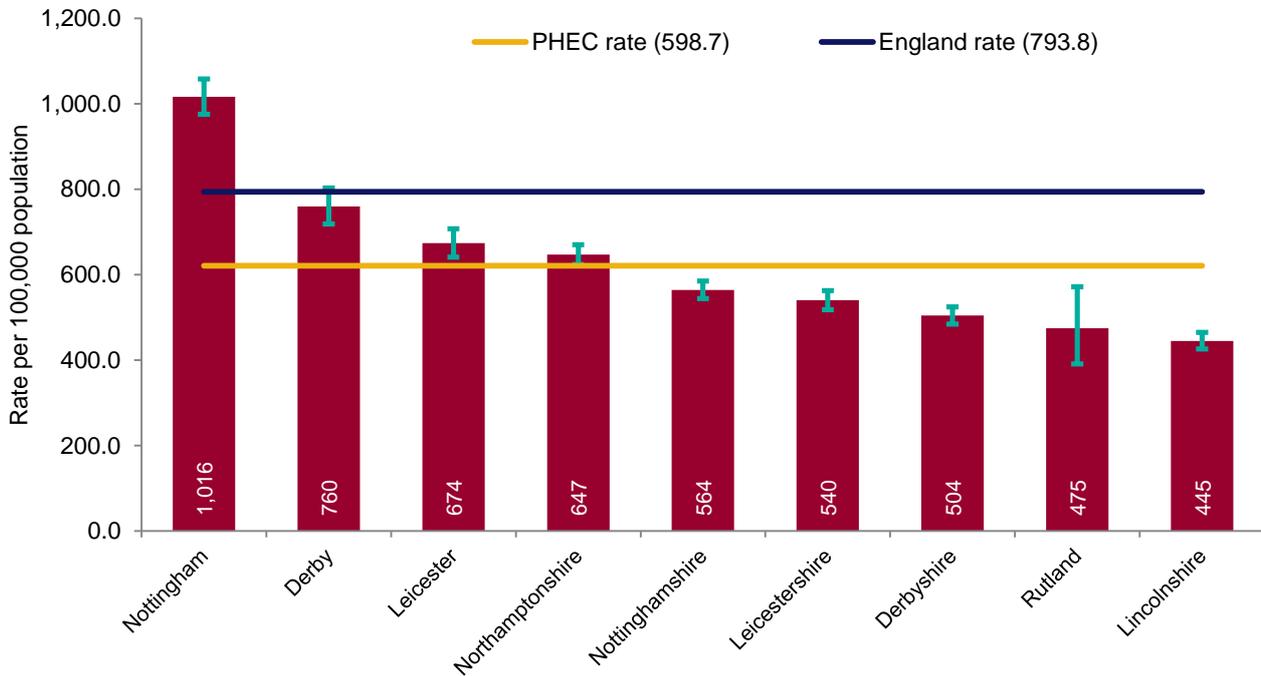


Figure 9: Chlamydia detection rate per 100,000 population aged 15-24 years in East Midlands residents by upper tier local authority of residence: 2017. Data sources: GUMCAD, CTAD

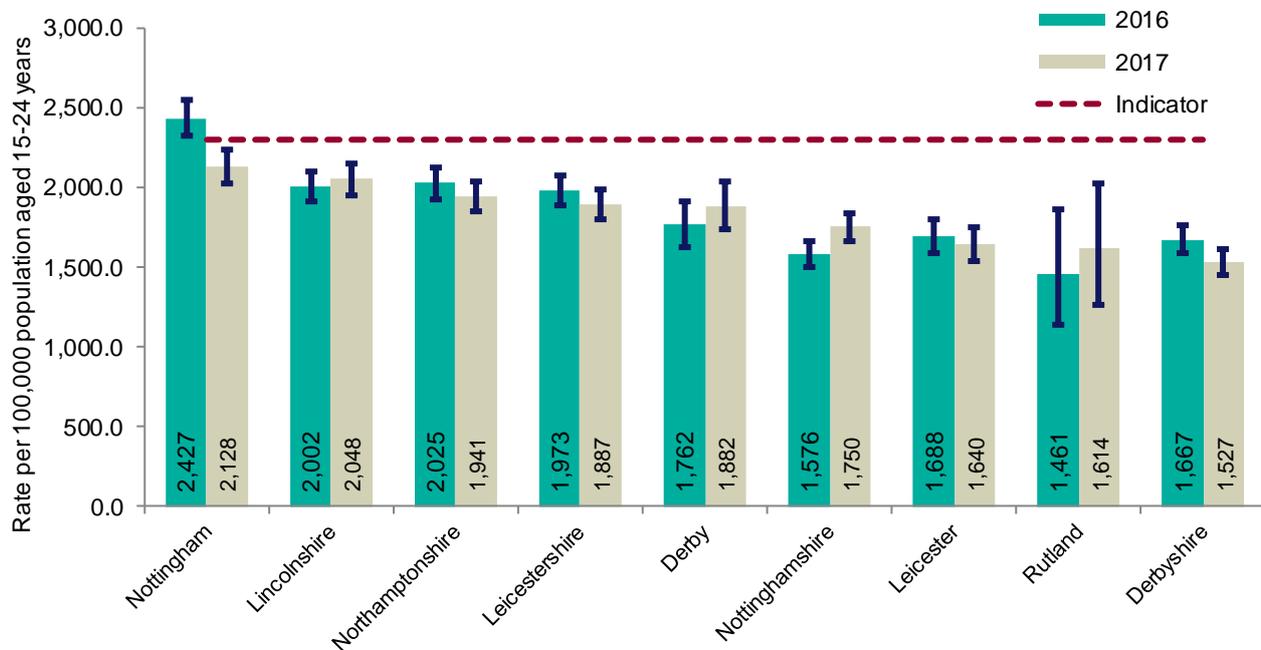


Figure 10: Rate of gonorrhoea diagnoses per 100,000 population in East Midlands residents by upper tier local authority of residence: 2017. Data source: GUMCAD

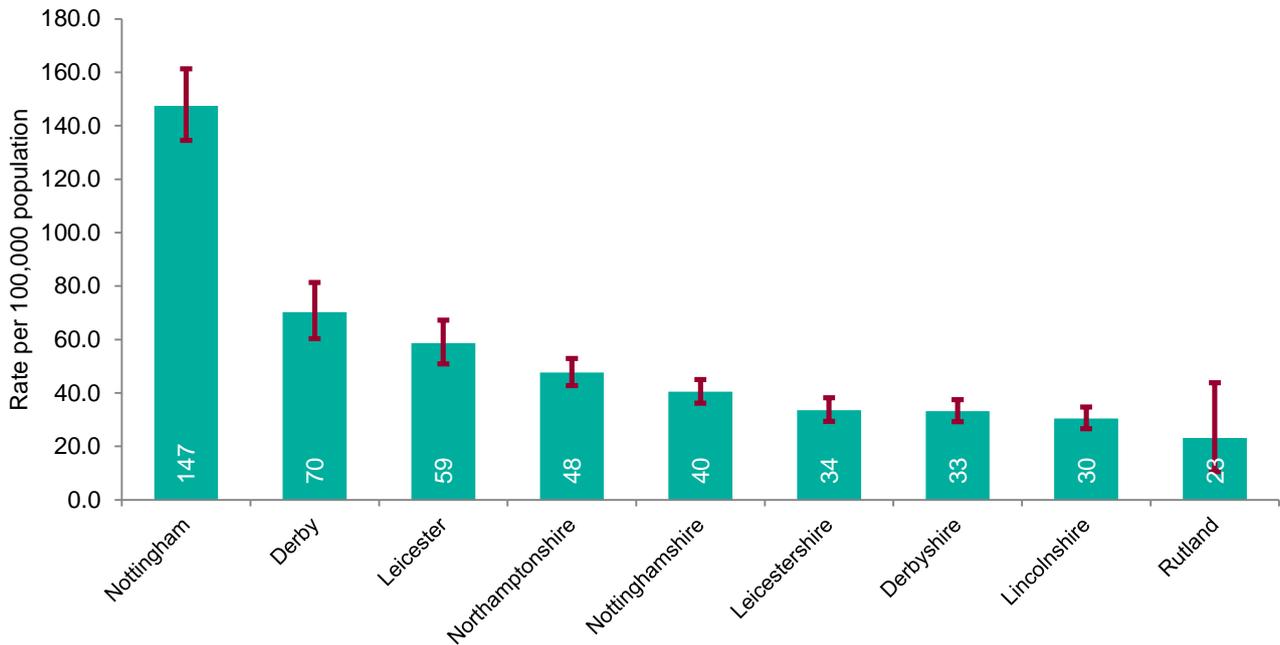
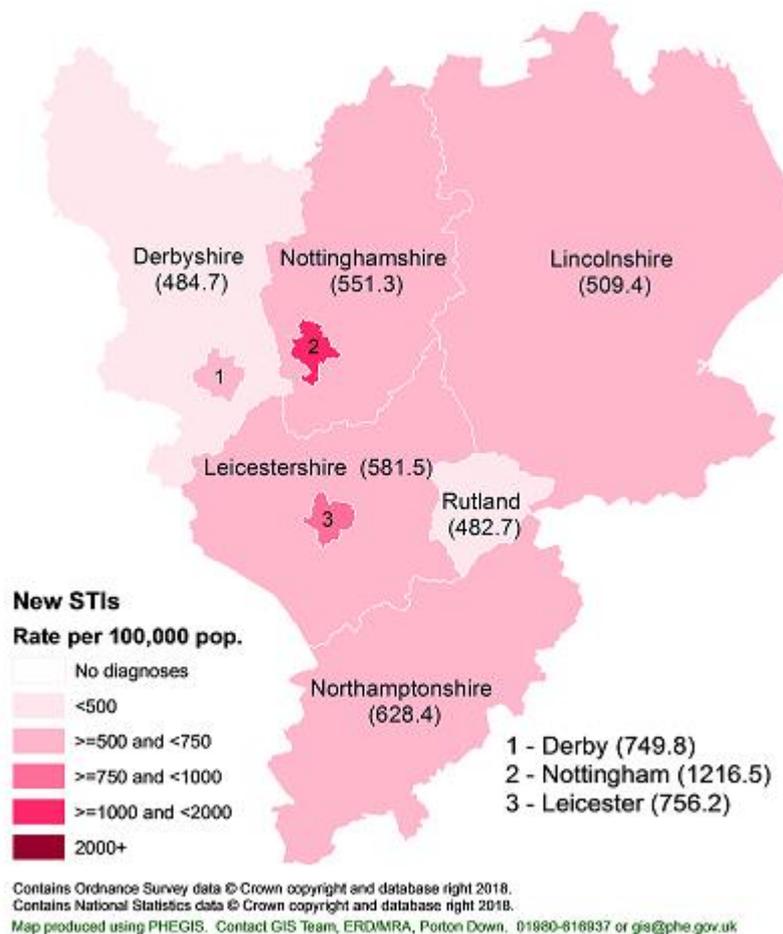


Figure 11: Map of new STI rates per 100,000 residents by upper tier local authority in the East Midlands: 2017. Data sources: GUMCAD, CTAD



2.4 Testing and services

The STI testing rate in the East Midlands is below that for England and has stayed quite static since 2013. England shows a mild rise. However, the positivity both in England and the East Midlands are close to each other and has steadily decreased since 2013 at the same rate. This implies that either there are few infections or that the testing undertaken both nationally and within the East Midlands has become less focussed.

The greatest proportion of STI diagnoses made across England has been within specialist services, greater than 70% in all PHE Centres. Both the East Midlands and London have the highest proportion diagnosed within non-specialist services showing that non-specialist services are important for STI detection. For the East Midlands 10% of gonorrhoea diagnoses are made outside level 3 services, along with 7% of warts, 6% of herpes and 2% of syphilis. This percentage could be larger if data quality from GP practices was improved.

Figure 12: STI testing rate (excluding chlamydia in under 25 year olds) per 100,000 population in East Midlands residents aged 15 to 64: 2017 Data sources: GUMCAD, CTAD

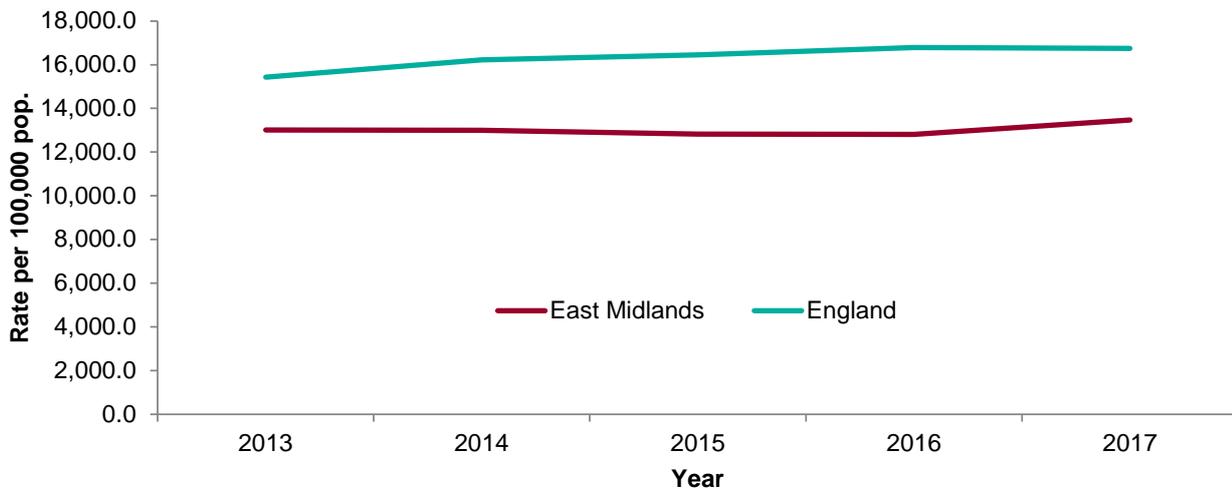


Figure 13: STI testing positivity rate (excluding chlamydia in under 25 year olds) in East Midlands residents: 2017 Data sources: GUMCAD, CTAD

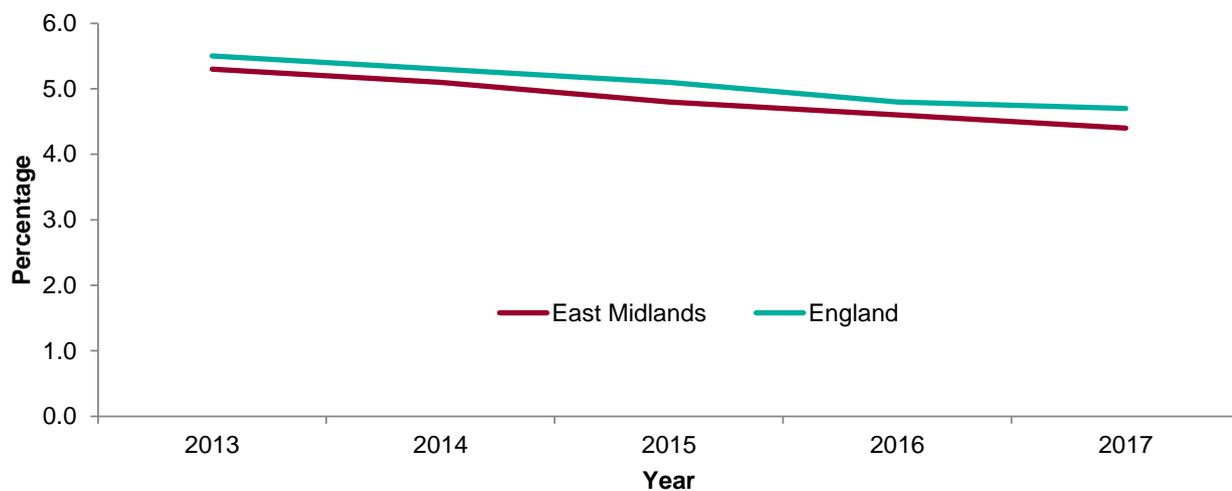


Table 4: Number of diagnoses of new STIs by PHEC of residence, data source and data subset: 2017 Data sources: GUMCAD, CTAD

PHEC of residence	GUMCAD						CTAD**		Total
	Specialist SHCs		Non-specialist SHCs		Enhanced GPs*				
East Midlands	21,276	73%	859	3%			7,209	25%	29,344
East of England	27,179	78%	320	1%			7,313	21%	34,812
London	98,585	84%	3,232	3%			15,269	13%	117,086
North East	14,026	79%	19	0%	1	0%	3,796	21%	17,842
North West	37,166	71%	978	2%	33	0.2%	14,531	28%	52,708
South East	43,135	83%	833	2%			8,114	16%	52,082
South West	24,568	73%	262	1%			8,917	26%	33,747
West Midlands	29,655	83%	92	0%			5,888	17%	35,635
Yorkshire and Humber	27,405	73%	232	1%			9,810	26%	37,447

Table 5: Number of diagnoses of the 5 main STIs in the East Midlands by STI, data source and data subset: 2017 Data sources: GUMCAD, CTAD

5 main STIs	GUMCAD						CTAD**		Total
	Specialist SHCs		Non-specialist SHCs		Enhanced GPs*				
Syphilis	289	98%	6	2%					295
Gonorrhoea	2,047	90%	219	10%					2,266
Chlamydia	8,920	55%		0%			7,209	45%	16,129
Genital Herpes	2,195	94%	141	6%					2,336
Genital Warts	4,102	93%	332	7%					4,434

* This does not represent the total number of new STI diagnoses from enhanced GPs reporting to GUMCAD. The small number of diagnoses included here reflects poor data quality on the residence of cases.

**Including site type 12 chlamydia from GUMCAD.

3. 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

3.1 GUMCAD

This disaggregate reporting system collects information about attendances and diagnoses at specialist (Level 3) and non-specialist (Level 2) sexual health 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.

3.2 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.

3.3 New STIs

New STI diagnoses comprise diagnoses of the following:

- chancroid
- LGV
- donovanosis
- chlamydia
- gonorrhoea
- genital herpes (first episode)

- HIV (acute and AIDS defining)
- molluscum contagiosum
- non-specific genital infection (NSGI)
- non-specific pelvic inflammatory disease (PID) and epididymitis
- chlamydial PID and epididymitis (presented in chlamydia total)
- gonococcal PID and epididymitis (presented in gonorrhoea total)
- scabies
- pediculosis pubis
- syphilis (primary, secondary and early latent)
- trichomoniasis and genital warts (first episode)
- mycoplasma genitalium
- shigella

3.4 Calculations

Confidence Intervals were calculated using Byar's method. A Tool for calculating common public health statistics and their confidence interval:

fingertips.phe.org.uk/profile/guidance

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.

4. Further information

As of this year, all analyses for this report include data from non-specialist (Level 2) 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

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

Local authorities have access to LA sexual health epidemiology reports (LASERs) and the HIV and STI portal. They should contact Srilaxmi.Degala@phe.gov.uk if they do not have access to this information.

For a report on STIs and HIV in MSM in London please access: [HIV in the UK: decline in new diagnoses in gay and bisexual men in London](#)

Please contact josh.forde@phe.gov.uk for an Annual Epidemiological Spotlight on HIV in London: 2013 data.

5. 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 epidemiology 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.em@phe.gov.uk

If you have any comments or feedback regarding this report or the FS, please contact: Srilaxmi.Degala@phe.gov.uk

6. Acknowledgements

We would like to thank the following:

- local SHSs 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