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England

Protecting and improving the nation's health

# **Spotlight on sexually transmitted infections in the North East 2017 data**

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# 1 Summary

Sexually transmitted infections (STIs) represent an important public health problem in the North East. Out of all the Public Health England centres it has the fourth highest rate of new STIs in England.

There were 17,842 new STIs diagnosed in North East residents in 2017, representing a rate of 677 diagnoses per 100,000 population. Rates by local authority ranged from 473 new STI diagnoses per 100,000 population in Northumberland to 1,194 new STI diagnoses per 100,000 population in Newcastle upon Tyne.

The number of new STIs diagnosed in North East residents rose by 2% between 2016 and 2017. Rises were seen in the numbers of most of the 5 major STIs: syphilis increased by 29%, gonorrhoea by 3%, chlamydia by 6% and genital herpes by 4%. Genital warts decreased by 8%.

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 and this is an indicator in the Public Health Outcomes Framework. In 2017, the chlamydia diagnosis rate among North East residents aged 15 to 24 years was 2,033 per 100,000 residents (ranging between 1,619 and 2,723 per 100,000 residents).

Men and women have similar rates of new STIs (649 and 702 per 100,000 residents respectively). Where gender and sexual orientation are known, gay, bisexual or other men who have sex with men (referred to collectively as 'MSM') account for 19% of male North East residents diagnosed with a new STI compared to 12% in 2013. In 2017, 65% of those diagnosed with syphilis and 26% of those diagnosed with gonorrhoea were MSM.

STIs disproportionately affect young people. North East residents aged between 15 and 24 years accounted for 63% of all new STI diagnoses in 2017. The white ethnic group had the highest number of new STI diagnoses: over 14,000 (95%) in 2017. The highest rate was seen in black Africans (1,156 per 100,000) even though only 1% of new STI diagnoses were identified in this group. Less than 1% of new STIs were in the black Caribbean ethnic group, they had the second highest rate: 671 per 100,000. Where country of birth was known, 93% of North East residents diagnosed in a specialist sexual health service (SHS)<sup>1</sup> in 2017 with a new STI were UK-born.

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<sup>1</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) 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.

The number of attendances in the North East dropped by 5% compared to last year. We are currently investigating the number of services reporting, as the drop was greatest in Non-SHS services, and any changes to practice especially regarding follow up appointments.

## National trends

In 2017, there were 422,147 new STI diagnoses made at sexual health services in England. Of these, the most commonly diagnosed STIs were chlamydia (203,116; 48% of all new STI diagnoses), first episode genital warts (59,119; 14%), gonorrhoea (44,676; 11%), and non-specific genital infections ([NSGI] 33,473; 8%). Compared to 2016, the total number of new STIs diagnosed in 2017 remained relatively stable (0.3% decrease from 423,352 to 422,147).

Between 2016 and 2017, there were decreases in the number of diagnoses of NSGI (10%; from 37,028 to 33,473) and of genital warts (7%; from 63,458 to 59,119). The sustained decrease in genital warts is largely due to the substantial declines in younger women, the majority of whom would have received the quadrivalent HPV vaccine when aged 12 or 13 years. The decreases in NSGI and genital warts diagnoses were offset by large increases in gonorrhoea (22%; from 36,577 to 44,676) and syphilis (primary, secondary and early latent stages) diagnoses (20%; from 5,955 to 7,137) over the same period. The number of syphilis diagnoses in 2017 was the largest annual number reported since 1949 and is consistent with the increasing trend seen in recent years: since 2008, syphilis diagnoses have risen by 148% (from 2,874 to 7,137), mostly among MSM; 78% of diagnoses in 2017.

The total number of attendances at SHSs nationally increased 3% between 2016 and 2017 (from 3,227,254 to 3,323,275), continuing the increasing trend over the past 5 years: between 2013 and 2017, there was a 13% increase in the number of attendances (from 2,940,779). Similarly, the total number of sexual health screens tests for chlamydia, gonorrhoea, syphilis and HIV) increased over this time period (18%; from 1,513,288 in 2013 to 1,778,306 in 2017). While there were increases in both attendances and testing nationally, there is some variability regionally with small (2-5%) declines in attendances at SHSs in the East Midlands, North East and SouthWest PHE Centre areas between 2016 and 2017. These regional variations can be explored using the STI testing rate indicator on PHE's [Sexual and Reproductive Health Profiles](#).

For further information see the [annual STI data tables](#).

## National recommendations

The impact of STIs remains greatest in young heterosexuals aged 15 to 24 years, black ethnic minorities and MSM.<sup>2</sup> Public Health England (PHE) is conducting and managing a number of initiatives to address this inequality.

Access to high quality information is essential for good sexual health and PHE has funded an online resource<sup>3</sup> and a telephone helpline<sup>4</sup> 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.<sup>5</sup> To improve the sexual health of young people, PHE undertook formative research for a health promotion campaign to promote condom use and positive sexual relationships among this population. The health promotion campaign has since been run among 16 to 24 year olds; a second wave is now taking place.<sup>6</sup> 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.<sup>7</sup> Additionally, 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.<sup>8,9,10</sup>

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.

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<sup>2</sup> 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](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713944/hpr2018_AA-STIs_v5.pdf)

<sup>3</sup> <https://sexwise.fpa.org.uk>

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

<sup>5</sup> 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.

<sup>6</sup> <https://www.nhs.uk/protect-against-stis-use-a-condom/home>

<sup>7</sup> 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>.

<sup>8</sup> 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.

<sup>9</sup> Sex Education Forum. SRE - the evidence: <http://www.sexeducationforum.org.uk/media/28306/SRE-the-evidence-March-2015.pdf>. Accessed 31 May 2018.

<sup>10</sup> Department for Education. Policy paper: Relationships education, RSE and PSHE: <https://www.gov.uk/government/publications/relationships-education-rse-and-pshe>.

Local areas should focus on 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 help local areas 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.<sup>11</sup> 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 concerning due to the ongoing circulation of high-level azithromycin resistant gonorrhoea.<sup>12</sup> 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.<sup>13</sup> 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 PHE Colindale for confirmation. General Practitioners are reminded to refer all suspected cases of gonorrhoea to specialist SHSs for appropriate management.<sup>14</sup>

The continuing rise of syphilis nationally among MSM also remains a concern. 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.<sup>15,16</sup> PHE will publish an Action Plan, with recommendations for PHE and partner organisations, to address the continued increase in syphilis diagnoses in England.

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

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

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

<sup>14</sup> 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>

<sup>15</sup> 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)

<sup>16</sup> 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.<sup>17</sup> 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 indicated that 13% of MSM who are infected with HIV nationally are unaware of their infection.<sup>18</sup>

As MSM continue to experience high rates of STIs they remain a priority for targeted STI prevention and health promotion work. HIV Prevention England<sup>19</sup> 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 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.<sup>20</sup> 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.<sup>21</sup> HIV Prevention England also delivers, on behalf of PHE, prevention activity targeted at black ethnic communities. PHE is collaborating with academic institutions to improve understanding

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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](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.



of the behaviours, attitudes, and other factors influencing their STI risk and support the delivery of timely interventions which maximise patient and public health benefit.

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 need to 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 human papillomavirus 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

## North East priorities

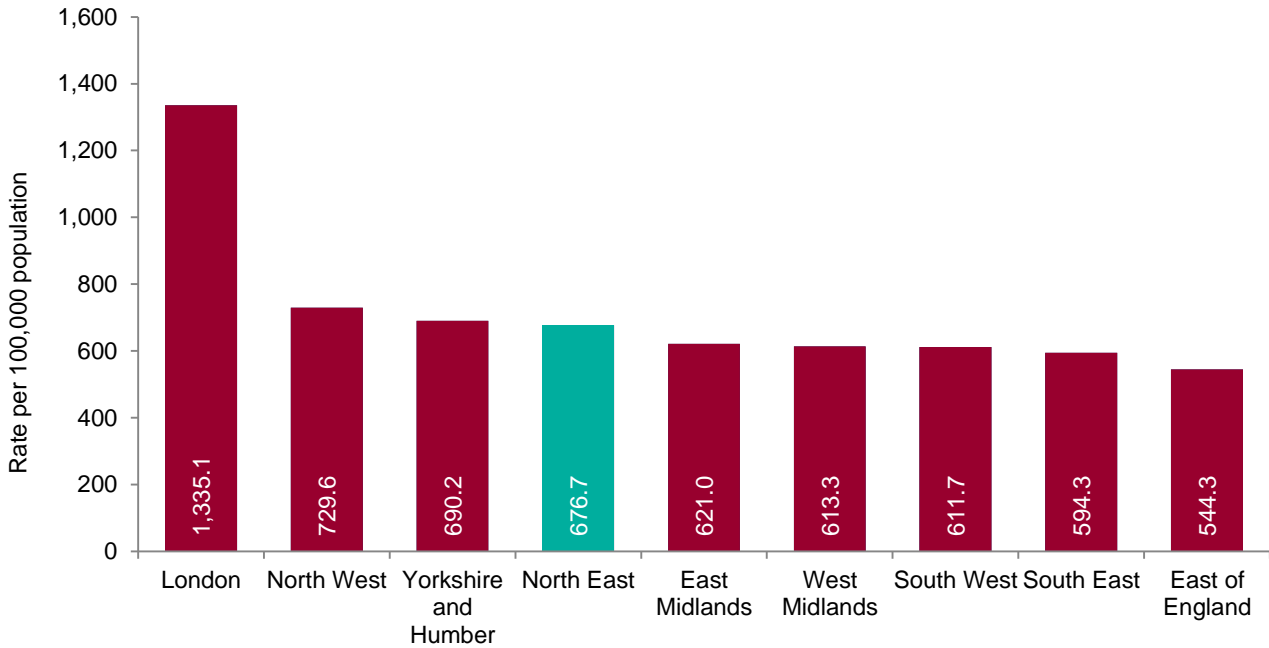
In the North East, the following priorities have been identified:

- to complete an audit of prevention activities
- assessing outcomes, access and inequalities in sexual health
- mapping sexual health services, both SHS and non-SHS
- investigating practices regarding new and follow up attendances in sexual health services

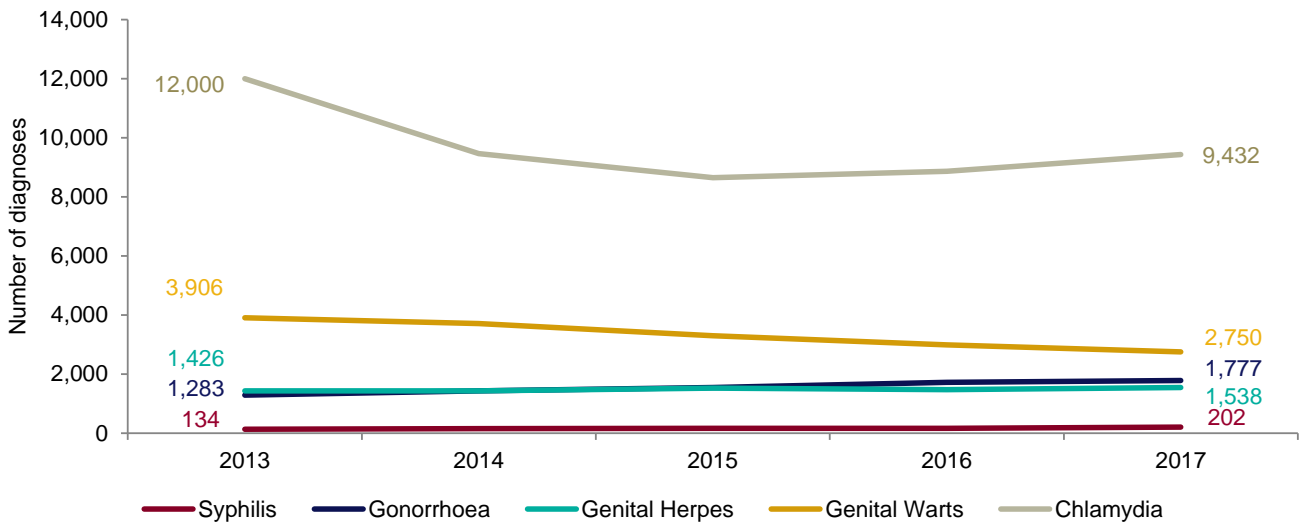
The work will be taken forward by PHE and partners reporting to the North East Sexual Health Leads network and the Sexual Health Communications network.

## 2 Charts, tables and maps

**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: North East residents, 2013-2017.** Data sources: GUMCAD, CTAD



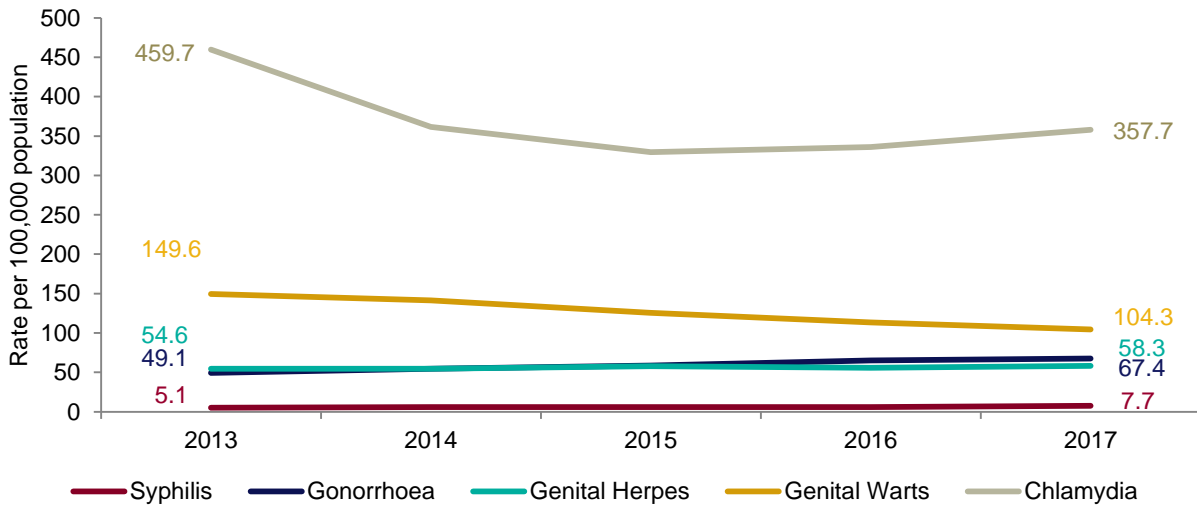
Any increase in gonorrhoea diagnoses may be due to the increased use of highly sensitive nucleic acid amplification tests (NAATs) and additional screening of extra-genital sites in MSM.

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.

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



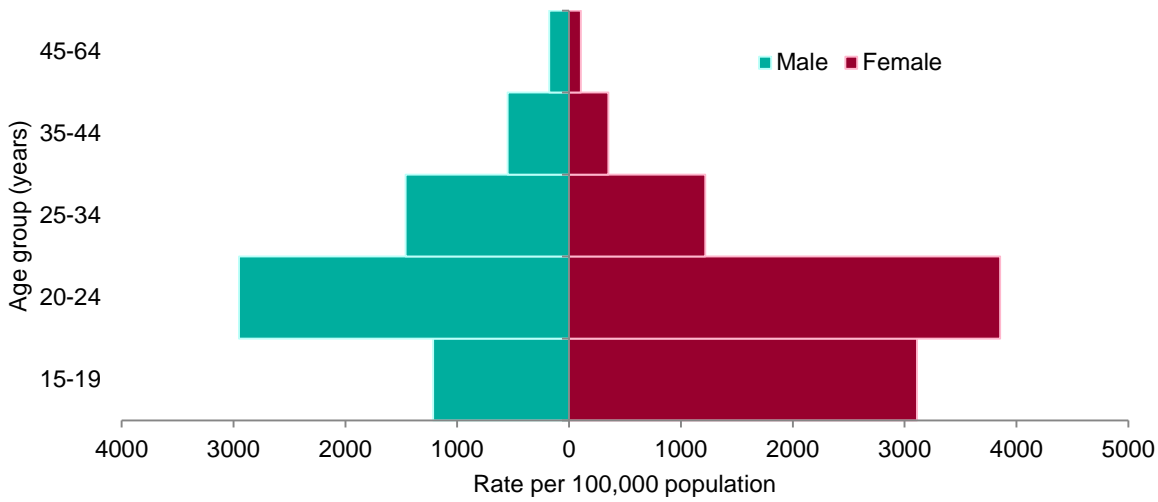
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 Increases or decreases may also reflect changes in testing practices.

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

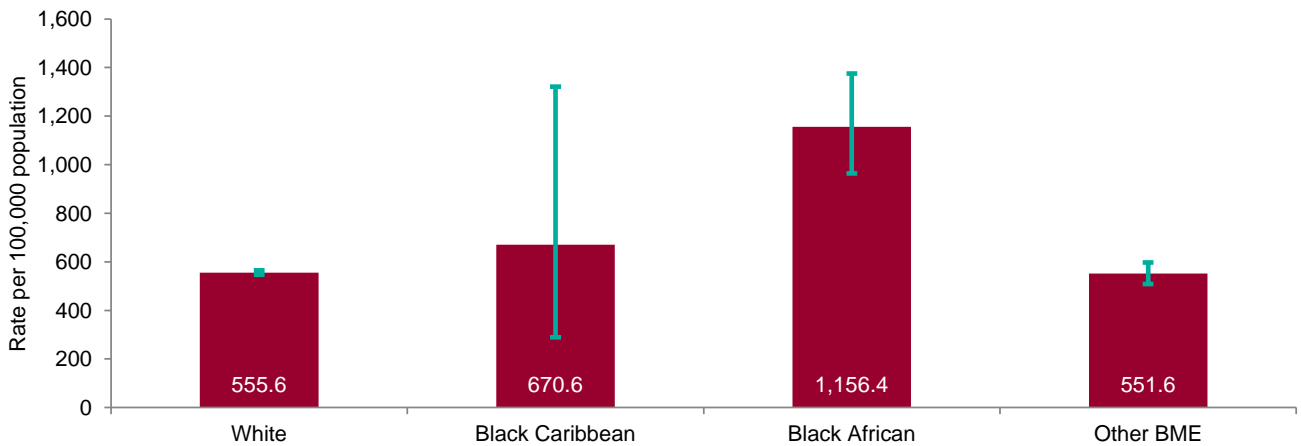
Diagnoses	2017	% change 2013-2017	% change 2016-2017
New STIs	17,842	-17%	2%
Syphilis	202	51%	29%
Gonorrhoea	1,777	39%	3%
Chlamydia	9,432	-21%	6%
Genital Herpes	1,538	8%	4%
Genital Warts	2,750	-30%	-8%

Please see notes for Figure 3.

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



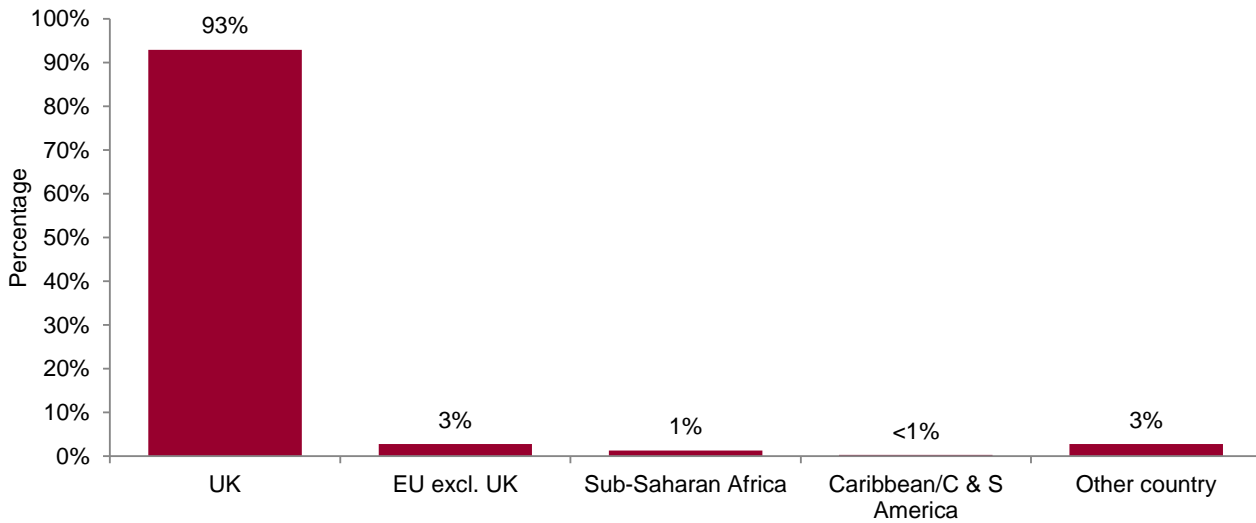
**Figure 5: Rates by ethnicity per 100,000 population of North East residents diagnosed with a new STI: 2017.** Data sources: GUMCAD, CTAD



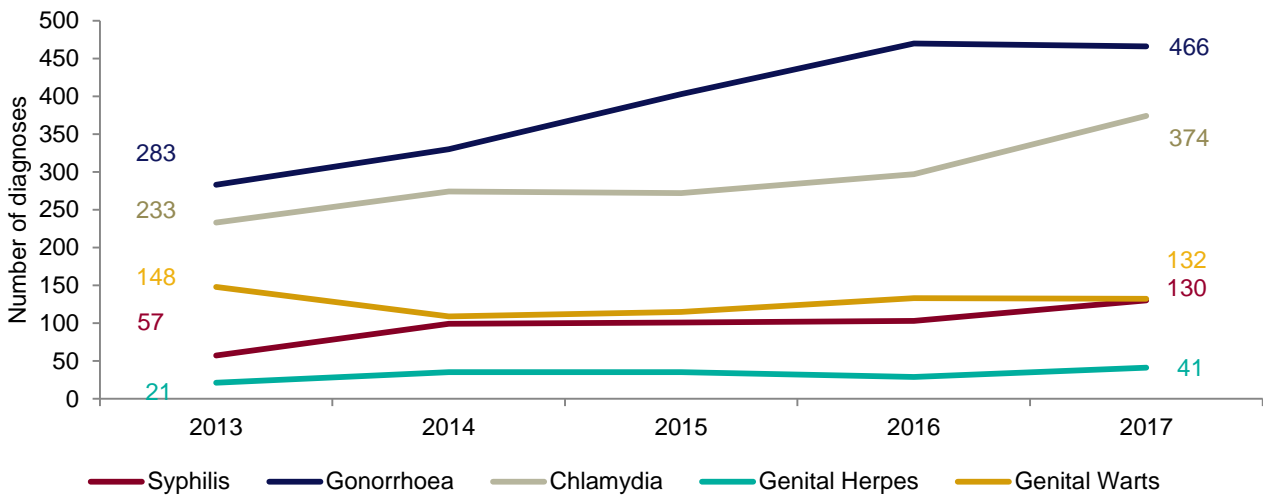
**Table 2: Proportion of North East residents diagnosed with a new STI by ethnicity: 2017**  
Data sources: GUMCAD, CTAD

Ethnic group	Number	Percentage excluding unknown
White	13,755	95%
Black Caribbean	8	0%
Black African	127	1%
Other BME	602	4%
Unknown	3,350	

**Figure 6: Proportions of North East 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: North East residents, 2013-2017. Data source: GUMCAD data only**



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.

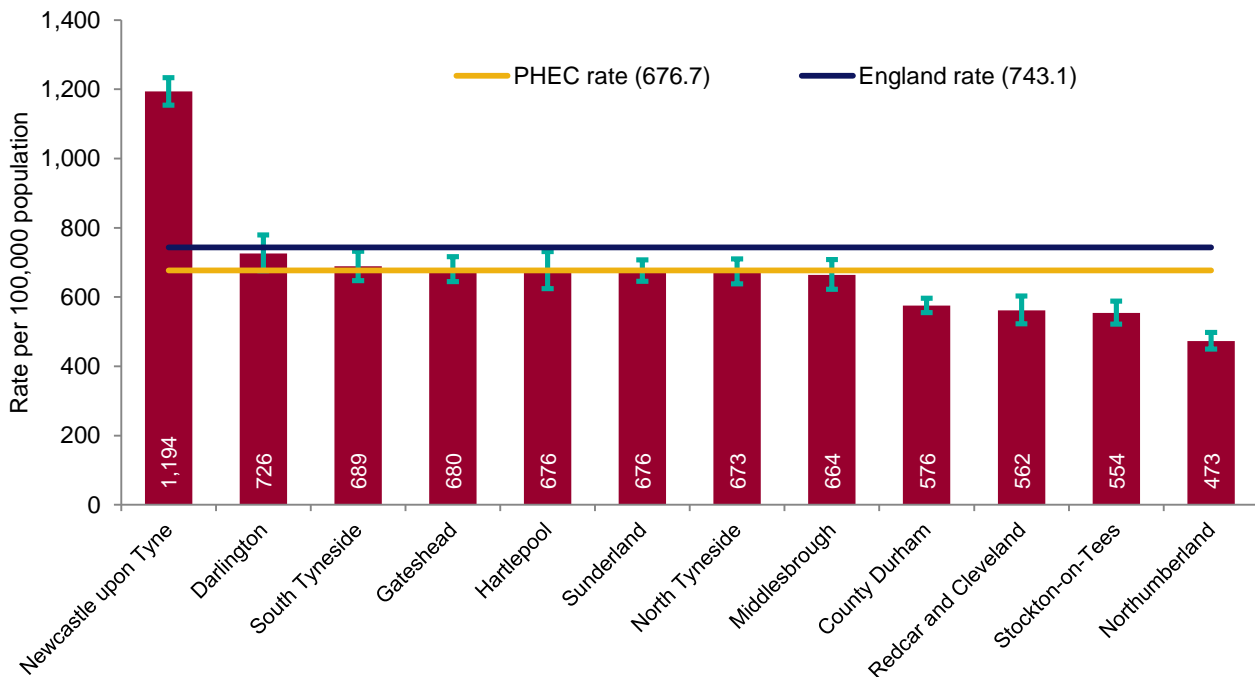
Any increase or decrease may reflect changes in testing.

**Table 3: Percentage change in new STI diagnoses in MSM diagnosed in specialist SHSs: North East residents.** Data sources: GUMCAD data only

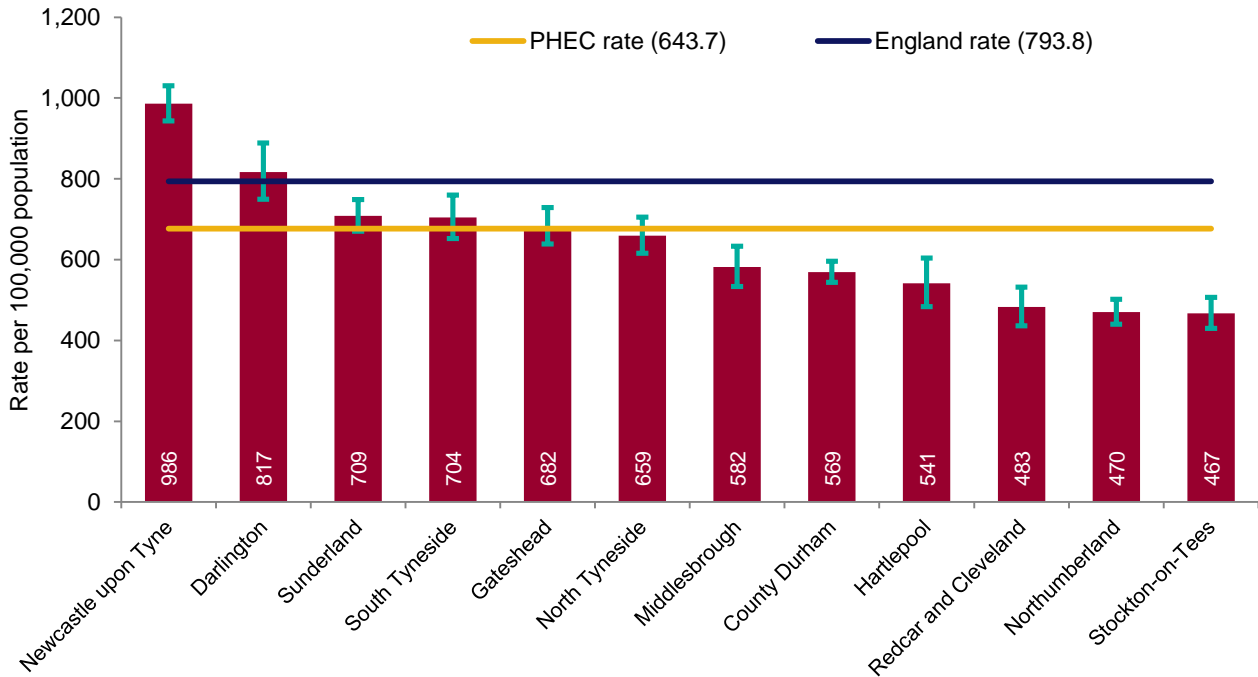
Diagnoses	2017	% change 2013-2017	% change 2016-2017
New STIs	1,375	43%	8%
Syphilis	130	128%	26%
Gonorrhoea	466	65%	-1%
Chlamydia	374	61%	26%
Genital Herpes	41	95%	41%
Genital Warts	132	-11%	-1%

Please see notes for Figure 7.

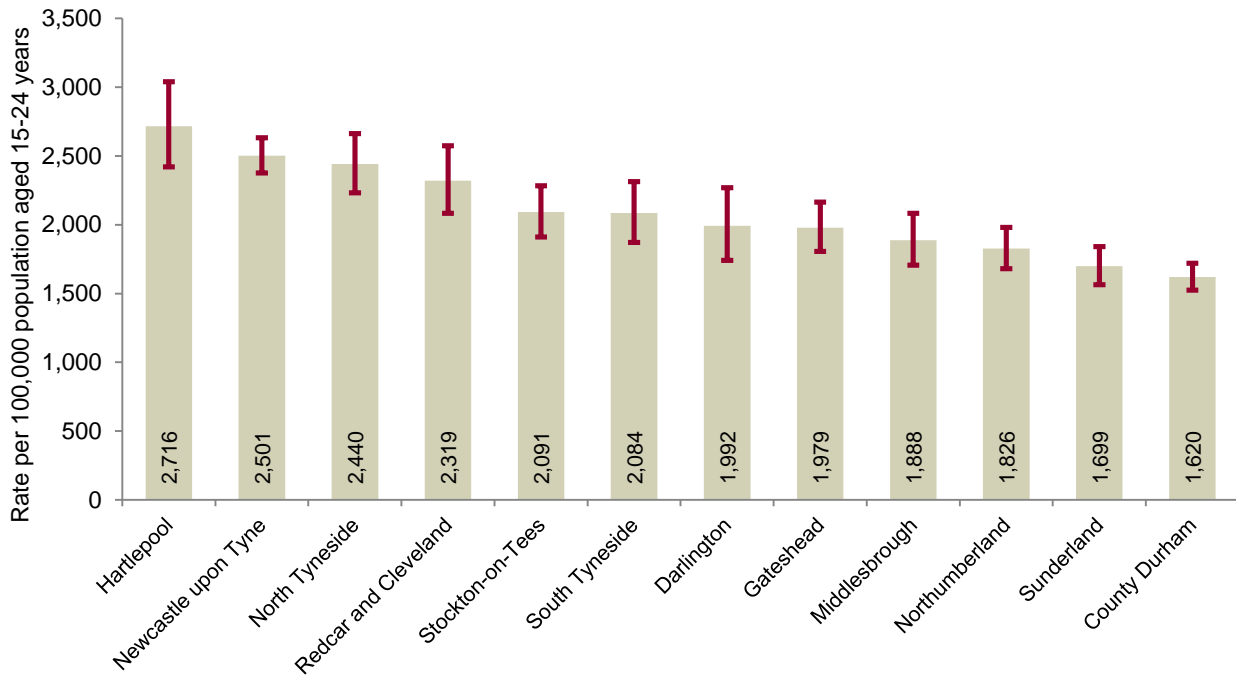
**Figure 8a: Rate of new STI diagnoses per 100,000 population among North East residents by upper tier local authority of residence: 2017.** Data sources: GUMCAD, CTAD



**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 North East residents by upper tier local authority of residence: 2017.** Data sources: GUMCAD, CTAD

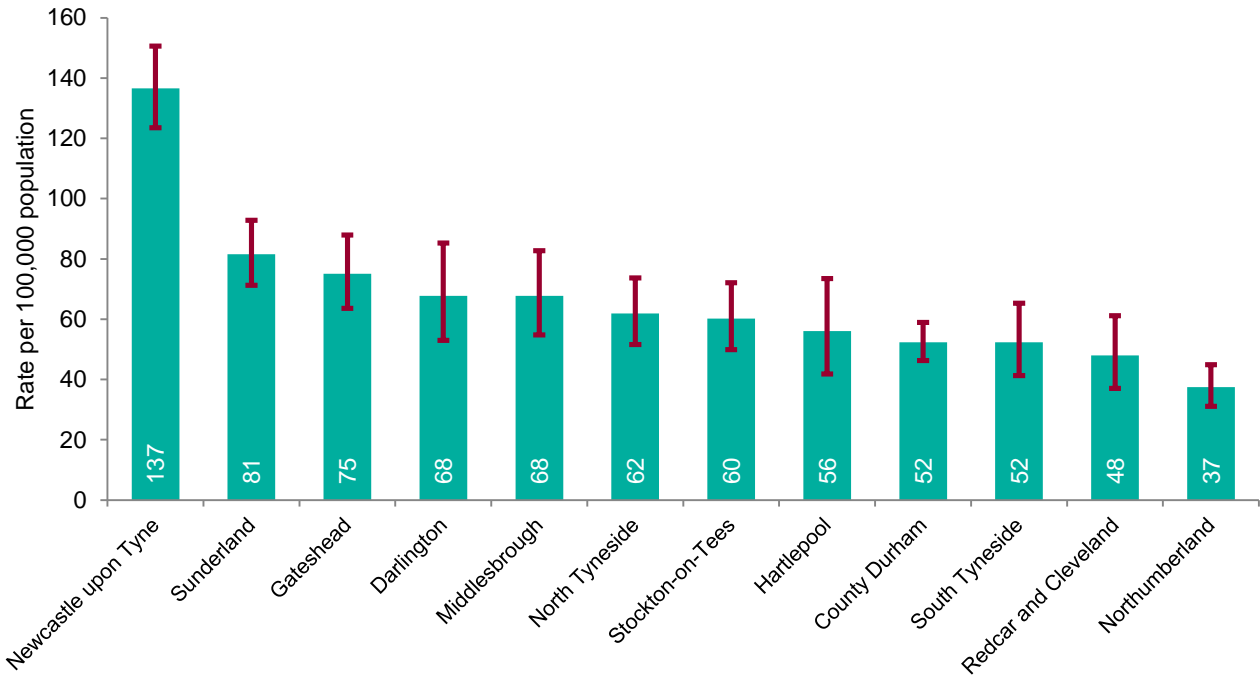


**Figure 9: Chlamydia detection rate per 100,000 population aged 15-24 years in North East residents by upper tier local authority of residence: 2017.** Data sources: GUMCAD, CTAD

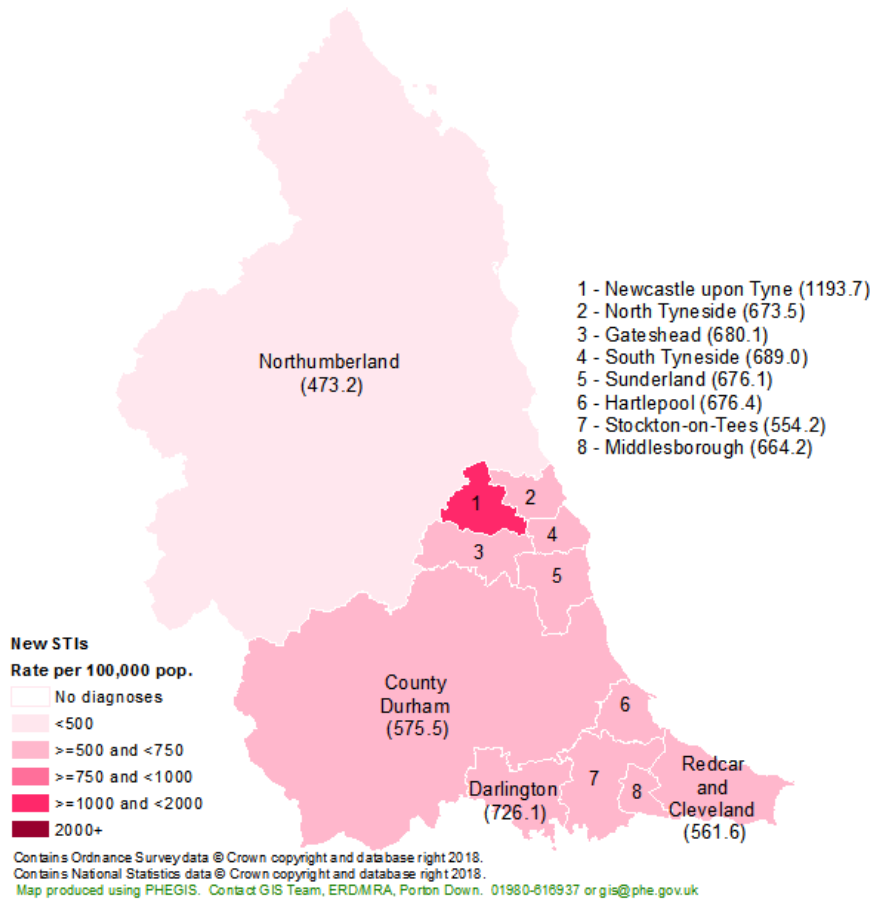




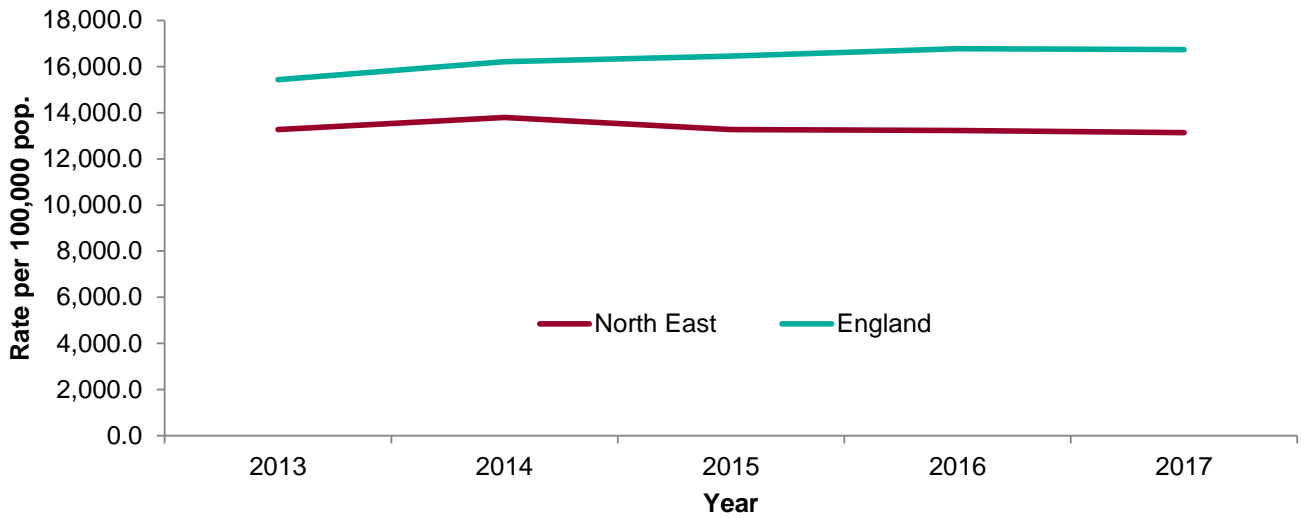
**Figure 10: Rate of gonorrhoea diagnoses per 100,000 population in North East residents by upper tier local authority of residence: 2017. Data source: GUMCAD**



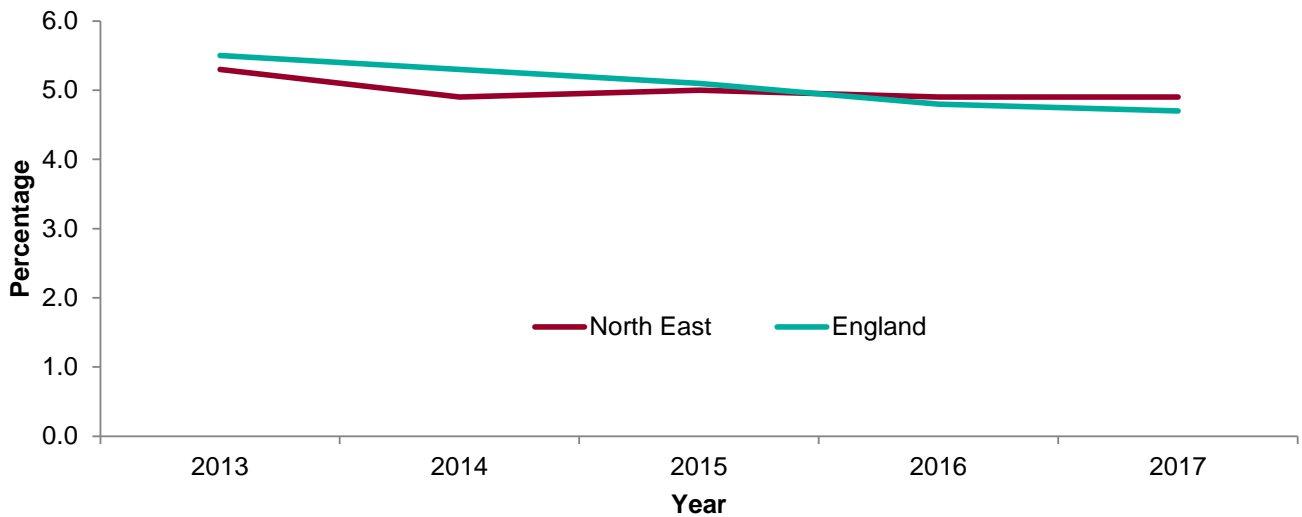
**Figure 11: Map of new STI rates per 100,000 residents by upper tier local authority in the North East: 2017. Data sources: GUMCAD, CTAD**



**Figure 13: STI testing rate (excluding chlamydia in under 25 year olds) per 100,000 population in North East residents aged 15 to 64: 2017** Data sources: GUMCAD, CTAD



**Figure 14: STI testing positivity rate (excluding chlamydia in under 25 year olds) in North East 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 SHSs	Non-specialist SHSs	Enhanced GP		Number	Rate
East Midlands	21,276	859		7,209	29,344	621.0
East of England	27,179	320		7,313	34,812	544.3
London	98,585	3,232		15,269	117,086	1,335.1
North East	14,026	19	1	3,796	17,842	676.7
North West	37,166	978	33	14,531	52,708	729.6
South East	43,135	833		8,114	52,082	594.3
South West	24,568	262		8,917	33,747	611.7
West Midlands	29,655	92		5,888	35,635	613.3
Yorkshire and Humber	27,405	232		9,810	37,447	690.2

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

5 main STIs	GUMCAD			CTAD*	Total
	Specialist SHSs	Non-specialist SHSs	Enhanced GP		
Syphilis	202				202
Gonorrhoea	1,771	6			1,777
Chlamydia	5,636			3,796	9,432
Genital Herpes	1,532	5	1		1,538
Genital Warts	2,745	5			2,750

\* Including site type 12 chlamydia from GUMCAD.

### 3 Additional analyses

**Table 6: Male to Female ratio of cases for the 5 main STIs and new STI diagnoses in the North East by year.** Data source: GUMCAD

STI	Year				
	2013	2014	2015	2016	2017
Gonorrhoea	1.4	1.4	1.5	1.5	1.3
Chlamydia	0.9	0.8	0.9	0.8	0.8
Syphilis	2.4	5.3	4.4	4.5	4.2
Herpes	0.6	0.6	0.6	0.5	0.5
Warts	1.5	1.5	1.5	1.5	1.6
New STI	1.2	1.2	1.3	1.2	1.1

**Table 7: Number of new STI diagnoses by clinic attended and local authority of residence in the North East for 2017.** Data source: GUMCAD

Clinic attended \ Local authority of residence	Northumberland	North Tyneside	Newcastle	Gateshead	South Tyneside	Sunderland	Durham	Darlington	Stockton-on-Tees	Hartlepool	Middlesbrough	Redcar & Cleveland	Clinic Total
Northumberland Sexual Health Service	805	20	10	7	<5	<5	<5			<5	<5		847
1 to 1 Centre-North Tyneside	126	850	112	15	5	6	16			<5			1131
New Croft Centre-Newcastle	202	207	2453	274	46	57	119	<5		<5		5	3367
Trinity Square-Gateshead	25	17	115	842	43	44	85	<5		<5	<5	<5	1180
Stanhope Parade Health Centre-South Shields		<5	<5	17	616	30	<5						671
Palmer Community Hospital-South Tyneside	<5	<5	<5	<5	145	<5			<5				154
Sunderland Royal Hospital	6	<5	<5	10	35	1324	184	<5	<5	<5		<5	1573
University Hospital of North Durham	<5	<5	6	6	<5	31	947	5	<5	5			1006
Bishop Auckland General Hospital	<5			<5			452	12	<5	<5			470
Darlington Memorial Hospital	<5	<5	<5		<5		197	643	7	<5	9	<5	863
Lawson Street-Stockton				<5			18	6	661	8	59	14	768
One Life-Hartlepool		<5	<5		<5	<5	109	<5	41	448	26	7	638
North Ormesby Health Centre-Middlesbrough	<5	<5					7		37	12	501	197	760
Redcar Primary Care Hospital								<5	11	<5	31	276	322
Local Authority Total	1171	1107	2707	1177	894	1498	2137	671	765	490	630	503	13750

\*Only includes North East residents that visited North East clinics.

**Table 8: Number of STI screens<sup>1</sup> by clinic attended and local authority of residence in the North East for 2017.** Data source: GUMCAD

Clinic attended \ Local authority of residence	Northumberland	North Tyneside	Newcastle	Gateshead	South Tyneside	Sunderland	Durham	Darlington	Stockton-on-Tees	Hartlepool	Middlesbrough	Redcar & Cleveland	Clinic Total
Northumberland Sexual Health Service	5197	104	57	22	8	12	18			<5	<5		5423
1 to 1 Centre-North Tyneside	820	5381	558	60	33	29	53				<5	<5	6937
New Croft Centre-Newcastle	1146	1246	13410	1370	274	316	598	13	17	18	12	28	18448
Trinity Square-Gateshead	100	82	600	4305	177	241	380	<5	5	12	7		5912
Stanhope Parade Health Centre-South Shields	7	18	15	49	3169	152	18	<5	<5				3434
Palmer Community Hospital-South Tyneside	<5	<5	<5	9	729	25	<5		<5				775
Sunderland Royal Hospital	22	12	26	46	155	4812	726	5	14	15	9	7	5849
University Hospital of North Durham	7	11	32	38	<5	118	4077	22	12	11	<5	<5	4336
Bishop Auckland General Hospital	<5		<5	<5	<5	<5	2002	75	8	<5			2100
Darlington Memorial Hospital	<5	<5	6		<5	6	641	2631	50	6	27	10	3385
Lawson Street-Stockton			<5	7	<5	6	66	31	3191	49	261	75	3688
One Life-Hartlepool	<5	<5	<5	<5	<5	16	429	10	185	2557	91	29	3326
North Ormesby Health Centre-Middlesbrough	<5	9	6	<5		<5	30	11	270	38	2386	746	3506
Redcar Primary Care Hospital	<5				<5	<5	<5		57	6	150	1324	1542
Local Authority Total	7314	6872	14715	5914	4556	5741	9042	2804	3814	2717	2950	2222	68661

1: STI screens include any test for chlamydia, gonorrhoea, syphilis, or HIV.

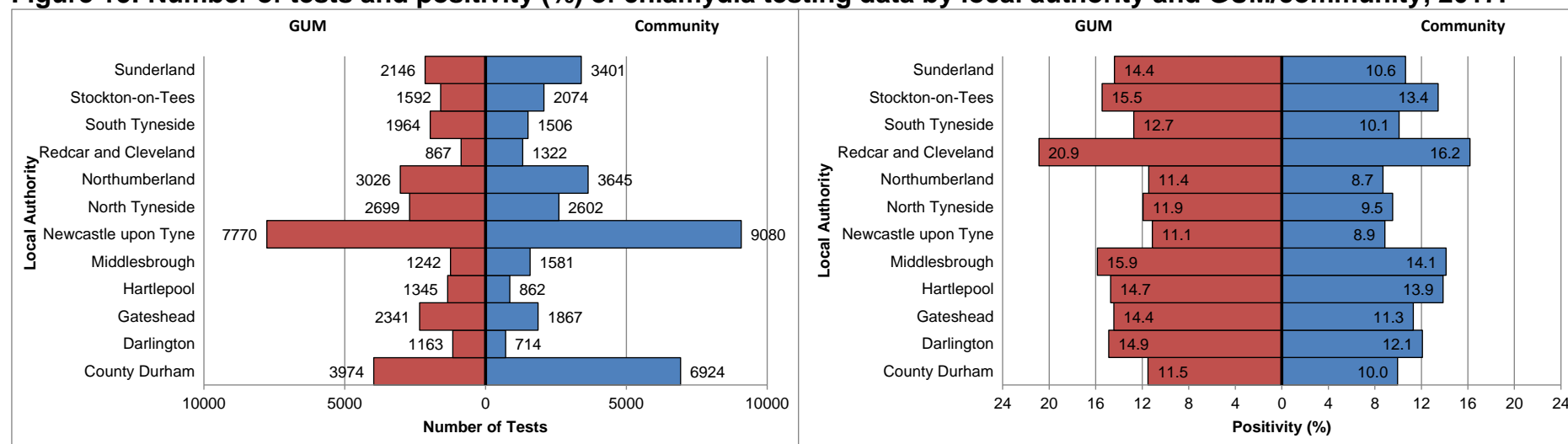
\* Only includes North East residents that visited North East clinics.

**Table 9: Number of chlamydia screening tests, positive diagnoses and positivity in GUM and community settings in 15-24 year olds by local authority of residence in 2017** Data sources: GUMCAD, CTAD

Resident Local Authority	GUM clinics			Community			Total			Population 15-24 year olds	Diagnosis rate Total positives/ (pop*100000)
	Number of chlamydia screens	Number of positive tests	Positivity	Number of chlamydia screens	Number of positive tests	Positivity	Number of chlamydia screens	Number of positive tests	Positivity		
County Durham	3,974	457	11.50	6,924	628	9.07	10,898	1085	9.96	66,960	1,620
Darlington	1,163	173	14.88	714	54	7.56	1,877	227	12.09	11,396	1,992
Gateshead	2,341	338	14.44	1,867	138	7.39	4,208	476	11.31	24,058	1,979
Hartlepool	1,345	198	14.72	862	108	12.53	2,207	306	13.86	11,267	2,716
Middlesbrough	1,242	197	15.86	1,581	202	12.78	2,823	399	14.13	21,137	1,888
Newcastle upon Tyne	7,770	865	11.13	9,080	627	6.91	16,850	1492	8.85	59,667	2,501
North Tyneside	2,699	322	11.93	2,602	183	7.03	5,301	505	9.53	20,698	2,440
Northumberland	3,026	346	11.43	3,645	234	6.42	6,671	580	8.69	31,756	1,826
Redcar and Cleveland	867	181	20.88	1,322	173	13.09	2,189	354	16.17	15,268	2,319
South Tyneside	1,964	250	12.73	1,506	100	6.64	3,470	350	10.09	16,795	2,084
Stockton-on-Tees	1,592	246	15.45	2,074	247	11.91	3,666	493	13.45	23,579	2,091
Sunderland	2,146	309	14.40	3,401	281	8.26	5,547	590	10.64	34,723	1,699
<b>North East Total</b>	<b>30129</b>	<b>3882</b>	<b>12.88</b>	<b>35578</b>	<b>2975</b>	<b>8.36</b>	<b>65707</b>	<b>6857</b>	<b>10.44</b>	<b>337,304</b>	<b>2,033</b>

\*Green highlighting indicates local authorities that reached the 2,300 diagnosis rate target in 2017.

**Figure 15: Number of tests and positivity (%) of chlamydia testing data by local authority and GUM/community, 2017.**



## 4 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)

### 4.1 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 2018.

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.

### 4.2 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 April 2018.

### 4.3 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.



## 4.4 Calculations

Confidence Intervals were calculated using Byar's method:

[fingertips.phe.org.uk/documents/APHO%20Tech%20Briefing%203%20Common%20PH%20Stats%20and%20CIs.pdf](https://fingertips.phe.org.uk/documents/APHO%20Tech%20Briefing%203%20Common%20PH%20Stats%20and%20CIs.pdf)

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.

## 5 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](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. They should contact [FES.NorthEast@phe.gov.uk](mailto:FES.NorthEast@phe.gov.uk) if they do not have access to this information.

## 6 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.NorthEast@phe.gov.uk](mailto:FES.NorthEast@phe.gov.uk).

If you have any comments or feedback regarding this report or the FS service, please contact [FES.NorthEast@phe.gov.uk](mailto:FES.NorthEast@phe.gov.uk).

## 7 Acknowledgements

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- FS South East and London for drafting the report