

Spotlight on sexually transmitted infections in the North West

2020 data

Contents

1. Summary	3
2. Charts, tables and maps	
3. Information on data sources	25
4. Further information	27
5. About the Field Service	
6. Acknowledgements	
7. References	29

1. Summary

Sexually transmitted infections (STIs) represent an important public health problem in the North West. Out of all the UK Health Security Agency (UKHSA)'s regions it has the third highest rate of new STIs in England.

More than 34,000 new STIs were diagnosed in North West residents in 2020, representing a rate of 462 diagnoses per 100,000 population. Rates by upper tier local authority ranged from 232 new STI diagnoses per 100,000 population in Bolton to 930 new STI diagnoses per 100,000 population in Manchester.

The number of new STIs diagnosed in North West residents fell by 37% between 2019 and 2020. Numbers of the 5 major STIs fell: syphilis decreased by 29%, gonorrhoea by 33%, chlamydia by 35%, genital herpes by 46% and genital warts by 48%.

UKHSA 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 2020 the chlamydia diagnosis rate among North West residents aged 15 to 24 years was 1,249 per 100,000 residents. Men and women have similar rates of new STIs (446 and 459 per 100,000 residents respectively).

Where gender and sexual orientation are known, men who have sex with men (MSM) account for 18% of North West residents diagnosed with a new STI excluding chlamydia diagnoses reported via CTAD (71% of those diagnosed with syphilis and 41% of those diagnosed with gonorrhoea).

STIs disproportionately affect young people. North West residents aged between 15 and 24 years accounted for 50% of all new STI diagnoses in 2020. A steep decline (94% decrease) has been seen between 2016 and 2020 in genital warts diagnosis rates in females aged 15 to 19. This follows the introduction in 2008 of vaccination against Human papillomavirus (HPV), the virus which causes genital warts, for girls.

The white ethnic group has the highest number of new STI diagnoses: over 23,600 (87%). Although only 1% of new STIs are in black Caribbeans, they have the highest rate: 1,677 per 100,000, which is 5 times the rate seen in the white ethnic group. Where country of birth was known, 89% of North West residents diagnosed with a new STI in 2020 (excluding chlamydia diagnoses reported via CTAD) were UK-born.

Implications for prevention

During the coronavirus (COVID-19) pandemic in 2020, the UK government implemented national and regional lockdowns and social and physical distancing with a focus to stay at home. This led to a marked reduction across all regions in the capacity for sexual health services (SHS) to provide face-to-face consultations. With a reduction of face-to-face consultations, there was a rapid reconfiguration to increase access to STI testing online and via telephone consultations (1) leading to an increase of consultations of both types in 2020 (2).

The reduction in STI diagnoses between 2019 and 2020 is likely due to a combination of reduced testing due to SHS service disruption and changes in behaviour, but the large number of diagnoses in 2020 is clear evidence of sustained STI transmission; this is supported by evidence from community surveys which suggest that, although fewer people reported meeting new sex partners during 2020 compared to previous years, a substantial proportion still had an ongoing risk for STIs (for example, condomless sex with new sex partners) during 2020 (2, 3, 4, 5, 6).

Access to high quality information is essential for good sexual health and an on-line resource and a telephone helpline ($\underline{8}$) to provide advice on contraception, pregnancy and STIs continues to be funded. Additional guidance has been provided about seeking sexual and reproductive health advice during the COVID-19 pandemic ($\underline{2}$, $\underline{9}$).

In 2020, sexual health screens (tests for chlamydia, gonorrhoea, syphilis, or HIV) decreased, contributing to a decrease in STI diagnoses in SHS and community-based settings in all regions, compared to 2019. The impact of STIs is still the greatest for young people aged 15 to 24 years, men who have sex with men (MSM) and black ethnic minorities (<u>2</u>).

The high rates of STIs among young people are likely to be due to greater rates of partner change (<u>10</u>). Although the impact is still great in young people, the number of new STI diagnoses among them decreased in 2020 with considerable decreases seen in first episode of genital warts, first episode of genital herpes and trichomoniasis. However, decreases in gonorrhoea and chlamydia were less pronounced. These decreases, especially in STIs usually diagnosed at face-to-face consultation, such as first episode genital warts and herpes, may be in part due to a reduction in face-to-face consultations during the pandemic. Chlamydia, gonorrhoea and infectious syphilis showed less of a fall as they could be diagnosed using self-sampling kits via internet consultations. The larger fall in genital warts likely reflects the expected continuing decline in diagnoses since 2009 due to the National HPV Vaccination Programme that has achieved high coverage in girls and provided herd protection for heterosexual boys (<u>2</u>).

Implementation of Relationships Education in primary schools, as well as Relationships, Sex and Health Education (RSHE) in all secondary schools from September 2020 will provide young people with the information and skills to look after their sexual health (11, 12, 13). As an

effective method to reduce the risk of acquiring STIs, condoms are distributed through a range of local services. Many areas in England continue to provide condom schemes which distribute condoms to young people (mostly under 20 years of age) through a variety of outlets (2, 14).

The early diagnosis and treatment of STIs is a key intervention for their prevention and control, and to reduce the harms of untreated infection. The National Chlamydia Screening Programme (NCSP) promotes screening for chlamydia, the most commonly diagnosed bacterial STI, in sexually active young women on change of partner or annually; this reflects a change in focus in June 2021 to reducing the reproductive harm of untreated chlamydia infection. Chlamydia data within this report is up to December 2020, at a time when the NCSP provided opportunistic screening to all young people aged 15 to 24 years (<u>15</u>). Despite a decrease in chlamydia testing and diagnoses across all regions during 2020, chlamydia positivity remained stable, suggesting ongoing transmission among young people in 2020. 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 national testing and the high positivity of women within sexual and reproductive health services, it is likely that some infected women remain undiagnosed. Positively, the increase of accessing chlamydia testing services on the internet in 2020 suggests that these services are acceptable to young people, although this may just reflect the disruption to service provisions during the pandemic (<u>2</u>).

To help local areas improve their chlamydia detection rates in young people, facilitated chlamydia care pathway workshops continue to be delivered (<u>16</u>). These workshops provide local commissioners and providers with a comprehensive case management pathway; from the offer of chlamydia testing, uptake, diagnosis, treatment, partner notification and retesting and planning how services might be improved or resources redistributed (<u>2</u>).

In MSM, diagnoses of STIs decreased across all infections, reflecting a reduction in testing during 2020. Despite these decreases, diagnoses were still high for gonorrhoea, chlamydia and infectious syphilis compared to recent years, with the highest rates in HIV-diagnosed MSM compared to other men or women. Again, the decrease in first episode genital herpes may be explained by reduced face-to-face consultations. In addition, with the implementation of the national roll out of the HPV vaccination in MSM aged up to 45 years attending specialist SHS and HIV clinics, since April 2018, some of the decrease in diagnoses may be associated with the programme.

As MSM continue to experience high rates of STIs they remain a priority for targeted STI prevention and health promotion work. There is a need to strengthen public health measures to reduce transmission of syphilis. National clinical guidelines recommend frequent testing in high-risk MSM (<u>17</u>), but surveillance data suggests this is not uniformly carried out. There are also concerns about poor knowledge and awareness of syphilis among MSM (<u>2</u>, <u>18</u>). Therefore the Syphilis Action Plan, published in June 2019, has recommendations to address the continued increase in syphilis diagnoses in England.

The plan is based upon action to optimise 4 prevention pillars:

- 1. increasing testing frequency of high-risk MSM and re-testing cases after treatment
- 2. deliver partner notification
- 3. maintain high antenatal screening coverage and vigilance
- 4. sustain targeted health promotion

There is a particular focus on high-risk MSM (19).

In 2020, the population rates of STI diagnoses remained the highest among people of black ethnicity, but this varied across black ethnic groups. 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 (2, 20).

Several HIV prevention activities can also have an impact on STI control and promote safer sexual behaviours. The Office for Health Improvement and Disparities (OHID) within Department of Health and Social Care (DHSC) have commissioned Terrence Higgins Trust to deliver a new National HIV Prevention Programme from November 2021 to March 2024. The Programme aims to improve knowledge, understanding and uptake of combination HIV prevention interventions among populations most at-risk of HIV in England, particularly aimed at MSM and people of black ethnicity and other groups in whom there is a higher or emerging burden of infection (21).

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 SHS with STI screening and robust contact tracing, and should focus on groups at highest risk such as young people, black ethnic minorities and MSM. The UKHSA is supporting the DHSC in the development of a new Sexual and Reproductive Health Strategy, which will include a focus on reducing STIs and addressing inequalities ($\underline{2}$).

UKHSA's main messages

It is important that health promotion and service access messages are sustained and reinforced. The main STI prevention messages are summarised below:

• using condoms consistently and correctly protects against HIV, other STIs such as chlamydia, gonorrhoea and syphilis, and unplanned pregnancy

- people at risk of HIV can also protect themselves by using HIV pre-exposure prophylaxis (PrEP), which is available from sexual health services
- people with HIV are unable to pass on the infection sexually if they are on treatment and have undetectable levels of the virus – this is known as 'Undetectable = Untransmittable' or 'U = U'
- vaccination against human papillomavirus (HPV) (for eligible MSM and those eligible as school-aged adolescents), hepatitis A and hepatitis B (for MSM and others with greater sexual health needs) will protect against disease caused by these viruses and prevent spread of these infections
- sexual health services offer free and confidential HIV and STI testing, condoms, PrEP, vaccination, and contraception advice:
 - most services and local areas also provide the option of internet access to HIV and STI testing
 - further advice on HIV and STIs, including how to access sexual and reproductive health services, is available through Sexwise and the national sexual health helpline on 0300 123 7123 (9am to 8pm Monday to Friday, 11am to 4pm Saturday to Sunday)
- regular testing for HIV and STIs is essential for good sexual health and everyone should have an STI screen, including an HIV test, annually if having condomless sex with new or casual partners – in addition:
 - women aged under 25 years who are sexually active should be screened for chlamydia on change of sexual partner or annually
 - gay, bisexual and other men who have sex with men should test for HIV and STIs annually or every 3 months if having condomless sex with new or casual partners

2. Charts, tables and maps

Figure 1. New STI diagnoses by UKHSA region of residence: England 2020 Data sources: GUMCAD, CTAD



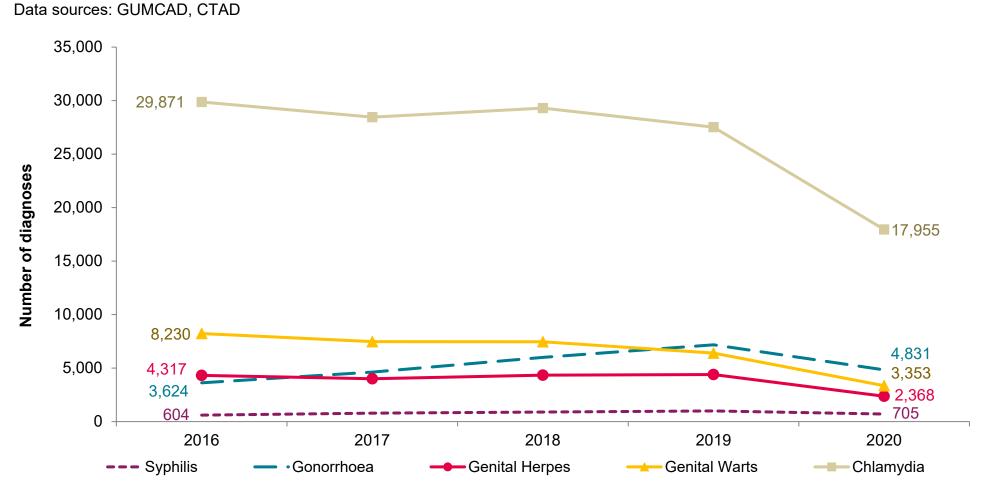


Figure 2. Number of diagnoses of the 5 main STIs: North West residents, 2016 to 2020

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

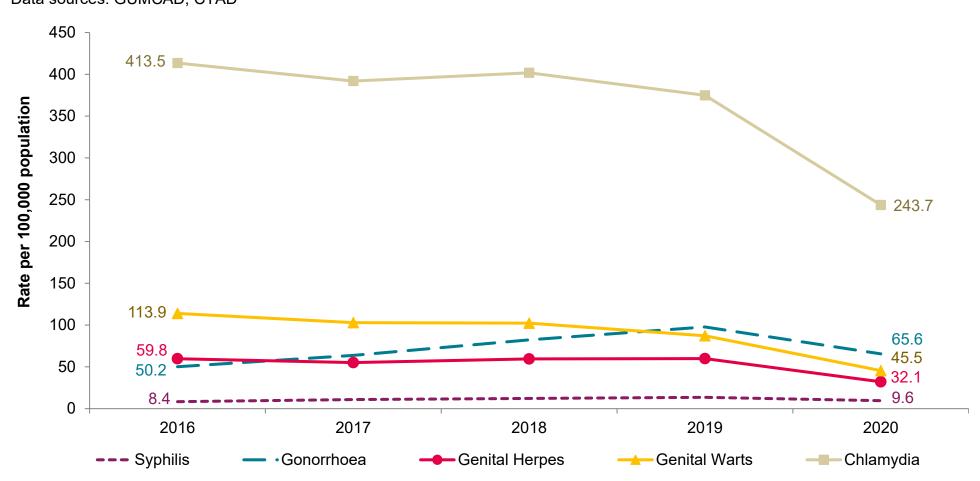


Figure 3. Diagnosis rates of the 5 main STIs: North West residents, 2016 to 2020 Data sources: GUMCAD, CTAD

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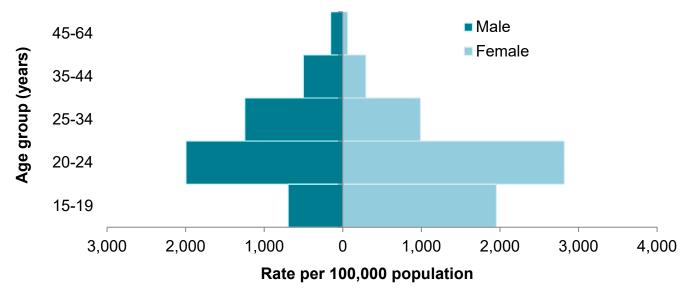
Table 1. Percentage change in new STI diagnoses: North West residentsData sources: GUMCAD, CTAD

Diagnoses	2020	% change 2016 to 2020	% change 2019 to 2020
New STIs	34,051	-38%	-37%
Syphilis	705	17%	-29%
Gonorrhoea	4,831	33%	-33%
Chlamydia	17,955	-40%	-35%
Genital herpes	2,368	-45%	-46%
Genital warts	3,353	-59%	-48%

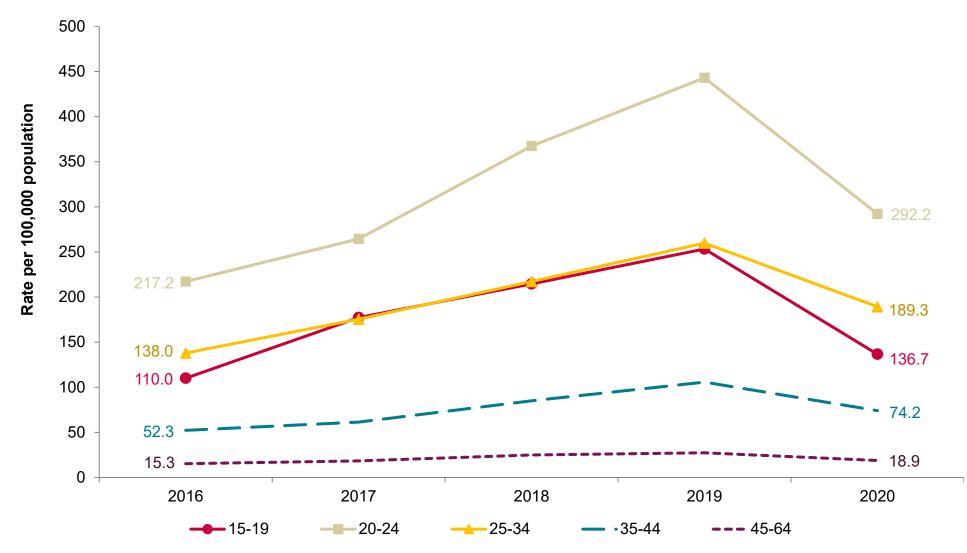
See notes for Figure 3.

Figure 4. Rates of new STIs per 100,000 residents by age group* and gender in the North West, 2020

Data sources: GUMCAD, CTAD



*Age-specific rates are shown for those aged 15 to 64 years only.





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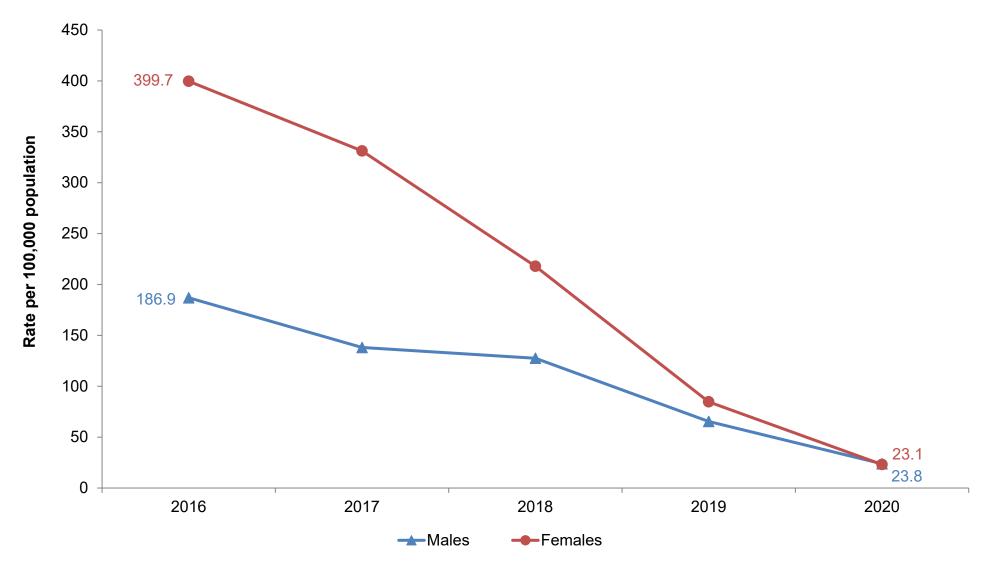
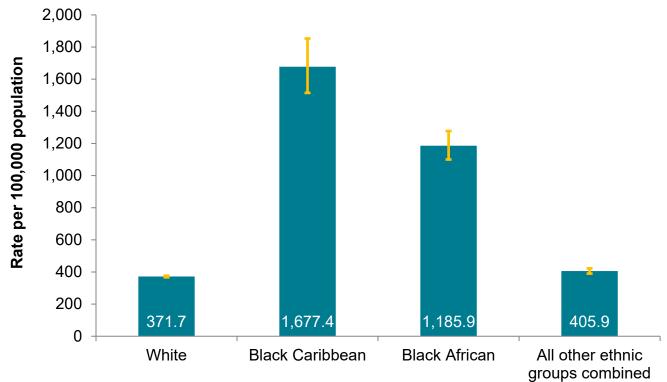




Figure 7. Rates of new STIs by ethnic group per 100,000 residents in the North West, 2020



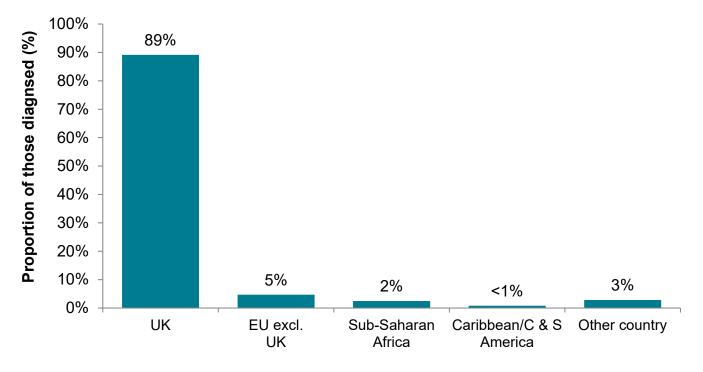
Data sources: GUMCAD, CTAD

Table 2. Proportion of North West residents diagnosed with a new STI by ethnicity: 2020Data sources: GUMCAD, CTAD

Ethnic group	Number	Percentage excluding unknown
White	23,647	87%
Black Caribbean	388	1%
Black African	703	3%
All other ethnic groups combined	2,468	9%
Unknown	6,845	

Figure 8. Proportions of North West residents diagnosed with a new STI by world region of birth*: 2020





*Data on country of birth is not collected by CTAD. All information about world region of birth is based on diagnoses made in specialist and non-specialist services which report to GUMCAD.

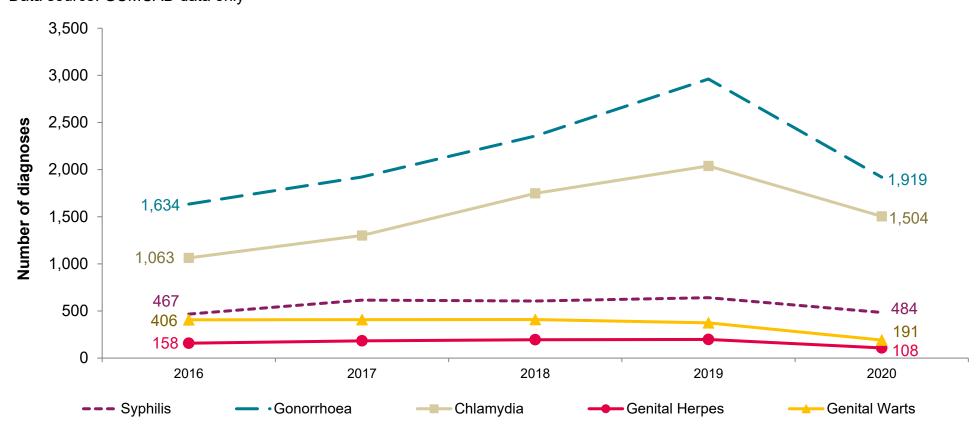


Figure 9. Diagnoses of the 5 main STIs among MSM*: North West residents, 2016 to 2020 Data source: GUMCAD data only

* Data on sexual orientation is not collected by CTAD. All information about MSM is based on diagnoses made in specialist and non-specialist services which report to GUMCAD.

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*: North West residents Data sources: GUMCAD data only

Diagnoses	2020	% change 2016 to 2020	% change 2019 to 2020
New STIs	4,691	0%	-35%
Syphilis	484	4%	-24%
Gonorrhoea	1,919	17%	-35%
Chlamydia	1,504	41%	-26%
Genital herpes	108	-32%	-45%
Genital warts	191	-53%	-49%

See notes for Figure 9 (including asterisk).

Figure 10a. Rate of new STI diagnoses per 100,000 population among North West residents by upper tier local authority of residence (UTLA): 2020

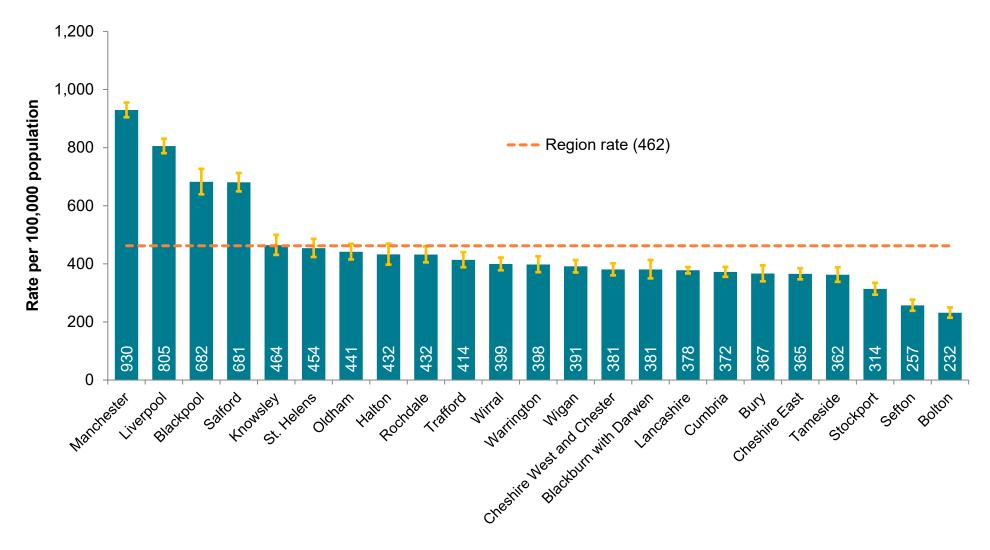


Figure 10b. Rate of new STI diagnoses (excluding chlamydia diagnoses in persons aged 15 to 24 years) per 100,000 population aged 15 to 64 years among North West residents by upper tier local authority of residence: 2020

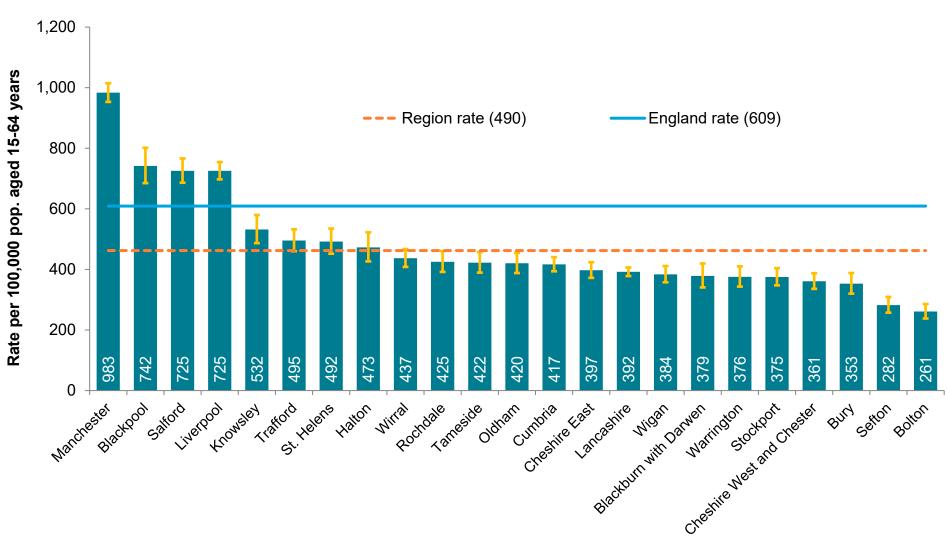
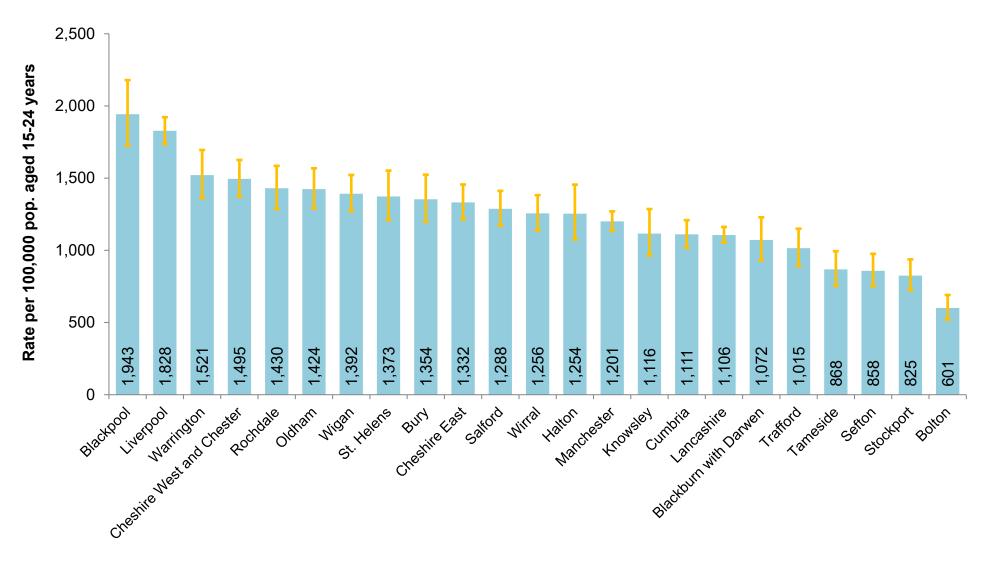
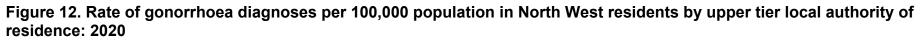


Figure 11. Chlamydia detection rate per 100,000 population aged 15 to 24 years in North West residents by upper tier local authority of residence: 2020





Data source: GUMCAD

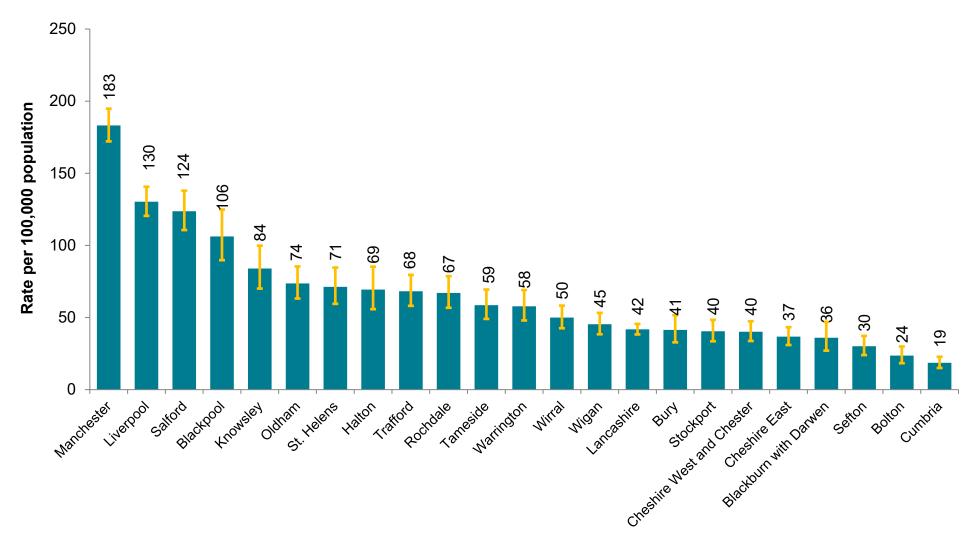
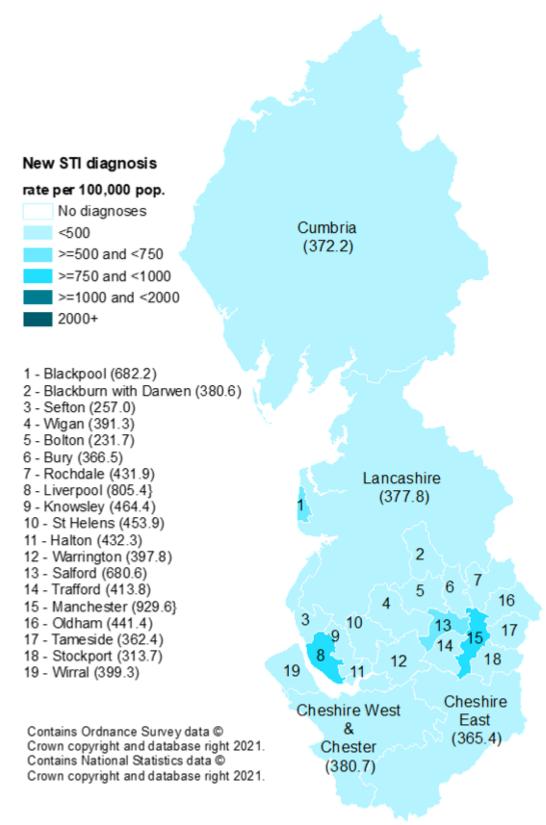


Figure 13. Map of new STI rates per 100,000 residents by upper tier local authority in the North West: 2020





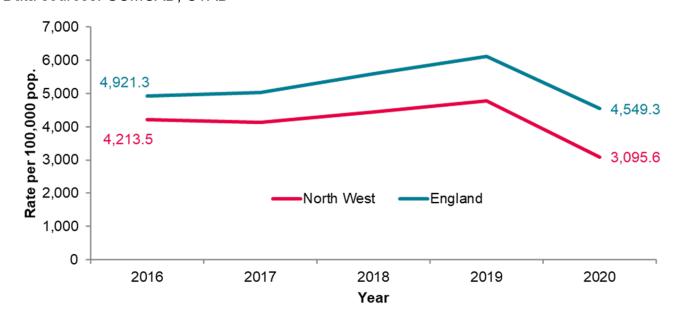
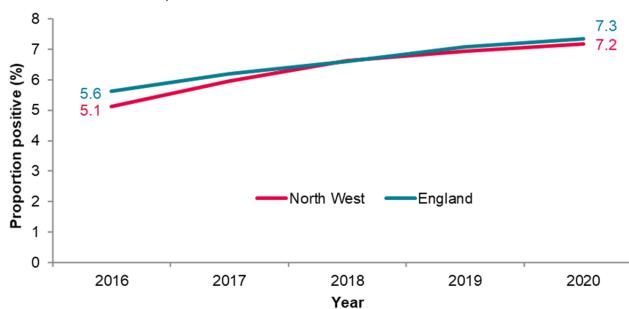


Figure 15. STI testing positivity rate* (excluding chlamydia in under 25 year olds) in North West residents: 2016 to 2020



Data sources: GUMCAD, CTAD

* The numerator for the STI testing positivity rate now only includes infections which are also included in the denominator. These are: chlamydia (excluding diagnoses in those aged under 25 years), gonorrhoea, syphilis and HIV. Up to 2018 (data for 2017) it included all new STIs.

Table 4. Number of diagnoses of new STIs by UKHSA region of residence, data sourceand data subset 2020

Data sources: GUMCAD, CTAD

UKHSA region of residence	GUI	MCAD		Total
	Specialist SHSs	Non-specialist SHSs*	CTAD*	
East Midlands	11,470	5,184	4,182	20,836
East of England	17,879	4,003	6,204	28,086
London	73,984	7,995	23,072	105,051
North East	8,558	1,222	2,820	12,600
North West	24,313	2,607	7,131	34,051
South East	27,397	1,888	8,935	38,220
South West	14,289	2,042	6,784	23,115
West Midlands	17,406	3,687	4,354	25,447
Yorkshire and Humber	16,659	1,521	6,886	25,066

*Including site type 12 chlamydia from GUMCAD.

Table 5. Number of diagnoses of the 5 main STIs in the North West by STI, data sourceand data subset 2020

Data sources: GUMCAD, CTAD

5 main STIs	GL	CTAD*	Total	
	Specialist SHSs	Non-specialist SHSs		
Syphilis	700	5		705
Gonorrhoea	4,434	397		4,831
Chlamydia	9,315	1,509	7,131	17,955
Genital herpes	2,193	175		2,368
Genital warts	3,207	146		3,353

*Diagnoses from enhanced GPs reporting to GUMCAD are included in the 'Non-specialist sexual health services (SHSs)' total.

3. Information on data sources

Find more information on local sexual health data sources in the UKHSA guide.

These slides are based on data from the GUMCAD and CTAD surveillance systems published on 6 September 2021 (data to the end of calendar year 2020).

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.

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 local authority or 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.

For services which report to GUMCAD and for which CTAD does not receive data on the patient's area of residence (for example, SHSs), information about chlamydia diagnoses is sourced from GUMCAD data.

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.

ONS mid-year population estimates for 2019 were used as a denominator for rates for 2020. ONS ceased producing estimates of population by ethnicity in 2011. Estimates for that year were used as a denominator for rates for 2020.

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.

For further information, access the online Sexual and Reproductive Health Profiles.

For more information on local sexual health data sources, see the UKHSA guide.

Local authorities have access to local authority sexual health epidemiology reports (LASERs) and the HIV and STI portal. If they do not have access to this information, contact <u>FES.NorthWest@phe.gov.uk</u>

The following reports are available online:

- North West STI Spotlights
- North West HIV Spotlights

Health Protection Team (HPT) contacts

HPT contacts are:

Cheshire and Merseyside: Dr Anjila Shah, Consultant in Health Protection – <u>Anjila.Shah@phe.gov.uk</u>

Cumbria and Lancashire: Rebecca Stretch, Senior Health Protection Nurse – <u>Rebecca.Stretch@phe.gov.uk</u>

Greater Manchester: Dr Caroline Rumble, Consultant in Health Protection - <u>Caroline.Rumble@phe.gov.uk</u>

North West: Dr Evdokia Dardamissis, Consultant in Health Protection - evdokia.dardamissis@phe.gov.uk

The North West Sexual Health Facilitator is Jon Dunn: Jon.Dunn@phe.gov.uk

5. About the Field Service

The Field Service was established in 2018 as a national service comprising geographically dispersed multi-disciplinary teams integrating expertise in Field Epidemiology, Real-time Syndromic Surveillance, Public Health Microbiology and Food, Water and Environmental Microbiology to strengthen the surveillance, intelligence and response functions of UKHSA. The Field Service also leads and coordinates the Global Health work of UKHSA's National Infection Service working with the Global Public Health Team and will lead and coordinate the national aspects of UKHSA's port health functions.

You can contact your local FS team at FES.NorthWest@phe.gov.uk

If you have any comments or feedback regarding this report or the Field Service, contact <u>FES.NorthWest@phe.gov.uk</u>

6. Acknowledgements

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- local SHSs for supplying the SHS data
- local laboratories for supplying the CTAD data
- UKHSA Blood Safety, Hepatitis, Sexually Transmitted Infections (STI) and HIV Division for collection, analysis and distribution of data

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About the UK Health Security Agency

UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation heath secure.

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