



Sexual Health Needs Assessment – acute sexually transmitted infections

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November 2015

Contents

Acute sexually transmitted infections	2
Defining the issue	2
Why is this important?	4
Implications of having an STI and the health consequences	4
Acute STIs – who is at risk and why	4
Young people.....	4
Men who have sex with men (MSM)	5
Links with deprivation.....	5
Links with alcohol.....	5
Acute STIs – level of need in the population	6
Diagnostic rates 2013	6
STI diagnoses by age group	8
Trends.....	10
Recommendations	10
References	11

Acute sexually transmitted infections

Defining the issue

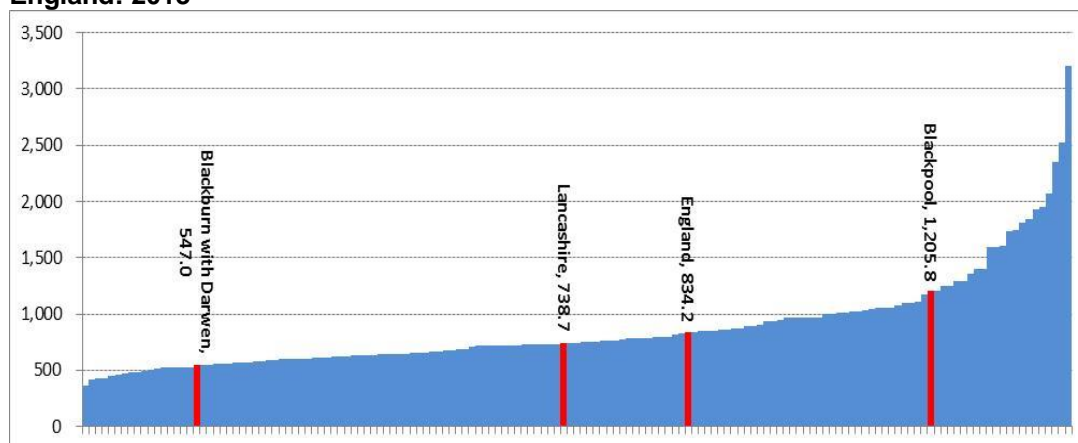
No assessment of sexual health needs would be complete without considering at least some sexually transmitted infections (STI) other than HIV and chlamydia. The Health Protection Agency (HPA) publishes statistics on the number of diagnoses of acute STIs, such as:

- gonorrhoea;
- syphilis;
- genital warts;
- genital herpes;
- chlamydia* (considered here only as part of the acute STIs total); and
- other – including HIV (from 2012).

In England in 2013, the total number of new cases of diagnosed STIs was 446,253, a decrease of 0.6% from 2012. The most commonly diagnosed STIs were chlamydia (47%), genital warts (17%), genital herpes (7%), and gonorrhoea (7%). Between 2012 and 2013, there was a 15% increase in diagnoses of gonorrhoea and a 9% increase in infectious syphilis. During the same period, diagnoses of non-specific genital infection (NSGI) fell by 10%.¹

Over the past decade, diagnoses of gonorrhoea, syphilis, genital warts and genital herpes have increased considerably, mostly notably in males. More STI testing in genitourinary medicine (GUM) clinics and through the National Chlamydia Screening Programme (NCSP) and routine use of more sensitive diagnostic tests will partly explain these increases, although ongoing unsafe sexual behaviour will have played an additional role. The increasing usage of nucleic acid amplification tests (NAATs) may also have contributed to the decreasing number of non-specific genital infection (NSGI) diagnoses.²

Figure 1: Acute STI diagnosis rate per 100,000 population, all ages – upper tier local authorities in England: 2013



* Often asymptomatic, so numbers diagnosed are heavily dependent on the level of screening activity. For further details of the screening programme for 15-24 year-olds, please see the chlamydia sub-chapter.

There were 8,687 new STI diagnoses in Lancashire[†] in 2013, a decrease of 2% from the previous year's figure of 8,862. The most commonly diagnosed STIs were chlamydia (53%), genital warts (19%), herpes (9%), and gonorrhoea (4%). Lancashire has a lower diagnosis rate than the national average, 738.7 per 100,000 compared to 834.2 per 100,000 in England (figure 1 above), but the variation within the county is more marked, ranging from 420.2 in Ribble Valley to 1,137.7 in Lancaster. The high rates in both Lancaster and Preston can be explained by the high chlamydia diagnoses in both these areas; university towns with large under-25 populations where chlamydia screening is relatively high.

Figure 2: New acute STI diagnosis rate per 100,000 population (all ages) 2013³

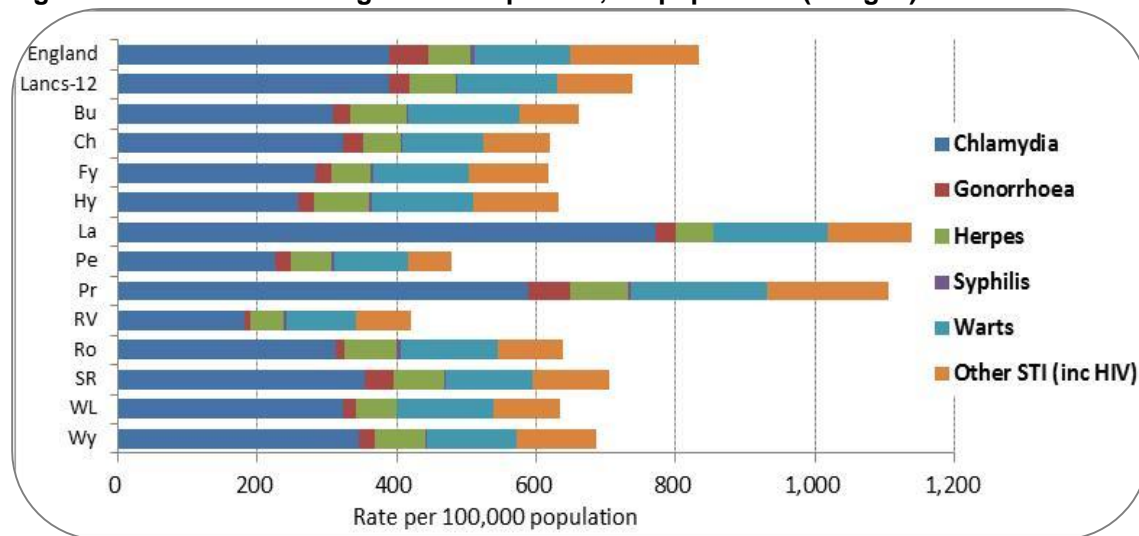


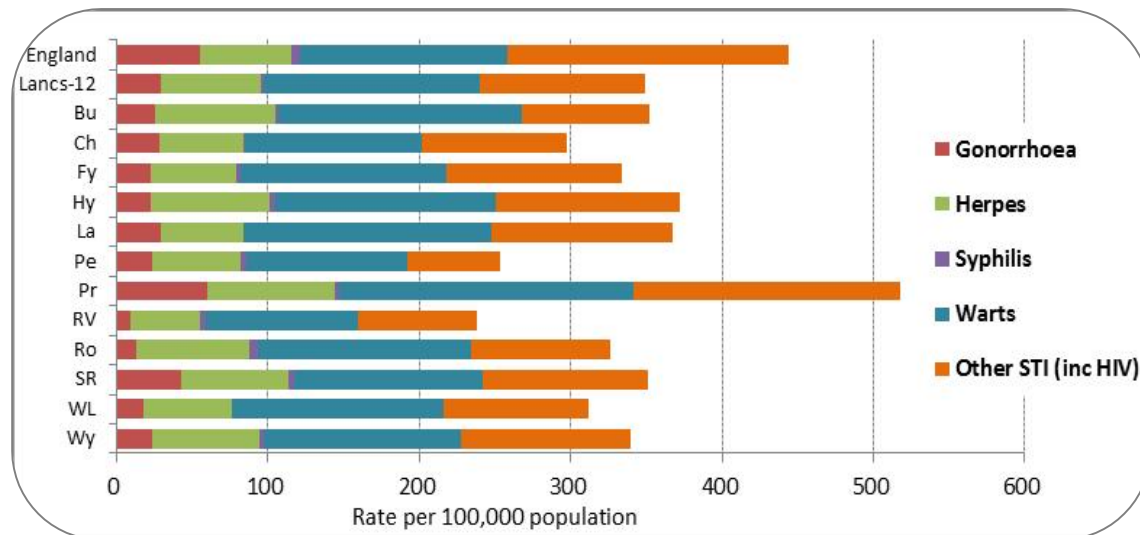
Table 1: New acute STI diagnosis rate (by district)

Area	STI rate
England	834.2
Lancashire	738.7
Burnley	661.1
Chorley	619.7
Fylde	618.3
Hyndburn	631.0
Lancaster	1,137.7
Pendle	477.6
Preston	1,105.7
Ribble Valley	420.2
Rossendale	637.7
South Ribble	703.9
West Lancashire	634.7
Wyre	685.0

[†] Lancashire refers to the 12 districts in the county council area; Lancashire-14 refers to the 12 districts plus the two unitary authorities of Blackburn with Darwen and Blackpool.

When chlamydia diagnosis is removed from the overall STI rates as shown in figure 3 (below) the picture changes and Preston stands out as having the highest STI diagnoses in the county and is the only district to be above the national average.

Figure 3: New acute STI diagnosis rate (excluding chlamydia) per 100,000 population (all ages) 2013



Why is this important?

Implications of having an STI and the health consequences

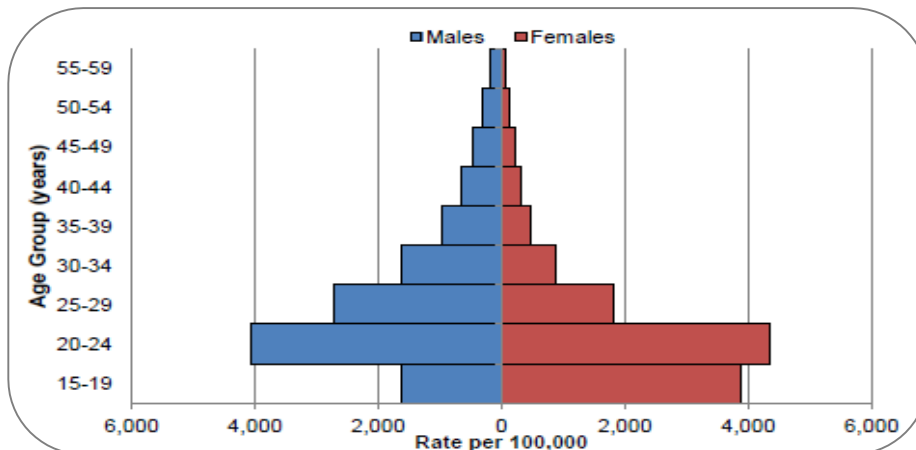
Acute STIs can cause long-term damage to general health and fertility if left untreated, and spread quickly through the community. A confounding factor is that many STIs may be asymptomatic in the shorter term, which complicates their detection and management. In the case of gonorrhoea, there is concern that it is becoming increasingly resistant to antibiotics, which adds to the importance of the health promotion agenda, aimed at preventing infection in the first place.⁴

Acute STIs – who is at risk and why

Young people

As shown in figure 4 from Public Health England's 2013 infection report, the age group most likely to be diagnosed with an acute STI is young people under-25 years.

Although there has been little change in the median number of lifetime sex partners in young persons aged 15 to 24 years in 2010–12 relative to 1999–2001 they continue to experience the highest rates of STIs. In 2013, among heterosexuals diagnosed in GUM clinics, 63% with chlamydia, 56% with gonorrhoea, 54% with genital warts, and 42% with genital herpes were aged 15 to 24 years. Although overall numbers of diagnoses in those aged 15 to 24 years have risen considerably in the last ten years, there has been some decline recently in cases of genital warts in young females.⁵

Figure 4: Rates of new STI diagnoses by age group and gender in England, 2013

Men who have sex with men (MSM)

In England in 2013 among male GUM attendees, 81% of syphilis diagnoses, 63% of gonorrhoea diagnoses, 17% of chlamydia diagnoses, 11% of genital herpes diagnoses and 8% of genital warts diagnoses were among MSM. The number of STIs reported in MSM has risen sharply in recent years and accounts for the majority of increased diagnoses seen among men. Gonorrhoea and syphilis diagnoses have increased by 26% and 12% respectively in the past year. A number of factors are likely to have contributed to the sharp rise in diagnoses among MSM, for example more screening in response to current guidance will have improved detection of gonococcal and chlamydial infections but it is also likely that ongoing high levels of unsafe sex are leading to more STI transmission in this population.⁶

Links with deprivation

There is considerable geographic variation in the distribution of STIs. To demonstrate this, in 2013, the rate of new STI diagnoses by lower-tier local authority ranged from <140 (Isles of Scilly) to 3,205 (Lambeth) per 100,000 population. Rates were highest in residents of urban areas – especially in London – reflecting to a large extent the distribution of core groups of the population who are at greatest risk of infection and areas of higher deprivation.

Links with alcohol

The Royal College of Physicians has reviewed the evidence linking alcohol and sexual health in 'Alcohol and sex – a cocktail for poor sexual health'.⁷ The relationship between the acquisition of STIs and alcohol-associated sex has not been studied directly, however, rates of STIs have been increasing amongst young people coincidentally with increasing levels of alcohol consumption. A systematic review of the literature suggests that problematic drinking is associated with an increased risk of acquisition of STIs.⁸

People who drink heavily are more likely to have unprotected sex with multiple partners and this effect is greater in men than women.

Young people who are drunk when they first have sex are less likely to use a condom than those who are not drunk and early alcohol use has also been proposed as a marker of later sexual risk, including higher rates of unplanned sex, low condom use, multiple sexual partners, sexually transmitted infections and early pregnancy. Paradoxically alcohol does not appear to influence condom use as strongly later in adolescence and into adulthood. Indeed, alcohol may be associated with higher condom use in these groups, as alcohol is more likely to be associated with casual sexual encounters in which condoms are more likely to be used than with regular partners.⁹

Acute STIs – level of need in the population

Diagnostic rates 2013

The figures below illustrate the latest diagnostic rates for various STIs across the districts in Lancashire and compares them with other local authorities in England. As mentioned earlier, interpretation of the overall acute STIs rate is complicated by the fact that a large proportion of the diagnoses are of chlamydia (78% of those are in the 15-24 year age group, among whom screening efforts are currently directed) and are driving *up* the diagnostic rates. A more useful marker of the levels of unsafe sexual activity generally is the rate of gonorrhoea diagnoses, as this condition is more likely to be symptomatic (at least in males), and is usually diagnosed in the GUM setting.

Figure 5: New STI diagnoses rates for all STIs, all local authorities in England (rates per 100,000 population) 2013

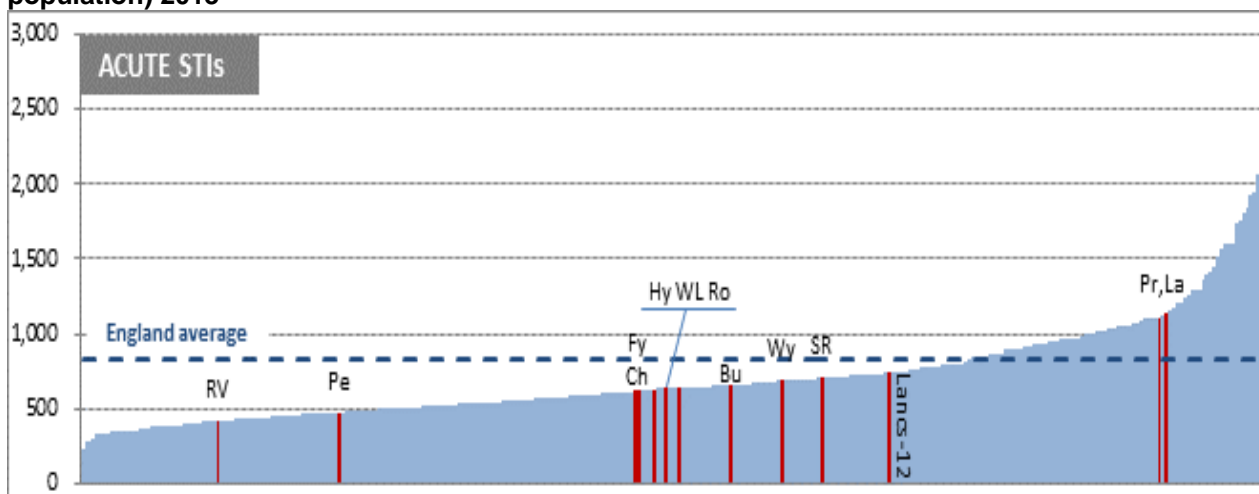


Figure 6: New STI diagnoses rates for chlamydia, all local authorities in England (rates per 100,000 population) 2013

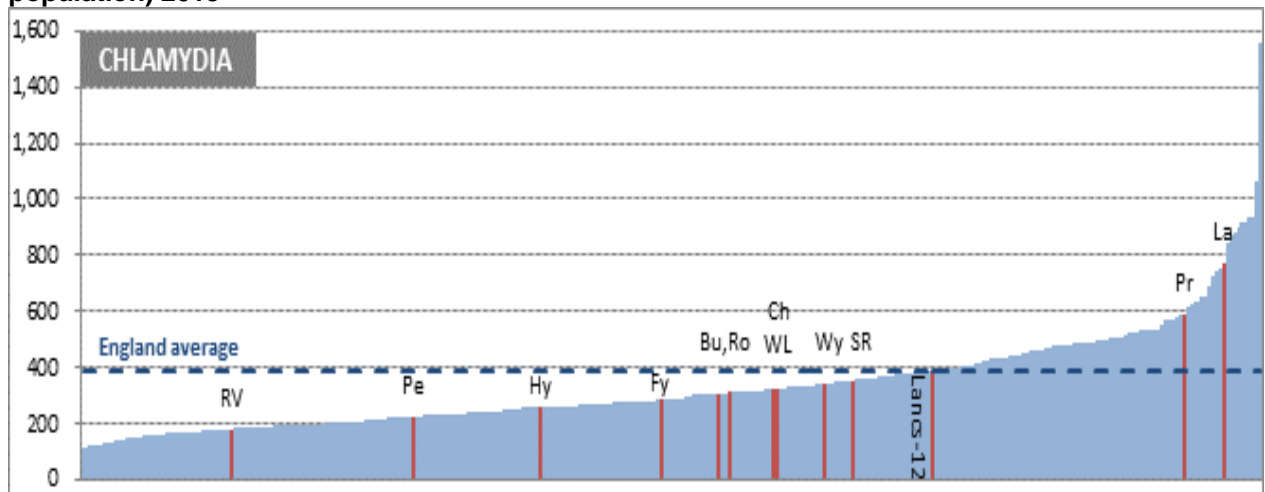


Figure 7: New STI diagnoses rates for gonorrhoea, all local authorities in England (rates per 100,000 population) 2013

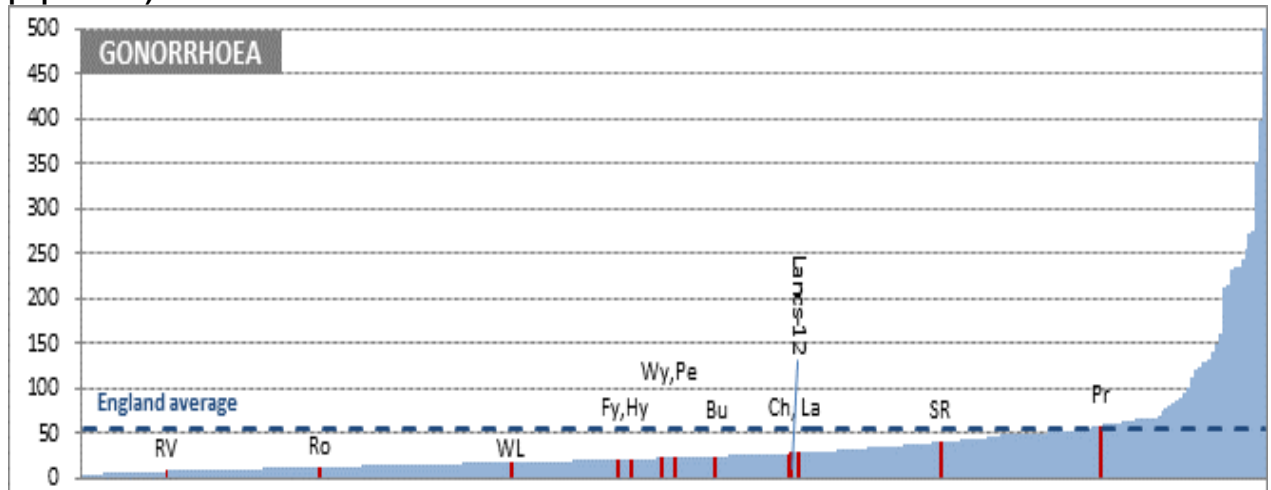


Figure 8: New STI diagnoses rates for herpes, all local authorities in England (rates per 100,000 population) 2013

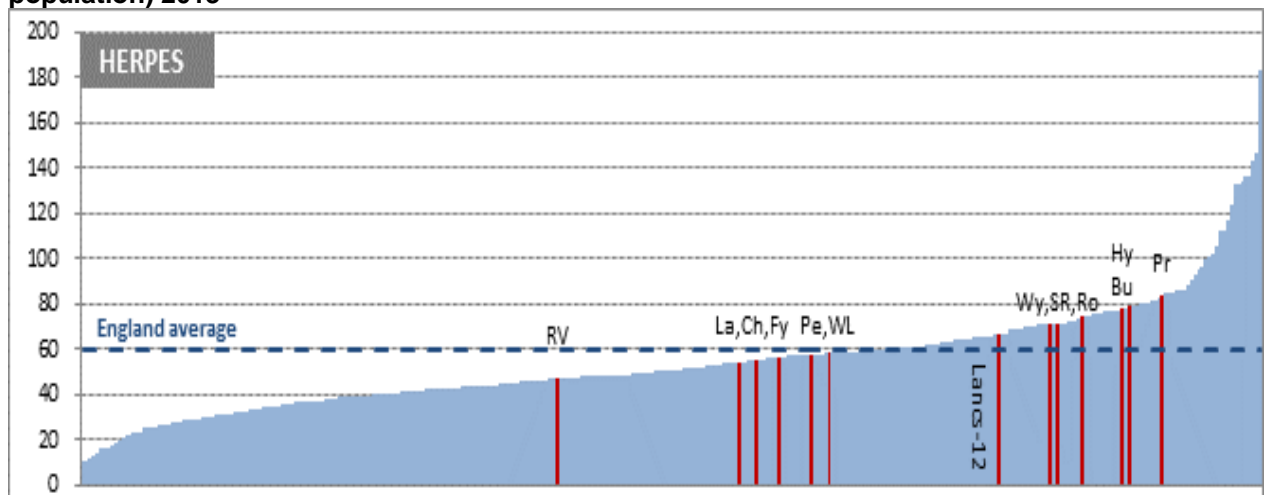


Figure 9: New STI diagnoses rates for syphilis, all local authorities in England (rates per 100,000 population) 2013

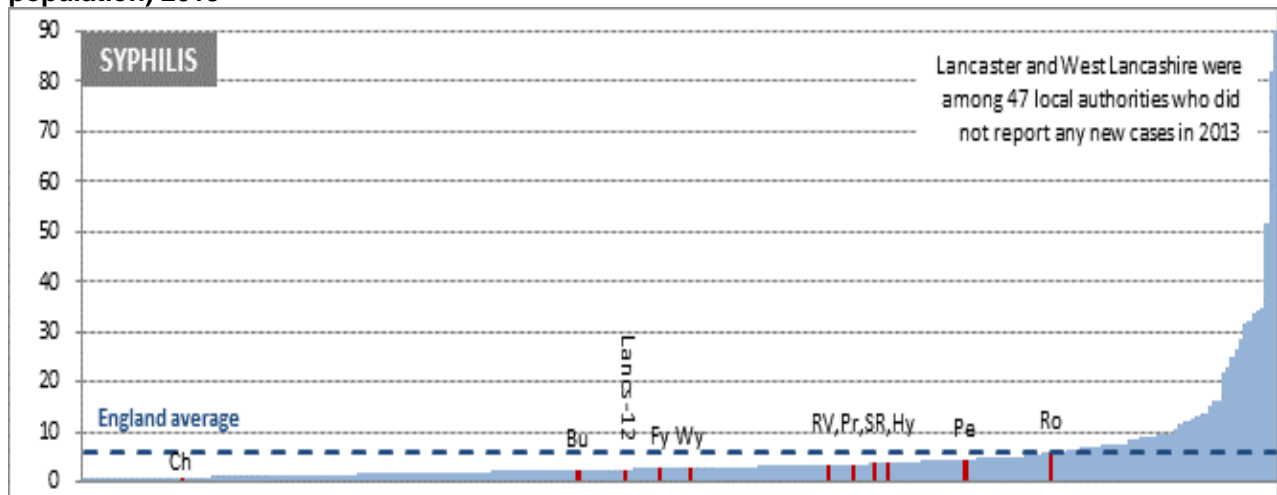
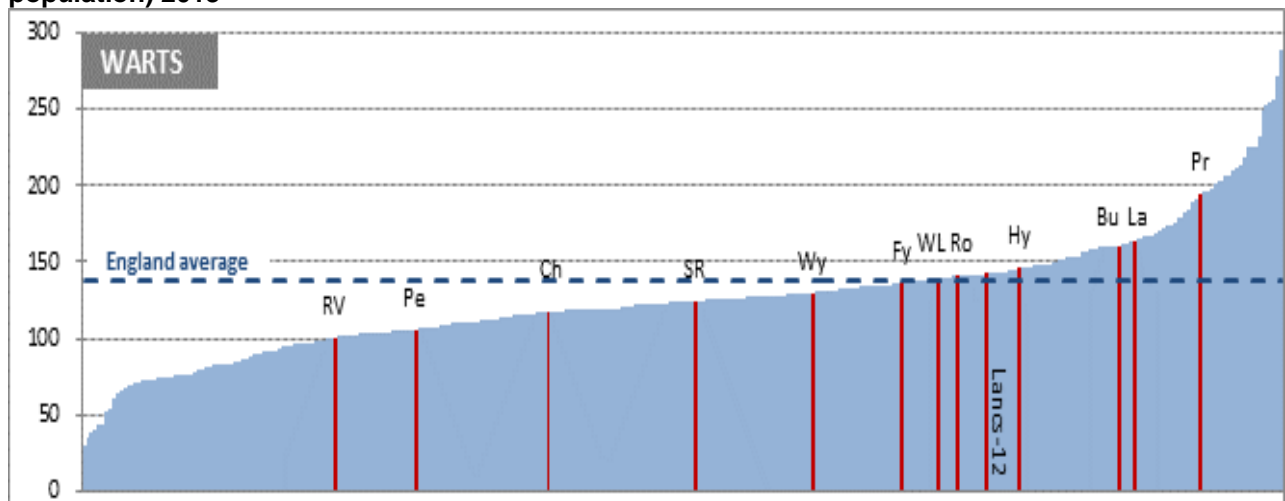


Figure 10: New STI diagnoses rates for genital warts, all local authorities in England (rates per 100,000 population) 2013



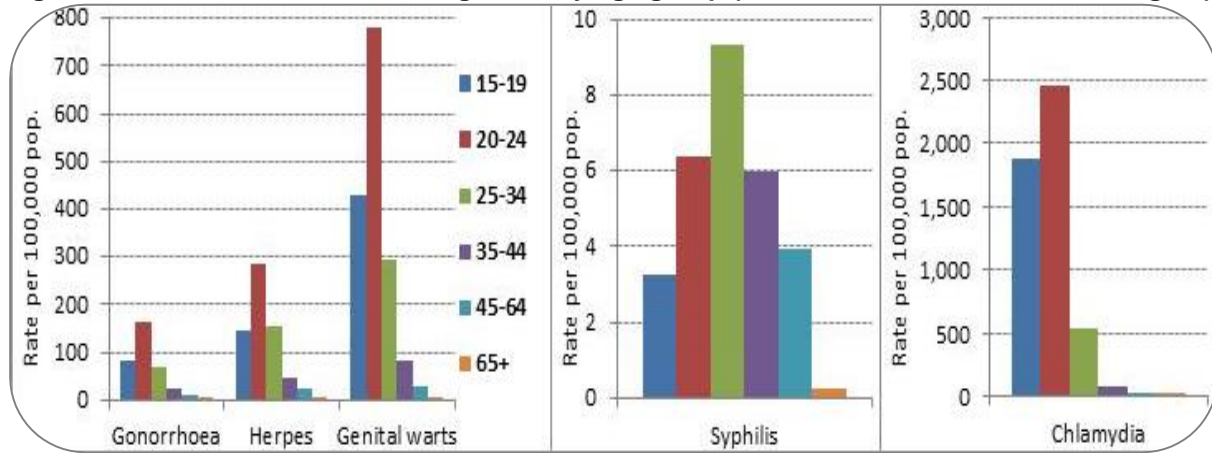
Source: PHE Sexually Transmitted Infections Annual Data 2013. STI data tables for England, Table 2: STI diagnoses & rates by local areas

STI diagnoses by age group

As mentioned earlier, the age group most likely to be diagnosed with an acute STI is young people under-25 and figure 11 (below) shows the diagnosis rate of selected infections by age group.

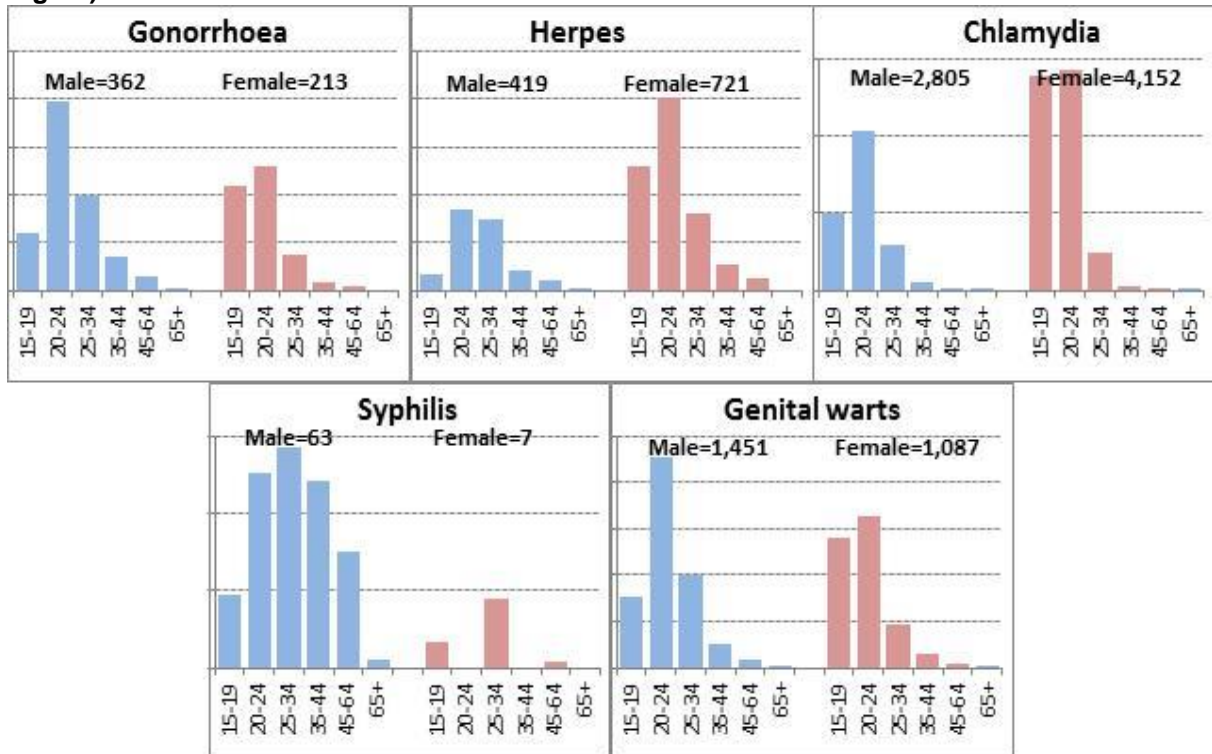
Chlamydia has the highest diagnosis rate for people under-25, partly due to the screening programme for this age group though other infections also show higher diagnosis rates in this age group too. Only syphilis shows a slightly older age profile though it must be remembered numbers diagnosed are extremely small

Figure 11: Rates of selected STI diagnoses by age group (Lancashire and Cumbria PHE region) 2013



When looking at the age and gender of STI diagnoses, females aged 15-24 have higher diagnosis rates of chlamydia and herpes than males, and syphilis is predominantly found in males across all age groups. Figure 12 shows the age/sex breakdown of STI diagnoses for residents of Cumbria and Lancashire.

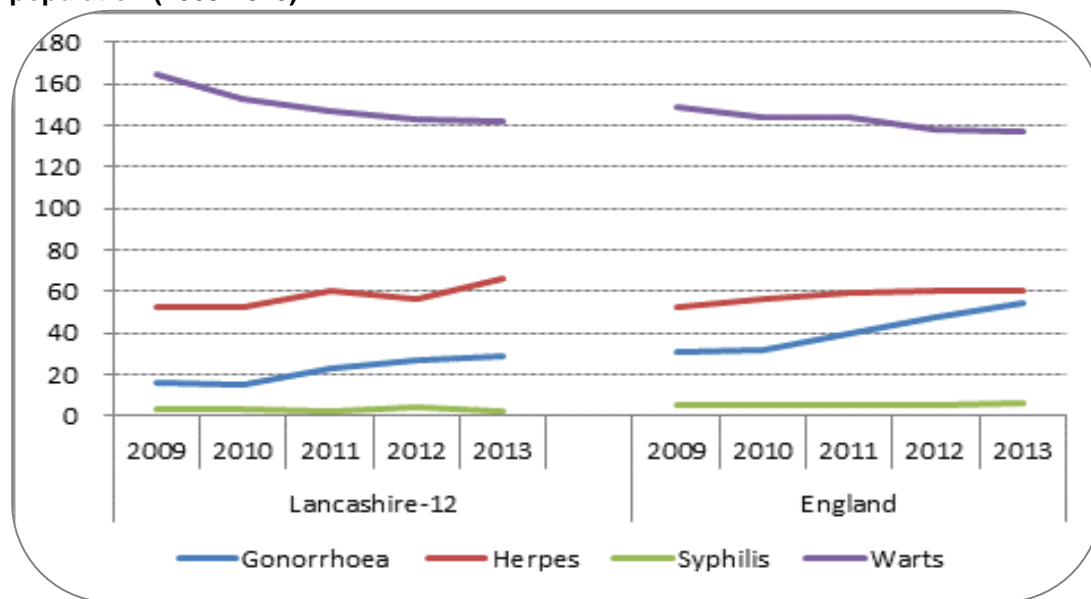
Figure 12: Rates of selected STI diagnoses by age group and sex (Lancashire and Cumbria PHE region) 2013



Trends

Year to year changes in the overall acute STI rate are heavily influenced by chlamydia screening activity and recording practices, and there is also the added complication that HIV is included in the total. GUM data has been available on the basis of patient residence since 2009 and figure 13 shows the five year trend for gonorrhoea, herpes, syphilis and genital warts. Lancashire broadly follows the national trend with increasing rates of gonorrhoea and herpes and decreasing incidence of warts.

Figure 13: Trends in gonorrhoea, herpes, syphilis and genital warts new diagnoses rates per 100,000 population (2009-2013)



Recommendations

Safer sex is pivotal to combatting the incidence and prevalence of STIs:

- Implement a Lancashire-wide single condom scheme for young people.

Year-to-year changes in the overall acute STI rates are heavily influenced by chlamydia screening activity:

- Ensure trends in STI are monitored without chlamydia, to provide a clearer picture of prevalence.

Rates of STIs have been increasing amongst young people coincidentally with increasing levels of alcohol consumption:

- Audit the influences of alcohol on unprotected sex by initially recording whether alcohol was a feature of the sexual episode of all attendees to sexual health services.

Onward transmission of STIs can be mitigated by partner notification

- Ensure that there is a robust and managed partner notification process in all services.

References

¹ PHE Sexually Transmitted Infections and Chlamydia Screening in England, 2013.

² Ibid.

³ PHE Sexually Transmitted Infections Annual Data 2013. STI data tables for England, Table 2: STI diagnoses & rates by local areas.

⁴ PHE, GRASP 2012 report - The Gonococcal Resistance to Antimicrobials Surveillance Programme

⁵ PHE, Health Protection Report – weekly report. Vol 8, No. 24, June 2014

⁶ Ibid,

⁷ Royal College Physicians. Alcohol and Sex – a cocktail for poor sexual health. Report of the Alcohol and Sexual Health Working Party. London: RCP, 2011

⁸ Addiction, Alcohol consumption and the intention to engage in unprotected sex: systematic review and meta-analysis of experimental studies, 107(1), January 2012, pp.51-59

⁹ Royal College Physicians. Alcohol and Sex – a cocktail for poor sexual health. Report of the Alcohol and Sexual Health Working Party. London: RCP, 2011