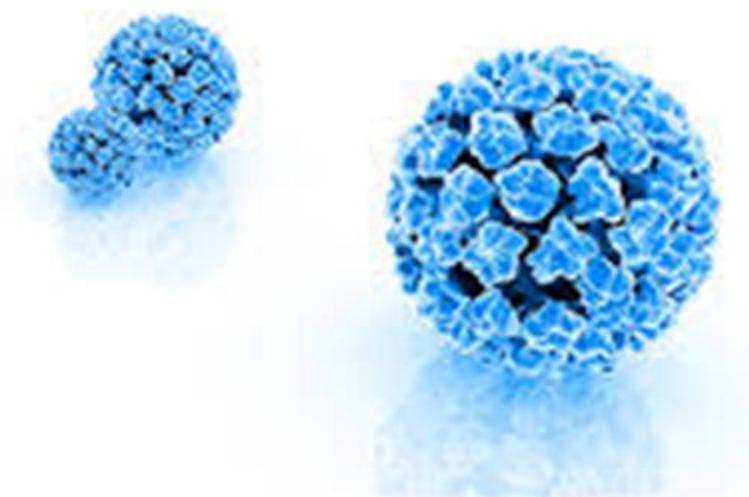


Sexually Transmitted Infection surveillance in Northern Ireland 2017

An analysis of data for the calendar year 2016



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This report aims to provide an overview of STI epidemiology in Northern Ireland by collating and analysing information from a number of sources. Although it reflects epidemiological trends over time, its main focus will be on data collected in 2016.

In order to prevent possible disclosure, where the number of any category of episodes in any one year is between one and four, this is reported either within a cumulative figure, or as an asterix. In addition, where the anonymised figure can be deduced from the totals, the next smallest figure will also be anonymised.

Summary points

In Northern Ireland Genito-Urinary Medicine (GUM) clinics in 2016

- New diagnoses of chlamydia increased by 7%; 1,648 diagnoses in 2016 compared with 1,534 in 2014.
- New diagnoses of gonorrhoea decreased by 4%; 592 in 2016 compared with 619 in 2015.
- New diagnoses of genital herpes simplex (first episode) increased by 18%; 448 in 2016 compared with 381 in 2015.
- New diagnoses of genital warts (first episode) increased by 2%; 1,786 in 2016 compared with 1,746 in 2015.
- New diagnoses of infectious syphilis decreased by 26%; 56 in 2016 compared with 76 in 2015.

Surveillance arrangements and sources of data

KC60 returns

The most comprehensive source of surveillance data for sexually transmitted infections (STIs) in Northern Ireland is the statutory KC60 return each quarter from GUM clinics. This return records the numbers of new diagnoses for a range of STIs. Individual patients may contribute more than one diagnosis. For selected conditions, additional age, gender and sexual orientation information are provided. Regularly updated summary statistics are presented at: www.publichealth.hscni.net/directorate-public-health/health-protection/sexually-transmitted-infections.

Northern Ireland GUM clinics are in the process of migrating from KC60 to Sexual Health and HIV Activity Property Type (SHHAPT) codes. As a result of the changes gonorrhoea and chlamydia are no longer categorised as complicated and uncomplicated. Therefore the way gonorrhoea and chlamydia are presented within the report has been amended and some figures are not directly comparable to data from previous years as annotated in the relevant figures.

KC60/SHHAPT data reflect only those diagnoses made in GUM clinics. It follows that accessibility of those services to the public, as measured by service capacity and geographic location of services, may influence the diagnostic rate of STIs. Thus, direct comparison of different regions, or indeed different time periods within the same region if service access should change, must be interpreted with caution.

Given that the majority of new diagnoses originate from the GUM clinic at the Royal Victoria Hospital (the clinic that provides greatest access), the clinic location is not a useful proxy for patient residence.

Laboratory reporting

Laboratory data represent an important complementary source to clinician-initiated surveillance arrangements. Laboratory reporting of *Chlamydia trachomatis* in Northern Ireland is provided for 2006–2016 and *Neisseria gonorrhoeae* for 2016. Antibiotic susceptibility information for *Neisseria gonorrhoeae* isolates is provided for 2016.

Enhanced syphilis surveillance

Enhanced surveillance arrangements for infectious syphilis in Northern Ireland have been in place since the outbreak was first recognised in September 2001. Based on anonymised, confidential reporting by GUM clinicians to the Public Health Agency (PHA), a range of demographic, clinical and risk factor data are collected on cases of primary, secondary and early latent stage syphilis.

1: Diagnoses provided in Northern Ireland GUM clinics in 2016

During 2016:

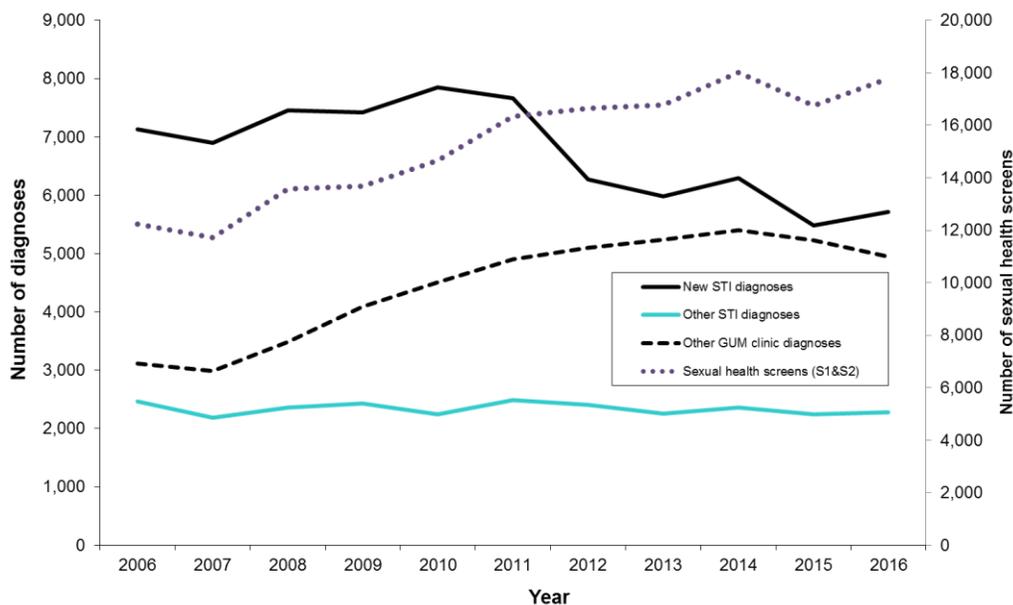
- 5,719 **new STI diagnoses** were made, an increase of 4% compared with 2015 (5,477);
- 63% (3,616/5,719) of **new STI diagnoses** were in males;
- three types of infection accounted for 74% of **new STI diagnoses** – genital warts (first infections) (31%), chlamydia (29%) and non-specific genital infection (14%);
- 2,279 **other STI diagnoses** were made;
- 4,953 **other diagnoses** were made at **GUM clinics**.

Trends: 2006–2016

Between 2006 and 2011 the number of **new STI diagnoses** remained relatively stable. However, between 2011 and 2016, the numbers have decreased by 25% (Figure 1.1). The decrease in new STI diagnoses from 2011 must be interpreted with caution. This largely reflects a steep decline in new diagnoses of complicated and uncomplicated non-specific genital infection (NSGI) (Figure 1.2). This decrease is likely to be due to the change in test technology within GUM clinics, whereby the more sensitive dual platform PCR test for gonorrhoea and chlamydia has largely replaced the invasive urethral culture in asymptomatic patients¹. This has resulted in more detections of organisms with proven pathogenicity, particularly gonorrhoea and thus NSGI diagnoses have fallen (Figure 1.2).

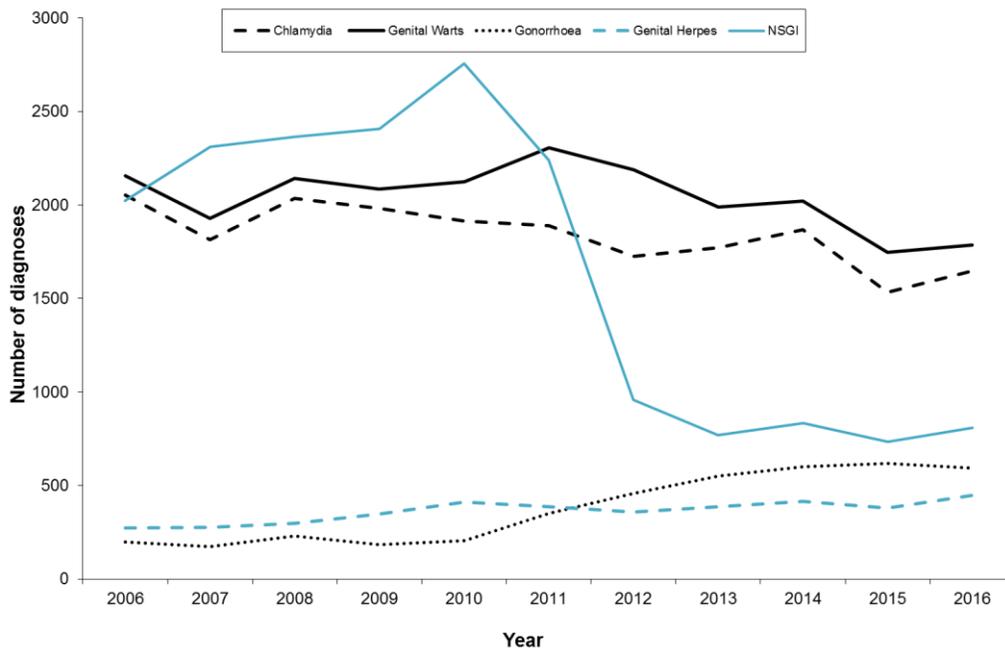
There has been an increased trend in annual **other GUM clinic diagnoses** since 2007 with the number of **other STI diagnoses** remaining largely stable since 2006. An explanation of STI categories is provided in Appendix 1. The number of sexual health screens performed annually has shown an increased trend from 2007 with stabilisation since 2014.

Figure 1.1: Trends in diagnoses and sexual health screens made in Northern Ireland GUM clinics, 2006–2016



During 2006–2016, chlamydia infection, non-specific genital infection (NSGI) and genital warts (first infections) accounted for the highest proportion of new STI diagnoses (74%) made in Northern Ireland GUM clinics (Figure 1.2). Specific disease trends will be examined in chapters 2 to 6.

Figure 1.2: Trends in new diagnoses of STIs in Northern Ireland GUM clinics, 2006–2016



2: Chlamydia

Genital chlamydia is a bacterial infection caused by *Chlamydia trachomatis*. The infection is asymptomatic in at least 50% of men and 70% of women. In women, untreated infection can cause chronic pelvic pain and lead to pelvic inflammatory disease (PID), ectopic pregnancy and infertility. An infected pregnant woman may also pass the infection to her baby during delivery. Complications in men include urethritis, epididymitis and Reiter's Syndrome.

Consistent with elsewhere in the UK, chlamydia is the most common bacterial STI diagnosed in Northern Ireland GUM clinics.

Although there is no organised regional chlamydia testing programme in Northern Ireland, symptomatic and asymptomatic testing of those at risk is undertaken within primary care and sexual health services.

Diagnoses made in GUM clinics during 2016

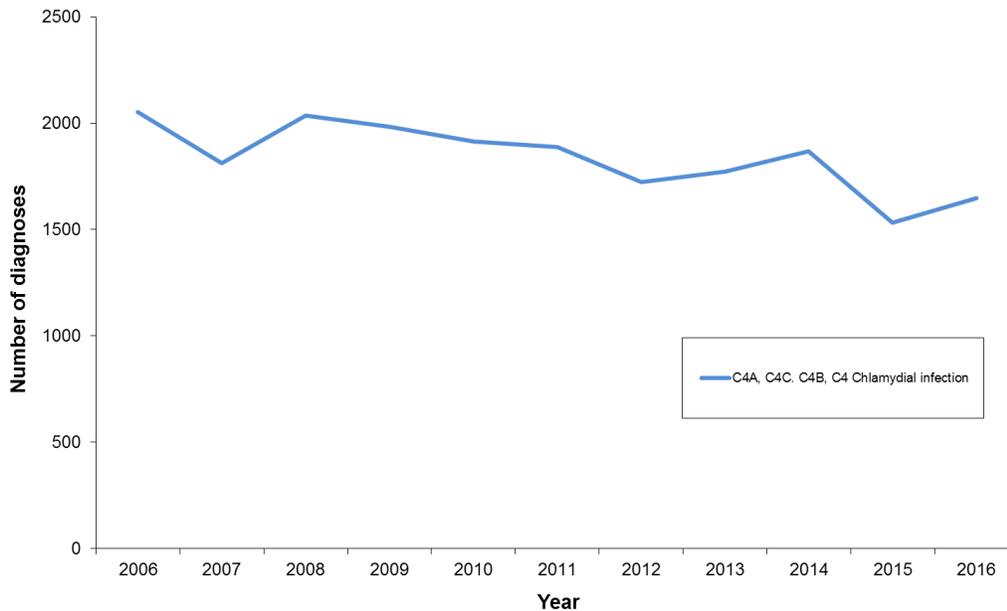
Chlamydial infection accounted for 29% (1,648/5,719) of all new STI diagnoses made in Northern Ireland GUM clinics during 2016.

- There were 1,648 new episodes of chlamydial infection diagnosed in Northern Ireland GUM clinics in 2016, compared with 1,534 in 2015.
- 891 (54%) of these were diagnosed in males.
- The highest rates of infection in both males and females were in the 20–24 years age group, accounting for 33% of male and 47% of female diagnoses.
- The rate of diagnoses in the 16–19 years age group is more than twice as high in females as in males.
- 21% (186/891) of the total male diagnoses occurred in men who have sex with men (MSM).

Trends: 2006–2016

Between 2006 and 2016, diagnoses of chlamydial infection decreased by 20%, from 2,053 diagnoses in 2006 to 1,648 in 2016 (Figure 2.1).

Figure 2.1: Diagnoses of chlamydia in Northern Ireland, 2006–2016



Age and gender trends: chlamydia

From 2012–2016, diagnostic rates in females were consistently highest in the 16–24 years age group, peaking between 20 and 24 years (Figure 2.2). In males, the highest rates were in the 20–34 years age group, again peaking between 20 and 24 years.

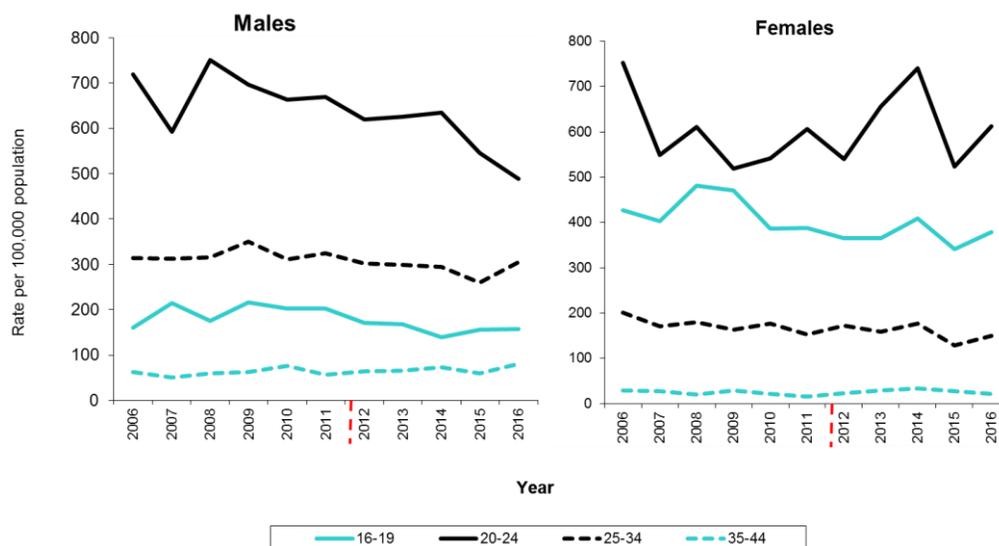
Diagnostic rates in those under 25 years of age were consistently higher in females, with rates in those aged 25 years and over consistently higher in males. Diagnostic rates in females aged over 24 years decrease due to changes in sexual behaviour, as well as decreased susceptibility.

Diagnoses in those under 16 years of age accounted less than 1% (27/8,542) of all diagnoses made during the period 2012–2016.

Diagnoses in the 45+ years' age group accounted for 3% (261/8,542) of all diagnoses made during the period 2012–2016.

The proportion of male chlamydia diagnoses attributed to MSM has ranged from 6% in 2006 to 21% in 2016.

Figure 2.2: Rates of chlamydial infection in Northern Ireland, by gender and age group, 2006–2016



Footnote: Rates have been re-calculated from 2012 to include KC60 code C4B – Complicated chlamydia

Genital chlamydia trachomatis laboratory reporting, 2006–2016

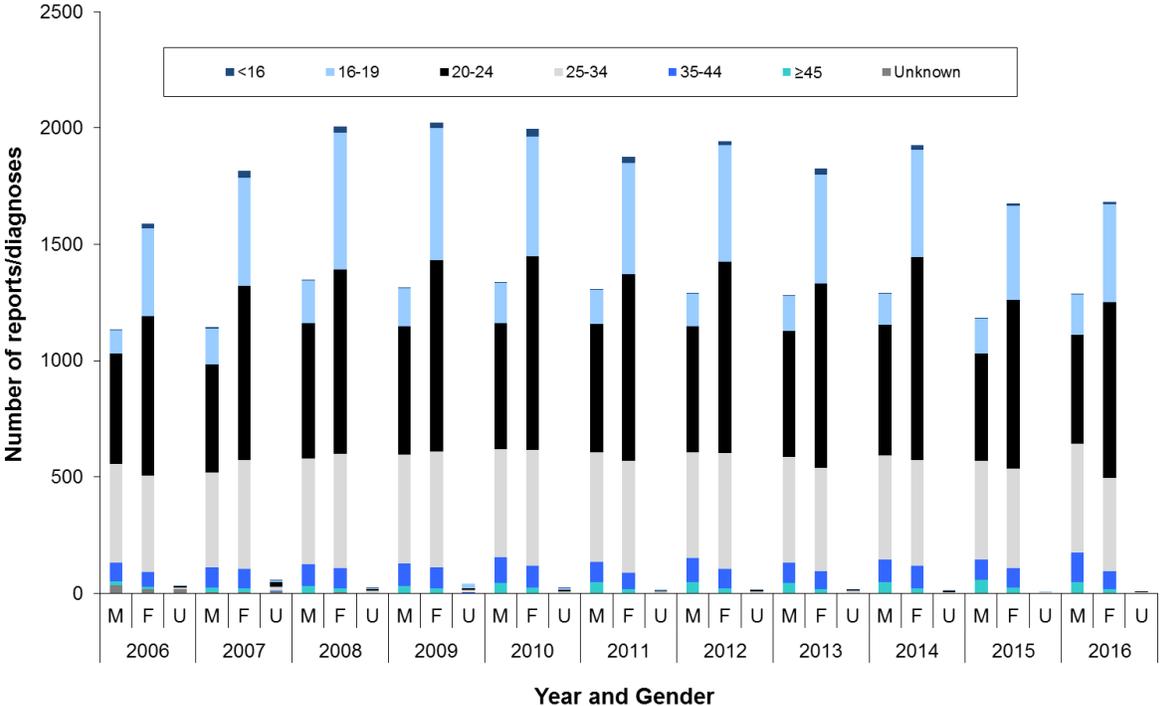
During 2016, 2,975 laboratory confirmed cases of genital chlamydia trachomatis were reported, a increase of 4% compared with 2015. GP specimens accounted for 33% (977/2,975) of cases reported during 2016 (Table 2.1). Between 2006 and 2016, confirmations from GP specimens increased by 36%.

Table 2.1: Referral source of genital *Chlamydia trachomatis* specimens, 2006–2016

Referral Source	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
GP Number (%)	720 (26.1)	894 (29.7)	979 (29.0)	1025 (30.3)	1124 (33.5)	1096 (34.3)	1207 (37.1)	1102 (35.2)	1093 (33.9)	1028 (35.8)	977 (32.8)	11,245
Other	2,036	2,121	2,396	2,353	2,231	2,104	2,044	2,023	2,130	1,836	1,998	23,272
Total	2,756	3,015	3,375	3,378	3,355	3,200	3,251	3,125	3,223	2,864	2,975	34,517

Higher numbers of diagnoses are consistently reported in females, accounting for 57% (1,681/2,975) of all cases reported by laboratories during 2016. The majority (68%; 13,901/20,353) of female cases reported in the period 2006–2016 were aged between 16 and 24 years. Between 2006 and 2016 females accounted for 79% of the diagnoses made by a GP. Males accounted for between 38% and 43% of cases reported annually since 2006. The majority of male cases reported since 2006 were in the 20–34 years age group (Figure 2.3). Information on gender was missing for 1% of cases reported during the period 2006–2016.

Figure 2.3: Laboratory reports of genital *Chlamydia trachomatis*, by age and gender, 2006–2016



3: Gonorrhoea

Gonorrhoea is a bacterial STI caused by *Neisseria gonorrhoeae*. Untreated, gonorrhoea can enter the bloodstream or spread to the joints, and in women it can cause pelvic inflammatory disease, ectopic pregnancy and infertility. An infected pregnant woman may pass the infection to her baby during delivery.

Diagnoses made in GUM clinics during 2016

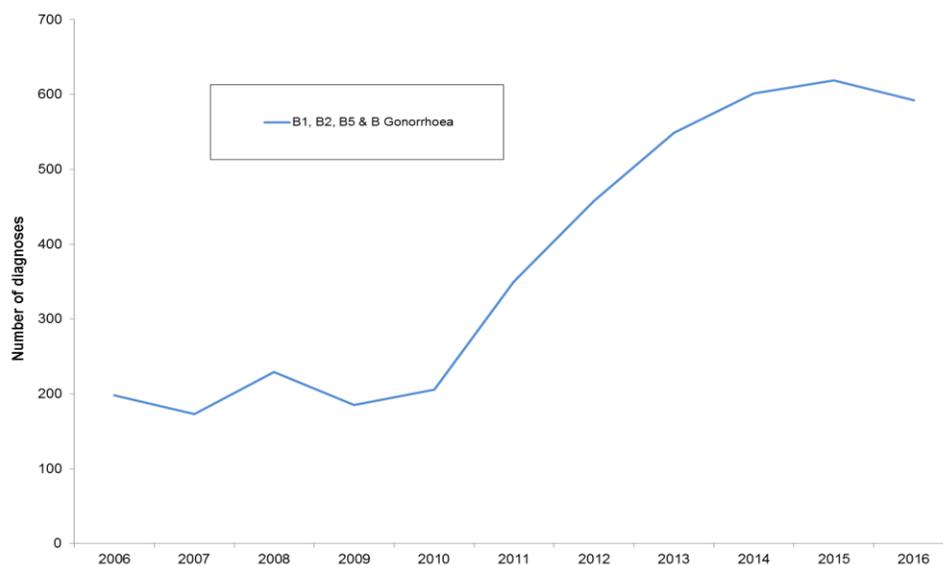
Gonorrhoea accounted for 10% (592/5,719) of all new STI diagnoses made in Northern Ireland GUM clinics during 2016.

- There were 592 new episodes of gonorrhoea diagnosed in Northern Ireland GUM clinics in 2016, compared with 619 in 2015, a decrease of 4%.
- 459 (78%) of these were diagnosed in males.
- The highest diagnostic rates in both men and women were in the 20–24 years age group.
- 69% of female diagnoses were in the 16–24 years age group and 19% were in the 25–34 years age group.
- 36% of male diagnoses were in the 16–24 years age group and 38% were in the 25–34 years age group.
- 65% (300/459) of male diagnoses were attributed to MSM.

Trends: 2006–2016

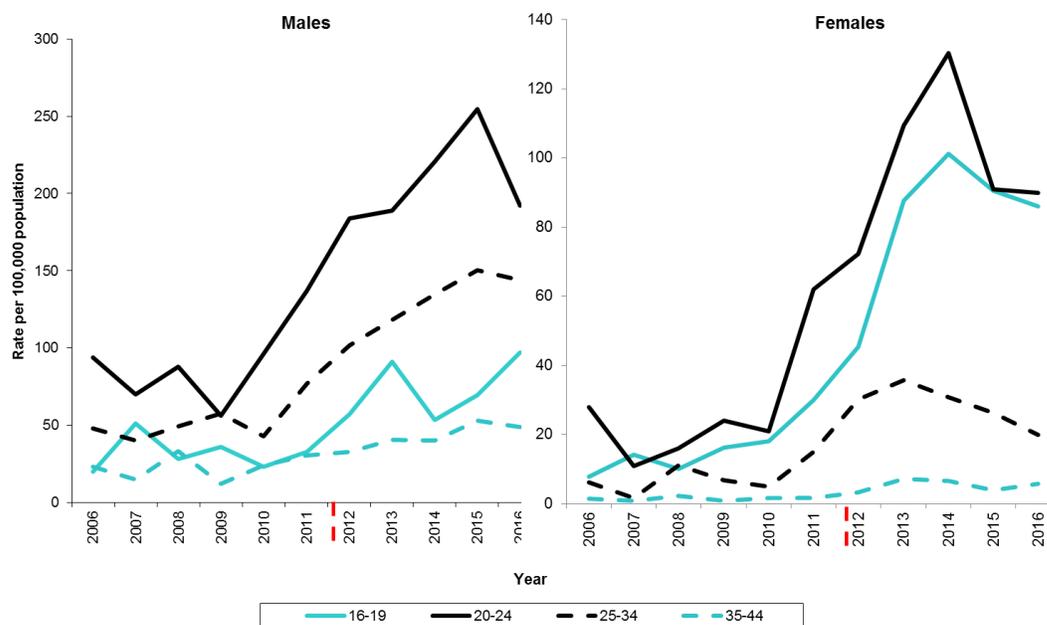
The annual number of diagnoses of gonorrhoea has shown very little change between 2006-2010. However diagnoses rose dramatically between 2010 and 2014 with a 192% increase; 601 diagnoses in 2014 compared with 206 in 2010 (Figure 3.1). The number of diagnoses in 2015 (619) was the highest ever recorded in Northern Ireland. In 2016 the number of new diagnoses decreased by 4%; 592 in 2016 compared with 619 in 2015. The proportion of male diagnoses attributed to MSM ranged from 24% in 2006 to 65% in 2016.

Figure 3.1: Diagnoses of gonorrhoea in Northern Ireland, 2006–2016



Age, gender and sexual orientation trends: gonorrhoea

Figure 3.2: Rates of gonorrhoea in Northern Ireland, by age group, 2006–2016

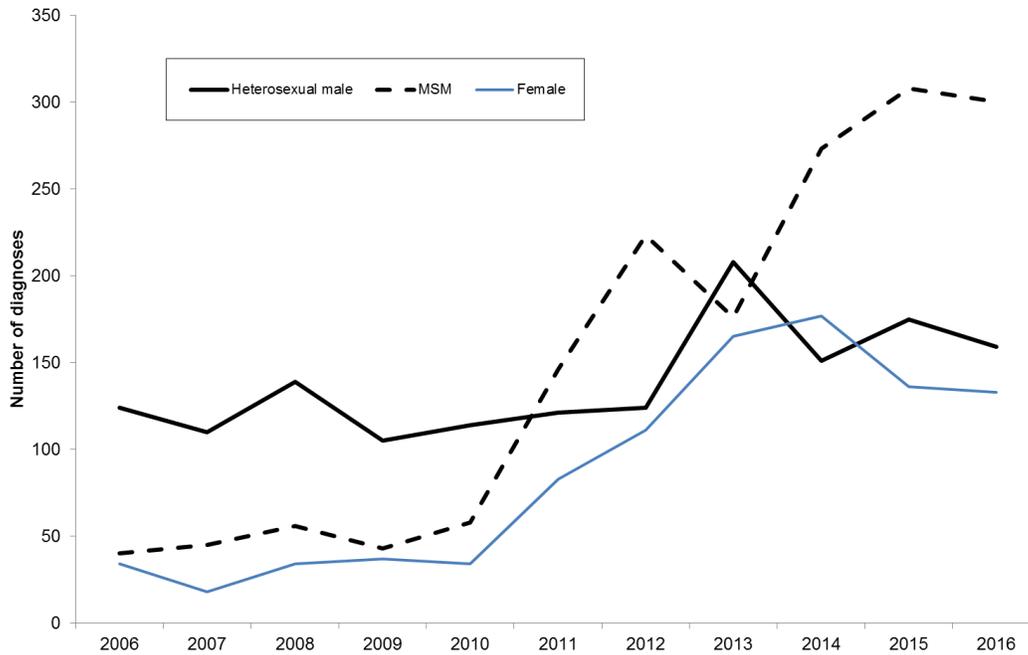


Footnote: Rates have been re-calculated from 2012 to include KC60 code B5 Complicated gonorrhoea

In males, the highest diagnostic rates have consistently been in the 20–34 years age groups (Figure 3.2). From 2012–2016, fewer than 10 diagnoses were made annually in males aged under 16 years. Males aged 45 years and over accounted for 10% (220/2,097) of all male diagnoses during the period 2012–2016.

In females the increases in 2012 and 2013 have clearly mostly affected the 16-19, and 20-24 age groups (Figure 3.2).

Figure 3.3: Number of diagnoses of gonorrhoea by sexual orientation in Northern Ireland, 2006-2016



The increase in diagnoses since 2010 has largely affected MSM and females. There has been a much smaller though still generally upward trend in heterosexual males.

Interpretation of the increase in diagnoses is made difficult by the introduction across Northern Ireland of combined chlamydia and gonorrhoea PCR testing in both GUM and community settings since 2010. The increase in numbers of people tested, and the increased sensitivity of the test compared with traditional culture methods, particularly at extra genital sites, may at least partly explain the increase seen in both the heterosexual and MSM populations.

Neisseria gonorrhoeae antimicrobial susceptibility reporting 2016

Effective treatment of gonorrhoea has been compromised by the ability of *Neisseria gonorrhoeae* to develop resistance to successive antimicrobial agents.² Ongoing monitoring of antimicrobial resistance in Northern Ireland is important to ensure that first line treatments for gonorrhoea remain effective, as patterns of resistance can change rapidly.

Current treatment guidelines recommend the use of a combination of oral azithromycin and intramuscular ceftriaxone, and that treatment should be followed by a test of cure.

By combining antibiotics in this way it is hoped to slow the development of resistance to each component. However, the world's first documented case of treatment failure to dual ceftriaxone and azithromycin therapy was reported in England in 2015. The isolate was confirmed by PHE to be resistant to ceftriaxone (minimum inhibitory concentration (MIC) 0.25 mg/L) and azithromycin (MIC 1.0 mg/L). Also of concern is an outbreak of high-level azithromycin resistant *N. gonorrhoeae* (MICs ≥ 256 mg/L), continuing in England since 2015. Should high-level resistance to azithromycin become

widespread, this would leave ceftriaxone as the only antibiotic suitable for empirical treatment. Experience has shown that resistance to ceftriaxone would then be likely to follow.

Neisseria gonorrhoeae antimicrobial susceptibility in Northern Ireland is monitored through a combination of routine diagnostic laboratory surveillance and, since 2015, participation in the European Gonococcal Surveillance Project (Euro-GASP). This sentinel programme tests a small number of isolates using PHE reference lab methodology, and allows comparison (as part of an overall UK sample) with countries elsewhere in Europe.

During 2016, laboratories reported antibiotic susceptibility data for 206 isolates as part of routine surveillance. Ninety percent of isolates were tested against azithromycin and 93% tested against ceftriaxone. 10% (19) were identified as resistant to azithromycin and all were susceptible to ceftriaxone (Table 3.1).

Of the 19 isolates resistant to azithromycin, a small number (<5) were identified as being highly resistant to azithromycin after testing at PHE reference lab.

During 2015 and 2016, 49 isolates were tested within the EUROGASP programme and showed similar resistance pattern to UK overall with 12% resistant to azithromycin and 0% to ceftriaxone².

Table 3.1: *Neisseria gonorrhoeae* antibiotic susceptibility reported activity for antibiotics - 2016

Antibiotics	Susceptible		Resistant		Intermediate		Total specimens Reported	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Azithromycin	149	80.5	19	10.3	17	9.2	185	100
Cefotaxime	2	100	0	0	0	0	2	100
Ceftriaxone	192	100	0	0	0	0	192	100
Ciprofloxacin	129	77.2	38	22.8	0	0.0	167	100
Doxycycline	92	71.9	32	25.0	4	3.1	128	100
Penicillin	20	11.0	113	62.4	48	26.5	181	100
Tetracycline	12	60	7	35	1	5	20	100

Key recommendations to reduce the spread of antimicrobial-resistant *N. gonorrhoeae* are:

- all primary diagnostic laboratories should test gonococcal isolates for susceptibility to first line antimicrobials and refer suspected azithromycin and/or ceftriaxone resistant isolates to the PHE reference laboratory for confirmation;
- practitioners should ensure all patients with gonorrhoea are treated and managed according to national guidelines and be alert to changes in antimicrobials recommended for front line use;
- anyone having sex with new or casual sexual partners should be advised to use condoms consistently and correctly and test regularly for sexually transmitted infections.

4: Genital herpes

Genital herpes is caused by the herpes simplex virus (HSV), of which there are two distinct subtypes. HSV2 is almost exclusively associated with genital infection. Historically, HSV1 has mainly been associated with oral infection, but the proportion of genital herpes attributed to HSV1 in the UK is increasing. Genital herpes infection may facilitate HIV transmission, can cause severe systemic disease in those with impaired immunity, and can be potentially fatal to neonates.

Diagnoses made in GUM clinics during 2016

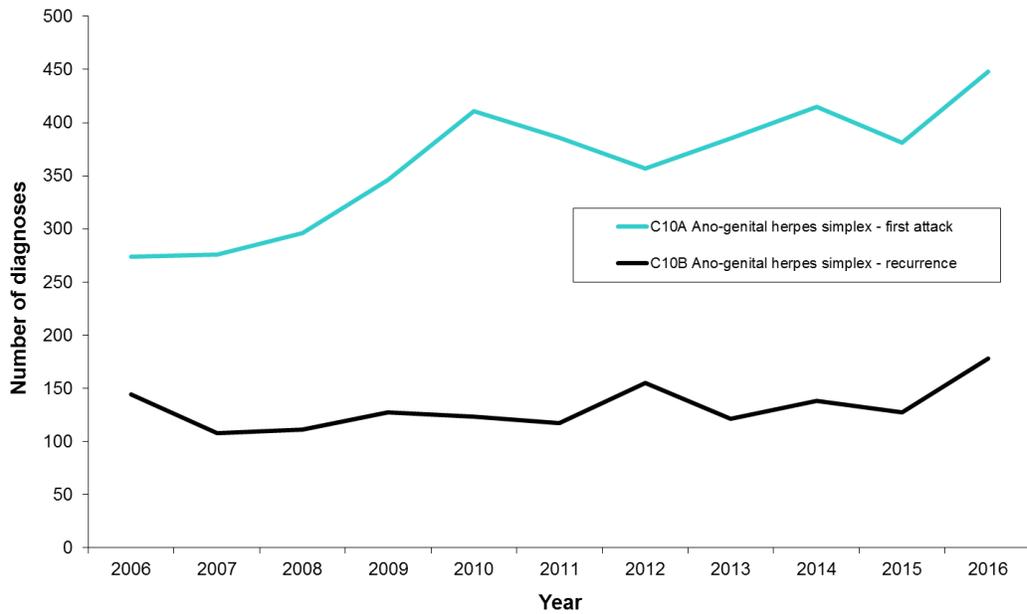
Genital herpes (first episodes) accounted for 8% (448/5,719) of all new STI diagnoses made in Northern Ireland GUM clinics during 2016.

- There were 626 episodes (first infections and recurrent infections) of genital herpes diagnosed in Northern Ireland GUM clinics in 2016.
- 408 (65%) of these were diagnosed in females.
- 448 (72%) of the total attendances for herpes in 2016 were for treatment of first infection and 178 (28%) were for treatment of recurrent infection.
- 28% of male diagnoses (60/218) and 29% (118/408) of female diagnoses were recurrent infections.
- The highest diagnostic rates of first infection in men were in the 20-34 years age group and in women were in the 16-24 years age group.
- Diagnostic rates of first infection in most age groups were higher in females. The diagnostic rate in 16–19 year old females were 5 times higher than in males of the same age.
- 14% (22/158) of male first diagnoses occurred in MSM.

Trends: 2006–2016

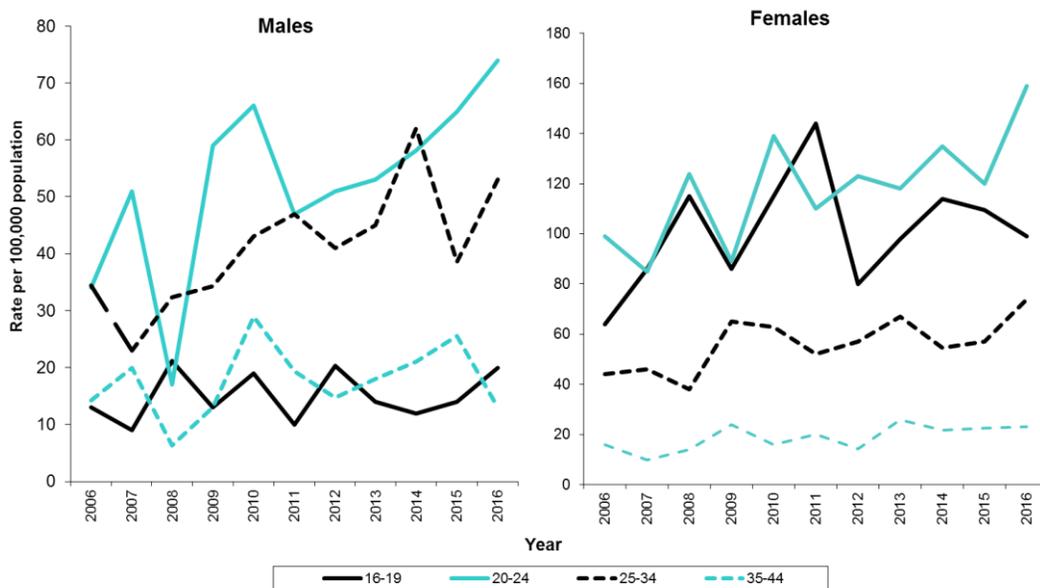
Annual numbers of first diagnoses of genital herpes increased each year from 2008-2010 with numbers remaining similar from 2011 to 2015. There was an 18% increase in 2016; 448 in 2016 compared with 381 in 2015. (Figure 4.1)

Figure 4.1: Diagnoses of genital herpes in Northern Ireland, 2006–2016



Age and gender trends: genital herpes (first episode)

Figure 4.2: Rates of diagnosis of genital herpes (first episode) in Northern Ireland, by age and gender, 2006–2016



Diagnostic rates in females were consistently highest in the 16–24 years age group. In males, the highest diagnostic rates were in the 20–34 years age group (Figure 4.2).

Males under 20 years of age accounted for 6% (85/1,387) of all male diagnoses of genital herpes (first episode) made during the period 2006–2016, with diagnoses in the 45+ years age group accounting for 11% (159/1,387).

Females under 16 years of age accounted for 1% (34/2,588) of all female diagnoses made during the period 2006–2016, with diagnoses in the 45+ years age group accounting for 7% (185/2,588).

5: Genital warts

Genital warts are caused by human papillomavirus (HPV). There are approximately 100 types of HPV, of which about 40 infect the genital tract. HPV types 6 and 11 cause the majority of genital warts. Persistent HPV infections can also lead to cancers – anal, throat and penile cancers in men, and vaginal, vulval and cervical cancers in women. The majority of HPV related cancers are associated with types 16 and 18.

HPV vaccine for girls was introduced as a school based programme in Northern Ireland in 2008/09. Until September 2012 the vaccine used protected against the oncogenic types 16 and 18, but not those types causing genital warts.³ From September 2012 onwards, the vaccine used also contains additional protection against types 6 and 11 which account for 90% of genital warts. In September 2014 the HPV immunisation programme changed from a three dose to a two dose schedule for those starting the course under the age of 15, in line with national recommendations.

From October 2016, the same quadrivalent HPV vaccine was introduced for MSM aged up to 45 years attending GUM clinics. Evidence suggests MSM attending GUM, sexual health and HIV treatment services bear a significantly increased burden of HPV related disease and adverse outcomes compared to heterosexual men. HPV type 16-associated anal cancers in particular are more common in MSM compared to heterosexual men. This is even more marked in those with HIV infection.

Diagnoses made in GUM clinics during 2016

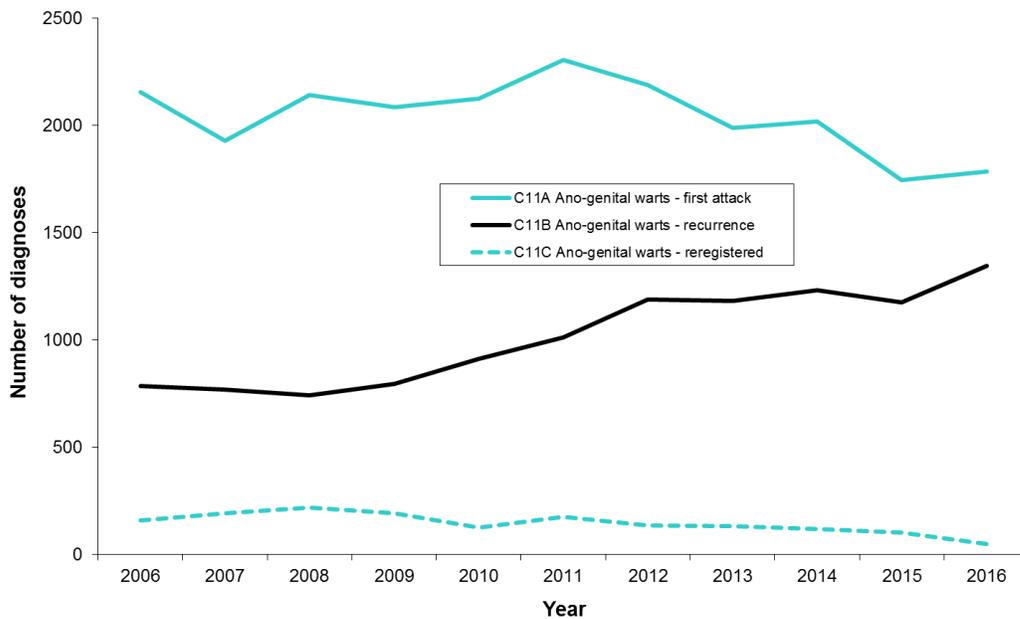
Genital warts (first episodes) accounted for 31% (1,786/5,719) of all new STI diagnoses made in Northern Ireland GUM clinics during 2016.

- There were 3,130 episodes (first infections and recurrent infections) of genital warts diagnosed in Northern Ireland GUM clinics in 2016.
- 1,986 (63%) of these were diagnosed in males.
- 1,786 (57%) of the total attendances for genital warts in 2016 were for treatment of first infection and 1,344 (43%) were for treatment of recurrent infection.
- 45% of male diagnoses (901/1,986) were recurrent infections, compared with 39% (443/1,144) of female diagnoses.
- The highest diagnostic rates of first infection in both men and women were in the 20–24 years age group.
- 36% of male diagnoses and 39% of female diagnoses of first infection were in the 20–24 years age group.
- The diagnostic rate in females aged 16–19 years (239/100,000) were twice that of males the same age. However, diagnostic rates in those aged over 19 years were higher in males.
- 8% (91/1,085) of male first diagnoses occurred in MSM.

Trends: 2006–2016

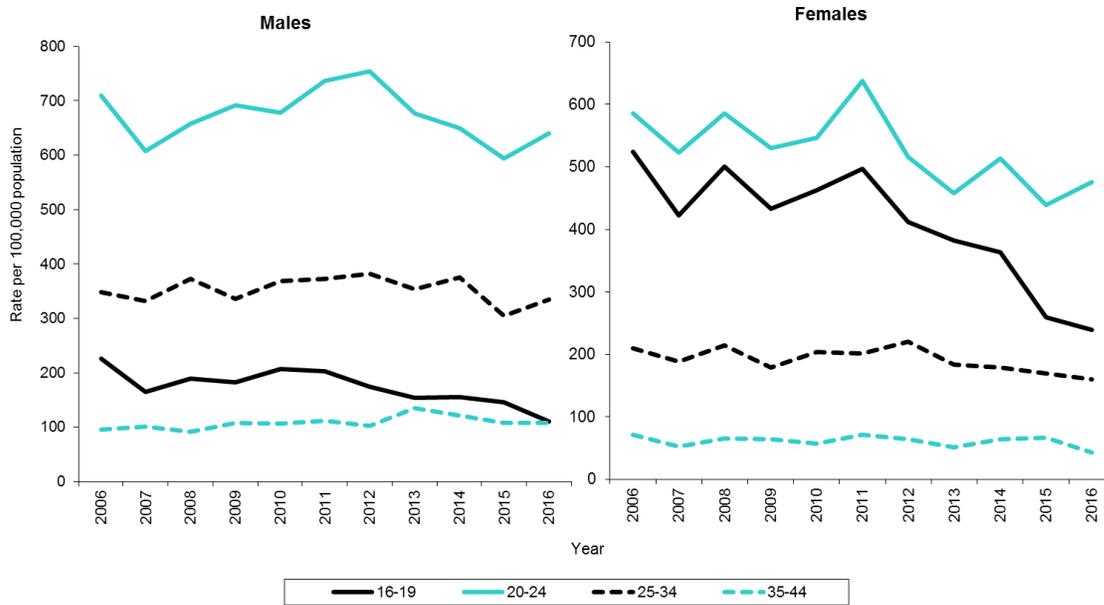
The number of annual diagnoses of first infections of genital warts has shown little variation between 2006 and 2011. There has been a decreasing trend in first episodes of infection, however, since 2011 (Figure 5.1). The decline in diagnostic rates from 2011 has been greatest in females aged 16-19 years (52%) and in males in the same age group (45%). It is likely that this pattern in females is explained by an unexpected direct protective effect from the bivalent vaccine introduced in 2009, and the expected effect from the switch to the quadrivalent vaccine in 2012, with smaller indirect effects being seen in males.

Figure 5.1: Diagnoses of genital warts in Northern Ireland, 2006–2016



Age and gender trends: genital warts (first episode)

Figure 5.2: Rates of diagnosis of genital warts (first episode) in Northern Ireland, by age and gender, 2006–2016



Between 2006 and 2016, diagnostic rates have been consistently highest in 20-24 year old males and females, followed by 16-19 year old females and 25-34 year old males. Individuals under 16 year old accounted for 0.4% (89/22,476) of diagnoses (first episode) made during 2006-2016, while the 45+ year age group accounted for 6% (1,401/22,476).

During 2006-2016, the proportion of male diagnoses attributed to MSM ranged from 2% in 2006 to 10% in 2012, with 8% in 2016.

6: Syphilis

Syphilis is a bacterial infection caused by the spirochete *Treponema pallidum*. Its importance lies in its ability to promote both the acquisition and transmission of HIV, and in the potential for serious or even fatal consequences if left untreated. Late syphilis can cause complications of the cardiovascular, central nervous and mucocutaneous systems. Infectious syphilis in pregnant women can cause miscarriage, stillbirth or congenital infection.

Northern Ireland has, in common with elsewhere in the UK and Europe, experienced a marked increase in infectious syphilis since 2000. In the decade prior to 2000, on average only one case of infectious syphilis per year was reported.

Diagnoses made in GUM clinics 2016

During 2016:

- 35 new episodes of primary and secondary syphilis were reported;
- 21 additional episodes of early latent syphilis were also reported;
- 80% (45/56) were diagnosed in MSM;

Enhanced surveillance 2016

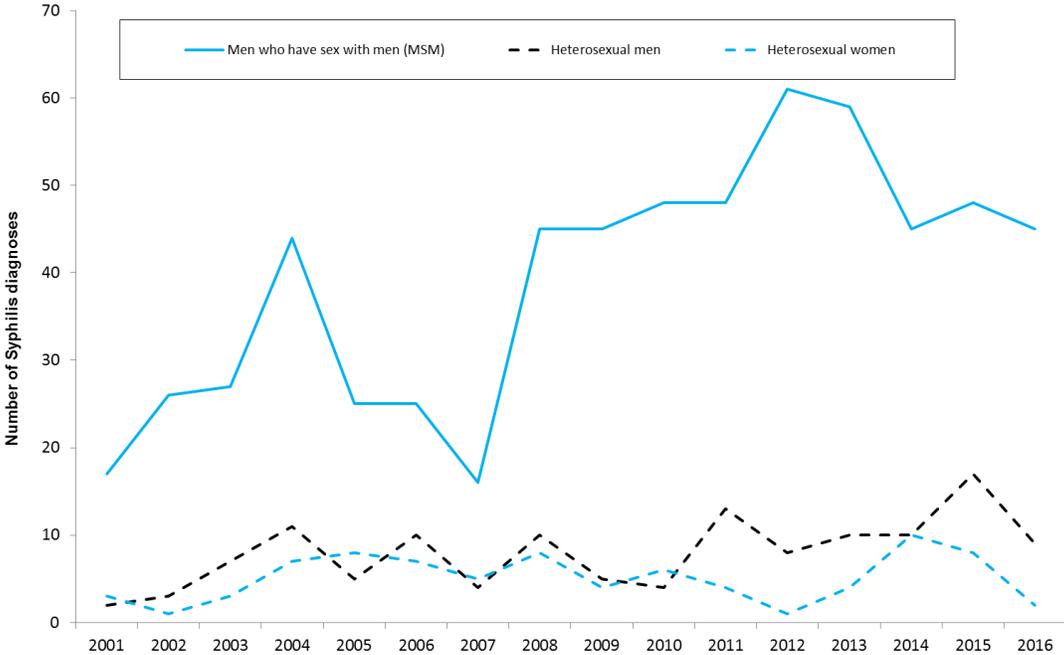
Information from enhanced surveillance arrangements is available for 38 cases:

- 36 episodes occurred in Northern Ireland residents and, in 28 episodes, syphilis was likely to have been acquired through exposure within Northern Ireland;
- 18% (7/38) also reported as being HIV positive;
- diagnosed co-infections also included chlamydia, gonorrhoea, genital warts and herpes;
- 32% (12/38) reported having had two sexual partners in the three months preceding diagnosis.

Trend information

Infectious syphilis is now endemic within Northern Ireland. Annual numbers of new diagnostic episodes have been consistently highest in MSM (Figure 6.1). Following an annual decrease from 2004 to 2007, numbers had increased from 2008 to 2015. However, 2016 saw a 26% decrease when compared to 2015; 56 in 2016 and 76 in 2015. Numbers in females and heterosexual males have remained relatively constant, although in 2015 there was an increase in heterosexual males with 17 diagnoses made compared with 10 in 2014, this has decreased again in 2016 for both females and heterosexual males.

Figure 6.1: Number of infectious syphilis diagnoses in Northern Ireland, by gender and sexual orientation, 2001-2016

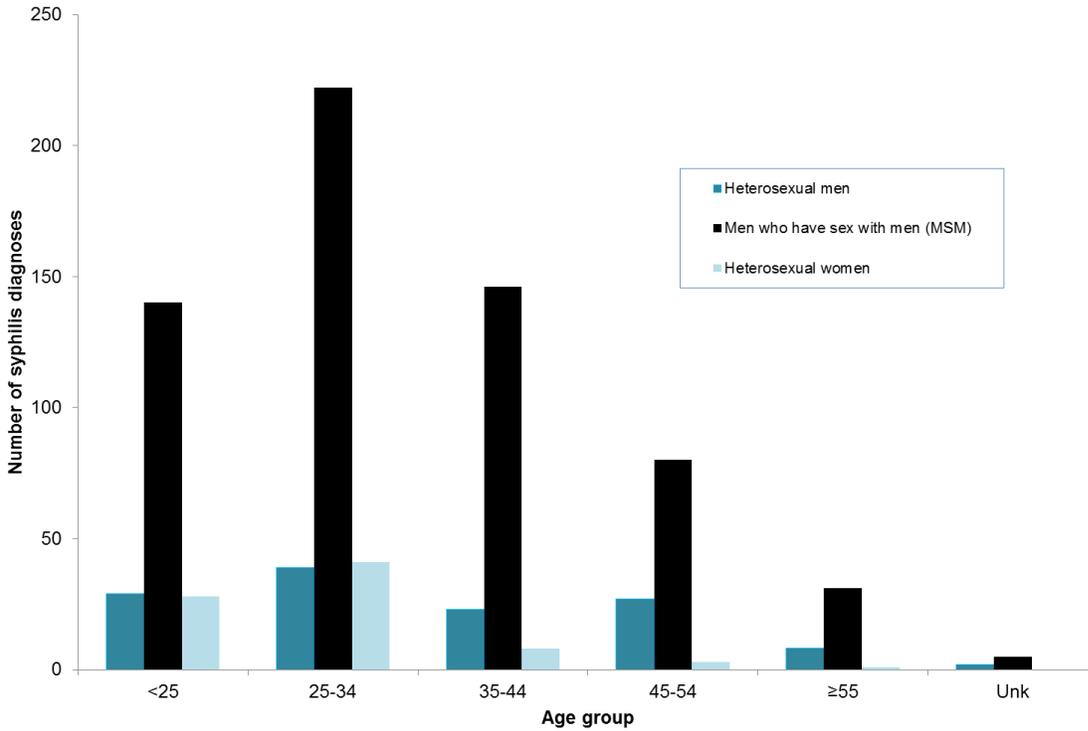


Note: Data derived from enhanced syphilis arrangements from 2001-2010 and from GUMCAD for 2011- 2016

Age and sexual orientation

Analysis of cumulative data by age and sexual orientation shows the highest number of episodes in heterosexual females was in the 25–34 years age group (51%; 41/81). In MSM, the highest number of episodes was in the 25–44 years age group (59%; 368/624). In heterosexual males, diagnoses were more evenly spread across the age bands, with those aged 25+ years accounting for 76% (97/128) of diagnoses. Information on age was missing for seven episodes (Figure 6.2).

Figure 6.2: Age distribution of syphilis diagnoses in Northern Ireland, by gender and sexual orientation, 2001–2016

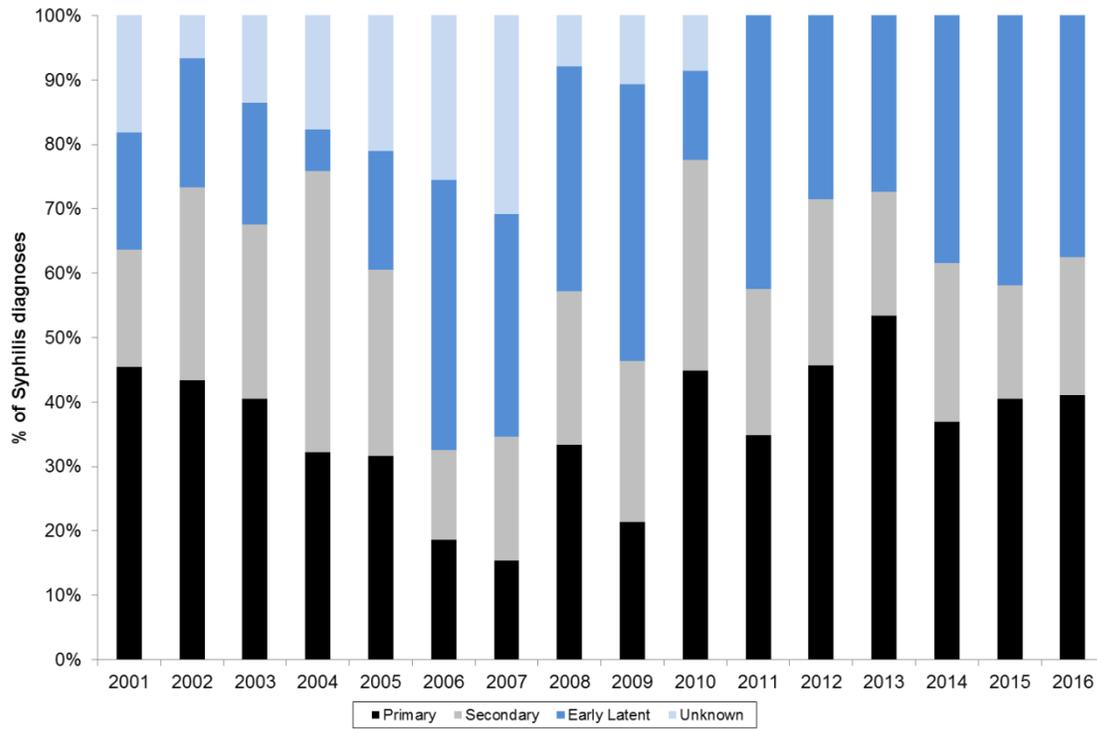


Note: Data derived from enhanced syphilis arrangements from 2001-2010 and from GUMCAD for 2011 -2016

Stage of disease

Since 2001 the majority of diagnoses have been made at the primary or secondary stage of disease, although there has been some significant year to year variation. Interpretation of data prior to 2011 is difficult due to variation in the extent to which stage is unknown. Over the past 5 years the percentage of diagnoses made during the (symptomatic) primary stage of syphilis has ranged from 37% to 53%. This suggests there is still a significant lack of awareness of the signs and symptoms of infectious syphilis in the affected population.

Figure 6.3: Stage of disease, by year of diagnosis



Note: Data derived from enhanced syphilis arrangements from 2001-2010 and from GUMCAD for 2011-2016

7: Summary and conclusions

2016 saw a 4% increase in annual numbers of new STI diagnoses made in Northern Ireland GUM clinics. In particular, Chlamydia increased by 7%, Genital Herpes by 18% and Genital Warts by 2%.

The highest diagnostic rates of the common STIs occur in 16-24 year old females and 20-34 year old males. People aged 16-34 year old account for 82% of new STIs.

MSM are at disproportionate risk of contracting some STIs accounting for 80% of infectious syphilis. MSM also account for 65% of male gonorrhoea, 14% of male herpes and 21% of male chlamydia infections.

Compared with 2015, 2016 has seen a 4% decrease in the number of diagnoses of gonorrhoea made in GUM clinics. However, this occurs in the context of a rapid and significant increasing trend between 2010 and 2015. Analysis of antimicrobial sensitivity patterns has shown a significant level of resistance to azithromycin, one of the two antibiotics used as a combination treatment, and highlights the importance of adhering to current treatment guidelines, azithromycin AND ceftriaxone, and performing a test of cure for all cases of gonorrhoea.

Analysis also suggests that a sustained decline in first episodes of genital warts is now occurring in young females, due to the impact of the human papilloma vaccine, first introduced (as a bivalent vaccine) in 2009, and (as a quadrivalent vaccine) in 2012. A smaller effect due to herd immunity is seen in similar aged males.

HPV vaccine for MSM attending GUM clinics was introduced in Northern Ireland in October 2016. The vaccine is offered to MSM aged 45 and under. It is hoped that this will have the same positive effect in MSM as has been seen in young females.

Safer sex messages should continue to be promoted to the general population, young people and MSM. The risks to health of unprotected casual sex, both within and outside Northern Ireland, need to be reinforced.

Individuals can reduce their risk of acquiring or transmitting an STI by:

- Always using a condom when having sex with casual and new partners;
- Getting tested if at risk, as these infections are frequently asymptomatic;
- MSM having unprotected sex with casual or new partners should have an HIV/STI screen at least annually, and every three months if changing partners regularly;
- Reducing the number of sexual partners and avoiding overlapping sexual relationships.

References

1. British Association for Sexual Health and HIV. UK National guideline for the management of gonorrhoea in adults 2011. Available at: www.bashh.org/guidelines
2. Public Health England. The Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP). Available at: <https://www.gov.uk/government/publications/gonococcal-resistance-to-antimicrobials-surveillance-programme-grasp-report>.
3. Howell Jones R et al (2013). Declining genital warts in young women in England associated with HPV 16/18 vaccination: an ecological study. *J Infect Dis.* 1;208(9): 1397-403

Appendix 1: STI groupings

New STI diagnoses
Chlamydial infection (uncomplicated and complicated)
Gonorrhoea (uncomplicated and complicated)
Infectious and early latent syphilis
Genital herpes simplex (first episode)
Genital warts (first episode)
New HIV diagnosis
Non-specific genital infection (uncomplicated and complicated)
Chancroid/lymphogranuloma venereum (LGV)/donovanosis
Molluscum contagiosum
Trichomoniasis
Scabies
Pediculus pubis
Other STI diagnoses
Congenital and other acquired syphilis
Recurrent genital herpes simplex
Recurrent and re-registered genital warts
Subsequent HIV presentations (including AIDS)
Ophthalmia neonatorum (chlamydial or gonococcal)
Epidemiological treatment of suspected STIs (syphilis, chlamydia, gonorrhoea, non-specific genital infection)
Other diagnoses made at GUM clinics
Viral hepatitis B and C
Vaginosis and balanitis (including epidemiological treatment)
Anogenital candidiasis (including epidemiological treatment)
Urinary tract infection
Cervical abnormalities
Other conditions requiring treatment at a GUM clinic

Appendix 2: Number of new episodes of selected diagnoses by gender and age group, Northern Ireland, 2006-2016

	2006			2007			2008			2009			2010			2011			2012			2013			2014			2015			2016			
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total				
Chlamydia	<16		22			11			13	0	8	8			11	0	9	9	0						0	6	6			4				
	16-19	87	220	307	115	206	321	93	243	336	113	236	349	105	192	297	104	191	295	97	177	274	85	175	260	70	194	264	78	162	240	78	176	254
	20-24	445	458	903	375	342	717	477	385	862	447	327	774	423	338	761	424	374	798	390	329	719	387	386	773	391	443	834	336	309	645	298	354	652
	25-34	362	239	601	365	205	570	371	220	591	416	201	617	373	220	593	390	191	581	366	217	583	362	200	562	359	223	582	318	162	480	374	187	561
	35-44	80	39	119	65	36	101	76	27	103	81	39	120	96	28	124	71	20	91	77	29	106	78	35	113	85	42	127	70	34	104	94	27	121
	45+	*	*	27	*	*	23	*	*	41	33	5	38	*	*	46	47	9	56	39	*	*	45	9	54	*	7	*	*	*	*	*	*	
Total	993	986	1,979	938	805	1,743	1,050	896	1,946	1,090	816	1,906	1,036	796	1,832	1,036	794	1,830	959	764	1,723	946	824	1,770	950	917	1,867	856	678	1,534	891	757	1,648	
% in MSM	6%			4%			4%			11%			14%			15%			10%			12%			17%			14%			21%			
Gonorrhoea*	<16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	16-19	*	*	15	27	7	34	15	5	20	19	8	27	12	9	21	17	15	32	*	22	*	46	42	88	*	48	*	35	43	78	48	40	88
	20-24	58	17	75	44	7	51	56	10	66	36	15	51	61	13	74	87	38	125	116	44	160	117	66	183	136	78	214	157	54	211	117	52	169
	25-34	55	7	62	*	*	49	58	13	71	69	8	77	51	6	57	93	19	112	123	38	161	143	45	168	154	39	203	183	33	216	176	25	201
	35-44	*	*	32	*	*	21	*	*	45	*	*	16	30	*	*	*	*	40	*	*	44	48	9	57	47	8	55	62	5	67	57	*	*
	45+	*	*	11	17	0	17	*	*	24	*	*	9	18	*	*	*	*	*	39	*	*	*	*	*	47	*	*	*	*	*	61	7	68
Total	163	32	195	155	17	172	194	32	226	148	32	180	172	32	204	259	77	336	347	111	458	384	165	549	424	177	601	483	136	619	459	133	592	
% in MSM	24%			29%			29%			29%			34%			56%			65%			46%			64%			64%			65%			
Syphilis	<16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	16-19	0	*	*	0	0	*	0	0	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	20-24	*	*	13	5	0	5	*	*	10	*	*	*	12	5	0	5	15	0	15	11	*	*	11	*	*	8	0	8	*	*	9	*	9
	25-34	10	0	10	*	*	9	*	*	10	*	*	11	18	0	18	11	0	11	18	0	18	17	*	*	12	*	*	14	*	16	*	14	
	35-44	*	0	*	*	0	*	0	*	9	0	9	6	0	6	*	*	*	8	0	8	8	0	8	*	*	5	0	5	9	0	9	7	0
	45+	*	0	*	*	0	*	8	0	8	6	0	6	*	*	10	10	0	10	*	*	10	0	10	5	0	5	9	0	9	7	0	7	
Total	*	*	30	*	*	22	*	*	33	*	*	29	*	*	46	*	*	38	50	0	50	*	*	52	34	7	41	40	5	45	*	*	35	
% in MSM	52%			52%			45%			78%			75%			78%			90%			83%			76%			75%			89%			
Herpes	<16	0	*	*	0	*	*	0	*	0	*	*	0	*	*	0	6	6	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	
	16-19	7	33	40	5	44	49	11	58	69	7	43	50	10	57	67	5	71	76	10	39	49	7	47	54	6	54	60	7	52	59	10	46	56
	20-24	21	60	81	32	53	85	11	78	89	38	56	94	42	87	129	30	68	98	32	75	107	33	71	104	36	81	117	40	71	111	45	92	137
	25-34	39	52	91	27	55	82	38	47	85	41	80	121	52	79	131	56	65	121	50	72	122	55	85	140	76	69	145	47	71	118	65	93	158
	35-44	18	21	39	26	13	39	8	19	27	17	32	49	36	21	57	24	26	50	18	18	36	21	32	53	24	27	51	30	28	58	15	28	43
	45+	6	*	*	13	*	*	10	*	*	18	*	*	13	*	*	14	21	35	17	21	38	14	20	34	14	*	*	17	*	*	23	24	47
Total	91	183	274	103	173	276	78	218	296	121	225	346	153	258	411	129	257	386	127	230	357	130	255	385	156	259	415	141	240	381	158	290	448	
% in MSM	2%			4%			6%			7%			12%			11%			10%			23%			16%			14%			14%			
Warts	<16	*	*	11	*	*	5	*	*	10	*	*	18	*	*	11	*	*	0	10	10	0	6	6	0	0	0	0	0	0	0	0	0	
	16-19	122	270	392	88	216	304	100	253	353	95	217	312	107	230	337	104	245	349	88	200	288	78	183	261	78	172	250	*	123	196	*	166	
	20-24	440	356	796	384	326	710	419	369	788	444	334	778	432	342	774	467	394	861	475	314	788	419	276	695	401	308	709	365	259	624	390	275	665
	25-34	401	249	650	387	227	614	439	262	701	400	221	621	442	255	697	448	254	702	462	278	739	427	232	659	456	226	682	371	214	585	409	200	609
	35-44	123	95	218	131	70	201	119	88	207	138	86	224	135	74	209	138	91	229	124	82	206	160	64	224	142	81	223	126	83	209	126	53	179
	45+	*	*	89	*	*	95	*	*	84	*	*	133	*	*	98	*	*	154	99	58	157	89	55	144	100	*	*	80	*	*	104	*	
Total	1,142	1,014	2,156	1,050	879	1,929	1,132	1,011	2,143	1,160	926	2,086	1,179	947	2,126	1,237	1,068	2,305	1,248	942	2,188	1,173	816	1,989	1,177	843	2,020	1,016	730	1,746	1,085	701	1,786	
% in MSM	2%			3%			2%			6%			8%			8%			10%			9%			9%			9%			8%			
Total diagnoses	6,292	5,718	12,010	6,211	5,110	11,321	6,546	5,787	12,333	6,966	5,356	12,322	7,304	5,222	12,526	7,046	5,729	12,775	6,117	5,000	11,117	5,728	4,752	10,480	5,953	4,937	10,890	5,481	4,186	9,667	5,692	4,375	10,067	
Total workload	8,871	7,104	15,975	8,480	6,488	14,968	9,897	8,321	18,218	11,903	9,698	21,601	13,242	10,542	23,784	14,035	11,704	25,739	16,140	11,887	28,027	15,720	11,381	27,101	16,955	12,129	29,084	15,446	10,842	26,288	16,811	11,403	28,214	

Notes on using these tables:

% in MSM represents the proportion of the total male diagnoses attributed to men who have sex with men (MSM)

* It is likely that the use of more sensitive Nucleic Acid Amplification Tests (NAATs) has contributed to the increase in gonorrhoea.

* Data is confidential

Following recent ONS guidance on data disclosure, the rules on publication of STI data with small cell sizes have changed. Cells with a value between 1 and 4 will now be anonymised with an asterisk. In addition, where the anonymised cell can be deduced from the totals, the next smallest cells will also be anonymised.

Due to a GLIM clinic migrating to new GUMCAD software are using SHHAPT codes figures from 2012 have been recalculated to include B5 (complicated gonorrhoea) and C4B (complicated chlamydia). Rates have been calculated using the 2015 mid year estimates

Definitions of selected conditions:

Chlamydia genital chlamydial infection, ICD10 code C4a, C4c & C4d & SHHAPT code C4
 Gonorrhoea gonorrhoea, ICD10 code B1, B2, B5 & SHHAPT code B
 Syphilis primary and secondary infectious syphilis, ICD10 code A1, A2
 Herpes anogenital herpes simplex (first attack), ICD10 code C10a
 Warts anogenital warts (first attack), ICD10 code C11a
 Total diagnoses

Appendix 3: Rates of new episodes of selected diagnoses by gender and age group, Northern Ireland, 2006-2016

	2006			2007			2008			2009			2010			2011			2012			2013			2014			2015			2016 ^a			
	M	F	Total																															
Chlamydia	<16	*	*	28.8	*	*	14.6	*	*	17.4	0.0	22.1	10.8	*	*	14.9	0.0	25.0	12.2	0.0	*	*	20.1	*	*	17.7	8.6	*	*	11.8	*	*	*	
	16-19	161.1	427.1	291.0	215.4	402.6	307.0	176.1	481.1	325.3	216.4	471.1	341.1	203.0	386.2	292.8	203.1	387.7	293.6	167.6	356.1	259.9	166	354.5	257.7	135.0	383.7	255.6	154.9	341.5	245.4	157.9	378.5	264.6
	20-24	718.5	753.3	735.7	593.0	548.5	570.9	749.5	610.9	680.6	697.1	519.2	609.0	663.5	540.7	602.7	689.5	606.0	638.2	614.3	517.5	560.7	622.1	605.2	613.8	624.5	688	655.8	545	516.0	530.7	188.8	612.7	549.1
	25-34	314.2	201.1	256.8	313.3	169.8	240.3	314.5	179.6	245.8	349.5	162.5	254.2	311.0	176.3	242.3	324.6	152.1	236.4	297.4	166.5	230.6	293.3	151.3	220.8	290	163.4	225.6	261.3	128.5	193.7	305.2	149.2	226.3
	35-44	62.1	29.3	45.4	50.2	27.0	38.4	58.8	20.2	39.2	63.4	29.4	46.1	76.2	21.4	48.3	57.3	15.5	36.0	60.0	22.1	40.7	61.4	22.4	41.5	71.6	30.7	50.6	59.7	27.5	43.1	80.6	21.9	50.5
	45+	*	*	4.2	*	*	3.5	*	*	6.1	10.3	1.4	5.6	*	*	6.6	14.0	2.4	7.9	10.2	*	*	2.1	*	*	12.1	1.8	6.7	*	*	1.8	*	*	*
Total	116.4	110.8	113.5	108.8	89.5	98.9	120.6	98.7	109.4	124.1	89.2	106.3	117.1	86.5	101.5	116.5	85.8	100.9	105.1	79.2	91.9	103.7	82.5	92.9	103.4	90.7	96.9	94.8	72.3	83.3	97.4	79.9	88.5	
Gonorrhoea	<16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	16-19	*	*	14.2	50.6	13.7	32.5	28.4	9.9	19.4	36.4	16.0	26.4	23.2	18.1	20.7	33.2	30.4	31.9	*	45.3	*	90.9	87.6	89.3	*	101.2	*	69.5	90.6	79.8	97	86.0	91.7
	20-24	93.6	28.0	61.1	69.6	11.2	40.6	88.0	15.9	52.1	56.1	23.8	40.1	95.7	20.8	58.6	137.4	61.6	100.0	184.1	70.6	128.4	187.4	104.5	146.5	219	121.9	171.1	254.6	90.2	173.6	191.9	90.0	142.3
	25-34	47.7	5.9	26.5	*	*	20.7	49.2	10.6	29.5	58.0	6.5	31.7	42.5	4.8	23.3	77.4	15.1	45.6	100.8	27.7	63.5	116.5	34.1	74.4	133.9	23.8	77.9	150.4	26.2	87.2	143.6	19.9	81.1
	35-44	*	*	12.2	*	*	8.0	*	*	17.1	*	*	6.1	23.8	*	12.5	*	*	15.8	*	*	17.7	40.4	5.6	22.6	39.2	4.8	21.6	52.9	4.0	27.8	48.9	*	*
	45+	*	*	1.7	5.6	0.0	2.6	*	*	3.6	*	*	1.3	5.5	*	2.7	*	*	11.1	*	*	17.7	40.4	5.6	22.6	39.2	4.8	21.6	52.9	4.0	27.8	48.9	*	*
Total	19.1	3.6	11.2	18.0	1.9	9.8	22.3	3.5	12.7	16.8	3.5	10.0	19.4	3.5	11.3	29.1	8.3	18.5	38.5	11.5	24.7	42.4	16.8	29.3	46.6	17.2	31.6	53.5	14.5	33.6	50.2	14.0	31.8	
Syphilis	<16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16-19	0.0	*	*	0.0	0.0	*	0.0	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	0.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	20-24	*	*	10.6	7.9	0.0	4.0	*	*	7.9	*	*	*	*	*	9.5	7.9	0.0	4.0	23.8	0.0	12.1	17.8	*	*	17.8	*	*	13.0	0.0	6.6	*	*	7.6
	25-34	8.7	0.0	4.3	*	*	3.8	*	*	4.2	*	*	4.5	15.0	0.0	7.4	9.2	0.0	4.5	14.9	0.0	7.3	14.0	*	*	9.9	*	*	11.5	*	6.5	*	*	5.6
	35-44	*	0.0	*	*	0.0	*	*	0.0	*	7.0	0.0	3.5	4.8	0.0	2.3	*	*	*	6.6	0.0	3.2	6.7	0.0	3.3	4.3	*	*	*	*	*	*	0.0	*
	45+	*	0.0	*	*	0.0	*	2.6	0.0	1.2	1.9	0.0	0.9	*	*	1.4	3.0	0.0	1.4	*	0.0	*	2.9	0.0	1.4	1.4	0.0	0.7	2.5	0.0	1.2	1.9	0.0	0.9
Total	*	*	1.7	*	*	1.2	*	*	1.9	*	*	1.6	*	*	2.5	*	*	2.1	5.6	0.0	2.7	*	*	2.8	3.8	0.7	2.2	4.4	0.5	2.4	3.6	0.2	1.9	
Herpes	<16	0.0	*	*	0.0	*	*	0.0	*	*	0.0	*	0.0	*	*	0.0	16.7	8.1	0.0	13.9	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	10.5
	16-19	13.0	64.1	37.9	9.4	86.0	46.9	20.8	114.8	66.8	13.4	85.8	48.9	19.3	114.7	66.1	9.8	144.1	75.6	19.7	80.3	49.4	13.8	98.0	54.8	11.9	113.8	61.3	13.9	109.6	60.3	20.2	98.9	58.3
	20-24	33.9	98.7	66.0	50.6	85.0	67.7	17.3	123.8	70.3	59.3	88.9	74.0	65.9	139.2	102.2	47.4	110.2	78.4	50.8	123.2	86.4	53.3	117.7	85.1	58.4	135.3	96.3	84.9	118.6	91.3	73.8	159.2	115.4
	25-34	33.8	43.8	38.9	23.2	45.5	34.6	32.2	38.4	35.3	34.4	64.7	49.8	43.4	63.3	53.5	46.6	51.8	49.2	41.3	57.1	49.4	45.4	67.3	56.6	62.4	54.7	58.5	38.6	56.3	47.6	53.0	74.2	63.7
	35-44	14.0	15.8	14.9	20.1	9.7	14.8	6.2	14.2	10.3	13.3	24.1	18.8	28.6	16.1	22.2	19.4	20.2	19.8	14.8	14.2	14.5	17.7	25.6	21.8	20.5	21.8	21.2	25.6	22.6	24.1	12.9	22.7	17.9
	45+	2.0	*	*	4.2	*	*	3.2	*	*	5.6	*	*	4.0	*	*	4.2	5.6	4.9	5.0	5.5	5.3	4.0	5.2	4.6	3.9	*	*	4.8	*	*	6.3	5.9	6.1
Total	10.7	20.6	15.7	11.9	19.2	15.7	9.0	24.0	16.6	13.8	24.6	19.3	17.3	28.0	22.8	14.5	27.8	21.3	14.2	24.8	19.6	14.5	27.3	21.0	17.3	27.6	22.5	15.6	25.6	20.7	17.3	30.6	24.1	
Warts	<16	*	*	14.4	*	*	6.6	*	*	13.4	*	*	24.2	*	*	14.9	*	*	0.0	27.9	13.6	0.0	17.2	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16-19	226.0	524.2	371.6	164.8	422.1	290.7	189.4	500.9	341.7	182.0	433.2	305.0	206.9	462.7	332.3	203.1	497.3	347.4	173.6	411.7	290.1	154.1	381.7	264.8	154.9	362.6	255.6	*	259.3	259.3	*	173.0	
	20-24	710.4	585.5	648.6	607.2	522.8	565.3	658.4	585.5	622.1	692.4	530.4	612.1	677.6	547.1	613.0	737.4	638.4	688.5	754.0	515.8	637	677.0	457.6	568.8	650.4	514.3	583.4	592.0	432.5	432.5	639.6	476.0	560
	25-34	348.0	209.6	277.7	332.2	188.0	258.8	372.1	213.9	291.5	336.0	178.6	255.8	368.6	204.3	284.8	372.8	202.3	285.7	381.7	220.4	299.4	352.8	183.8	266.5	374.7	179.2	275.2	304.8	169.7	169.7	333.8	159.6	245.7
	35-44	95.4	71.4	83.2	101.2	52.5	76.5	92.1	65.9	78.8	108.0	64.9	86.0	107.1	56.6	81.4	111.4	70.6	90.6	102.0	64.7	83	134.6	51.3	91.9	121.1	65.4	92.5	107.5	67.0	67	108.1	43.0	74.7
	45+	*	*	13.9	*	*	14.5	*	*	12.6	*	*	19.5	*	*	14.1	*	*	21.7	28.9	15.2	21.7	25.5	14.2	19.6	28.2	22.5	14.2	22.5	22.5	28.2	28.4	28.4	28.4
Total	133.9	113.9	123.7	121.8	97.7	109.5	130.0	111.3	120.5	132.0	101.2	116.3	133.3	102.9	117.8	139.1	115.5	127.0	139.5	101.4	120.1	130.7	87.5	108.7	130.4	89.9	109.8	112.5	77.8	77.8	118.6	74.0	95.9	

Notes on using these tables:

Diagnoses are calculated on GUM clinics in the region, rates are calculated for the region's resident population

Diagnostic rates for specific age groups were estimated by dividing the annual number of diagnoses in each age bracket by the estimated mid-year resident population of Northern Ireland for each age group. The denominators used to calculate rates in people under 16 and over 44 years of age were the population aged 13 to 15, and the population aged over 44 years respectively. The total population was used for the calculation of overall rates.

2001-2011 rates have been revised using revised mid year estimates to take into account the 2011 Census

Rates are calculated using mid year estimates

* Data is confidential
Following recent CNS guidance on data disclosure, the rules on publication of STI data with small cell sizes have changed. Cells with a value between 1 and 4 will now be anonymised with an asterisk. In addition, where the anonymised cell can be deduced from the totals, the next smallest cells will also be anonymised.

Definitions of selected conditions:

- Chlamydia genital chlamydial infection, ICD10 codes C4c, C4c & C4d & SHHAPT code C4
- Gonorrhoea gonorrhoea, ICD10 code B1, B2, B6 & SHHAPT code B
- Syphilis primary and secondary infectious syphilis, ICD10 code A1, A2
- Herpes anogenital herpes simplex (first attack), ICD10 code C10a
- Warts anogenital warts (first attack), ICD10 code C11a
- Total diagnoses all diagnoses made, includes all A, B, C and E ICD10 codes
- Total workload all workload not requiring a diagnosis, includes all D, P and S ICD10 codes & SHHAPT T codes



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