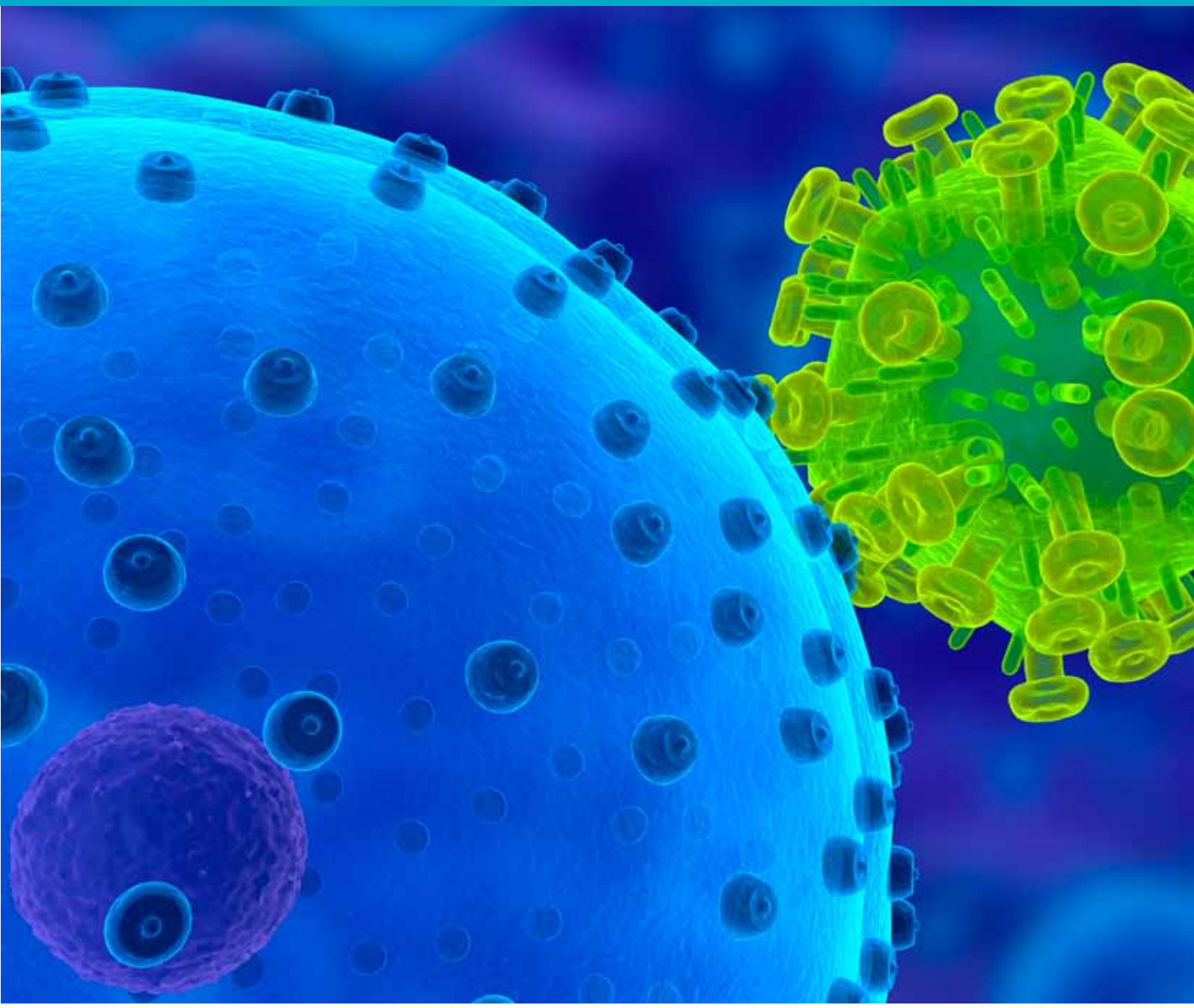
HIV and STI surveillance in Northern Ireland 2010

An analysis of data for the calendar year 2009



HSC Public Health Agency

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This report aims to provide an overview of HIV and STI epidemiology in Northern Ireland by collating and analysing information from a number of sources. While also reflecting epidemiological trends over time, its main focus will be on data collected in 2009.

Comments on the content and format of this report would be particularly welcome and may be addressed to cdscni@hscni.net

Following recent ONS guidance on data 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

- 68 new first UK HIV diagnoses were made in Northern Ireland during 2009, a decrease of 25% on 2008 (91).
- 424 HIV infected residents of Northern Ireland received HIV-related care during 2009, an increase of 7% on 2008 (396).
- 56 new diagnoses of infectious syphilis were reported during 2009, a decrease of 11% on 2008 (63).

In Northern Ireland GUM clinics in 2009

- New diagnoses of uncomplicated chlamydia decreased by 2%; 1,906 in 2009 compared with 1,946 in 2008.
- New diagnoses of uncomplicated gonorrhoea decreased by 20%; 180 in 2009 compared with 226 in 2008.
- New diagnoses of genital herpes simplex (first attack) increased by 17%; 346 in 2009 compared with 296 in 2008.
- New diagnoses of genital warts (first attack) decreased by 3%; 2,086 in 2009 compared with 2,143 in 2008.

Surveillance arrangements and sources of data

HIV

Surveillance arrangements for diagnosed HIV/AIDS infection in England, Wales and Northern Ireland are based largely on the confidential reporting of HIV infected individuals by clinicians to the Health Protection Agency's Centre for Infections in London. There are three main methods:

- data relating to individuals whose first UK diagnosis was made in Northern Ireland;
- data relating to individuals who accessed statutory HIV services in England, Wales or Northern Ireland and who were resident in Northern Ireland as defined when last seen for care in 2009: the 'Survey of prevalent HIV infections diagnosed (SOPHID);
- laboratory reporting of CD4 cell counts on new diagnoses.

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. Using the same format as in England and Wales, this records the numbers of new diagnoses for a range of STIs. Individual patients may contribute to more than one diagnosis. For selected conditions, additional age, gender and sexual orientation information is provided. Regularly updated summary statistics are presented at www.cdscni.org.uk

There are two important limitations to KC60 data, however. Firstly, as 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.

Secondly, unlike HIV surveillance arrangements, no residence-based data are collected. 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 2006–2009. Antibiotic susceptibility information for *Neisseria gonorrhoeae* isolates is provided for 2009.

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 PHA, a range of demographic, clinical and risk factor data are collected on cases of primary, secondary and early latent stage syphilis.

Enhanced lymphogranuloma venereum (LGV) surveillance

Enhanced surveillance arrangements for cases of lymphogranuloma venereum (LGV) in Northern Ireland have been in place since 2004. Based on anonymised, confidential reporting by GUM clinicians to the PHA, a range of demographic, clinical and risk factor data are collected.

1: Diagnoses provided in Northern Ireland GUM clinics in 2009

During 2009:

- 7,417 **new STI diagnoses** were made compared with 7,452 in 2008;
- 2,426 **other STI diagnoses** were made;
- there were 4,094 **other diagnoses** made at GUM clinics.

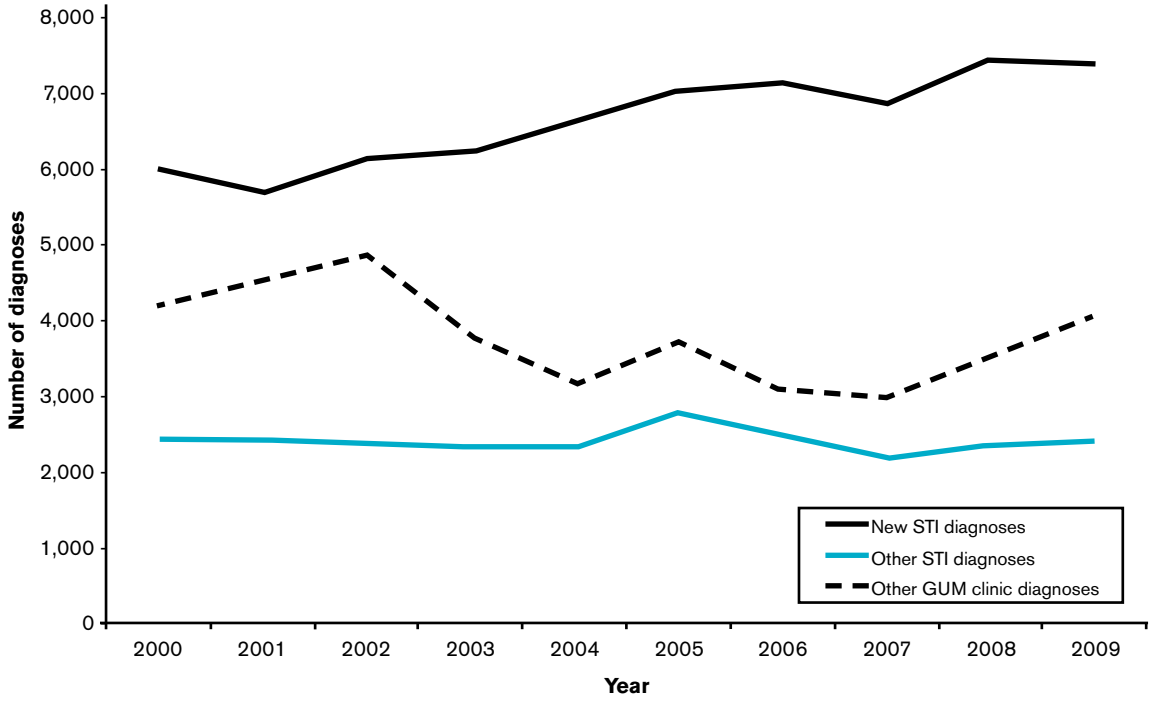
New STI diagnoses
Chlamydial infection (uncomplicated and complicated)
Gonorrhoea (uncomplicated and complicated)
Infectious and early latent syphilis
Genital herpes simplex (first attack)
Genital warts (first attack)
New HIV diagnosis
Non-specific genital infection (uncomplicated and complicated)
Chancroid/lymphogranuloma 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

Trends: 2000–2009

The number of new STI diagnoses increased by 24% from 2000–2009. The total number of diagnoses, which includes recurrent and follow-up presentations, increased by 17% during this time.

Specific disease trends will be examined in subsequent chapters.

Figure 1.1: Trends in diagnoses made in Northern Ireland GUM clinics, 2000–2009



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. Diagnostic rates have been consistently lower than the UK overall.

While there is currently no organised regional chlamydia testing programme in Northern Ireland, symptomatic testing is undertaken within primary care and sexual health services.

Diagnoses made in GUM clinics during 2009

Chlamydial infection accounted for 27% (1,982/7,417) of all new STI diagnoses made in Northern Ireland GUM clinics during 2009.

Uncomplicated chlamydial infection

- There were 1,906 new episodes of uncomplicated chlamydial infection diagnosed in Northern Ireland GUM clinics in 2009, compared with 1,946 in 2008.
- 1,090 (57%) 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 41% of male and 40% 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.
- 11% (118/1,090) of the total male diagnoses occurred in men who have sex with men (MSM).

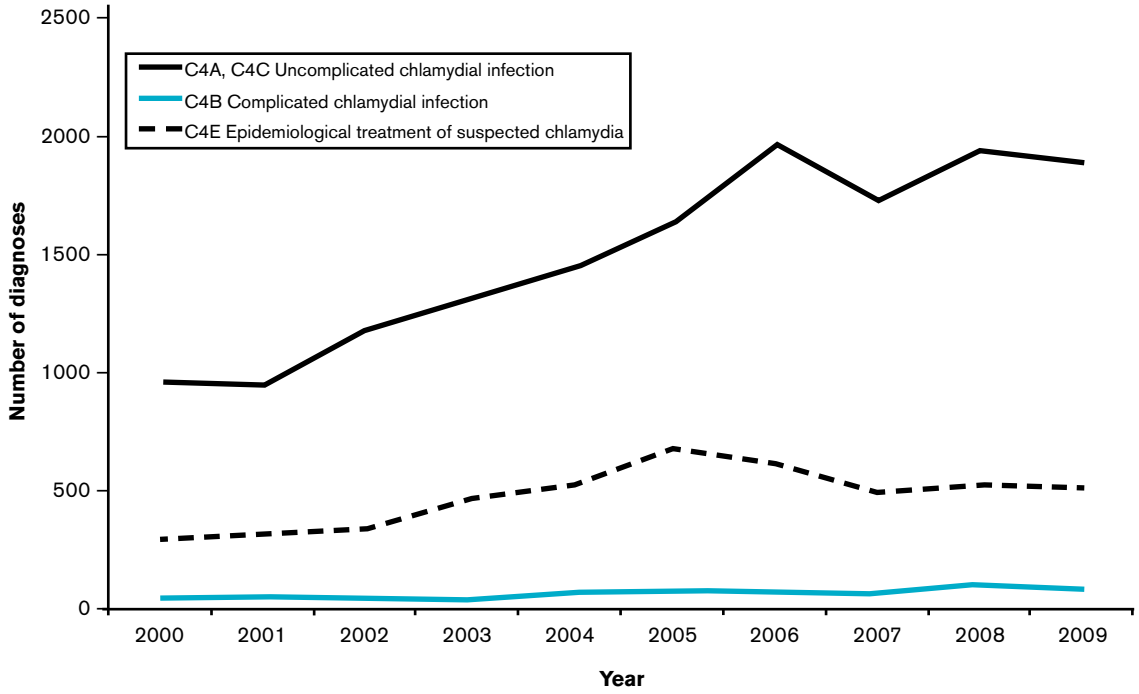
Complicated chlamydial infection

- There were 76 new episodes of complicated chlamydial infection diagnosed in Northern Ireland GUM clinics in 2009.
- 64 (84%) of these were diagnosed in females.

Trends: 2000–2009

Between 2000 and 2009, diagnoses of uncomplicated chlamydial infection have increased by 98%, from 963 diagnoses in 2000 to 1,906 in 2009. Diagnoses in males have increased by 127%, while in females there has been a 69% increase. Diagnoses of complicated chlamydial infection have increased from 40 diagnoses in 2000 to 76 in 2009, but remain at a relatively low level (Figure 2.1).

Figure 2.1: Diagnoses of chlamydia in Northern Ireland, 2000–2009



Age/gender/UK country of diagnosis trends: uncomplicated chlamydia

From 2000–2009, diagnostic rates in females have been consistently highest in the 16–24 years age group, peaking between 20 and 24 years. In males, the highest rates are in the 20–34 years age group, again peaking between 20 and 24 years.

Diagnostic rates in those under 25 years of age have been consistently higher in females, with rates in those 25 years and over consistently higher in males (Figure 2.2). Diagnostic rates in females fall after 24 years due to changes in sexual behaviour, as well as decreased susceptibility.

Diagnoses in those under 16 years of age accounted for 0.7% (102/15,046) of all diagnoses made during the period 2000–2009.

Diagnoses in the 45+ years age group accounted for 1.6% (245/15,046) of all diagnoses made during the period 2000–2009.

The proportion of male chlamydia diagnoses attributed to MSM has increased from 2% in 2000 to 11% in 2009.

Figure 2.2: Rates of uncomplicated chlamydial infection in Northern Ireland, by gender and age group, 2000–2009

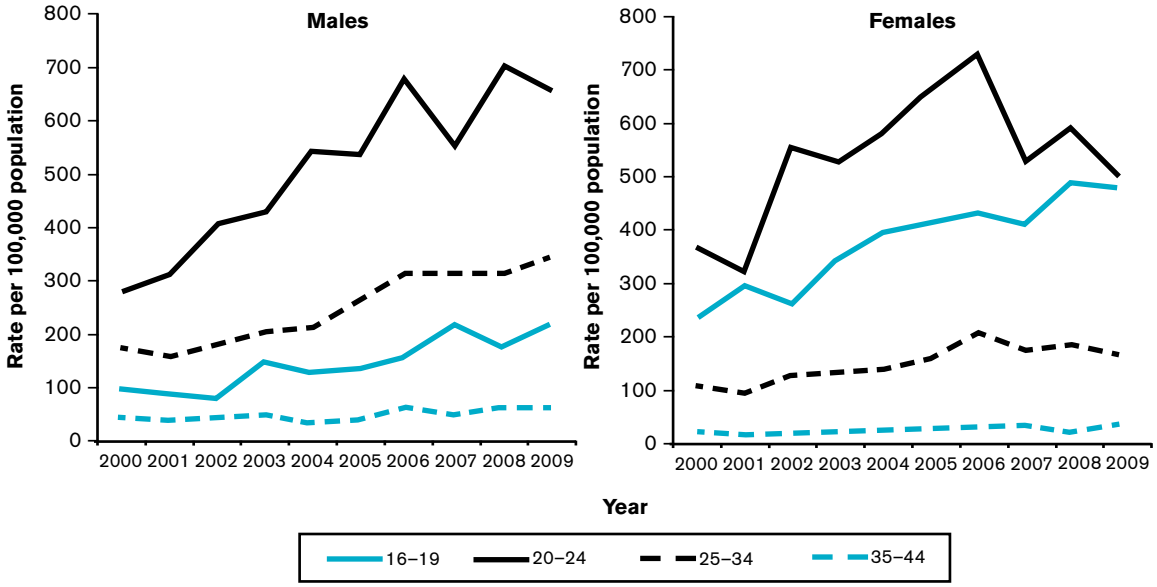
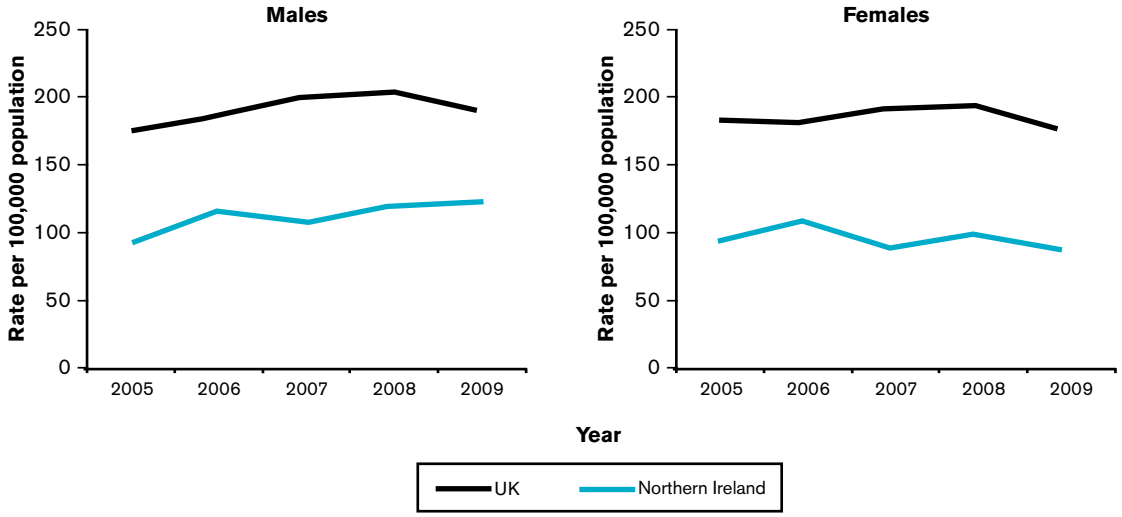


Figure 2.3: Rates of uncomplicated chlamydial infection, by gender and country, 2005–2009



Diagnostic rates of uncomplicated chlamydial infection made in Northern Ireland GUM clinics have shown an increase in males and a slight decrease in females. Rates in Northern Ireland remain lower than the UK overall (Figure 2.3).

Chlamydia trachomatis laboratory reporting, 2006–2009

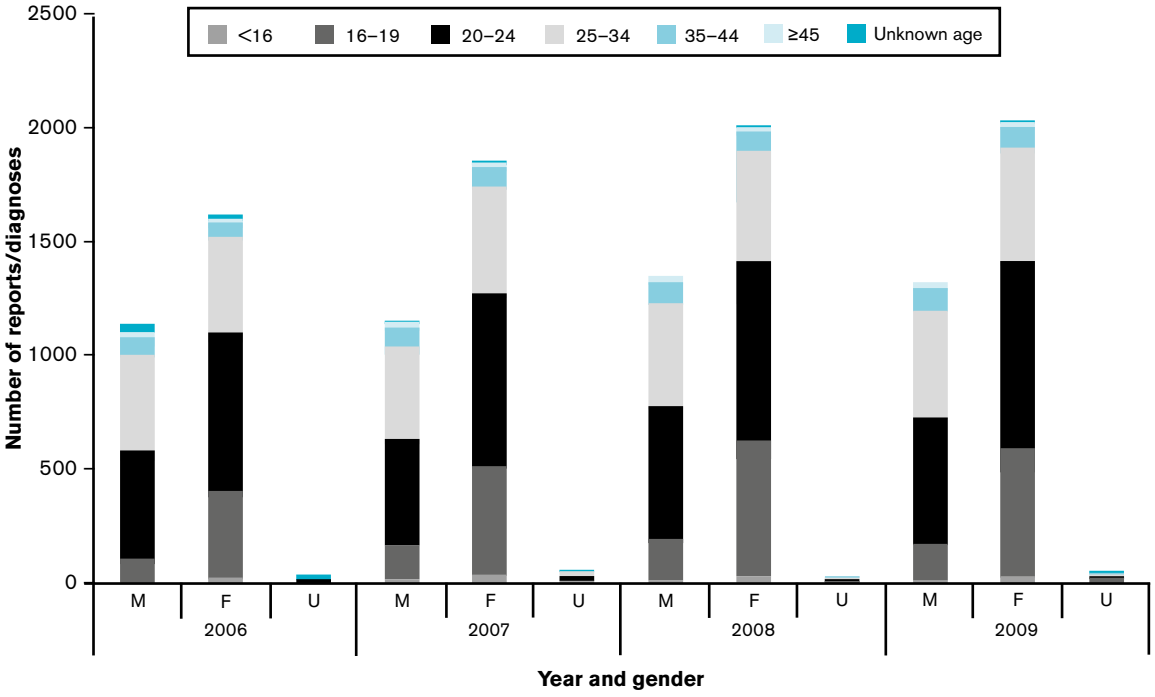
During 2009, 3,399 laboratory confirmed cases of *Chlamydia trachomatis* were reported, similar to the number reported in 2008. More than half (54%; 6,851/12,649) of the cases reported during 2006–2009 were from GUM clinic specimens, with 29% (3,660/12,649) from GP specimens (Table 2.1). Between 2006 and 2009, confirmations from GP specimens increased by 39% and those from GUM clinics by 4%.

Table 2.1: Distribution of *Chlamydia trachomatis* specimens, by the referral source, 2006–2009

Referral source	2006	2007	2008	2009	Total
GP	738	911	982	1,029	3,660
Genito Urinary Medicine clinic	1,685	1,591	1,823	1,752	6,851
Hospital A&E	*	0	*	0	*
Hospital inpatient	139	264	90	62	555
Hospital outpatient	50	157	290	317	814
Other	*	22	168	198	*
Unknown	165	120	*	41	*
Total	**2,795**	**3,065**	**3,390**	**3,399**	**12,649**

Females accounted for 60% (2,031/3,399) of all cases reported by laboratories during 2009. The majority (68%; 5,101/7,522) of female cases reported in the period 2006–2009 were aged between 16 and 24 years. Males have accounted for between 38% and 41% of cases reported annually since 2006. The majority of male cases reported since 2006 have been in the 20–34 years age group (Figure 2.4). Information on gender was missing for 1% of cases reported during the period 2006–2009.

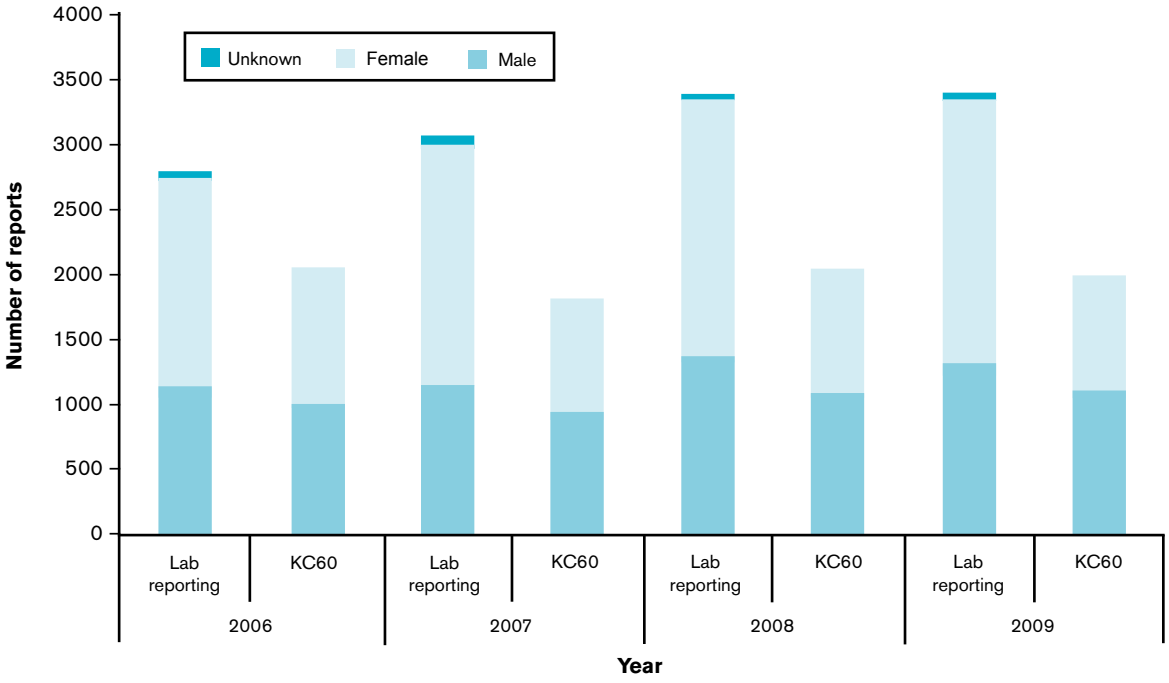
Figure 2.4: Laboratory reports of *Chlamydia trachomatis*, by age and gender, 2006–2009



Comparison of GUM clinic and laboratory reporting, 2006–2009

During 2009, there were 3,399 laboratory reports of *Chlamydia trachomatis*, compared with 1,982 diagnoses reported through the GUM clinics (KC60 reporting). The majority of laboratory reports during 2009 were from females (60%). This contrasts with the KC60 reports, which had more male (1,102) than female (880) diagnoses during 2009. The number of laboratory reports increased by 22% from 2006 to 2009 and has shown a year on year increase during this time. This is in contrast to the KC60 trend over the same time and illustrates the need for complementary surveillance sources.

Figure 2.5: Chlamydia KC60 (complicated and uncomplicated diagnoses) and laboratory reports in Northern Ireland, 2006–2009



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.

Diagnostic rates in Northern Ireland remain lower than the UK overall.

Diagnoses made in GUM clinics during 2009

Gonorrhoea accounted for 2% (185/7,417) of all new STI diagnoses made in Northern Ireland GUM clinics during 2009.

Uncomplicated gonococcal infection

- There were 180 new episodes of uncomplicated gonorrhoea diagnosed in Northern Ireland GUM clinics in 2009, compared with 226 in 2008, a decrease of 20%.

- 148 (82%) of these were diagnosed in males.

- The highest rates of infection in males were diagnosed in the 25–34 years age group (58/100,000), while in females, the highest rates were in the 20–24 years age group (23/100,000).

- 72% of female diagnoses were in the 16–24 years age group and 25% were in the 25–34 years age group.

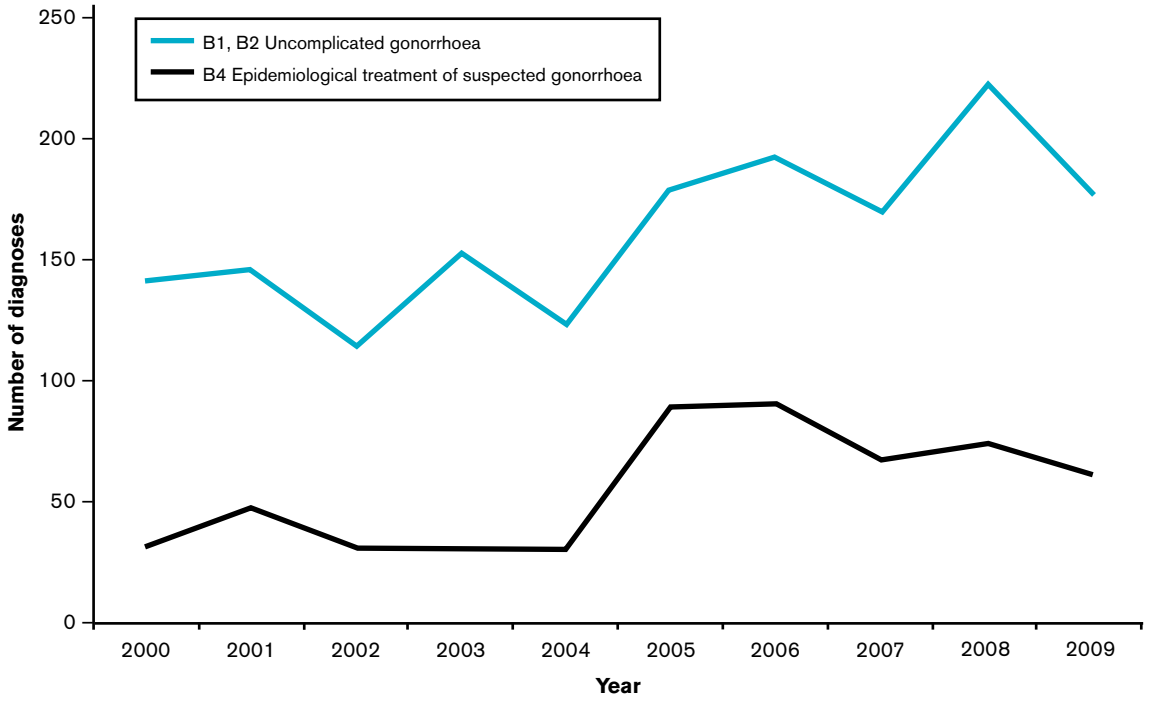
- In males, the 25–34 years age group accounted for 47% of diagnoses and the 16–24 years age group accounted for 37%.

- 29% (43/148) of male diagnoses were attributed to MSM.

Trends: 2000–2009

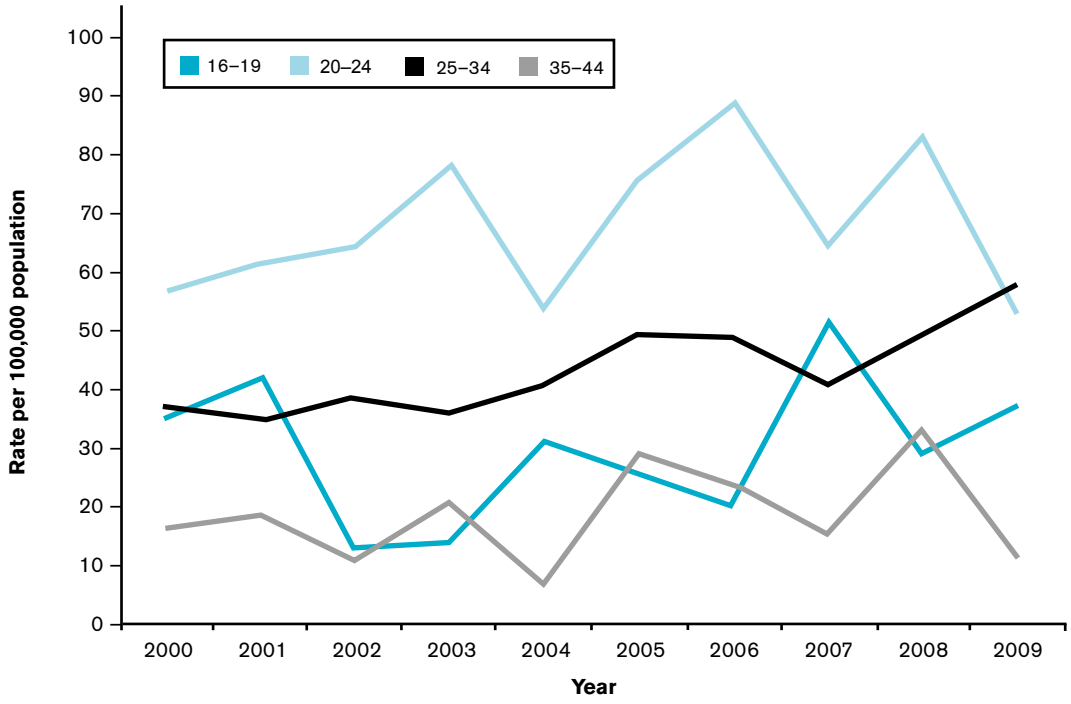
Although numbers have been variable, diagnoses of uncomplicated gonorrhoea have shown a general increased trend since 2000, with a slight decrease in 2007 and 2009 (Figure 3.1). During this time, the proportion of male diagnoses attributed to MSM has ranged from 9% in 2000 to 40% in 2005. There are less than six diagnoses of complicated gonorrhoea annually.

Figure 3.1: Diagnoses of gonorrhoea in Northern Ireland, 2000–2009



Age/gender/UK country of diagnosis trends: uncomplicated gonorrhoea

Figure 3.2: Rates of diagnosis of uncomplicated gonorrhoea in males in Northern Ireland, by age group, 2000–2009



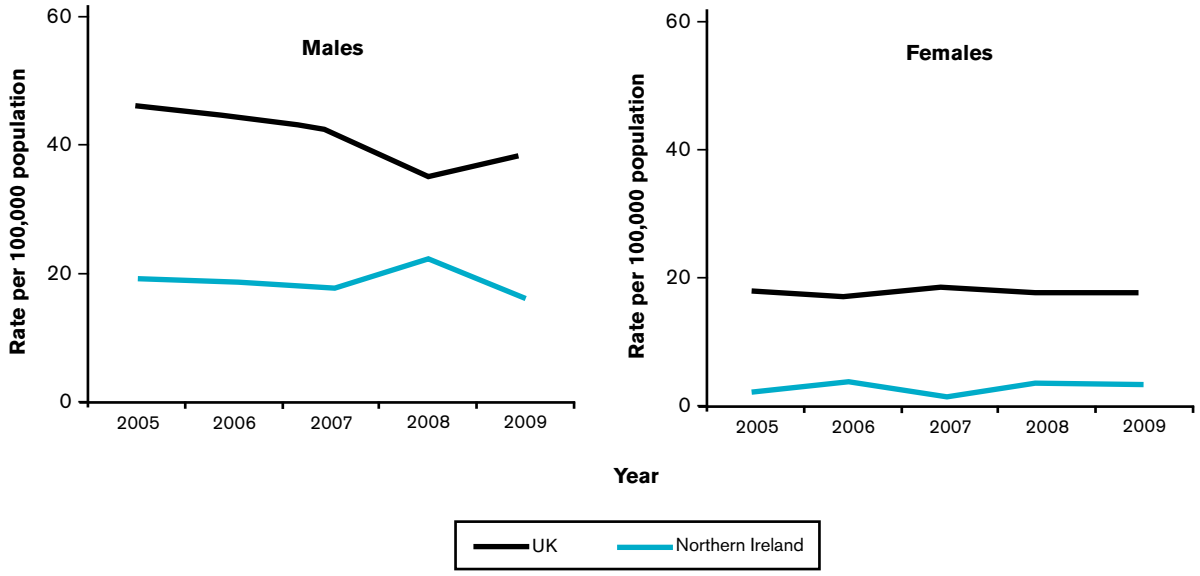
In males, the highest diagnostic rates are in the 20–34 years age group (Figure 3.2).

From 2000–2009, fewer than five diagnoses were made annually in males aged under 16 years.

Males aged 45 years and over accounted for 6.2% (87/1,406) of all male diagnoses during the period 2000–2009.

There is no clear trend in females due to the small numbers involved.

Figure 3.3: Rates of uncomplicated gonococcal infection, by gender and country, 2005–2009



Between 2005 and 2009, diagnostic rates of gonorrhoea in Northern Ireland have consistently been lower than the UK overall, for both males and females (Figure 3.3).

Neisseria gonorrhoeae laboratory reporting, 2009

Effective treatment of gonorrhoea has been compromised by the ability of *Neisseria gonorrhoeae* to develop resistance to antimicrobial agents.[1] 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. In 2009, 99% (147/149) of samples reported by laboratories were tested for antibiotic susceptibility (Table 3.1).

Current guidelines recommend the use of third generation cephalosporins to treat gonorrhoea. During 2009, only one of the samples tested was reported as resistant to cephalosporins (Table 3.2).

Table 3.1: *Neisseria gonorrhoeae* specimens/patients for which antibiotic susceptibility was reported, 2009

	Total specimen/ patient reports	Specimens reported for AB susceptibility (%)	Total number of AB susceptibility reports
2009	149	147* (99%)	568

* Two antibiotic susceptibility reports missing as isolates did not grow

Table 3.2: *Neisseria gonorrhoeae* antibiotic susceptibility reported activity for antibiotics, 2009

Antibiotics	Susceptible	Resistant (%)	Indeterminate	Total specimens reported (n=568)
Cefixime	14	0 (0%)	0	14
Cefotaxime	111	0 (0%)	0	111
Ceftizoxime	1	0 (0%)	0	1
Ceftriaxone	3	0 (0%)	0	3
Cefuroxime	19	1 (5%)	0	20
Ciprofloxacin	85	43 (34%)	0	128
Nalidixic acid	17	8 (32%)	0	25
Penicillin	92	52 (36%)	0	144
Spectinomycin	5	0 (0%)	0	5
Tetracycline	83	33 (28%)	1	117

4: Genital herpes

Genital herpes is caused by the herpes simplex virus (HSV), of which there are two distinct subtypes. Type 2 is almost exclusively associated with genital infection. While historically, HSV1 was mainly associated with oral infection, 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.

Diagnostic rates of genital herpes in Northern Ireland are lower than the UK overall.

Diagnoses made in GUM clinics during 2009

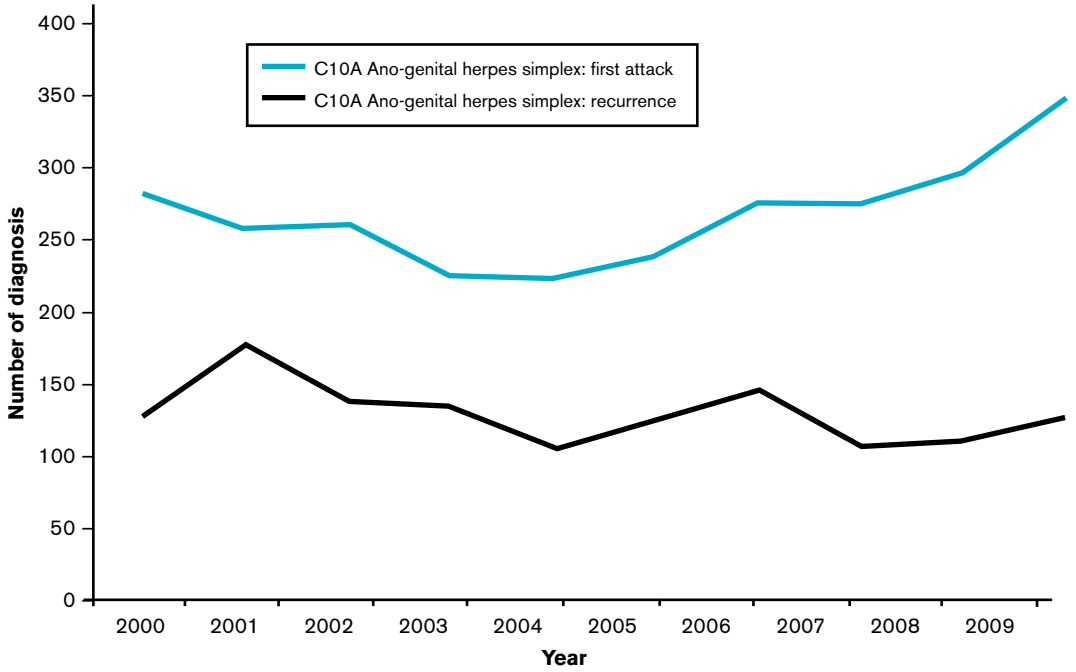
Genital herpes (first episodes) accounted for 5% (346/7,417) of all new STI diagnoses made in Northern Ireland GUM clinics during 2009.

- There were 473 episodes (first infections and recurrent infections) of genital herpes diagnosed at Northern Ireland GUM clinics in 2009, compared with 407 in 2008, an increase of 16%.
- 297 (63%) of these were diagnosed in females.
- 346 (73%) of the total attendances for herpes in 2009 were for treatment of first infection and 127 (27%) were for treatment of recurrent infection.
- 31% of male diagnoses (55/176) were recurrent infections, compared with 24% (72/297) of female diagnoses.
- The highest rates of first infection in females were diagnosed in the 16–19 years age group (88/100,000 population) and the highest rates in males were in the 20–24 years age group (56/100,000 population).
- Diagnostic rates of first infection in most age groups were higher in females. The rate in 16–19 year old females was six times higher than in males of the same age.
- 7% (9/121) of male first diagnoses occurred in MSM.

Trends: 2000–2009

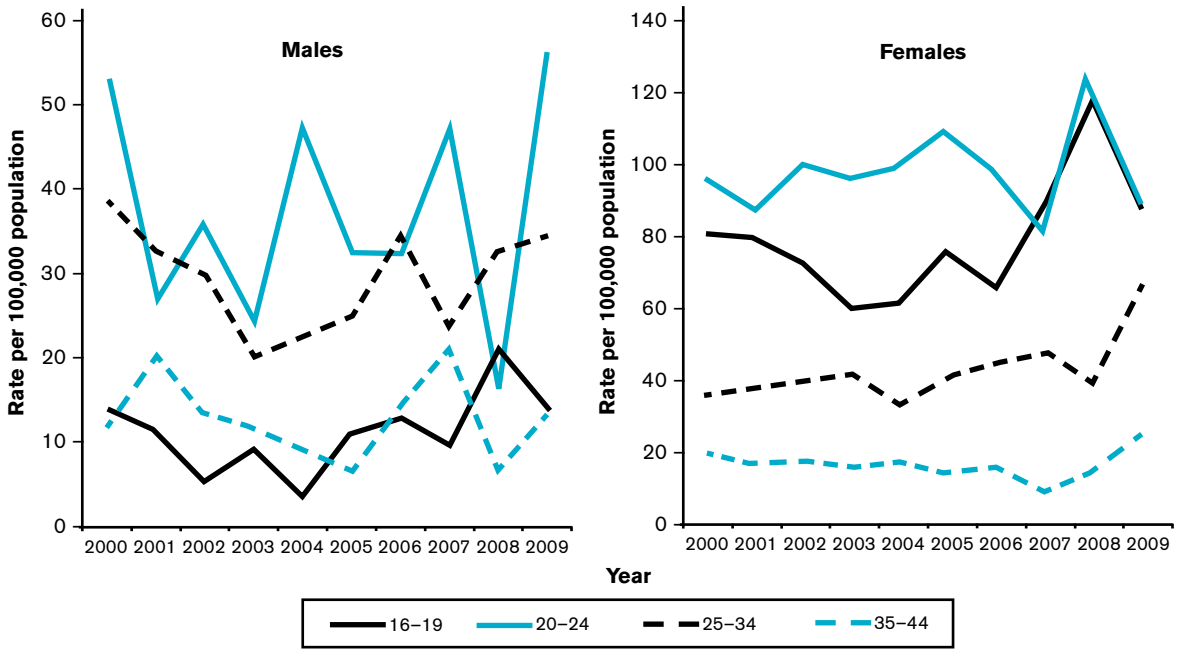
Annual numbers of first diagnoses of genital herpes have increased for the fifth successive year (Figure 4.1).

Figure 4.1: Diagnoses of genital herpes in Northern Ireland, 2000–2009



Age/gender/UK country of diagnosis trends: genital herpes (first attack)

Figure 4.2: Diagnoses of genital herpes (first attack) in Northern Ireland, by age and gender, 2000–2009

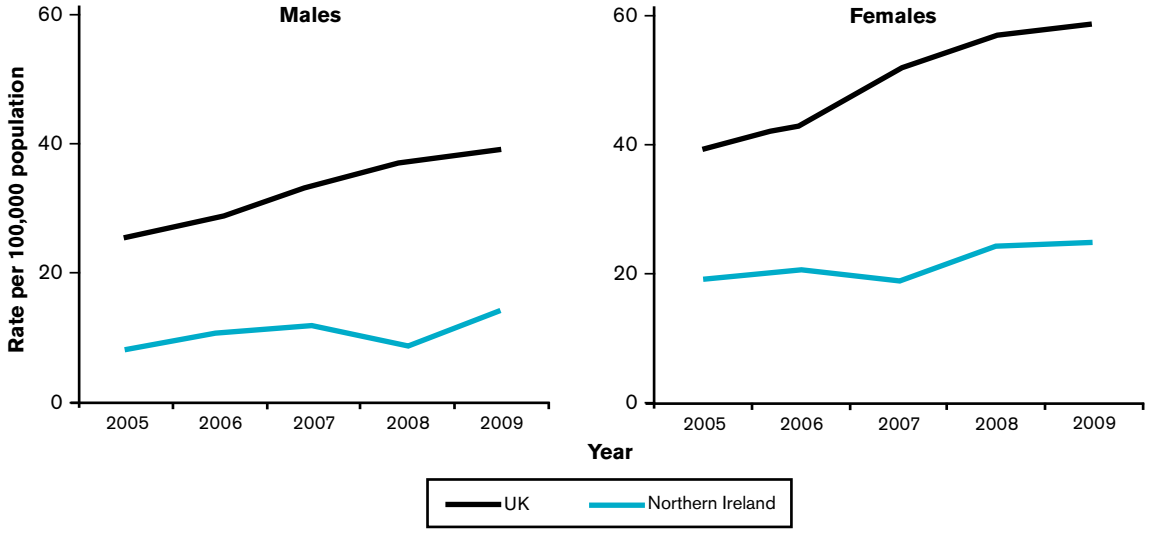


Diagnostic rates in females have been highest in the 16–24 years age group. In males, the highest rates are in the 20–24 years age group (Figure 4.2).

Males under 20 years of age account for 6.9% (60/868) of all male diagnoses of genital herpes (first attack) made during the period 2000–2009, with diagnoses in the 45+ years age group accounting for 9.4% (82/868).

Females aged under 16 years account for 1.2% (22/1,808) of all female diagnoses made during the period 2000–2009, with diagnoses in the 45+ years age group accounting for 5% (91/1,808).

Figure 4.3: Rates of genital herpes (first attack) by gender and country, 2005–2009



Diagnostic rates of infection are lower in both males and females in Northern Ireland compared with elsewhere in the UK, although rates are increasing both in Northern Ireland and the UK overall (Figure 4.3).

5: Genital warts

Genital warts are caused by human papillomavirus (HPV). More than 90 HPV types have been identified, of which approximately one third are sexually acquired. Although around 20 different types of HPV have been linked to cervical cancer, these particular types are less frequently linked to genital warts.

HPV vaccine was introduced as a school-based programme in Northern Ireland in 2008/09. This vaccine targets the oncogenic types 16 and 18, but not those types causing genital warts.[2]

Diagnostic rates for first episodes of genital warts in Northern Ireland are lower than the UK overall.

Diagnoses made in GUM clinics during 2009

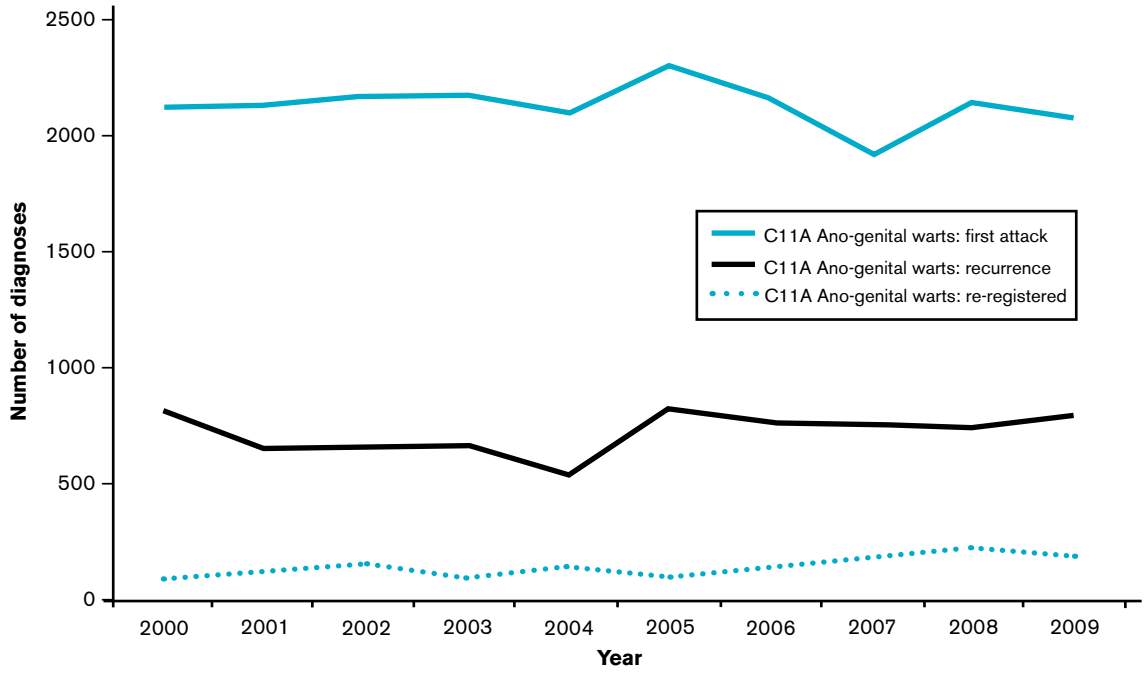
Genital warts (first episodes) accounted for 28% (2,086/7,417) of all new STI diagnoses made in Northern Ireland GUM clinics during 2009.

- There were 2,882 episodes (first infections and recurrent infections) of genital warts diagnosed at Northern Ireland GUM clinics in 2009, compared with 2,886 in 2008.
- 1,637 (57%) of these were diagnosed in males.
- 2,086 (72%) of the total attendances for genital warts in 2009 were for treatment of first infection and 796 (28%) were for treatment of recurrent infection.
- 29% of male diagnoses (477/1,637) were recurrent infections, compared with 26% (319/1,245) of female diagnoses.
- The highest diagnostic rates of first infection in both men and women were in the
- 20–24 years age group.
- 38% of male diagnoses and 36% of female diagnoses of first infection were in the 20–24 years age group.
- The diagnostic rate in females aged 16–19 years (443/100,000) was more than twice that of males the same age. However, rates in those aged over 19 years were higher in males.
- 6% (73/1,160) of male first diagnoses occurred in MSM.

Trends: 2000–2009

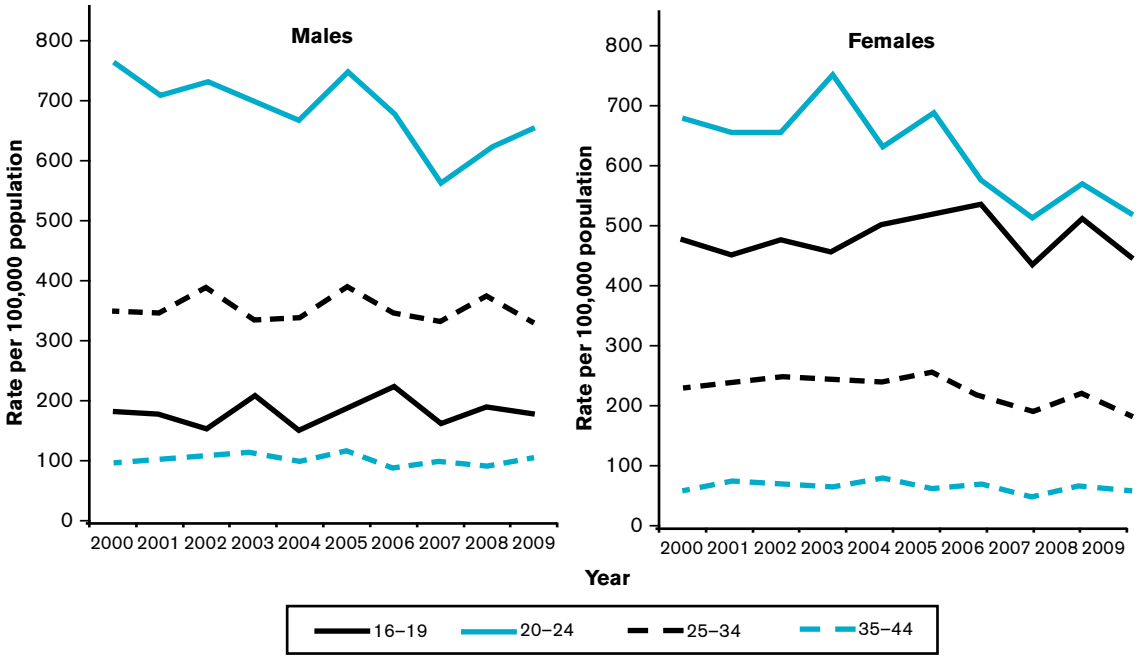
Diagnoses of first infections of genital warts have shown little variation since 2000. Diagnoses have decreased by 1.5% between 2000 (2,117) and 2009 (2,086) (Figure 5.1). Diagnostic rates tend to be higher overall in males.

Figure 5.1: Diagnoses of genital warts in Northern Ireland, 2000–2009



Age/gender/UK country of diagnosis trends: genital warts (first attack)

Figure 5.2: Rates of genital warts (first attack) in Northern Ireland, by age and gender, 2000–2009

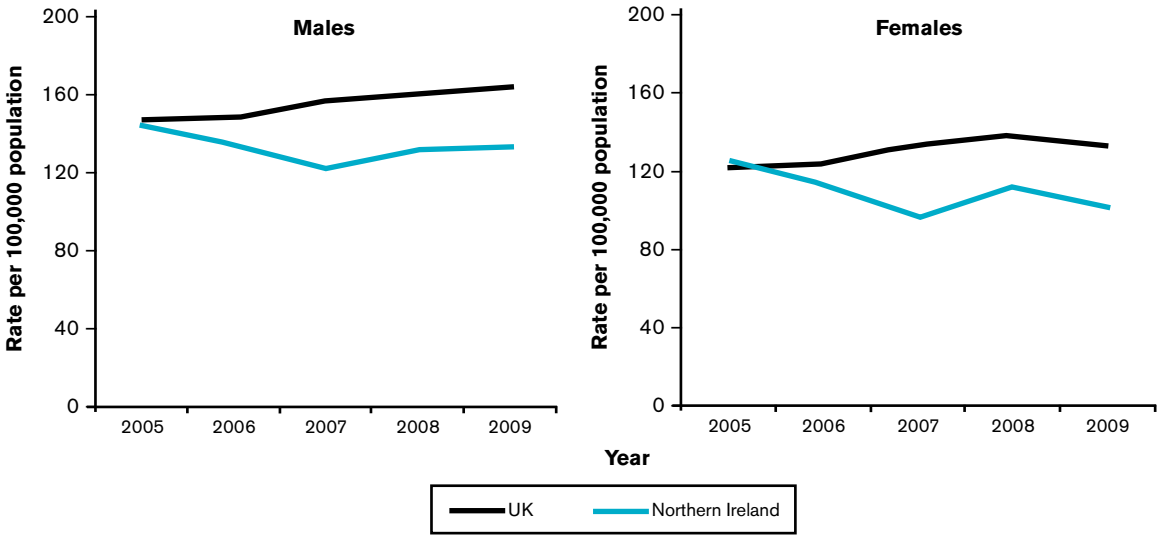


Diagnostic rates in females have been highest in the 16–24 years age group, peaking between 20 and 24 years. In males, the highest rates are in the 20–34 years age group, also peaking between 20 and 24 years. Rates in those under 20 years have been consistently higher in females than males, whereas rates in age groups over 20 years have been higher in males (Figure 5.2).

Those under 16 years of age accounted for 0.4% (95/21,320) of all diagnoses (first attack) made during the period 2000–2009, while the 45+ years age group accounted for 4.4% (935/21,320).

The proportion of male diagnoses attributed to MSM has remained stable between 2% and 6% since 2000.

Figure 5.3: Rates of genital warts (first attack), by gender and country, 2005–2009



Diagnostic rates in both males and females in Northern Ireland are lower than the UK overall (Figure 5.3).

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 preceding decade, on average only one case of infectious syphilis per year was reported.

Reports from enhanced syphilis surveillance arrangements

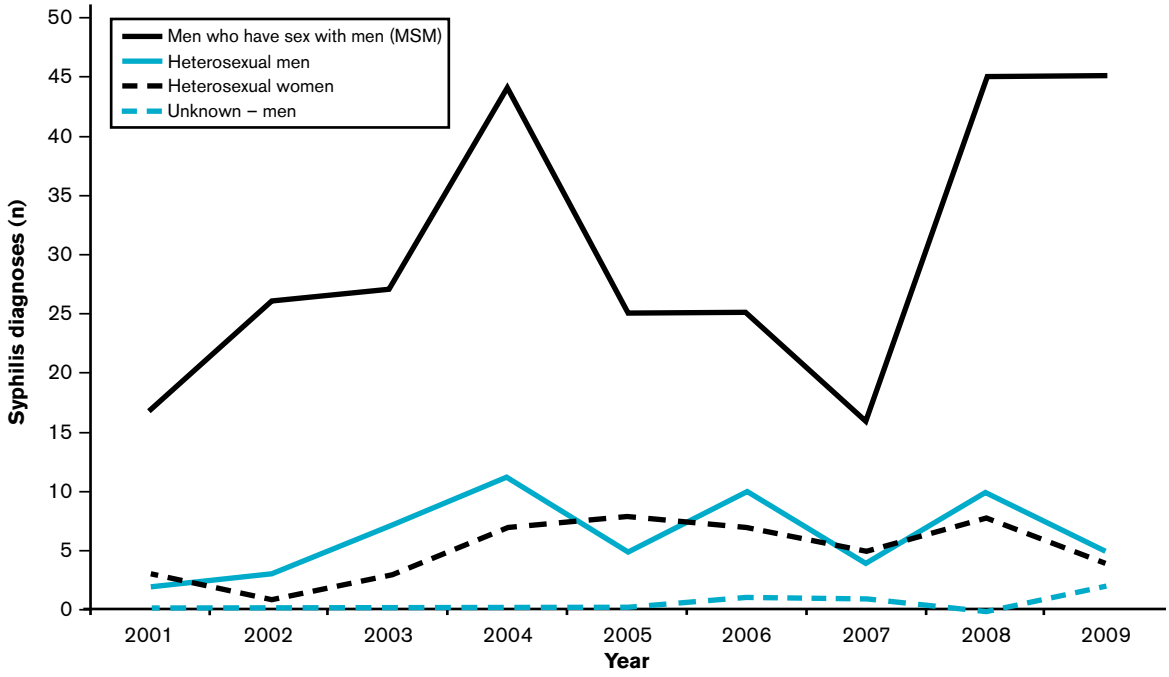
During 2009:

- 56 new episodes of infectious syphilis, representing 56 individuals, were diagnosed;
- 12 presented as primary syphilis, 14 as secondary syphilis and 24 as early latent syphilis;
- for six episodes, the stage of illness was not known;
- 80% (45/56) of episodes were diagnosed in MSM;
- 47 episodes occurred in Northern Ireland residents and in 41 episodes, syphilis was likely to have been acquired through exposure within Northern Ireland;
- diagnosed co-infections included HIV, hepatitis A, chlamydia, gonorrhoea, genital herpes, genital warts and non-specific urethritis (NSU);
- 43% (24/56) reported one sexual partner in the three months preceding diagnosis;
- the highest number of reported sexual partners in the preceding three months was 14.

Trend information

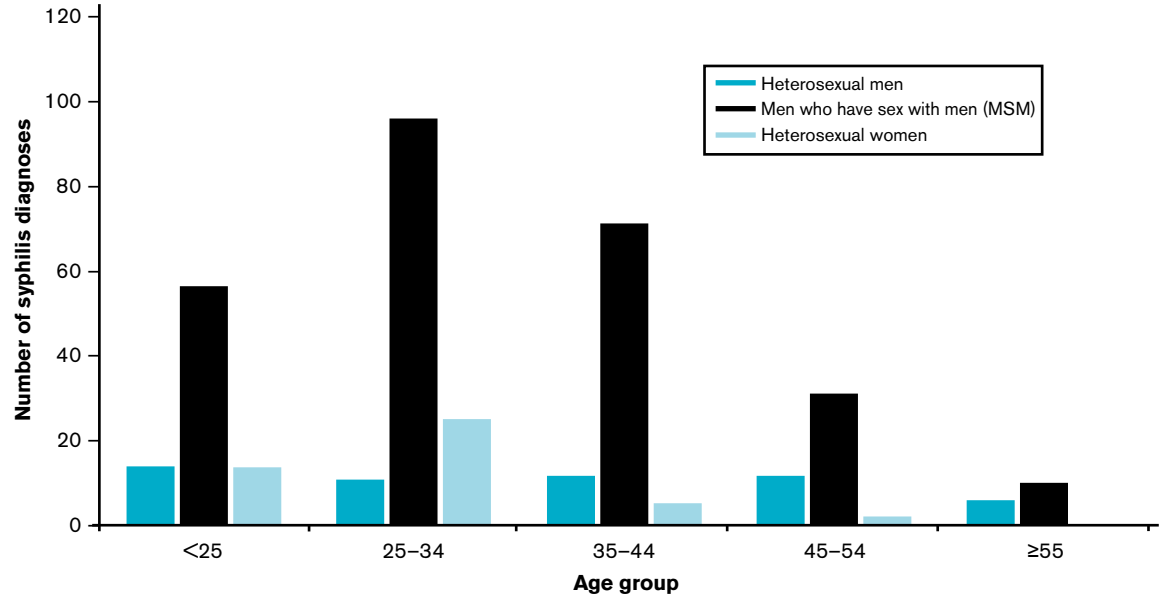
While there is no overall annual trend since the outbreak began in 2000, it is clear that infectious syphilis is now endemic within Northern Ireland. One individual presented with infectious syphilis to the GUM clinic in 2000 (this episode has been excluded from the below analysis). Overall, there have been 377 new episodes of infectious syphilis: 22 in 2001, 30 in 2002, 37 in 2003, 62 in 2004, 38 in 2005, 43 in 2006, 26 in 2007, 63 in 2008 and 56 in 2009. The outbreak continues to involve predominantly MSM, accounting for 72% (270/377) of diagnoses to the end of 2009. Episodes in heterosexual males and females have accounted for between 13% and 40% of annual totals. Fifty five percent of heterosexually acquired episodes have been in males (Figure 6.1).

Figure 6.1: Number of syphilis diagnoses in Northern Ireland, by gender and sexual orientation, 2001–2009



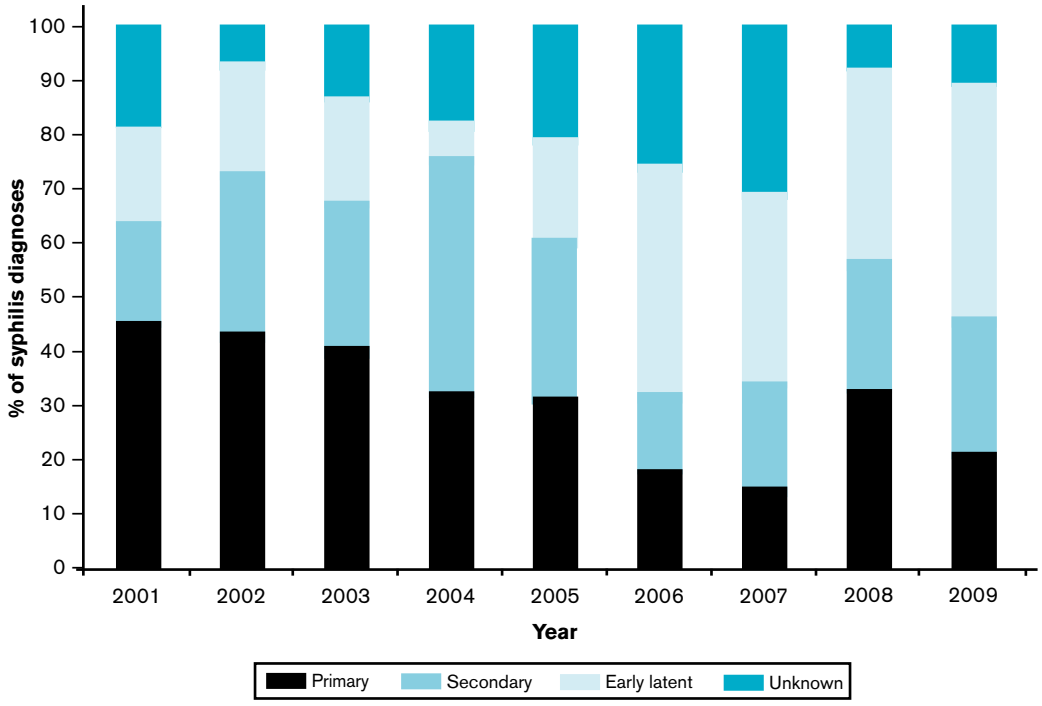
Analysis of cumulative data by age and sexual orientation shows the highest number of episodes in heterosexual females was in the 25–34 years age group (54%, 25/46). In MSM, the highest number of episodes was in the 25–44 years age group (62%, 167/270). In heterosexual males, diagnoses were more evenly spread across the age bands, with those aged 25+ years accounting for 72% (41/57) of diagnoses in this category (Figure 6.2).

Figure 6.2: Age distribution of syphilis diagnoses in Northern Ireland, by gender and sexual orientation, 2001–2009



From 2001 to 2005, there was little variation in the stage of disease at which diagnosis was made, with primary and secondary stages accounting for 82% (131/159) of episodes for which this information was available. During 2006 and 2007, this fell to 46% (23/50). However, 2008 and 2009 have seen an increase in the primary and secondary stages of diagnosis to 62% (36/58) and 52% (26/50) respectively. The number of episodes with an unknown stage has decreased to 11%, compared with 31% in 2007 (Figure 6.3).

Figure 6.3: Stage of disease, by year of diagnosis



While initial episodes were linked to an outbreak among MSM in Dublin, the majority of episodes in both MSM and heterosexuals have been acquired in Northern Ireland (Table 6.1).

Table 6.1: Location of acquisition of syphilis infection diagnosed in Northern Ireland, 2001–2009

Year	Dublin	Northern Ireland	Elsewhere in the UK	Outside UK/ROI	ROI (excluding Dublin)
2001	9	*	*	*	0
2002	*	18	*	*	*
2003	*	23	*	*	*
2004	*	43	7	*	0
2005	*	24	*	5	*
2006	*	21	5	11	0
2007	0	14	0	5	0
2008	*	38	*	9	*
2009	*	41	*	*	0

Mathematical modelling of the transmission of sexually transmitted infections has shown how those individuals with high rates of partner change play a disproportionately large role in the spread of infection. Cumulative data from 2001–2009 show that the majority of cases reported between zero to two partners (68%: 257/377) in the three months prior to diagnosis. It is noteworthy, however, that 3% (11/377) reported 20 or more partners during this period.

7: Lymphogranuloma venereum (LGV)

Lymphogranuloma venereum (LGV) is a bacterial infection caused by a specific type of *Chlamydia trachomatis* (serovars L1, L2 and L3). LGV is highly prevalent in parts of Africa, Asia, and Central and South America. For many years, LGV has been rare in Western Europe, with the majority of cases being imported. However, since 2003 a series of outbreaks have emerged across different countries in Europe. The majority of cases seen in the UK have been HIV positive white MSM. The most common presentation is proctitis.[3]

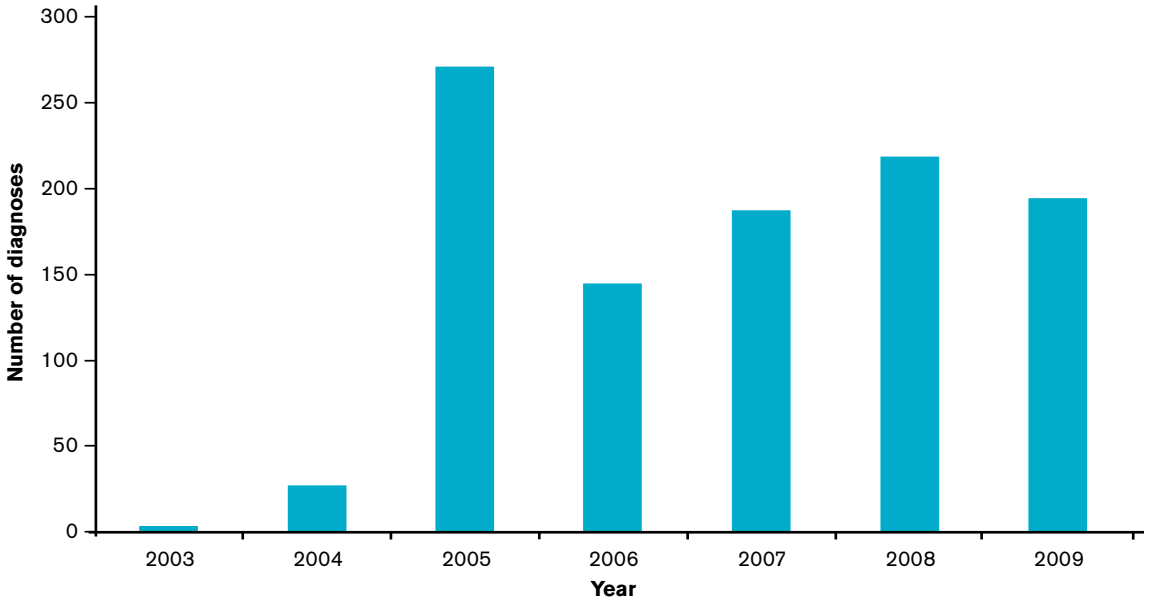
Reports from enhanced LGV surveillance arrangements

During 2009:

- seven new LGV cases were diagnosed at Northern Ireland GUM clinics – all were white MSM;
- the median age of cases was 28 years, range 20–44 years;
- three out of the seven cases were HIV positive.

Trends: 2003–2009

Figure 7.1: United Kingdom LGV diagnoses, by year of diagnosis



Compared with the rest of the UK, Northern Ireland has had very few cases of LGV over recent years. There was only one diagnosis made prior to 2009.

8: HIV

HIV/AIDS is a viral infection caused by type 1 and type 2 HIV retroviruses. Modes of transmission include sexual contact, the sharing of HIV contaminated needles and syringes, and transmission from mother to child before, during or shortly after birth. Although the risk of HIV transmission through sexual contact is lower than for most other sexually transmitted agents, this risk is increased in the presence of another sexually transmitted illness, particularly where ulcerative. Early treatment of the disease with highly active antiretroviral therapy (HAART) has made major advances in survival rates.

The World Health Organization (WHO) reported that there were 33.4 million people living with HIV in 2008 (31.3 million adults and 2.1 million children), of whom 2.7 million were newly diagnosed.[4] During 2009, 6,629 new HIV diagnoses were made in the UK.[5] While prevalence in Northern Ireland remains lower than the other UK countries, annual new diagnoses have increased year on year since 2001, almost doubling between 2003 and 2004. Diagnoses increased by 49% between 2007 (61) and 2008 (91) but decreased in 2009 by 25% to 68. Provisional data for the first six months of 2010 (42) suggests a potential increase in the annual figure. The key routes of transmission remain sexual contact involving MSM and sexual contact between men and women.

During 2009:

- 68 new first-UK cases of HIV were diagnosed in Northern Ireland, a rate of 3.8 per 100,000 population (6.1 per 100,000 males and 1.5 per 100,000 women);
- 56% of diagnoses occurred in MSM;
- 424 HIV-infected residents of Northern Ireland (as defined when last seen for statutory medical HIV-related care in 2009) received care;
- Of those receiving care, 48% (202/424) acquired their infection through sexual contact between MSM and 48% (204/424) through heterosexual contact;
- 12,920 HIV tests were carried out in Northern Ireland GUM clinics.

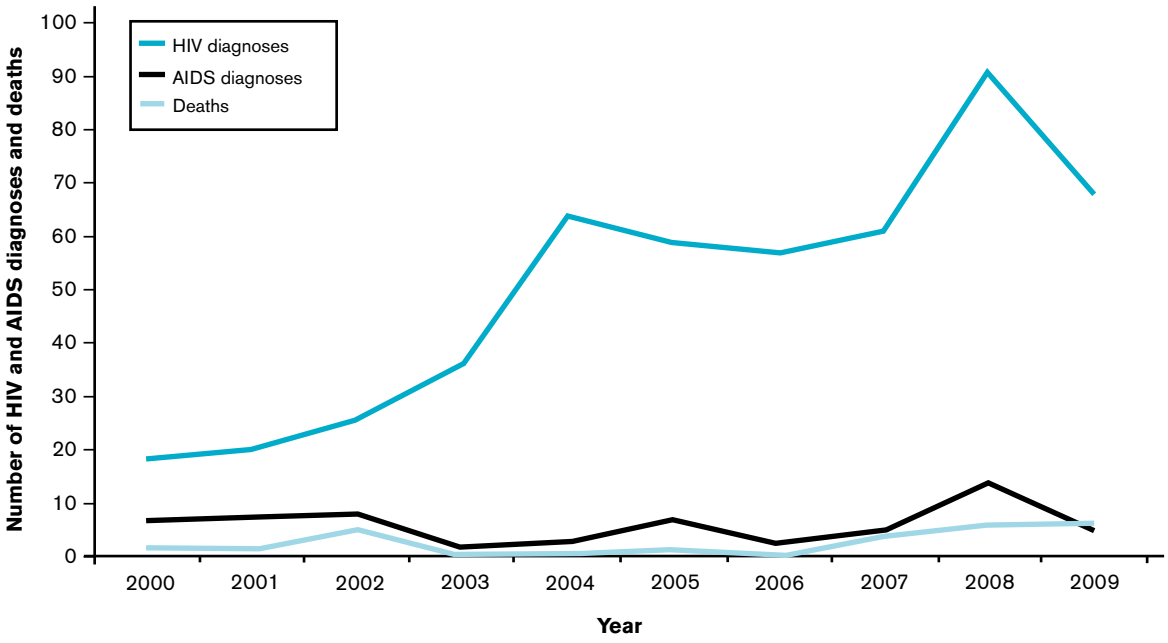
Trend information

The annual number of new first-UK diagnoses made in Northern Ireland decreased by 25% from 91 in 2008 to 68 in 2009 (Figure 8.1). Compared with the rest of the UK, Northern Ireland has had the largest proportional increase (278%) in new HIV diagnoses between 2000 and 2009 (Table 8.1).

Table 8.1 New HIV diagnoses, by country

Country	2000	2008	2009	% +/– 2000–2009	% +/– 2008–2009
England	3,721	6,820	6,112	64%	-10%
Wales	46	149	142	209%	-5%
Scotland	147	326	307	109%	-6%
Northern Ireland	18	91	68	278%	-25%
UK	**3,932**	**7,386**	**6,629**	**69%**	**-10%**

Figure 8.1: New HIV and AIDS diagnoses in Northern Ireland, and deaths among HIV-infected individuals, 2000–2009



The annual number of new AIDS diagnoses has also seen a decrease during 2009, with five reported, compared with 14 in 2008. Death figures remain low, due largely to the influence of HAART (Table 8.2).

Table 8.2: HIV and AIDS cases in Northern Ireland, by year of diagnosis, and deaths in HIV-infected individuals, by year of death

Year	HIV diagnoses	AIDS diagnoses	Deaths
1994 or earlier	131	58	41
1995	13	13	8
1996	18	*	9
1997	10	*	*
1998	9	*	*
1999	18	7	*
2000	18	7	*
2001	20	8	*
2002	26	8	5
2003	36	*	0
2004	64	*	0
2005	59	7	*
2006	57	*	0
2007	61	5	*
2008	91	14	6
2009	68	5	6
Total	**699**	**146**	**89**

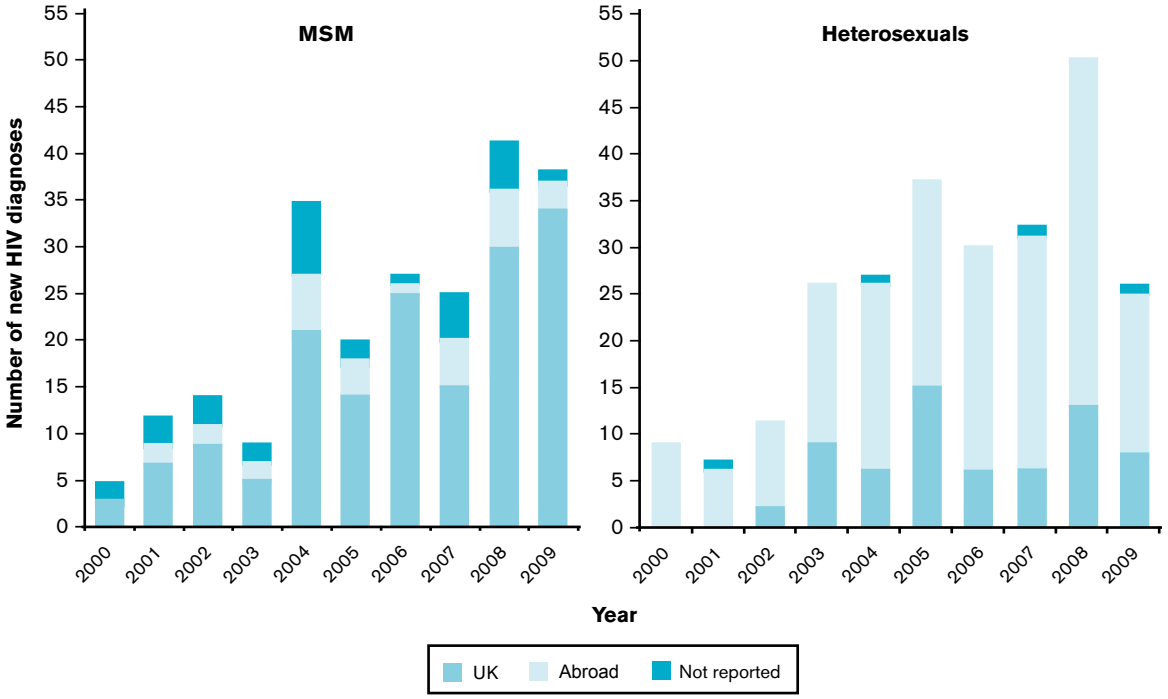
Table 8.3: HIV-infected individuals in Northern Ireland, by year of diagnosis and probable route of infection

Year of diagnosis	Sex between men (MSM)	Sex between men and women
1994 or earlier	76	27
1995	9	*
1996	13	5
1997	7	*
1998	6	*
1999	7	9
2000	5	9
2001	12	7
2002	14	11
2003	9	26
2004	35	27
2005	20	37
2006	27	30
2007	25	32
2008	41	50
2009	38	26
Total	**344**	**306**

Analysis of trends of the probable route of exposure is complicated by the small number of cases in each category and the potential for year to year variation. Sex between men and sex between men and women remain the most significant categories of probable route of infection, accounting for 93% (650/699) of new diagnoses to date (Table 8.3). Heterosexual transmission has assumed increasing importance since 2002 and now accounts for 44% (306/699) of new diagnoses made to date. However, MSM exposure accounted for 56% of new diagnoses in 2009 (38/68) and has accounted for 49% (344/699) of new diagnoses made to date. There have, to date, been 16 new diagnoses acquired through injecting drug use and 33 diagnoses acquired through other/undetermined causes.

Cumulative data from 2000–2009 show that for cases acquired through heterosexual exposure, and where location of exposure is known, the majority have been infected through exposure outside the UK (74%, 186/251). For cases acquired through MSM exposure, the opposite applies, with the majority infected within the UK (84%, 163/194) (Figure 8.2). The numbers in the other exposure categories remain low.

Figure 8.2: New HIV diagnoses in Northern Ireland, by region of infection, 2000–2009



Diagnostic rates have been higher overall in males between 2000–2009, with peak rates in the 25–34 and 35–44 years age groups. In females, rates are highest in those aged 25–34. Those under 16 years of age accounted for 1.2% (6/500) of all HIV diagnoses made during the period 2000–2009.

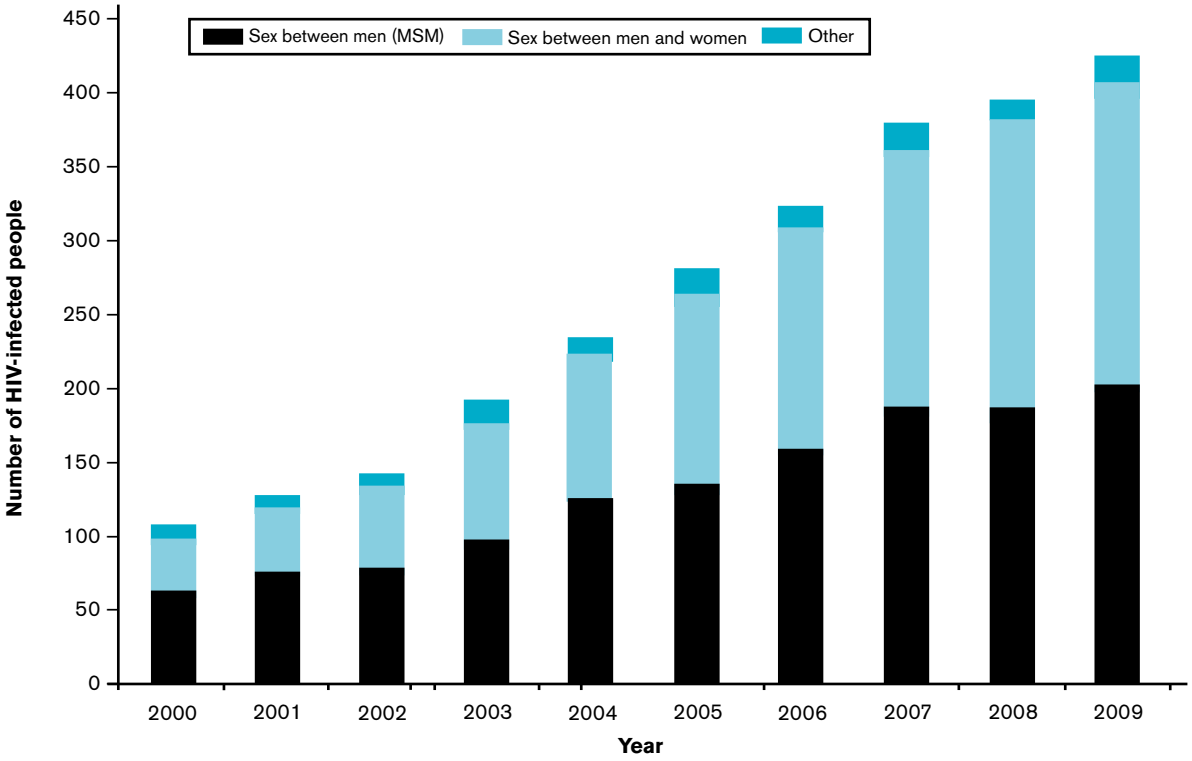
CD4 surveillance

Analysis of CD4 cell counts, combined with other HIV surveillance data, provides information on late diagnoses, trends in immunosuppression and the population effect of antiretroviral therapy. Laboratories across Northern Ireland, England and Wales participate in the surveillance scheme.[6] A cell count of less than 200 cells/mm^3 at diagnosis is an indicator that the individual has been diagnosed late in the course of their infection, when the prognosis is worse.

In Northern Ireland, the median CD4 cell count within 91 days of diagnosis was 410 in 2009. The proportion of CD4 counts less than 200cells/mm^3 within 91 days of diagnosis was 21% (13/62).

Analysis of UK data in 2008 shows that MSM are least likely to be diagnosed late in the course of their infection, followed by heterosexual females and then heterosexual males.[7]

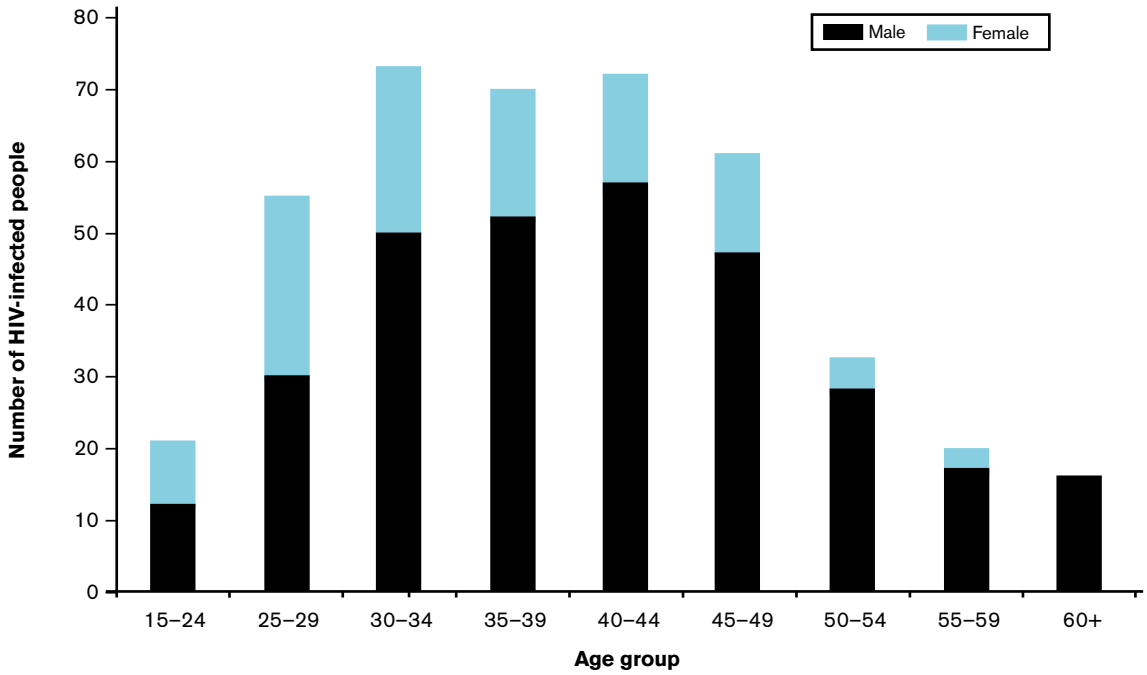
Figure 8.3: Number of people accessing HIV-related care in Northern Ireland, 2000–2009



There were 424 people living in Northern Ireland with diagnosed HIV infection (310 men and 114 women) who accessed care in 2009. This represents a 7% increase on 2008 (396) and more than a four-fold rise since 2000 (105) (Figure 8.3). These figures reflect both the continued increase in new diagnoses and the role of HAART in increasing survival rates.

Of those receiving care during 2009, 40% (171/424) were resident in the Belfast Local Commissioning Group (LCG) area, 18% (77/424) in the Northern LCG area, 15% in both the South Eastern (63/424) and Southern (65/424) LCG areas, 9% (39/424) in the Western LCG area, and for 2%, the area of residence was unknown.

Figure 8.4: Number of people accessing HIV-related care in Northern Ireland, by age and gender, 2009



The majority of people receiving care in 2009 were aged between 30 and 44 years (51%, 215/424) (Figure 8.4). Fewer than five people aged under 14 years accessed care during 2009.

HIV testing

Recent guidelines have re-emphasised the importance of HIV testing in key healthcare settings.[8] During 2009, 12,920 HIV tests were carried out in Northern Ireland GUM clinics, a 57% increase on 2005 (8,213). Uptake of antenatal HIV screening has been high in recent years.[9]

9: Summary and conclusions

Although the annual number of new STI diagnoses made in Northern Ireland GUM clinics remains similar to that reported in 2008, there has been an overall upward trend in recent years.

Together, chlamydia and genital warts account for 66% of all new STI diagnoses made in Northern Ireland GUM clinics in 2009. The groups most at risk are 20–34 year old males and 16–24 year old females.

While the number of new diagnoses of HIV in 2009 fell compared with 2008, this analysis masks continued high numbers of infections acquired by MSM. Provisional data for 2010 suggest the annual total may increase further.

MSM are the group at highest risk of acquiring gonorrhoea, infectious syphilis and now LGV.

MSM are also the group most at risk of acquiring HIV through sexual exposure in the United Kingdom.

Recommendations

- Safer sex messages should continue to be promoted to the general population, young people and MSM – the risks of unprotected casual sex, both within and outside Northern Ireland, need to be made clear.

- The implementation of guidance on HIV testing and provision of post-exposure prophylaxis should continue to be reinforced.

- There should be a renewed focus on reinforcing prevention messages and promoting regular HIV testing among MSM.

- The feasibility of improving the participation of MSM in behavioural surveillance initiatives should be examined.

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Appendix 1: Number of new episodes of selected diagnoses by gender and age group, Northern Ireland, 2000-2009

		2000			2001			2002			2003			2004			2005			2006			2007			2008			2009		
		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	0	6	6	0	6	6	*	*	7	0	7	7	0	13	13	0	9	9	*	*	22	*	*	11	*	*	13	0	8	8
	16-19	50	118	168	47	149	196	44	136	180	81	180	261	72	206	278	75	215	290	87	220	307	115	206	321	93	243	336	113	236	349
	20-24	154	200	354	174	177	351	228	304	532	248	294	542	326	333	659	334	396	730	445	458	903	375	342	717	477	385	862	447	327	774
	25-34	214	130	344	192	117	309	209	147	356	236	151	387	247	159	406	303	184	487	362	239	601	365	205	570	371	220	591	416	201	617
	35-44	54	22	76	47	17	64	58	24	82	60	26	86	46	32	78	54	38	92	80	39	119	65	36	101	76	27	103	81	39	120
	45+	8	7	15	13	8	21	*	*	13	20	5	25	12	7	19	17	6	23	*	*	27	*	*	23	*	*	41	33	5	38
	Total	**480**	**483**	**963**	**473**	**474**	**947**	**548**	**622**	**1,170**	**645**	**663**	**1,308**	**703**	**750**	**1,453**	**783**	**848**	**1,631**	**993**	**986**	**1,979**	**938**	**805**	**1,743**	**1,050**	**896**	**1,946**	**1,090**	**816**	**1,906**
	% in MSM	*2%*			*3%*			*2%*			*4%*			*4%*			*7%*			*6%*			*4%*			*4%*			*11%*		
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
	16-19	18	10	28	22	7	29	7	0	7	8	8	16	17	8	25	*	*	17	*	*	15	27	7	34	15	5	20	19	8	27
	20-24	31	5	36	*	*	37	*	*	39	45	10	55	32	5	37	47	13	60	58	17	75	44	7	51	56	10	66	36	15	51
	25-34	*	*	49	42	10	52	45	6	51	42	6	48	*	*	49	*	*	58	55	7	62	*	*	49	58	13	71	69	8	77
	35-44	*	*	22	*	*	24	14	0	14	*	*	28	*	*	10	*	*	38	*	*	32	*	*	21	*	*	45	*	*	16
	45+	*	*	*	6	0	6	*	0	*	*	*	7	*	*	*	*	*	9	*	*	11	17	0	17	*	*	24	*	*	9
	Total	**119**	**24**	**143**	**127**	**21**	**148**	**106**	**11**	**117**	**127**	**27**	**154**	**105**	**19**	**124**	**162**	**20**	**182**	**163**	**32**	**195**	**155**	**17**	**172**	**194**	**32**	**226**	**148**	**32**	**180**
	% in MSM	*9%*			*18%*			*11%*			*31%*			*23%*			*40%*			*24%*			*29%*			*29%*			*29%*		
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
	16-19	0	0	0	0	0	0	*	0	*	0	0	0	0	0	0	*	0	*	0	*	*	*	0	*	*	0	*	0	0	0
	20-24	0	0	0	0	*	*	*	0	*	*	0	*	5	5	10	5	0	5	*	*	13	5	0	5	*	*	10	*	*	*
	25-34	0	0	0	*	*	6	*	0	*	5	0	5	*	*	11	*	*	9	10	0	10	*	*	9	*	*	10	*	*	11
	35-44	0	0	0	*	0	*	5	0	5	*	0	*	*	*	15	12	0	12	*	0	*	*	0	*	*	0	*	9	0	9
	45+	0	0	0	*	0	*	9	0	9	*	0	*	5	0	5	5	*	*	*	0	*	*	0	*	8	0	8	6	0	6
	Total	**0**	**0**	**0**	*	*	**11**	**19**	**0**	**19**	**10**	**0**	**10**	**31**	**10**	**41**	**29**	**5**	**34**	*	*	**30**	*	*	**22**	*	*	**33**	*	*	**29**
	% in MSM	*0%*			*89%*			*47%*			*50%*			*68%*			*66%*			*52%*			*52%*			*45%*			*78%*		
Herpes	<16	0	*	*	0	*	*	0	5	5	*	*	*	0	*	*	*	*	*	0	*	*	0	*	*	0	*	*	0	*	*
	16-19	7	40	47	6	40	46	*	*	40	5	31	36	*	*	34	6	39	45	7	33	40	5	44	49	11	58	69	7	43	50
	20-24	29	52	81	15	48	63	20	54	74	14	53	67	28	56	84	20	64	84	21	60	81	32	53	85	11	78	89	38	56	94
	25-34	47	45	92	39	47	86	35	48	83	23	49	72	25	39	64	28	46	74	39	52	91	27	55	82	38	47	85	41	80	121
	35-44	14	25	39	24	22	46	16	22	38	14	21	35	11	22	33	8	19	27	18	21	39	26	13	39	8	19	27	17	32	49
	45+	11	*	*	*	*	*	*	*	19	*	*	*	*	*	*	*	*	*	6	*	*	13	*	*	10	*	*	18	*	*	
	Total	**108**	**173**	**281**	**93**	**165**	**258**	**79**	**180**	**259**	**60**	**166**	**226**	**69**	**153**	**222**	**66**	**172**	**238**	**91**	**183**	**274**	**103**	**173**	**276**	**78**	**218**	**296**	**121**	**225**	**346**
	% in MSM	*3%*			*3%*			*1%*			*5%*			*7%*			*8%*			*2%*			*4%*			*6%*			*7%*		
Warts	<16	5	7	12	*	*	9	*	*	6	*	*	9	0	9	9	0	6	6	*	*	11	*	*	5	*	*	10	*	*	18
	16-19	93	236	329	95	229	324	84	243	327	115	235	350	86	259	345	103	267	370	122	270	392	88	216	304	100	253	353	95	217	312
	20-24	417	366	783	393	358	751	409	357	766	401	411	812	397	358	755	460	403	863	440	356	796	384	326	710	419	369	788	444	334	778
	25-34	429	287	716	422	297	719	458	298	756	386	287	673	387	278	665	443	296	739	401	249	650	387	227	614	439	262	701	400	221	621
	35-44	118	78	196	132	95	227	138	95	233	149	91	240	133	110	243	150	89	239	123	95	218	131	70	201	119	88	207	138	86	224
	45+	56	25	81	*	*	100	*	*	88	*	*	92	56	28	84	52	37	89	*	*	89	*	*	95	*	*	84	*	*	133
	Total	**1,118**	**999**	**2,117**	**1,107**	**1,023**	**2,130**	**1,147**	**1,029**	**2,176**	**1,111**	**1,065**	**2,176**	**1,059**	**1,042**	**2,101**	**1,208**	**1,098**	**2,306**	**1,142**	**1,014**	**2,156**	**1,050**	**879**	**1,929**	**1,132**	**1,011**	**2,143**	**1,160**	**926**	**2,086**
	% in MSM	*2%*			*3%*			*2%*			*2%*			*3%*			*3%*			*2%*			*3%*			*2%*			*6%*		
Total diagnoses		6,141	5,031	11,172	6,048	5,252	11,300	6,185	5,682	11,867	5,823	5,727	11,550	5,723	5,784	11,507	6,316	6,531	12,847	6,292	5,718	12,010	6,211	5,111	11,322	6,546	5,787	12,333	6,966	5,356	12,322
Total workload		3,658	2,872	6,530	4,435	3,451	7,886	5,128	3,616	8,744	7,188	6,021	13,209	7,327	7,056	14,383	9,302	7,542	16,844	8,871	7,104	15,975	8,480	6,488	14,968	9,897	8,321	18,218	11,903	9,698	21,601

Notes on using these tables:

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

* 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 astrix. 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	uncomplicated genital chlamydial infection, KC60 code C4a, C4c
Gonorrhoea	uncomplicated gonorrhoea, KC60 code B1, B2
Syphilis	primary and secondary infectious syphilis, KC60 code A1, A2
Herpes	anogenital herpes simplex (first attack), KC60 code C10a
Warts	anogenital warts (first attack), KC60 code C11a
Total diagnoses	all diagnoses made, includes all A, B, C and E KC60 codes
Total workload	all workload not requiring a diagnoses, includes all D, P and S KC60 codes

Appendix 2: Rates of new episodes of selected diagnoses by gender and age group, Northern Ireland, 2000-2009

		2000			2001			2002			2003			2004			2005			2006			2007			2008			2009		
		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	0.0	15.1	7.4	0.0	15.2	7.4	*	*	8.7	0.0	18.1	8.8	0.0	33.9	16.5	0.0	23.6	11.5	*	*	28.5	*	*	14.5	*	*	17.4	0.0	22.2	10.8
	16-19	98.2	236.6	166.6	90.2	294.3	190.7	81.8	264.7	171.1	148.3	347.8	245.4	131.3	398.1	260.8	137.4	417.4	273.3	162.2	434.0	294.3	219.4	413.7	314.1	179.2	491.3	331.5	220.0	482.0	347.8
	20-24	281.0	366.5	323.7	313.2	322.8	318.0	407.5	554.7	480.3	430.7	532.4	480.5	548.6	582.5	565.2	541.1	669.1	603.8	683.9	738.6	710.6	551.7	531.4	541.8	703.1	592.0	648.7	659.4	506.2	584.7
	25-34	175.0	104.1	139.1	160.1	95.2	127.3	178.1	122.1	149.8	205.4	128.2	166.3	219.2	137.0	177.5	268.4	159.6	213.4	319.1	207.4	262.9	318.9	175.4	246.4	316.1	186.5	251.1	347.9	167.7	257.7
	35-44	45.2	17.8	31.2	38.7	13.4	25.8	47.0	18.7	32.6	48.2	20.1	33.9	36.7	24.5	30.5	42.8	29.0	35.7	63.1	29.6	46.0	51.2	27.3	39.0	60.1	20.6	40.0	64.6	30.2	47.1
	45+	3.0	2.2	2.6	4.8	2.5	3.6	*	*	2.2	7.1	1.5	4.1	4.2	2.1	3.1	5.8	1.8	3.6	*	*	4.2	*	*	3.5	*	*	6.2	10.4	1.4	5.6
	Total	**58.5**	**56.0**	**57.2**	**57.4**	**54.8**	**56.1**	**66.1**	**71.7**	**69.0**	**77.4**	**76.2**	**76.8**	**84.0**	**85.8**	**85.0**	**92.7**	**96.3**	**94.6**	**116.4**	**111.0**	**113.6**	**108.8**	**89.7**	**99.1**	**120.6**	**99.1**	**109.6**	**124.1**	**89.6**	**106.5**
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	16-19	35.3	20.0	27.8	42.2	13.8	28.2	13.0	0.0	6.7	14.6	15.5	15.0	31.0	15.5	23.5	*	*	16.0	*	*	14.4	51.5	14.1	33.3	28.9	10.1	19.7	37.0	16.3	26.9
	20-24	56.6	9.2	32.9	*	*	33.5	*	*	35.2	78.2	18.1	48.8	53.8	8.7	31.7	76.1	22.0	49.6	89.1	27.4	59.0	64.7	10.9	38.5	82.6	15.4	49.7	53.1	23.2	38.5
	25-34	*	*	19.8	35.0	8.1	21.4	38.3	5.0	21.5	36.6	5.1	20.6	*	*	21.4	*	*	25.4	48.5	6.1	27.1	*	*	21.2	49.4	11.0	30.2	57.7	6.7	32.2
	35-44	*	*	9.0	*	*	9.7	11.4	0.0	5.6	*	*	11.0	*	*	3.9	*	*	14.8	*	*	12.4	*	*	8.1	*	*	17.5	*	*	6.3
	45+	*	*	*	2.2	0.0	1.0	*	0.0	*	*	*	1.1	*	*	*	*	*	1.4	*	*	1.7	5.6	0.0	2.6	*	*	3.6	*	*	1.3
	Total	**14.5**	**2.8**	**8.5**	**15.4**	**2.4**	**8.8**	**12.8**	**1.3**	**6.9**	**15.2**	**3.1**	**9.0**	**12.6**	**2.2**	**7.3**	**19.2**	**2.3**	**10.6**	**19.1**	**3.6**	**11.2**	**18.0**	**1.9**	**9.8**	**22.3**	**3.5**	**12.7**	**16.8**	**3.5**	**10.1**
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
	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	*	0.0	*	*	*	0.0	*	*	0.0	3.0	0.0	0.0	0.0
	20-24	0.0	0.0	0.0	0.0	*	*	*	0.0	*	*	0.0	*	8.4	8.7	8.6	8.1	0.0	4.1	*	*	10.2	7.4	0.0	3.8	*	*	7.5	*	*	*
	25-34	0.0	0.0	0.0	*	*	2.5	*	0.0	*	4.4	0.0	2.1	*	*	4.8	*	*	3.9	8.8	0.0	4.4	*	*	3.9	*	*	4.3	*	*	4.6
	35-44	0.0	0.0	0.0	*	0.0	*	4.1	0.0	2.0	*	0.0	*	*	*	5.9	9.5	0.0	4.7	*	0.0	*	*	0.0	*	*	0.0	*	7.2	0.0	3.5
	45+	0.0	0.0	0.0	*	0.0	*	3.3	0.0	1.5	*	0.0	*	1.7	0.0	0.8	1.7	*	*	*	0.0	*	*	0.0	*	2.6	0.0	1.2	1.9	0.0	0.9
	Total	**0.0**	**0.0**	**0.0**	*	*	**0.7**	**2.3**	**0.0**	**1.1**	**1.2**	**0.0**	**0.6**	**3.7**	**1.1**	**2.4**	**3.4**	**0.6**	**2.0**	*	*	**1.7**	*	*	**1.3**	*	*	**1.9**	*	*	**1.6**
Herpes	<16	0.0	*	*	0.0	*	*	0.0	12.8	6.2	*	*	*	0.0	*	*	*	*	*	0.0	*	*	0.0	*	*	0.0	*	*	0.0	*	*
	16-19	13.7	80.2	46.6	11.5	79.0	44.8	*	*	38.0	9.2	59.9	33.8	*	*	31.9	11.0	75.7	42.4	13.1	65.1	38.3	9.5	88.4	47.9	21.2	117.3	68.1	13.6	87.8	49.8
	20-24	52.9	95.3	74.1	27.0	87.5	57.1	35.7	98.5	66.8	24.3	96.0	59.4	47.1	98.0	72.0	32.4	108.1	69.5	32.3	96.8	63.7	47.1	82.4	64.2	16.2	119.9	67.0	56.1	86.7	71.0
	25-34	38.4	36.0	37.2	32.5	38.2	35.4	29.8	39.9	34.9	20.0	41.6	30.9	22.2	33.6	28.0	24.8	39.9	32.4	34.4	45.1	39.8	23.6	47.1	35.4	32.4	39.8	36.1	34.3	66.7	50.5
	35-44	11.7	20.2	16.0	19.7	17.4	18.5	13.0	17.2	15.1	11.3	16.3	13.8	8.8	16.9	12.9	6.3	14.5	10.5	14.2	15.9	15.1	20.5	9.9	15.1	6.3	14.5	10.5	13.6	24.8	19.2
	45+	4.1	*	*	*	*	*	*	*	3.2	*	*	*	*	*	*	*	*	*	2.0	*	*	4.3	*	*	3.2	*	*	5.7	*	*
	Total	**13.2**	**20.1**	**16.7**	**11.3**	**19.1**	**15.3**	**9.5**	**20.7**	**15.3**	**7.2**	**19.1**	**13.3**	**8.2**	**17.5**	**13.0**	**7.8**	**19.5**	**13.8**	**10.7**	**20.6**	**15.7**	**11.9**	**19.3**	**15.7**	**9.0**	**24.1**	**16.7**	**13.8**	**24.7**	**19.3**
Warts	<16	12.0	17.7	14.8	*	*	11.1	*	*	7.5	*	*	11.3	0.0	23.4	11.4	0.0	15.7	7.7	*	*	14.2	*	*	6.6	*	*	13.4	*	*	24.3
	16-19	182.6	473.1	326.3	182.2	452.3	315.3	156.1	472.9	310.9	210.6	454.1	329.1	156.8	500.5	323.7	188.7	518.4	348.7	227.5	532.6	375.7	167.9	433.8	297.4	192.7	511.5	348.3	184.9	443.2	311.0
	20-24	761.0	670.6	715.9	707.4	652.9	680.3	730.9	651.4	691.6	696.5	744.2	719.8	668.0	626.2	647.5	745.2	681.0	713.8	676.2	574.1	626.4	564.9	506.5	536.5	617.6	567.4	593.0	655.0	517.1	587.7
	25-34	350.8	229.7	289.6	351.9	241.7	296.1	390.3	247.6	318.0	335.9	243.6	289.2	343.4	239.5	290.7	392.5	256.7	323.9	353.5	216.1	284.3	338.2	194.2	265.4	374.1	222.1	297.9	334.5	184.4	259.4
	35-44	98.9	63.0	80.6	108.6	75.1	91.5	111.9	74.1	92.7	119.8	70.4	94.2	106.2	84.4	95.0	118.8	67.8	92.8	97.0	72.0	84.3	103.3	53.1	77.7	94.0	67.3	80.4	110.0	66.5	87.9
	45+	21.0	8.0	14.0	*	*	17.0	*	*	14.7	*	*	15.1	19.5	8.4	13.6	17.7	11.0	14.1	*	*	13.8	*	*	14.5	*	*	12.6	*	*	19.6
	Total	**136.3**	**115.8**	**125.8**	**134.3**	**118.3**	**126.1**	**138.4**	**118.6**	**128.3**	**133.4**	**122.4**	**127.8**	**126.6**	**119.2**	**122.8**	**143.1**	**124.8**	**133.7**	**133.8**	**114.2**	**123.8**	**121.8**	**98.0**	**109.7**	**130.0**	**111.8**	**120.7**	**132.0**	**101.7**	**116.6**

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.

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Public Health Agency

DHSSPS

Department of Health, Social Services and Public Safety

www.dhsspsni.gov.uk

Public Health Agency, Ormeau Avenue Unit, 18 Ormeau Avenue, Belfast, BT2 8HS.
Tel: 028 9031 1611. Textphone/Text Relay: 18001 028 9031 1611.
www.publichealth.hscni.net

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