



GIG
CYMRU
NHS
WALES

Iechyd Cyhoeddus
Cymru
Public Health
Wales

HIV and STI trends in Wales

Surveillance Report, December 2013

Author: Communicable Disease Surveillance Centre

Date: December 2013

v1

Status: Approved

Intended Audience: Health professionals

Purpose and Summary of Documents:

This report presents the latest data on the rates of HIV/AIDS and other sexually transmitted infections (STI) in Wales. Data presented are complete to the end of December 2012.

Publication/Distribution:

- Publication on Public Health Wales intranet and internet
- E-mail notification of publication to stakeholders
- Link from Public Health Wales e-Bulletin
- Publication in Public Health Wales Document Database (Community surveillance)

1: Key findings

- Since 2010, there has been a general increase in the number of diagnoses of sexually transmitted infections (STIs) in Wales.
- The number of individuals who had a positive laboratory report for gonorrhoea increased by approximately 3-fold between 2010 and 2012. Reports from integrated sexual health (ISH) clinics reflect these findings. Whilst this is likely to reflect an increase in transmission of gonorrhoea, the size of this increase should be interpreted with caution. This increase can be explained, at least in part, by the introduction of a new dual NAAT test for chlamydia and gonorrhoea, leading to more testing being done. The number of people who were **tested** for gonorrhoea increased by 61% between 2010 and 2012, whereas the number of **positives** increased by 219%, indicating an increase in proportion of tests carried out that was positive. Two other factors may be important: an increase in the sensitivity of the test carried out (the new dual NAAT may detect more positives), and the reporting of people who have a positive throat swab but were negative in all other sites tested.
- As has been reported by the Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP), resistance to first line antimicrobials has been increasing in England and Wales, meaning that the likelihood of onward transmission within the population is therefore further increased. In addition, more serious clinical outcomes may develop.
- In the general population, across all healthcare settings, the number of females who were **positive** for chlamydia increased by 21 % between 2010 and 2012, and the number of males increased by 33%. Of note, there was a small decrease in **positive** cases from 2010 to 2011 and a subsequent increase from 2011 to 2012. Reports from ISH clinics reflect these findings. However, the number of females who were **tested** for chlamydia increased similarly by 26% between 2010 and 2012, and the number of males increased by 29%, suggesting that this increase was likely due to increased testing.
- In 2012, when compared to the rate of STI tests carried out, the percentage of individuals diagnosed with gonorrhoea was notably high in those living in Caerphilly, Torfaen and Cardiff local authority areas. The percentage of individuals diagnosed with chlamydia was notably high in those living in Anglesey and Wrexham local authority areas.
- In the general population, the rate of genital herpes diagnoses made in ISH clinics has increased steadily since 2007 in both females and males. Between 2010 and 2012, diagnoses increased by 48% in females and by 57% in males.
- Since 2010, the number of laboratory reports of infectious and late syphilis increased, particularly in women, although cases of infectious syphilis reported from ISH clinics have not increased.
- Trends in 15-24 years olds were similar to those in the population as a whole, though age-specific rates were considerably higher, suggesting that young people are still disproportionately affected by STIs.
- In 2012, 46% of all primary or secondary syphilis diagnoses in ISH clinics were in MSM, as were 43% of new HIV cases and 14% of gonorrhoea diagnoses. The majority of gonorrhoea (67%), chlamydia (78%), genital herpes (79%) and genital wart (82%) diagnoses were in heterosexual individuals.
- In 2012, in MSM, most diagnoses were for gonorrhoea (32%), chlamydia (28%) and HIV (14%).
- The number of new HIV diagnoses in young MSM has remained level since 2010, indicating continued transmission
- In 2012, the majority of STI diagnoses (65% to 84%) were in white individuals. However, a disproportionate number of new HIV diagnoses (17%) were in black Africans.
- The number of black African men receiving HIV-related care remains lower than in black African women, possibly indicating a need for improved case finding in black African men.

Author: CDSC	Date: Dec 2013	Status: Approved
Version: 1	Page: 2 of 37	Intended Audience: Health professionals

2: Introduction

This report brings together latest data on sexually transmitted infections (STI) and HIV/AIDS, in Wales. Trends and distributions of STIs are first presented for the population as a whole, and subsequently for specific risk groups of interest: young people (15-24 year olds), men who have sex with men (MSM) and black and minority ethnic groups (BME).

The report is based on data available at the time of publication. Please note that recent data may be liable to change. The report has been prepared by Public Health Wales Communicable Disease Surveillance Centre (CDSC) for the Public Health Wales Sexual Health Programme. Assistance was provided by a small editorial team (see Appendix A2).

The structure of this report has been changed compared to previous years, and contains different tables to that presented previously. Any comments or queries relating to this report or requests for further information should be directed to:

Email: surveillance.requests@wales.nhs.uk

Additional information on specific infections in the UK, and more recent data may be available from the following websites:

Public Health Wales (www.wales.nhs.uk)

Public Health England (www.hpa.org.uk)

Health Protection Scotland (<http://www.hps.scot.nhs.uk/>)

Public Health Agency; Health and Social Care – Northern Ireland (<http://www.publichealth.hscni.net/>)

3: Suggested citation

Public Health Wales Communicable Disease Surveillance Centre. HIV and STI trends in Wales: Surveillance Report, December 2013. Cardiff: Public Health Wales.

Author: CDSC	Date: Dec 2013	Status: Approved
Version: 1	Page: 3 of 37	Intended Audience: Health professionals

4: Notes on data sources and interpretation

The following data sources were used to produce this report:

- **Sexual health in Wales Surveillance system (SWS)** extracts data from laboratories across Wales via datastore. These data are timely and complete from 2000 for Public Health Wales Microbiology Aberystwyth, and from 1998 for all remaining laboratories.

SWS also receives SHHAPT (sexual health and HIV activity property type) data (formerly KC60) electronically submitted from integrated sexual health (ISH) clinics in Wales. In this report, most records are from those clinics formerly known as genitourinary medicine (GUM) clinics. The clinical module of SWS replaced the KC60 forms submitted by computerised ISH clinics from 1st April 2011. Historical data availability varies by clinic, though is complete for all computerised clinics from 2007. Historical data will vary from those seen in KC60 forms due to variability in coding practices between clinics. SWS data does not yet contain data submitted from non-computerised ISH clinics in Carmarthenshire or Pembrokeshire. For these clinics we receive aggregated, quarterly SHHAPT paper forms. The data presented by SWS shows only new diagnoses ('new' or 'rebook' patients), while some KC60 forms may also contain numbers of follow-up episodes. There is variability in completeness of diagnosis coding between clinics. However, we are able to identify the proportion of diagnoses that have not yet been coded and impute the data to the level expected for that clinic.

KC60 diagnosis coding was replaced by SHHAPT coding from 1st April 2011. Codes for chlamydia and gonorrhoea changed during this replacement, meaning that trend data is not exactly comparable. For example, the SHHAPT code for all chlamydia diagnoses is now C4, which incorporates the old KC60 codes for uncomplicated chlamydia (C4A, C4C), complicated chlamydia including PID and epididymitis (C4B) and chlamydial ophthalmia neonatorum (C4D). The KC60 data forms (prior to SWS) only collated data by age for uncomplicated chlamydia infection and so, to allow for the inclusion of the non-computerised clinics, we have included in our trend data only C4, C4A and C4C.

- Results of Public Health England's **Survey of Prevalent HIV Infections Diagnosed** (SOPHID) Scheme. This reports on patients with diagnosed HIV infection seen for statutory HIV-related care and excludes infants born to HIV-infected females but who were uninfected or whose infection status was indeterminate. Data does not include patients where area of residence is not known. Clinical reporting of **newly diagnosed HIV** to PHE is also included.
- **Results of screening blood donated in Wales** by the Welsh Blood Service and National Blood Service (Merseyside and North Wales).
- Results of **Enhanced Surveillance of Syphilis in Wales**: anonymous clinical reports of infectious syphilis to Public Health Wales CDSC from ISH clinics.
- Results of the PHE **Enhanced Surveillance of lymphogranuloma venereum (LGV)**.
- Rates were calculated using StatsWales **mid-year population estimates**. Annual estimates for all Wales, and by local authority, from 2002 to 2011, were updated in 2013 based upon the 2011 census.

Author: CDSC	Date: Dec 2013	Status: Approved
Version: 1	Page: 4 of 37	Intended Audience: Health professionals

5: HIV and STIs in the general population

For further information on symptoms and epidemiology of these diseases, please see the CDSC Public Health Wales website (<http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=27842>).

5.1 Annual trends

5.1.1 Laboratory data

Laboratory testing data include the results from tests requested from all healthcare settings across Wales, including integrated sexual health (ISH) clinics and general practice. Trends in positive laboratory cases of chlamydia and gonorrhoea, and the numbers of individuals tested for each infection, as reported through SWS, are depicted in Fig. 1. The numbers of individuals tested for HIV, as reported through SWS, are also depicted and the numbers of positives are those confirmed by Public Health England (PHE) as new diagnoses.

These data highlight that testing for chlamydia, gonorrhoea and HIV has increased steadily over the last decade. Even though many more females than males are tested for these 3 infections, more males were positive for gonorrhoea and HIV.

Laboratory data in Wales were last reported for 2010. Testing for chlamydia and especially gonorrhoea has increased notably since then, though this is likely due to the introduction of a dual chlamydia/gonorrhoea NAAT (nucleic acid amplification test) in ISH clinics in 2011. However, whilst gonorrhoea testing only increased by 47% in females between 2010 and 2012, and by 98% in males, the number of positive individuals increased approximately 3-fold. Increases were detected across most age groups. The new NAAT test does provide greater sensitivity than gonorrhoea culture, meaning that more infections are likely to be identified, but this large increase may also suggest an increased spread of gonorrhoea in the population. In contrast, the number of individuals who were positive for chlamydia only increased by a similar amount to the number tested. Between 2010 and 2012, chlamydia testing increased by 26% in females and 29% in males, and the number of positive individuals increased by 21% and 33%, respectively. It should be noted that, between 2010 and 2011, there was a decrease in chlamydia-positive individuals and a subsequent increase from 2011 to 2012. Further information regarding the recent increase in gonorrhoea cases can be found in the box on page 9.

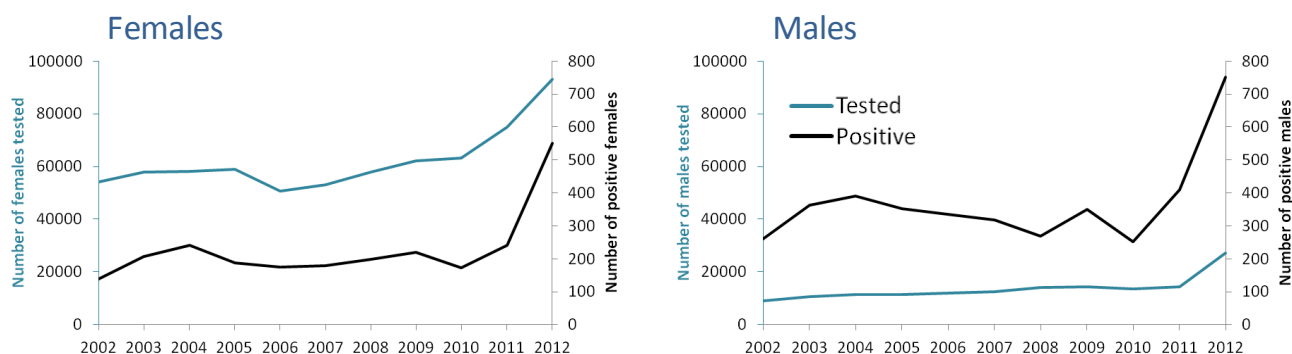
HIV screening increased by 17% in males and 6.3% in females (including those screened by antenatal services), between 2010 and 2012, but the number of confirmed new diagnoses has remained level or decreased. In females, the number of new diagnoses increased by 28% between 2010 and 2011, from 40 cases to 51, and then subsequently decreased by 24%, to 39 cases in 2012. In males, the number of new diagnoses increased slightly by 5.4% between 2010 and 2011, from 111 cases to 117, and then decreased quite dramatically by 23% to 86 cases in 2012.

In Wales, the **CoSurv system of laboratory notifications** is also used to identify late and infectious syphilis cases; a summary of these data is provided in Appendix Table A1. Since 2010, there has been a notable increase in cases across the country, in men and particularly women.

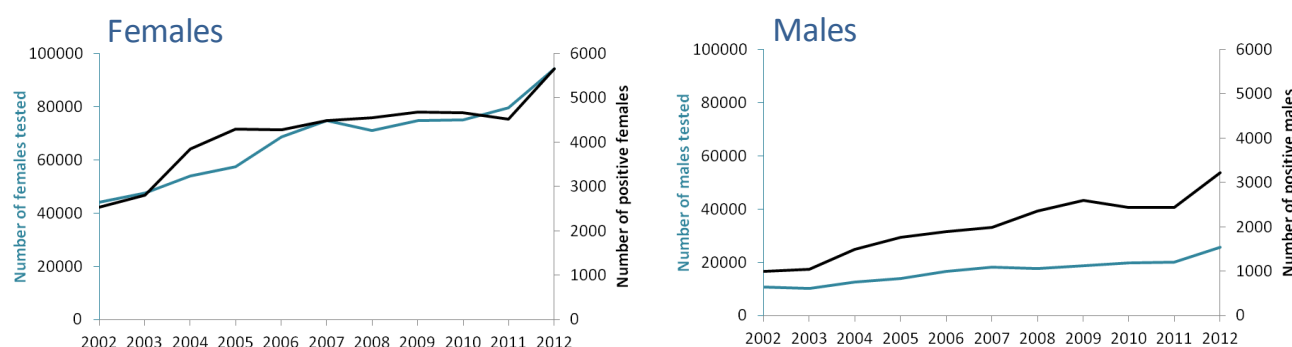
Author: CDSC	Date: December 2013	Status: Approved
Version: 1	Page: 5 of 37	Intended Audience: Health professionals

Figure 1: Annual numbers of individuals who were tested for gonorrhoea, chlamydia and HIV, and numbers who tested positive.

Gonorrhoea testing



Chlamydia testing



HIV testing

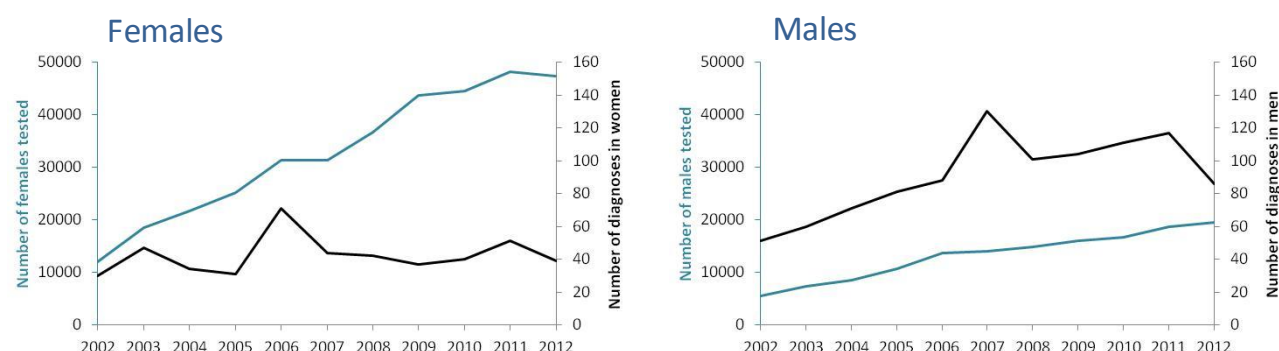


Figure notes:

- Data were extracted via SWS from datastore, which collects data from all laboratories across Wales.
- The numbers of HIV positive individuals are those reported as new confirmed HIV diagnoses by PHE.
- All individuals who were tested for *N. gonorrhoeae* and *C. trachomatis* (PCR and culture) were included, except those recorded as having eye specimens. Those individuals for whom a positive test was recorded were included; please note, however, that these individuals may not have been given a confirmed diagnosis.
- For HIV, all individuals who were tested using HIV screening assays have been included. Confirmatory tests have not been included to limit the likelihood of duplicates, following samples moving between labs.
- If an individual was tested during more than one episode within a given year, that individual will have only been counted once for that year.
- Duplicates, resulting from samples moving between labs, may be included.

5.1.2 Data from ISH clinics

Whilst data from ISH clinics do not include records from other healthcare settings such as general practice, they do provide a greater breadth of clinical information.

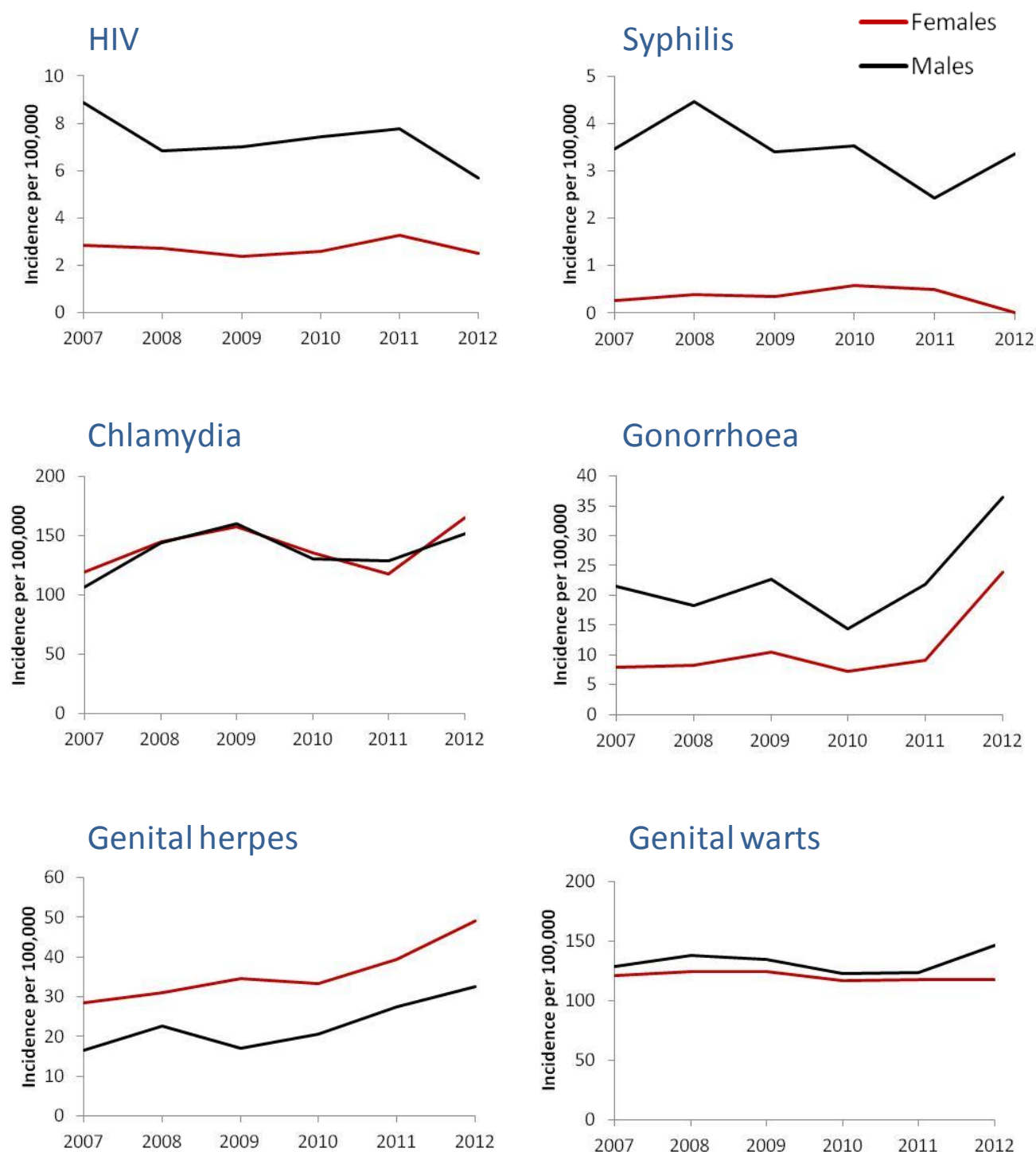
The numbers and incidences for HIV and the main STIs of interest, from 2007 to 2012, are shown in Table 1. Recent trends across Wales are also depicted by gender in Fig. 2. Numbers of all STIs and SHHAPT codes are provided in Appendix Table A2. In Wales, an **enhanced surveillance scheme** for infectious syphilis is also in place; a summary of these data can be found in Appendix Table A3.

Table 1: Numbers and incidences of HIV and STI diagnoses made in ISH clinics across Wales from 2007 to 2012, by gender.

STI	Gender	Number						Incidence per 100,000					
		2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Syphilis (pri&sec)	Females	4	6	5	9	8	0	0.3	0.4	0.3	0.6	0.5	0.0
	Males	51	66	51	53	36	51	3.5	4.5	3.4	3.5	2.4	3.4
	Total	55	72	56	62	44	51	1.8	2.4	1.8	2.0	1.4	1.7
Gonorrhoea	Females	121	128	163	112	142	375	7.9	8.3	10.5	7.2	9.1	24.0
	Males	317	271	338	215	328	549	21.6	18.3	22.7	14.3	21.8	36.4
	Total	438	399	503	327	469	924	14.6	13.2	16.6	10.7	15.3	30.1
Chlamydia	Females	1,840	2,238	2,450	2,105	1,838	2,581	119.7	144.7	158.0	135.4	117.9	165.0
	Males	1,566	2,134	2,388	1,950	1,939	2,290	106.6	144.3	160.5	130.4	128.9	151.6
	Total	3,408	4,373	4,842	4,055	3,777	4,870	113.4	144.5	159.3	132.9	123.3	158.4
Genital herpes (first episode)	Females	439	481	538	518	616	768	28.5	31.1	34.7	33.3	39.5	49.1
	Males	243	333	253	310	414	490	16.5	22.5	17.0	20.7	27.5	32.4
	Total	682	814	791	827	1,031	1,258	22.7	26.9	26.0	27.1	33.6	40.9
Genital warts (first episode)	Females	1,867	1,925	1,927	1,811	1,835	1,844	121.4	124.5	124.3	116.5	117.7	117.9
	Males	1,889	2,042	1,999	1,841	1,858	2,208	128.6	138.0	134.3	123.1	123.5	146.2
	Total	3,756	3,967	3,929	3,652	3,693	4,053	124.9	131.1	129.3	119.7	120.6	131.8
HIV (PHE new diagnoses)	Females	44	42	37	40	51	39	2.9	2.7	2.4	2.6	3.3	2.5
	Males	130	101	104	111	117	86	8.9	6.8	7.0	7.4	7.8	5.7
	Total	174	143	141	151	168	125	5.8	4.7	4.6	5.0	5.5	4.1

Table notes:

- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales
- iii) HIV rates were determined using new HIV diagnoses as reported by PHE, as at end June 2013
- iv) Where reporting to SWS was incomplete, rates were imputed by clinic and gender. Due to this, some totals may not equate to the exact sum of the male and female figures provided
- v) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included
- vi) Chlamydia and gonorrhoea diagnoses from clinics in Abertawe Bro Morgannwg are incomplete for 2011
- vi) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Figure 2: Annual incidence of HIV and STI diagnoses made in ISH clinics across Wales, by gender.

i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS

ii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales

iii) HIV rates were determined using new HIV diagnoses as reported by PHE

iv) Where reporting to SWS was incomplete, rates were imputed by clinic and gender. Due to this, some totals may not equate to the exact sum of the male and female figures provided

v) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included

vi) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

vii) Chlamydia and gonorrhoea diagnoses from clinics in Abertawe Bro Morgannwg are incomplete for 2011

Author: CDSC	Date: December 2013	Status: Approved
Version: 1	Page: 8 of 37	Intended Audience: Health professionals

Between 2010 and 2012, there were increases in the rates of gonorrhoea and genital herpes in both males and females, and the rate of genital warts increased in males between 2011 and 2012. Rates of chlamydia have also increased since 2011. However, rates of HIV and infectious syphilis diagnoses remained level or decreased. It should be noted that CoSurv laboratory reports of all syphilis cases have increased since 2010 (Appendix Table A1).

In 2012, most infections were more common in males than females, with the exceptions of genital herpes, which was more common in females, and chlamydia, which had a similar rate in both males and females. When compared to laboratory data (Fig. 1), in which there were a greater number of chlamydia-positive females than males, these clinical data confirm that many women are tested for chlamydia outside of the ISH clinic setting.

In females, chlamydia and genital warts were the most commonly diagnosed infections in 2012, at rates of 165.0 per 100,000 females and 117.9 per 100,000 females, respectively, followed by genital herpes (49.1 per 100,000 females), gonorrhoea (24.0 per 100,000 females), HIV (2.5 per 100,000 females) and syphilis (0.0 per 100,000 females). In males, chlamydia was of the highest incidence in 2012 (151.6 per 100,000 males), though the rate of genital warts was also high (146.2 per 100,000 males). These were followed by gonorrhoea (36.4 per 100,000 males), genital herpes (32.4 per 100,000 males), HIV (5.7 per 100,000 males) and syphilis (3.4 per 100,000 males). In addition, PHE reported 4 diagnoses of LGV in Wales in 2011 and 5 cases in 2012.

Gonorrhoea in Wales

Since 2010, there has been a notable rise in the number of individuals diagnosed with gonorrhoea in Wales. The number of individuals tested for gonorrhoea has also increased since this time however, and this is likely due to the introduction of a new dual chlamydia/gonorrhoea NAAT test (nucleic acid amplification test) in GUM clinics in 2011. This test has allowed for much easier and more reliable testing of gonorrhoea compared to the original culture assay, and individuals who might have only been tested for chlamydia in the past are now tested for both infections.

Although more individuals have been tested for gonorrhoea, the percentage of individuals tested for gonorrhoea that was found to be positive (positivity rate) has also increased. Since the introduction of the dual NAAT, the positivity rate in females has approximately doubled, increasing from 0.3% to 0.6%. The dual NAAT is more sensitive than the original culture assay but the increased positivity rate cannot be explained by increased sensitivity alone, suggesting that there may have been some increased spread within the female population.

NAAT samples can be taken from genital, anal and pharyngeal sites, although there has been some concern over the validity of the dual NAAT for pharyngeal specimens, particularly regarding the likelihood of generating false positives in lower risk individuals. For example, in 2012, 7% of females who were positive for gonorrhoea, were positive by pharyngeal sample only. Further laboratory checks are currently being carried out at Cardiff PHL to address these issues more closely. However, analysis of SWS laboratory data across Wales excluding pharyngeal specimens makes little difference to the trends in individuals tested and the numbers who were diagnosed as positive; the positivity rates in both males and females were only marginally lower.

In males, the number of individuals tested for gonorrhoea almost doubled in 2012, following the introduction of the dual NAAT, having remained fairly level for the previous decade. However, there was an increase in annual positivity rate between 2010 (1.9%) and 2011 (2.9%), prior to the new test being used, possibly suggesting an increase in spread within the male population. The positivity rate in 2012 remained high at 2.9%, but this may be explained by improved test sensitivity.

Data from clinics in Cardiff, for which sexual orientation is well recorded, indicate that there was a steady increase in diagnoses in MSM between 2010 and 2012, and that the majority of the early increase in males (2010 to 2011) was in MSM. This was followed by an increase in heterosexual males between 2011 and 2012, which corresponds with the potential increase in diagnoses in heterosexual females described above. Data from ISH clinics across Wales indicate that the majority of individuals diagnosed with gonorrhoea in 2012 were white and aged 15-24 years, although increases were observed in most age groups. Increases were observed in several areas of Wales.

5.1.4 Other data sources

New HIV diagnoses reported by Public Health England (PHE) have been discussed in previous sections, but a summary of cases by likely exposure category, is provided in Appendix Table A5.

In addition to these new diagnoses, PHE has also reported on the numbers of individuals receiving HIV-related care in Wales (Fig. 3). As of June 2013, there were 1,535 residents of Wales receiving care in 2012 (49.9 per 100,000 population), and 1474 individuals in 2011 (48.1 per 100,000 population). A summary of these data can be found in Appendix Tables A6 and A7.

Further data and details of the new HIV diagnoses and individuals receiving HIV-related care in Wales can be found at

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HIV/HIVData/>

Figure 3: Number of individuals, resident in Wales, receiving HIV-related care, 2007-2012.

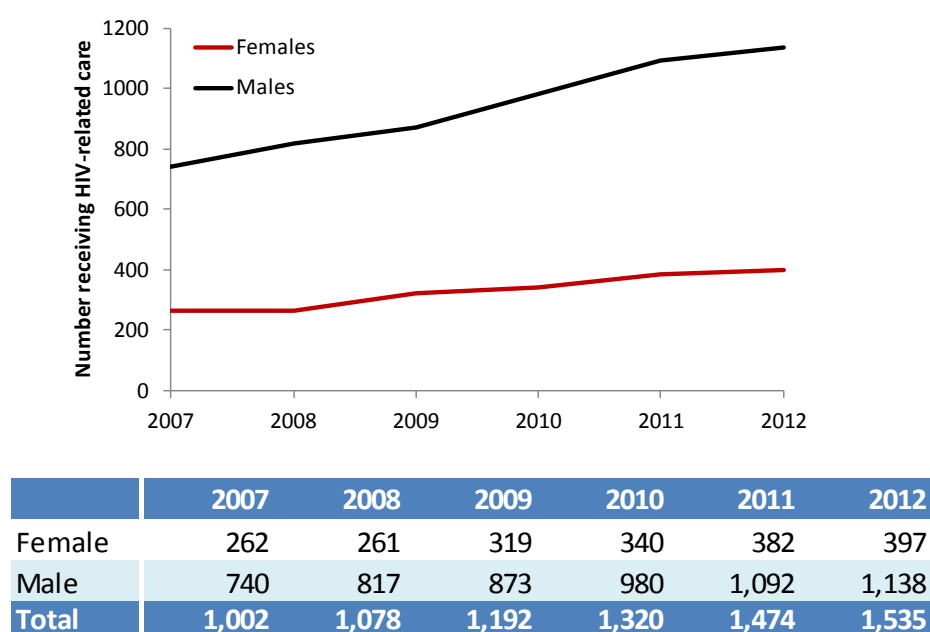


Figure notes:

- i) Source: PHE, SOPHID, as at end June 2013
- ii) Data include patients diagnosed with HIV infection, who were seen for statutory medical HIV-related care
- iii) Data exclude infants born to HIV-infected women who were either uninfected or whose infection status was unknown
- iv) Patients with missing information may have been assigned values based on previous year's data
- v) Individuals whose area of residence is unknown are not included

An indication of the spread of HIV and syphilis from high-risk to lower risk populations can be obtained from the results of the screening of blood donations. Blood from donors who are screened positive does not enter the blood supply. Rates of infection in new donors might be considered a proxy for prevalence in this low risk population, and rates in existing donors, who were known previously to be negative, may be used as a measure of incidence.

In 2012, 2 new donors and 1 existing donor were found to be HIV positive, with rates of 21.1 and 0.95 per 100,000 new and existing donors, respectively (Appendix Table A8). Three new donors and 1 existing donor were found to be positive for syphilis with rates of 31.6 and 0.95 per 100,000 donors, respectively.

5.2 Age distribution

The age distributions of individuals with new diagnoses of selected STIs, made in ISH clinics in 2012, are shown by gender in Fig. 4. The majority of STI diagnoses were reported in 15-24 year olds (see section 6 for a further description of STI rates in this age group). In females, median ages were between 20 and 23, with the exception of syphilis for which no cases were reported to SWS. In males, the median ages were slightly higher, ranging from 23 to 25.5 years, and 33 years for syphilis. For HIV, as recorded in the new diagnoses by PHE, the median age in Wales in 2012 was 36 for females and 37 for males.

Figure 4: Age distribution of STI diagnoses made in ISH clinics across Wales in 2012.

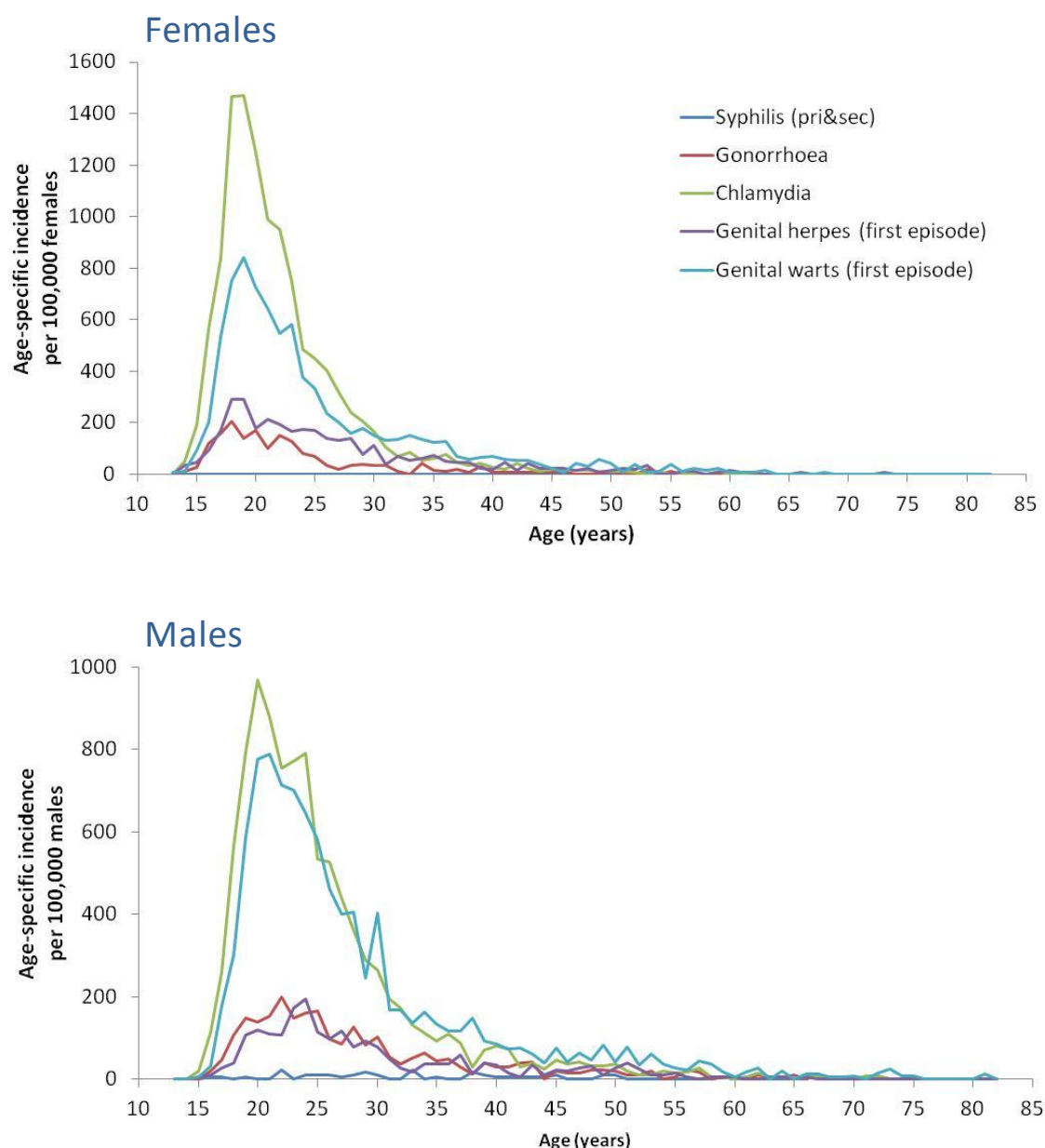


Figure notes:

- Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- These data do not include diagnoses made in clinics in Carmarthenshire or Pembrokeshire, as single year age breakdown was not available
- These data have not been imputed, and so may be representative of the level and completeness of reporting to SWS
- The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)
- Age- and gender-specific incidence was calculated using mid-year estimates provided by StatsWales

Author: CDSC	Date: December 2013	Status: Approved
Version: 1	Page: 11 of 37	Intended Audience: Health professionals

5.3 Geographical distribution

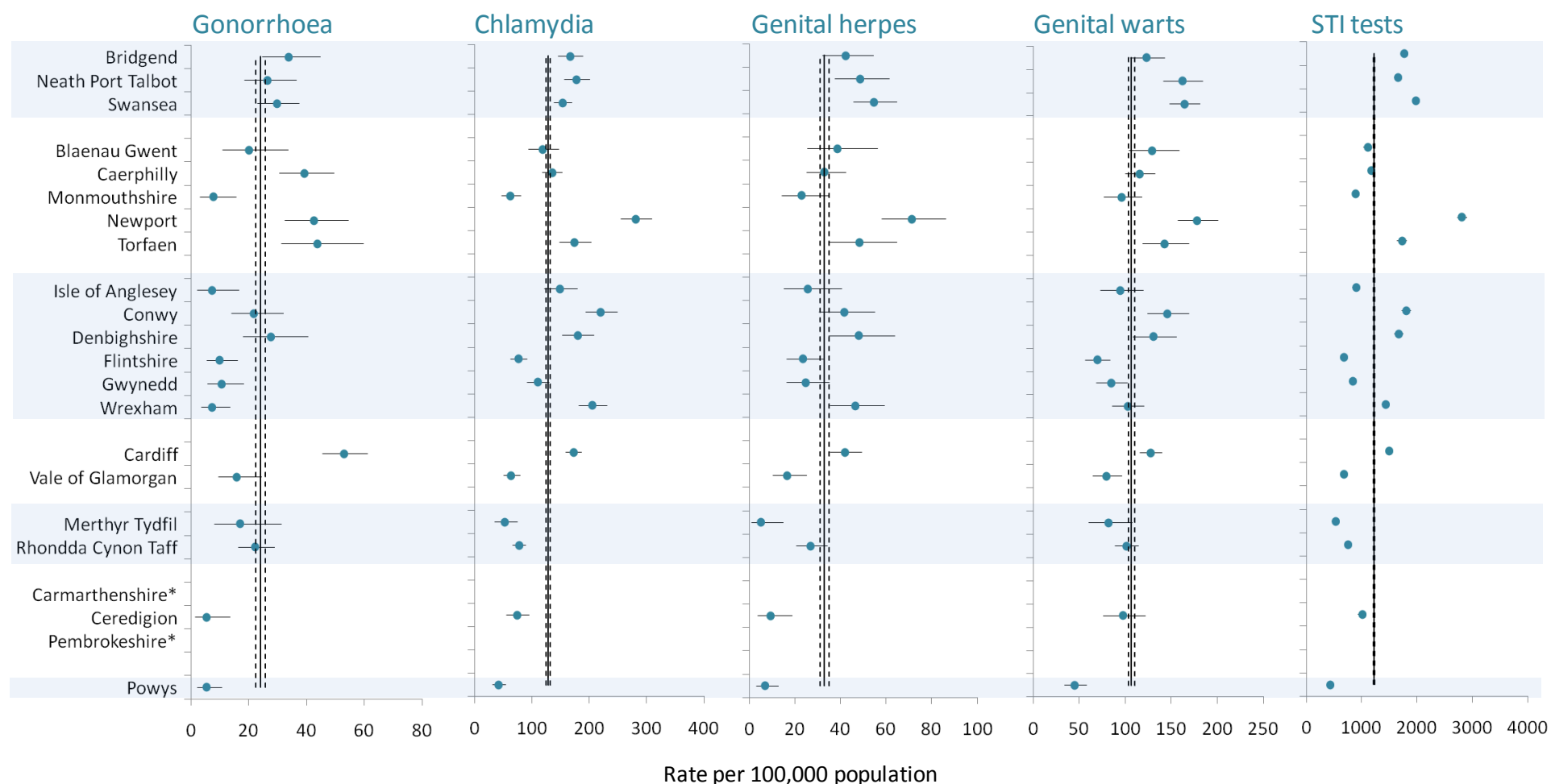
The distribution of selected STIs diagnosed in ISH clinics in 2012 is shown by local authority (LA) of residence in Fig. 5. Rates are provided by LA and gender in Appendix Table A4. The positivity rates of testing for chlamydia and gonorrhoea, based on reports from ISH clinics (not laboratories), are shown in Table 2. It is important to note that these data have not been imputed and so may partially reflect the level of reporting from individual clinics; that is, reporting of SHHAPT diagnoses or tests and also reporting of residence. In addition, data from SWS do not include individuals who visited clinics in Carmarthenshire or Pembrokeshire, as residence of individuals was not available.

These data highlight that, in 2012:

- The rate of gonorrhoea diagnoses were higher than average in individuals living in Newport, Caerphilly, Torfaen and Cardiff local authorities (LAs). When compared to the rate of STI tests carried out, the percentage of individuals diagnosed with gonorrhoea was still notably high in those living in Caerphilly, Torfaen and Cardiff LAs. The Vale of Glamorgan and Cwm Taf also had quite high positivity rates, though lower incidences overall
- Compared to gonorrhoea, the rates of chlamydia were more reflective of the number of STI tests carried out (a marker of activity), as were the rates of genital herpes and warts
- The rates of chlamydia were higher than average in individuals living in Bridgend, Neath Port Talbot, Swansea, Newport, Torfaen, Conwy, Denbighshire, Wrexham and Cardiff LAs. When compared to the rate of STI tests performed, the percentage of individuals diagnosed with chlamydia was still notably high in those living in Wrexham LA (14.3% positivity rate). Residents of Anglesey also had high positivity rates (16.5%), although the overall incidence was not higher than the average for Wales
- The rates of genital herpes, whilst higher than average in Neath Port Talbot, Swansea, Newport, Wrexham and Cardiff LAs, were also largely reflective of the number of tests performed

Figure 5: Distribution of individuals with selected STIs diagnosed in ISH clinics across Wales in 2012, by local authority of residence.

● LA rate per 100,000
 — Wales rate per 100,000
 - - - 95% CI for Wales rate



†, reporting of diagnoses from clinics in Abertawe Bro Morgannwg was incomplete for new SHHAPT codes. *, diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included in these analyses, although individuals living in these LAs that have visited clinics elsewhere are included. i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS. ii) These data have not been imputed and may be partially representative of completeness of reporting. In addition, only individuals for whom a residence LA was provided were included. iii) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A), first episode of genital warts (C11A) and STI tests (S1, S2, 1, T2, T3, T4). Syphilis rates are not depicted, due to low numbers of cases. iv) LA-specific rates were calculated using mid-year estimates provided by StatsWales. v) 95% confidence intervals (Poisson, exact) were calculated using Stata 12

Author: CDSC	Date: December 2013	Status: Approved
Version: 1	Page: 13 of 37	Intended Audience: Health professionals

Table 2: Rates of gonorrhoea and chlamydia tests reported from ISH clinics across Wales in 2012, and the percentage of those for which a positive diagnosis was reported, by local authority of residence.

UA Name	Gonorrhoea		Chlamydia	
	Tests per 100,000 population	% positive	Tests per 100,000 population	% positive
Bridgend	1,764.0	1.9%	1,769.7	9.4%
Neath Port Talbot	1,648.7	1.6%	1,652.3	10.8%
Swansea	1,971.8	1.5%	1,975.1	7.8%
ABMU	1,828.7	1.6%	1,832.8	8.9%
Blaenau Gwent	1,099.9	1.8%	1,104.2	10.8%
Caerphilly	1,168.6	3.3%	1,177.5	11.5%
Monmouthshire	889.2	0.9%	890.3	7.0%
Newport	2,795.9	1.5%	2,809.6	10.0%
Torfaen	1,702.9	2.6%	1,724.8	10.1%
Aneurin Bevan	1,611.8	2.1%	1,622.2	10.2%
Isle of Anglesey	897.9	0.8%	900.8	16.5%
Conwy	1,805.8	1.2%	1,808.4	12.2%
Denbighshire	1,664.8	1.7%	1,669.0	10.8%
Flintshire	671.1	1.5%	675.6	11.3%
Gwynedd	831.0	1.3%	832.6	13.2%
Wrexham	1,422.9	0.5%	1,433.2	14.3%
BCU	1,195.6	1.1%	1,200.3	12.8%
Cardiff	1,491.9	3.5%	1,493.6	11.6%
Vale of Glamorgan	679.6	2.3%	679.6	9.4%
C&V	1,275.1	3.4%	1,276.4	11.3%
Merthyr Tydfil	522.9	3.2%	524.6	10.0%
Rhondda Cynon Taff	733.9	3.0%	747.0	10.3%
Cwm Taf	691.7	3.0%	702.6	10.3%
Carmarthenshire*	-	-	-	-
Ceredigion	1,003.3	0.5%	1,009.9	7.3%
Pembrokeshire*	-	-	-	-
Hywel Dda*	-	-	-	-
Powys	423.5	1.2%	424.2	9.9%
Powys Teaching	423.5	1.2%	424.2	9.9%
Wales	1,214.4	2.0%	1,219.5	10.5%

*, diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included in these analyses, as they do not report data to SWS

i) Diagnoses of STIs and the tests performed were reported from ISH clinics across Wales via SWS

ii) These data have not been imputed and may be partially representative of completeness of reporting. In addition, only individuals for whom a residence LA was provided were included

iii) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), gonorrhoea tests (S1, S2, T2, T3, T4) and chlamydia tests (S1, S2, T1, T2, T3, T4)

iv) LA-specific rates were calculated using mid-year population estimates provided by StatsWales

6. HIV and STIs in young people (15-24 year olds)

Young people (15-24 year olds) are disproportionately affected by STIs, and there are many sexual health services across Wales aimed at this group.

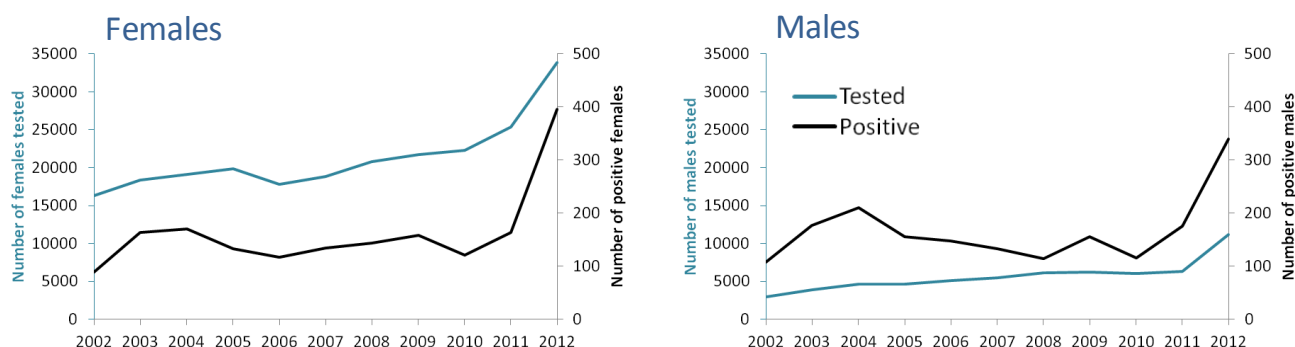
6.1 Annual trends in young people

6.1.1 Laboratory data

Trends in positive laboratory cases of chlamydia and gonorrhoea, and the numbers of individuals tested for each infection, as reported through SWS, are depicted in Fig. 6. These data include tests requested from all healthcare settings including ISH clinics and general practice.

Figure 6: Annual numbers of 15-24 year olds who were tested for gonorrhoea and chlamydia, and numbers who tested positive.

Gonorrhoea testing



Chlamydia testing

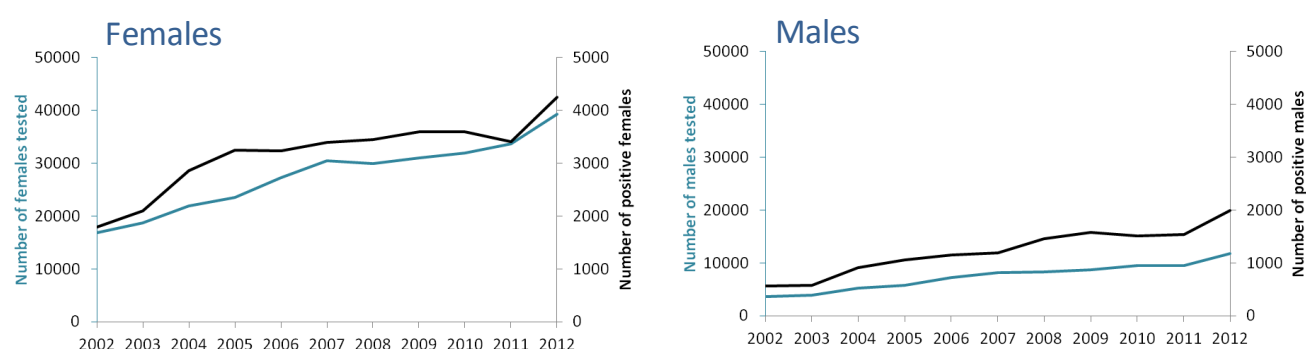


Figure notes:

- Data were extracted via SWS from datastore, which collects data from all laboratories across Wales
- All 15-24 year olds who were tested for *N. gonorrhoeae* and *C. trachomatis* (PCR and culture) were included, except those recorded as eye specimens
- Those individuals for whom a positive test was recorded were included; please note, however, that these individuals may not have been confirmed positive
- If an individual was tested during more than one episode within a given year, that individual will have only been counted once for that year
- Duplication of records is possible following transfer of samples between laboratories

Author: CDSC	Date: December 2013	Status: Approved
Version: 1	Page: 15 of 37	Intended Audience: Health professionals

In young people, testing for chlamydia has increased steadily over the last decade. Testing for gonorrhoea increased slightly from 2002 to 2010, but has increased notably since then; this is likely due to the introduction of a dual chlamydia/gonorrhoea NAAT test in 2011. However, whilst gonorrhoea testing increased by only 52% in females and by 85% males between 2010 and 2012, the number of positive individuals increased approximately 3-fold. This is similar to the population as a whole, and may suggest an increased spread of gonorrhoea. In contrast, the number of individuals who were positive for chlamydia only increased by a similar amount to those tested. Between 2010 and 2012, chlamydia testing increased by 23% in females and 24% in males, and the number of positive individuals increased by 18% and 32%, respectively. It should be noted that, between 2010 and 2011, there was a decrease in chlamydia-positive individuals and a subsequent increase from 2011 to 2012.

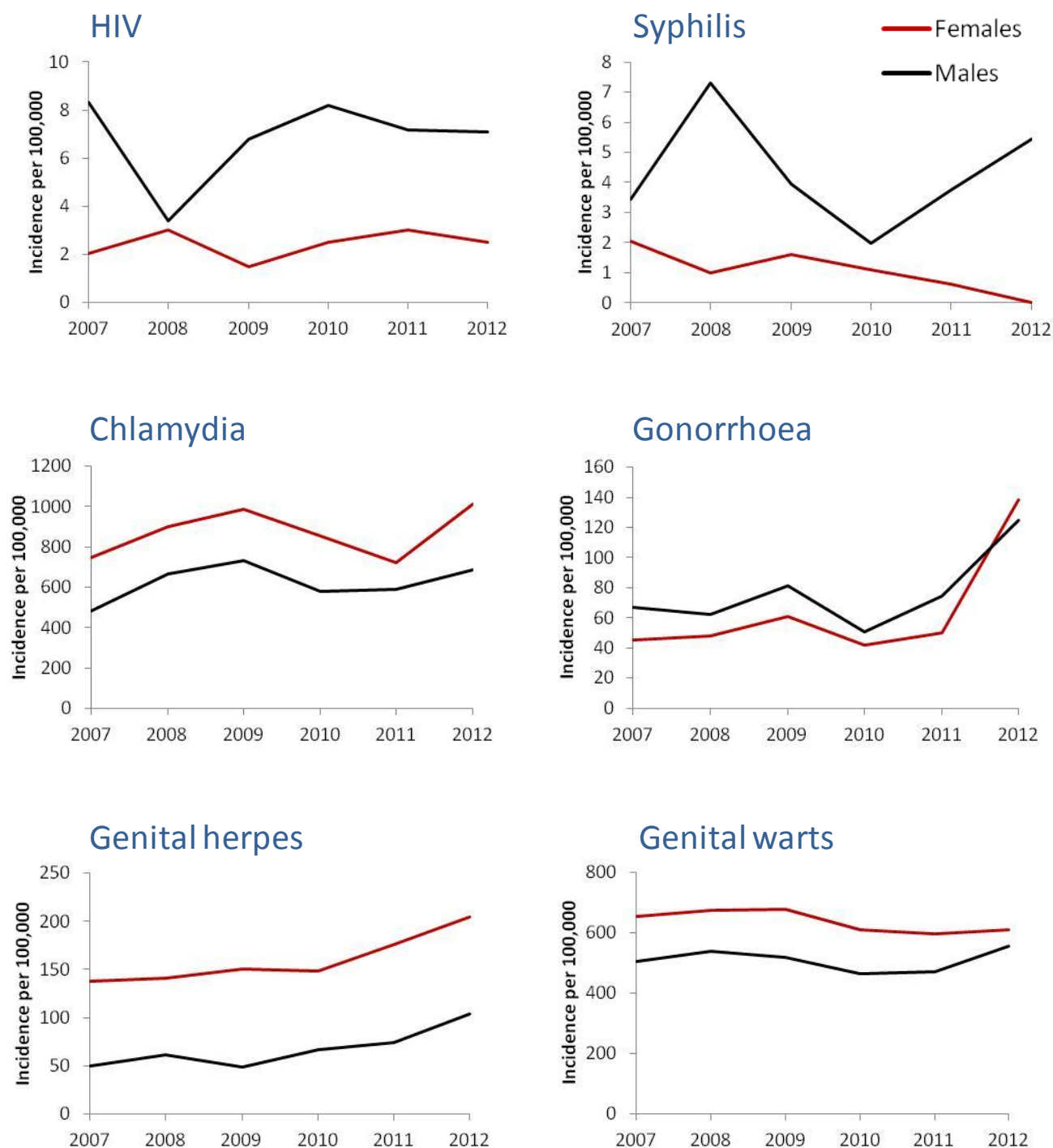
6.1.2 Data from ISH clinics

As for the population as a whole, whilst data from ISH clinics do not include records from other healthcare settings such as general practice, they do provide a greater breadth of clinical information. The numbers and incidences for HIV and the main STIs of interest, from 2007 to 2012, in 15-24 year olds are shown in Table 3. Recent trends across Wales are also depicted by gender in Fig. 7. Between 2010 and 2012, in 15-24 year olds, there were notable increases in the rates of gonorrhoea diagnoses and genital herpes.

Table 3: Numbers and incidences of HIV and STI diagnoses in 15-24 year olds, made in ISH clinics across Wales, 2007 to 2012, by gender.

STI	Gender	Number						Incidence per 100,000					
		2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Syphilis (pri&sec)	Females	-	-	-	-	-	-	2.0	1.0	1.6	1.1	0.6	0.0
	Males	-	-	-	-	-	-	3.4	7.3	3.9	2.0	3.7	5.4
	Total	11	17	11	6	9	11	2.7	4.2	2.8	1.5	2.2	2.8
Gonorrhoea	Females	89	95	122	84	101	278	45.3	47.7	61.1	41.8	50.3	138.5
	Males	137	128	167	105	156	263	67.2	62.4	81.1	50.5	74.3	124.5
	Total	226	223	292	188	256	542	56.5	55.2	71.8	46.2	62.5	131.3
Chlamydia	Females	1,470	1,788	1,981	1,704	1,442	2,036	748.7	898.7	989.5	852.8	720.7	1,013.0
	Males	984	1,367	1,508	1,211	1,230	1,455	482.7	666.0	730.6	582.4	587.6	687.8
	Total	2,454	3,156	3,492	2,915	2,672	3,491	613.2	780.8	858.6	714.9	652.6	846.2
Genital herpes (first episode)	Females	270	280	302	297	353	410	137.5	140.7	151.0	148.7	176.4	204.2
	Males	101	127	100	138	155	219	49.5	61.9	48.6	66.4	74.0	103.3
	Total	371	407	403	435	508	629	92.7	100.7	99.0	106.8	124.0	152.5
Genital warts (first episode)	Females	1,286	1,344	1,357	1,219	1,197	1,228	655.0	675.5	677.5	610.3	598.3	610.9
	Males	1,026	1,107	1,071	962	984	1,174	503.3	539.4	519.1	462.9	470.0	555.2
	Total	2,312	2,451	2,431	2,182	2,181	2,402	577.7	606.4	597.9	535.1	532.7	582.4
HIV (PHE new diagnoses)	Females	-	-	-	-	-	-	2.0	3.0	1.5	2.5	3.0	2.5
	Males	-	-	-	-	-	-	8.3	3.4	6.8	8.2	7.2	7.1
	Total	21	13	17	22	21	20	5.2	3.2	4.2	5.4	5.1	4.8

Table notes: i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS. ii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales. iii) HIV rates were determined using new HIV diagnoses as reported by PHE. iv) Where reporting to SWS was incomplete, rates were imputed by clinic and gender. Due to this, some totals may not equate to the exact sum of the male and female figures provided. v) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included. vi) Diagnoses from clinics in ABMU are incomplete for 2011. vii) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Figure 7: Incidence of HIV and STI diagnoses made in ISH clinics across Wales, in 15-24 year olds.**Table notes:**

- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales
- iii) HIV rates were determined using new HIV diagnoses as reported by PHE
- iv) Where reporting to SWS was incomplete, rates were imputed by clinic and gender. Due to this, some totals may not equate to the exact sum of the male and female figures provided
- v) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included
- vi) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Most STIs, excluding HIV and syphilis, disproportionately affect young people. In 2012, for example, the age-specific rates of chlamydia diagnoses in 15-24 year old males and females were 687.8 per 100,000 males and 1,013.3 per 100,000 females, respectively (Table 3). In the population as a whole, however, the rate was 151.6 per 100,000 males and 165.0 per 100,000 females (Table 1).

In 2012, the rates of HIV and primary or secondary syphilis diagnoses, made in ISH clinics across Wales, were higher in 15-24 year old males than females. Rates of chlamydia, genital herpes and genital warts, diagnosed in ISH clinics, were higher in females. Between 2007 and 2011, the rate of gonorrhoea was higher in young males than in young females. In 2012, however, the rate was higher in females than males, highlighting a proportionately larger increase in females since 2011.

Although the rates in young people were higher than the population as a whole, the distribution of infections within young people were similar. In 2012, chlamydia and genital warts were the most commonly diagnosed infections in young females, at rates of 1,013.0 and 610.9 per 100,000 females, respectively, followed by genital herpes (204.2 per 100,000 females), gonorrhoea (138.5 per 100,000 females) and HIV (2.5 per 100,000 females). No cases of primary or secondary syphilis were reported to SWS. In young males, chlamydia and genital warts were the most commonly diagnosed infections in 2012, at rates of 687.8 and 555.2 per 100,000 males, respectively. The rate of gonorrhoea in young males (124.5 per 100,000) was slightly higher than that of genital herpes (103.3 per 100,000), and HIV and syphilis were of the lowest incidence, at rates of 7.1 and 5.4 per 100,000, respectively.

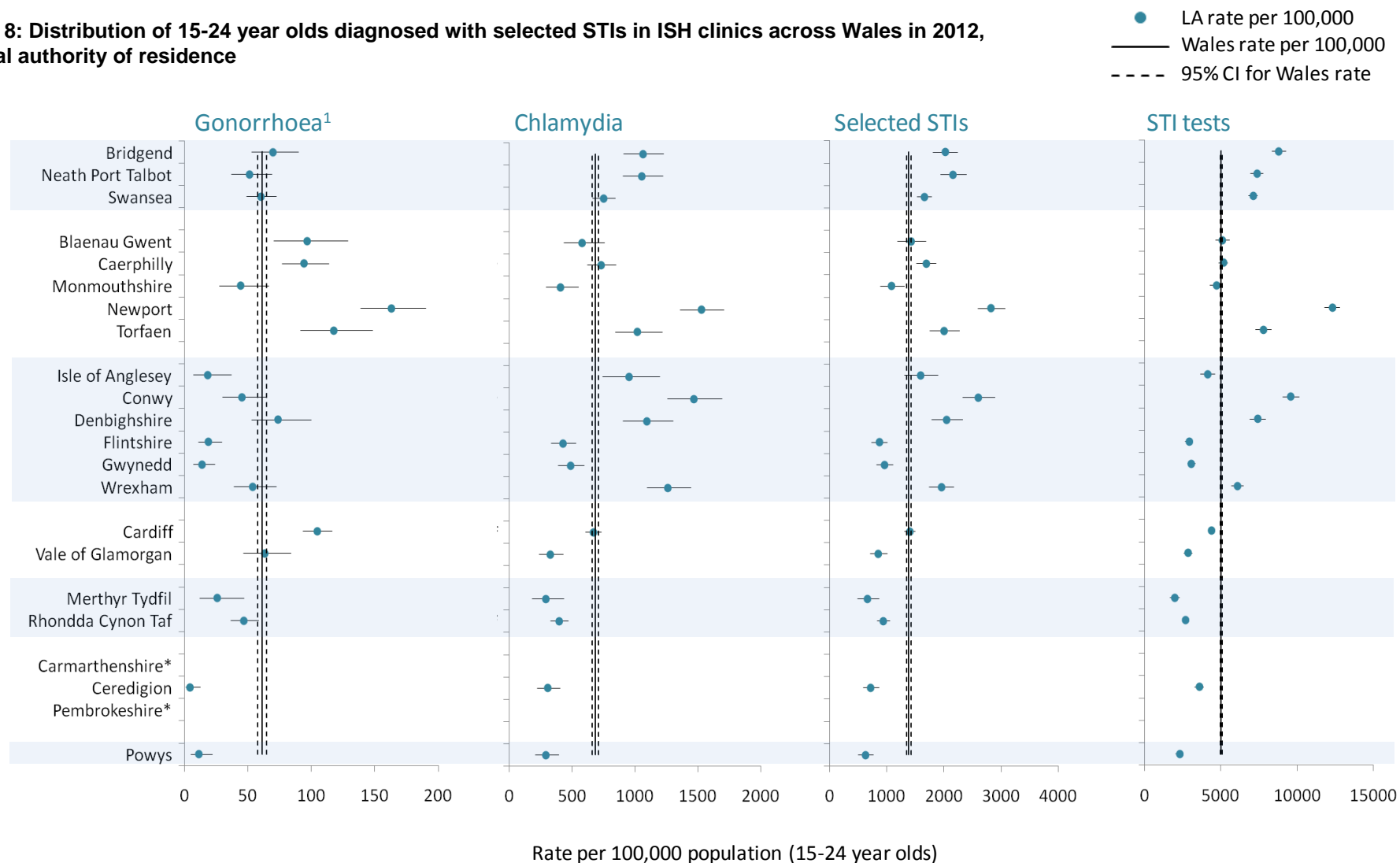
6.2 Geographical distribution of STIs in young people

The distributions of selected STIs in 15-24 year olds in 2012 in Wales are shown by local authority of residence in Fig. 8. The positivity rates of testing for chlamydia and gonorrhoea, based on reports from ISH clinics, are shown in Table 4. These data represent diagnoses made in ISH clinics reported through SWS, not laboratory data from all healthcare settings. It is important to note that these data from SWS do not include individuals who visited clinics in Carmarthenshire or Pembrokeshire, as residence of individuals was not available.

These data highlight that:

- The rate of gonorrhoea diagnoses between 2008 and 2012 was higher than average in individuals living in Blaenau Gwent, Caerphilly, Newport, Torfaen and Cardiff LAs, though the rate in Newport was largely reflective of the rate of testing. When compared to the number of STI tests carried out in young people, the percentage of individuals diagnosed with gonorrhoea was still notably high in those living in Blaenau Gwent, Caerphilly, Torfaen and Cardiff LAs, and also in the Vale of Glamorgan
- The rates of chlamydia in 2012 were higher than average in individuals living in Bridgend, Neath Port Talbot, Newport, Torfaen, Anglesey, Conwy, Denbighshire and Wrexham LAs, although this seemed to be largely reflective of the rate of testing. When compared to the number of STI tests carried out in young people, the percentage of individuals diagnosed with chlamydia was very high in those living in Anglesey and Wrexham, with positivity rates of 23% and 21% respectively
- Similarly to chlamydia, the rates of selected STIs combined were higher than average in Bridgend, Neath Port Talbot, Swansea, Caerphilly, Newport, Torfaen, Conwy, Denbighshire and Wrexham LAs, though again this was largely reflective of the level of screening
- Compared to chlamydia, the rate of gonorrhoea is less strongly influenced by the number of tests carried out, as can be seen by the high rate of tests in Abertawe Bro Morgannwg but a low or average positivity rate

Figure 8: Distribution of 15-24 year olds diagnosed with selected STIs in ISH clinics across Wales in 2012, by local authority of residence



1, Gonorrhoea diagnoses from 2008 to 2012 were combined for this analysis. * diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included in these analyses, as data by residence were not available. i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS. ii) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), selected STIs (A1, A2, B, B1, B2, C4, C4A, C4C, C10A, C11A) and STI screens (S1, S2, T1-4). iii) These data have not been imputed and may be partially representative of completeness of reporting. In addition, only individuals for whom a residence LA was provided were included. iv) LA-specific rates were calculated using mid-year estimates of 15-24 year olds provided by StatsWales. v) 95% confidence intervals (Poisson, exact) were calculated using Stata 12

Table 4: Rates of gonorrhoea and chlamydia tests in 15-24 year olds reported from ISH clinics across Wales in 2012, and the percentage of those for which a positive diagnosis was reported, by local authority of residence.

UA Name	Gonorrhoea		Chlamydia	
	Tests per 100,000 population	% positive	Tests per 100,000 population	% positive
Bridgend	3,725.7	1.9%	8,789.0	12.0%
Neath Port Talbot	3,906.4	1.3%	7,350.6	14.3%
Swansea	4,534.9	1.3%	7,103.6	10.5%
ABMU	4,189.3	1.4%	7,560.4	11.8%
Blaenau Gwent	3,546.3	2.7%	5,091.2	11.4%
Caerphilly	3,885.4	2.4%	5,155.3	14.1%
Monmouthshire	3,269.7	1.3%	4,690.5	8.7%
Newport	8,441.1	1.9%	12,295.4	12.4%
Torfaen	5,632.6	2.1%	7,786.7	13.0%
Aneurin Bevan	5,266.8	2.1%	7,437.6	12.5%
Isle of Anglesey	4,116.0	0.4%	4,117.2	23.1%
Conwy	6,158.6	0.7%	9,577.0	15.3%
Denbighshire	5,965.4	1.2%	7,394.7	14.8%
Flintshire	2,129.8	0.9%	2,919.1	14.5%
Gwynedd	3,294.7	0.4%	3,056.2	15.8%
Wrexham	6,717.4	0.8%	6,080.5	20.7%
BCU	4,568.8	0.8%	5,248.3	16.9%
Cardiff	4,593.2	2.3%	4,368.4	15.2%
Vale of Glamorgan	3,031.9	2.1%	2,823.3	11.4%
Cardiff & Vale	4,290.7	2.3%	4,079.4	14.7%
Merthyr Tydfil	1,890.2	1.3%	1,952.6	14.8%
Rhondda Cynon Taf	2,740.0	1.7%	2,688.3	14.7%
Cwm Taf	2,570.5	1.6%	2,545.2	14.7%
Carmarthenshire*	-	-	-	-
Ceredigion	1,173.5	0.4%	3,574.6	8.5%
Pembrokeshire*	-	-	-	-
Hywel Dda	-	-	-	-
Powys	919.6	1.2%	2,277.0	12.8%
Powys Teaching	919.6	1.2%	2,277.0	12.8%
Wales	3,784.5	1.6%	5,019.8	13.6%

*, diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included in these analyses, as they do not report data to SWS

i) Diagnoses of STIs and the tests performed were reported from ISH clinics across Wales via SWS

ii) These data have not been imputed and may be partially representative of completeness of reporting. In addition, only individuals for whom a residence LA was provided were included

iii) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), gonorrhoea tests (S1, S2, T2, T3, T4) and chlamydia tests (S1, S2, T1, T2, T3, T4)

iv) LA- and age-specific rates were calculated using mid-year population estimates provided by StatsWales

7. HIV and STIs in men who have sex with men

Men who have sex with men (MSM) are an important risk group for the transmission of HIV and selected STIs. Description of sexual orientation has become more reliable since 2011 in data from ISH clinics in Wales. We describe here diagnoses made in ISH clinics in 2011 and 2012.

Numbers of diagnoses of HIV and STIs in 2011 and 2012 are provided by sexual orientation in Tables 5A and 5B, respectively. In 2012, most cases of HIV (43%) and primary or secondary syphilis (46%) diagnoses were in MSM, and this was similar to that in 2011. In addition, 14% of gonorrhoea diagnoses in 2012 were in MSM; a small reduction from 20% in 2011 (not accounting for those of unknown sexual orientation).

Table 5: Numbers (percentages) of HIV and STI diagnoses made in ISH clinics across Wales in A) 2011 and B) 2012, by person group. * PHE new diagnoses

A) 2011

2011	Syphilis (pri & sec)	Gonorrhoea	Chlamydia	Genital herpes (first episode)	Genital warts (first episode)	HIV (PHE*)
Heterosexual women	6 (15%)	97 (23%)	1366 (39%)	447 (48%)	1363 (40%)	38 (23%)
Heterosexual men	9 (23%)	151 (35%)	1334 (38%)	272 (29%)	1318 (39%)	24 (14%)
MSM	20 (50%)	87 (20%)	101 (3%)	11 (1%)	54 (2%)	81 (48%)
Other/Unknown - Female	1 (3%)	33 (8%)	348 (10%)	115 (12%)	328 (10%)	13 (8%)
Male	4 (10%)	60 (14%)	335 (10%)	93 (10%)	327 (10%)	12 (7%)
All cases	40 (100%)	428 (100%)	3484 (100%)	938 (100%)	3390 (100%)	168 (100%)

B) 2012

2012	Syphilis (pri & sec)	Gonorrhoea	Chlamydia	Genital herpes (first episode)	Genital warts (first episode)	HIV (PHE*)
Heterosexual women	0 (0%)	286 (32%)	1996 (42%)	588 (48%)	1471 (38%)	31 (25%)
Heterosexual men	21 (42%)	310 (35%)	1686 (36%)	381 (31%)	1716 (44%)	17 (14%)
MSM	23 (46%)	122 (14%)	105 (2%)	15 (1%)	62 (2%)	54 (43%)
Other/Unknown - Female	0 (0%)	76 (9%)	492 (10%)	155 (13%)	314 (8%)	8 (6%)
Male	6 (12%)	96 (11%)	418 (9%)	74 (6%)	348 (9%)	15 (12%)
All cases	50 (100%)	890 (100%)	4697 (100%)	1213 (100%)	3912 (100%)	125 (100%)

Table notes:

- Numbers of new HIV diagnoses are those reported by PHE, and include those reported as being transmitted through sex between men or heterosexual contact
- Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- These data were not imputed
- Diagnoses made in clinics in Carmarthenshire or Pembrokeshire have been included; for these clinics, all females were assumed to be heterosexual
- The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A).

The proportions of diagnoses within each person group are depicted in Fig. 9. In 2012, in Wales, the most commonly diagnosed infections in MSM were gonorrhoea and chlamydia, representing 32% and 28% of new diagnoses, respectively. In 2011, chlamydia (29%) was slightly more common than gonorrhoea (25%) in MSM, but this change is likely representative of the increase in gonorrhoea seen in Wales in 2012. Indeed, gonorrhoea diagnoses formed a higher proportion of diagnoses in all groups in 2012 compared to 2011. In both years, the most commonly diagnosed infections in heterosexual individuals were chlamydia and genital warts.

Importantly, there were also 826 MSM who received HIV-related care in Wales in 2012, compared to 603 individuals who were thought to contract HIV through heterosexual contact. A further breakdown of individuals who received HIV-related care in 2012 can be found in Appendix Tables A6 and A7.

New diagnoses of HIV in young MSM (15-24 year olds) can be a useful measure of HIV transmission, as these diagnoses are more likely to represent recent infections. The number of diagnoses in young MSM in Wales was 14 in 2010, 13 in 2011 and 10 in 2012.

Figure 9: Proportion of diagnoses within each person group, across Wales in 2011 and 2012.

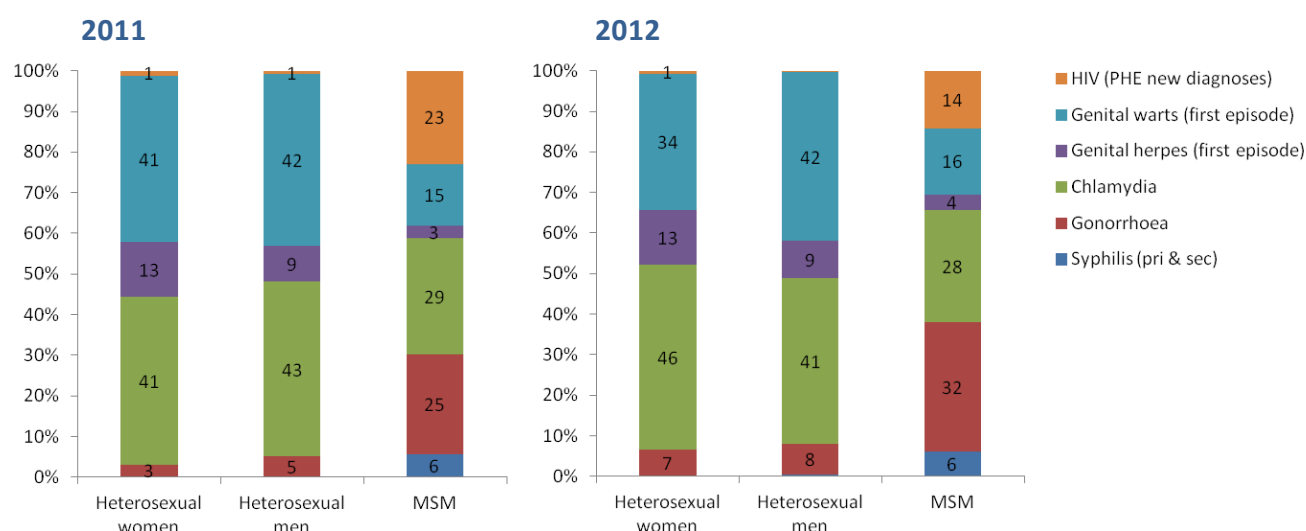


Figure notes:

- i) Numbers of new HIV diagnoses are those reported by PHE, and include those reported as being transmitted through sex between men or heterosexual contact
- ii) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- iii) These data were not imputed
- iv) Diagnoses made in clinics in Carmarthenshire or Pembrokeshire have been included; for these clinics, all females were assumed to be heterosexual
- v) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A).

8: HIV and STIs in Black and Minority Ethnic groups

Some black and minority ethnic groups (BME) are disproportionately affected by HIV and selected STIs. Description of ethnicity has become more reliable in SWS since 2011, and we describe here diagnoses made in ISH clinics in 2011 and 2012.

Rates of HIV and STI diagnoses in Wales in 2011 and 2012 are provided by ethnicity in Tables 6A and 6B. In both 2011 and 2012, the majority of STI diagnoses were in white individuals. However, ethnicity-specific rates highlight that other groups are often disproportionately affected. For example, 16.8% of new HIV diagnoses in 2012 were in black individuals, with a rate of 114.9 per 100,000 population; this rate was 41-fold that of the HIV rate in white individuals. All of the black individuals who were diagnosed with HIV in both 2011 and 2012 were black African (Table 7). In contrast, although not shown below, the majority of black individuals diagnosed with the other STIs were recorded as being of "other" black descent, though this difference may simply reflect recording practices.

Table 6: Rates (percentages) of HIV and STI diagnoses made in ISH clinics in Wales in A) 2011 and B) 2012, by ethnic group.

A) 2011

Ethnicity	2011 population	Syphilis (pri&sec)	Gonorrhoea	Chlamydia	Genital herpes (first episode)	Genital warts (first episode)	HIV (PHE*)
Asian	70,128 (2.3%)	- (2.6%)	0.0 (0.0%)	21.4 (0.5%)	11.4 (0.9%)	15.7 (0.4%)	7.1 (3.0%)
Black	18,276 (0.6%)	- (0.0%)	49.2 (2.3%)	224.3 (1.3%)	43.8 (0.9%)	76.6 (0.5%)	125.8 (13.7%)
Mixed	31,521 (1.0%)	- (5.3%)	44.4 (3.6%)	95.2 (1.0%)	41.2 (1.5%)	76.1 (0.8%)	19.0 (3.6%)
White	2,928,253 (95.6%)	- (92.1%)	11.6 (86.5%)	92.4 (86.0%)	24.0 (82.1%)	86.8 (82.5%)	3.6 (62.5%)
Other	15,278 (0.5%)	- (0.0%)	19.6 (0.8%)	117.8 (0.6%)	19.6 (0.4%)	111.3 (0.6%)	0.0 (0.0%)
Unknown	...	- (0.0%)	- (6.9%)	- (10.7%)	- (14.1%)	- (15.3%)	- (17.3%)
Total	3,063,456 (100%)	1.2 (100%)	12.8 (100%)	102.7 (100%)	27.9 (100%)	100.5 (100%)	5.5 (100%)

B) 2012

Ethnicity	2011 population	Syphilis (pri&sec)	Gonorrhoea	Chlamydia	Genital herpes (first episode)	Genital warts (first episode)	HIV (PHE*)
Asian	70,128 (2.3%)	- (0.0%)	10.0 (0.8%)	42.8 (0.7%)	10.0 (0.6%)	24.2 (0.5%)	4.3 (2.4%)
Black	18,276 (0.6%)	- (2.1%)	87.5 (1.9%)	344.7 (1.4%)	49.2 (0.8%)	191.5 (1.0%)	114.9 (16.8%)
Mixed	31,521 (1.0%)	- (0.0%)	12.7 (0.5%)	152.3 (1.1%)	38.1 (1.1%)	76.1 (0.7%)	3.2 (0.8%)
White	2,928,253 (95.6%)	- (74.5%)	21.3 (72.6%)	103.8 (69.3%)	26.6 (70.2%)	83.9 (68.2%)	2.8 (64.8%)
Other	15,278 (0.5%)	- (0.0%)	19.6 (0.3%)	144.0 (0.5%)	19.6 (0.3%)	98.2 (0.4%)	0.0 (0.0%)
Unknown	...	- (23.4%)	- (23.9%)	- (27.0%)	- (27.0%)	- (29.3%)	- (15.2%)
Total	3,063,456 (100%)	1.5 (100%)	28.0 (100%)	143.1 (100%)	36.2 (100%)	117.6 (100%)	4.1 (100%)

Table notes:

*, Public Health England, new diagnoses

i) Rates are per 100,000 ethnicity-specific population, using 2011 population estimates from ONS

ii) Percentages represent the proportion of each STI that is diagnosed within a specific ethnicity group

iii) Diagnoses of STIs were reported from ISH clinics across Wales via SWS

iv) These data were not imputed and the counts may be partially reflective of levels of reporting each year

v) Diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included

vi) Diagnoses made in clinics in ABMU are incomplete for 2011

vii) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

viii) Syphilis rates are not shown by ethnicity, as counts were very low

The proportions of diagnoses within each ethnic group are depicted in Fig. 10. In 2012, in Wales, the most commonly diagnosed infections within most ethnic groups were chlamydia and genital warts. In black individuals, however, new HIV diagnoses were also high, representing 14% of all new diagnoses. Proportions were similar in 2011, although the two most commonly diagnosed infections in black individuals were chlamydia (43%) and HIV (24%). In addition, in 2012, there were also 213 black African females and 84 black African males, who were residents in Wales, receiving HIV-related care in Wales (Table 7).

Figure 10: Proportion of diagnoses within each ethnic group, across Wales in 2011 and 2012.

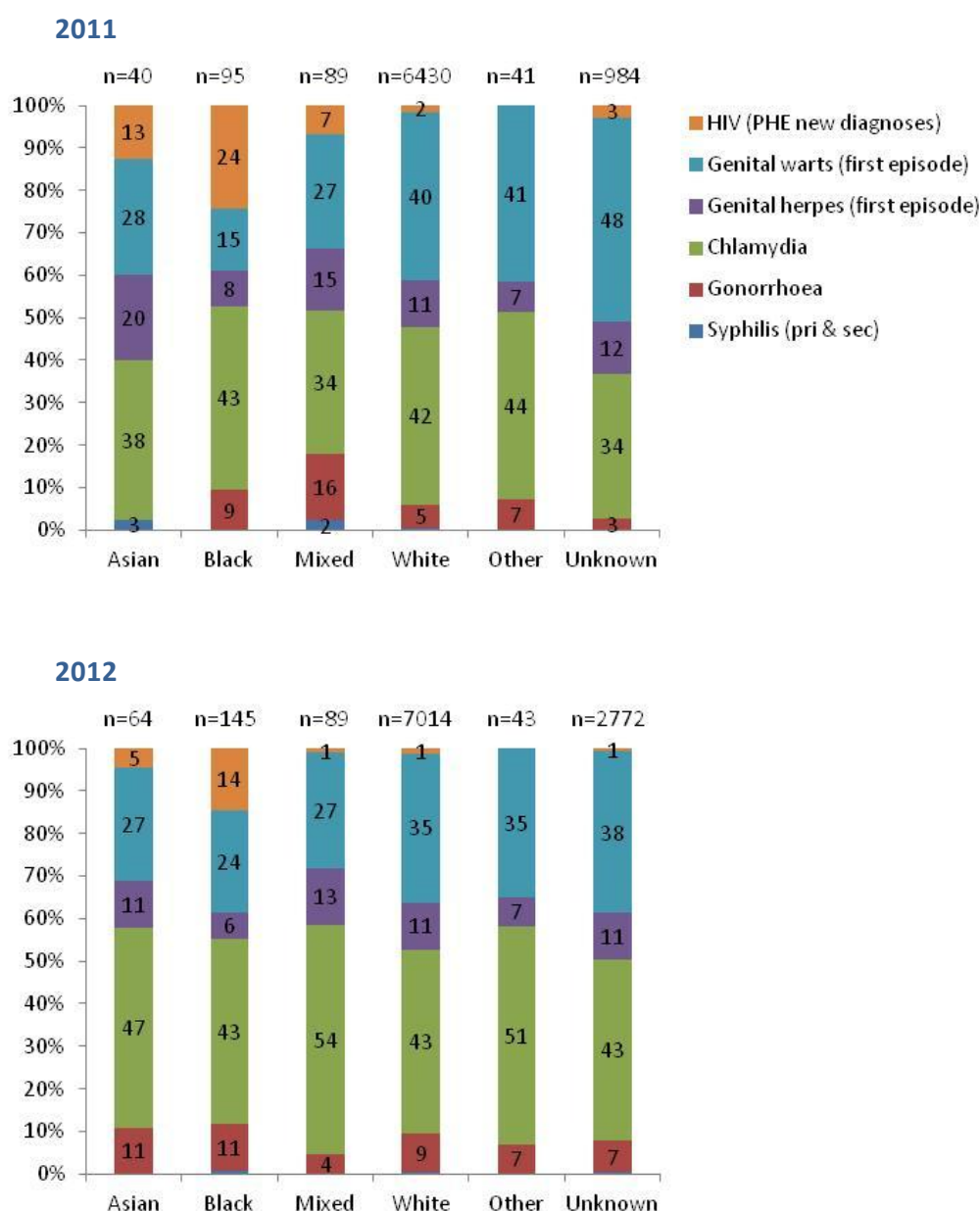


Table and figure notes:

- i) Numbers of new HIV diagnoses are those reported by PHE
- ii) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- iii) These data were not imputed
- iv) Diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included
- v) The following KC60/SHHAPT codes were used: primary and secondary syphilis (A1, A2), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Recent trends of new HIV diagnoses and individuals receiving HIV-related care in Wales, as reported by PHE, are shown by ethnic group (Table 7). From 2008 to 2012, most new HIV diagnoses were in white individuals, the majority of which were males. The majority of females however were black African, although in 2011 there were more diagnoses in white females than black African females (not accounting for those of unknown ethnicity). Most men with new diagnoses (55%, 354/649) were thought to have acquired the infection in the UK, whereas only 24% (61/253) of women with a new diagnosis were thought to have acquired the infection in the UK.

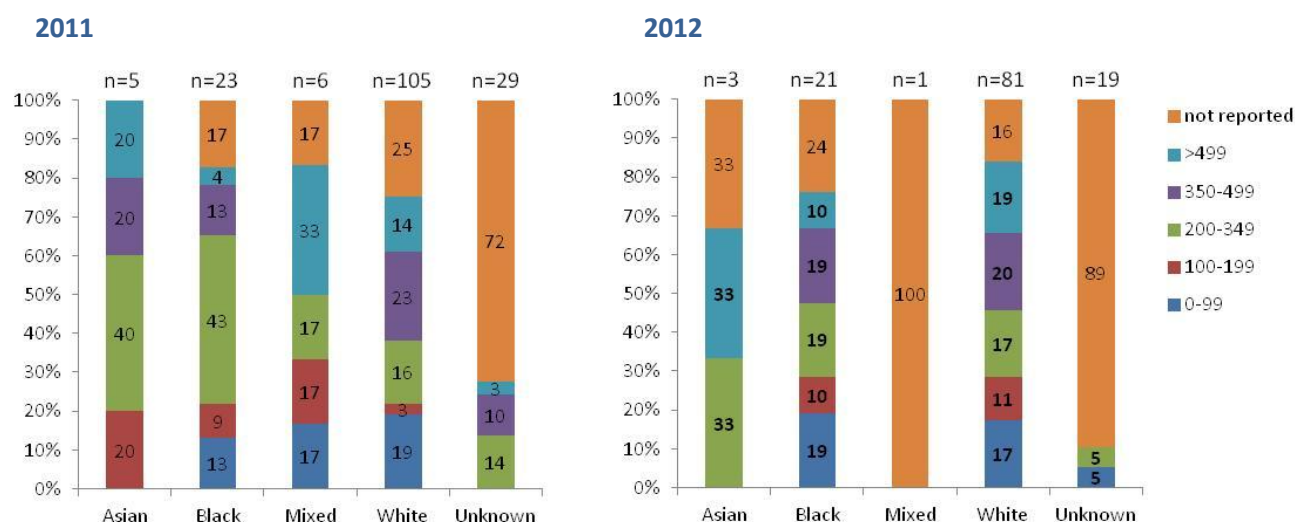
Corresponding to the new HIV diagnoses, the majority of females receiving HIV-related care in Wales during this time period were black African, and the majority of males were white. The number of individuals described as “Asian other” who received HIV-related care has increased over this 5 year period.

Table 7: New HIV diagnoses and residents receiving HIV-related care in Wales, by ethnic group and gender. Data recorded by PHE, as at end June 2013. *, for SOPHID data, mixed ethnicity and other ethnicity groups are combined, though mixed ethnicity is categorised separately for the new diagnoses.

Ethnicity	Receiving HIV-related care (SOPHID)					New HIV diagnoses				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Black African	211	237	262	301	297	41	26	37	23	21
Female	134	169	180	204	213	21	19	21	15	17
Male	77	68	82	97	84	20	7	16	8	4
Black Caribbean	3	4	7	6	6	0	0	1	0	0
Black other	5	5	7	5	5	1	0	1	0	0
Indian/Pakistani/Bangladeshi	6	7	7	12	11	0	3	1	1	1
Asian other	17	23	27	34	37	2	1	1	4	2
Mixed (or other*)	24	30	27	27	26	5	5	4	6	1
White	809	885	983	1,087	1,151	91	96	86	105	81
Female	100	116	123	136	141	15	8	9	18	10
Male	709	769	860	951	1,010	76	88	77	87	71
Not known	3	1	0	2	2	3	10	20	29	19
Total	1,078	1,192	1,320	1,474	1,535	143	141	151	168	125

When individuals are newly diagnosed as being HIV-positive, a CD4+ cell count is recorded; this can be used as a marker of how soon after infection the diagnosis has been made, with a lower count representing a later stage of infection. CD4+ count at diagnosis in 2011 and 2012 is depicted by ethnicity in Fig. 11. The British HIV association recommends that an infected individual should start anti-retroviral treatment when their cell count is at or below 350 cells/mm³. Although the overall number of individuals was quite low in 2011, 65% of black individuals had a cell count of <350 cells/mm³ at diagnosis, compared to only 38% of white individuals, possibly indicating that black individuals are not being diagnosed as readily. In 2012, however, the proportions of black and white individuals who had a cell count of <350 cells/mm³ at diagnosis were similar.

Figure 11: Proportion of new HIV diagnoses within each ethnic group, across Wales in 2011 and 2012, by CD4+ cell count. Data reported by PHE, as at end June 2013. Cell count groups are measured in cells/mm³. Numbers in each ethnic group are shown above the columns.



Appendix Tables

Table A1: *Treponema pallidum* cases from CoSurv laboratory reporting system, by age and gender, 2010-2013. * As at 15th November 2013. Includes cases of infectious and late syphilis. Duplicate reports have been removed.

Age group	Male				Female			
	2010	2011	2012	2013*	2010	2011	2012	2013*
01-04 yrs	<5	<5	<5	<5	<5	<5	<5	<5
05-14 yrs	<5	<5	<5	<5	<5	<5	<5	<5
15-24 yrs	5	5	10	14	<5	<5	<5	5
25-34 yrs	9	8	17	9	5	<5	8	11
35-44 yrs	14	5	10	21	<5	<5	5	9
45-54 yrs	9	6	<5	9	<5	<5	6	7
55-64 yrs	<5	<5	<5	5	<5	<5	<5	<5
65+ yrs	<5	<5	<5	<5	<5	<5	<5	<5
Total	38	27	44	61	13	8	26	35

Table A2: Numbers of all KC60/SHHAPT diagnoses received from ISH clinics via SWS, across Wales. These data do not include diagnoses made in ISH clinics in Carmarthenshire or Pembrokeshire, and do not include any new SHHAPT codes from clinics in Abertawe Bro Morgannwg in 2011. These data have not been imputed and so may be reflective of levels of reporting.

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
A1	Primary infectious syphilis	2	28	30	3	33	36	4	34	38	6	32	38	3	21	24	0	27	27
A2	Secondary infectious syphilis	0	22	22	3	32	35	1	15	16	1	12	13	3	11	14	0	20	20
A3	Early latent syphilis	2	20	22	4	27	31	3	10	13	4	12	16	4	15	19	1	17	18
A4	Other acquired syphilis	10	5	15	6	11	17	3	7	10	3	8	11	0	2	2	0	0	0
A5	Other acquired syphilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
A6	Other acquired syphilis	8	22	30	6	18	24	9	24	33	4	10	14	7	7	14	6	18	24
A7	Congenital syphilis - aged under 2 years	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A7A	Congenital Syphilis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
A8	Congenital syphilis - aged 2 or over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A9	Epidemiological treatment of suspected syphilis	4	10	14	2	18	20	3	6	9	3	6	9	0	2	2	0	0	0
B	Gonorrhoea	0	0	0	0	0	0	56	102	158	28	28	56	89	178	267	345	508	853
B1	Uncomplicated gonorrhoea	115	301	416	124	259	383	94	209	303	74	153	227	34	89	123	1	4	5
B2	Uncomplicated gonorrhoea	1	1	2	0	0	0	3	2	5	0	1	1	1	1	2	0	0	0
B3	Gonococcal ophthalmia neonatorum	0	0	0	2	0	2	2	0	2	1	0	1	0	0	0	1	0	1
B4	Epidemiological treatment of suspected gonorrhoea	70	85	155	97	82	179	90	103	193	64	88	152	29	60	89	0	0	0
B5	Complicated gonococcal infection - including PID and epididymitis	2	0	2	5	2	7	13	0	13	4	2	6	1	0	1	0	0	0
C1	Chancroid/Donovanosis/LGV	2	1	3	0	3	3	2	3	5	0	1	1	11	8	19	1	4	5
C2	Chancroid/Donovanosis/LGV	0	1	1	2	1	3	2	4	6	0	3	3	2	2	4	1	2	3
C3	Chancroid/Donovanosis/LGV	1	0	1	1	1	2	0	1	1	0	0	0	1	2	3	7	1	8
C4	Chlamydia	0	0	0	0	0	0	620	627	1247	394	281	675	1015	985	2000	2288	2034	4322
C4A	Uncomplicated chlamydial infection	1706	1457	3163	2035	1934	3969	1530	1469	2999	1397	1261	2658	549	594	1143	38	25	63
C4B	Complicated Chlamydial infection - including PID and epididymitis	62	26	88	79	29	108	50	20	70	52	17	69	27	6	33	5	0	5
C4C	Uncomplicated chlamydial infection	9	11	20	12	12	24	11	3	14	7	4	11	1	1	2	0	0	0
C4D	Chlamydial ophthalmia neonatorum	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
C4E	Epidemiological treatment of suspected chlamydia	762	1078	1840	766	1105	1871	683	949	1632	611	845	1456	240	397	637	25	22	47

Table A2 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
C4H	Uncomplicated non-gonococcal/non-specific urethritis in males or treatment of mucopurulent cervicitis	324	2019	2343	252	1771	2023	357	1466	1823	297	1049	1346	51	435	486	2	11	13
C4I	Epidemiological treatment of NSGI	342	128	470	297	135	432	239	123	362	157	91	248	80	61	141	0	1	1
C4N	Non-Specific genital infection	0	0	0	0	0	0	0	0	0	0	1	1	91	438	529	266	1071	1337
C5	Complicated infection (non-chlamydial/non-gonococcal) - including PID and epididymitis	319	109	428	264	99	363	209	100	309	217	92	309	87	32	119	25	22	47
C5A	Pelvic inflammatory disease / epididymitis	0	0	0	0	0	0	58	10	68	62	13	75	183	65	248	330	135	465
C5B	Ophthalmia neonatorum	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2
C6A	Trichomoniasis	40	0	40	73	10	83	67	6	73	55	3	58	28	9	37	55	7	62
C6B	Anaerobic/Bacterial vaginosis & anaerobic balanitis	2510	106	2616	2566	120	2686	2725	71	2796	2034	66	2100	1693	74	1767	1939	95	2034
C6C	Other vaginosis/vaginitis/balanitis	51	503	554	54	452	506	79	341	420	62	214	276	131	366	497	130	365	495
C7	Anogenital candidosis	0	1	1	0	0	0	750	45	795	375	26	401	971	153	1124	1609	451	2060
C7A	Anogenital candidosis	2250	292	2542	2315	330	2645	1496	338	1834	1311	280	1591	532	135	667	34	14	48
C7B	Epidemiological treatment of C6 and C7	103	96	199	184	133	317	184	143	327	180	163	343	137	92	229	0	0	0
C8	Scabies/Pediculosis pubis	4	33	37	4	32	36	5	40	45	4	33	37	6	40	46	11	56	67
C9	Scabies/Pediculosis pubis	0	17	17	1	21	22	2	12	14	0	6	6	0	12	12	1	21	22
C10A	Anogenital herpes simplex - first attack	398	216	614	436	292	728	476	221	697	439	253	692	504	352	856	675	435	1110
C10B	Anogenital herpes simplex - recurrence	158	136	294	222	169	391	214	126	340	216	124	340	216	153	369	314	219	533
C11A	Anogenital warts - first attack	1677	1697	3374	1737	1844	3581	1678	1761	3439	1549	1515	3064	1539	1541	3080	1636	1965	3601
C11B	Anogenital warts - recurrence	499	797	1296	569	865	1434	579	875	1454	583	810	1393	306	406	712	93	154	247
C11C	Anogenital warts - reregistered cases	397	375	772	293	339	632	176	216	392	124	155	279	49	45	94	8	4	12
C11D	Anogenital warts infection: recurrence	0	0	0	0	0	0	0	2	2	2	5	7	334	470	804	898	1217	2115
C12	Molluscum contagiosum	172	292	464	172	319	491	145	279	424	118	240	358	113	258	371	131	256	387
C13	Antigen positive hepatitis B	0	0	0	0	1	1	2	5	7	0	2	2	4	4	8	8	31	39
C13A	Viral hepatitis B (Hbs Ag positive): first diagnosis**	6	20	26	2	9	11	3	7	10	4	9	13	1	4	5	0	2	2
C13B	Viral hepatitis B ** of which were acute viral hepatitis B	1	3	4	0	1	1	0	0	0	2	2	4	0	0	0	0	0	0
C13C	Viral hepatitis B: subsequent presentation	1	6	7	3	8	11	4	5	9	4	8	12	1	0	1	0	0	0

Table A2 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
C14	Viral hepatitis C: first diagnosis	14	25	39	10	21	31	7	20	27	8	16	24	13	14	27	22	28	50
C15	Viral Hepatitis A: Acute Infection	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
D2A	Urinary tract infection	140	12	152	176	16	192	187	25	212	154	20	174	179	31	210	260	49	309
D2B	Other episodes requiring treatment at a GUM clinic	1477	1521	2998	1448	1522	2970	1563	1171	2734	1119	1064	2183	1164	1343	2507	1278	1404	2682
D3	Other episodes not requiring treatment	4928	6217	11145	7577	8410	15987	9785	8608	18393	12024	7952	19976	14143	8912	23055	18171	11430	29601
E1A	New HIV diagnosis: asymptomatic	17	68	85	20	46	66	8	36	44	12	30	42	4	3	7	1	0	1
E1B	Subsequent HIV presentation (not AIDS)	0	0	0	0	0	0	0	1	1	0	4	4	5	12	17	0	0	0
E1BE2B	Subsequent HIV presentation (not AIDS)	389	1028	1417	336	772	1108	87	199	286	125	202	327	22	52	74	0	0	0
E2A	New HIV diagnosis: symptomatic (not AIDS)	10	25	35	8	23	31	6	2	8	8	18	26	4	7	11	0	0	0
E2B	Subsequent HIV presentation (not AIDS)	0	0	0	0	0	0	0	0	0	2	4	6	42	71	113	0	0	0
E3A	AIDS - first presentation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E3A1	AIDS: first presentation - new HIV diagnosis	1	5	6	1	5	6	0	2	2	0	0	0	0	0	0	0	0	0
E3A2	AIDS: first presentation - HIV diagnosed previously	0	1	1	2	1	3	0	1	1	0	0	0	0	0	0	0	0	0
E3B	AIDS - subsequent presentation	32	180	212	40	158	198	30	68	98	19	69	88	12	45	57	0	0	0
H	HIV positive	0	0	0	0	0	0	0	0	0	0	0	0	2	9	11	6	24	30
H1	New HIV diagnosis	0	0	0	0	0	0	6	16	22	2	10	12	7	24	31	14	27	41
H1A	New HIV diagnosis: Acute	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	5	7
H1B	New HIV diagnosis: Late	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	2	6	8
H2	Attendance for HIV related care	0	0	0	0	0	0	38	87	125	6	39	45	79	275	354	277	853	1130
P1A	HIV antibody test (no sexual health screen)	667	992	1659	578	809	1387	554	703	1257	428	588	1016	458	591	1049	656	628	1284
P1AS2	All HIV antibody tests	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P1B	HIV antibody test offered and refused	3708	3410	7118	4163	4016	8179	4804	4026	8830	4938	3623	8561	4526	3278	7804	7576	4468	12044
P1C	HIV test inappropriate	0	0	0	0	0	0	0	1	1	4	2	6	255	67	322	600	388	988

Table A2 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
P2	Hepatitis B vaccination (1st dose only)	158	429	587	142	357	499	88	201	289	73	216	289	29	84	113	26	50	76
P2A	Hepatitis B vaccination: 1st Dose	0	0	0	0	0	0	77	121	198	87	63	150	132	189	321	252	443	695
P2B	Hepatitis B vaccination: 2nd Dose	0	0	0	0	0	0	0	0	0	2	2	4	58	73	131	116	278	394
P2C	Hepatitis B vaccination: 3rd Dose	0	0	0	0	0	0	0	1	1	2	4	6	48	74	122	105	233	338
P2I	Hepatitis B immune	0	0	0	0	0	0	1	0	1	1	4	5	38	104	142	206	437	643
P3	Contraception (excluding condom provision)	509	6	515	1785	16	1801	2742	25	2767	4802	27	4829	5294	22	5316	13251	84	13335
P4	Cervical cytology done	0	0	0	0	0	0	0	0	0	2	0	2	849	4	853	2502	11	2513
P4A	Cervical Cytology - minor abnormality	139	0	139	221	3	224	198	1	199	117	1	118	104	0	104	82	1	83
P4B	Cervical Cytology - major abnormality	13	0	13	32	0	32	38	0	38	25	0	25	21	0	21	14	0	14
PEPS2	Post exposure prophylaxis after sexual exposure (PEPSE)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PN	Partner notification initiated	0	0	0	0	0	0	0	0	0	0	0	0	72	59	131	410	349	759
PNC	Partner notification related attendance: Chlamydia	0	0	0	0	0	0	0	0	0	1	2	3	235	407	642	810	1323	2133
PNG	Partner notification related attendance: Gonorrhoea	0	0	0	0	0	0	0	0	0	0	1	1	41	56	97	103	174	277
PNH	Partner notification related attendance: HIV	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	3	13	16
PNS	Partner notification related attendance: Syphilis	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	6	15	21
S1	Sexual health screen (no HIV antibody test)	4227	3780	8007	4449	3936	8385	4165	3183	7348	4687	3491	8178	2613	1860	4473	6	9	15
S2	HIV antibody test and sexual health screen	8046	9195	17241	9640	10520	20160	7130	7309	14439	7070	7182	14252	3751	3796	7547	16	14	30
SW	Sex Worker	0	0	0	0	0	0	0	0	0	0	0	0	7	1	8	28	5	33
T1	Chlamydia test	0	0	0	0	0	0	0	0	0	0	0	0	391	367	758	127	38	165
T2	Chlamydia and gonorrhoea tests	0	1	1	0	0	0	0	0	0	1	0	1	2542	1480	4022	9583	5555	15138
T3	Chlamydia, gonorrhoea and syphilis tests	0	0	0	0	0	0	1011	801	1812	673	353	1026	419	321	740	114	163	277
T4	Full sexual health screen including HIV antibody test	0	0	0	0	0	0	3378	2730	6108	2283	1380	3663	5861	5492	11353	13118	12532	25650

Table A3: Syphilis cases from the enhanced surveillance scheme in Wales, by stage of infection and person group, 2002-2013. * As at 3rd December 2013.

Person group	Stage of infection	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*
MSM	Primary	10	23	13	22	18	21	44	23	19	22	10	24
	Secondary	4	10	14	9	16	22	28	12	16	10	17	5
	Early latent	6	5	10	6	8	14	17	5	17	14	8	10
	Unknown	2	4	1	0	2	7	5	4	2	2	11	6
	Total	22	42	38	37	44	64	94	44	54	48	46	45
Heterosexual men	Primary	1	7	5	5	4	8	9	1	8	6	3	4
	Secondary	1	1	0	0	5	4	5	2	1	2	1	1
	Early latent	1	3	3	2	4	4	3	2	4	1	1	0
	Unknown	1	0	1	0	3	3	1	0	2	1	0	0
	Total	4	11	9	7	16	19	18	5	15	10	5	5
Heterosexual women	Primary	0	2	1	1	3	1	1	0	3	3	2	0
	Secondary	0	0	0	1	3	0	2	1	0	2	0	1
	Early latent	1	2	1	3	7	4	4	3	3	1	0	4
	Unknown	8	1	1	1	1	2	1	1	0	2	4	2
	Total	9	5	3	6	14	7	8	5	6	8	6	7
Other/Unknown	Total	0	0	0	0	2	0	0	2	0	0	2	1
All people	Primary	11	32	19	28	25	30	54	25	30	31	15	28
	Secondary	5	11	14	10	24	26	35	15	17	14	18	7
	Early latent	8	10	14	11	20	22	24	10	24	16	10	14
	Unknown	11	5	3	1	7	12	7	6	4	5	16	9
	Total	35	58	50	50	76	90	120	56	75	66	59	58
Total		35	58	50	50	76	90	120	56	75	66	59	58

Table A4: Rates per 100,000 population of HIV and selected STIs diagnosed in ISH clinics across Wales in 2011 and 2012, by gender and LA of residence.

Residence LA and HB	HIV - SOPHID				Gonorrhoea				Chlamydia				Genital herpes				Genital warts				STI tests			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Bridgend†	26	30	57	68	-	33	-	35	-	192	-	139	21	47	16	38	128	117	103	129	-	2,219	-	1,309
Neath Port Talbot†	8	8	63	67	-	24	-	29	-	198	-	156	13	47	16	50	53	126	66	200	-	2,033	-	1,255
Swansea†	46	46	77	78	-	18	-	41	-	163	-	144	25	64	18	45	64	138	82	191	-	2,294	-	1,648
ABMU†	30	32	68	73	-	24	-	36	-	180	-	146	21	55	17	44	78	129	83	177	-	2,203	-	1,452
Blaenau Gwent	3	3	55	67	11	23	17	17	99	135	146	102	28	39	32	38	118	90	154	169	848	994	1,087	1,218
Caerphilly	13	14	50	50	10	36	35	42	95	125	129	146	46	47	31	18	117	101	139	131	1,012	1,165	1,133	1,191
Monmouthshire	19	19	62	69	2	2	7	13	52	56	60	69	32	24	11	22	88	86	71	107	737	864	787	918
Newport	50	58	95	94	30	34	50	52	215	321	183	240	65	99	53	42	173	148	189	210	2,666	3,252	1,973	2,349
Torfaen	13	19	50	67	15	41	32	47	154	173	176	175	28	60	43	36	150	141	191	144	1,469	1,792	1,445	1,654
Aneurin Bevan	22	25	64	69	15	29	32	38	128	172	141	157	43	58	35	30	132	115	151	154	1,439	1,724	1,334	1,516
Isle of Anglesey	11	8	32	32	3	3	6	12	138	129	122	168	23	31	20	20	135	98	105	90	886	867	902	935
Conwy	10	10	77	91	10	20	11	23	237	240	142	199	49	52	32	30	141	131	136	161	1,898	2,122	1,258	1,474
Denbighshire	15	15	35	35	15	31	13	24	163	182	145	177	46	61	26	35	155	138	137	123	1,856	1,973	1,163	1,355
Flintshire	9	9	53	54	1	5	8	15	66	83	72	70	18	27	16	20	75	68	58	70	739	815	464	532
Gwynedd	24	24	62	60	2	3	7	18	108	103	105	116	29	31	15	18	89	86	70	83	829	773	899	894
Wrexham	32	31	52	52	6	4	15	10	266	233	211	177	59	60	39	33	121	89	124	115	1,755	1,681	1,239	1,183
BCU	17	17	54	56	6	11	10	17	162	161	132	145	37	43	25	26	115	99	102	106	1,317	1,362	965	1,034
Cardiff	65	60	178	170	16	44	36	62	120	188	123	157	42	53	29	30	88	123	97	132	1,285	1,569	1,074	1,416
Vale of Glamorgan	17	18	76	73	6	6	11	26	51	57	73	71	23	20	16	13	65	75	57	84	605	710	601	648
Cardiff & Vale	52	49	151	144	13	34	29	52	101	153	110	134	37	44	25	26	81	110	86	119	1,101	1,338	948	1,212
Merthyr Tydfil	17	23	69	66	0	10	10	24	53	30	73	76	13	0	10	10	73	60	111	104	426	485	556	566
Rhondda, Cynon, Taff	13	14	56	66	3	16	18	29	69	71	78	84	33	31	15	23	120	91	117	111	697	753	668	741
Cwm Taf	13	16	59	66	3	15	17	28	66	63	77	83	29	25	14	20	111	85	116	110	643	699	645	706
Carmarthenshire*	12	15	51	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ceredigion	8	8	45	53	0	5	0	5	50	74	27	74	8	13	8	5	63	89	37	105	624	1,002	462	1,018
Pembrokeshire*	19	19	37	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hywel Dda	13	15	45	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powys Teaching	7	9	55	53	0	0	3	11	19	33	15	52	4	9	8	5	34	33	32	58	220	394	195	455
Wales	24	25	73	75	7	19	16	29	92	134	92	122	29	40	21	25	91	96	93	119	909	1,350	792	1,084

†, Diagnoses of gonorrhea, chlamydia and STI tests from clinics in Abertawe Bro Morgannwg in 2011 are incomplete. *, diagnoses made in clinics in Carmarthenshire or Pembrokeshire were not included in these analyses. i) HIV rates were based on the number of individuals receiving HIV-related care, as reported in SOPHID by PHE. ii) Diagnoses of STIs were reported from ISH clinics across Wales via SWS. iii) These data have not been imputed and may be partially representative of completeness of reporting. In addition, only individuals for whom a residence LA was provided were included. iv) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A), first episode of genital warts (C11A) and STI tests (S1, S2, T1, 2, T3, T4). v) Gender- and LA-specific rates were calculated using mid-year estimates provided by StatsWales

Table A5: New HIV diagnoses by gender and possible exposure category, 2007-2012. Source: New HIV diagnoses, Public Health England, as at end June 2013.

Exposure category	Female						Male					
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
Sex between men	...	...	...	...	...	...	93	64	79	61	81	54
Heterosexual contact	39	39	31	33	38	31	35	31	23	36	24	17
Injecting drug use	1	0	0	0	1	0	1	3	0	1	2	1
Mother-to-infant	2	0	2	0	0	1	0	1	0	1	0	0
Blood/Tissue transfer	0	0	1	0	0	0	0	1	0	1	0	0
Other	1	0	0	0	0	0	0	0	0	1	0	0
Unknown	1	3	3	7	12	7	1	1	2	10	10	14
Total	44	42	37	40	51	39	130	101	104	111	117	86

Notes for New Diagnoses: Data provided by Public Health England. Years represent year of first diagnosis. Data will include some records of the same individuals which are unmatchable because of differences in the information supplied.

Table A6: Residents of Wales who received HIV-related care in 2012, by age group and clinical stage of infection. Source: SOPHID, Public Health England.

Age group	Asymptomatic		Symptomatic before AIDS		AIDS		Death in 2011 in a patient without AIDS		Death in 2011 in a patient with AIDS		Not known		Total	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
0-15	0	0	0	0	0	0	0	0	0	0	8	5	8	5
16-24	14	37	8	7	1	1	0	0	0	0	2	2	25	47
25-34	41	99	30	73	8	10	0	0	0	0	1	3	80	185
35-44	57	94	66	149	42	75	0	0	0	1	5	5	170	324
45-54	20	104	34	135	34	115	0	0	0	1	3	5	91	360
55-64	8	36	6	62	3	59	0	0	0	0	1	4	18	161
65+	3	14	1	21	1	20	0	0	0	1	0	0	5	56
Total	143	384	145	447	89	280	0	0	0	3	20	24	397	1,138

Table A7: Residents of Wales who received HIV-related care in 2012, by ethnicity and possible route of exposure. Source: SOPHID, Public Health England.

Ethnicity	Sex between men		Sex between men & women		Mother-to-child transmission		Injecting drug use		Blood/ blood product		Other/ unknown		Total	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Black African	...	4	198	70	7	7	1	1	1	0	6	2	213	84
Black Caribbean	...	2	2	1	1	0	0	0	0	0	0	0	3	3
Black other	...	3	2	0	0	0	0	0	0	0	0	0	2	3
Indian/ Pakistani/ Bangladeshi	...	6	1	4	0	0	0	0	0	0	0	0	1	10
Asian other	...	7	27	1	0	0	0	0	0	0	1	1	28	9
Mixed or other	...	10	4	4	4	2	0	2	0	0	0	0	8	18
White	...	794	128	160	2	5	4	18	1	16	6	17	141	1,010
Unknown	...	0	1	0	0	0	0	0	0	0	0	1	1	1
Total	...	826	363	240	14	14	5	21	2	16	13	21	397	1,138

Notes for SOPHID: Data provided by Public Health England. These data include patients diagnosed with HIV infection, who were seen for statutory medical HIV-related care. This excludes infants born to HIV-infected women who were either uninfected or whose infection status was unknown. Patients with missing information may have been assigned values based on previous year's data. Individuals whose area of residence is unknown are not included.

Table A8: Number of new and existing blood donors who tested positive for HIV, HBV, HCV or *Treponema pallidum* infection in Wales, 2007 to 2012. Source: Welsh Blood Service and National Blood Service.

		2007	2008	2009	2010	2011	2012
Donors	New	12,667	12,937	11,526	10,453	10,915	9,487
(number bled)	Repeat	111,912	113,412	110,922	104,904	108,460	105,113
HIV	New	1	0	1	1	0	2
	Repeat	2	0	0	0	1	1
HBV	New	5	3	1	2	3	3
	Repeat	1	0	0	1	0	0
HCV	New	4	5	8	2	4	6
	Repeat	2	3	0	0	0	0
<i>T. pallidum</i>	New	2	0	4	0	2	3
	Repeat	2	2	1	2	2	1

Appendix 2

Report prepared by:

Public Health Wales
Communicable Disease Surveillance Centre:

Julie Arnott
Hannah Evans
David Florentin
Victoria McClure
Claire Midgley
Daniel Thomas

Editorial Team:

Rachel Jones	Consultant Virologist, Public Health Wales Microbiology Cardiff
Marion Lyons	Programme Lead, Public Health Wales Sexual Health Programme
Gwyneth Thomas	Health Statistics, Welsh Government
Olwen Williams	Consultant in Genitourinary Medicine, Wrexham Maelor Hospital
Carys Knapper	Consultant in Genitourinary Medicine, Newport
Noel Craine	Senior Scientist, Public Health Wales
Christopher Williams	Consultant Epidemiologist, Public Health Wales CDSC
Zoe Couzens	Health Protection Specialist, South East Wales Health Protection Team