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HIV and STI trends in Wales

Surveillance Report, July 2016

Author: Communicable Disease Surveillance Centre

Date: July 2016

V1

Status: Approved

Intended Audience: Health professionals

Purpose and Summary of Documents:

This report presents rates of HIV/AIDS and other sexually transmitted infections (STI) in Wales. Data are presented to the end of December 2014.

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 2012, there has been a general increase in the number of sexually transmitted infections (STIs) diagnosed in integrated sexual health (ISH) clinics across Wales.
- Between 2012 and 2014, in males, there were increases in the rates of syphilis (59%), gonorrhoea (31%), herpes (10%), and chlamydia (9%).
- In females, there were increases in chlamydia (20%) and herpes (9%).
- Part of the observed increase in STIs diagnoses may be due to increased testing. Between 2012 and 2014:
 - Gonorrhoea testing in males increased by 15%, with the positivity rate per 100,000 tested increasing by 4%.
 - Chlamydia testing increased by 27% in males and 12% in females, with a slight decrease in positivity in both genders.
- Changes in services may also explain part of the observed increase in diagnoses. For instance, laboratory data indicate that the increase seen in female diagnoses of chlamydia in ISH clinics may be in part due to the addition of former Family Planning or Community Contraceptive Services into the system.
- Data from SWS indicate that there is geographical variation in the incidence of STIs in Wales. In 2014, the percentage of gonorrhoea tests from ISH clinics for which a positive diagnosis was reported was high in those living in Caerphilly, Cardiff, and The Vale of Glamorgan. For chlamydia, the percentage positivity was high in those living in Blaenau Gwent, Caerphilly, and Torfaen, and Anglesey, Denbighshire and Wrexham.
- The number of new HIV diagnoses reported from all settings across Wales has increased since 2012, reaching the highest annual number in the last 15 years in 2014, with 189 cases. Between 2012 and 2014, the rate of new HIV diagnoses increased by 65% in males and 37% in females, whilst HIV testing increased by 48% and 34%, respectively. The number of diagnosed individuals per 100,000 tested increased by 13% in males and 3% in females.
- Sexual contact remains the probable exposure route for most newly HIV diagnosed individuals, with men who have sex with men (MSM) being disproportionately affected. Notably, in 2014 injecting drug use was the probable exposure category for 8 (4%) new HIV diagnoses, the highest percentage since 2002.
- The proportion of individuals newly diagnosed with HIV with a “late stage” diagnosis has remained around 55% for the last decade, highlighting the need for further increases in testing.
- Young people are still disproportionately affected by STIs. Trends in 15-24 years olds were similar to those in the population as a whole, though age-specific rates were considerably higher.
- A high percentage of STI and HIV diagnoses are in men who have sex with men (MSM). In 2014, 61% of syphilis diagnoses, 30% of gonorrhoea diagnoses, and 31% of HIV diagnoses were in MSM.
- Ethnicity-specific rates highlight that black and minority ethnic groups (BME) are often disproportionately affected by HIV and STIs. For example, in 2014 the rate of new HIV diagnoses in black individuals was 87.5 per 100,000; 25-fold the rate in white individuals.
- 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.
- The proportion of individuals newly diagnosed with HIV with a “late stage” diagnosis for the period 2010-2014 was very high in Asian and black individuals (82% and 80%, respectively), compared to white individuals (50%) and other/mixed ethnicities (55%).

Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 2 of 41	Intended Audience: Health professionals

- Although not covered in this report, antimicrobial resistance remains a concern. As reported by the Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP), the prevalence of isolates with resistance to azithromycin has declined slightly in 2014. The number of isolates resistant to azithromycin has decreased in all subgroups, reversing the trend in MSM since 2011. However, the ongoing outbreak of high-level azithromycin resistance in Northern England demonstrates how the dynamics of resistance can change rapidly within different sexual networks.

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).

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 C).

There are some changes in methods from the previous year's report. In the current report no imputed data are reported. Instead, an indicator of data completeness is presented in Appendix B. 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

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Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 3 of 41	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. Between June 2012 and January 2015, a new Laboratory Information Management System (LIMS) common to all laboratories across Wales was rolled out, and therefore laboratory trend data may not be comparable.

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, although new ISH clinics from former Family Planning or Community Contraceptive Services are being included into the system. The ISH clinic data used in this report are as at 17/07/2015.

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 do 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 show only new diagnoses (from 'new' patient attendances or 'rebook' patient attendances, where patients who are known to the clinic return for an unrelated episode of care), while some KC60 forms may also contain numbers of follow-up episodes.

The completeness of ISH clinic data varies over time (see Appendix B). Attendances which are received in SWS may or may not have diagnosis or service codes associated with them, as most of the time there is a lag between the attendance and the codes being introduced in the system. As there are codes to report "no service and/or treatment required" and "other conditions requiring treatment", in time, virtually all the attendances should have at least one code. We use this to estimate the completeness of the data received, with an indicator that measures the percentage of new and rebook attendances with at least one service or diagnosis code. This indicator shows lower data completeness for the last two years (83% in 2014 and 86% 2013) as compared to 2012 (94%), and therefore the figures presented could be underestimating the number of episodes diagnosed in ISH clinics in recent years.

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 are 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.

In previous reports, syphilis was reported as primary and secondary syphilis (codes A1 and A2). Early latent syphilis (A3) has been included in this report, in order to harmonize with the PHW enhanced surveillance of infectious syphilis and with PHE reports. However, A3 figures are not available by age from the non-computerised clinics, and therefore only A1 and A2 were counted for these clinics in young people's data.

- 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. SOPHID does not include patients where area of residence is not known. Clinical reporting of **newly diagnosed HIV** to PHE is also included.

Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 4 of 41	Intended Audience: Health professionals

- **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 Sexually transmitted bacteria reference unit (STBRU), Bacteriology reference department (BRD): **laboratory reports of lymphogranuloma venereum (LGV)**.
- Rates were calculated using StatsWales **mid-year population estimates**.
- In the geographical analyses, 95% confidence intervals (Poisson, exact) were calculated using Stata 13.

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 Figure 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. Figure 2 presents the positivity rate in those tested to aid with the interpretation of results.

These data highlight that testing for chlamydia and HIV has increased steadily over the last decade. Testing for gonorrhoea increased steadily between 2006 and 2010, and then went on to increase sharply due to the roll out of a dual chlamydia/gonorrhoea NAAT (nucleic acid amplification test) in ISH clinics, which started in August 2011. The changes in gonorrhoea testing and detection rates between 2010 and 2012 are discussed in the box on page 9.

Whilst gonorrhoea testing continued to increase slightly in males in 2013-14, in females it levelled off in 2013 and appeared to fall 22% in 2014, to 2011 levels. Between 2012 and 2014, the number of males positive for gonorrhoea increased by 20%, and the number of females decreased by 30%. These changes seemed to reflect testing trends, and so the number of positives per 100,000 individuals tested remained approximately level in both genders. It is possible that the observed decrease in gonorrhoea testing and detection in females is an artefact caused by cumulative recent changes in the data collection systems, more so as clinic data (presented in the next section) show a stable gonorrhoea rate since 2012.

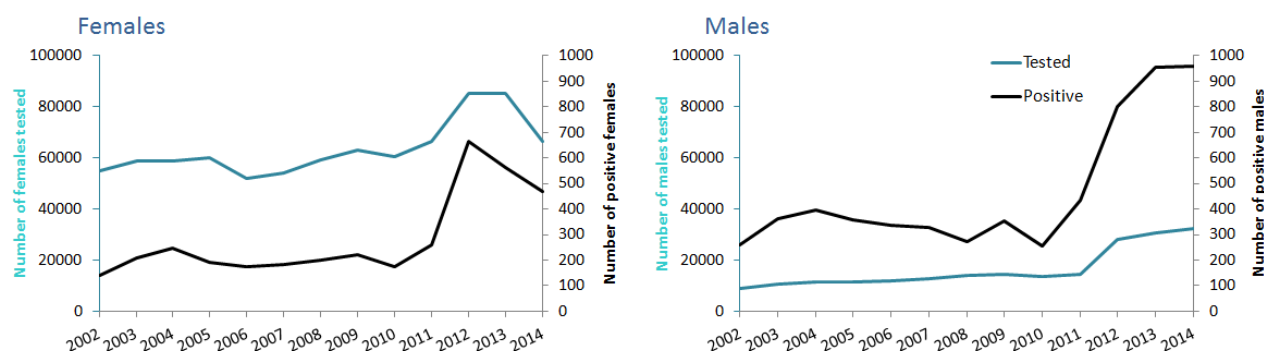
The increase in the number of individuals positive for chlamydia slowed down after 2012, and levelled off between 2013-2014. The percentage change between 2012 and 2014 was 7% in females and 17% in males. The number of positives per 100,000 individuals tested decreased slightly in both genders.

The number of new HIV diagnoses reported from all settings across Wales has increased since 2012, reaching the highest annual number in the last 15 years in 2014, with 189 cases. The number of new HIV diagnoses in females doubled between 2013 and 2014, from 25 cases to 51, after a 32% fall in the previous year. The increase between 2012 and 2014 was of 38%. In males, the number of new diagnoses increased by 66% between 2012 and 2014, from 83 cases to 138. The number of new HIV diagnoses per 100,000 individuals tested remained approximately stable in females between 2012 and 2014, with a 3% increase, and increased by 13% in males.

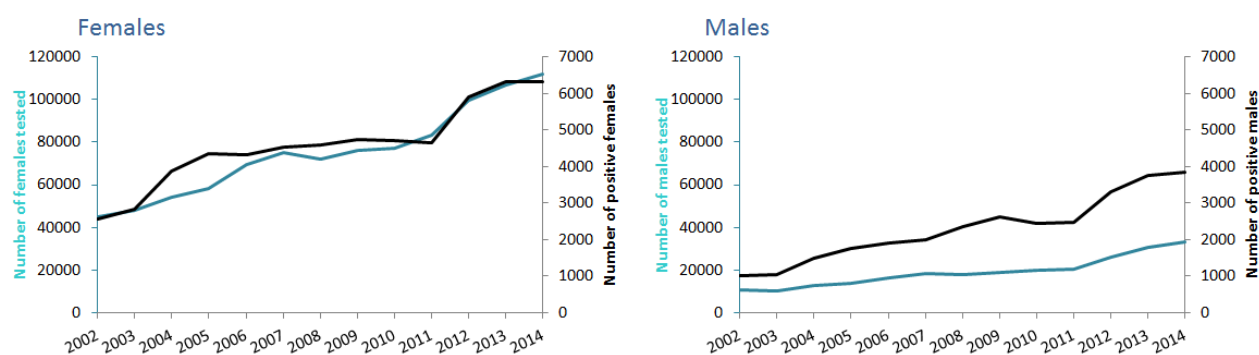
Even though many more females than males are tested for these 3 infections, more males were positive for gonorrhoea and HIV.

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

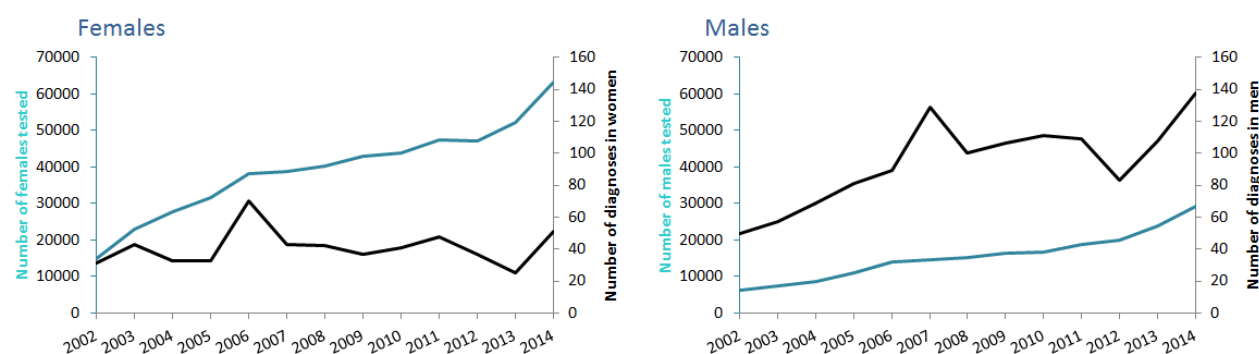
Gonorrhoea



Chlamydia



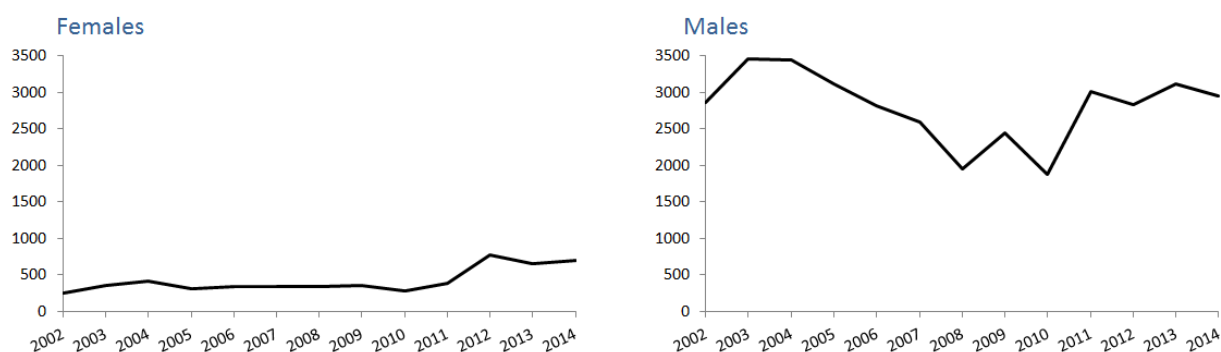
HIV



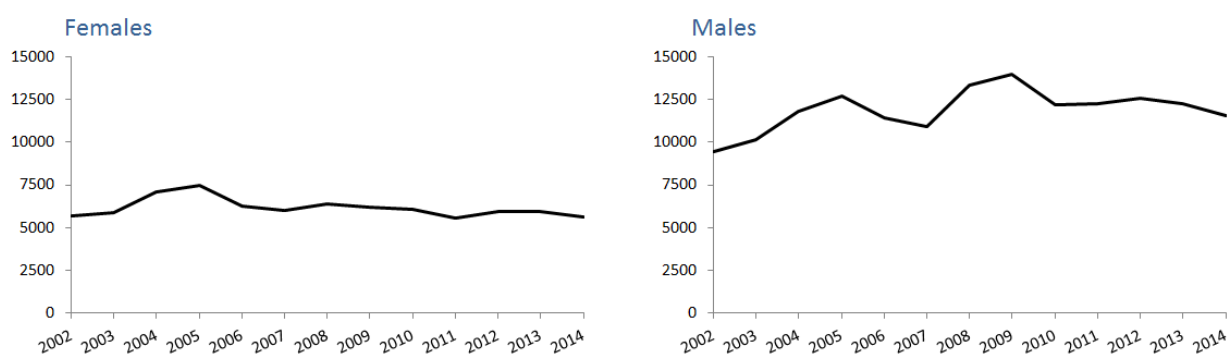
- i) Data were extracted via SWS from datastore, which collects data from all laboratories across Wales.
- ii) The numbers of HIV positive individuals are those reported as new confirmed HIV diagnoses by PHE, October 2015.
- iii) All individuals who were tested for *N. gonorrhoeae* and *C. trachomatis* (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.
- iv) For the number of individuals tested 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.
- v) 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.
- vi) Duplicates, resulting from samples moving between labs, may be included. This duplication became less likely with the roll out of a new, common Laboratory Information Management System between June 2012 and January 2015.

Figure 2: Individuals with a positive laboratory result or newly diagnosed per 100,000 individuals tested for gonorrhoea, chlamydia or HIV

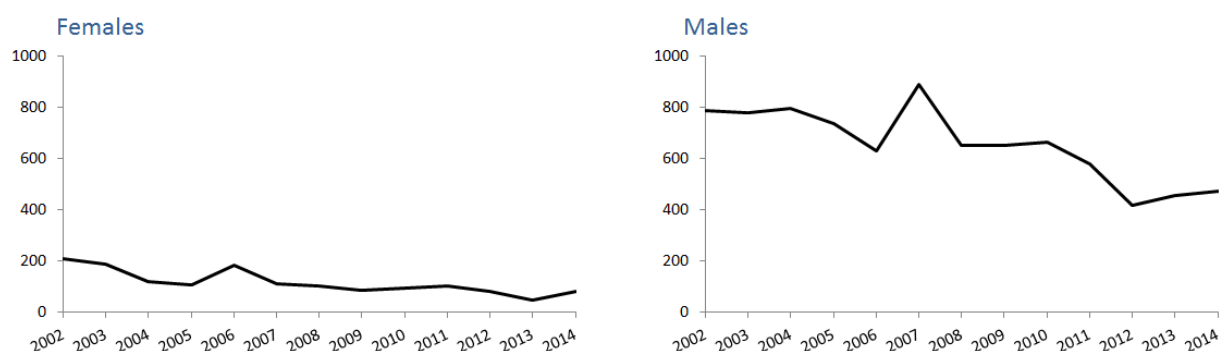
Gonorrhoea positive individuals per 100,000 tested



Chlamydia positive individuals per 100,000 tested



HIV newly diagnosed individuals per 100,000 tested



- i) Data were extracted via SWS from datastore, which collects data from all laboratories across Wales.
- ii) The numbers of HIV positive individuals are those reported as new confirmed HIV diagnoses by PHE, October 2015.
- iii) 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
- iv) For the number of individuals tested 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.
- v) 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.
- vi) Duplicates, resulting from samples moving between labs, may be included. This duplication became less likely with the roll out of a new, common Laboratory Information Management System between June 2012 and January 2015.

Changes in gonorrhoea testing and detection rates between 2010 and 2012

Testing for gonorrhoea increased steadily between 2006 and 2010, and then went on to increase sharply due to the roll out of a dual chlamydia/gonorrhoea NAAT (nucleic acid amplification test) in ISH clinics, which started in August 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.

Between 2010 and 2012, the number of positive individuals for gonorrhoea increased approximately 284% in females and 211% in males. Increases were detected across most age groups but especially in 15-24 year olds and 25-34 year olds. The magnitude of this increase is not explained by the increase in testing seen in the same period (41% in females and 106% in males), and the number of positives per 100,000 individuals tested increased by 172% in females and 51% in males (Figure 2).

The new NAAT test does provide greater sensitivity than gonorrhoea culture, meaning that more infections are likely to be identified. However, this large increase suggests an increased spread of gonorrhoea in the population between 2010 and 2012.

In contrast, between 2010 and 2012, the number of individuals who were positive for chlamydia only increased by a similar amount to the number tested.

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 2014, are shown in Table 1. Recent trends across Wales are also depicted by gender in Figure 3. Numbers of all STIs and SHHAPT codes are provided in Appendix Table A1. In Wales, an **enhanced surveillance scheme** for infectious syphilis is also in place; a summary of these data can be found in Appendix Table A2.

Trend data should be interpreted alongside completeness of the data received from ISH clinics. An indicator on completeness (percentage of new and rebook attendances with at least one service or diagnosis code) is provided in Appendix B. This indicator shows lower data completeness for the last two years (83% in 2014 and 86% 2013) as compared to 2012 (94%), and therefore the figures presented could be underestimating the number of episodes diagnosed in ISH clinics in recent years.

Between 2012 and 2014, the rate of syphilis diagnosed in ISH clinics increased by 59% in males, whilst it remained at low levels in females.

During the same period, chlamydia rates increased in both males (9% increase) and females (20% increase). However, laboratory data indicate that the increase seen in female diagnoses of chlamydia in ISH may be in part due to the addition of former Family Planning or Community Contraceptive Services into the system, as the number of females testing positive for chlamydia has increased only slightly in the same period.

Genital herpes also increased in both males (10%) and females (9%) between 2012-14, whilst the observed rate of genital warts decreased slightly. However, the lower data completeness in 2014 may well account for this decrease.

The rate of gonorrhoea levelled out in 2014 after a threefold increase between 2010 and 2013. In males, the increase started after a dip in 2010 and continued until 2013. In females, the rate doubled between 2011 and 2012 and has remained stable since then. Overall, between 2012 and 2014, the gonorrhoea rate increased in males by 31% and decreased slightly in females, although again the lower data completeness for 2014 may account for this decrease.

Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 9 of 41	Intended Audience: Health professionals

The number of new HIV diagnoses reported from all settings across Wales has increased since 2012, reaching the highest annual number in the last 15 years in 2014, with 189 cases. The number of new HIV diagnoses in females doubled between 2013 and 2014, from 25 cases to 51, after a 32% fall in the previous year. The increase between 2012 and 2014 was of 38%. In males, the number of new diagnoses increased by 66% between 2012 and 2014, from 83 cases to 138.

In 2014, most infections were more common in males than females, with the exceptions of genital herpes and chlamydia, which were more common in females. When compared to laboratory data (Figure 1), where the ratio female:male in chlamydia-positive individuals was 1.6:1, these clinical data confirm that many women are tested for chlamydia outside of the ISH clinic setting, where the ratio is 1.2:1.

In females, chlamydia and genital warts were the most commonly diagnosed infections in 2014, at rates of 190.4 per 100,000 females and 107.2 per 100,000 females, respectively, followed by genital herpes (50.6 per 100,000 females), gonorrhoea (20.4 per 100,000 females), HIV (3.2 per 100,000 females) and syphilis (0.6 per 100,000 females). In males, chlamydia was of the highest incidence in 2014 (161.6 per 100,000 males), though the rate of genital warts was also high (128.8 per 100,000 males). These were followed by gonorrhoea (43.5 per 100,000 males), genital herpes (32.9 per 100,000 males), HIV (9.1 per 100,000 males) and syphilis (7.0 per 100,000 males).

Table 1: Numbers and incidences of STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales, by gender, 2007 to 2014.

STI	Gender	Number								Incidence per 100,000							
		2007	2008	2009	2010	2011	2012	2013	2014	2007	2008	2009	2010	2011	2012	2013	2014
Syphilis	Females	6	10	7	15	12	1	15	9	0.4	0.6	0.5	1.0	0.8	0.1	1.0	0.6
	Males	71	96	60	61	49	66	70	106	4.8	6.5	4.0	4.1	3.3	4.4	4.6	7.0
	Total	77	106	67	76	61	67	85	115	2.6	3.5	2.2	2.5	2.0	2.2	2.8	3.7
Gonorrhoea	Females	121	128	138	104	130	339	316	320	7.9	8.3	8.9	6.7	8.3	21.7	20.2	20.4
	Males	319	271	328	193	303	502	650	662	21.7	18.3	22.0	12.9	20.1	33.2	42.9	43.5
	Total	440	399	467	297	433	841	966	982	14.6	13.2	15.4	9.7	14.1	27.4	31.3	31.8
Chlamydia	Females	1,895	2,246	2,233	2,021	1,737	2,487	2,728	2,990	123.2	145.2	144.0	130.0	111.4	159.0	174.1	190.4
	Males	1,569	2,138	2,300	1,755	1,798	2,241	2,348	2,459	106.8	144.5	154.6	117.4	119.5	148.4	155.0	161.6
	Total	3,466	4,385	4,536	3,776	3,535	4,728	5,076	5,452	115.3	144.9	149.3	123.8	115.4	153.8	164.7	176.3
Genital herpes (first episode)	Females	440	481	492	490	564	729	741	795	28.6	31.1	31.7	31.5	36.2	46.6	47.3	50.6
	Males	243	333	248	283	378	453	429	500	16.5	22.5	16.7	18.9	25.1	30.0	28.3	32.9
	Total	683	814	740	773	942	1,182	1,170	1,295	22.7	26.9	24.4	25.3	30.7	38.5	38.0	41.9
Genital warts (first episode)	Females	1,877	1,930	1,823	1,722	1,700	1,752	1,678	1,684	122.1	124.8	117.5	110.8	109.0	112.0	107.1	107.2
	Males	1,893	2,049	1,951	1,710	1,713	2,058	1,992	1,959	128.9	138.5	131.1	114.3	113.9	136.3	131.5	128.8
	Total	3,770	3,979	3,776	3,432	3,413	3,811	3,670	3,643	125.4	131.5	124.3	112.5	111.4	124.0	119.1	117.8
HIV	Females	43	42	37	41	48	37	25	51	2.8	2.7	2.4	2.6	3.1	2.4	1.6	3.2
	Males	129	100	106	111	109	83	108	138	8.8	6.8	7.1	7.4	7.2	5.5	7.1	9.1
	Total	172	142	143	152	157	120	133	189	5.7	4.7	4.7	5.0	5.1	3.9	4.3	6.1

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

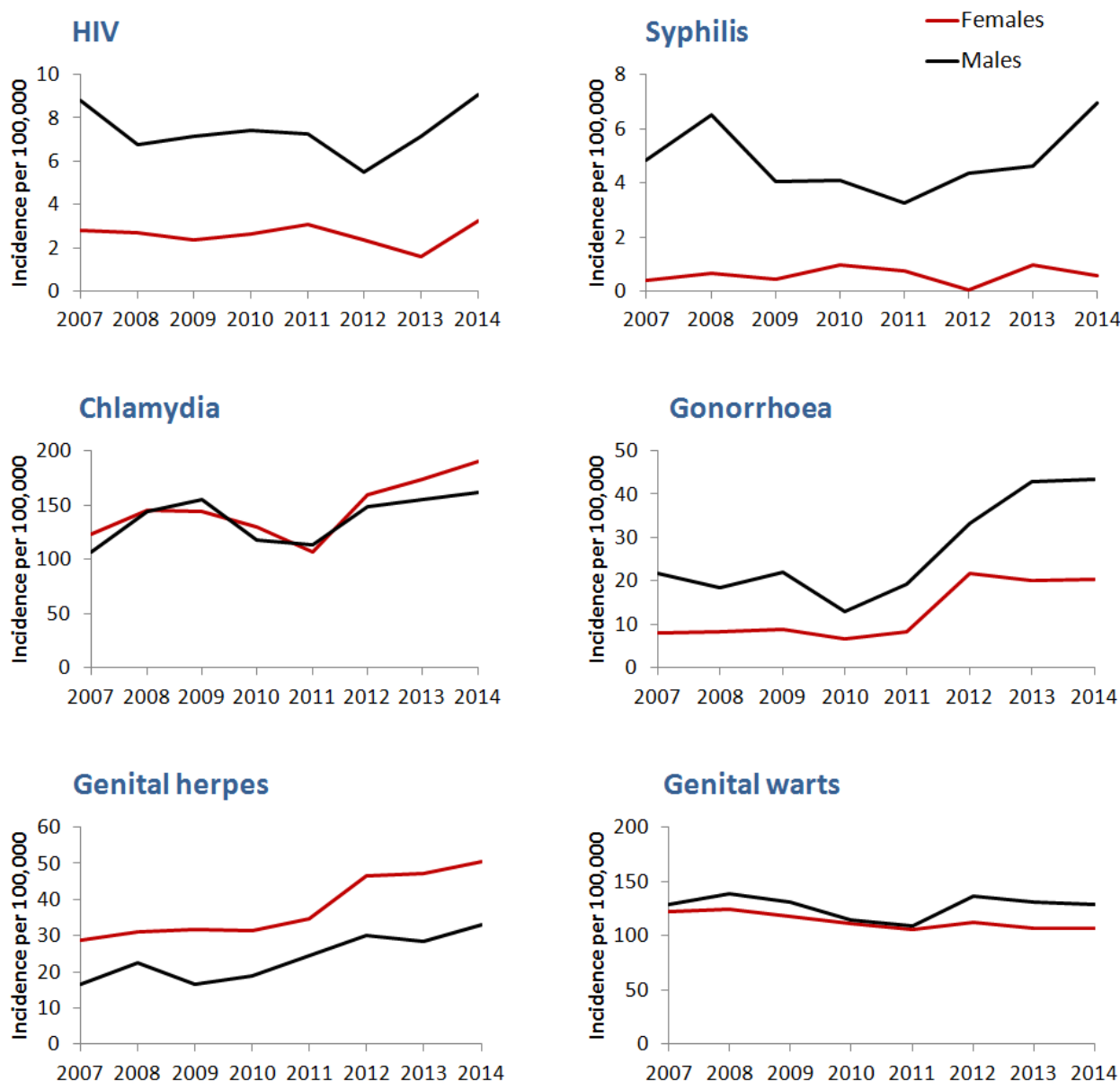
ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015)

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

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

v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Figure 3: Annual incidence of STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales, by gender.



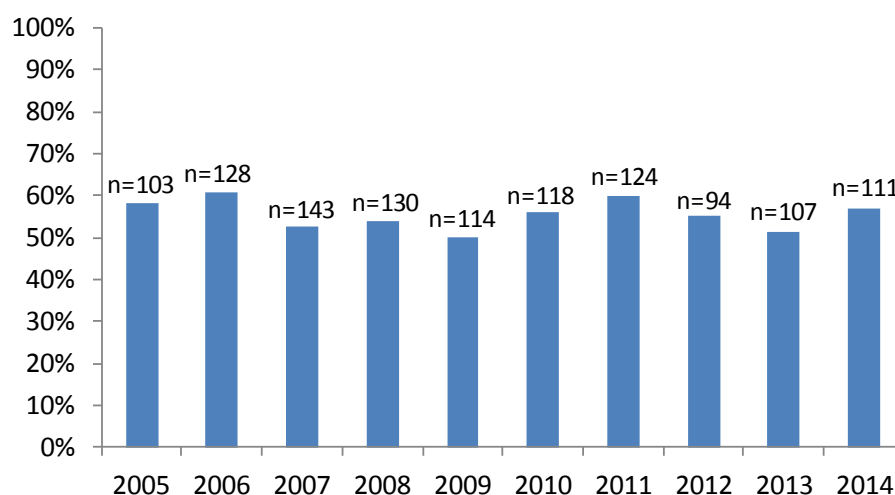
- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015)
- iii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales
- iv) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included
- v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

5.1.3 Other data sources

New HIV diagnoses reported by Public Health England (PHE) have been discussed in previous sections, and a summary of cases by probable exposure category, is provided in Appendix Table A4. Sexual contact remains the probable exposure route for most newly HIV diagnosed individuals, with men who have sex with men (MSM) being disproportionately affected. Notably, in 2014 injecting drug use was the probable exposure category for 8 (4%) new HIV diagnoses, the highest percentage since 2002.

The proportion of individuals newly diagnosed with HIV with a “late stage” diagnosis (with a CD4 count <350 cells/mm³ within three months of their diagnosis) has remained around 55% of those with a known CD4 count at diagnosis for the last decade (Figure 4), highlighting the need for increased testing. It is worth noting that the percentage of individuals with unknown CD4 count at diagnosis was higher than usual in 2014 (41%) and therefore the proportion diagnosed late may change if more data become available.

Figure 4: Late diagnoses: proportion of individuals diagnosed with a CD4 count <350 cells/mm³ within three months of diagnosis, Wales, 2005-2014. Data reported by PHE, October 2015

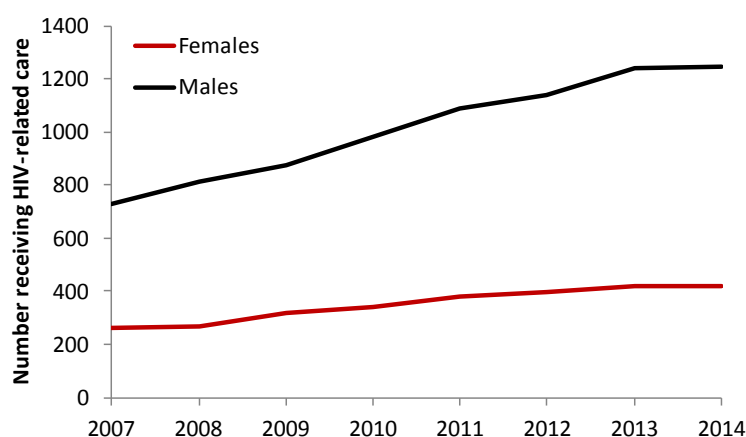


i) Diagnoses with unknown CD4 count at diagnosis have been excluded

In addition to these new diagnoses, PHE also reports on the numbers of **individuals receiving HIV-related care** in Wales (Figure 5). As of October 2015, there were 1,665 residents of Wales receiving care in 2014 (53.8 per 100,000 population). A summary of these data can be found in Appendix Table A5.

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 5: Number of individuals, resident in Wales, receiving HIV-related care, 2007-2013.

Gender	2007	2008	2009	2010	2011	2012	2013	2014
Female	264	265	318	340	383	396	419	418
Male	732	814	874	985	1,091	1,142	1,244	1,247
Total	996	1,079	1,192	1,325	1,474	1,538	1,663	1,665

i) Source: PHE, SOPHID, published October 2015

ii) Data include patients diagnosed with HIV infection, who were seen for statutory medical HIV-related care

iii) Patients with missing information may have been assigned values based on subsequent years' data.

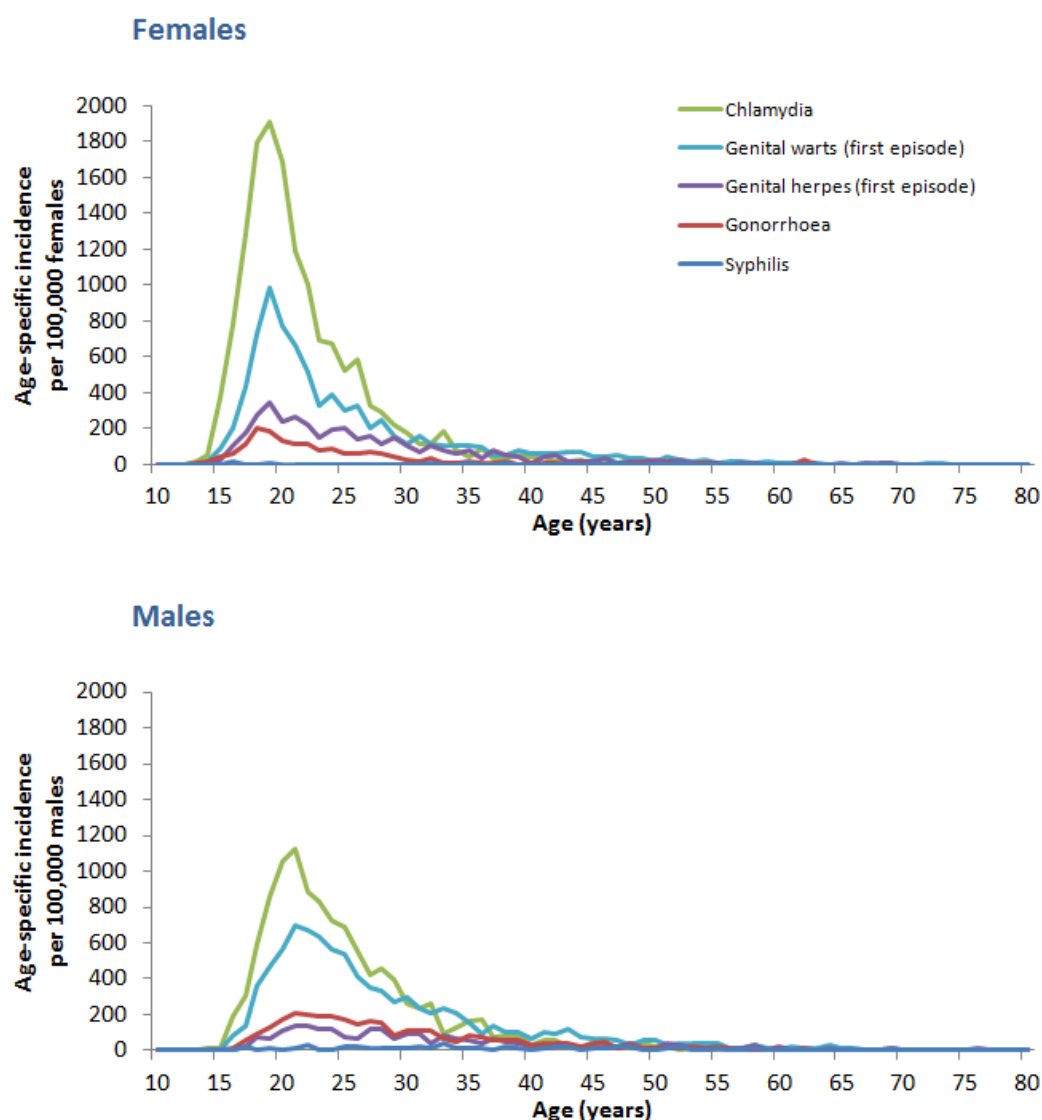
An indication of the spread of HIV and syphilis from high-risk to lower risk populations can be obtained from the results of **the screening of blood donations**. Blood from donors who are screened positive does not enter the blood supply. Rates of infection in new donors might be considered a proxy 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 2014, no donors were found to be positive for HIV or syphilis (Appendix Table A6).

In addition, between 2010 and 2014 there were 19 laboratory reports of lymphogranuloma venereum (LGV) for specimens sent to the PHE Sexually transmitted bacteria reference unit (STBRU) from Wales. These corresponded to 17 cases of LGV: 4 cases in 2010, 2 in 2011, 4 in 2012, 6 in 2013, and 1 case in 2014.

5.2 Age distribution

The age distributions of individuals with new diagnoses of selected STIs, made in ISH clinics in 2014, are shown by gender in Figure 6. 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 24 years, and 33.5 for syphilis. In males, the median ages were slightly higher, ranging from 23 to 28 years, and 34 years for syphilis. For HIV, as recorded in the new diagnoses by PHE, the median age in Wales in 2014 was 39 for females and 38 for males.

Figure 6: Age distribution of STI diagnoses made in ISH clinics across Wales in 2014.



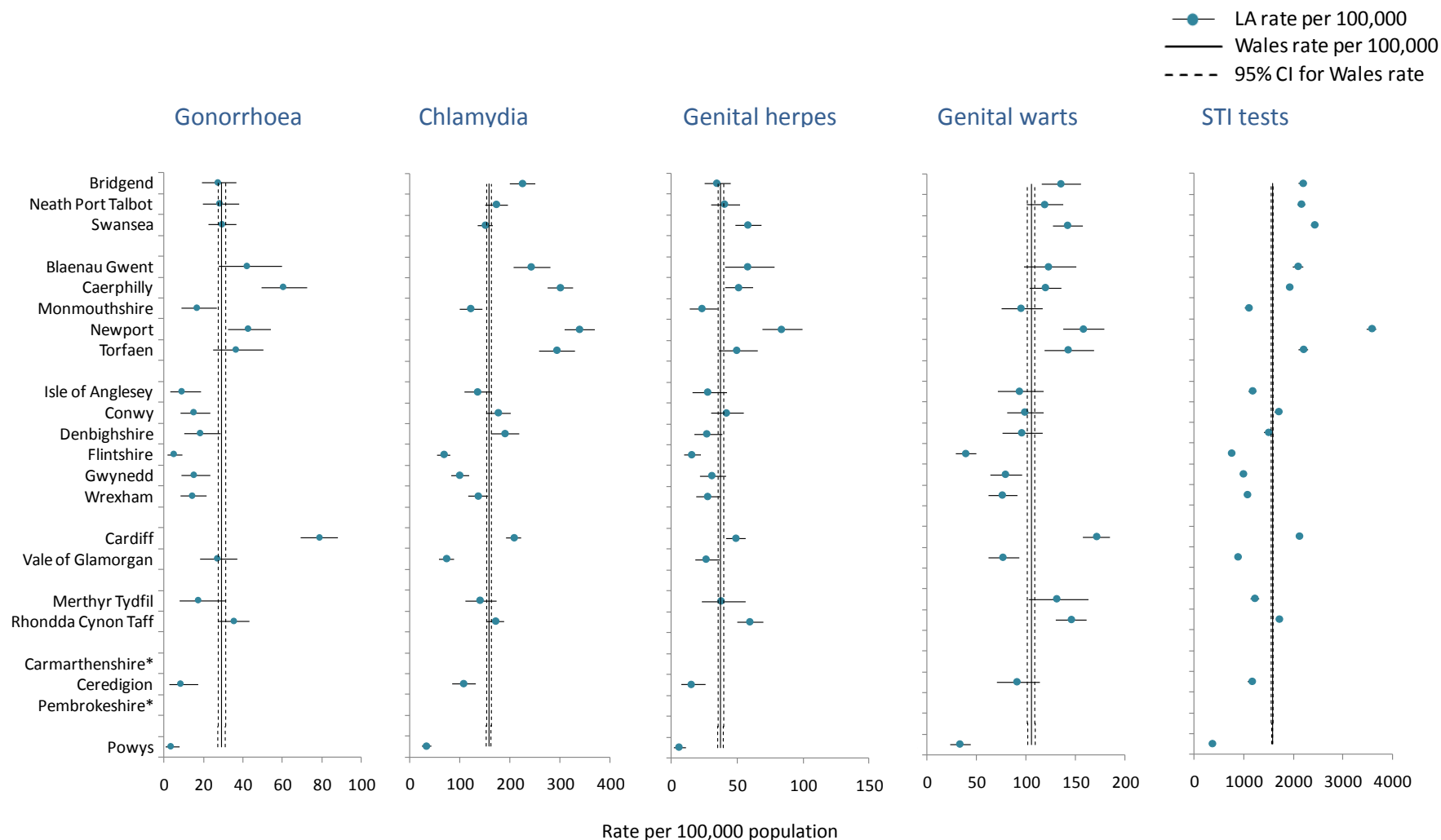
- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) These data do not include diagnoses made in clinics in Carmarthenshire or Pembrokeshire, as single year age breakdown was not available
- iii) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)
- iv) Age- and gender-specific incidence was calculated using mid-year estimates provided by StatsWales

5.3 Geographical distribution

The distribution of selected STIs diagnosed in ISH clinics in 2014 is shown by local authority (LA) of residence in Figure 7. Rates are provided by LA and gender in Appendix Table A3. 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 2014:

- The rates of gonorrhoea diagnoses were significantly higher than the average rate in Wales in Newport, Caerphilly, and Cardiff local authorities (LAs). When compared to the number of gonorrhoea tests reported from ISH clinics, the percentage for which a positive diagnosis was reported was notably high in those living in Caerphilly and Cardiff LAs. The Vale of Glamorgan also had quite high positivity rates, though lower than average rate overall.
- The rates of chlamydia diagnoses were significantly higher than average in Bridgend, Blaenau Gwent, Caerphilly, Newport, Torfaen, and Cardiff LAs. When compared to the number of chlamydia tests reported from ISH clinics, the percentage for which a positive diagnosis was reported was notably high in those living in Blaenau Gwent (11.5% positivity), Caerphilly (15.6%), and Torfaen (13.3%). Residents of Anglesey, Denbighshire and Wrexham also had high positivity rates (between 11.5 and 12.7%), although the rates in these LAs were not significantly higher than the average for Wales.
- The rates of genital herpes were significantly higher than average in Swansea, Blaenau Gwent, Caerphilly, Newport, Cardiff, and Rhondda Cynon Taff LAs.
- The rates of genital warts were significantly higher than average in Bridgend, Swansea, Newport, Torfaen, Cardiff, and Rhondda Cynon Taff LAs.
- Compared to gonorrhoea and herpes the rates of chlamydia and warts were more reflective of the number of STI tests carried out (a marker of activity).

Figure 7: Distribution of individuals with selected STIs diagnosed in ISH clinics across Wales in 2014, by local authority of residence.

*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, T1, 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.

Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 17 of 41	Intended Audience: Health professionals

Table 2: Rates of gonorrhoea and chlamydia tests reported from ISH clinics across Wales in 2014, 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	2,191.7	1.2%	2,191.7	10.2%
Neath Port Talbot	2,156.0	1.3%	2,156.0	8.0%
Swansea	2,426.1	1.2%	2,426.1	6.2%
ABMU	2,290.2	1.2%	2,290.2	7.7%
Blaenau Gwent	2,089.7	2.0%	2,089.7	11.5%
Caerphilly	1,916.2	3.1%	1,919.0	15.6%
Monmouthshire	1,093.8	1.5%	1,094.9	11.0%
Newport	3,581.4	1.2%	3,584.1	9.4%
Torfaen	2,199.6	1.6%	2,200.7	13.3%
Aneurin Bevan	2,272.2	1.9%	2,274.1	12.0%
Isle of Anglesey	1,168.6	0.7%	1,168.6	11.5%
Conwy	1,698.4	0.9%	1,698.4	10.3%
Denbighshire	1,493.8	1.2%	1,493.8	12.6%
Flintshire	744.5	0.6%	744.5	9.0%
Gwynedd	982.2	1.5%	982.2	10.0%
Wrexham	1,064.3	1.3%	1,064.3	12.7%
BCU	1,154.4	1.0%	1,154.4	11.0%
Cardiff	2,110.1	3.7%	2,116.3	9.8%
Vale of Glamorgan	872.5	3.1%	873.2	8.3%
C&V	1,782.2	3.6%	1,787.0	9.6%
Merthyr Tydfil	1,212.2	1.4%	1,213.9	11.4%
Rhondda Cynon Taff	1,694.0	2.1%	1,709.7	10.0%
Cwm Taf	1,597.9	2.0%	1,610.7	10.2%
Carmarthenshire*	-	-	-	-
Ceredigion	1,160.1	0.7%	1,160.1	9.1%
Pembrokeshire*	-	-	-	-
Hywel Dda*	-	-	-	-
Powys	354.2	0.9%	355.0	8.9%
Powys Teaching	354.2	0.9%	355.0	8.9%
Wales	1,572.0	1.9%	1,574.4	10.0%

*, 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.

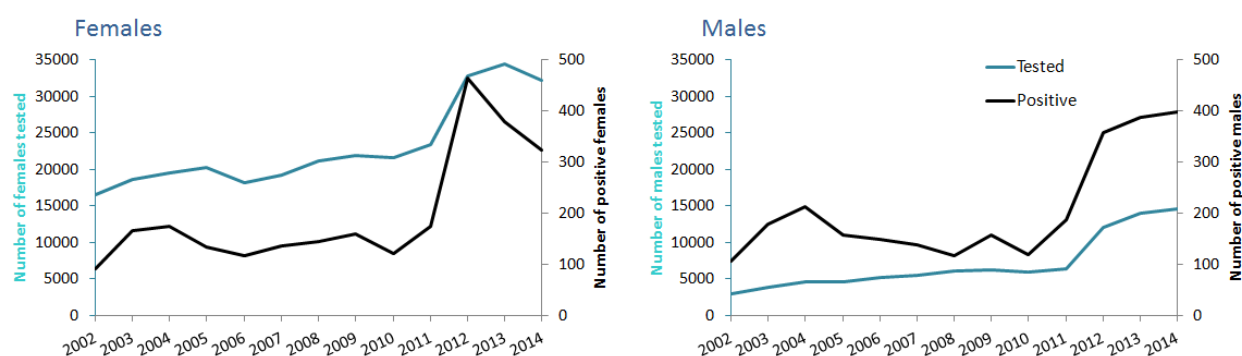
6.1 Annual trends in young people

6.1.1 Laboratory data

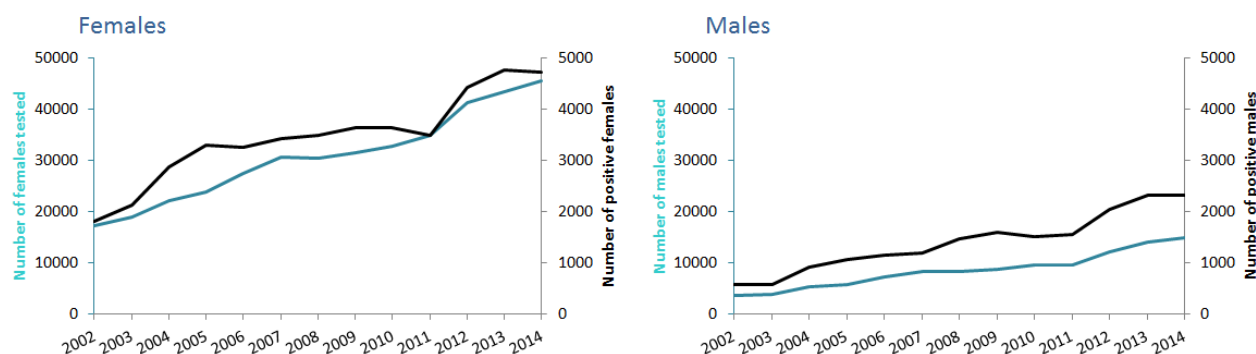
Trends in positive laboratory cases of chlamydia and gonorrhoea, and the numbers of individuals tested for each infection, as reported through SWS, are depicted in Figure 8. These data include tests requested from all healthcare settings including ISH clinics and general practice.

Figure 8: Annual numbers of 15-24 year olds who were tested for gonorrhoea and chlamydia, and numbers who tested positive.

Gonorrhoea



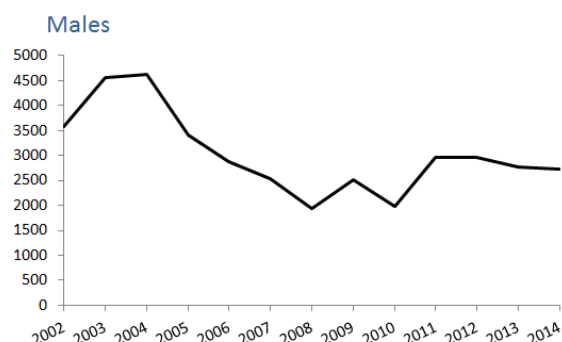
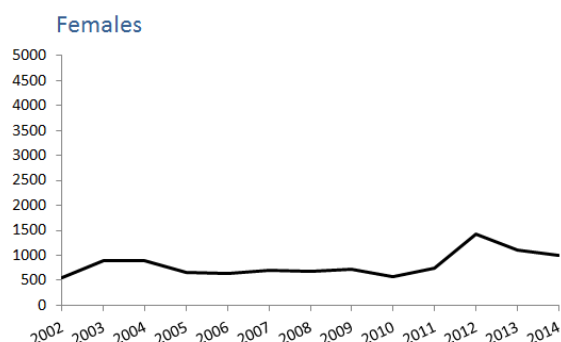
Chlamydia



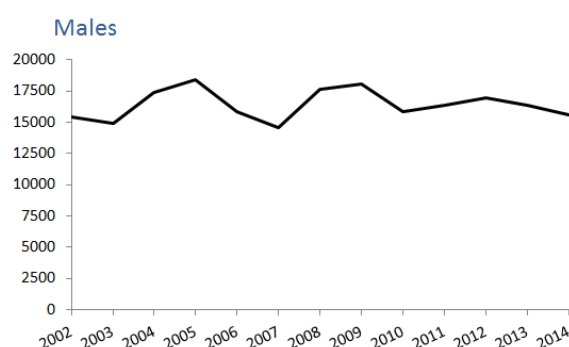
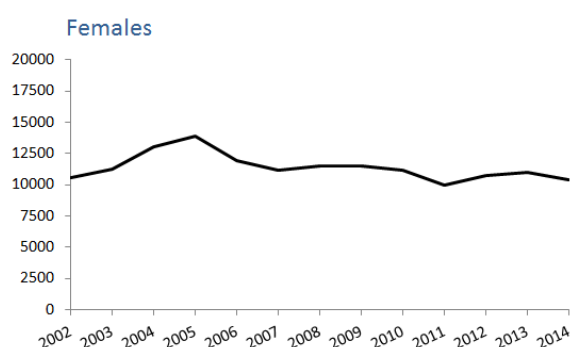
- i) Data were extracted via SWS from datastore, which collects data from all laboratories across Wales
- ii) All 15-24 year olds who were tested for *N. gonorrhoeae* and *C. trachomatis* (PCR and culture) were included, except those recorded as eye specimens
- iii) Those individuals for whom a positive test was recorded were included; please note, however, that these individuals may not have been confirmed positive
- iv) 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
- v) Duplication of records is possible following transfer of samples between laboratories. This duplication became less likely with the roll out of a new, common Laboratory Information Management System between June 2012 and January 2015.

Figure 9: Number of 15-24 year olds with a positive laboratory result per 100,000 tested for gonorrhoea or chlamydia.

Gonorrhoea testing



Chlamydia testing



- i) Data were extracted via SWS from datastore, which collects data from all laboratories across Wales
- ii) 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
- iii) Those individuals for whom a positive test was recorded were included; please note, however, that these individuals may not have been confirmed positive
- iv) 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
- v) Duplication of records is possible following transfer of samples between laboratories. This duplication became less likely with the roll out of a new, common Laboratory Information Management System between June 2012 and January 2015.

In young people, testing for chlamydia has increased steadily over the last decade. Testing for gonorrhoea increased notably between 2010 and 2012; due to the introduction of a dual chlamydia/gonorrhoea NAAT test in 2011. However, whilst gonorrhoea testing increased by 52% in females and by 100% in males, the number of positive individuals increased approximately 281% in females and 198% in males. The number of positive individuals per 100,000 tested (Figure 9) increased by 151% in females and 49% in males. This is similar to the population as a whole, and suggests an increased spread of gonorrhoea between 2010 and 2012. In contrast, between 2010 and 2012, 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 27% in females and 26% in males, and the number of positive individuals increased by 21% and 34%, 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.

Between 2012 and 2014, the number of young males positive for gonorrhoea increased by 11%, and the number of young females decreased by 31%. Testing had increased by 21% in males and remained level in females. The number of positives per 100,000 individuals tested decreased slightly in males and by 29% in females. It is possible that the observed decrease in gonorrhoea detection in females is an artefact caused by cumulative recent changes in the data collection systems.

During the same period, the number tested for chlamydia increased by 24% in males and by 10% in females, whilst the number positive increased by a lesser degree (by 14% and 7% respectively).

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 2014, in 15-24 year olds are shown in Table 3. Recent trends across Wales are also depicted by gender in Figure 10.

Most STIs disproportionately affect young people. In 2014, for example, the age-specific rates of gonorrhoea diagnoses in 15-24 year old males and females were 136.3 per 100,000 males and 115.3 per 100,000 females, respectively (Table 3). In the population as a whole, the rate was 43.5 per 100,000 males and 20.4 per 100,000 females (Table 1).

Trend data should be interpreted alongside completeness of the data received from ISH clinics (Appendix B). Data completeness was lower in 2014 (83%) as compared to 2012 (94%), and therefore the figures presented could be underestimating the number of episodes diagnosed in ISH clinics in recent years.

Table 3: Numbers and incidences STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales, in 15-24 year olds, by gender, 2007 to 2014.

STI	Gender	Number								Incidence per 100,000							
		2007	2008	2009	2010	2011	2012	2013	2014	2007	2008	2009	2010	2011	2012	2013	2014
Syphilis	Females	-	-	-	-	-	-	-	-	2.0	2.5	2.5	1.0	1.0	0.0	2.5	1.5
	Males	-	-	-	-	-	-	-	-	4.4	9.7	4.4	3.4	3.8	6.6	6.7	8.1
	Total	13	25	14	9	10	14	19	20	3.2	6.2	3.4	2.2	2.4	3.4	4.6	4.9
Gonorrhoea	Females	89	95	106	77	92	252	207	227	45.3	47.7	52.9	38.5	46.0	125.4	103.8	115.3
	Males	139	128	164	92	143	248	273	285	68.2	62.4	79.5	44.2	68.3	117.2	129.7	136.3
	Total	228	223	271	169	235	500	480	512	57.0	55.2	66.6	41.5	57.4	121.2	117.1	126.1
Chlamydia	Females	1,516	1,794	1,825	1,635	1,367	1,966	2,189	2,355	772.1	901.7	911.4	818.5	683.2	978.2	1097.3	1196.0
	Males	986	1,370	1,461	1,094	1,143	1,434	1,489	1,521	483.7	667.5	707.9	526.1	546.0	677.9	707.6	727.3
	Total	2,502	3,165	3,287	2,729	2,510	3,400	3,678	3,876	625.2	783.0	808.3	669.4	613.0	824.2	897.2	954.6
Genital herpes (first episode)	Females	271	280	276	282	316	391	387	424	138.0	140.7	137.8	141.2	157.9	194.5	194.0	215.3
	Males	101	127	99	127	141	204	148	189	49.5	61.9	48.0	61.1	67.3	96.4	70.3	90.4
	Total	372	407	375	409	457	595	535	613	93.0	100.7	92.2	100.3	111.6	144.2	130.5	151.0
Genital warts (first episode)	Females	1,294	1,349	1,287	1,157	1,110	1,170	1,095	1,081	659.0	678.0	642.7	579.2	554.7	582.1	548.9	549.0
	Males	1,025	1,111	1,043	890	904	1,094	1,066	963	502.8	541.3	505.3	428.0	431.8	517.2	506.6	460.5
	Total	2,319	2,460	2,332	2,047	2,014	2,264	2,161	2,044	579.4	608.6	573.5	502.1	491.9	548.8	527.2	503.4
HIV	Females	-	-	-	-	-	-	-	-	2.0	3.0	1.5	3.0	2.5	2.5	1.0	1.0
	Males	-	-	-	-	-	-	-	-	7.8	3.4	6.8	8.2	6.7	7.1	8.1	8.6
	Total	20	13	17	23	19	20	19	20	5.0	3.2	4.2	5.6	4.6	4.8	4.6	4.9

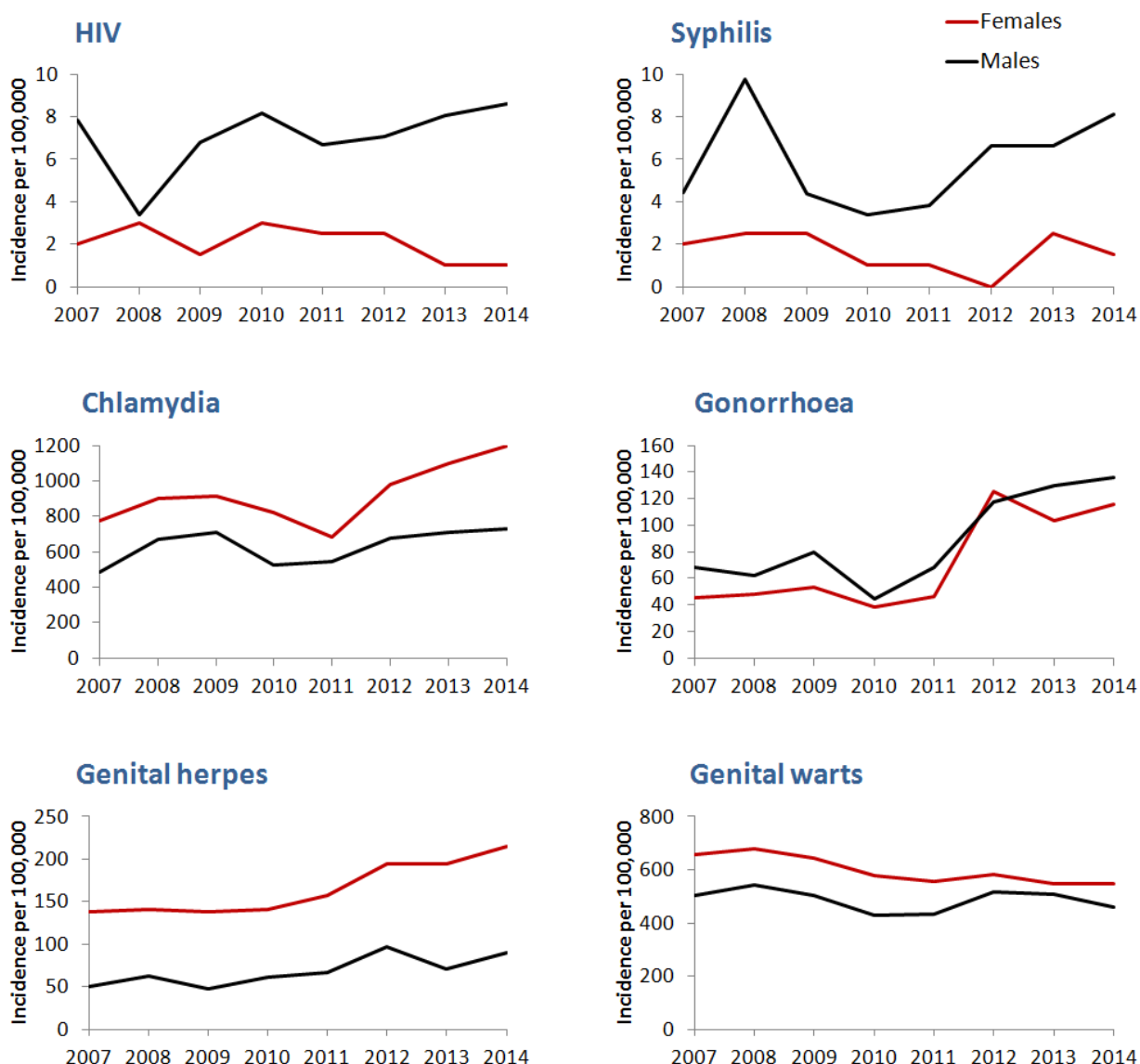
i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS

ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015)

iii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWalesvi) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included. However, this was not possible for latent syphilis (A3) as this is not available by age from these clinics.

vii) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A).

Figure 10: Incidence of STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales, in 15-24 year olds.



- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015)
- iii) Incidences were calculated per 100,000 gender-specific populations, using mid-year estimates provided by StatsWales
- iv) Diagnoses made in clinics in Carmarthenshire and Pembrokeshire, for which we receive paper SHHAPT forms, have also been included. However, this was not possible for latent syphilis (A3) as this is not available by age from these clinics.
- v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Between 2012 and 2014, amongst 15-24 year olds the rate of gonorrhoea diagnoses increased by 16% in males, and decreased slightly in females, although the lower data completeness for 2014 may account for this decrease. Chlamydia rates increased in both males (7% increase) and females (22% increase). However, as seen in the general population, laboratory data indicate that the increase seen in female diagnoses of chlamydia in ISH may in part be due to the addition of former Family Planning or Community Contraceptive Services into the system, as the number of females testing positive for chlamydia has increased only slightly in the same period.

During the same period, the rate of diagnoses of genital herpes in 15-24 year olds increased in females (11%), and decreased slightly in males; and the observed rate of genital warts decreased by 6% in females and by 11% in males. However, the lower data completeness in 2014 may well account for these decreases.

The number of syphilis diagnoses in ISH clinics and of new HIV diagnoses in all settings remained low, with the syphilis rate increasing in both genders and the rate of new HIV remaining stable.

In 2014, the rates of HIV and syphilis diagnoses 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. In 2012 the rate of gonorrhoea was higher in females than males, after a proportionately larger increase in females since 2011. In 2013-14 however, the rate has been higher in males.

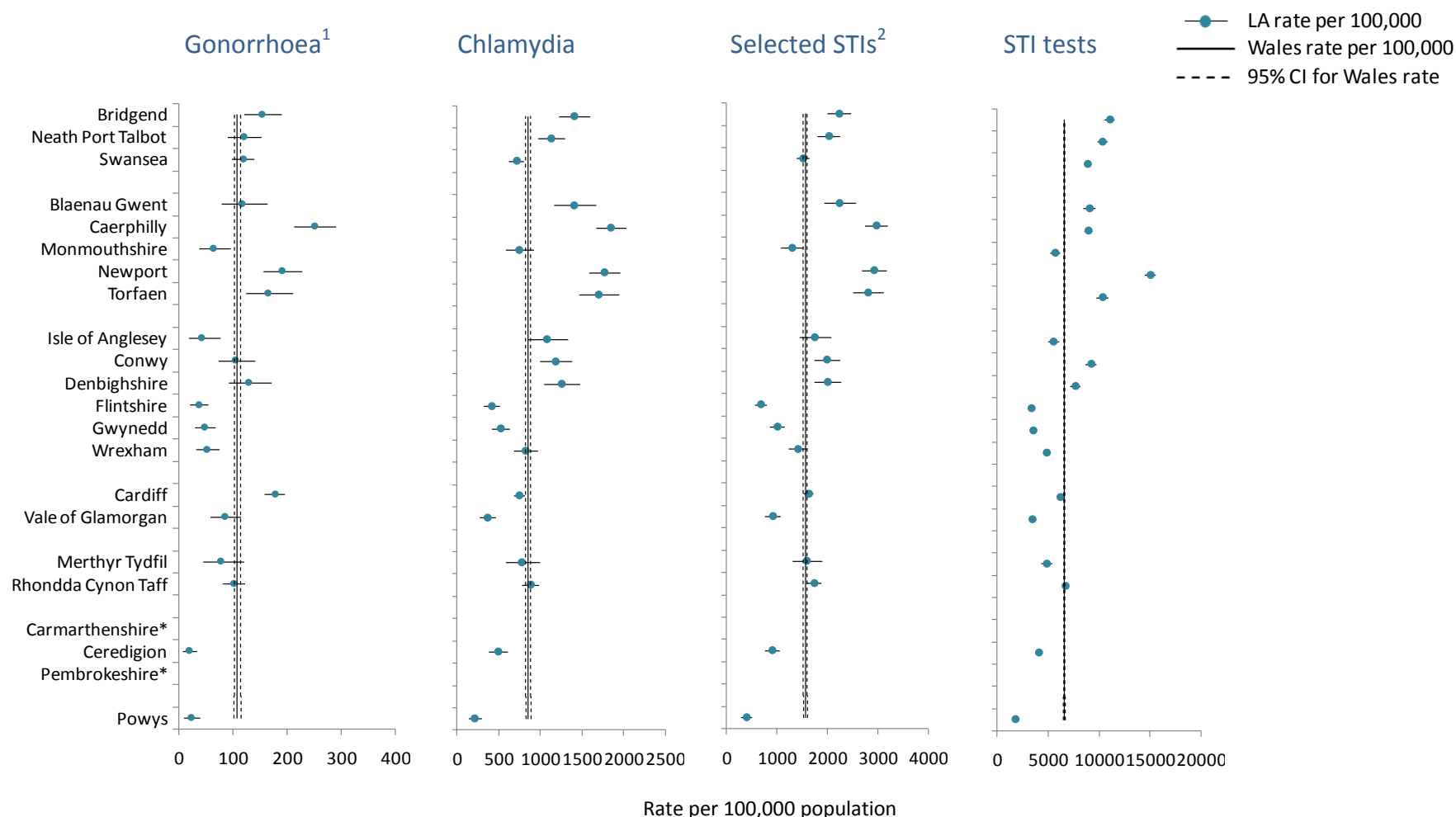
The distribution of infections within young people was similar to that in the general population. In 2014, chlamydia and genital warts were the most commonly diagnosed infections in young females, at rates of 1196.0 and 549.0 per 100,000 females, respectively, followed by genital herpes (215.3 per 100,000 females), gonorrhoea (115.3 per 100,000 females), syphilis (1.5 per 100,000 females) and HIV (1.0 per 100,000 females). It is worth noting that in the general female population HIV was more frequent than syphilis (3.2 vs. 0.6 per 100,000 females). In young males, chlamydia and genital warts were the most commonly diagnosed infections in 2014, at rates of 727.3 and 460.5 per 100,000 males, respectively, followed by gonorrhoea and genital herpes (136.3 and 90.4 per 100,000 males). HIV and syphilis were of the lowest incidence, at rates of 8.6 and 8.1 per 100,000 males, respectively.

6.2 Geographical distribution of STIs in young people

The distributions of selected STIs in 15-24 year olds in 2014 in Wales are shown by local authority of residence in Figure 11. 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 rates of gonorrhoea diagnoses in young people between 2012 and 2014 were significantly higher than the average rate in Wales in Bridgend, Caerphilly, Newport, Torfaen and Cardiff local authorities (LAs). When compared to the number of gonorrhoea tests in young people reported from ISH clinics, the percentage for which a positive diagnosis was reported was notably high in those living in Caerphilly and Cardiff LAs. The Vale of Glamorgan also had quite high positivity rates, though lower than average rate overall.
- The rates of chlamydia in 2014 were significantly higher than average in Bridgend, Neath Port Talbot, Blaenau Gwent, Caerphilly, Newport, Torfaen, Conwy, and Denbighshire LAs. When compared to the number of chlamydia tests in young people reported from ISH clinics, the percentage for which a positive diagnosis was reported was notably high in those living in Caerphilly, Anglesey and Wrexham, with positivity rates of 20.7%, 19.6% and 17.0% respectively.
- Similarly to chlamydia, the rates of selected STIs combined (including gonorrhoea, chlamydia, herpes, warts and syphilis), were higher than average in Bridgend, Neath Port Talbot, Blaenau Gwent, Caerphilly, Newport, Torfaen, Conwy, and Denbighshire LAs.
- Compared to chlamydia, the rate of gonorrhoea is less strongly influenced by the number of tests carried out

Figure 11: Distribution of 15-24 year olds diagnosed with selected STIs in ISH clinics across Wales in 2014, by local authority of residence

¹Gonorrhoea diagnoses from 2012 to 2014 were combined for this analysis; ²Selected STIs: gonorrhoea, chlamydia, genital warts, genital herpes, and primary, secondary and early latent syphilis; *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, A3, 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.

Author: CDSC	Date: July 2016	Status: Approved
Version: 1	Page: 25 of 41	Intended Audience: Health professionals

Table 4: Rates of gonorrhoea and chlamydia tests in 15-24 year olds reported from ISH clinics across Wales in 2014, 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	11,039.3	0.7%	11,039.3	12.7%
Neath Port Talbot	10,296.5	1.3%	10,296.5	10.9%
Swansea	8,843.8	1.2%	8,843.8	8.0%
ABMU	9,700.8	1.1%	9,700.8	10.0%
Blaenau Gwent	9,029.8	1.5%	9,029.8	15.5%
Caerphilly	8,898.4	4.0%	8,912.1	20.7%
Monmouthshire	5,650.9	0.7%	5,650.9	13.1%
Newport	15,003.6	1.2%	15,019.1	11.8%
Torfaen	10,312.3	1.7%	10,321.0	16.4%
Aneurin Bevan	10,336.6	2.0%	10,346.4	15.4%
Isle of Anglesey	5,475.5	1.0%	5,475.5	19.6%
Conwy	9,192.1	0.8%	9,192.1	12.8%
Denbighshire	7,645.6	1.9%	7,645.6	16.4%
Flintshire	3,314.2	1.0%	3,314.2	12.4%
Gwynedd	3,492.2	1.6%	3,492.2	14.8%
Wrexham	4,814.1	1.6%	4,814.1	17.0%
BCU	5,283.0	1.3%	5,283.0	15.1%
Cardiff	6,138.1	3.0%	6,158.1	12.0%
Vale of Glamorgan	3,398.0	3.6%	3,404.8	10.6%
C&V	5,630.6	3.1%	5,648.2	11.9%
Merthyr Tydfil	4,810.2	1.4%	4,823.7	16.0%
Rhondda Cynon Taff	6,640.2	2.0%	6,656.2	13.2%
Cwm Taf	6,290.1	1.9%	6,305.6	13.6%
Carmarthenshire*	-	-	-	-
Ceredigion	4,044.0	0.5%	4,044.0	12.1%
Pembrokeshire*	-	-	-	-
Hywel Dda*	-	-	-	-
Powys	1,729.1	0.8%	1,736.1	11.7%
Powys Teaching	1,729.1	0.8%	1,736.1	11.7%
Wales	6,558.2	1.8%	6,565.4	13.0%

*, 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)

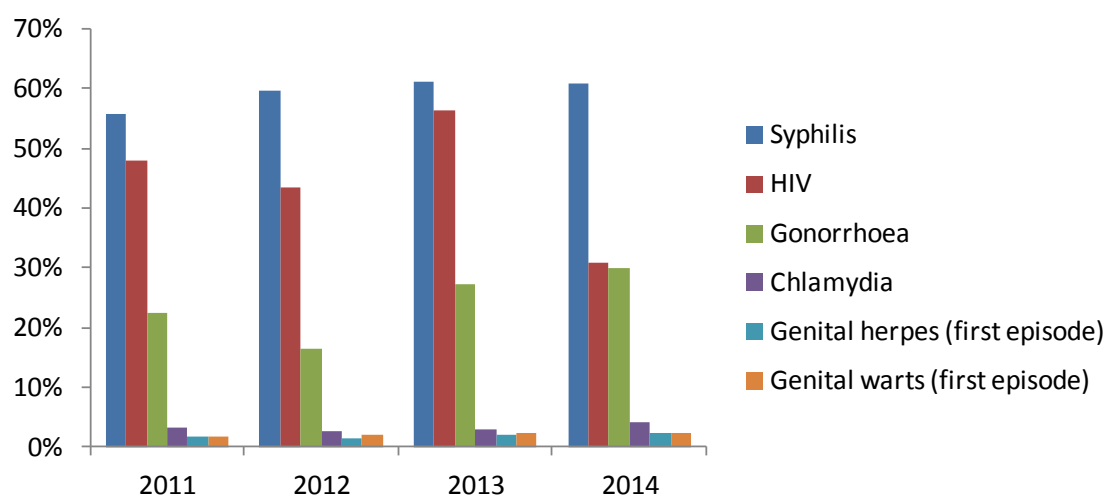
iv) LA- and age-specific rates were calculated using mid-year population estimates provided by StatsWales

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 since 2011.

In 2014, 61% of syphilis diagnoses, and 30% of gonorrhoea diagnoses were in MSM, similar to 2013 (Figure 12). In addition, 31% of HIV diagnoses were in MSM, a reduction from 56% in 2013. However, this may be partially due to an increase in the percentage of cases who are male and for whom sexuality was not available, from 9% to 26%. Only small percentages of chlamydia, genital herpes and warts diagnoses were in MSM (4%, 2% and 2% respectively).

Figure 12: Proportion of STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales which are among men who have sex with men, 2011-2014. * PHE new diagnoses, October 2015



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

ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015). For 2014, 36% of diagnoses were in individuals with unknown sexuality, a higher percentage than in previous years.

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

iv) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), 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 Table 5. Since 2011, in Wales, the most commonly diagnosed infections in MSM were gonorrhoea and chlamydia, representing 39% and 29% of new diagnoses in 2014, respectively. In 2011, chlamydia (28%) was slightly more common than gonorrhoea (25%) in MSM, but this changed following the increase in gonorrhoea seen in Wales in 2012. Indeed, gonorrhoea diagnoses form a higher proportion of diagnoses in all groups from 2012 onwards as compared to 2011. Since 2011, the most commonly diagnosed infections in heterosexual individuals were chlamydia and genital warts.

Table 5: Numbers (percentages) of STI diagnoses made in ISH clinics and HIV diagnoses from all settings within each person group, Wales 2011-2014.

Person group	STI	2011	2012	2013	2014
MSM	Syphilis	34 (9%)	40 (9%)	52 (8%)	70 (9%)
	Gonorrhoea	97 (25%)	138 (31%)	263 (41%)	294 (39%)
	Chlamydia	108 (28%)	122 (27%)	143 (22%)	222 (29%)
	Genital herpes (first episode)	15 (4%)	18 (4%)	23 (4%)	28 (4%)
	Genital warts (first episode)	60 (15%)	74 (17%)	84 (13%)	82 (11%)
	HIV	75 (19%)	52 (12%)	75 (12%)	58 (8%)
	Total	389 (100%)	444 (100%)	640 (100%)	754 (100%)
Heterosexual men	Syphilis	11 (0%)	25 (1%)	16 (0%)	34 (1%)
	Gonorrhoea	166 (5%)	313 (7%)	324 (8%)	335 (7%)
	Chlamydia	1437 (43%)	1852 (43%)	1903 (44%)	2067 (44%)
	Genital herpes (first episode)	292 (9%)	383 (9%)	340 (8%)	445 (9%)
	Genital warts (first episode)	1411 (42%)	1752 (40%)	1694 (39%)	1790 (38%)
	HIV	25 (1%)	16 (0%)	21 (0%)	30 (1%)
	Total	3342 (100%)	4341 (100%)	4298 (100%)	4701 (100%)
Heterosexual women	Syphilis	10 (0%)	1 (0%)	14 (0%)	8 (0%)
	Gonorrhoea	117 (3%)	314 (6%)	295 (6%)	309 (6%)
	Chlamydia	1573 (42%)	2308 (47%)	2557 (50%)	2890 (52%)
	Genital herpes (first episode)	492 (13%)	652 (13%)	652 (13%)	742 (13%)
	Genital warts (first episode)	1509 (40%)	1601 (33%)	1578 (31%)	1610 (29%)
	HIV	35 (1%)	29 (1%)	18 (0%)	32 (1%)
	Total	3736 (100%)	4905 (100%)	5114 (100%)	5591 (100%)

- i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS
- ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015). For 2014, 36% of diagnoses were in individuals with unknown sexuality, a higher percentage than in previous years.
- iii) Diagnoses made in clinics in Carmarthenshire or Pembrokeshire have been included; for these clinics, all females were assumed to be heterosexual
- iv) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A).

In those receiving HIV related care in Wales in 2014, there were more MSM than heterosexually-acquired cases (925 MSM vs 633 heterosexual contact). A further breakdown of individuals who received HIV-related care in 2014 can be found in Appendix Table A5.

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 10 in 2012, 12 in 2013, and 8 in 2014.

8: HIV and STIs in Black and Minority Ethnic groups

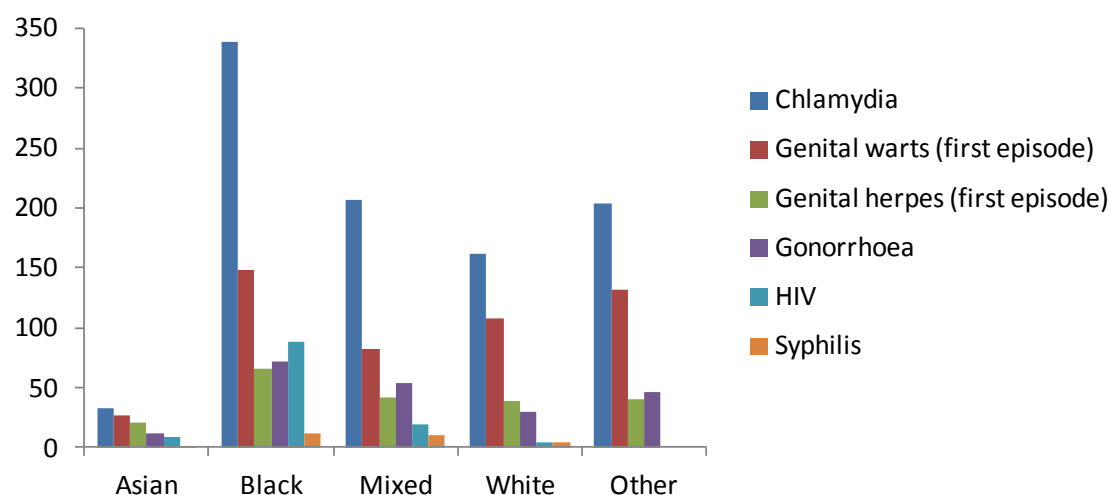
Some black and minority ethnic groups (BME) are disproportionately affected by HIV and selected STIs.

Rates of HIV and STI diagnoses in Wales for 2014 are provided by ethnicity in Figure 13. Although the majority of STI diagnoses were in white individuals, ethnicity-specific rates highlight that other groups are often disproportionately affected. For example, 8.5% of new HIV diagnoses in 2014 were in black individuals, with a rate of 87.5 per 100,000 population; this rate was 25-fold that of the HIV rate in white individuals. Most of the black individuals diagnosed with HIV were black African (Table 6).

The proportions of diagnoses within each ethnic group are depicted in Figure 14. In 2014, in Wales, the most commonly diagnosed infections within all ethnic groups were chlamydia and genital warts. Genital herpes was also a frequent diagnosis in Asian individuals diagnosed with an STI, with 20% in 2014, up from 4% in 2013.

Figure 15 shows the ethnicity distribution of new diagnoses of HIV for the last 15 years. The proportion of new diagnoses of HIV in individuals with known ethnicity which are among Black-African individuals has declined over the years from 45% in 2003 to 13% in 2013 and 11% in 2014, whilst it increased in white individuals and individuals of other/mixed ethnicity. However, data for recent years should be taken with caution as the proportion of individuals for which ethnicity is not known has increased from 8% in 2009 to 30% in 2014.

Figure 13: Rates of STI diagnoses made in ISH clinics and HIV diagnoses from all settings across Wales by ethnic group, 2014.



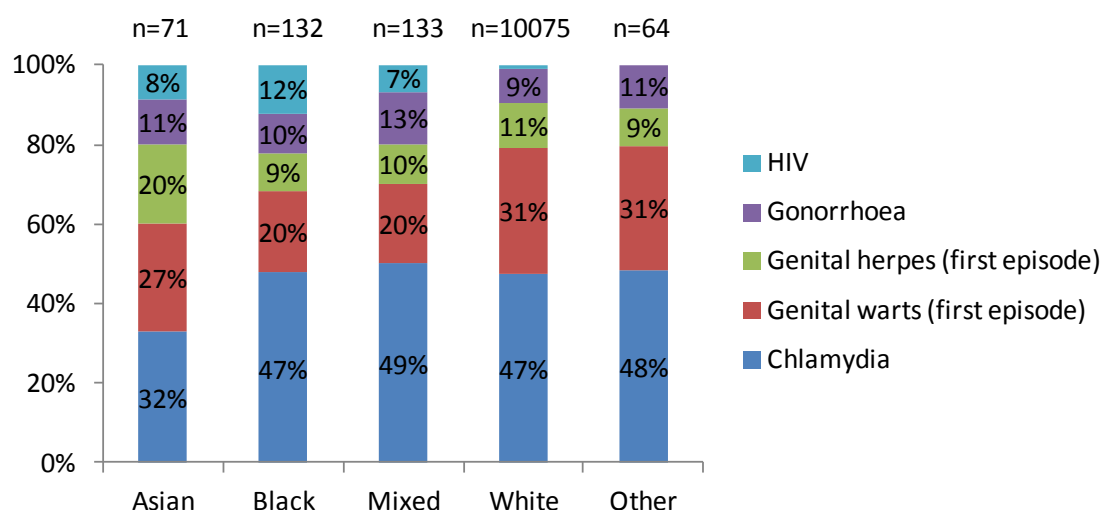
i) Diagnoses of STIs were reported from ISH clinics across Wales via SWS

ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015). "Mixed" and "other" categories are reported together and have been included in mixed.

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

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

v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

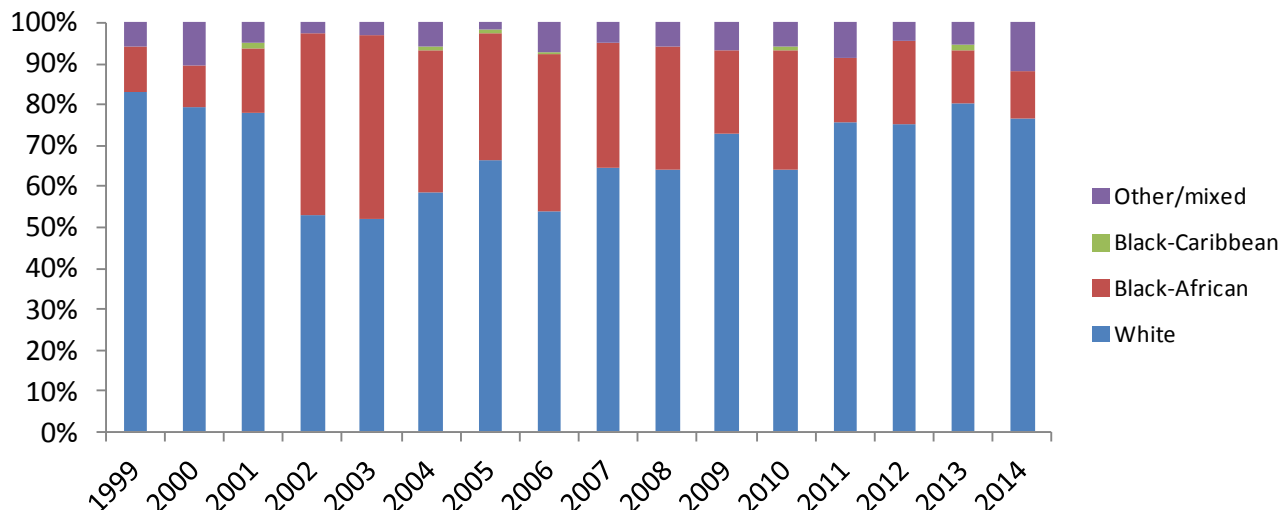
Figure 14: Distribution of HIV and STI diagnoses within each ethnic group, Wales 2014.

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

ii) New HIV diagnoses from all settings, not limited to ISH clinics, as reported by PHE (October 2015). "Mixed" and "other" categories are reported together and have been included in mixed.

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

iv) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3), gonorrhoea (B, B1, B2), chlamydia (C4, C4A, C4C), first episode of genital herpes (C10A) and first episode of genital warts (C11A)

Figure 15: Trends in ethnicity distribution in new HIV diagnoses, Wales, 1999-2014. Data recorded by PHE, published in October 2015.

i) Excludes individuals with unknown/unreported ethnicity

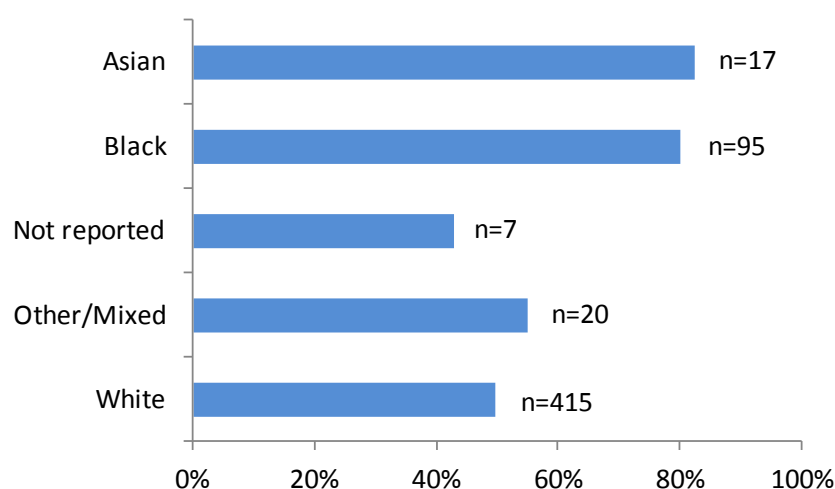
Recent trends of new HIV diagnoses and individuals receiving HIV-related care in Wales, as reported by PHE, are shown by ethnic group (Table 6). From 2010 to 2014, most new HIV diagnoses were in white individuals, the majority of which were males. In contrast, the majority of new diagnoses in black African individuals were in females. The number of new diagnoses in black African females was similar to the number of diagnoses in white females. The majority of males receiving HIV-related care in Wales during this time period were white, and the majority of females were black African.

Table 6: New HIV diagnoses and residents receiving HIV-related care in Wales, by ethnic group and gender. Data recorded by PHE, published in October 2015.

Ethnicity	Receiving HIV-related care (SOPHD)					New HIV diagnoses				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Black African	264	292	293	306	289	39	22	22	15	15
Female	183	198	208	211	199	22	14	18	8	11
Male	81	94	85	95	90	17	8	4	7	4
Black Caribbean	5	4	4	4	4	1	0	0	2	0
Black other	14	13	14	14	15	1	0	0	0	1
Asian	34	44	49	53	55	2	6	4	3	6
Mixed or other	28	27	27	25	24	5	6	1	3	9
White	980	1,092	1,150	1,256	1,271	86	107	81	93	102
Female	119	140	143	158	167	9	18	11	10	14
Male	861	952	1,007	1,098	1,104	77	89	70	83	88
Not known	0	2	1	5	7	18	16	12	17	56
Total	1,325	1,474	1,538	1,663	1,665	152	157	120	133	189

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. The proportion of individuals with a late diagnoses (defined having a CD4 count <350 cells/mm³ within three months of diagnosis) for the period 2010-2014 was very high in Asian and black individuals (82 and 80%, respectively), compared to white individuals (50%) and other/mixed ethnicities (55%) (Figure 16). The probable country of infection was the UK for 24% of Asian individuals, 6% of black individuals, 20% of other/mixed ethnicities and 71% of white individuals (not shown).

Figure 16: Late diagnoses: proportion of individuals diagnosed with a CD4 count <350 cells/mm³ within three months of diagnosis by ethnic group, Wales, 2010-2014. Data reported by PHE, October 2015



i) Diagnoses with unknown CD4 count at diagnosis have been excluded

Appendix A Tables

Table A1: 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.

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012			2013			2014		
		F	M	T	F	M	T	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	4	21	25	0	25	25	5	41	46	6	55	61
A2	Secondary infectious syphilis	0	22	22	3	34	37	1	16	17	1	12	13	3	11	14	0	20	20	2	9	11	0	21	21
A3	Early latent syphilis	2	20	22	4	27	31	2	10	12	4	12	16	4	16	20	1	17	18	7	16	23	2	29	31
A4	Other acquired syphilis	10	5	15	6	11	17	3	8	11	3	8	11	0	2	2	0	0	0	0	3	3	0	3	3
A5	Other acquired syphilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	1	0	0	0
A6	Other acquired syphilis	8	22	30	6	18	24	8	23	31	5	11	16	7	8	15	6	18	24	7	17	24	9	14	23
A7A	Congenital Syphilis	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	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	3	3	0	0	0	0	0	0	0	5	5
B	Gonorrhoea	0	1	1	0	0	0	37	103	140	28	28	56	86	178	264	322	485	807	298	625	923	312	647	959
B1	Uncomplicated gonorrhoea	115	301	416	124	259	383	95	212	307	74	154	228	37	94	131	1	1	2	0	0	0	0	0	0
B2	Uncomplicated gonorrhoea	1	2	3	0	0	0	3	2	5	0	1	1	1	1	2	0	0	0	0	0	0	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	0	0		0	0	0
B4	Epidemiological treatment of suspected gonorrhoea	70	85	155	97	82	179	86	101	187	64	88	152	29	63	92	0	0	0	0	0	0	0	0	0
B5	Complicated gonococcal infection - including PID and epididymitis	2	0	2	5	2	7	11	0	11	4	2	6	1	0	1	0	0	0	0	0	0	1	0	1
C1	Chancroid/Donovanosis/LGV	2	1	3	0	3	3	2	3	5	0	1	1	11	8	19	1	4	5	2	1	3	0	1	1
C2	Chancroid/Donovanosis/LGV	0	1	1	2	1	3	2	4	6	0	3	3	2	2	4	1	2	3	1	4	5	0	0	0
C3	Chancroid/Donovanosis/LGV	1	0	1	1	1	2	0	1	1	0	0	0	1	2	3	5	1	6	2	1	3	0	0	0
C4	Chlamydia	0	1	1	0	0	0	457	622	1079	399	286	685	1024	1005	2029	2298	2072	4370	2557	2179	4736	2844	2310	5154
C4A	Uncomplicated chlamydial infection	1761	1459	3220	2043	1938	3981	1550	1475	3025	1432	1265	2697	563	602	1165	27	19	46	17	15	32	0	1	1
C4B	Complicated Chlamydial infection - including PID and epididymitis	62	26	88	79	29	108	50	20	70	52	17	69	28	6	34	4	0	4	1	0	1	1	0	1
C4C	Uncomplicated chlamydial infection	9	11	20	12	12	24	11	3	14	7	4	11	1	1	2	0	0	0	0	0	0	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	0	0	0	0	0	0
C4E	Epidemiological treatment of suspected chlamydia	765	1080	1845	768	1106	1874	684	955	1639	613	852	1465	245	403	648	21	16	37	7	8	15	0	0	0
C4H	Uncomplicated non-gonococcal/non-specific urethritis in males or treatment of mucopurulent cervicit	325	2031	2356	252	1772	2024	357	1468	1825	298	1049	1347	51	441	492	1	8	9	1	1	2	0	0	0
C4I	Epidemiological treatment of NSGI	342	128	470	297	135	432	240	123	363	157	90	247	81	62	143	0	0	0	0	0	0	0	0	0

Table A1 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012			2013			2014		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
C4N	Non-Specific genital infection	0	0	0	0	0	0	0	0	0	0	1	1	91	442	533	271	1091	1362	254	982	1236	257	1031	1288
C5	Complicated infection (non-chlamydial/non-gonococcal) - including PID and epididymitis	320	109	429	264	99	363	209	100	309	218	92	310	89	32	121	18	20	38	25	14	39	0	0	0
C5A	Pelvic inflammatory disease / epididymitis	0	0	0	0	0	0	42	10	52	62	13	75	184	65	249	337	141	478	388	161	549	531	232	763
C5B	Ophthalmia neonatorum	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	4	1	5	0	1	1
C6A	Trichomoniasis	40	0	40	73	10	83	62	6	68	56	3	59	28	9	37	55	7	62	65	2	67	76	5	81
C6B	Anaerobic/Bacterial vaginosis & anaerobic balanitis	2513	106	2619	2567	120	2687	2478	68	2546	2038	67	2105	1699	74	1773	1872	98	1970	1804	123	1927	2023	138	2161
C6C	Other vaginosis/vaginitis/balanitis	52	505	557	54	543	597	75	339	414	64	217	281	132	369	501	128	367	495	171	424	595	199	391	590
C7	Anogenital candidosis	0	1	1	0	0	0	529	42	571	380	26	406	979	153	1132	1630	459	2089	1564	390	1954	1826	481	2307
C7A	Anogenital candidosis	2256	292	2548	2318	330	2648	1505	338	1843	1318	281	1599	534	136	670	12	4	16	2	0	2	0	0	0
C7B	Epidemiological treatment of C6 and C7	103	96	199	183	133	316	185	143	328	180	163	343	141	93	234	0	0	0	0	0	0	0	0	0
C8	Scabies/Pediculosis pubis	4	34	38	4	32	36	5	41	46	4	34	38	7	42	49	9	55	64	10	57	67	9	52	61
C9	Scabies/Pediculosis pubis	0	18	18	1	21	22	2	12	14	0	6	6	0	12	12	1	20	21	2	17	19	1	14	15
C10A	Anogenital herpes simplex - first attack	399	216	615	436	292	728	444	221	665	441	257	698	505	353	858	661	418	1079	702	405	1107	744	470	1214
C10B	Anogenital herpes simplex - recurrence	158	136	294	222	170	392	198	126	324	216	124	340	216	153	369	304	217	521	326	214	540	415	253	668
C11A	Anogenital warts - first attack	1687	1701	3388	1742	1851	3593	1616	1762	3378	1559	1520	3079	1547	1554	3101	1603	1897	3500	1537	1840	3377	1585	1836	3421
C11B	Anogenital warts - recurrence	499	802	1301	569	869	1438	523	868	1391	585	816	1401	310	407	717	80	128	208	72	95	167	116	106	222
C11C	Anogenital warts - reregistered cases	397	376	773	295	339	634	178	218	396	124	157	281	49	46	95	5	3	8	1	1	2	0	0	0
C11D	Anogenital warts infection: recurrence	0	0	0	0	0	0	0	2	2	2	5	7	334	476	810	901	1234	2135	901	1364	2265	1072	1534	2606
C12	Molluscum contagiosum	172	292	464	173	321	494	131	275	406	120	242	362	113	259	372	127	250	377	120	256	376	112	276	388
C13	Antigen positive hepatitis B	0	0	0	0	1	1	2	5	7	0	2	2	4	4	8	10	32	42	5	14	19	4	14	18
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	0	0	0	0	0	0	0	0
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	0	0	0	0	1	1
C13C	Viral hepatitis B: subsequent presentation	1	6	7	3	8	11	3	5	8	4	8	12	1	0	1	0	0	0	0	0	0	0	0	0
C14	Viral hepatitis C: first diagnosis	14	25	39	10	21	31	7	20	27	8	17	25	13	14	27	19	30	49	5	17	22	17	19	36
C15	Viral Hepatitis A: Acute Infection	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1

Table A1 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012			2013			2014		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
D2A	Urinary tract infection	141	12	153	177	16	193	169	25	194	155	20	175	179	32	211	258	46	304	220	35	225	265	39	304
D2B	Other episodes requiring treatment at a GUM clinic	1477	1520	2997	1389	1520	2909	1270	1161	2431	1098	1073	2171	1166	1351	2517	1263	1390	2653	1468	1435	2903	1658	1591	3249
D3	Other episodes not requiring treatment	4961	6236	11197	7599	8435	16034	9225	8629	17854	12101	8051	20152	14316	9041	23357	17821	11153	28974	22060	12376	34436	26189	14587	40776
E1A	New HIV diagnosis: asymptomatic	17	68	85	20	46	66	8	37	45	12	30	42	4	3	7	1	0	1	0	0	0	0	0	0
E1B	Subsequent HIV presentation (not AIDS)	25	70	95	32	46	78	8	16	24	20	40	60	5	24	29	0	0	0	0	0	0	0	0	0
E1BE2B	Subsequent HIV presentation (not AIDS)	316	894	1210	247	647	894	67	156	223	15	29	44	2	7	9	0	0	0	0	0	0	0	0	0
E2A	New HIV diagnosis: symptomatic (not AIDS)	10	25	35	8	23	31	6	2	8	8	17	25	4	7	11	0	0	0	0	0	0	0	0	0
E2B	Subsequent HIV presentation (not AIDS)	48	64	112	57	79	136	11	29	40	89	142	231	63	111	174	0	0	0	0	0	0	0	1	1
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	0	0	0	0	0	0
E3A2	AIDS: first presentation - HIV diagnosed previously	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E3B	AIDS - subsequent presentation	31	178	209	40	157	197	30	67	97	21	69	90	12	46	58	0	0	0	0	0	0	0	0	0
H	HIV positive	0	0	0	0	0	0	0	0	0	0	0	0	2	15	17	5	25	30	9	34	43	14	75	89
H1	New HIV diagnosis	0	0	0	0	0	0	5	16	21	3	10	13	8	25	33	14	29	43	12	69	81	22	63	85
H1A	New HIV diagnosis: Acute	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	5	7	2	6	8	0	1	1
H1B	New HIV diagnosis: Late	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	2	7	9	2	15	17	2	14	16
H2	Attendance for HIV related care	0	0	0	0	0	0	25	88	113	6	39	45	79	277	356	282	854	1136	410	1588	1998	452	1702	2154
P1A	HIV antibody test (no sexual health screen)	666	994	1660	578	819	1397	534	713	1247	431	611	1042	458	604	1062	626	594	1220	593	636	1229	797	775	1572
P1B	HIV antibody test offered and refused	3722	3420	7142	4172	4026	8198	4506	4010	8516	4971	3654	8625	4558	3302	7860	7097	4219	11316	8265	4687	12952	8258	4393	12651
P1C	HIV test inappropriate	0	0	0	0	0	0	0	1	1	4	2	6	257	69	326	601	392	993	492	286	778	514	347	861
P2	Hepatitis B vaccination (1st dose only)	158	429	587	142	358	500	88	202	290	73	218	291	29	87	116	22	41	63	11	14	25	0	1	1
P2A	Hepatitis B vaccination: 1st Dose	0	0	0	0	0	0	57	120	177	87	63	150	132	191	323	254	444	698	269	688	957	371	865	1236
P2B	Hepatitis B vaccination: 2nd Dose	0	0	0	0	0	0	0	0	0	2	2	4	58	74	132	114	269	383	129	339	468	244	538	782
P2C	Hepatitis B vaccination: 3rd Dose	0	0	0	0	0	0	0	1	1	2	4	6	48	76	124	104	226	330	84	307	391	203	462	665
P2D	Hepatitis B vaccination: 4th dose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6	29	35
P2I	Hepatitis B immune	0	0	0	0	2	2	1	1	2	2	13	15	40	115	155	208	457	665	120	400	520	144	466	610

Table A1 continued...

KC60/SHHAPT Code and description		2007			2008			2009			2010			2011			2012			2013			2014		
		F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T	F	M	T
P3	Contraception (excluding condom provision)	513	6	519	1789	16	1805	2634	25	2659	4836	26	4862	5317	22	5339	12742	77	12819	16260	64	16324	16264	61	16325
P4	Cervical cytology done	0	0	0	291	0	291	804	1	805	99	0	99	908	4	912	2510	11	2521	2956	5	2961	2683	11	2694
P4A	Cervical Cytology - minor abnormality	140	0	140	221	3	224	193	1	194	117	1	118	105	0	105	81	1	82	122	1	123	95	1	96
P4B	Cervical Cytology - major abnormality	13	0	13	32	0	32	37	0	37	25	0	25	21	0	21	14	0	14	13	0	13	8	0	8
PEPS2	Post exposure prophylaxis after sexual exposure (PEPSE)	1	0	1	2	4	6	2	8	10	1	6	7	25	40	65	34	86	120	13	101	114	19	91	110
PN	Partner notification initiated	0	0	0	0	0	0	0	0	0	0	0	0	78	66	144	411	357	768	351	447	798	691	803	1494
PNC	Partner notification related attendance: Chlamydia	0	0	0	0	0	0	0	0	0	1	2	3	238	409	647	826	1351	2177	1029	1517	2546	1167	1703	2870
PNG	Partner notification related attendance: Gonorrhoea	0	0	0	0	0	0	0	0	0	0	1	1	42	61	103	104	180	284	96	219	315	112	279	391
PNH	Partner notification related attendance: HIV	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	3	14	17	2	22	24	10	31	41
PNS	Partner notification related attendance: Syphilis	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	6	15	21	6	23	29	11	40	51
S1	Sexual health screen (no HIV antibody test)	4243	3786	8029	4461	3946	8407	4190	3191	7381	4717	3496	8213	2648	1872	4520	4	6	10	1	1	2	0	0	0
S2	HIV antibody test and sexual health screen	8085	9208	17293	9664	10538	20202	7179	7346	14525	7122	7220	14342	3789	3843	7632	12	13	25	15	5	20	1	3	4
SW	Sex Worker	0	0	0	0	0	0	0	0	0	1	0	1	7	1	8	34	5	39	31	5	36	43	2	45
T1	Chlamydia test	0	0	0	0	0	0	0	1	1	0	0	0	391	371	762	127	38	165	71	10	81	59	17	76
T2	Chlamydia and gonorrhoea tests	0	1	1	1	0	1	0	0	0	3	0	3	2770	1495	4265	10259	5661	15920	13148	6684	19832	14705	7057	21762
T3	Chlamydia, gonorrhoea and syphilis tests	0	0	0	0	0	0	687	768	1455	680	368	1048	423	330	753	115	164	279	89	213	302	91	196	287
T4	Full sexual health screen including HIV antibody test	0	0	0	2	3	5	2471	2715	5186	2310	1416	3726	5919	5549	11468	13337	12799	26136	13738	13219	26957	15541	14355	29896
T5	HSV Test	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	13	22
T6	Hepatitis A/B/C Test	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	227	313	492	1154	1646
T7	Syphilis and HIV testing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	13	10	23
W1	HPV vaccination: first dose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	2	3	5	2	0	2
W2	HPV vaccination: second dose	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
W3	HPV vaccination: third dose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
STS	Only syphilis test (local code)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	124	182	237	426	663
TGC	Only gonorrhoea test (local code)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	7	12	13	14	27

Table A2: Syphilis cases from the enhanced surveillance scheme in Wales, by stage of infection and person group, 2002-2015. * As at 1st June 2015.

Person group	Stage of infection	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
MSM	Primary	10	23	13	22	18	21	44	23	19	22	10	42	51	16
	Secondary	4	10	14	9	16	22	28	12	16	10	17	8	25	6
	Early latent	6	5	10	6	8	14	17	5	17	14	8	17	19	4
	Unknown	2	4	1	0	2	7	5	4	2	2	11	7	12	4
	Total	22	42	38	37	44	64	94	44	54	48	47	74	107	30
Heterosexual men	Primary	1	7	5	5	4	8	9	1	8	6	3	7	8	3
	Secondary	1	1	0	0	5	4	5	2	1	2	1	1	5	0
	Early latent	1	3	3	2	4	4	3	2	4	1	1	0	0	1
	Unknown	1	0	1	0	3	3	1	0	2	1	0	2	7	1
	Total	4	11	9	7	16	19	18	5	15	10	5	10	20	5
Heterosexual women	Primary	0	2	1	1	3	1	1	0	3	3	2	3	4	3
	Secondary	0	0	0	1	3	0	2	1	0	2	0	1	0	14
	Early latent	1	2	1	3	7	4	4	3	3	1	0	4	1	1
	Unknown	8	1	1	1	1	2	1	1	0	2	5	2	1	0
	Total	9	5	3	6	14	7	8	5	6	8	7	10	6	7
All	Primary	11	32	19	28	25	30	54	25	30	31	15	53	63	22
	Secondary	5	11	14	10	24	26	35	15	17	14	18	10	32	9
	Early latent	8	10	14	11	20	22	24	10	24	16	10	21	20	6
	Unknown	11	5	3	1	7	12	7	6	4	5	17	11	20	5
	Total	35	58	50	50	76	90	120	56	75	66	60	95	135	42

i) Totals include some individuals of other/unknown sexuality

Table A3: Rates per 100,000 population of HIV and selected STIs diagnosed in ISH clinics across Wales, 2011-2014, by gender and LA of residence.

Residence LA and HB	HIV - SOPHID								Gonorrhoea								Chlamydia							
	Female				Male				Female				Male				Female				Male			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Bridgend	24	30	32	28	57	68	72	72	10	27	25	21	13	33	59	33	45	187	246	287	60	141	195	159
Neath Port Talbot	6	6	7	7	66	70	77	74	1	21	22	24	3	23	23	32	27	200	216	218	39	152	152	123
Swansea	46	46	47	45	77	78	84	74	2	19	25	17	12	35	60	41	43	166	180	167	70	142	127	132
ABMU	29	31	32	30	69	73	79	73	4	22	24	20	10	32	50	36	39	181	207	213	59	144	152	137
Blaenau Gwent	3	3	3	3	55	67	61	61	11	25	31	40	17	17	35	44	99	141	189	257	146	105	166	225
Caerphilly	13	14	15	15	50	50	58	58	10	34	30	62	39	42	67	58	105	129	159	356	137	141	157	241
Monmouthshire	19	19	23	23	62	69	73	70	2	9	13	2	9	18	20	31	60	56	77	121	64	67	80	119
Newport	50	56	55	53	95	94	104	104	34	32	32	27	49	53	70	58	224	318	362	374	195	249	303	300
Torfaen	13	19	19	21	50	67	76	78	15	43	32	17	32	47	31	56	160	177	196	328	182	178	236	255
Aneurin Bevan	22	25	26	26	64	69	75	75	16	30	28	34	33	39	51	52	136	174	207	307	148	158	195	237
Isle of Anglesey	11	8	8	14	32	32	35	32	3	3	0	6	6	15	29	12	141	152	143	157	122	212	137	110
Conwy	10	10	12	22	79	91	91	87	10	20	8	12	11	25	14	18	240	246	220	187	143	208	199	163
Denbighshire	15	15	19	21	35	35	43	56	15	31	15	23	13	24	24	13	165	182	217	200	148	179	180	178
Flintshire	9	9	18	14	53	54	62	65	1	5	8	6	8	15	13	3	66	83	141	74	72	70	90	59
Gwynedd	24	24	26	32	62	60	68	71	2	3	3	5	7	22	28	25	108	118	102	100	105	128	110	96
Wrexham	34	32	39	45	52	52	57	67	6	4	6	10	15	10	13	18	268	233	262	147	213	179	228	123
BCU	18	17	22	26	54	56	62	65	6	11	7	10	10	18	19	14	163	167	182	138	133	154	156	117
Cardiff	66	61	60	59	177	171	187	192	14	41	36	38	35	60	87	120	119	179	144	201	124	158	131	214
Vale of Glamorgan	17	18	17	17	76	73	81	79	6	6	11	20	11	23	36	34	49	57	64	62	71	73	55	82
Cardiff & Vale	53	49	49	48	150	145	159	162	12	31	29	33	29	50	74	97	100	146	123	164	110	136	111	179
Merthyr Tydfil	17	23	23	20	69	66	73	72	0	10	40	13	10	21	31	21	53	33	123	120	73	76	163	159
Rhondda, Cynon, Taff	13	14	16	12	55	67	72	67	3	15	22	18	19	26	38	53	70	71	167	174	78	81	138	166
Cwm Taf	14	16	17	14	58	67	72	68	3	14	26	17	17	25	37	46	67	63	158	163	77	80	143	165
Carmarthenshire*	12	15	15	14	51	57	55	57	0	3	3	1	0	14	9	11	11	36	33	24	6	32	20	15
Ceredigion	8	8	11	11	45	53	53	63	0	3	3	3	3	5	8	13	85	76	106	107	69	74	87	106
Pembrokeshire*	19	19	19	17	35	37	45	44	0	0	0	0	2	0	3	0	2	16	6	8	8	18	15	10
Hywel Dda	13	15	15	14	45	49	51	54	0	2	2	1	1	14	7	8	22	37	38	35	19	37	32	32
Powys Teaching	7	9	7	9	55	53	59	52	0	0	6	1	3	9	9	5	24	34	54	33	21	53	50	30
Wales	24	25	27	27	72	75	82	82	7	18	18	19	16	28	38	40	95	136	156	172	95	124	134	143

*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, October 2015. 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, T2, T3, T4). v) Gender- and LA-specific rates were calculated using mid-year estimates provided by StatsWales

Table A3 continued...

Residence LA and HB	Genital herpes								Genital warts								STI tests							
	Female				Male				Female				Male				Female				Male			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Bridgend	21	45	45	38	16	35	17	30	128	114	111	112	103	122	143	158	559	2,247	2,381	2,653	547	1,338	1,568	1,718
Neath Port Talbot	14	38	52	45	16	42	15	35	59	115	132	102	67	162	153	135	318	2,088	2,618	2,745	411	1,286	1,551	1,544
Swansea	25	51	59	68	18	37	26	47	64	110	111	125	83	159	173	157	519	2,351	2,675	2,888	588	1,666	1,985	1,960
ABMU	21	46	53	53	17	38	21	39	80	112	117	115	84	150	160	152	475	2,252	2,581	2,786	530	1,476	1,756	1,784
Blaenau Gwent	28	39	51	79	32	35	38	35	118	90	121	93	154	169	149	152	991	1,245	1,889	2,621	1,110	1,224	1,378	1,541
Caerphilly	45	48	63	68	32	18	38	33	118	100	106	122	139	131	123	116	1,060	1,328	1,742	2,470	1,156	1,200	1,245	1,344
Monmouthshire	34	21	21	30	11	24	22	15	92	86	94	79	71	104	113	110	746	902	990	1,116	794	924	935	1,073
Newport	70	99	118	94	53	43	51	72	177	154	149	159	192	210	202	155	2,827	3,420	3,957	4,584	2,024	2,382	2,467	2,546
Torfaen	28	62	81	64	43	38	25	34	152	141	104	141	194	146	144	143	1,621	2,237	2,597	2,629	1,454	1,679	1,858	1,750
Aneurin Bevan	45	58	72	69	36	31	37	40	135	117	116	124	152	154	148	134	1,538	1,924	2,336	2,833	1,359	1,533	1,617	1,693
Isle of Anglesey	23	45	31	42	20	20	23	12	135	107	118	78	111	99	102	107	889	1,061	1,166	1,222	908	1,147	1,183	1,113
Conwy	49	54	39	52	32	32	37	30	141	132	86	114	136	163	137	82	1,913	2,145	1,829	2,018	1,264	1,533	1,616	1,359
Denbighshire	46	61	52	31	30	35	26	21	155	138	104	92	137	123	129	98	1,862	1,973	2,108	1,758	1,172	1,361	1,465	1,222
Flintshire	18	27	44	18	16	20	15	12	75	68	82	41	58	70	77	36	739	816	1,439	948	464	534	816	535
Gwynedd	29	37	26	32	17	23	8	28	91	95	92	76	75	90	95	81	837	904	968	953	906	1,053	1,079	1,013
Wrexham	59	60	69	35	39	33	31	19	122	91	89	70	124	115	109	81	1,764	1,686	1,929	1,310	1,242	1,184	1,348	817
BCU	37	46	44	34	26	27	23	20	115	102	93	76	103	108	106	76	1,324	1,410	1,582	1,340	970	1,094	1,226	964
Cardiff	41	55	32	59	29	30	24	38	87	125	90	166	97	132	91	176	1,293	1,583	1,274	2,105	1,083	1,425	1,240	2,127
Vale of Glamorgan	22	20	17	38	16	13	16	13	65	75	54	62	57	84	63	90	605	711	622	857	603	658	559	891
Cardiff & Vale	36	45	28	53	25	25	22	31	81	111	80	138	86	119	84	154	1,108	1,349	1,100	1,772	955	1,222	1,060	1,802
Merthyr Tydfil	13	0	20	43	10	10	21	31	73	63	149	110	111	104	166	152	426	512	1,008	1,223	559	566	1,022	1,204
Rhondda, Cynon, Taff	33	31	65	71	15	23	55	47	120	96	139	125	117	113	161	166	701	769	1,601	1,890	668	746	1,274	1,522
Cwm Taf	29	25	56	66	14	20	48	43	111	89	141	122	116	111	162	163	646	718	1,482	1,757	646	710	1,224	1,459
Carmarthenshire*	6	3	5	10	7	3	11	7	5	15	23	12	17	21	15	24	69	492	515	425	97	278	300	283
Ceredigion	16	13	11	13	8	8	16	16	93	92	108	88	61	108	105	92	989	1,065	1,254	1,225	675	1,102	1,234	1,093
Pembrokeshire*	2	3	0	0	5	2	3	2	5	8	10	2	8	12	23	12	77	99	91	60	67	130	175	115
Hywel Dda	7	5	5	7	6	4	10	7	22	28	35	23	23	24	36	34	250	477	522	461	203	308	449	391
Powys Teaching	4	7	4	6	9	5	3	5	46	36	40	27	43	55	52	38	303	415	504	379	243	466	420	331
Wales	30	39	43	45	22	25	25	29	93	95	95	97	95	114	114	113	945	1,413	1,629	1,822	808	1,110	1,232	1,319

*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, October 2015. 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, T2, T3, T4). v) Gender- and LA-specific rates were calculated using mid-year estimates provided by StatsWales

Table A4: New HIV diagnoses by gender and probable exposure category, 2007-2014. Source: New HIV diagnoses, Public Health England, as at October 2015

Exposure category	Female								Male							
	2007	2008	2009	2010	2011	2012	2013	2014	2007	2008	2009	2010	2011	2012	2013	2014
Sex between men	-	-	-	-	-	-	-	-	92	64	80	60	75	52	75	58
Heterosexual contact	39	39	30	34	35	29	18	32	35	31	23	37	23	16	21	27
Injecting drug use	1	0	0	0	1	0	0	2	1	2	0	1	2	1	0	6
Mother to infant	1	0	3	0	0	2	0	2	0	1	1	1	0	0	1	1
Recipient of blood/ tissue products	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0
Other	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Not reported	1	3	3	7	12	6	7	15	1	1	2	10	9	14	11	46
Total	43	42	37	41	48	37	25	51	129	100	106	111	109	83	108	138

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 unmatched because of differences in the information supplied. Numbers will rise as further reports are received, particularly for recent years.

Table A5: Residents of Wales who received HIV-related care in 2014, by ethnicity and possible route of exposure. Source: SOPHID, Public Health England, October 2015

Ethnicity	Sex between Men		Heterosexual contact		Mother-to-child		Injecting drug use		Recipient of blood/ tissue		Not reported		Total	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Black African	...	15	184	65	7	5	0	1	5	4	3	0	199	90
Black Caribbean	...	1	1	1	1	0	0	0	0	0	0	0	2	2
Black other	...	9	6	0	0	0	0	0	0	0	0	0	6	9
Asian	...	11	31	9	0	0	0	0	3	1	0	0	34	21
Mixed or other	...	8	8	5	0	1	0	2	0	0	0	0	8	16
White	...	879	143	179	2	3	4	14	16	12	2	17	167	1,104
Not known	...	2	0	1	2	1	0	0	0	1	0	0	2	5
Total	...	925	373	260	12	10	4	17	24	18	5	17	418	1,247

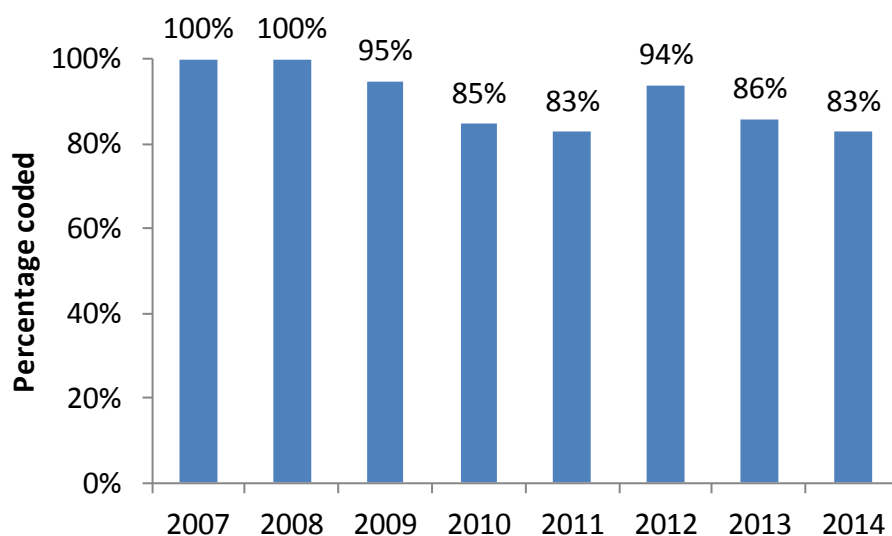
Notes for SOPHID: Data provided by Public Health England. These data include patients diagnosed with HIV infection, who were seen for statutory medical HIV-related care. Patients with missing information may have been assigned values based on subsequent years' data. Sex between men includes those who also injected drugs.

Table A6: Number of new and existing blood donors who tested positive for HIV, HBV, HCV or *Treponema pallidum* infection in Wales, 2007 to 2014. Source: Welsh Blood Service and National Blood Service.

		2007	2008	2009	2010	2011	2012	2013	2014
Donors (number bled)	New	12,667	12,937	11,526	10,453	10,915	9,487	8,426	10,100
	Repeat	111,912	113,412	110,922	104,904	108,460	105,113	110,667	111,447
HIV	New	1	0	1	1	0	2	1	0
	Repeat	2	0	0	0	1	1	0	0
HBV	New	5	3	1	2	3	3	0	3
	Repeat	1	0	0	1	0	0	0	0
HCV	New	4	5	8	2	4	6	1	2
	Repeat	2	3	0	0	0	0	0	0
<i>T. pallidum</i>	New	2	0	4	0	2	3	3	0
	Repeat	2	2	1	2	2	1	0	0

Appendix B

Figure B1: Percentage of new and rebook attendances to ISH clinics across Wales with at least one service or diagnostic code (of any kind), 2007-2014



i) New patient and rebook patient attendances reported to SWS. Rebook patient attendances are those where patients who are known to the clinic return for an unrelated episode of care.

Appendix C

Report prepared by:

Public Health Wales
Communicable Disease Surveillance Centre:

Laia Fina
Hannah Jones
Andrew Malone
Malorie Perry
Daniel Thomas
Chris Williams

Editorial Team:

Ushan Andraday	Consultant Physician, Betsi Cadwaladr University Health Board
Sarah Andrews	Principal Public Health Practitioner, Public Health Wales
Zoe Couzens	Health Protection Specialist, South East Wales Health Protection Team
Noel Craine	Senior Scientist, Public Health Wales
Sarah Fuhrmann	National Director, Terrence Higgins Trust Cymru
Angela Jones	Consultant in Public Health, Public Health Wales
Rachel Jones	Consultant Virologist, Public Health Wales Microbiology Cardiff
Carys Knapper	Consultant in Genitourinary Medicine, Newport
Marion Lyons	Programme Lead, Public Health Wales Sexual Health Programme
Louise Massey	Consultant in Sexual and Reproductive Health, Aneurin Bevan UHB
Gwyneth Thomas	Health Statistics, Welsh Government
Olwen Williams	Consultant in Genitourinary Medicine, Wrexham Maelor Hospital