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Sexual Health in Wales Surveillance Scheme (SWS)

Quarterly Report, January 2017
(Data to end September 2016)

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Purpose and Summary of Document:

This report presents the latest observed trends on the rates of sexually transmitted infections and other infections diagnosed in Integrated Sexual Health clinics in Wales and highlights quality issues in the data. Data are presented to end of September 2016, as at 24th January 2017.

Key points

- There was an increase in reports of new diagnoses of chlamydia, first episodes of herpes, and syphilis across Wales over the last year, and a decrease in reports of gonorrhoea (comparing Q2-Q3 2015 and Q2-Q3 2016) (Table 1). However, part of the increase in reported STIs is due to improved reporting from Hywel Dda, with all clinics submitting data to SWS since March 2016. Comparing Q2-Q3 2015 and Q2-Q3 2016:
 - Syphilis increased by 61% from 33 to 53 cases, whilst reports of syphilis testing increased by 9% (Table 1). The syphilis increase is similar (55%), and there is no increase in testing, after excluding Hywel Dda cases.
 - Chlamydia diagnoses increased by 20%, corresponding to a similar increase in testing. Excluding Hywel Dda, chlamydia increased by 8%, with a 12% increase in testing.
 - First episodes of herpes increased by 20% (10% with the exclusion of Hywel Dda).
 - Gonorrhoea decreased by 12% whilst gonorrhoea testing increased by 21%. Excluding Hywel Dda the decrease was of 16% with a 12% increase in testing.
 - New diagnoses of HIV and first episodes of warts remained stable, whilst HIV testing increased by 8%. Excluding Hywel Dda, there was a 21% decrease in new HIV diagnoses with stable testing.
 - There were decreases in LGV, hepatitis B and hepatitis C. However, this should be taken with caution due to small numbers.
 - Syphilis, chlamydia, and first episodes of herpes increased both in males and females (Table 2). Whilst the increase in herpes was more marked in females than in males (25% vs. 12%), the increase in chlamydia was similar in both genders. The observed increase in syphilis in females should be taken with caution due to small numbers.
 - Syphilis doubled in MSM from 17 to 34 cases, accounting for most of the increase in the general population. The increase in chlamydia and herpes in MSM was similar to that in the general male population. A 32% increase in warts was also observed in MSM.
 - Amongst 15-24 year olds, there were increases in chlamydia and herpes similar to those in the general population. Half of the increase in syphilis is accounted for an increase in 15-24 year olds (from 3 to 14 cases).
 - Health board (HB) trends should be taken with caution, as completeness of data varies between clinics and health boards. The case of Hywel Dda mentioned above means that the two periods are not comparable in this health board. Cardiff and Vale has improved reporting from the community clinics, which may have contributed to some of the STI increases seen in the HB.
 - Syphilis reports increased in Cardiff and Vale, Betsi Cadwaladr and Abertawe Bro Morgannwg University Health Boards.

Note on methodology changes

Note that this report used to compare a 6 month period with the same 6 month period from 2 years previously. This has now been changed to compare it the same period of the previous year.

Also in previous reports, only diagnoses in 'new' patient attendances or 'rebook' patient attendances were included, as any new episode of care in the clinics should be coded in these attendance types. However, due to an increase in the complexity of the data received from the clinics, this method has recently become unreliable. In this report, all diagnosis and service codes have been included regardless of the attendance type and, to reduce the risk of duplicates, these have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B. The indicators for completeness of reporting are still based on 'new' and 'rebook' patient attendances.

General population

Table 1. Percentage change in selected diagnoses and screens made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016 in Wales

	Diagnoses			Screens		
	Q2-Q3 2015	Q2-Q3 2016	% Change	Q2-Q3 2015	Q2-Q3 2016	% Change
Chlamydia	2504	3011	20%	26650	32116	21%
Warts (1st episode)	1611	1652	3%	-	-	-
Herpes (1st episode)	620	743	20%	-	-	-
Gonorrhoea	486	429	-12%	26605	32102	21%
HIV (new diagnosis)	34	32	-6%	15929	17234	8%
Syphilis	33	53	61%	15384	16759	9%
LGV	3	0	-100%	-	-	-
Hepatitis A (acute)	0	0	-	-	-	-
Hepatitis B (1st diagnosis)	12	10	-17%	-	-	-
Hepatitis C (1st diagnosis)	17	16	-6%	-	-	-

- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
 ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC level.
 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) The following KC60/SHHAPT diagnoses codes were used: chlamydia (C4, C4A, C4C), first episode of genital warts (C11A), first episode of genital herpes (C10A), gonorrhoea (B, B1, B2), new diagnosis of HIV (E1A, E2A, E3A1,H1,H1A,H1B), primary, secondary and early latent syphilis (A1, A2, A3), LGV (C2), acute hepatitis A infection (C15), first diagnosis of hepatitis B (C13, C13A, C13B), first diagnosis of hepatitis C (C14).
 v) Screen codes are collected only for chlamydia, gonorrhoea, HIV and syphilis. The following KC60/SHHAPT services codes were used: chlamydia tests (S1,S2,T1,T2,T3,T4), gonorrhoea tests (S1,S2,T2,T3,T4), HIV antibody tests (S2,T4,T7,P1A), syphilis tests (S1,S2,T3,T4,T7).

Gender and sexuality

Table 2. Percentage change in selected diagnoses made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016 by gender and sexuality in Wales

	Q2-Q3 2015			Q2-Q3 2016			% Change		
	Male*	*of which MSM	Female	Male*	*of which MSM	Female	Male*	*of which MSM	Female
Chlamydia	1105	130	1399	1354	159	1657	23%	22%	18%
Warts (1st episode)	903	47	708	899	62	753	0%	32%	6%
Herpes (1st episode)	233	20	387	261	22	482	12%	10%	25%
Gonorrhoea	330	169	156	273	144	156	-17%	-15%	0%
HIV (new diagnosis)	29	22	5	26	11	6	-10%	-50%	20%
Syphilis	28	17	5	46	34	7	64%	100%	40%
LGV	2	*	1	0	*	0	-100%	*	-100%
Hepatitis A (acute)	0	0	0	0	0	0	-	-	-
Hepatitis B (1st diagnosis)	10	3	2	6	2	4	-40%	-33%	100%
Hepatitis C (1st diagnosis)	12	1	5	13	7	3	8%	600%	-40%

- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
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 iv) The following KC60/SHHAPT diagnoses codes were used: chlamydia (C4, C4A, C4C), first episode of genital warts (C11A), first episode of genital herpes (C10A), gonorrhoea (B, B1, B2), new diagnosis of HIV (E1A, E2A, E3A1,H1,H1A,H1B), primary, secondary and early latent syphilis (A1, A2, A3), LGV (C2), acute hepatitis A infection (C15), first diagnosis of hepatitis B (C13, C13A, C13B), first diagnosis of hepatitis C (C14).
 v) Small numbers with potential for indirect disclosure of person identifiable information (*).

Young people (15-24 year olds)

Table 3. Percentage change in selected diagnoses made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016 in 15-24 year olds in Wales

15-24 year olds	Q2-Q3 2015	Q2-Q3 2016	% Change
Chlamydia	1721	2116	23%
Warts (1st episode)	877	912	4%
Herpes (1st episode)	313	377	20%
Gonorrhoea	221	222	0%
HIV (new diagnosis)	4	3	-25%
Syphilis	3	14	367%
LGV	2	0	-100%
Hepatitis A (acute)	0	0	-
Hepatitis B (1st diagnosis)	3	3	0%
Hepatitis C (1st diagnosis)	1	2	100%

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Chlamydia

Table 4. Percentage change in chlamydia diagnoses made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016, by LHB of residence, gender and sexuality

LHB	Group	Q2-Q3 2015	Q2-Q3 2016	% Change
Abertawe Bro Morgannwg University	Female	265	370	40%
	Male*	158	257	63%
	*of which MSM	3	15	400%
	Total	423	627	48%
Aneurin Bevan	Female	472	431	-9%
	Male*	314	343	9%
	*of which MSM	37	50	35%
	Total	786	774	-2%
Betsi Cadwaladr University	Female	311	269	-14%
	Male*	260	237	-9%
	*of which MSM	19	14	-26%
	Total	571	506	-11%
Cardiff & Vale University	Female	196	255	30%
	Male*	218	227	4%
	*of which MSM	63	58	-8%
	Total	414	482	16%
Cwm Taf	Female	124	124	0%
	Male*	133	121	-9%
	*of which MSM	6	9	50%
	Total	257	245	-5%
Hywel Dda†	Female	22	197	795%
	Male*	16	162	913%
	*of which MSM	*	*	*
	Total	38	359	845%
Powys Teaching	Female	9	11	22%
	Male*	6	7	17%
	*of which MSM	*	*	*
	Total	15	18	20%
All Wales	Female	1399	1657	18%
	Male*	1105	1354	23%
	*of which MSM	130	159	22%
	Total	2504	3011	20%

i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.

ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC level.

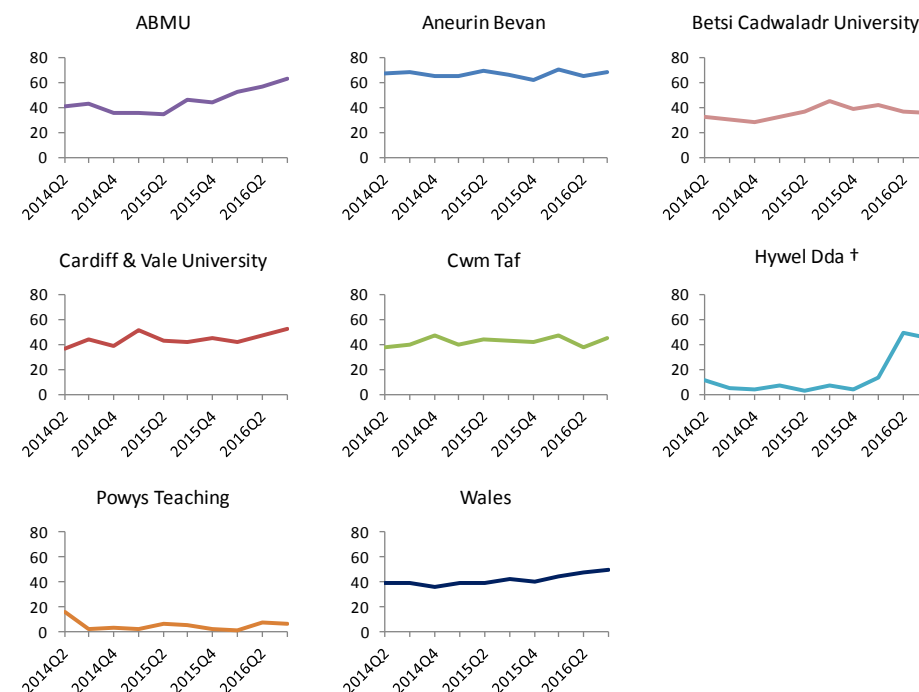
iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.

iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).

v) The following KC60/SHHAPT codes were used: gonorrhoea (C4, C4A, C4C).

vi) Small numbers with potential for indirect disclosure of person identifiable information (*).

Figure 1. Chlamydia diagnoses in ISH clinics per 100,000 population, from Q2 2014 to Q3 2016, by LHB of residence



i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.

ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC level.

iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.

iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).

v) The following KC60/SHHAPT codes were used: chlamydia (C4, C4A, C4C).

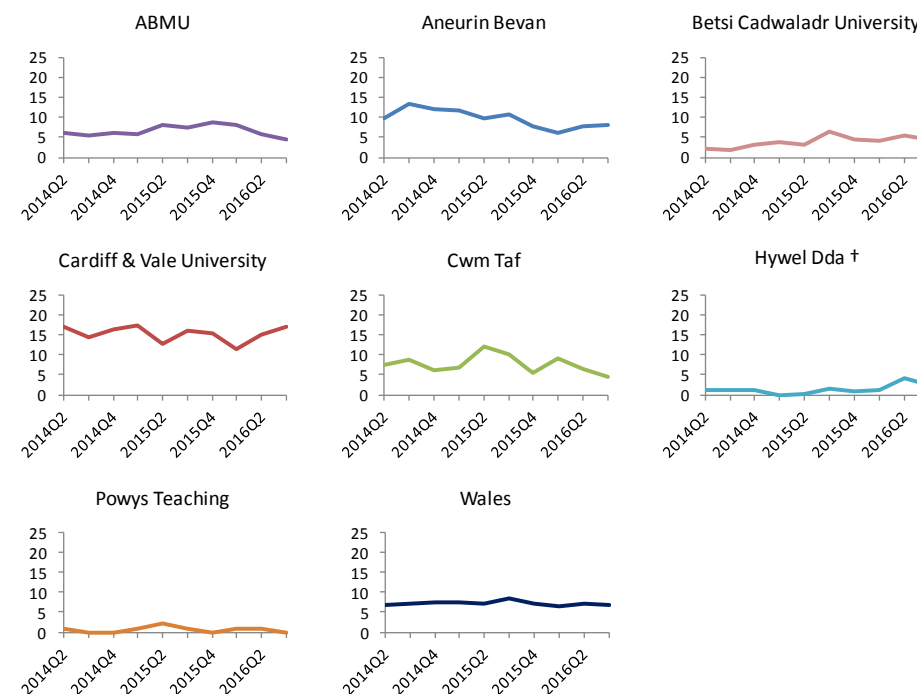
Gonorrhoea

Table 5. Percentage change in gonorrhoea diagnoses made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016, by LHB of residence, gender and sexuality

LHB	Group	Q2-Q3 2015	Q2-Q3 2016	% Change
Abertawe Bro Morgannwg University	Female	25	19	-24%
	Male*	58	35	-40%
	*of which MSM	11	6	-45%
	Total	83	54	-35%
Aneurin Bevan	Female	47	28	-40%
	Male*	72	64	-11%
	*of which MSM	42	33	-21%
	Total	119	92	-23%
Betsi Cadwaladr University	Female	21	34	62%
	Male*	47	34	-28%
	*of which MSM	27	8	-70%
	Total	68	68	0%
Cardiff & Vale University	Female	33	59	79%
	Male*	106	97	-8%
	*of which MSM	81	73	-10%
	Total	139	156	12%
Cwm Taf	Female	28	6	-79%
	Male*	38	26	-32%
	*of which MSM	5	11	120%
	Total	66	32	-52%
Hywel Dda†	Female	1	10	900%
	Male*	6	16	167%
	*of which MSM	*	*	*
	Total	7	26	271%
Powys Teaching	Female	1	0	-100%
	Male*	3	1	-67%
	*of which MSM	*	*	*
	Total	4	1	-75%
All Wales	Female	156	156	0%
	Male*	330	273	-17%
	*of which MSM	169	144	-15%
	Total	486	429	-12%

- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
 ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC level.
 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).
 v) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2).
 vi) Small numbers with potential for indirect disclosure of person identifiable information (*).

Figure 2. Gonorrhoea diagnoses in ISH clinics per 100,000 population, Q2 2014 to Q3 2016 by LHB of residence



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 ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC level.
 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).
 v) The following KC60/SHHAPT codes were used: gonorrhoea (B, B1, B2).

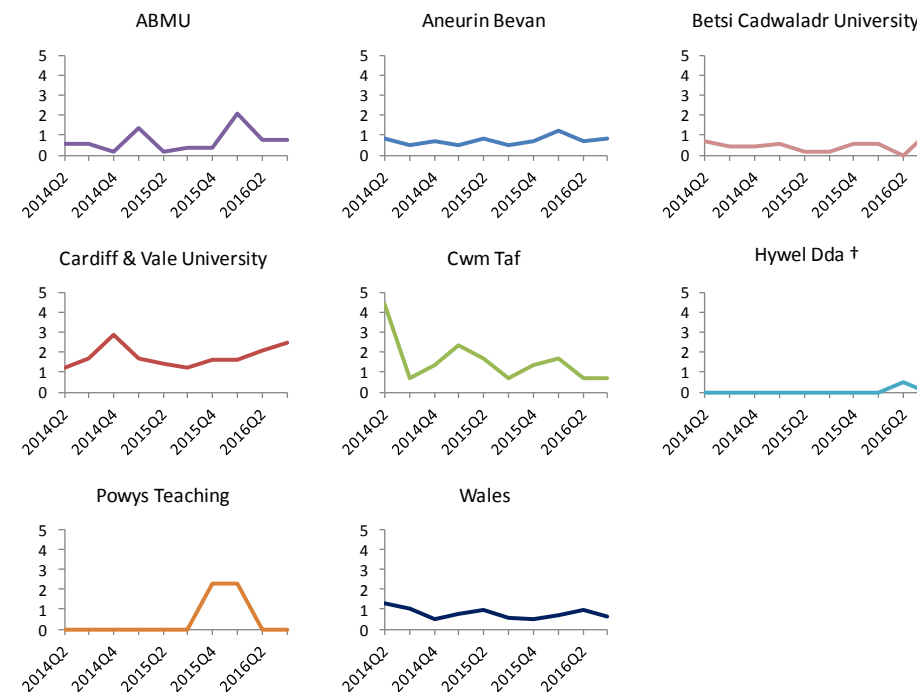
Syphilis

Table 6. Percentage change in syphilis diagnoses made in ISH clinics from Q2–Q3 2015 to Q2–Q3 2016, by LHB of residence, gender and sexuality

LHB	Group	Q2-Q3 2015	Q2-Q3 2016	% Change
Abertawe Bro Morgannwg University	Female	1	2	100%
	Male*	2	6	200%
	*of which MSM	*	*	*
	Total	3	8	167%
Aneurin Bevan	Female	3	1	-67%
	Male*	5	8	60%
	*of which MSM	*	*	*
	Total	8	9	13%
Betsi Cadwaladr University	Female	0	1	-
	Male*	2	7	250%
	*of which MSM	1	3	200%
	Total	2	8	300%
Cardiff & Vale University	Female	0	2	-
	Male*	13	20	54%
	*of which MSM	9	19	111%
	Total	13	22	69%
Cwm Taf	Female	1	0	-100%
	Male*	6	4	-33%
	*of which MSM	2	3	50%
	Total	7	4	-43%
Hywel Dda†	Female	0	1	-
	Male*	0	1	-
	*of which MSM	*	*	*
	Total	0	2	-
Powys Teaching	Female	0	0	-
	Male*	0	0	-
	*of which MSM	0	0	-
	Total	0	0	-
All Wales	Female	5	7	40%
	Male*	28	46	64%
	*of which MSM	17	34	100%
	Total	33	53	61%

- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
 ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC.
 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).
 v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3).
 vi) Small numbers with potential for indirect disclosure of person identifiable information (*).

Figure 3. Syphilis diagnoses in ISH clinics per 100,000 population, from Q2 2014 to Q3 2016 by LHB of residence



- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
 ii) Recent figures may be incomplete due to delays in reporting and to incomplete mapping at CDSC.
 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016 (†).
 v) The following KC60/SHHAPT codes were used: primary, secondary and early latent syphilis (A1, A2, A3).

Appendix A: Data completeness

Key points

- The percentage of new and rebook attendances with at least one code (SHHAPT, SRHAD, KC60, or local code) was 97% and 91% respectively for the two periods compared (Q2-Q3 2015 and Q2-Q3 2016).
- Health board trends should be taken with caution, as completeness of data varies between clinics and health boards.
- Between Q2-Q3 2015 and Q2-Q3 2016, nine clinics started reporting, and two clinics closed.
- A discrepancy has been found for a clinic group between the completeness data at CDSC level and at clinic level. This is being investigated in preparation for the next quarterly report.

Unmapped attendances

When SWS receives attendances with unrecognised codes, these attendances are not accepted into the system and are stored in "holding tables". The CDSC is working to map as many of these codes as possible. At the time of this report there were 12 unmapped attendances with attendance date before the end of September 2016.

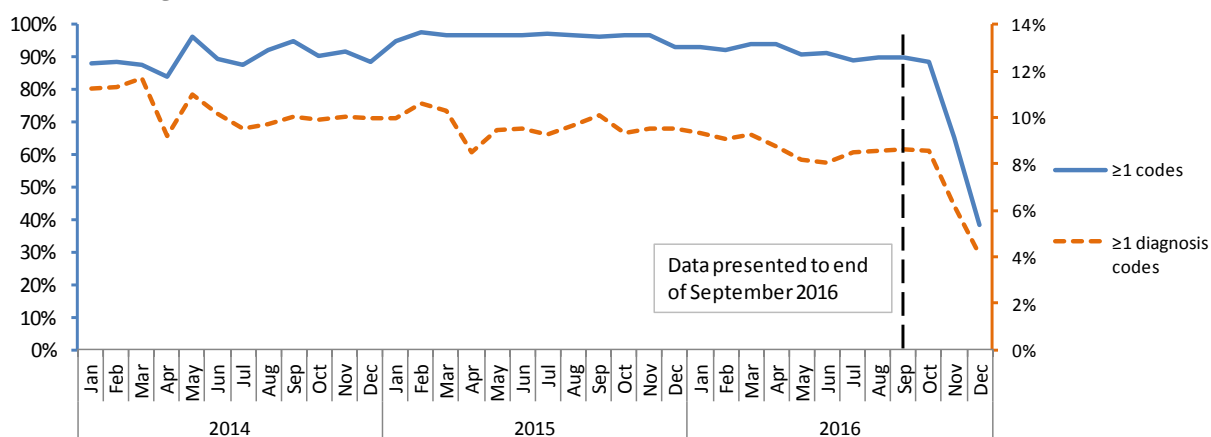
Coding completeness

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 diagnosis or service 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 new patient and rebook patient attendances should have at least one code (rebook patient attendances are those where patients who are known to the clinic return for an unrelated episode of care). We use the percentage of these attendances with at least one code as an indicator to estimate the completeness of the data received.

Another indicator is the percentage of new patient and rebook patient attendances with at least one diagnosis code. Not all attendances need to have a diagnosis code. However, this indicator can help detect a decrease in sensitivity in recent weeks due to the time lag between the attendance and the diagnosis codes being sent to SWS (Figure 1A). This time lag can be longer for diagnoses than for services, as service codes are often recorded on the attendance date.

Figure A1. Percentage of new and rebook attendances with at least one diagnosis/ service code (of any kind), and percentage with at least one diagnosis code*, from Q1 2014 to Q4 2016, Wales



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

ii) * Including KC60/SHHAPT diagnoses codes for: chlamydia (C4, C4A, C4C), first episode of genital warts (C11A), first episode of genital herpes (C10A), gonorrhoea (B, B1, B2), new diagnosis of HIV (E1A, E2A, E3A1, H1, H1A, H1B), primary, secondary and early latent syphilis (A1, A2, A3), LGV (C2), acute hepatitis A infection (C15), first diagnosis of hepatitis B (C13, C13A, C13B), first diagnosis of hepatitis C (C14).

iii) Missing values for new and rebook patient frequencies were replaced by a 3-month rolling average.

Table A1. Number of new and rebook attendances and percentage with at least one diagnosis/ service code (of any kind) by clinic, Q2-Q3 2015 to Q2-Q3 2016, Wales

Clinic	Q2-Q3 2015		Q2-Q3 2016	
	Number	% with ≥1 codes	Number	% with ≥1 codes
6	380	95%	337	98%
30	2221	97%	2240	99%
5	7915	96%	8119	97%
27	552	93%	386	97%
10	3817	405%	3759	405%
28	15491	24%	15215	25%
14	658	99%	694	92%
33	578	93%	642	89%
34	23	83%	122	87%
35	217	91%	224	91%
12	181	97%	230	91%
1	186	99%	149	84%
15	193	99%	160	88%
36	190	83%	209	84%
13	1136	99%	1119	93%
22	1142	98%	1167	99%
25	858	99%	859	95%
29	600	88%	530	86%
23	777	99%	697	100%
24	151	98%	284	95%
11	1592	100%	1616	85%
9	5666	89%	10526	78%
7	718	98%	772	96%
43	21	76%	17	94%
37	1311	95%	1355	97%
38	143	97%	133	94%
39	310	92%	275	97%
8	1840	97%	1729	95%
31	2293	97%	2406	95%
40	74	99%	0	-
44	57	98%	31	74%
26	1596	97%	1603	88%
45	2	0%	0	-
41	161	94%	109	89%
42	425	94%	382	91%
46	15	93%	13	54%
32	818	97%	693	97%
2	462	99%	836	67%
20	68	94%	539	61%
47	0	-	5	20%
48	0	-	17	0%
19	0	-	789	61%
3	0	-	964	68%
4	0	-	254	94%
17	0	-	1913	67%
16	0	-	1037	81%
49	0	-	181	79%
50	0	-	831	83%
Wales	54838	97%	66168	91%

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

ii) Green: ≥90% attendances with at least one code; Orange: ≥80% and <90% attendances with at least one code; Red: <80% attendances with at least one code; Grey: Not in service.

iii) Some clinics are reporting sexual and reproductive health through the SWS-STI system using the new patient and rebook patient attendance types, and therefore attendance numbers are not always comparable across clinics.

Appendix B: Episode periods

Table B1: Episode periods within which KC60/SHHAPT codes are deduplicated

KC60/SHHAPT Code and description		Episode period	Further cleaning
A1	Primary infectious syphilis	42 days	42 days between A1 and A3
A2	Secondary infectious syphilis	182 days	42 days between A2 and A3
A3	Early latent syphilis	728 days	42 days between A1 or A2 and A3
B, B1, B2	Gonorrhoea (SHHAPT) / Uncomplicated gonorrhoea infection	42 days	-
C2	LGV	42 days	-
C4, C4A, C4C	Chlamydia (SHHAPT) / Uncomplicated chlamydial infection	42 days	-
C10A	Anogenital herpes simplex - first attack	Patient's lifetime	Subsequent episodes replaced by recurrence code
C11A	Anogenital warts - first attack	Patient's lifetime	Subsequent episodes replaced by recurrence code
C13, C13A, C13B	Hepatitis B – 1st diagnosis	Patient's lifetime	-
C14	Viral hepatitis C: first diagnosis	Patient's lifetime	-
C15	Viral Hepatitis A: Acute Infection	Patient's lifetime	-
E1A	New HIV diagnosis: asymptomatic	Patient's lifetime	Only one code new HIV diagnosis code
E2A	New HIV diagnosis: symptomatic (not AIDS)	Patient's lifetime	Only one code new HIV diagnosis code
E3A1	AIDS: first presentation - new HIV diagnosis	Patient's lifetime	Only one code new HIV diagnosis code
H1	New HIV diagnosis	Patient's lifetime	Only one code new HIV diagnosis code
H1A	New HIV diagnosis: Acute	Patient's lifetime	Only one code new HIV diagnosis code
H1B	New HIV diagnosis: Late	Patient's lifetime	Only one code new HIV diagnosis code
P1A	HIV antibody test (no sexual health screen)	42 days	-
S1	Sexual health screen (no HIV antibody test)	42 days	-
S2	HIV antibody test and sexual health screen	42 days	-
T1	Chlamydia test	42 days	-
T2	Chlamydia and gonorrhoea tests	42 days	-
T3	Chlamydia, gonorrhoea and syphilis tests	42 days	-
T4	Full sexual health screen including HIV antibody test	42 days	-
T7	Syphilis & HIV test	42 days	-