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Sexual Health in Wales Surveillance Scheme (SWS)

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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. This report compares the 6-month period October 2017 to March 2018 (Q4 2017-Q1 2018) with the same period of the previous year. Data are presented as at 24th July 2018.

Key points

- There was an increase in reports of new diagnoses of HIV, syphilis, gonorrhoea, and chlamydia across Wales over the last year, and a decrease in reports of first episode of warts, herpes, hepatitis B and hepatitis C (comparing Q4 2016-Q1 2017 and Q4 2017-Q1 2018) (Table 1). Please note some of these changes may be due to small numbers, and should be taken with caution. Comparing Q4 2016-Q1 2017 and Q4 2017-Q1 2018:
 - Syphilis increased by 10% from 92 to 101 cases, whilst reports of syphilis testing increased by 10% (Table 1).
 - Gonorrhoea increased by 17% whilst gonorrhoea testing increased by 7%.
 - Chlamydia diagnoses increased by 3%, whilst testing increased by 7%.
 - New diagnoses of HIV have increased from 28 to 35 cases across the two periods. HIV testing has increased by 10%.
 - Reports of first episodes of warts decreased by 5% whilst reports of first episodes of herpes increased by 6%.
 - First diagnoses of hepatitis B decreased from 12 to 8 cases.
 - Hepatitis C diagnoses decreased from 15 to 10 cases.
 - Five cases of LGV were reported for the second period. Four have been laboratory confirmed.
 - An increase in syphilis cases was only seen in males (11%) (Table 2). The increase in gonorrhoea in males was nearly double the increase seen in females (21% vs. 11%), whilst the increase in chlamydia was primarily observed in females (5%). The increase in new HIV diagnoses was due to an increase in males only, from 21 to 31 cases.
 - In men who have sex with men (MSM), new diagnoses of HIV increased by 43%, accounting for most of the increase in the male population. The increase in gonorrhoea from Q4 2016-Q1 2017 to Q4 2017-Q1 2018 was more marked in males not reporting as MSM. An increase in first episode of herpes was only seen in males not reporting as MSM.
 - Amongst 15-24 year olds, the trends were similar to those in the general population. However, new diagnoses of HIV fell in this group, from 3 cases to 1 across the two periods (Table 3).
 - Health board (HB) trends should be interpreted with caution, as completeness of data varies between clinics and health boards. Improved reporting from Hywel Dda means that data collected prior to March 2016 are not comparable to recent data from this HB. Cardiff and Vale improved the reporting systems from its community clinics during 2016, which may have contributed to some of the STI increases seen in the HB and in Wales.
 - The latest available trends indicate that chlamydia is increasing in Betsi Cadwaladr University and Cardiff and Vale University health boards, whilst syphilis has fallen in Aneurin Bevan University and Cwm Taf University health boards. Diagnosis of gonorrhoea has increased across many Welsh HBs between the periods compared.

General population

Table 1. Percentage change in selected diagnoses and screens made in ISH clinics from Q4 2016-Q1 2017 to Q4 2017-Q1 2018 in Wales

	Diagnoses			Screens		
	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change
Chlamydia	3358	3458	3%	33116	35531	7%
Warts (1st episode)	1417	1348	-5%	-	-	-
Herpes (1st episode)	701	745	6%	-	-	-
Gonorrhoea	562	657	17%	33103	35516	7%
HIV (new diagnosis)	28	35	25%	17519	19222	10%
Syphilis	92	101	10%	17143	18855	10%
LGV	0	5	-	-	-	-
Hepatitis A (acute)	1	0	-100%	-	-	-
Hepatitis B (1st diagnosis)	12	8	-33%	-	-	-
Hepatitis C (1st diagnosis)	15	10	-33%	-	-	-

- 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 Q4 2016-Q1 2017 to Q4 2017-Q1 2018 by gender and sexuality in Wales

	Q4 2016-Q1 2017			Q4 2017-Q1 2018			% Change		
	Male*	*of which MSM	Female	Male*	*of which MSM	Female	Male*	*of which MSM	Female
Chlamydia	1491	167	1867	1502	175	1956	1%	5%	5%
Warts (1st episode)	766	60	651	735	48	613	-4%	-20%	-6%
Herpes (1st episode)	245	18	456	260	14	485	6%	-22%	6%
Gonorrhoea	354	197	208	427	216	230	21%	10%	11%
HIV (new diagnosis)	21	14	7	31	20	4	48%	43%	-43%
Syphilis	82	58	10	91	62	10	11%	7%	0%
LGV	0	0	0	5	3	0	-	-	-
Hepatitis A (acute)	0	0	1	0	0	0	-	-	-100%
Hepatitis B (1st diagnosis)	5	1	7	5	0	3	0%	-	-57%
Hepatitis C (1st diagnosis)	10	4	5	5	1	5	-50%	-	0%

- 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) 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 Q4 2016-Q1 2017 to Q4 2017-Q1 2018 in 15-24 year olds in Wales

15-24 year olds	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change	% Change in screens
Chlamydia	2444	2503	2%	6%
Warts (1st episode)	793	724	-9%	-
Herpes (1st episode)	366	379	4%	-
Gonorrhoea	289	328	13%	6%
HIV (new diagnosis)	3	1	-67%	7%
Syphilis	14	18	29%	7%
LGV	0	0	-	-
Hepatitis A (acute)	1	0	-100%	-
Hepatitis B (1st diagnosis)	1	2	100%	-
Hepatitis C (1st diagnosis)	0	2	-	-

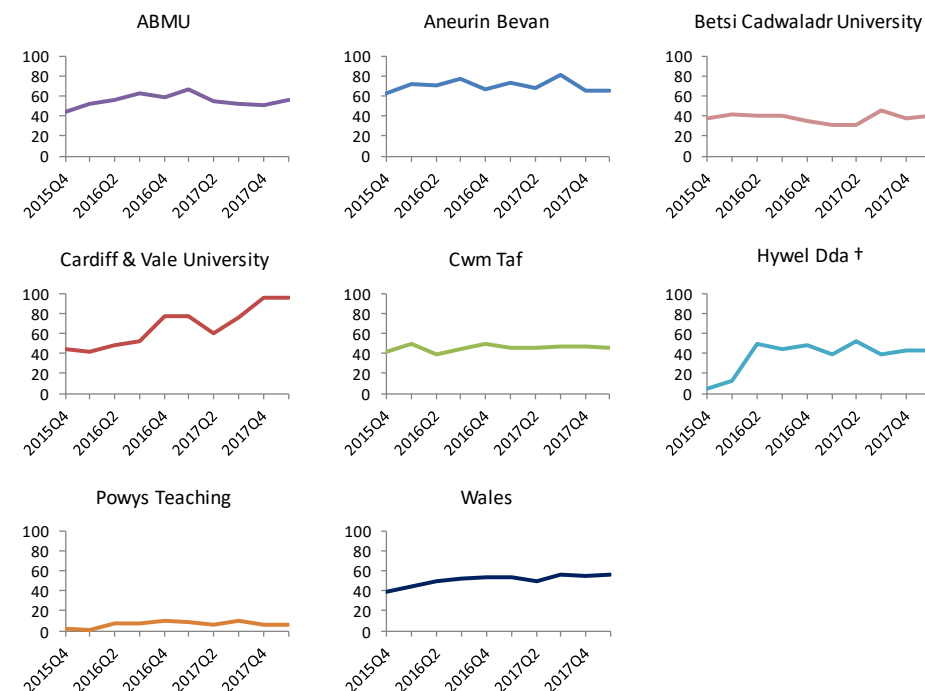
- i) Diagnoses reported to SWS clinic have been deduplicated within predefined time windows ("episode periods"), shown in Appendix B.
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 iii) Residents in Wales only. Diagnoses of individuals with unknown residence location have been excluded.
 iv) The 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).

Chlamydia

Table 4. Percentage change in chlamydia diagnoses made in ISH clinics from Q4 2016-Q1 2017 to Q4 2017-Q1 2018, by LHB of residence, gender and sexuality

LHB	Group	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change
Abertawe Bro Morgannwg University	Female	384	343	-11%
	Male*	285	225	-21%
	*of which MSM	26	10	-62%
	Total	669	568	-15%
Aneurin Bevan	Female	465	443	-5%
	Male*	352	326	-7%
	*of which MSM	44	39	-11%
	Total	817	769	-6%
Betsi Cadwaladr University	Female	251	309	23%
	Male*	216	237	10%
	*of which MSM	13	15	15%
	Total	467	546	17%
Cardiff & Vale University	Female	428	524	22%
	Male*	332	426	28%
	*of which MSM	66	88	33%
	Total	760	950	25%
Cwm Taf	Female	141	131	-7%
	Male*	144	148	3%
	*of which MSM	*	*	*
	Total	285	279	-2%
Hywel Dda†	Female	185	200	8%
	Male*	150	130	-13%
	*of which MSM	12	15	25%
	Total	335	330	-1%
Powys Teaching	Female	13	6	-54%
	Male*	12	10	-17%
	*of which MSM	*	*	*
	Total	25	16	-36%
All Wales	Female	1867	1956	5%
	Male*	1491	1502	1%
	*of which MSM	167	175	5%
	Total	3358	3458	3%

Figure 1. Chlamydia diagnoses in ISH clinics per 100,000 population, from Q4 2015 to Q1 2018, 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).

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).

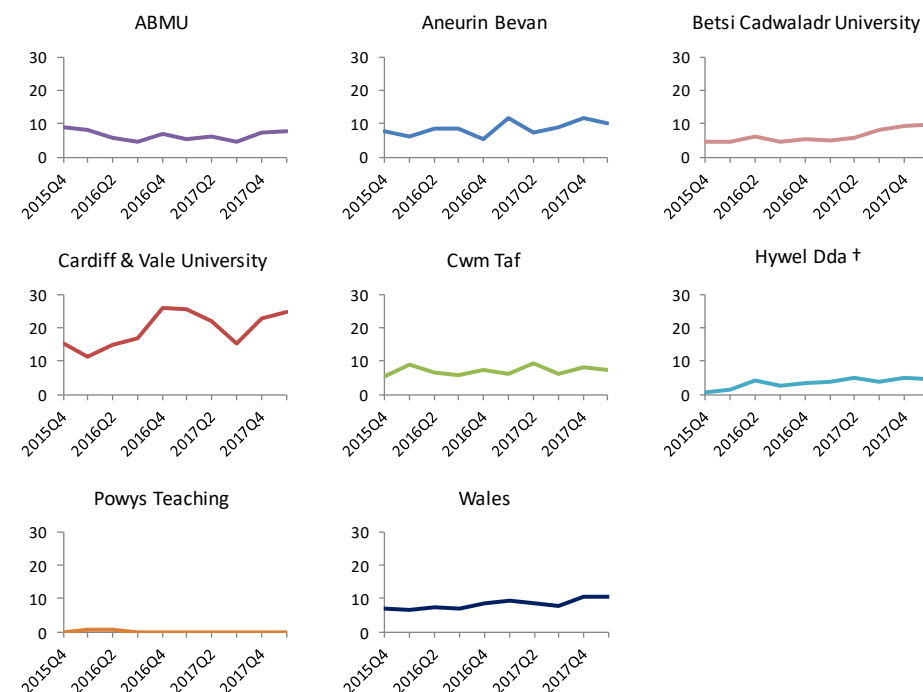
vi) Small numbers with potential for indirect disclosure of person identifiable information (*).

Gonorrhoea

Table 5. Percentage change in gonorrhoea diagnoses made in ISH clinics from Q4 2016-Q1 2017 to Q4 2017-Q1 2018, by LHB of residence, gender and sexuality

LHB	Group	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change
Abertawe Bro Morgannwg University	Female	25	31	24%
	Male*	41	49	20%
	*of which MSM	22	15	-32%
	Total	66	80	21%
Aneurin Bevan	Female	33	41	24%
	Male*	67	86	28%
	*of which MSM	40	48	20%
	Total	100	127	27%
Betsi Cadwaladr University	Female	26	58	123%
	Male*	48	74	54%
	*of which MSM	19	25	32%
	Total	74	132	78%
Cardiff & Vale University	Female	104	76	-27%
	Male*	151	158	5%
	*of which MSM	94	108	15%
	Total	255	234	-8%
Cwm Taf	Female	10	9	-10%
	Male*	30	37	23%
	*of which MSM	13	10	-23%
	Total	40	46	15%
Hywel Dda†	Female	10	15	50%
	Male*	17	23	35%
	*of which MSM	9	10	11%
	Total	27	38	41%
Powys Teaching	Female	0	0	-
	Male*	0	0	-
	*of which MSM	0	0	-
	Total	0	0	-
All Wales	Female	208	230	11%
	Male*	354	427	21%
	*of which MSM	197	216	10%
	Total	562	657	17%

Figure 2. Gonorrhoea diagnoses in ISH clinics per 100,000 population, Q4 2015 to Q1 2018, 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: gonorrhoea (B, B1, B2).

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).

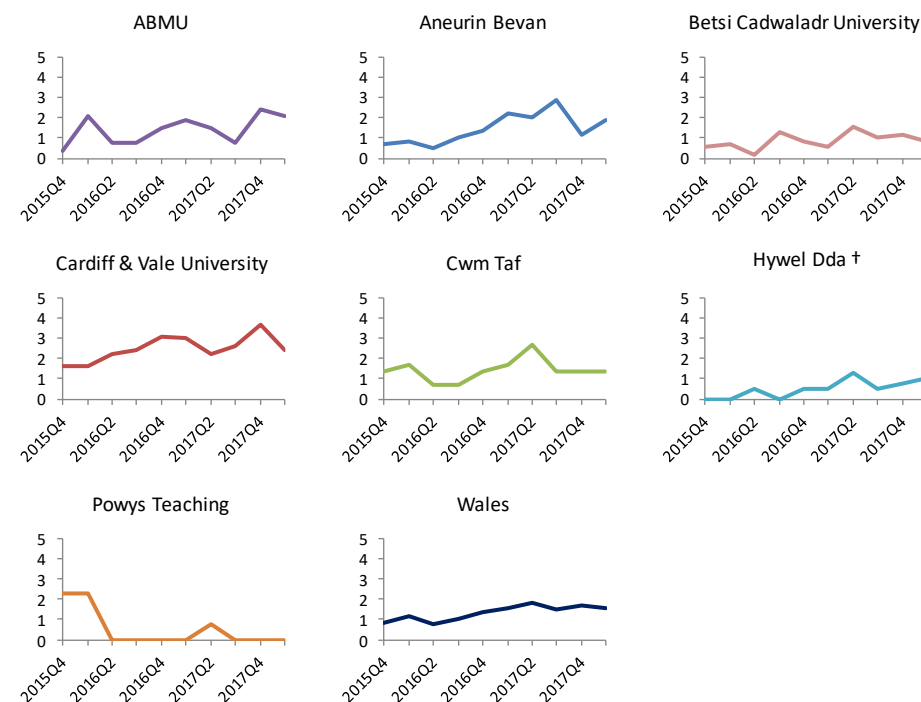
vi) Small numbers with potential for indirect disclosure of person identifiable information (*).

Syphilis

Table 6. Percentage change in syphilis diagnoses made in ISH clinics from Q4 2016-Q1 2017 to Q4 2017-Q1 2018, by LHB of residence, gender and sexuality

LHB	Group	Q4 2016-Q1 2017	Q4 2017-Q1 2018	% Change
Abertawe Bro Morgannwg University	Female	1	1	0%
	Male*	17	23	35%
	*of which MSM	8	11	38%
	Total	18	24	33%
Aneurin Bevan	Female	2	1	-50%
	Male*	19	17	-11%
	*of which MSM	14	14	0%
	Total	21	18	-14%
Betsi Cadwaladr University	Female	0	4	-
	Male*	10	10	0%
	*of which MSM	6	8	33%
	Total	10	14	40%
Cardiff & Vale University	Female	1	1	0%
	Male*	29	29	0%
	*of which MSM	27	25	-7%
	Total	30	30	0%
Cwm Taf	Female	4	1	-75%
	Male*	5	7	40%
	*of which MSM	*	*	*
	Total	9	8	-11%
Hywel Dda†	Female	2	2	0%
	Male*	2	5	150%
	*of which MSM	*	*	*
	Total	4	7	75%
Powys Teaching	Female	0	0	-
	Male*	0	0	-
	*of which MSM	0	0	-
	Total	0	0	-
All Wales	Female	10	10	0%
	Male*	82	91	11%
	*of which MSM	58	62	7%
	Total	92	101	10%

Figure 3. Syphilis diagnoses in ISH clinics per 100,000 population, from Q4 2015 to Q1 2018, 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).

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 (*).

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 90% and 93% respectively for the two periods compared (Q4 2016-Q1 2017 and Q4 2017-Q1 2018).
- Health board trends should be taken with caution, as completeness of data varies between clinics and health boards.
- Hywel Dda reporting has improved greatly recently, with all clinics submitting data to SWS since March 2016. Following this change, the number of clinics reporting from Hywel Dda health board has increased from 2 clinics at the beginning of 2016, to 10 clinics in Q1-Q2 2017.

Unmapped attendances

When SWS receives attendances with unrecognised codes, these attendances are not accepted into the system and are stored in "holding tables". CDSC is working to map as many of these codes as possible. At the time of this report, there were 0 unmapped attendances with attendance date before the end of March 2018.

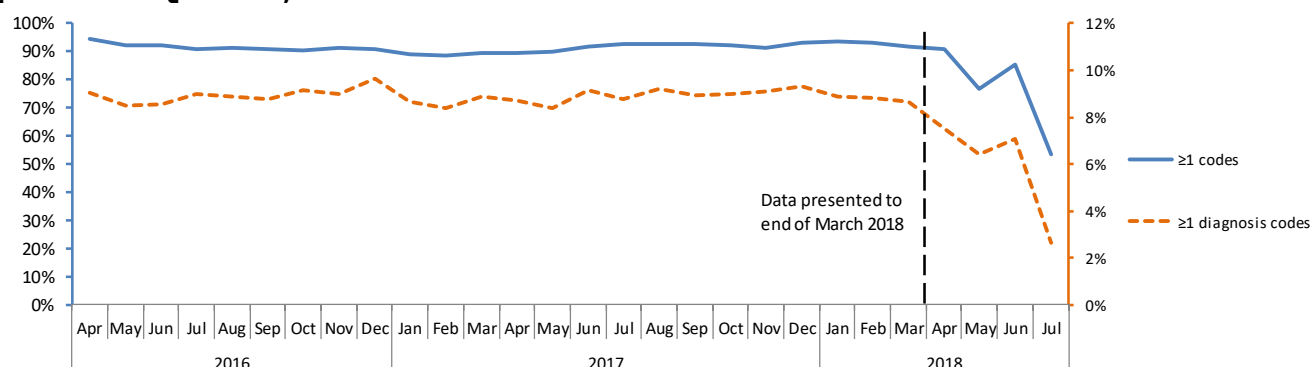
Coding completeness

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 2016 to Q2 2018, 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 attendances in November and December 2016 were replaced by a 3-month rolling average for one clinic group

Table A1. Number of new and rebook attendances and percentage with at least one diagnosis/ service code (of any kind) by clinic, Q4 2016-Q1 2017 to Q4 2017-Q1 2018, Wales

Clinic	Q4 2016-Q1 2017		Q4 2017-Q1 2018	
	Number	% with ≥1 codes	Number	% with ≥1 codes
6	257	99%	237	99%
30	1764	99%	1820	98%
5	7296	99%	7714	96%
27	386	99%	285	96%
10	3595	100%	4004	100%
28	14865	100%	15317	100%
14	794	91%	822	87%
33	528	81%	591	80%
34	122	93%	71	92%
35	223	93%	210	86%
12	239	86%	204	69%
1	124	82%	140	71%
15	174	91%	174	91%
36	189	93%	121	83%
13	1034	97%	1165	99%
22	1119	98%	1015	99%
25	871	79%	825	96%
29	448	87%	727	99%
23	704	98%	731	99%
24	255	98%	199	98%
11	1591	97%	1577	98%
9	10907	81%	11706	92%
7	722	98%	647	96%
43	22	95%	9	89%
37	973	89%	984	97%
38	70	93%	52	90%
39	259	79%	224	97%
8	1438	94%	235	98%
31	2053	96%	1840	97%
40	2	100%	3	100%
44	23	91%	20	100%
26	1761	88%	3087	93%
45	5	0%	0	-
41	97	84%	71	94%
42	299	95%	318	98%
46	10	90%	5	100%
47	9	0%	6	83%
32	761	95%	710	93%
51	4	0%	187	60%
2	894	57%	780	71%
48	21	0%	29	0%
20	497	43%	531	58%
19	790	53%	885	57%
3	1104	57%	1125	63%
4	240	88%	313	79%
17	1885	62%	2257	58%
16	1037	69%	1045	82%
50	903	73%	987	89%
52	0	-	10	60%
49	0	-	0	-
18	0	-	0	-
21	0	-	0	-
Wales	63364	90%	66015	93%

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	-