Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

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HPSC

SYPHILIS IN IRELAND, 2013

Health Protection Surveillance Centre, www.hpsc.ie

Version 2.0, 30th June, 2014

Acknowledgements

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This report prepared by Gillian Cullen and Dr Derval Igoe, June, 2014.

Suggested citation

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Contents

Key Points

- In 2013, there was an increase in both total and early infectious syphilis cases compared with 2012. Rates of early syphilis have been steady since 2009 with a slight decrease in 2012. The rate for total cases in 2013 was 12.6 per 100,000 population and 3.7 per 100,000 for early cases. In 2013, 30% of all cases notified were infectious cases.
- No congenital syphilis cases were notified in 2013.
- Stage of syphilis infection was available for 60% of cases in 2013. The data reported on early infectious syphilis may therefore not fully represent the total number of infectious cases, though we estimate that enhanced information was returned more comprehensively on infectious cases than on cases without any indication of recent infection.
- Focusing on early infectious syphilis:
    - Rates varied throughout the country, with the rate (7.8 per 100,000) in HSE East (Dublin, Kildare and Wicklow) twice the national rate (3.7 per 100,000)
    - The majority of cases occurred in males, with a male to female ratio of 16:1.
    - The majority of cases (84%) were reported in people over 25 years of age
    - More than three quarters of cases (78%) were identified in STI clinics, with 11% being diagnosed in general practice.
    - Nearly two thirds (62%) of all cases occurred in men who have sex with men (MSM), with rates highest in the 30 to 34 year age group. In MSM, a significant proportion (33%) was co-infected with HIV at the time of syphilis diagnosis. This proportion has been increasing since 2011 (21% in 2011 and 29% in 2012). Thirteen percent of cases among MSM were re-infections.
    - Thirteen percent of cases were among heterosexuals. Seventeen percent of heterosexuals were co-infected with HIV and there were no re-infections in this group. One of the ten female heterosexual cases was pregnant at time of diagnosis.
    - Fifteen percent of early cases were also diagnosed with an STI other than HIV during 2013. Since full patient identifiers were not provided for all cases, the true figure for STI co-infections is likely to be much higher.
- These data demonstrate that cases of infectious syphilis are concentrated in the MSM population, with evidence of ongoing risky behaviour in some of those affected. They also illustrate the need for targeted health promotion and primary prevention activities for MSM, and the importance of regular screening in this group. Sexual health information for MSM, including where to access free condoms and STI screening services, is available on www.man2man.ie.

Introduction

Syphilis is a sexually transmitted infection (STI) caused by the bacterium, *Treponema pallidum*. Despite availability of sensitive diagnostic tests and effective treatment, it remains a serious health problem. Syphilis has two routes of transmission; sexual transmission, which accounts for the vast majority of cases, and vertical transmission from mother to fetus in utero. Without treatment, infection will progress. Clinical symptoms may appear after an incubation period of 10 to 90 days (three weeks on average), at first a primary lesion at the site of infection (chancre), then a series of eruptions on mucous membranes and skin (secondary syphilis), followed by long periods of latency (latent or tertiary syphilis). The earlier an infection is diagnosed and treated, the greater the chance of preventing onward transmission. Early syphilis relates to the following clinical stages; primary, secondary and early latent. It should be noted that many people with early infectious syphilis may be asymptomatic. Individuals with late latent syphilis or tertiary syphilis are not sexually infectious.

Information on syphilis notifications in 2014 can be found in the weekly HIV and STI reports at http://www.hpsc.ie/hpsc/A-Z/HIVSTIs/SexuallyTransmittedInfections/Publications/STIReports/STIWeeklyReports/.

Data Collection

For the first time in 2013 all laboratories uploaded syphilis data to the Computerised Infectious Disease Reporting System, CIDR. All cases of syphilis notified from clinicians were also entered into CIDR (started in 2011). Enhanced information was sought on all notified cases, including demographic information, stage of infection, HIV status and probable country of infection. If cases were reported to have a history of treated syphilis with no indication of current infection, they were de-notified and were not included in this analysis. A copy of the syphilis data collection form used in 2013 is shown in Appendix 2 and the case definition is provided in Appendix 3.

Please note that information from previous years is updated on an ongoing basis in CIDR, and so information from previous years represents our current understanding and most up to date data as of 28th May, 2013, and may not correspond exactly with what was reported in previous annual reports. Similarly, data for 2013 may be updated further in due course and will be reported on in subsequent annual reports.

2013 was the final year of data collection on all cases of syphilis. From 1st January, 2014, only data on early infectious syphilis is being collected with a focus on improving completeness of information and data quality. This brings Ireland into line with other EU countries.

2013 Data

During 2013, there were 576 notifications of syphilis made via CIDR giving a crude incidence rate (CIR) in 2013 of 12.6 per 100,000 population. Rates of early syphilis have been steady since 2009 with a slight decrease in 2012. The rate for total cases in 2013 was 12.6 per 100,000 population and 3.7 per 100,000 for early cases. As of 28th May, 2013, stage of infection was recorded for 60% of cases (347 forms). A breakdown of forms returned by HSE area can be seen in Table A1 in Appendix 1.

Of the 576 notifications, 172 were early infectious syphilis (primary, secondary and early latent), 22 were late latent syphilis, 153 were latent cases of undetermined duration, 13 were of unknown stage and the stage of infection was not specified for the remaining 216 cases. No congenital syphilis cases were notified in 2013.

Of the 576 cases, 467 were in males, 105 were in females and sex was unknown for 4 cases. Of the 105 cases in women, 26 were pregnant at diagnosis.

Figure 1 shows the trend in crude incidence rate (CIR) for all cases and early cases from 2000 to 2013. Table 1 shows the breakdown of all notified cases of syphilis in 2013 by stage of infection and HSE area.

Figure 1: Crude incidence rate of total syphilis and early infectious syphilis (per 100,000 population), 2000-2013

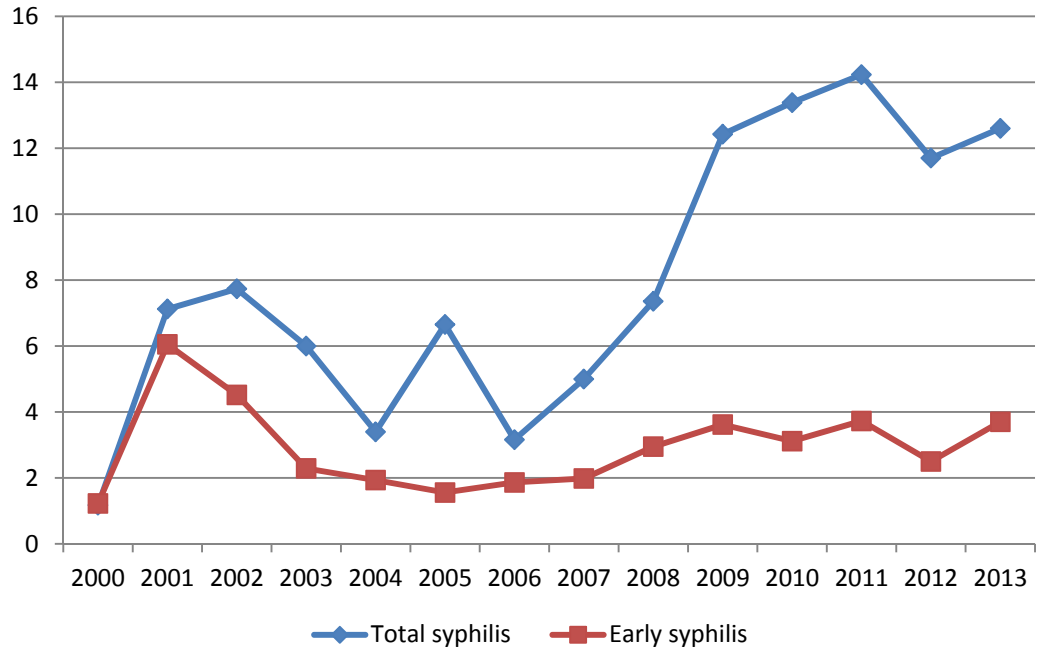


Table 1: Number of syphilis cases by HSE area and stage of infection, 2013

Stage of infection	HSE E	HSE M	HSE MW	HSE NE	HSE NW	HSE S	HSE SE	HSE W	Total
Congenital	0	0	0	0	0	0	0	0	0
Primary	72	1	4	0	1	7	2	5	92
Secondary	28	3	2	0	0	5	1	6	45
Early latent	27	2	1	1	1	0	2	1	35
Early syphilis	127	6	7	1	2	12	5	12	172
Late latent	8	0	2	0	0	10	1	1	22
Tertiary	0	0	0	0	0	0	0	0	0
Late syphilis	8	0	2	0	0	10	1	1	22
Latent of undetermined duration	136	1	3	0	0	3	5	5	153
Unknown	4	1	1	1	2	0	2	2	13
Not specified	164	3	2	14	1	27	1	4	216
All syphilis	**439**	**11**	**15**	**16**	**5**	**52**	**14**	**24**	**576**

Early Infectious Syphilis

As of 28th May, 2014, 172 cases of early infectious syphilis were notified in 2013, giving a crude incidence rate of 3.7 per 100,000 population (see figure 1 for trends). This compares to 116 early infectious cases in 2012 (CIR: 2.5 per 100,000) and 171 early infectious cases in 2011 (CIR: 3.7 per 100,000). Of the 172 early infectious cases notified in 2013, 92 (54%) were classified as primary syphilis, 45 (26%) as secondary syphilis and 35 (20%) as early latent.

A summary of early infectious syphilis cases diagnosed in 2011, 2012 and 2013 is shown in Table 2.

Table 2: Summary of early infectious syphilis cases, 2011, 2012 and 2013

	2011		2012		2013	
	No.	%	No.	%	No.	%
Number of early infectious cases	171	-	116	-	172	-
Male	154	90.1	102	87.9	162	94.2
Men who have sex with men (MSM)	136	79.5	82	70.7	106	61.6
Heterosexuals	28	16.4	24	20.7	23	13.4
Unknown mode of transmission	7	4.1	10	8.6	43	25.0
Median age (years)	31		33		33	
Age Range (years)	18-70		19-68		19-73	

HSE area

Cases of early infectious syphilis were reported from all HSE areas. Table 3 shows the CIR of early infectious syphilis by HSE area. As was the case in 2012, the CIR in the HSE East (7.8/100,000) was more than twice the national rate confirming that this region remains a centre of transmission within Ireland.

It is important to note that patient's area of residence was not provided for all cases reported through CIDR. For laboratory notifications uploaded to CIDR, the location of the laboratory is used to assign area of residence where patient's details are not provided. As a result, the rates and numbers of cases by HSE area may reflect the location of STI services, including laboratories, as well as differences in reporting practices by clinics and clinicians from one area to another.

Table 3: Crude incidence rate of early infectious syphilis by HSE area, 2013

HSE Area	Number	Crude Incidence Rate per 100,000
East	127	7.8
Midlands	6	2.1
Midwest	7	1.8
Northeast	1	0.2
Northwest	2	0.8
Southeast	5	1.0
South	12	1.8
West	12	2.7
Total	**172**	**3.7**

Age and gender

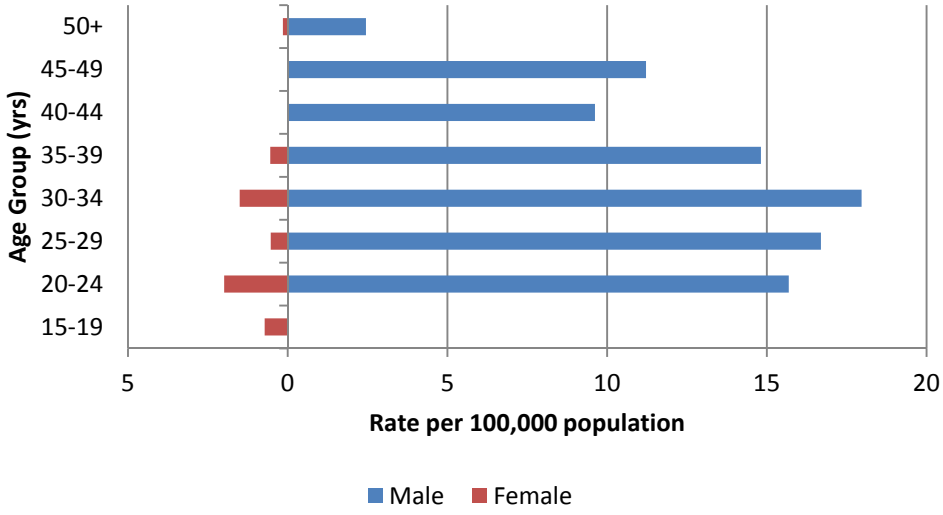
There were 162 early infectious syphilis cases diagnosed in men and 10 in women, giving a male to female ratio of 16:1. The crude incidence rates in men and women were 7.1 and 0.4 per 100,000 population respectively.

One sixth of the early infectious syphilis cases (16%) were reported in young people aged between 15 and 24 years, while the majority of cases (84%) were people aged 25 years and older. The overall median age was 33 years (age range: 19-73 years), 34 years in males (age range: 20-73 years) and 29 years in females (age range: 19-61 years).

The highest age specific rate in 2013 was in 30-34 year olds (9.6 per 100,000 population). The highest rate in males was in 30-34 year olds (18.0 per 100,000 population) followed by those aged 25-29 years (16.7 per 100,000 population) and in females was in 20-24 year olds (2.0 per 100,000 population).

Figure 2 shows the notification rate per 100,000 population of early infectious syphilis cases by age group and gender in Ireland in 2013.

Figure2: Rate of early infectious syphilis (per 100,000 population) by gender and age group, 2013



Transmission mode

Of the 172 early infectious syphilis cases in 2013, 106 (62%) were among MSM and 23 (13%) were among heterosexuals (7 female and 16 male). For 43 cases (25%), the mode of transmission was unknown. Figure 3 describes the early infectious syphilis cases by mode of transmission, gender and age group and Table 4 describes the early infectious cases by mode of transmission.

One of the 7 heterosexual women diagnosed with early infectious syphilis in 2013 one was pregnant at diagnosis (early latent syphilis). This case was first diagnosed through antenatal screening.

Figure 3: Early Syphilis cases by age group, gender and transmission mode where known, 2013 (n=129)

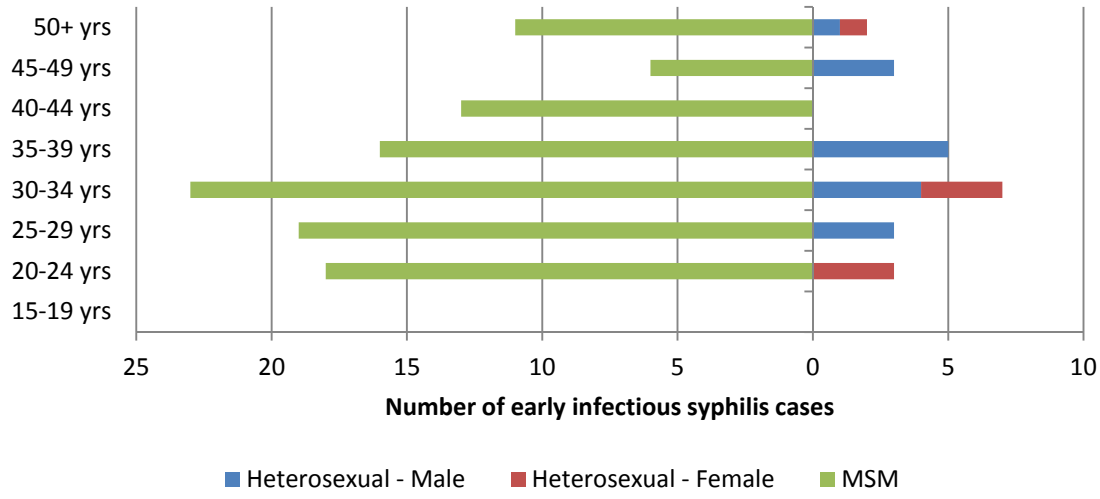


Table 4: Characteristics of early Infectious syphilis by mode of transmission where known, 2013 (n=129)

		MSM	Hetero
Total cases		106	23
Stage of infection	Primary	53 (50.0%)	11 (47.8%)
	Secondary	30 (28.3%)	6 (26.1%)
	Early latent	23 (21.7%)	6 (26.1%)
Age	Median age	33 years	32 years (35 in males, 31 in females)
	Age range	20 - 73 years	22 - 61 years
Country of birth	Born in Ireland	46 (43.4%)	10 (43.5%)
	Born abroad	40 (37.7%)	9 (39.1%)
	Unknown	20 (18.9%)	4 (17.4%)
Probable country of infection	Acquired in Ireland	62 (58.5%)	11 (47.8%)
	Acquired abroad	13 (12.3%)	6 (26.1%)
	Unknown	31 (29.2%)	6 (26.1%)
HIV status	HIV positive	34 (32.1%)	4 (17.4%)
	HIV negative	52 (49.0%)	18 (78.3%)
	Unknown	20 (18.9%)	1 (4.3%)

Country of birth/county of infection/ethnicity

Ireland was the most frequently reported country of birth (38%) among early infectious cases. Twelve percent of cases were born in Latin America with 9% born in Western Europe and 4% born in Central and Eastern Europe. A breakdown by region of birth and mode of transmission can be seen in Table 5.

Forty six percent of early infectious syphilis cases acquired their infection in Ireland with 5% acquiring their infection in Western Europe. A breakdown by region where infection was acquired and mode of transmission can be seen in Table 6.

Forty two percent of cases were of white ethnic origin. Table 7 provides a breakdown of cases by ethnicity and mode of transmission.

Table 5: Early infectious syphilis cases by mode of transmission and region of birth, 2013

Region of birth	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Ireland	46	43.4	10	43.5	10	23.3	66	38.4
Western Europe	15	14.2	1	4.3		0.0	16	9.3
Central & Eastern Europe	2	1.9	4	17.4	1	2.3	7	4.1
Latin America	17	16.0	1	4.3	2	4.7	20	11.6
Other	6	5.7	3	13.0		0.0	9	5.2
Unknown	20	18.9	4	17.4	30	69.8	54	31.4
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Table 6: Early infectious syphilis cases by mode of transmission and region of infection, 2013

Region of infection	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Ireland	62	58.5	11	47.8	6	14.0	79	45.9
Western Europe	5	4.7	2	8.7	1	2.3	8	4.7
Central & Eastern Europe	0	0.0	1	4.3	0	0.0	1	0.6
Latin America	3	2.8	1	4.3	0	0.0	4	2.3
Other	5	4.7	2	8.7	0	0.0	7	4.1
Unknown	31	29.2	6	26.1	36	83.7	73	42.4
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Table 7: Early infectious syphilis cases by mode of transmission and ethnicity, 2013

Ethnicity	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Black African	1	0.9	1	4.3	1	2.3	3	1.7
Chinese	1	0.9	1	4.3	0	0.0	2	1.2
Indian subcontinent	1	0.9	0	0.0	0	0.0	1	0.6
Mixed background	3	2.8	0	0.0	1	2.3	4	2.3
White	54	50.9	11	47.8	8	18.6	73	42.4
Other	8	7.5	0	0.0	1	2.3	9	5.2
Unknown	38	35.8	10	43.5	32	74.4	80	46.5
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

HIV co-infection

Twenty nine percent (n=50) of early infectious syphilis cases diagnosed in 2013 were co-infected with HIV at the time of their diagnosis. Almost a quarter of these (n=12) were diagnosed with HIV at the same time as they were diagnosed with early syphilis. Table 8 describes HIV status by mode of transmission.

HIV positive cases were almost exclusively in men (98%). Almost a quarter of such cases were aged 35-39 years and 20% were aged 29 years or younger.

Seventeen percent (n=4) of heterosexual cases were co-infected with HIV in 2013 compared with 8% in 2012. The percentage of cases among MSM who were co-infected with HIV in 2013 also increased slightly (33% compared to 29% in 2012).

Early syphilis cases among those co-infected with HIV were more likely to be re-infections compared with those who were HIV negative (16% versus 6%).

Table 8: Early infectious syphilis cases by mode of transmission and HIV status, 2013

HIV Status	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Positive	34	32.1	4	17.4	11	26.2	49	28.5
Negative	52	49.1	18	78.3	3	7.1	73	42.4
Unknown	20	18.8	1	4.3	29	66.7	50	29.1
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Other STIs diagnosed in 2013

Since the start of 2013, case-based data on STIs (except ano-genital warts and non-specific urethritis) have been reported via CIDR from all HSE areas. This has enabled linkages to be made between patients facilitating the reporting of multiple infections and providing a clearer understanding of the burden of STIs.

Among patients diagnosed with early infectious syphilis, there were also 24 cases of STIs other than HIV, one case of hepatitis B and 2 cases of hepatitis C during 2013. Since full patient identifiers were not provided for all cases, the true figure is likely to be much higher.

Table 9: Number* of early infectious syphilis cases diagnosed with another STI, Hepatitis B/C during 2013

Disease	No.
Chlamydia trachomatis infection	9
Gonorrhoea	13
Hepatitis B (acute and chronic)	1
Hepatitis C	2
Herpes simplex (genital)	1
Human immunodeficiency virus infection	14
Lymphogranuloma venereum	1

*patients may be counted more than once in this table

Re-infections

Nine percent (n=15) of early infectious syphilis cases in 2013 were re-infections. Table 10 describes re-infections by mode of transmission. Almost all (14/15; 93%) of the re-infections were among MSM. There were no re-infections among the heterosexual group.

More than half (n=8/15) of the cases classified as re-infections were previously infected in 2012, with a further 20% previously infected in 2010 or 2011.

Although the proportion of re-infections among MSM appears to have decreased in 2013 compared with 2012 (13% vs 24%), these data should be interpreted with caution as the completeness of this data item fell considerably in 2013 (77% unknown in 2013 vs. 41% unknown in 2012).

Table 10: Early infectious syphilis cases by mode of transmission and re-infection status, 2013

Re-infection	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Yes	14	13.2	0	0.0	1	2.3	15	8.7
No	13	12.3	7	30.4	4	9.3	24	14.0
Unknown	79	74.5	16	69.6	38	88.4	133	77.3
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Service where syphilis first identified

More than three quarters of cases were identified at a dedicated STI clinic and 11% were identified in general practice. Table 11 describes the service at which cases were first identified by mode of transmission. Eighty three percent of MSM were first identified at a dedicated STI service compared to 57% of heterosexuals while 26% of heterosexuals were identified in general practice compared to 5% among MSM.

Table 11: Early infectious syphilis cases by mode of transmission and service where syphilis first identified, 2013

Practice where syphilis first identified	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
Antenatal	0	0.0	0	0.0	1	2.3	1	0.6
Dedicated STI clinic	88	83.0	13	56.5	33	76.7	134	77.9
Family planning clinic	1	0.9	1	4.3	0	0.0	2	1.2
General practice	5	4.7	6	26.1	8	18.7	19	11.0
ID clinic	1	0.9	0	0.0	0	0.0	1	0.6
Other	3	2.8	1	4.3	1	2.3	5	2.9
Unknown	8	7.6	2	8.7	0	0.0	10	5.8
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Discussion

In 2013, the overall crude incidence rate of early syphilis increased to 3.7 per 100,000, the same rate as for 2011. For the first time in 2013 all laboratories uploaded syphilis data to CIDR and this could account for some of the increase seen over 2012.

The increase in early syphilis in 2013 was concentrated among men (94% of cases). The rate among men increased to 7.1 per 100,000 compared to 4.5/100,000 and 6.8/100,000 in 2012 and 2011, respectively. The rate among women continued to decline in 2013 with a rate of 0.4 per 100,000 compared to 0.5/100,000 and 0.7/100,000 in 2012 and 2011, respectively. As in previous years, these data demonstrate that MSM are disproportionately affected by early infectious syphilis (82% of cases where mode of transmission was known). This mirrors the pattern seen in Europe and the United States (US).

The latest data from Public Health England for 2013 show that 91% of early syphilis diagnoses in England were in men and 74% were in MSM. The overall crude incidence rate was 6.1 per 100,000 population; 11.3 per 100,000 and 1.0 per 100,000 in males and females, respectively[1].

Similarly, in the US males accounted for 91% of all primary and secondary syphilis cases in 2013. The crude incidence rate increased to 5.3 per 100,000 population (9.8/100,000 among men and 0.9/100,000 among women) with the largest increases occurring among MSM[2].

The increase in the proportion of early syphilis cases (29%) co-infected with HIV is particularly concerning as co-infection increases the risk of acquiring and transmitting HIV[3]. The proportion of co-infection was higher among MSM (33%) compared to heterosexuals (17%).

Since the start of 2014 the focus is on early infectious syphilis and improvements in data quality and completeness. Together with continued improvements in timeliness and quality of notification data for all STIs, this should provide a more accurate description of the burden of early syphilis and those most at risk.

Appendix 1: 2013 tables

Table A1: Return of enhanced forms by HSE area, 2013

HSE area	Total cases	Stage completed		Forms returned	
		N	%	N	%
East	439	271	61.7	129	29.4
Midlands	11	7	63.6	10	90.9
Midwest	15	11	73.3	14	93.3
Northeast	16	1	6.3	4	25.0
Northwest	5	2	40.0	4	80.0
Southeast	14	11	78.6	11	78.6
South	52	25	48.1	24	46.2
West	24	18	75.0	19	79.2
Total	**576**	**346**	**60.1**	**215**	**37.3**

Table A2: Early infectious syphilis cases by age group and gender, 2013

Age group (years)	Male		Female		Total	
	N	%	N	%	N	%
15-19	0	0.0	1	10.0	1	0.6
20-24	23	14.2	3	30.0	26	15.1
25-29	29	17.9	1	10.0	30	17.4
30-34	35	21.6	3	30.0	38	22.1
35-39	27	16.7	1	10.0	28	16.3
40-44	16	9.9	0	0.0	16	9.3
45-49	17	10.5	0	0.0	17	9.9
50+	15	9.3	1	10.0	16	9.3
Unknown	0	0.0	0	0.0	0	0.0
Total	**162**	**100.0**	**10**	**100.0**	**172**	**100.0**

Table A3: Early infectious syphilis cases by mode of transmission and age group, 2013

Age group (yrs)	MSM		Heterosexual		Unknown		Total	
	N	%	N	%	N	%	N	%
15-19	0	0.0	0	0.0	1	2.3	1	0.6
20-24	18	17.0	3	13.0	5	11.6	26	15.1
25-29	19	17.9	3	13.0	8	18.6	30	17.4
30-34	23	21.7	7	30.4	8	18.6	38	22.1
35-39	16	15.1	5	21.7	7	16.3	28	16.3
40-44	13	12.3	0	0.0	3	7.0	16	9.3
45-49	6	5.7	3	13.0	8	18.6	17	9.9
50+	11	10.4	2	8.7	3	7.0	16	9.3
Unknown	0	0.0	0	0.0	0	0.0	0	0.0
Total	**106**	**100.0**	**23**	**100.0**	**43**	**100.0**	**172**	**100.0**

Appendix 2: Syphilis enhanced surveillance form

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Syphilis Surveillance Form v 6.0, 01/03/2012

CONFIDENTIAL

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Please complete sections A-D for adults with positive serology for syphilis

Section A: Patient Information

1. Patient's Clinic No.: | | | | | | | | | |
2. Clinic/Practice Name/Service:
3. Surname:
4. Forename:
4. Address:
5. County of residence:
6. HSE Area:
7. Sex: F ☐ M ☐
8. Date of Birth: | | / | | | / | | | | |
9. Country of birth:

Section B: Reason for attending

10. Please select one reason for attending this clinic/practice/service:

☐ Antenatal screening/referral
☐ Asylum seeker services referral
☐ Blood donation/IBTS referral
☐ Contact tracing
☐ GP referral
☐ HIV clinic referral
☐ Routine STI screen
☐ Student health referral
☐ Symptomatic
☐ Other, please specify:

Section C: Interpretation of serology results & Previous treatment

11. Please tick as appropriate

Reactive serology (Serofast) - Patient has a history of treated syphilis ☐ Please answer question 12 and then proceed to section D
Reactive serology - Re-infection ☐ Please answer question 12 and then proceed to section C
Reactive serology and no history of past infection (new/initial infection) ☐ Please proceed to section C

12. If previously treated for syphilis: Year of primary infection | | | | Treatment type Quantity
Treatment provider/country

Section D: Stage of infection

Probable Exposure Date	Diagnostic Criteria	Stage
Within the past 3 months	Clinical findings: Patient presents with one or several (usually painless) chancres in the genital, perineal, anal area or mouth or pharyngeal mucosa or elsewhere extragenitally	Primary ☐
Within the past 6 months	Clinical findings: Patient presents with at least one of the following: - Diffuse maculo-papular rash often involving palms and soles - Generalised lymphadenopathy - Condyloma lata - Enanthema - Allopetia diffusa	Secondary ☐
Within the past year	Negative examination (i.e. no findings consistent with primary or secondary syphilis) PLUS, any of the following **within the previous 12 months**; - a history of symptoms compatible with those of the earlier stages of syphilis - serologic conversion - a 4-fold rise in a nontreponemal titer in a person who has previously received adequate treatment for a syphilis infection - exposure to an infectious case of syphilis - Only possible exposure has been in the past 12 months	Early latent ☐
Greater than 1 year ago	Any person meeting laboratory criteria (specific serological tests), PLUS Negative examination (i.e. no findings consistent with primary or secondary syphilis) PLUS, any of the following **greater than 12 months in the past**; - a history of symptoms compatible with those of the earlier stages of syphilis - serologic conversion - a 4-fold rise in a nontreponemal titer in a person who has previously received adequate treatment for a syphilis infection - exposure to an infectious case of syphilis - only possible exposure has been in the past 12 month	Late latent ☐
Uncertain	No signs of symptoms of primary or secondary syphilis and insufficient information to determine the duration of infection of the most likely time of exposure, *and the patient is aged 13-35 years and has a nontreponemal titer >32/?reactive serology.....*	Latent of undetermined duration ☐
Other	Evidence of central nervous system infection with T. pallidum	Neurosyphilis ☐
Other	Clinical manifestations of late syphilis other than neurosyphilis; inflammatory lesions of the cardiovascular system, skin, and bone, or other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle)	Tertiary ☐
Unknown	Clinical symptoms and signs are not consistent with any of the above	Unknown ☐

Section E: Form completed by

15. Comments:

16. Completed by:
17. Date: | | / | | | / | | | | |

Doctor ☐ Nurse ☐
Public health ☐ Health advisor ☐

Please turn over to complete sections F-J for all cases of early syphilis

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Please complete sections F-J for all cases of primary, secondary or early latent syphilis

Section F: Further patient details

10. Ethnicity:

White:		*Black:*		*Asian:*			
Irish	☐	African	☐	Chinese	☐	Unknown	☐
Irish Traveller	☐	Black other	☐	Asian other	☐	Other / Mixed ethnicity	☐
White other	☐					If other ethnicity, please specify:	

12. Sexual Orientation: Heterosexual ☐ Homosexual ☐ Bisexual ☐ Unknown ☐

Section G: Clinical Details

	Yes	No	Unknown
14. Is the patient symptomatic?	☐	☐	☐
16. Is the patient pregnant?	☐	☐	☐
20. Is the patient a contact of another syphilis case?	☐	☐	☐

15. If yes, date of onset: ☐☐/☐☐/☐☐☐☐

17. If yes, period of gestation: ☐☐ /40

21. Date of first diagnosis of this episode of illness : ☐☐/☐☐/☐☐☐☐

26. HIV Status: Positive ☐ Negative ☐ Unknown ☐ **27.** If positive, year of diagnosis: ☐☐☐☐

Section H: Acquisition

	Yes	No	Unknown
28. Is the patient a commercial sex worker?	☐	☐	☐
29. Did the patient have contact with a commercial sex worker?	☐	☐	☐

30. Country of infection:

31. Probable place/city of acquisition:

Section I: Contacts

32. Number of sexual contacts in the last 3 months (prior to diagnosis):

Total: ☐☐☐

Traceable: ☐☐☐

Untraceable: ☐☐☐

Unknown: ☐☐☐

33. Any social/sexual network implicated? E.g. sauna, bar, internet

Section J: Comments

Please return this completed form to your local Department of Public Health

Contact Details for Departments of Public Health

A separate form is available from www.hpsc.ie for congenital cases

Appendix 3: Syphilis case definition, 2012-2013

Syphilis

(*Treponema pallidum*)

Clinical criteria

- Primary syphilis

  Any person with one or several (usually painless) chancres in the genital, perineal, anal area or mouth or pharyngeal mucosa or elsewhere

- Secondary syphilis

  Any person with at least one of the following:
  - Diffuse maculo-papular rash often involving palms and soles
  - Generalised lymphadenopathy
  - Condyloma lata
  - Enanthema
  - Alopecia diffusa

- Early latent syphilis (<1 year)

  A history of symptoms compatible with those of the earlier stages of syphilis within the previous 12 months

- Late latent syphilis

  Any person meeting laboratory criteria (specific serological tests)

Laboratory criteria

At least one of the following four laboratory tests:

- Demonstration of *Treponema pallidum* in lesion exudates or tissues by dark-field microscopic examination
- Demonstration of *Treponema pallidum* in lesion exudates or tissues by DFA test
- Demonstration of *Treponema* in lesion exudates or tissues by PCR
- Detection of *Treponema pallidum* antibodies by screening test (TPHA, TPPA or EIA) AND additionally detection of Tp-IgM antibodies (by IgM-ELISA, IgM immunoblot or 19S-IgM-FTA-abs) — confirmed by a second IgM assay

Epidemiological criteria

- Primary/secondary syphilis

  An epidemiological link by human to human (sexual contact)
- Early latent syphilis (< 1 year)

  An epidemiological link by human to human (sexual contact) within the 12 previous months

Case classification

A. **Possible case**

NA

B. **Probable case**

Any person meeting the clinical criteria and with an epidemiological link

C. **Confirmed case**

Any person meeting the laboratory criteria for case confirmation

References

1. Public Health England. *Table 3: Selected STI diagnoses & rates, by gender, sexual risk & age group, 2013*. Available at http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1215589014186. Accessed on 17th June, 2014.
2. Patton ME, Su JR, Nelson R, Weinstock H. Primary and secondary syphilis – United States, 2005-2013. *Morbidity and Mortality Weekly Report* 2014:63(18).
3. Panel on Opportunistic Infections in HIV-Infected Adults and Adolescents. *Guidelines for the prevention & treatment of opportunistic infections in HIV-infected adults and adolescents: recommendations from the Centres for Disease Control and prevention, the National Institutes of Health and the HIV Medicine Association of the Infectious Diseases Society of America*. Available at http://aidsinfo.nih.gov/contentfiles/lvguidelines/adult_oi.pdf.

Technical note

1. Data are analysed by date of notification on CIDR.
2. Data for this report were extracted from CIDR on 28th May, 2014, and were correct at the time of publication.
3. A batch of enhanced forms was received by HSE East in June, 2014. These were entered on CIDR during the week of 23rd June and included 10 early cases and 3 cases of unknown stage of infection. Nineteen cases were also de-notified. These changes will be reflected in future syphilis reports.
4. Percentages are rounded up in the text and are provided to one decimal place in the tables.