



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



HPSC

SYPHILIS IN IRELAND, 2015

Acknowledgements

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Key Points

- In 2015, the crude incidence rate of early infectious syphilis increased by almost 30% to 5.8 per 100,000, the highest rate since the syphilis outbreak among MSM in Dublin in 2001 (6.1/100,000).
- No congenital syphilis cases were notified in 2015.
- Stage of syphilis infection was available for 61% of cases in 2015 which met the laboratory criteria for the notification of early infectious syphilis. The data reported on early infectious syphilis may therefore not fully represent the total number of infectious cases.
- Focusing on early infectious syphilis:
 - Rates varied throughout the country, with the age-standardised incidence rate (10.6 per 100,000) in HSE East (Dublin, Kildare and Wicklow) significantly higher than the national rate (5.8 per 100,000).
 - The majority of cases occurred in males, with a male to female ratio of 26:1.
 - The majority of cases (84%) were reported in people over 25 years of age.
 - Almost three quarters of cases (73%) were identified in STI clinics, with 21% being diagnosed in general practice.
 - An increasing proportion of cases (82%) occurred in men who have sex with men (MSM), with rates highest in the 25 to 29 year age group. In MSM, a significant proportion (30%) were co-infected with HIV at the time of syphilis diagnosis.
 - Twelve percent of cases were among heterosexuals. Eighteen percent of heterosexuals were co-infected with HIV.
 - One of the 10 female cases was pregnant at time of diagnosis.
 - A third of early cases were also diagnosed with an STI other than HIV during 2015. 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, particularly in HIV positive MSM, with evidence of ongoing unsafe 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 STI screening in MSM and with a particular focus on HIV positive MSM. 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) appears, 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 infectious 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 2015 can be found in the weekly HIV and STI reports at <http://www.hpsc.ie/A-Z/HIVSTIs/SexuallyTransmittedInfections/Publications/STIReports/STIWeeklyReports/>.

Data Collection

From 1st January, 2014, all laboratories were asked to notify new cases of syphilis, with one of: positive serology (*T. pallidum* EIA and TPPA) AND either RPR OR *T. pallidum* EIA IgM positive; demonstration of treponemes in lesions, exudates or tissues from clinically appropriate sites by dark ground microscopy; or demonstration of treponemes in lesions, exudates or tissues from clinically appropriate sites by PCR. Re-infections, as defined by the laboratory's own criteria, are also notifiable.

Clinical (enhanced) information was sought on all notified cases, including demographic information, stage of infection, HIV status and probable country of infection. If cases were subsequently reported by clinicians as late syphilis, syphilis of undetermined duration or had a history of treated syphilis, with no indication of current early syphilis infection, they were de-notified and were not included in this analysis. A copy of the syphilis data collection form used in 2015 is shown in Appendix 1 and the case definition is provided in Appendix 2.

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 19th September, 2016, and may not correspond exactly with what was reported in previous annual reports. Similarly, data for 2015 may be updated further in due course and will be reported on in subsequent annual reports.

2015 Data

During 2015, 437 cases of syphilis were notified in CIDR which met the criteria for laboratory diagnosis of early syphilis (data extracted 19th Sept., 2016). Stage of infection was reported as unknown, or enhanced surveillance forms were not received for 169 (39%) of these. A breakdown of forms returned by HSE area can be seen in Table A1 in Appendix 3. Please note, that cases that were reported by laboratories and subsequently denotified following clinical review as not being infectious cases are not included in these figures.

In 2015, based on enhanced information provided by clinicians, 268 cases (61%) were reported as early infectious syphilis; 135 were primary, 60 secondary and 73 early latent. Two cases classified as secondary syphilis were reported as neurosyphilis. No congenital syphilis cases were notified in 2015.

The analysis focuses only on cases fitting the laboratory criteria and clinical criteria and so the number of early cases in this report is likely to be an under-estimate of the true number of early infectious syphilis cases.

The crude incidence rate of early infectious syphilis increased by almost 30% in 2015 compared to 2014. Figure 1 shows the trend in crude incidence rate (CIR) for early syphilis cases from 2000 to 2015. Table 1 shows the breakdown of all notified cases of syphilis in 2015 by stage of infection and HSE area.

Figure 1: Crude incidence rate of early infectious syphilis (per 100,000 population), 2000-2015

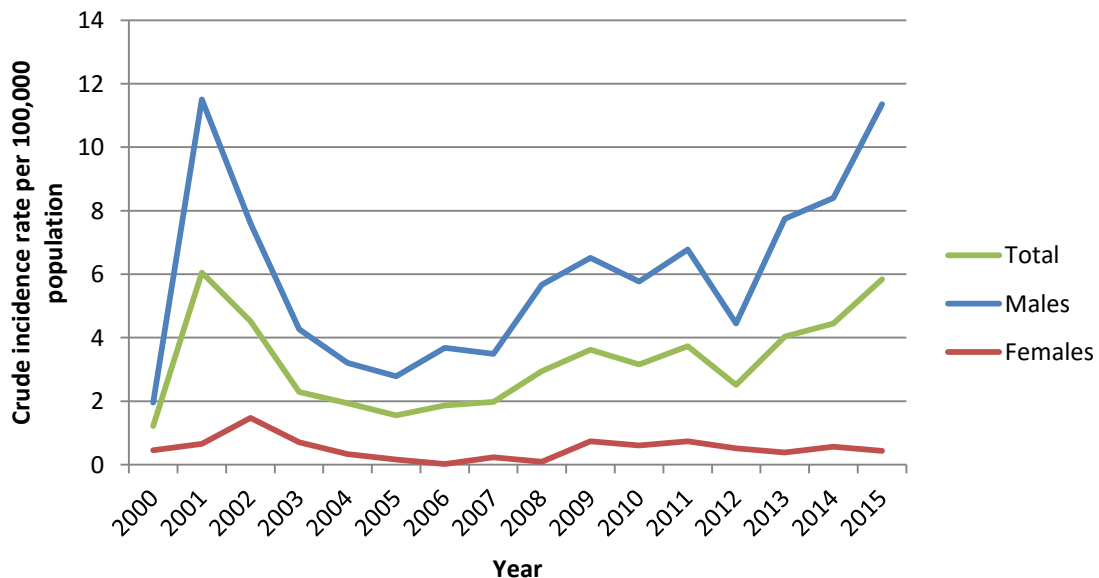


Table 1: Number of syphilis cases by HSE area and stage of infection, 2015

Stage of infection	East	Midlands	Midwest	Northeast	Northwest	Southeast	South	West	Total
Early syphilis	185	3	19	12	2	12	30	5	268
Stage unknown or form not returned	134	4	0	1	0	1	5	24	169
Total	319	7	19	13	2	13	35	29	437

Early Infectious Syphilis

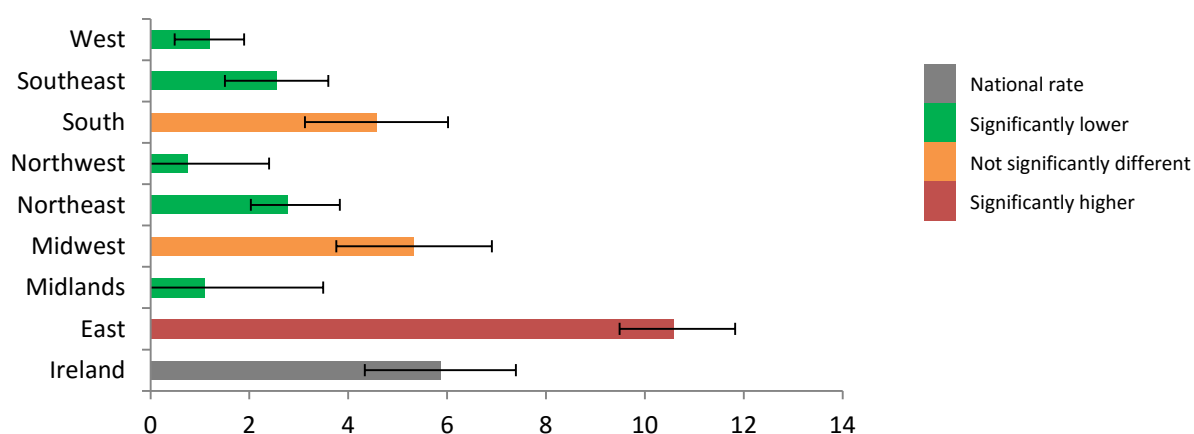
As of 19th September, 2016, 268 cases of early infectious syphilis were notified in 2015, giving a crude incidence rate of 5.8 per 100,000 population (figure 1). This compares to 204 early infectious cases in 2014 (CIR: 4.5/100,000) and 185 in 2013 (CIR: 2.5/100,000). Of the 268 early infectious cases notified in 2015, 135 (50%) were classified as primary syphilis, 60 (23%) as secondary syphilis and 73 (27%) as early latent.

A summary of early infectious syphilis cases diagnosed in 2012, 2013, 2014 and 2015 is shown in Table 2.

HSE area

Cases of early infectious syphilis were reported from all HSE areas. The ASIR in HSE East (10.6/100,000) was 1.8 times the national rate confirming that this region remains a centre of transmission within Ireland. ASIR in five other HSE areas (West, Southeast, Northwest, Northeast and Midlands) were significantly lower than the national rate (figure 2).

Figure 2: Age-standardised incidence rate of early infectious syphilis by HSE area* compared with national rate (per 100,000 population), 2015



*See Technical Note for details of HSE areas and counties.

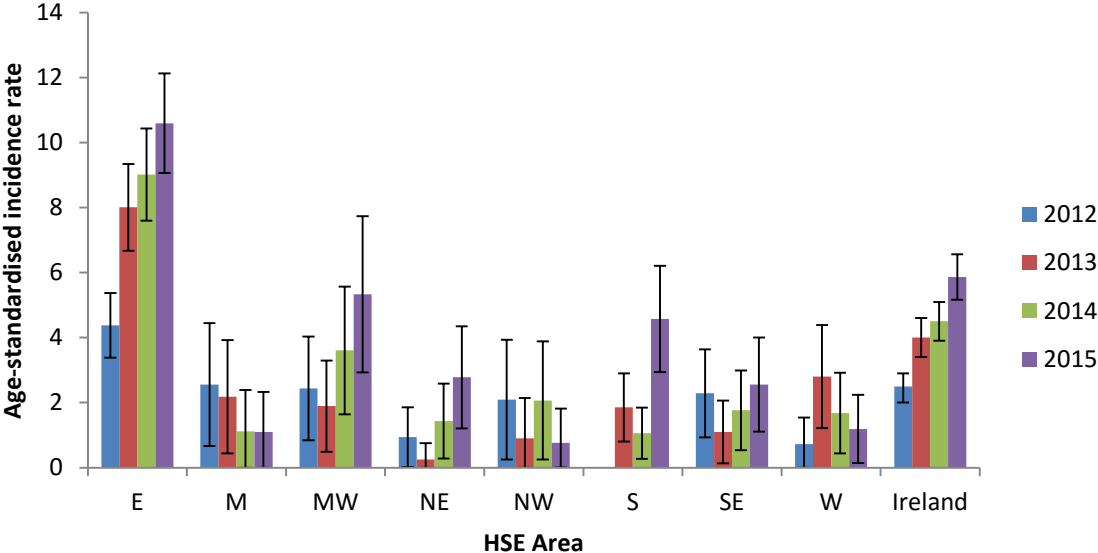
Table 2: Summary of trends in early infectious syphilis, 2012-2015

		2012	2013	2014	2015
		n	n	n	n
Total number of early cases		115	184	204	268
Rate per 100,000 population		2.5	4	4.4	5.8
Stage of infection	Primary syphilis	62 (53.9%)	86 (46.5%)	122(59.8%)	135 (50.4%)
	Secondary syphilis	31 (27%)	53 (28.6%)	40 (19.6%)	60 (22.4%)
	Early latent syphilis	22 (19.1%)	46 (24.9%)	42 (20.6%)	73 (27.2%)
Gender	Males	101 (87.8%)	175 (95.1%)	191 (93.6%)	258 (96.3%)
	Females	14	9	13	10
	Male to female ratio	7.2	19.4	14.7	25.8
Age	Median age (years)	33	33	32	33
	Age range (years)	19-68	19-73	19-70	20-65
Mode of transmission	Men who have sex with men (MSM)	81 (70.4%)	120 (65.2%)	140 (68.6%)	220 (82.1%)
	Heterosexuals	24 (20.9%)	22 (12.0%)	36 (17.6%)	33 (12.3%)
	Unknown	10 (8.7%)	43 (23.4%)	28 (13.7%)	15 (5.6%)
Symptomatic	Yes	47	71	61	95
	% where known	44.8%	71.0%	33.7%	36.7%
	No	58	29	119	164
	% where known	55.2%	29.0%	66.3%	63.3%
Identified via contact tracing	Yes	0	2	15	23
	% where known	-	11.8%	8.8%	9.1%
	No	0	15	156	229
	% where known	-	88.2%	91.2%	90.9%
Reinfection	Yes	20	17	14	10
	% where known	29.40%	40.50%	63.6%	40.0%
	Infection in last 2 years	10	10	11	5
	No	48	25	8	15
	% where known	70.60%	59.5%	36.4%	60.0%
Syphilis in pregnancy	Diagnosed in pregnancy	3	1	3	1
	Rate per 1,000 births	0.04	0.01	0.04	0.02
Region of birth	Born in Ireland	85 (73.9%)	77 (41.8%)	101 (49.5%)	124 (46.3%)
	Born abroad	23 (20%)	62 (33.7%)	77 (37.7%)	114 (42.5%)
	Unknown	7 (6.1%)	46 (25%)	26 (12.7%)	30 (11.2%)
Country of infection	Acquired in Ireland	72 (62.6%)	92 (5.0%)	110 (53.9%)	195 (72.8%)
	Acquired abroad	15 (13%)	23 (12.5%)	43 (21.1%)	38 (14.2%)
	Unknown	28 (24.4%)	70 (38%)	49 (24.0%)	35 (13.1%)
HIV status	Positive	27 (23.5%)	54 (29.2%)	50 (24.5%)	77 (28.6%)
	Negative	74 (64.3%)	92 (48.6%)	134 (65.7%)	165 (61.7%)
	Unknown	14 (12.2%)	41 (22.2%)	20 (9.8%)	26 (9.6%)

Figure 3 shows the trends in age-standardised incidence rates (ASIR) of early infectious syphilis by HSE area between 2012 and 2015. Compared to 2014, the ASIR in HSE South increased four-fold in 2015 (4.6/100,000 population versus 1.1/100,000 population in 2014) but was not significantly different to the national rate. This was due to an outbreak among MSM in Cork (20 cases) which began in August 2015.

It is important to note that patient’s area of residence was not provided for just over half of 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.

Figure 3: Age-standardised incidence rate of early infectious syphilis by HSE area, 2012-2015



Age and gender

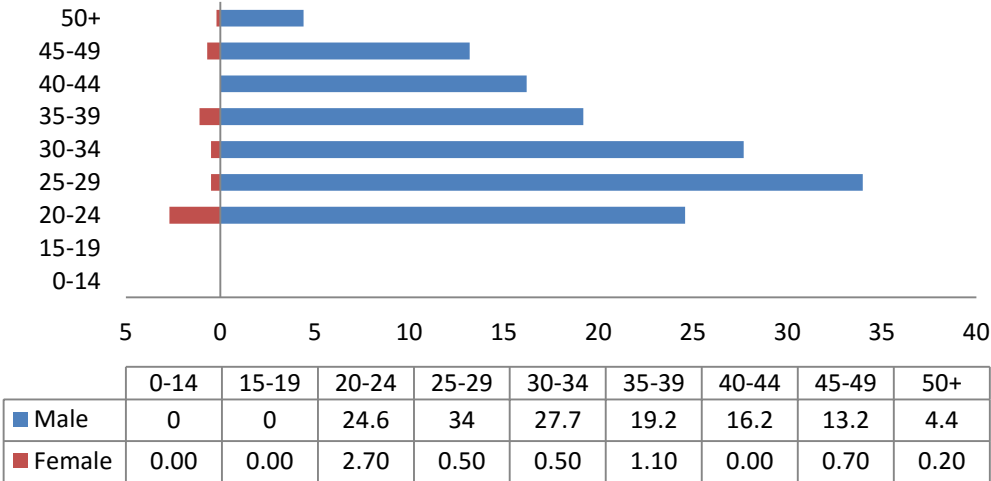
There were 258 early infectious syphilis cases diagnosed in men and 10 in women, giving a male to female ratio of 26:1. The crude incidence rates in men and women were 11.4 and 0.4 per 100,000 population, respectively (figure 1).

Fifteen percent of the early infectious syphilis cases were reported in young people aged between 15 and 24 years, while the majority of cases (85%) were in people aged 25 years and older. The overall median age was 33 years (range: 20-65 years), 33 years in males (range: 20-65 years) and 27 years in females (range: 23-57 years).

The highest age specific rate in 2015 was in 25-29 year olds (16.6 per 100,000 population). The highest rate in males was in 25-29 year olds (34.0 per 100,000 population) followed by those aged

30-34 years and 20-24 years (27.7/100,000 and 24.6/100,00, respectively) and in females was in 20-24 year olds (2.7 per 100,000 population) (figure 3).

Figure 3: Rate of early infectious syphilis (per 100,000 population) by gender and age group, 2015



Antenatal syphilis

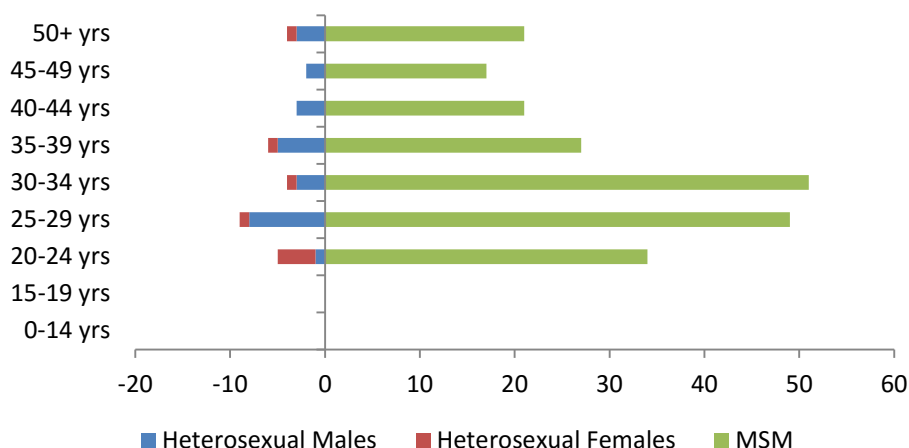
Of the 10 women diagnosed with early infectious syphilis in 2015, one was pregnant at time of diagnosis giving a rate of 0.02 per 1,000 births. This is a reduction from the rate in 2014 (0.04/1,000 births[†]). This case was identified in the second trimester through routine antenatal screening at a booking visit and was classified as primary syphilis. The outcome of the pregnancy was not available.

Transmission mode

Of the 268 early infectious syphilis cases in 2015, 220 (82%) were among MSM and 33 (13%) were among heterosexuals (9 female and 24 male). For 15 cases (5%), the mode of transmission was unknown. Figure 4 describes the early infectious syphilis cases by mode of transmission, gender and age group and Table 3 describes the early infectious cases by mode of transmission.

[†] See technical notes for details of denominator used

Figure 4: Proportion of early syphilis cases by age group, gender and transmission mode where known*, 2015 (n=253)



*Excludes 15 cases where mode of transmission is unknown

Table 3: Characteristics of early Infectious syphilis by mode of transmission where known*, 2015 (n=253)

		MSM	Hetero
Total cases		220	33
Stage of infection	Primary	107 (48.6%)	20 (60.6%)
	Secondary	55 (25.0%)	4 (12.1%)
	Early latent	58 (26.4%)	9 (27.3%)
Age	Median age	32	31
	Age range	20 - 65 years	23 - 56 years (males) 23 - 57 years (females)
Country of birth	Born in Ireland	98 (44.5%)	19 (57.5%)
	Born abroad	99 (45.0%)	9 (27.3%)
	Unknown	23 (10.5%)	5 (15.2%)
Probable country of infection	Acquired in Ireland	163 (74.1%)	25 (75.7%)
	Acquired abroad	30 (13.6%)	5 (15.2%)
	Unknown	27 (12.3%)	3 (9.1%)
HIV status	HIV positive	66 (30.0%)	6 (18.2%)
	HIV negative	133 (60.5%)	26 (78.8%)
	Unknown	21 (9.5%)	1 (3.0%)

*Excludes 15 cases where mode of transmission is unknown

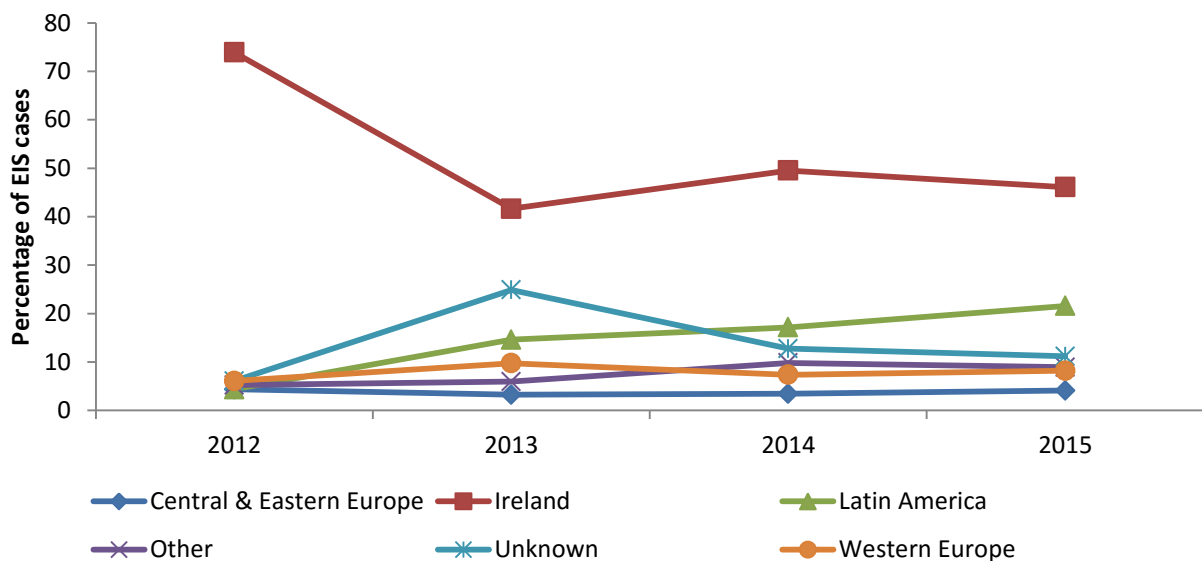
Country of birth/county of infection/ethnicity

Ireland was the most frequently reported country of birth (46%) among early infectious cases (table 4). The proportion of cases from Latin America rose to 22% in 2015, compared with 17% and 15% in 2014 and 2013, respectively (figure 5).

Table 4: Early infectious syphilis cases by mode of transmission and region of birth, 2015

Country of birth	MSM		Heterosexual		Unknown		Total	
	n	%	n	%	n	%	n	%
Ireland	98	44.5	19	57.6	7	46.7	124	46.3
Western Europe	22	10.0	0	0.0	0	0.0	22	8.2
Central & Eastern Europe	7	3.2	2	6.1	1	6.7	10	3.7
Latin America	55	25.0	1	3.0	2	13.3	58	21.6
Other	15	6.8	6	18.2	3	20.0	24	9.0
Unknown	23	10.5	5	15.2	2	13.3	30	11.2
Total	220	100.0	33	100.0	15	100	268	100.0

Figure 5: Trend in region of birth of early infectious syphilis cases, 2012-2015



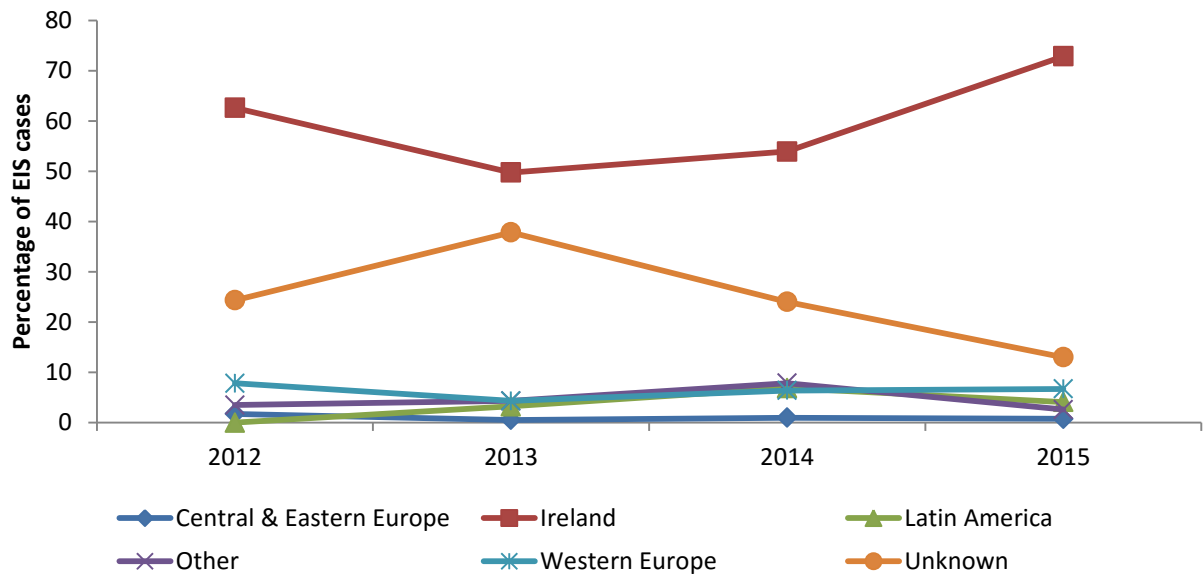
Almost three-quarters of early infectious syphilis cases acquired their infection in Ireland (table 5). This is a 50% increase compared to 2014, but may be attributable in part to more complete information as the proportion of unknown decreased to 13% (from 24%; figure 6).

Fifty-nine percent of cases were of white ethnic origin; ethnicity was not recorded for 23% of cases.

Table 5: Early infectious syphilis cases by mode of transmission and region of infection, 2015

Region of infection	MSM		Heterosexual		Unknown		Total	
	n	%	n	%	n	%	n	%
Ireland	163	74.1	25	75.8	7	46.7	195	72.8
Western Europe	14	6.4	1	3.0	3	20.0	18	6.7
Central & Eastern Europe	1	0.5	1	3.0	0	0.0	2	0.7
Latin America	10	4.5	1	3.0	0	0.0	11	4.1
Other	5	2.3	2	6.1	0	0.0	7	2.6
Unknown	27	12.3	3	9.1	5	33.3	35	13.1
Total	220	100.0	33	100.0	15	100.0	268	100.0

Figure 6: Trend in country of infection of early infectious syphilis cases, 2012-2015



HIV co-infection

Twenty nine percent (n=77) of early infectious syphilis cases diagnosed in 2015 were co-infected with HIV at the time of their diagnosis. Almost 40% of these (n=29) were newly diagnosed with HIV in 2015. This marks an increase from 2014, when 26% of cases were newly diagnosed with HIV in the same year.

The majority of HIV positive cases were in men (85%). Twenty-seven percent of cases were aged 30-34 years and 36% were aged 29 years or younger.

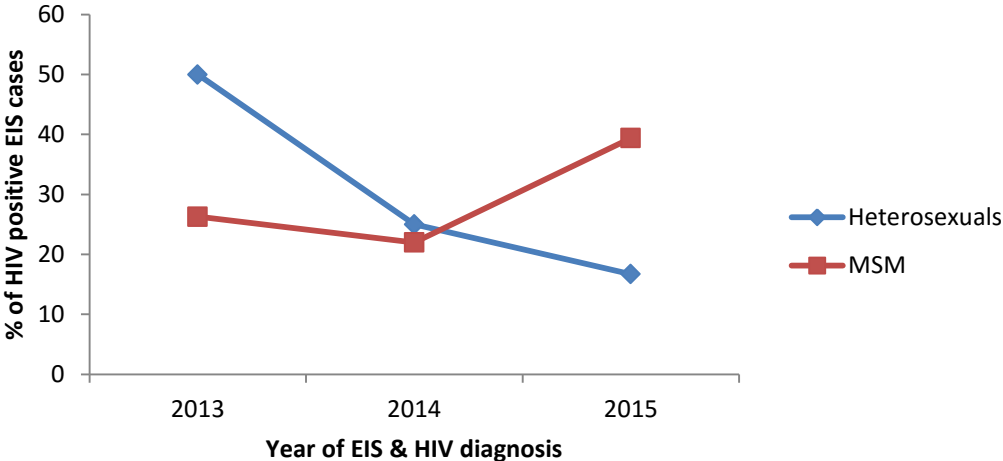
Eighteen percent (n=6) of heterosexual cases were co-infected with HIV in 2015 compared with 11% in 2014 and 18% in 2013. The percentage of cases among MSM who were co-infected with HIV in 2015 increased slightly (30% compared to 29% in 2014).

Table 6: Early infectious syphilis cases by mode of transmission and HIV status, 2015

HIV Status	MSM		Heterosexual		Unknown		Total	
	n	%	n	%	n	%	n	%
Positive	66	30.0	6	18.2	5	33.3	77	28.7
Negative	133	60.5	26	78.8	6	40.0	165	61.6
Unknown	21	9.5	1	3.0	4	26.7	26	9.7
Total	220	100.0	33	100.0	15	100.0	268	100.0

Since 2013, there has been an increasing trend in the proportion of early infectious syphilis cases among MSM who are diagnosed with HIV in the same year (from 26% in 2013 to 39% in 2015). The proportion among heterosexuals diagnosed with HIV in the same year has decreased (figure 7).

Figure 7: Percentage of EIS cases diagnosed with HIV in the same year by mode of transmission, 2013-2015



Other STIs diagnosed in 2015

Since 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 between different infections in a patient 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 56 cases of STIs other than HIV, one case of hepatitis B and one case of hepatitis C during 2015. The vast majority (91%) of additional STI, HIV and hepatitis diagnoses were among MSM (table 7).

Since full patient identifiers were not provided for all cases, the true figure is likely to be much higher. In addition, the large volume of notifications in HSE East and the use of more automated processes for processing notifications in CIDR which do not allow for de-duplication of cases reported more than once, may have contributed to an under-estimate of other infections in cases of syphilis in HSE East.

Table 7: Overall number* of early infectious syphilis cases, and cases among MSM, who were diagnosed with another STI, hepatitis B/C or HIV during 2015

Disease	Total	MSM (%)
<i>Chlamydia trachomatis</i> infection	23	20 (87.0)
Gonorrhoea	33	32 (97.0)
Human immunodeficiency virus infection	30	26 (86.7)
Lymphogranuloma venereum	3	3 (100.0)
Hepatitis B (acute and chronic)	1	1 (100.0)
Hepatitis C	1	1 (100.0)
Herpes simplex (genital)	1	1 (100.0)
Total	92	84 (91.3)

*patients may be counted more than once in this table

Service where syphilis was first identified

Almost three quarters of cases were identified at a dedicated STI clinic and 20% were identified in general practice. Table 8 describes the service at which cases were first identified by mode of transmission. Seventy-six percent of MSM were first identified at a dedicated STI service compared to 59% of heterosexuals, while 27% of heterosexuals were identified in general practice compared to 19% among MSM.

Table 8: Early infectious syphilis cases by mode of transmission and service where syphilis first identified, 2015

Service where syphilis first identified	MSM		Heterosexual		Unknown		Total	
	n	%	n	%	n	%	n	%
Antenatal	0	0.0	0	0.0	0	0.0	0	0.0
Dedicated STI clinic	168	76.4	20	60.6	8	53.3	196	73.1
General Practice	40	18.2	9	27.3	6	40.0	55	20.5
Infectious disease clinic	5	2.3	2	6.1	0	0.0	7	2.6
Other	7	3.2	2	6.1	1	6.7	10	3.7
Total	220	100.0	33	100.0	15	100.0	268	100.0

Discussion

2015 was the second year for which only cases of early infectious syphilis were notifiable. The aim of reporting early infectious syphilis was to improve completeness of information and data quality. The proportion of cases for which enhanced surveillance forms were received decreased compared to 2014 (61% vs 73% in 2014 and 60% in 2013). The true number of early infectious syphilis cases may be higher than reported here, as only cases with both laboratory and clinical data indicating early infectious syphilis, were included in the analysis.

In 2015, the crude incidence rate of early syphilis increased to 5.8 per 100,000, the highest rate since the syphilis outbreak among MSM in Dublin in 2001 (6.1/100,000). The increase in early syphilis in 2014 was concentrated among men (96% of cases). The rate among men increased to 11.8 per 100,000 compared to 7.7/100,000 and 8.4/100,000 in 2013 and 2014, respectively. The rate among women decreased slightly in 2015, with a rate of 0.4 per 100,000 compared to 0.6/100,000 and 0.4/100,000 in 2013 and 2014, respectively.

The increase in 2015 was exclusively among MSM. Cases among MSM increased by 57% compared to 2014 (220 versus 140) and by 133% compared to 2012. Cases among heterosexuals decreased in 2015 by 8% (33 versus 36 in 2014) and cases with unknown mode of transmission decreased from 28 in 2014 to 15 cases in 2015. The ASIR in HSE East ((10.6/100,000 population) remains significantly higher than the national rate (5.8/100,000 population) with more than 80% of cases in HSE East occurring among MSM, confirming that this area remains a centre of transmission within Ireland. The latest data from Public Health England show cases of early infectious syphilis continued to rise among MSM in 2015, with an increase of 19% compared to 2014. This is consistent with the trend since 2012, with syphilis among MSM increasing 95% over that time period (from 2,147 in 2012 to

4,192 in 2015)¹. London bears the greatest burden of early infectious syphilis with 56% of all cases in England diagnosed in London residents. The rate in London (32.9/100,000 population) is three times higher than the rate for England overall (9.3/100,000 population)².

The proportion of early infectious syphilis cases co-infected with HIV in 2015 increased to 29%, the same proportion as 2013 but an increase on 2014 when 25% were co-infected with HIV. The proportion of HIV co-infection continues to be higher among MSM (30%) compared to heterosexuals (18%). Of those co-infected with HIV, the number diagnosed with HIV in the same year as their syphilis diagnosis rose to 39% in 2015 (compared to 26% in 2014 and 31% in 2013). The proportion of cases co-infected with HIV remains a concern as co-infection increases the risk of acquiring and transmitting HIV³.



Preliminary analysis of 2015 data pointed to a significant increase in early infectious syphilis and other sexually transmitted infections among MSM⁴. This analysis also pointed to a change in the demographics of cases, with an increasing proportion of cases among Latin American MSM living in Ireland (up from 6% in 2012 to 25% in 2015). A growing number of MSM acquired their infection in Ireland in 2015 (74%) compared to previous years (59% in 2014). Similar increased trends in HIV and other STIs were also a cause for concern. Therefore, in response, a national multidisciplinary multi-sectoral group was established. The response involves three main strands of work covering epidemiology, interventions, and communications⁴.

Ongoing analysis of trends in 2016 is being undertaken by the epidemiological subgroup. Timely provision of accurate surveillance data is key to monitoring increases, and the effectiveness of implemented interventions. However, the staging of syphilis cases, Public Health follow-up and deactivation (of cases not meeting the case definition) in the CIDR system is time consuming for both STI clinics and Public Health Departments, with a time lag of up to 6 months following initial notification.

During 2015, a review of cases notified to HSE East in quarter 1 2014 under the new case definition was conducted, as a higher proportion of cases were being deactivated following clinical review than had been anticipated (47%). The review found it was possible to refine the laboratory criteria for notifying new cases of syphilis, which would lead to fewer cases being reported, and of these, the likelihood of them being deactivated subsequently would be much lower.

As a consequence the case definition for early infectious syphilis was further refined in July 2016⁵. Simplifying the surveillance provides more timely information which is essential to inform the response to the current increase in syphilis amongst MSM.

Appendix 1: Syphilis enhanced surveillance form

 Heilmeacht na Seirbise Sláinte Health Service Executive	Acute Infectious Syphilis Enhanced Form v10.0 (Jan. 2014) CONFIDENTIAL	 CIDR Event ID: <input style="width: 100px;" type="text"/>	
Section A: Patient Identifiers			
Patient Firstname	<input style="width: 150px;" type="text"/>	Patient surname	<input style="width: 150px;" type="text"/>
Patient Clinic ID	<input style="width: 150px;" type="text"/>	Clinic/Practice Name/Service	<input style="width: 150px;" type="text"/>
Lab specimen ID	<input style="width: 150px;" type="text"/>	Laboratory name:	<input style="width: 150px;" type="text"/>
Sex	F <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/>	Date of birth	<input style="width: 100px;" type="text"/>
Section B: Stage of infection - please choose one			
Primary Syphilis	<input type="checkbox"/>	If this is a case of early syphilis, please complete sections C, D and E and return to your local Department of Public Health. See definitions on page 2.	
Secondary Syphilis	<input type="checkbox"/>		
Early latent syphilis (<1 year)	<input type="checkbox"/>		
Late Syphilis	<input type="checkbox"/>	If this is a case of late syphilis, please complete section E only and return to your local Department of Public Health.	
Section C: Patient Information (for completion for early syphilis cases)			
County of residence (plus postcode)	<input style="width: 150px;" type="text"/>	HSE Area of residence	<input style="width: 150px;" type="text"/>
Country of birth:	<input style="width: 150px;" type="text"/>		
Ethnicity:	White Irish <input type="checkbox"/>	Black African <input type="checkbox"/>	Chinese <input type="checkbox"/>
	White Irish Traveller <input type="checkbox"/>	Black other <input type="checkbox"/>	Asian other <input type="checkbox"/>
	White other <input type="checkbox"/>		Unknown <input type="checkbox"/>
			Other / Mixed ethnicity <input type="checkbox"/>
			If other, please specify <input style="width: 100px;" type="text"/>
Section D: Clinical Details (for completion for early syphilis cases)			
Country of infection:	<input style="width: 150px;" type="text"/>	Probable place/city of acquisition:	<input style="width: 150px;" type="text"/>
Mode of Transmission	Heterosexual <input type="checkbox"/>	MSM (homo/bisexual male) <input type="checkbox"/>	Other <input type="text"/> Unknown <input type="checkbox"/>
Date of diagnosis	<input style="width: 150px;" type="text"/>		
HIV status	Positive <input type="checkbox"/>	Negative <input type="checkbox"/>	Unknown <input type="checkbox"/>
			If HIV positive, year of diagnosis: <input style="width: 100px;" type="text"/>
Is the patient symptomatic?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Unk <input type="checkbox"/>
			If yes, date of onset: <input style="width: 100px;" type="text"/>
Is the patient pregnant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			If yes, period of gestation: <input style="width: 50px;" type="text"/> /40
Was the patient identified via contact tracing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the patient a commercial sex worker (CSW)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have contact with a CSW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section E: Form completed by			
Completed by:	<input style="width: 150px;" type="text"/>	Date:	<input style="width: 100px;" type="text"/>
Position:	Doctor <input type="checkbox"/>	Nurse <input type="checkbox"/>	Public health <input type="checkbox"/>
			Health advisor <input type="checkbox"/>
Comments			

Definitions

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
- Ocular manifestations of early syphilis
- Neurological manifestations of early syphilis

Early latent syphilis (<1 year):

Positive syphilis serology, no symptoms or signs of early syphilis and a negative reference syphilis screening test within previous 12 months.

Please return this completed form to your local Department of Public Health.
See www.hpsc.ie/hpsc/NotifiableDiseases/NotifyingInfectiousDiseases/ for names and contact details

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

Appendix 2: Syphilis case definition, 2014

Syphilis

(*Treponema pallidum*)

Clinical criteria

A case may be asymptomatic or present with:

A. Primary syphilis

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

B. 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
- Ocular manifestations of early syphilis
- Neurological manifestations of early syphilis

C. Early latent syphilis (<1 year)

- Positive syphilis serology, no symptoms or signs of early syphilis and a negative reference syphilis screening test within previous 12 months.

Laboratory criteria

At least one of the following laboratory tests:

- Demonstration of *Treponema pallidum* in appropriate lesions, exudates or tissues by dark-ground microscopic examination
- Demonstration of *Treponema pallidum* in appropriate lesions, exudates or tissues by PCR
- Detection of *Treponema pallidum* antibodies (total antibodies e.g. TPHA, TPPA, CIA, or EIA) and additionally detection of Tp-IgM antibodies (e.g. IgM ELISA or immunoblot or 19S-IgM-FTA-abs) or cardiolipin non-Tp IgM (e.g. RPR, VDRL)

Epidemiological criteria:

NA

Case classification:

Possible:

NA

Probable:

NA

Confirmed: Any person meeting the clinical criteria for early syphilis, who also meets the laboratory criteria for case confirmation

Appendix 3: 2015 tables

Table A1: Return of enhanced forms by HSE area, 2015

HSE area	Total cases	Forms returned	
		n	%
East	319	185	58.0
Midlands	7	3	42.9
Midwest	18	18	100.0
Northeast	13	12	92.3
Northwest	2	2	100.0
Southeast	13	12	92.3
Southeast	35	30	85.7
West	29	5	17.2
Total	438	268	61.4

Table A2: Early infectious syphilis cases by age group and gender, 2015

Age group (years)	Male		Female		Total	
	n	%	n	%	n	%
0-14	0	0	0	0	0	0
15-19	0	0	0	0	0	0
20-24	36	14	4	40.0	40	14.9
25-29	59	22.9	1	10.0	60	22.4
30-34	54	20.9	1	10.0	55	20.5
35-39	35	13.6	2	20.0	37	13.8
40-44	27	10.5	0	0.0	27	10.1
45-49	20	7.8	1	10.0	21	7.8
50+	27	10.5	1	10.0	28	10.4
Unknown	0	0	0	0.0	0	0.0
Total	258	100	10	100.0	268	100.0

Table A3: Early infectious syphilis cases by mode of transmission and age group, 2015

Age group (years)	MSM		Hetero		Unknown		Total n
	n	%	n	%	n	%	
0-14	0	0.0	0	0.0	0	0.0	0
15-19	0	0.0	0	0.0	0	0.0	0
20-24	34	15.5	5	15.2	1	6.7	40
25-29	49	22.3	9	27.3	2	13.3	60
30-34	51	23.2	4	12.1	0	0.0	55
35-39	27	12.3	6	18.2	4	26.7	37
40-44	21	9.5	3	9.1	3	20.0	27
45-49	17	7.7	2	6.1	2	13.3	21
50+	21	9.5	4	12.1	3	20.0	28
Unknown	0	0.0	0	0.0	0	0.0	0
Total	220	100.0	33	100.0	15	100.0	268

References

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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.
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5. Cullen G and Igoe D. Changes to syphilis case definition *Epi Insight* 2016:17(7). Available at <http://ndsc.newsweaver.ie/epiinsight/x6pcgkfavoy10gkzp9yx5?a=1&p=50495690&t=17517774>

Technical notes

1. Data are analysed by date of notification on CIDR.
2. Data for this report were extracted from CIDR 19th September, 2016, and were correct at the time of publication.
3. Percentages are rounded up in the text and are provided to one decimal place in the tables.
4. HSE areas in this report refer to the following counties:

HSE Area	Counties
East	Dublin, Kildare & Wicklow
Midlands	Laois, Longford, Offaly & Westmeath
Midwest	Clare, Limerick & Tipperary N.R.
North East	Cavan, Louth, Meath & Monaghan
North West	Donegal, Leitrim & Sligo
South East	Carlow, Kilkenny, Tipperary SR, Waterford & Wexford
South	Cork & Kerry
West	Galway, Mayo & Roscommon

5. Age-standardised incidence rates were calculated using the direct method in which the national population was taken as the standard population. Population data were taken from Census 2011 from the Central Statistics Office. Data were aggregated into the following age groups for the analysis: 0-4 years, 5-9 years, 10-14 years, 15-19 years, 20-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years and ≥65 years.
6. The denominator for calculating the antenatal rate was taken from the Central Statistics Office number of births, deaths and marriages, accessed 16th September, 2016 http://www.cso.ie/multiquicktables/quickTables.aspx?id=vsa02_vsa09_vsa18