

# SYPHILIS IN THE SOUTH EAST OF IRELAND: 2006-2010

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### Abstract

This paper describes syphilis cases in the South East from 2006-2010. Analysis of notifications of syphilis cases for the years 2006-2010 was undertaken using data exported from CIDR and EpiInfo into excel. From 153 notifications 34 duplicates were found, leaving 119 persons who tested positive during the five year period. Enhanced data were available on 63 (53%) of these cases. A total of 31 cases were defined as primary, secondary or early latent syphilis (early syphilis), while 16 cases were classified as late latent (late) syphilis. For 72 (60%) cases the stage was defined only as "latent". Fifty-five percent of cases were male. Of 43 males on whom sexual orientation was documented, 26 were men who have sex with men (MSM). Eight of 65 cases on whom HIV status was documented were HIV positive. All were male, five MSM. Of all cases, 41 were known to be Irish and 46 non-Irish nationals. Thirty-three of the 41 Irish were male. Non-Irish cases were more likely to be female, with 15 tested at antenatal clinics and 26 cases classified as latent or late latent. Of the 31 early cases 27 were male, of whom 16 were MSM and 22 Irish. Our data show that in the South East a high proportion of cases of early syphilis are Irish MSM who acquire infection in Ireland. Late syphilis cases are more likely to be female, born outside Ireland, and tested during antenatal care. This indicates where prevention and control activities should be focused.

### Introduction

The report on the epidemiology of Syphilis in Ireland, 2000–2008<sup>1</sup> highlighted that over 75% of early syphilis cases reported in that period were resident in the HSE-East region. This means that the national trends outlined in that report are dominated by the risk factors associated with cases from Dublin and its urban hinterland of East Leinster. Also, that report was based on the national programme for enhanced surveillance for syphilis in Ireland. As such, it only included a subset of the total number of syphilis cases notified, i.e. those cases for which additional clinical information and information on risk factors for acquiring syphilis was collected. Since 2006, a syphilis database has been maintained in the South East of Ireland. This database includes all notified syphilis cases, those with and without enhanced surveillance. This paper outlines the total number of syphilis cases in the South East from 2006 to 2010. It attempts to examine the risk factors associated with syphilis cases who reside outside Dublin and to ascertain if they are similar to those of cases residing in, or closer to, the capital city. For the purpose of this paper, the South East comprises counties Carlow, Kilkenny, South Tipperary, Waterford and Wexford. The population of the area was 460,838 in the 2006 Census. In the South East, the clinical service for sexually transmitted diseases comprises a Sexually Transmitted Infection (STI) Clinic with outreach clinics, GP services and the acute hospital services. Testing for syphilis serology is undertaken in the Microbiology laboratory in Waterford Regional Hospital (WRH). Positive tests are sent to a reference laboratory in Bristol, U.K. for confirmation and further testing. Some South East residents attend STI services outside the region. Since April 2008, positive serology results are notified to the Department of Public Health in the South East via the Computerised Infectious Disease Reporting system (CIDR) as part of the laboratory notification of notifiable infectious diseases. Prior to 2008, STI data were sent from the laboratory to the Department of Public Health on an excel spreadsheet and entered on an EpiInfo database. STI cases are identified by initials and date of birth, the address field only contains county of residence and access is restricted to named persons with responsibility for STI surveillance. These data are not linked to other infectious diseases on CIDR. Up to 2010 enhanced surveillance data was requested from the clinician who requested the test on only cases of primary, secondary and early latent syphilis. The nationally agreed enhanced surveillance form is used.

### Methods

Analysis of notifications of syphilis cases to the Department of Public Health for the years 2006 to 2010 was undertaken using data exported from CIDR and EpiInfo into excel. There were a total of 153 notifications. These included 21 cases resident in the South East but diagnosed at the STI clinic in St James' Hospital, Dublin. With the assistance of the WRH laboratory, these data were reviewed and duplicates removed. Thirty-four duplicates were found, leaving a total of 119 persons who tested positive for syphilis during the five year period. No effort was made to review data for the years prior to 2006 when some of these cases may have already been diagnosed. These 119 are not therefore all necessarily "new" cases, but all were South East residents whose syphilis serology tested positive in the years 2006 to 2010. Enhanced data was available on 63 (53%) of these cases.

### Results

#### All syphilis cases, 2006 – 2010

Table 1 outlines the number of cases of syphilis reported by year of notification and stage at diagnosis. A total of 31 cases were defined as primary, secondary or early latent syphilis (collectively, early syphilis), while 16 cases were classified as late latent (late syphilis). However, for 72 (60%) cases the stage of infection was only defined as "latent" and so could not be classified as either early or late syphilis.

**Table 1. All syphilis cases by stage of infection: 2006 – 2010**

Year	Primary	Secondary	Early latent	Late latent	Total
2006	3	0	0	11	14
2007	2	1	3	14	20
2008	0	2	2	11	15
2009	1	3	5	20	29
2010	4	1	4	16	25
<b>Total</b>	<b>10</b>	<b>7</b>	<b>14</b>	<b>72</b>	<b>119</b>

### Acknowledgements

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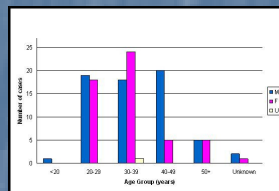
### References

1. O'Hara A, O'Lorcain P, Cullen, G. Epidemiology of Syphilis in Ireland, 2000-2008. HSE-Health Protection Surveillance Centre. 2010
2. Central Statistics Office. Census 2006. Volume 1 - Population Classified by Area. Stationary Office, Dublin, Ireland

### Age, Gender and Clinical source of test

Over the five years, 55% of the cases were male: 65 males and 53 females (Figure 1). The male cases tended to have a slightly older profile than the females. Eighty seven percent of males were aged 20 – 49 years while 79% of females were aged 20 – 39 years. The one case aged less than 20 years was a non-Irish national who had positive syphilis IgM serology and was symptomatic. The STI clinic accounted for 51% of the positive test requests (Table 2), over three quarters of which were male. (For the purpose of analysis, cases initially tested by GPs or ante-natal services but subsequently referred to the STI service were classified as STI clinic attendees). Eighteen percent of results were from hospital ante-natal outpatient clinics. In addition, 50% of GP cases were female and were possibly undertaken as part of antenatal care. Cases from sources referred to as "other" included test results from medical, ophthalmology, psychiatry and the Irish Blood Transfusion services.

**Figure 1: Syphilis, all cases by age-group and gender**



**Table 2: Gender and source of syphilis test request, 2006 – 2010**

Source of test	M	F	U	Total
STI clinic	46	15	0	61
GP	12	13	1	26
Antenatal	0	22	0	22
Other	7	3	0	10
<b>Total</b>	<b>65</b>	<b>53</b>	<b>1</b>	<b>119</b>

### Gender and sexual orientation:

With regard to the 65 males, information on sexual orientation was documented for 43. Twenty six of these were documented as MSM and 17 as heterosexual.

### HIV status

Where HIV status was documented, eight cases were HIV positive; 57 cases tested HIV negative. All eight of those who were HIV positive were males over twenty five years of age. Six were Irish nationals, one was a non-Irish national and the nationality of one case was not documented. Five were MSM. The syphilis case classification of the eight positive HIV cases included a primary case, two secondary cases, three early latent, one latent and one late latent case.

### Nationality

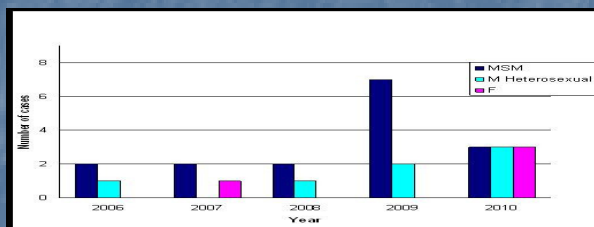
Nationality was documented in 73% of cases. Forty one were Irish nationals and 46 were non-Irish nationals. Of the 41 known to be Irish nationals, 33 were male and eight female. With the exception of three over 50 years of age, the Irish males were in the age range 22-49 years, 28 attended the STI clinic, 22 were MSM and 22 were diagnosed with early syphilis. Four of the eight Irish females were in the age range 20-29 years, two were aged 40-49 and two were over 50 years of age. Two Irish females attended the STI clinic.

Among the 46 cases documented as non-Irish national, the cases were more likely to be female (27 were female and 19 male). Fifteen of the non-Irish national women were tested at antenatal clinics, and 26 cases were classified as latent or late latent.

### Primary, secondary and early latent syphilis

In the five years 2006-10, 31 cases were notified as early syphilis cases, comprising 27 males and 4 females (Figure 2). Twenty five cases attended an STI clinic. Enhanced data was available for all cases of early syphilis. It is possible that other cases notified as latent may have been early latent cases on which no enhanced data was available. Of the 27 male cases, 16 (59%) were MSM and 22 (81%) were Irish nationals. The country of infection was unknown for four males, but 17 (63%) acquired their infection in Ireland, while 6 acquired the infection in different European countries. Six were HIV positive. Regarding the four females, three were Irish born and acquired their infection in Ireland. The one non-Irish female acquired the infection in her country of birth. All were HIV negative.

**Figure 2. Cases of early syphilis by gender and sexual orientation**



### Discussion

Our data show that, in the South East of Ireland, two distinct groups are affected by syphilis. A high proportion of cases of early syphilis are Irish MSM who acquired their infections in Ireland. Cases of latent or late latent syphilis were more likely to be female, born outside Ireland, and to be tested as part of their antenatal care. These are the same two groups identified by national surveillance<sup>1</sup> and indicate where prevention and control measures should be concentrated. In contrast, in the South East, males account for 55% of cases, while nationally males accounted for 81% of cases between 2000 and 2008<sup>1</sup>. National statistics for syphilis are strongly influenced by data from Dublin. The lower proportion of men in the South East may reflect differences in laboratory reporting practices in the South East and Dublin or alternatively differences in urban and rural social scenes.

This paper illustrates the information for action that can be garnered from a good enhanced syphilis surveillance system, with comprehensive de-duplication of data and multidisciplinary working between STI services, Microbiology and Public Health Medicine, ensuring data collection of the highest standard. This information is necessary to inform health care professionals of the ongoing risk and current trends in infection and to maintain awareness of syphilis among core risk groups.