Ionad Naisiunta Faire Galair

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Changes to Notification of Infectious Diseases

Important changes in the national infectious disease legislation come into operation on 1st January 2004.

An amendment to the Infectious Diseases Regulations 1981 *(Infectious Diseases (Amendment) (No. 3) Regulations 2003, S.I. No. 707 of 2003)* will establish a revised list of notifiable diseases and introduce a requirement for laboratory directors to report infectious diseases.

The changes to the legislation are based on recommendations of the Scientific Advisory Committee (SAC) of the National Disease Surveillance Centre (NDSC). A subgroup of the SAC carried out a review, which involved extensive consultation with key parties, at the request of the Department of Health and Children.

The final report, *Review of Notifiable Diseases and the Process of Notification* (February 2001)[1] contained a range of recommendations, some of which are now being implemented.

The changes to the list of notifiable diseases are consistent with a European Commission Decision on the communicable diseases to be progressively covered by the Community network. (*Decision no. 2000/96/EC, under Decision no. 2119/98/EC of the European Parliament and of the Council).*

The most notable changes to the list are:

- Food- and water-borne illnesses will now be specified individually (e.g. campylobacter infection, cryptosporidiosis, listeriosis), whereas previously there was a category of food poisoning (bacterial other than salmonella).
- The addition of possible biological threat agents such as botulism and tularemia.
- Hepatitis C is now specified.
- The fact that laboratories will now be notifiers is also reflected, by listing both diseases and pathogens.
- Several pathogens that are important in the monitoring of antimicrobial resistance will now be notifiable.

The amendment introduces the use of case definitions for infectious diseases, for the first time in Ireland. A set of case definitions has been drawn up, in line with standardised European case definitions. It is expected that, with use, some of the definitions may be amended over time. The case definitions will be available on the NDSC website shortly at www.ndsc.ie and printed copies will be circulated to clinicians and laboratories.

Under the amended regulations, unusual clusters or changing patterns of illness that may be of public health concern must also be reported. This is an important development, particularly in the context of any potential deliberate release of biological agents.

The amendment states that a standard form for the purpose of returning infectious disease shall be compiled and circulated by NDSC. This will be available on the NDSC website at www.ndsc.ie. Printed copies will also be available.

This new legislation is a major step forward in the surveillance of infectious diseases in Ireland.

Reference

1. National Disease Surveillance Centre. Review of Notifiable Diseases and the Process of Notification (February 2001). Notifiable Diseases Sub-Committee of the Scientific Advisory Committee, NDSC.

Enhanced Surveillance of Syphilis, 2000-2002

Introduction

Outbreaks of syphilis among men who have sex with men (MSM) have been reported across Europe and the US over the last few years. Since early 2000 there has been a dramatic increase in syphilis amongst MSM in Dublin.[1, 2, 3, 4] This was against a low incidence of syphilis throughout the 1990s, which in 1999 reached its lowest level in 10 years.[3] In response to this increase in syphilis the Director of Public Health in the Eastern Regional Health Authority (ERHA) established an outbreak control team in October 2000.[5] Interventions to control the outbreak were targeted primarily at MSM in Dublin. An enhanced surveillance system was introduced by NDSC to capture data on all syphilis cases from January 2000.[3] Data presented in this article are provisional; the 2002 data are estimated to be higher than reported here.

Materials and Methods

The enhanced surveillance system captured data on all syphilis cases from January 2000 including age, sex, country of birth and health board area of diagnosing clinic. Clinical details and at risk behaviour data were also collected.

Results

All syphilis cases*

Between January 2000 and December 2002, 595 cases of syphilis were notified to NDSC through the enhanced syphilis surveillance system. Five hundred and eleven (85.9%) of the 595 cases attended STI clinics or general practitioners in the greater Dublin area (table 1). Of the 595 cases, 410 (68.9%) were early (infectious) syphilis, 148 (24.9%) were late syphilis and 37 (6.2%) were of unknown syphilis stage. Four hundred and fifty-six (76.6%) cases were male, 137 (23.0%) were female and data were incomplete for 2 cases. Three hundred and forty-eight (58.5%) cases were amongst MSM (296 were homosexual and 52 were bisexual); 232 (39.0%) were amongst heterosexuals and sexual orientation was not recorded for 15 cases.

Eighty-six syphilis cases were notified through the enhanced surveillance system in 2000, 306 in 2001 and 203 in 2002. The total number of syphilis cases peaked in Q3 2001 (figure 1).

Table 1. Number of notified cases of syphilis by notifying health board in Ireland (January 2000 to December 2002)

Health board/ authority	Total syphilis cases	Early (infectious) syphilis	Late (non-infectious) syphilis	Unknown syphilis stage
ERHA	511	356	124	31
MHB	1	0	0	1
MWHB	27	11	13	3
NEHB	2	2	0	0
NWHB	8	6	2	0
SEHB	18	12	6	0
SHB	7	5	1	1
WHB	21	18	2	1
Total	**595**	**410**	**148**	**37**

Early (infectious) syphilis cases

Four hundred and ten early syphilis cases were notified to NDSC between January 2000 and December 2002, peaking in July 2001 (figure 2). One hundred and eighty-five (45.1%) early syphilis cases were primary syphilis, 141 (34.4%) were secondary, 76 (18.5%) were early latent and 8 (2.0%) were early syphilis of unknown stage. Two hundred and fifty-eight (62.9%) early cases were symptomatic, 127 (31.0%) were asymptomatic; data were not recorded for 25 cases. Three hundred and sixty-three (88.5%) cases were male, 46 (11.2%) were female and gender data were missing for 1 case. The mean age for male cases was 35 years (ranging from 18 to 67 years) and 29 years (ranging from 13 to 49 years) for female cases (figure 3).

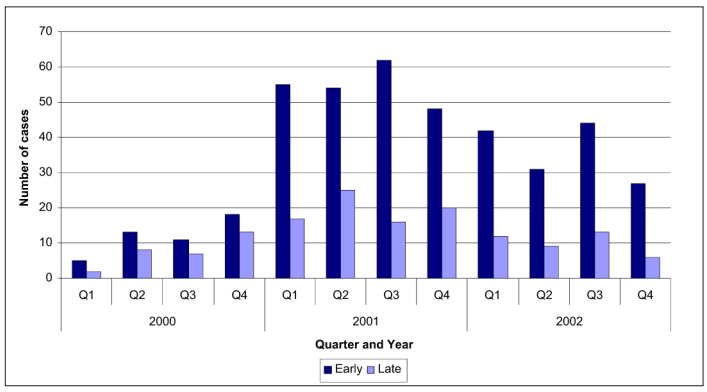

Figure 1. Number of early (infectious) and late (non-infectious) syphilis cases in Ireland by quarter and year of diagnosis (n=548)

Three hundred and twelve (76.1%) early syphilis cases were among MSM (64.4% were homosexual and 11.7% were bisexual), 91 (22.2%) were heterosexual and 7 (1.7%) were of unknown sexual orientation (figure 2). Three hundred and twelve (76.1%) early syphilis cases were born in Ireland (table 2); of which 262 (84.0%) were MSM, 48 (15.4%) were heterosexual and 2 were of unknown sexual orientation. Eighty-seven cases were not born in Ireland; 47 (54.0%) of these were MSM, 36 (41.4%) were heterosexual and 4 were of unknown sexual orientation. Eleven early syphilis cases were of unknown nationality.

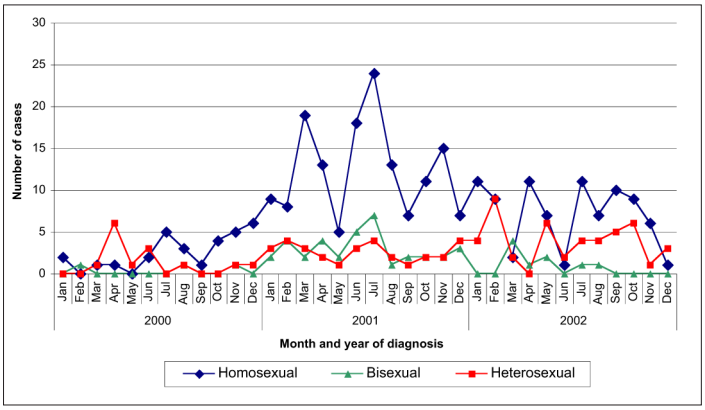

Figure 2. Early (infectious) syphilis cases by sexual orientation and month of diagnosis in Ireland (n=403)

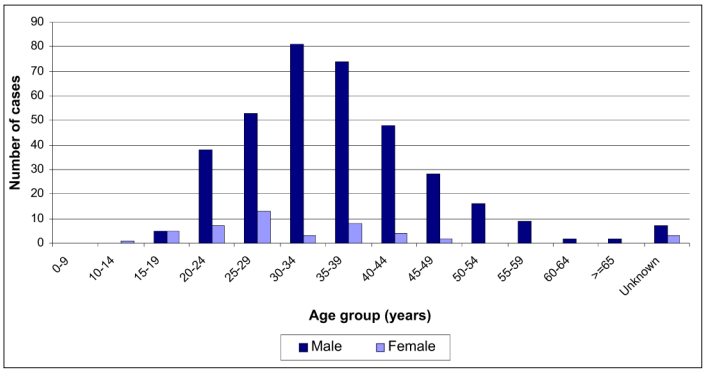

Figure 3. Early (infectious) syphilis cases in Ireland by age group (years) and gender, January 2000 to December 2002 (n=409)

*Syphilis progresses in four stages: primary, secondary, latent (early and late) and tertiary. Early syphilis (primary, secondary and early latent) is infectious. Late syphilis (late latent and tertiary) is non-infectious.[6]

Table 2. Percentage of total, early and late syphilis cases in Ireland by geographic origin (January 2000 to December 2002)

Geographic Origin	% Total (n=595)	% Early (n=410)	% Late (n=148)
Ireland	62.2	76.1	30.4
Western Europe (excl. Ireland)	7.9	9.5	4.1
Central Europe	4.0	2.2	9.5
Eastern Europe	7.1	2.7	18.9
Sub-Saharan Africa	8.9	3.2	24.3
Other	3.4	2.9	5.4
Unknown	6.6	3.4	7.4

HIV status and concurrent STIs

Seventy-three (17.8%) early syphilis cases were HIV positive (67 male, 5 female and 1 of unknown gender). Sixty-three (86.3%) of these were MSM (52 homosexual and 11 bisexual) and 10 (13.7%) were heterosexual. HIV was newly diagnosed in 18 (24.7%) of the 73 HIV positive cases. Twelve cases infected with HIV and infectious syphilis were co-infected with another STI. Seven cases were co-infected with syphilis, HIV and gonorrhoea.

Eighty-one (19.8%) early syphilis cases were concurrently infected with at least one other STI (excluding HIV). Ten (2.4%) early syphilis cases were concurrently infected with 2 or more STIs (excluding HIV). One hundred and thirty-three (32.4%) early syphilis cases gave a history of having had an STI in the past, 90.2% of these cases were MSM.

Risk behaviour

Five early syphilis cases reported links to the commercial sex industry. Seven male cases reported sexual contact with male commercial sex workers (CSWs) and 5 male cases reported sexual contact with female CSWs in the past. In attempting to identify the source of infection numerous networks were associated with the increase in early syphilis cases: 179 cases attended saunas, 157 cases implicated bars or clubs, 21 made contact through internet chat rooms and 30 had sexual contact outdoors or in parks. Eighty-two (20.0%) early syphilis cases had sex abroad in the three months prior to diagnosis (with London, Manchester and Amsterdam commonly reported).

Late syphilis cases

One hundred and forty-seven late latent syphilis cases and 1 tertiary syphilis case were notified to NDSC between January 2000 and December 2002. Seventy-three (49.3%) of these were male, 74 (50%) were female and the gender data were missing for 1 case. The mean age for female cases was 32 years (ranging from 21 to 84 years) and 41 years (ranging from 19 to 81 years) for male cases. One hundred and sixteen (78.4%) of the late syphilis cases were heterosexual (42 male and 74 female), 29 (19.6%) were MSM and 3 were of unknown sexual orientation.

Ninety-two (62.2%) of the late syphilis cases were non-nationals (31 male and 61 female) and 45 (30.4%) were born in Ireland (table 2). Of the 45 cases born in Ireland, 7 were female and 38 were male. Twenty-six of the Irish-born late syphilis cases were MSM, 18 were heterosexual and one was of unknown sexual orientation. Ninety-eight percent of the late syphilis cases in non-nationals were heterosexual and 2% were MSM.

Antenatal screening

Eighty-one syphilis cases were identified through antenatal screening. Fifty-one (63.0%) of these cases were late syphilis cases, 20 (24.7%) were early syphilis cases and 10 were of unknown syphilis stage. The majority of late syphilis cases (61.5%, n=83) attended STI clinics because of antenatal referral. Sixty cases identified through antenatal screening were non-nationals, 4 were Irish and 17 were of unknown nationality. Four cases identified through antenatal screening were also HIV positive.

Six congenital syphilis cases have been reported to NDSC between January 2000 and December 2002. Intrauterine death was reported in 2 of the 6 congenital cases. In 3 of the cases the mother was diagnosed with late latent syphilis, 2 mothers were diagnosed with secondary syphilis and 1 was diagnosed with primary syphilis.

Discussion

Two distinct groups have been associated with the increase in syphilis in Ireland: (1) an outbreak of early (infectious) syphilis mainly among MSM in Dublin and (2) late syphilis cases particularly among non-nationals. Changes in sexual behaviour patterns across Europe are reflected in Ireland with large numbers of sexual contacts and the anonymous nature of contacts and other at risk behaviour.[1, 7, 8] Other worrying trends associated with this outbreak include the numbers of newly diagnosed HIV cases and concurrent STI infections among early (infectious) syphilis cases and the reported congenital cases. It is notable that 20% of infectious syphilis cases in Ireland reported sexual contact abroad, in particular in London, Manchester and Amsterdam, where recent syphilis outbreaks have also been reported. The syphilis outbreak in Ireland peaked in July 2001 and there now remains a high level of syphilis endemicity.

Intervention measures have proven effective for case finding in the context of this outbreak.[5] On-site testing in particular has accessed a population that may otherwise not have attended for screening. It has also provided publicity, increased awareness of the outbreak and knowledge about syphilis, and fostered trust between the gay and bisexual community and the health sector. The links developed in the course of the outbreak will provide the basis for collaboration on future sexual health projects.

Lisa Domegan, Mary Cronin, NDSC.

Acknowledgements

The authors would like to thank Sarah Jackson (NDSC), Piaras O'Lorcain (ERHA) and all those who provided data for this report, particularly the STI clinics/GPs and the Departments of Public Health and the syphilis outbreak control team.

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Immunisation Uptake in Ireland, 2002

Introduction

Immunisation uptake statistics for 2002 are presented. These statistics relate to uptake in children who were 12 or 24 months of age during 2002 and who have completed the primary childhood immunisation schedule. The current schedule recommends that children receive three doses of vaccines against diphtheria (D_3), pertussis (P_3), tetanus (T_3), *Haemophilus influenzae* type b (Hib_3), polio ($Polio_3$), and meningococcal group C ($MenC_3$) at 2, 4 and 6 months of age and one dose of vaccine against measles, mumps and rubella at 12 – 15 months (MMR_1; uptake measured at 24 months only).

Immunisation uptake rates at 12 months

Overall, immunisation uptake at 12 months in 2002 (i.e. for the cohort born between 01/01/2001 and 31/12/2001) was 75% for D_3, T_3, Hib_3 and $Polio_3$, and 74% for P_3 and $MenC_3$. Uptake rates at 12 months in 2002 by health board are presented in table 1. Uptake rates ranged from 68% in ERHA to 84-85% in NWHB for D_3, P_3, T_3, Hib_3 and $Polio_3$, and from 68% in ERHA to 82% in the MWHB for $MenC_3$.

Uptake of all vaccines at 12 months increased steadily throughout 2002. By quarter (Q) 3, 2002, the rates had recovered to levels last seen in Q3, 2000. The uptake rates at 12 months in Q4, 2002 were the highest recorded to date. $MenC_3$ uptake at 12 months was collated nationally for the first time in 2002. The uptake for $MenC_3$ increased by 10% between Q1 (68%) and Q4, 2002 (78%).

Immunisation uptake at 24 months

Immunisation uptake rates at 24 months in 2002 (i.e. for the cohort born between 01/01/2000 and 31/12/2000) were 83% for D_3, T_3, Hib_3 and $Polio_3$, 82% for P_3 and 73% for MMR_1. The national uptake rate for $MenC_3$ (Q3 and Q4 only) was 75%. Uptake rates at 24 months in 2002 by health board are presented in table 1. Rates for D_3, T_3, P_3, Hib_3 and $Polio_3$ ranged from 77-78% in ERHA to 90-92% in NWHB, while MMR_1 uptake rates ranged from 64% in ERHA to 82% in SEHB. Uptake rates for $MenC_3$ for the second half of 2002 varied from 65% in the ERHA to 85% in the MWHB.

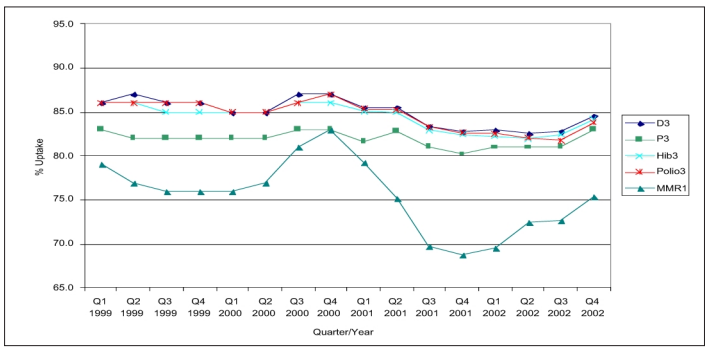

Figure 1. Quarterly immunisation uptake rates at 24 months in Ireland (Note scales range from 65-95% on this figure)

Although the general trend in 2002 indicated an increase in immunisation uptake rates, the annual figure for 2002 at 24 months was marginally lower for all vaccines apart from P_3 when compared with previous years annual figures (figure 1). D_3, T_3, $Polio_3$ and Hib_3 uptake all declined by 1% to 83%. MMR_1 uptake decreased slightly (0.7%) while uptake of P_3 showed a very small increase (0.1%).

The uptake of MMR_1 increased throughout 2002 (figure 1), and by Q4, 2002 the levels were approaching the levels seen between Q3, 1999 and Q2, 2000. An increase in uptake of the other vaccines was also observed in Q4, 2002, but the fluctuations have not been as dramatic as those seen for MMR_1.

Discussion

Immunisation uptake figures at 12 months in 2002 (74-75%) displayed an improvement on those recorded in 2001 (68-70%).[2] Although overall uptake at 24 months declined slightly in 2002, uptake of all vaccines did improve in the latter half of the year. In particular, a recovery in MMR_1 uptake was observed which reached 75% in Q4, compared to the same period in 2001 when it had declined to 69%, which is the lowest uptake rate for MMR_1 recorded to date. Despite the improvement in MMR_1 uptake throughout 2002, the maximum MMR_1 uptake of 83% recorded in Q4, 2000 has not been reached in Ireland since. These uptake rates still fall well short of the target uptake of 95%, the level required at 24 months to effectively prevent outbreaks of measles, mumps and rubella. While MMR_1 uptake rates continue to remain at these low levels, Ireland is likely to continue experiencing outbreaks of these vaccine-preventable diseases.

A Brennan, M Fitzgerald, M Carton, J O' Donnell, NDSC

Acknowledgements

The authors would like to thank the health boards for providing these data. In particular, thanks to the specialists in public health medicine, the surveillance scientists, the immunisation co-ordinators and the system analysts for their assistance.

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EPIET Fellowships

The European Programme for Intervention Epidemiology Training invites applications for twelve fellowships for a 24-month training programme in communicable disease field epidemiology starting in September 2004. Applicants must be nationals of an EU member country, Switzerland or Norway and should have experience in public health, a keen interest in fieldwork and be pursuing a career involving public health infectious disease epidemiology. They should have a good knowledge of English and of at least one other EU language, and be prepared to live abroad for a period of 24 months. The aim of the training is to enable the fellow to assume service responsibilities in communicable disease epidemiology. The in-service training will focus on outbreak investigations, disease surveillance, applied research, and communications with decision makers, the media, the public and the scientific community. Fellows will attend a three-week intensive introductory course and then be located in a host institute in one of the 25 participating European countries, Switzerland and Norway. Further training modules are organised during the two-year programme, normally in one of the participating national institutes with responsibility for communicable disease surveillance.

Detailed information can be obtained from the EPIET programme office at the address below. Letters of application accompanied by curriculum vitae should be submitted by 15 February 2004 to:

The Swedish Institute for Infectious Disease Control
EPIET Programme Office
SE-171 82 Solna, Sweden
Fax: 00 46 8 30 06 26
Website: www.epiet.org
Email: carole.desmoulins@smi.ki.se

Table 1. Immunisation uptake rates in children 12 and 24 months of age, 2002

Health Board	% Uptake at 12 months Cohort born 01/01/2001 – 31/12/2001						% Uptake at 24 months Cohort born 01/01/2000 – 31/12/2000						
	D_3	P_3	T_3	Hib_3	$Polio_3$	$MenC_3$	D_3	P_3	T_3	Hib_3	$Polio_3$	$MenC_3$*	MMR_1
ERHA	68	68	68	68	68	68	78	77	78	78	77	65	64
MHB	74	73	74	74	74	73	81	79	81	80	81	79	72
MWHB	83	81	83	82	82	82	86	84	86	86	86	85	80
NEHB	80	80	80	80	81	78	91	90	91	90	90	81	79
NWHB	85	84	85	84	85	81	92	90	92	91	91	82	80
SEHB	82	81	82	82	82	81	88	85	88	87	87	84	82
SHB	78	76	78	77	77	76	84	82	84	83	83	79	76
WHB	73	72	73	74**	73	70	83	81	83	82	82	73	74
Ireland	**75**	**74**	**75**	**75**	**75**	**74**	**83**	**82**	**83**	**83**	**83**	**75**	**73**

*Based on data from Q3 and 4 only. **Based on data from Q2-4 only.