

### IN THE NEWS

#### European Region Declared Polio-Free by WHO

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The World Health Organisation (WHO) certified the WHO European Region as polio-free on June 21st 2002. This is an historic milestone in the WHO's global polio eradication initiative and brings us one step closer to the elimination of polio. Two other WHO regions have previously been certified as polio-free: the Americas (1994) and Western Pacific (2000). The last case of indigenous poliomyelitis in Europe occurred in Turkey in 1998, when the virus paralysed a two-year old unvaccinated boy.

Poliovirus is still endemic in a handful of countries, mainly in sub-Saharan Africa and Southern Asia, though the incidence levels have been dramatically reduced in recent years. Until all of the WHO's global regions are certified as polio-free, imported virus will remain a potential threat. Unvaccinated Roma children in Bulgaria (3 cases) and Georgia (1 case) were infected with poliovirus imported from the Indian subcontinent in 2001. Likewise, a decade ago, imported poliovirus paralysed 71 people and caused two deaths in a Dutch community that refused vaccination.

Ongoing vaccination and surveillance for poliomyelitis is still required, to ensure that the disease does not reappear in Europe.

The global polio eradication initiative continues and has achieved remarkable successes in eliminating polio from previously highly endemic countries. Global eradication should be achieved within the next five years.

As part of the polio-free certification process all countries in Europe are carrying out detailed surveys of laboratories to ensure that poliovirus infectious or potentially infectious materials are properly contained. Although the chance of poliovirus being reintroduced into a population from laboratory materials is remote, the consequences of such a reintroduction would be catastrophic. Poliovirus could, potentially, be present in a wide range of laboratory materials and therefore all laboratories in the country need to be included in the survey, including those that do not work directly with poliovirus. In practice very few Irish laboratories are likely to possess materials containing poliovirus.

The laboratory containment process in Ireland is nearing completion. A total of 782 laboratories were identified in the initial survey of healthcare, research, educational and industrial institutions and 577 of these handle biological materials. Of these only three to date have been identified that may possess poliovirus potentially infectious materials. Laboratories that are confirmed as possessing such materials will be asked to either destroy the materials or ensure that they are stored and handled under appropriate conditions, as specified by WHO.

More information on the global polio eradication initiative is available at [www.polioeradication.org](http://www.polioeradication.org) and information on the laboratory containment of poliovirus in Ireland is available in the disease facts section on the NDSC's website ([www.ndsc.ie](http://www.ndsc.ie)).

#### Measles Outbreak in Italy

In February 2002 the Paediatric Sentinel Surveillance System in Italy detected an increased incidence of measles. The increase was most noted in the Campania region in Southern Italy where vaccine coverage is poor. Between January and May 2002, an estimated 24,000 measles cases occurred in the region. The highest incidence was in the 5-9 year olds, followed by the 10-14 year olds. Three hundred and sixty eight people were hospitalised, 63 of these had pulmonary complications, 13 had encephalitis and 3 children died.<sup>1</sup>

The recommended age for the first dose of MMR is 12 months in Italy. The national average uptake of MMR at 24 months of age is approximately 74%. The uptake rate in the Campania Region is only 53%. In an effort to halt the epidemic the regional health authorities have recommended vaccination of those exposed in family and school settings; lowering the age of vaccination to 6 months of age with subsequent revaccination after one year of children who were vaccinated between 6 and 12 months of age; and offering vaccine to all persons who had not been vaccinated or who had no history of measles. On a national level consideration is being given to an MMR vaccination campaign targeting all children in the 5 to 13-year age group who have the highest incidence of infection.

The uptake of MMR in Ireland is low. In 2001, the uptake rate was 73% at 24 months of age.<sup>2</sup> There is a risk of similar outbreaks occurring here if the uptake does not improve.

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# Interventions in a Syphilis Outbreak

## Introduction

Over the last few years, the number of reported cases of sexually transmitted infections (STIs) has increased and outbreaks of syphilis have recently been reported in many states of the European Union<sup>1</sup> and in the US.<sup>2</sup> Since early 2000, there has been a dramatic increase in cases of early infectious syphilis among men who have sex with men (MSM) in Dublin.<sup>3,4</sup> The Director of Public Health in the Eastern Regional Health Authority (ERHA) established an outbreak control team (OCT) in October 2000.

In a previous issue of Epi-Insight,<sup>5</sup> the epidemiology of this outbreak was reported. Three hundred and twenty three cases (N=323) of early infectious syphilis were notified between January 2000 and May 2002. Of these, 80.8% were among men who have sex with men (MSM) and 18% were HIV positive. Eighty five percent of the early infectious cases attended clinics/general practitioners in the ERHA area. Over eighty percent (80.5%) of the early syphilis cases reported links to MSM venues in Dublin.

While there are no formal studies on the number of gay and bisexual men in Ireland, it is estimated that 5-10% of the adult male population may be gay or bisexual; therefore the population of MSM in the ERHA could be 20-40,000. Gay and bisexual men make up the highest percentage of sexually acquired male HIV infections.<sup>6</sup>

## Interventions

The Interventions Subgroup introduced many strategies to control this outbreak.

### STI services

Diagnostic and treatment facilities for STIs have been extended at St. James's Hospital (SJH) and the Gay Men's Health Project (GMHP) clinic in Dublin. Over 90% of the cases notified to date were seen at the Genitourinary Medicine & Infectious Diseases (GUIDE) Department at SJH or the GMHP clinic in Dublin. SJH has increased its clinic capacity by opening additional designated syphilis clinics on Tuesday and Thursday mornings, with ten to fifteen new patients and similar numbers of review patients being seen at each clinic. The GMHP clinic also increased opening times. Between 2000 and 2001, the GMHP saw a 41% increase in attendees at clinics. During this period, new patients increased by 90% and requests for syphilis serology increased by 135%.

### Contact tracing

A designated health advisor for contact tracing and education has been employed at St James's Hospital. All patients diagnosed with syphilis at SJH or the GMHP are seen by the designated health advisor to discuss their

diagnosis, treatment plan, health education, and contact tracing. One-fifth (20.7%) of persons diagnosed with syphilis attended SJH as a result of contact tracing. Between January 2000 and May 2001, 82 index MSM patients seen at SJH reported a total of 778 sexual contacts in the 6 months prior to their diagnosis and 96 contacts subsequently attended for screening. Detailed interviewing of these cases revealed that those with syphilis met their sexual contacts in clubs (70%) and saunas (63%) with smaller numbers meeting contacts outside Ireland (21%) or via the Internet (7%). This is in contrast to other surveys which show that approximately 30% of MSM on the Dublin gay scene met their sexual partners in saunas (Vital Statistics Ireland (VSI) Survey 2001. In press).

### On-site testing

In view of concerns regarding anonymous contacts, meetings were held with owners and managers of commercial gay venues and voluntary groups working with gay and bisexual men in Dublin, to provide information about syphilis and the syphilis outbreak and to explore the idea of testing for syphilis in gay venues. On-site testing, staffed by outreach workers, medical and nursing staff, took place over three separate periods – June/ July 2001, November/ December 2001 (to encourage retesting after a 3 month window period) and during the Gay Pride Festival in June 2002. Testing took place in different venues– saunas, bars, clubs and outdoors during the Gay Pride Festival. Clients were asked for their name, date of birth and a contact telephone number; blood was drawn for syphilis serology. Clients were given a plain card with the health advisor's mobile number and their personal reference number on it and were asked to telephone the health advisor for their results. Clients with positive serology were contacted and invited to attend the designated syphilis clinics at SJH.

Eight hundred and ninety six (896) men were tested on-site for syphilis and 54 new diagnoses of syphilis were confirmed. At least 75% of these cases were early infectious syphilis. The mean age of clients tested varied between sites (saunas- 38 years; bars- 33 years; clubs- 27 years). Clients who had positive serology were older than those who were negative. Other STIs were frequently diagnosed in this new syphilis cohort (Human Immunodeficiency Virus-3; Non-specific urethritis-3; Chlamydia-1; Hepatitis B-2). Eighteen of those tested (2%) have to date not received a result, either because they did not provide a contact number or have not telephoned the health advisor. One of these 18 cases who has not received a result has positive syphilis serology. The remaining 17 cases have negative serology.

### Education and publicity

#### Health professionals

General practitioners (GPs) and providers of STI services have been made aware of the outbreak through Departments of Public Health. Articles have been

published in the medical press, informing health professionals of the outbreak and describing the relevant signs and symptoms of the infection. Talks and lectures have been delivered to interested practitioners by members of the OCT.

### Community

Interviews and articles about the outbreak have appeared in the national and gay community press. Over 15,000 cards, 10,000 leaflets and 2000 posters have been disseminated to gay venues in the Dublin region by the outreach team. Posters and information leaflets are regularly updated. Monthly advertisements and posters appear in Gay Community News (GCN). Notices about the outbreak are placed in the personal pages of newspapers and magazines such as In Dublin, Buy & Sell, Hotpress and The Farmer's Journal.

A web banner about the outbreak has been placed on [www.gayireland.com](http://www.gayireland.com). Gay Health Network (GHN) has established a site, [www.gayhealthnetwork.ie](http://www.gayhealthnetwork.ie) which provides information about syphilis.

Information meetings have been held with organisations in Dublin such as Gay Switchboard, Outhouse, GHN and "Johnny", to promote awareness of the outbreak.

Outreach workers from the GMHP contact people who place personal advertisements e.g. promoting massage services, in GCN to inform them of the outbreak.

### "Drag queens" and " Drag kings"

Towards the end of 2001, it was felt that 'syphilis fatigue' had set in amongst the MSM community. "Drag queens" and their shows are enormously popular amongst the gay and bisexual community and it was felt that it would be of benefit to harness their popularity to promote specific health messages. Rentecca, a drag queen, has been employed to promote the campaign, including the onsite testing, in clubs and bars; her image is being used as part of the ongoing information and poster campaign. MSM who tested for syphilis during some of the onsite testing sessions received a polaroid photograph of themselves with Rentecca.

### Outreach work & questionnaire

GMHP is an East Coast Area Health Board service, which also covers the South Western and Northern Area Health Boards.\* Outreach work is an integral part of the services of the project. In late 2001, the GMHP outreach team carried out a survey of 874 gay and bisexual men in pubs, clubs and saunas (SAKA 2002. Unpublished). The majority of respondents (89%) knew there was an outbreak of syphilis in Dublin. However, only 47% had tested for syphilis (80% of these in the previous 6 months). Awareness of transmission through anal, vaginal and oral sex was high, but fewer were aware of transmission through kissing. Knowledge about condom use was high (90%). Only 50% to 60% were aware of treatment regimes, the need for retesting because of the window period, and re-infection risk. Awareness and

knowledge was higher among those who had tested for syphilis and among respondents in saunas. As a result of the survey, a new leaflet 'Syphilis-What's Another Disease,' which discusses these issues using images of the drag queen (Rentecca) and the drag king (Sid Viscous) has been published recently.

### Conclusion

Intervention measures have proven effective for case finding in the context of this outbreak. 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. However, the OCT awaits formal external evaluation, which will direct future strategies.

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\*Three area health boards, the East Coast Area Health Board, the South Western Area Health Board and the Northern Area Health Board, have responsibility in their own areas for delivery of health and personal social services for the 1.3 million people who live in Dublin, Wicklow and Kildare.

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# Recent Trends in Whooping Cough

Whooping cough is an acute bacterial infection caused by *Bordetella pertussis*. It is characterised by paroxysms of violent coughs followed by a high-pitched inspirational whoop. Large amounts of viscid mucus may be expelled after the coughing, and vomiting frequently occurs. The average duration of illness is about 7 weeks. Children under one year are most at risk. Infants less than 6 months of age, adolescents and adults may not have the typical whoop or cough. Infection usually confers prolonged immunity but second attacks can occasionally occur.<sup>1</sup>

Mortality is low in countries with high vaccination coverage. However, in countries with unimmunised populations and where malnutrition is a problem pertussis is a devastating disease and was responsible for almost 300,000 deaths in children worldwide in 2000.<sup>2</sup> Most deaths are caused by pneumonia. Other complications include cerebral haemorrhage or encephalitis, which may result in spastic paralysis and mental retardation.

Pertussis vaccine was introduced in the 1950s. While deaths from whooping cough were declining from the late 19th century the rate of this disease was dramatically accelerated following the introduction of the vaccine. In the 1970s concern about the safety and efficacy of the vaccine caused a major fall in immunisation uptake rates in many countries with the result that large outbreaks followed with many deaths. As confidence in the vaccine was restored immunisation uptake increased and the incidence of whooping cough declined.

In England and Wales, although the number of cases of whooping cough has not increased, there has been an increase in the proportion of cases in very young children who are at greatest risk of death and complications from pertussis. In 2000, infants less than 6 months of age accounted for 24% of notified cases, compared to 19% in 1997 and 6% in 1990. The proportion of cases aged 15 years or more increased from 4% in 1990 to 11% in 2000.<sup>3</sup> Vaccine derived immunity wanes over 5 to 10 years so that pertussis occurs in older vaccinated individuals who may then infect infants. In November 2001 acellular pertussis was included in the preschool booster programme in the UK.

An outbreak of pertussis occurred at a primary school in Leicestershire recently.<sup>4</sup> The first case developed symptoms on 25th March 2002, but the outbreak was not recognised until 23rd May. There were a total of 23 cases, including 7 staff members. Six cases were laboratory-confirmed. The highest incidence was in the 5-7 year olds. Only one child had not received a primary course of pertussis vaccine. However, few children were young enough to have benefited from the addition of acellular pertussis to the preschool booster programme in November 2001.

Figure 1 shows the number of pertussis notifications and deaths in Ireland during the period 1948 to 2001.

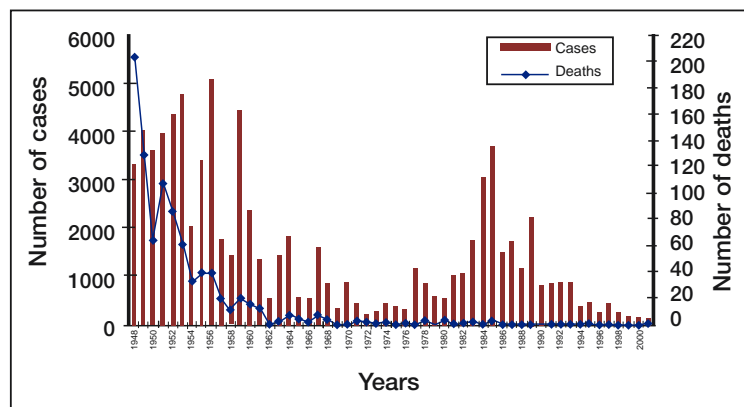


Figure 1. The number of cases and deaths from whooping cough in Ireland, 1948-2001.

Note: the number of cases and deaths are on different scales.

The number of cases has been decreasing in Ireland over the last number of years. However, some of the health boards have shown increases over this period.

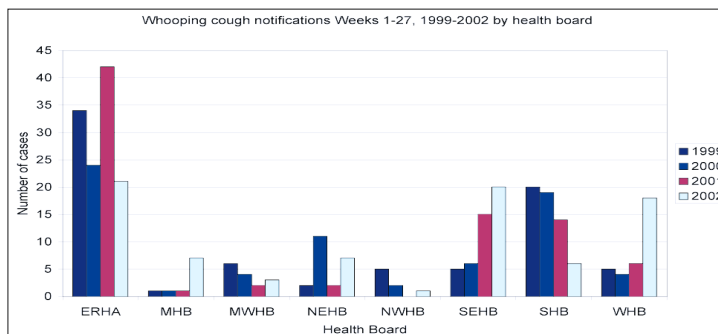


Figure 2. Whooping cough notifications weeks 1-27, in 1999-2002 by health board.

The South Eastern Health Board has investigated the recent rise in the number of cases in their region. There were 11 cases in 2000, 23 in 2001 and 19 cases in 2002 to date. In 2001, approximately 70% of cases in the SEHB occurred in children <1 year of age, with 22% in 5-14 year olds. Only 26% of cases in 2002 to date are in <1 year olds, with 42% in 5-14 year olds and 21% in those aged 15 years or over. Most cases occurred in unimmunised or partially immunised persons. However, in 2001 two cases occurred in children who were fully immunised. An alert has recently been sent to all GPs in the SEHB making them aware of the increase in cases.

Underdiagnosis and underreporting are problems because pertussis can be mild and clinicians may not consider pertussis as a cause of cough especially in older children and adults. In addition diagnostic methods are not adequate.<sup>2</sup> Most cases are diagnosed by culture which is not very sensitive and takes 5-7 days for results. Serology is generally not useful for acute disease, although some countries use serology for IgA as a marker of recent infection. It may also be useful for atypical cases such as prolonged coughing illness in adults. There are a number of studies showing good results for PCR detection of *B. pertussis* directly from nasopharyngeal swabs.

In Ireland acellular pertussis vaccine is given at 2, 4 and 6 months of age with a booster dose at 4-5 years. In 2001, the uptake rate at 24 months for the third dose of pertussis was 81%. This leaves a substantial number of young children in Ireland vulnerable to contracting whooping cough with its associated risk of complications and death. Immunisation rates in Ireland compare poorly with other countries.

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## Salmonella Monthly Report (June 2002):

Strains are allocated to months based on the date of receipt of the isolate from the referring laboratory. These figures are provisional as work may not be finished on particular strains at the time of publication. Data are provided courtesy of Prof Martin Cormican and Dr Geraldine Corbett-Feeney, INSRL.

Health Board	E	M	MW	NE	NW	SE	S	W	Total
S. Typhimurium	7	1	0	2	2	2	0	1	15
S. Enteritidis	5	2	0	1	1	3	2	3	17
S. Colindale	1	0	0	0	0	0	0	0	1
S. Dublin	0	0	1	0	1	0	0	0	2
S. Hadar	0	0	1	0	0	0	0	0	1
S. Heidelberg	0	0	0	0	1	0	0	0	1
S. Infantis	0	0	0	0	0	0	1	0	1
S. Kottbus	0	0	0	1	0	0	0	0	1
S. Putten	0	0	0	0	0	0	0	2	2
S. Redhill	1	0	0	0	0	0	0	0	1
S. Stanley	0	0	1	0	0	0	0	0	1
<b>Total</b>	<b>14</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>43</b>

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