The Scottish Executive’s MMR Expert Group Report

In June 2001, the Scottish Executive agreed to establish an Expert Group to report on immunisation against measles, mumps and rubella. Their remit included:

- Describing the consequences of pursuing an alternative vaccination policy to MMR.
- Reviewing evidence of the apparent rise in the incidence of autism.
- Describing the process of vaccine testing and the monitoring of adverse side effects.

The Expert Group has recently published their report. They found no evidence of an association between MMR and autism or Crohn’s disease. They recommended that services should be improved for people with autistic spectrum disorders (ASD), that further research should be undertaken into ASD and inflammatory bowel disease, and the level and quality of information available to parents of children due to be immunised should be improved.

The Scottish Executive has accepted their recommendations and concluded that there should be no change in current immunisation policy, confirming that MMR remains the safest and most effective way to protect children against measles, mumps and rubella. A recent in-depth analysis of the scientific literature on MMR and single measles vaccination undertaken by Donald and Muthu found no evidence that MMR or single measles vaccines are associated with autism or inflammatory bowel disease. Both vaccines were associated with a small risk of a self-limiting fever within 3 weeks of vaccination but measles itself causes acute fever in all children who become infected. In populations where vaccine coverage is high they found that MMR and monovalent measles vaccine reduce the risk of measles and measles complications to almost zero. However, MMR unlike measles vaccine alone protects against rubella and mumps which themselves have serious complications including death.

References

Campylobacteriosis in Norway, 2001

Campylobacter infections increased in Norway from 2331 cases notified in 2000 to 2890 cases in 2001, an increase of 24%. This increasing trend has been evident since the mid-90s. More cases were reported in males (53%) than females (47%), similar to the pattern found in other countries. It was reported that half the cases were acquired abroad, with 43% acquired in Norway and place of infection was unknown in 7% of cases. The incidence of campylobacteriosis was highest in the 0-4 year age group in cases acquired in Norway, while in imported cases the incidence was highest in the 20-29 year age group. Most case occurred during the summer months with a peak incidence in July. As in other European countries, including Ireland Campylobacter is the single biggest cause of bacterial gastroenteritis in Norway in recent years.

Case-control studies in Norway have identified a number of risk factors for Campylobacter infection. Drinking water that had not been disinfected, eating at barbecues, eating poultry that was bought raw, and occupational exposure to animals, particularly cows, sheep and poultry, were independently associated with an increased incidence of Campylobacter infection. A recent study in Australia identified ownership of pet puppies and pet chickens and consumption of mayonnaise to be independently associated with Campylobacter infection in infants and young children.

The Food Safety Authority of Ireland have identified the prevention and control of foodborne illness due to Campylobacter as a key priority and have set up a multidisciplinary group to identify control measures to combat Campylobacter infections from farm to fork.

References
Introduction
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.1

Recently concern has been raised over a resurgence of sexually transmitted infections (STIs), particularly among men who have sex with men (MSM). The rising incidence of gonorrhoea and syphilis reported from 1995 across Europe is consistent with an increase in unsafe sex, perhaps reflecting an increase in risk behaviour associated with the availability of highly active retroviral therapy for HIV infection and a loss of impact of the HIV prevention campaigns of the 1980s and early 1990s.2 3 Syphilis, like other genital ulcer diseases, increases the risk of transmitting and acquiring HIV. Concurrent HIV infection may also increase the risk of neurosyphilis.1 Additionally, STIs have been shown to increase genital HIV viral load and could affect the resistance patterns of genital HIV-1.3

Outbreaks of syphilis among 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.4 5 6 7 This was against a low incidence of syphilis in the Republic of Ireland, with a particular emphasis on the recent outbreak.

Materials and Methods
An enhanced surveillance system was implemented by NDSC to capture data on all syphilis cases from January 2000. Demographics recorded on all cases included age, sex, country of birth, occupation and health board area of diagnosing clinic. Clinical details and at risk behaviour data were also collected. The form was redesigned in December 2001 to include country and county of residence.

Results
All syphilis cases
Between January 2000 and May 2002, 458 cases of syphilis have been notified to NDSC. Of the 458 cases, 323 (70.5%) were early syphilis cases, 127 (27.7%) were late syphilis (early and late) and 11 (3.4%) were early syphilis of unknown stage. Two hundred and sixty-one (80.8%) early cases were MSM (6.5%) cases.

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

<table>
<thead>
<tr>
<th>Health Board / Authority</th>
<th>Total Syphilis Cases</th>
<th>Early Infectious Syphilis</th>
<th>Late Syphilis</th>
<th>Unknown Syphilis Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERHA</td>
<td>388</td>
<td>276</td>
<td>107</td>
<td>5</td>
</tr>
<tr>
<td>MHB</td>
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<td>6</td>
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<tr>
<td>MWHB</td>
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<td>2</td>
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<tr>
<td>NEHB</td>
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<td>0</td>
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<tr>
<td>SHB</td>
<td>15</td>
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<td>0</td>
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<tr>
<td>WHB</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>458</td>
<td>323</td>
<td>127</td>
<td>8</td>
</tr>
</tbody>
</table>

Three hundred and twenty three early syphilis cases were notified to NDSC between January 2000 and May 2002, peaking in July 2001 (Figure 1). Between January and May 2002, 59 early syphilis cases were notified to NDSC. It should be noted that there is a lag time of approximately 8 weeks between the date of diagnosis and the date of notification, therefore the data for January to May 2002 should be interpreted with caution.

Early (infectious) syphilis cases
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Figure 1. Early syphilis cases by sexual orientation and month of diagnosis
(9 cases were of unknown sexual orientation)

Staging and symptoms
Since January 2000, 150 (46.4%) early syphilis cases were primary, 112 (34.7%) were secondary, 50 (15.5%) were early latent and 11 (3.4%) were early syphilis of unknown stage. Two hundred and thirteen (65.9%) early cases were symptomatic, 89 (27.6%) were asymptomatic; data were incomplete for 21 (6.5%) cases.

Sexual orientation and demographics
Two hundred and sixty-one (80.8%) early cases were MSM [214 (66.3%) were homosexual and 47 (14.6%) were bisexual], 59 (18.3%) were heterosexual (34 male and 25 female cases) and 9 (2.8%) were of unknown sexual orientation (Figure 1). Two hundred and ninety eight (92.2%) early syphilis cases were male and 9 (2.8%) were of unknown sexual orientation. Two hundred and sixty-one (80.8%) early cases were of unknown sexual orientation.

Figure 2. Early syphilis cases by age and gender, January 2000 to May 2002.

Two hundred and forty-eight (76.8%) early syphilis cases were born in Ireland (Table 2), of which 212 (85.5%) were MSM and 34 (13.7%) were heterosexual. Sixty-five cases were not born in Ireland; 45 (69.2%) of these were MSM and 19 (29.2%) were heterosexual.
Concurrent HIV/STIs
Fifty-eight (18.0%) early syphilis cases were HIV positive (55 male and 3 female). Fifty-one (87.9%) cases positive for HIV were MSM (39 homosexual and 12 bisexual) and 7 (12.1%) were heterosexual. HIV was newly diagnosed in 11 (19.0%) of the 58 HIV positive cases. Eleven cases infected with HIV were also infected with another STI. Six cases were concurrently infected with syphilis, HIV and gonorrhoea. Seventy-three (22.6%) early syphilis cases were concurrently infected with one of the following: ano-genital warts, chlamydia trachomatis, genital herpes simplex, gonorrhoea, hepatitis B virus, or non-specific urethritis. Seven (2.2%) early syphilis cases were concurrently infected with 2 or more STIs (other than HIV). Ninety-seven (30.3%) cases had an STI in the past, 92.8% of these cases were MSM.

Risk behaviour
Three early syphilis cases reported they either currently worked or had worked as a commercial sex worker (CSW). Five MSM had sexual contact with male CSWs and 3 male heterosexuals reported 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: 139 cases attended saunas, 121 cases implicated bars/clubs, 14 made contact through internet chat rooms, and 11 had sexual contact outdoors/parks. Sixty-five (20.1%) early syphilis cases had sex abroad three months prior to diagnosis; 18.6% of cases had sexual contacts in the UK (in particular in London and Manchester). Information on sexual contacts was available for 86.7% of early syphilis cases. The median number of sexual contacts in the 3 months prior to diagnosis was one for male heterosexuals; twelve for male homosexuals; twenty-one male cases and one female for male bisexuals; and one for female heterosexuals.

Late syphilis cases
One hundred and twenty seven late latent syphilis cases were notified to NDSC between January 2000 and May 2002. Fifty-nine (46.4%) of these were male, 66 (52.0%) were female and the gender was unknown for 2 (1.6%) cases. The mean age for female cases was 32 years (ranging from 21 to 84 years) and 40 years (ranging from 19 to 81 years) for male cases. One hundred and three (81.1%) of the late syphilis cases were heterosexual (36 male, 66 female and one unknown), 21 (16.5%) were MSM and 3 (2.4%) were of unknown sexual orientation.

Fifteen cases were reported as being identified through antenatal screening. Twelve of these 15 cases were non-nationals. Thirty-nine (30.7%) of the late syphilis cases were born in Ireland and 77 (60.6%) cases were non-nationals (24 male and 53 female) (Table 2). Of the 39 cases born in Ireland, 6 were female, 32 were male and one case was of unknown sex. Nineteen of the Irish-born late latent syphilis cases were MSM, 17 were heterosexual and one was of unknown sexual orientation. All of the 77 late latent syphilis cases in non-nationals were heterosexual.

Discussion
Two distinct groups have been associated with the increase in syphilis cases in Ireland (1) an outbreak of early syphilis mainly among MSM in Dublin and (2) late syphilis cases particularly among non-nationals. The large number of sexual contacts and other at risk behaviour associated with the Dublin outbreak reflects the change in sexual behaviour patterns observed in Europe. Of further concern is the anonymous nature of many of the sexual contacts involved with the Dublin outbreak. The number of notified infectious syphilis cases peaked in July 2001, which may have been due to an increase in diagnosis as a result of extensive media campaigns and ‘onsite testing’ in gay venues in Dublin implemented by the OCT. Although the numbers of notified infectious cases have decreased since July 2001, the incidence still remains at very high levels. Other worrying trends associated with this outbreak are the increase in newly diagnosed HIV cases and concurrent STI infections among early syphilis cases.

Peaks in congenital syphilis usually occur one year after peaks in primary and secondary syphilis in women. It is therefore not unexpected that NDSC has been informed of a number of congenital syphilis cases. In Ireland, pregnant women are routinely screened for syphilis during the first trimester of pregnancy. Directors of Public Health have been requested to alert maternity hospitals to the outbreak suggesting that consideration be given to repeating syphilis serology in the third trimester.

Innovative strategies are being initiated by the OCT to control this epidemic, including an active educational campaign that has been ongoing since January 2001. The outbreak control measures are currently being evaluated in order to identify the impact of the interventions and to make recommendations as to how the OCT should progress.

The control and prevention measures implemented by the OCT will be described in the August edition of Epi-Insight.

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This report was written by the members of the epidemiology subgroup of the Syphilis Outbreak Control Team (above).

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References
The table above gives preliminary results on returns made to NDSC of enteric foodborne and waterborne outbreaks that were investigated and reported in Ireland during the first quarter of 2002. There were 65 outbreaks reported to NDSC during this period, 89% of which were confirmed SRSV or suspect viral in aetiology.

Dr Barbara Foley and Dr Paul McKeown, NDSC

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