



Legionnaires' Disease Cluster in Newtownabbey

The Northern Health and Social Services Board, with Environmental Health Officers from Newtownabbey District Council and the Health and Safety Executive for Northern Ireland, is investigating an outbreak of Legionnaires' disease.

Legionnaires' disease is a notifiable cause of community-acquired pneumonia, causing sporadic disease and occasionally outbreaks. The sources of infection are devices which produce water aerosols, such as wet cooling towers, fountains and spas.

Three cases were reported between 20 March and 10 April, with onset of symptoms between 12 March and 5 April. All three had been in the Mallusk area of Newtownabbey prior to developing symptoms. There were no other links between them. They were all male aged between 35 and 50 years. Case finding included informing general practitioners, local hospitals and the European Legionnaires' Surveillance scheme.

All three cases had positive urinary antigen tests indicating *Legionella pneumophila* serogroup 1 infection. The European Working Group for Legionella Infections includes the detection of specific legionella antigen in urine for defining a confirmed case of Legionnaires' disease.

The Health and Safety Executive (NI) and Environmental Health Officers from Newtownabbey Borough Council undertook a survey to identify and inspect premises which had the potential to produce water aerosol. Several potential sources were identified and *Legionella* species were cultured from samples taken from some premises in the area. Appropriate cleaning and

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disinfection measures were immediately undertaken.

This is the first cluster of Legionnaires' Disease reported in Northern Ireland. The previous edition of the *Monthly Report* (vol 11 no. 2) reviews the epidemiology of legionella infection in Northern Ireland from 1980.

(contributed by Dr M Devine, CCDC, Northern Health and Social Services Board)

CoSurv Update

The CoSurv laboratory module has been installed in Antrim Area Laboratory since December 2001. The laboratory has been successfully transferring communicable disease reports to CDSC (NI) on a weekly basis. So far, over 300 reports have been electronically loaded into the

CoSurv regional module used by CDSC (NI). Following the successful pilot, the module has been installed in Craigavon Area Laboratory, Altnagelvin Laboratory and Erne Laboratory.

The District module has recently been installed in the Northern

Health and Social Services Board (NHSSB). Laboratory reports from Antrim Area Laboratory will be transferred to both CDSC (NI) and NHSSB. Health Board staff will add further information to the laboratory reports and download this information to CDSC (NI). Once this procedure is in place, the District module will be rolled out to the other three Health Boards.

Annual Conference on Epidemiology and Control of Communicable Diseases and Environmental Hazards (Health Protection)

The annual conference on the epidemiology and control of communicable diseases and environmental hazards (health protection) takes place from **Monday, 4 November to Wednesday, 6 November 2002, at CDSC, Colindale London**. It is aimed primarily at consultants in communicable disease control, but will also interest medical microbiologists, public health scientists and environmental health and nursing professionals involved in health protection. **This year the conference will celebrate the 25th anniversary of CDSC.**

The conference will address important public health issues that have arisen in the past year and provide fresh perspectives on

established areas of disease prevention and control. Short papers on recent outbreaks and surveillance initiatives will also be presented. Registration Forms will be available at the beginning of July from Vivienne Fitch at PHLS/CDSC, 61 Colindale Avenue, London NW9 5EQ (tel 020 8200 6868 ext 4569, Fax 020 8200 7868, email: vfitch@phls.org.uk).

Call For Papers

Abstracts are invited for papers and posters on the following conference themes and should be submitted by **31 May 2002**. Abstracts should include: a title, the family names, authors initials and institutional affiliations in brackets, as follows: e.g., Jones, MJ (Wapping Health Authority), Rice, A (Royal Biggleswade Infirmary), and an abstract narrative not exceeding 300 words. Abstracts should be sent by email to vfitch@phls.org.uk no later than 31 May 2002.

Immunisation: new vaccines/current controversies

Health protection: new approaches after Getting Ahead of the Curve

Assessing and communicating risks

Surf and turf: food, water and animals

Surveillance, control and prevention: expanding the evidence base

Emerging hazards/emerging infections

Enhanced MMR Vaccination Uptake Surveillance

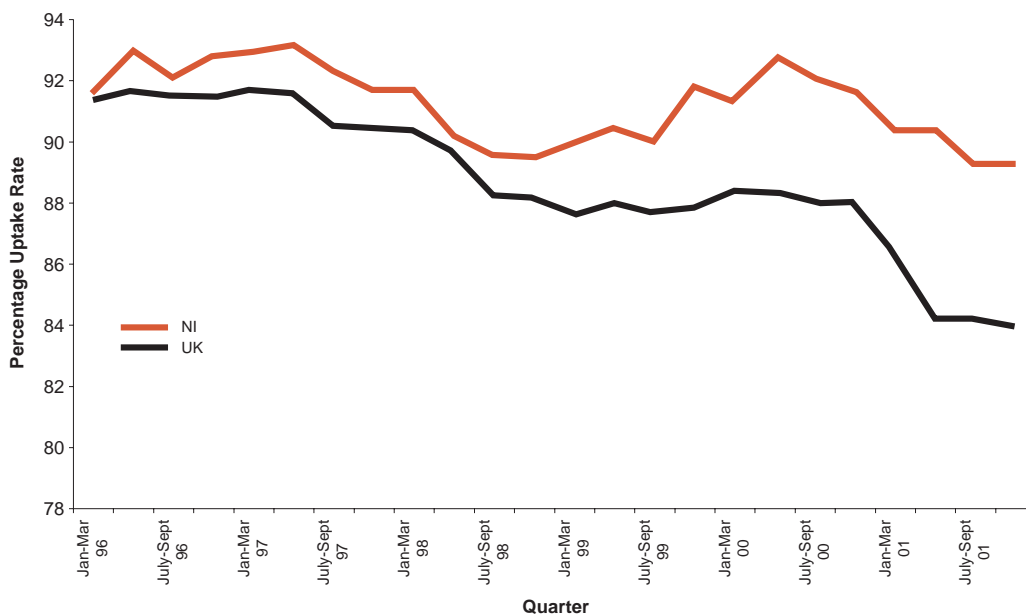
The latest set of coverage statistics for Northern Ireland (COVER/Korner) is now available for the fourth quarter of 2001. The detailed

analysis by Board and by age is described later in this report. MMR vaccination at 24 months is currently 89.3% (Figure 1), which

is similar to the previous quarter. Uptake levels in Northern Ireland remain considerably higher than the UK average.

As well as using the quarterly COVER statistics which monitor MMR uptake at 24 months of age, CCDCs are undertaking additional

Figure 1: MMR Vaccination Uptake rates at 24 Months, NI & UK, 1996-2001



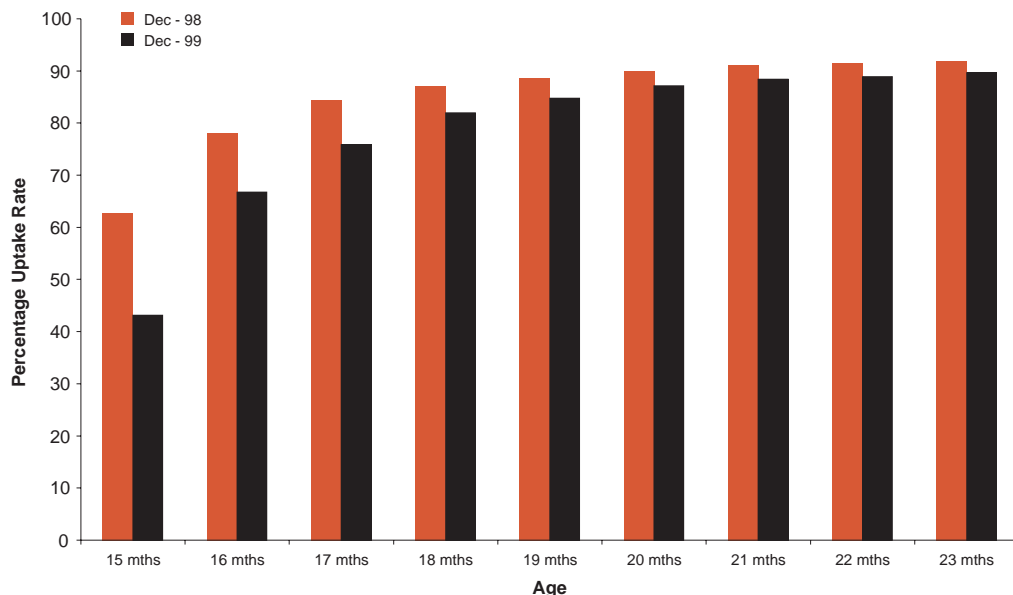
monthly monitoring of MMR vaccine uptake in order to identify any decline in uptake rates as early as possible.

Enhanced monitoring of MMR vaccination uptake rates in those aged from 15 months show a

decrease in the number of children receiving vaccination compared to a similar cohort 12 months earlier. For example, when comparing the December 1999 cohort with the December 1998 cohort, there was a difference of 19 percentage points at 15 months, but this has narrowed

to 2 percentage points at 23 months (Figure 2). This suggests that some parents are delaying MMR vaccination for a few months, but the vast majority of children will have received MMR vaccination by their second birthday.

Figure 2: Birth Cohort December 1998 vs December 1999



Vaccination Coverage Statistics for Children in Northern Ireland

The vaccination coverage statistics for Northern Ireland (COVER/Körner Programme) are now available for the fourth quarter of 2001. The statistics give detailed coverage data and numbers of children in the four Boards in Northern Ireland. The tables below show the coverage data for Northern Ireland and the United Kingdom as a whole by the first and second birthday.

Completed Primary Immunisations by 12 months and 24 months COVER/Körner: Data Northern Ireland (Oct – Dec 2001)

Board	No of children in cohort	% Coverage at 12 months							% Coverage at 24 months							
		Dip3	Tet3	Pol3	Pert3	Hib3	MMR	MenC	No of children in cohort	Dip3	Tet3	Pol3	Pert3	Hib3	MMR	MenC
Eastern	1915	92.6	92.6	92.4	92.3	93.1	0.2	93.0	1940	95.3	95.4	94.9	94.7	95.4	86.6	90.8
Northern	1306	95.7	95.7	95.3	95.0	95.6	0.0	95.6	1391	97.8	97.8	97.7	97.3	97.7	92.0	96.3
Southern	1077	96.4	96.4	95.6	95.6	96.5	0.1	96.6	1040	96.9	97.0	97.1	96.1	97.2	91.2	94.8
Western	995	95.6	95.6	95.5	95.0	95.5	0.0	95.6	1018	96.2	96.2	96.2	95.3	96.0	88.6	94.6
NI Total	5293	94.7	94.7	94.4	94.2	94.8	0.1	94.8	5389	96.4	96.5	96.3	95.8	96.5	89.3	93.7

With the exception of MMR which has remained stable, uptake rates for vaccines at 12 months have increased by between 0.3 and 0.9 percentage points compared with the previous quarter. Disappointingly, Dip3, Tet3, Pol3 and Hib3 uptake has decreased by 0.3 or 0.4 percentage points. Pert3 and MMR have remained steady at 95.8% and 89.3% respectively, but encouragingly, Men C coverage has increased by 9.6 percentage points to 93.7%.

Country	% Coverage at 12 months				% Coverage at 24 months				
	Dip3	Pert3	Hib3	MenC	Dip3	Pert3	Hib3	MenC	MMR
England	90.4	89.9	90.3	89.4	93.6	93.0	93.2	90.0	83.6
Wales	93.5	92.2	93.1	92.7	95.1	93.8	94.8	93.9	82.9
Scotland	94.7	94.2	94.6	94.4	97.3	96.6	97.2	96.0	86.6
UK	91.1	90.5	90.9	90.1	94.1	93.4	93.7	90.8	84.0

Vaccine Coverage at 5 years (Oct – Dec 2001)

Board	Dip3	Pert3	Hib3	Dip4	MMR1	MMR2	MenC
Eastern	97.2	95.3	96.5	84.4	95.6	79.7	85.1
Northern	98.6	97.4	98.2	93.2	96.8	90.2	94.3
Southern	98.5	96.4	98.1	91.0	98.1	89.0	94.9
Western	97.7	95.3	97.1	90.9	96.0	88.0	92.2

NI	97.9	96.0	97.3	89.1	96.5	85.6	90.6
England	94.3	93.1	93.5	79.7	91.1	73.6	82.3
Wales	94.9	92.3	94.4	83.4	89.7	71.6	86.1
Scotland	Not available						
England, Wales & NI	94.4	93.2	93.6	80.1	91.2	73.9	82.8

Compared with last quarter's data, only the uptake of Pert3 has fallen (by 0.3 percentage points), MMR remains steady, and uptake of all other vaccines have increased by between 0.1 and 0.8 percentage points. Coverage in Northern Ireland compares very favourably with the rest of the United Kingdom.

Salivary antibody testing

Salivary antibody testing of notified cases of measles, mumps and rubella infection offers a convenient, non-invasive and sensitive method of confirming the initial diagnosis in children. With continued misleading information concerning MMR vaccine and evidence, particularly from other parts of the UK, of falling vaccination uptake levels it is particularly important to be able to detect an increase in these infections. Consultants in Communicable Disease Control (CCDCs) routinely forward a salivary testing kit to each general practitioner notifying an individual with measles, mumps or rubella infection. The salivary samples are then posted to the Central Virus Laboratory in London for analysis.

Table 1 outlines the outcome of the salivary antibody testing programme in Northern Ireland during 2001. There were 698 notifications of measles, mumps and rubella. Salivary testing was

successfully completed on 240 (34%) individuals compared to 63% in 2000.

The salivary testing programme did not confirm any recent infections of

measles and rubella. This is an important finding in view of the decrease in MMR vaccination coverage. The confirmed cases of mumps reflect the end of the large outbreak which commenced in late 1999 and has been previously reported in the Monthly Report (Vol 9, Nos 8 & 12).

Thanks go to CCDCs, GPs and community nurses who participated in the salivary testing programme as it is an important part of surveillance of vaccine preventable infections.

Table 1: Salivary antibody testing results 2001

	Board	Notifications	Salivary test completed	Results		
				Immune	Recent Infection	Non-immune No recent infection
Measles	NHSSB	17	19	0	0	19
	SHSSB	17	13	0	0	13
	EHSSB	36	19	1	0	18
	WHSSB	26	18	0	0	18
	Total	96	69	1	0	68
Mumps	NHSSB	54	43	1	5	37
	SHSSB	12	7	0	0	7
	EHSSB	45	19	0	7	12
	WHSSB	426	61	1	28	32
	Total	537	130	2	40	88
Rubella	NHSSB	7	7	0	0	7
	SHSSB	23	17	0	0	17
	EHSSB	22	10	0	0	10
	WHSSB	13	7	0	0	7
	Total	65	41	0	0	41

Source: CDSC (Colindale)

Enhanced Surveillance of Meningococcal Disease

Between 1 January 2002 and 31 March 2002, a total of 39 cases of invasive meningococcal disease have been reported to CDSC(NI) through the enhanced surveillance of meningococcal disease (ESMD) scheme (see Tables 2 & 3). To date, 25 (64 %) of these have been laboratory confirmed and identified as serogroup B and 3 (8%) have been laboratory confirmed and identified as serogroup C. The remaining 11 (28%) await laboratory confirmation. Reports of serogroup B infection have increased by 25% compared with the same period last year.

During the same period of 2001, there were a total of 35 meningococcal disease notifications. Of these, 20 were identified as serogroup B infection, 2 as serogroup C infection, 1 as serogroup W135 infection and 4 as infection with other serogroups. Three deaths occurred between January and March 2001. One child under two years of age and one adult over 25 years of age died from laboratory confirmed serogroup B infection. The third, an adult over 25 years of age, died

from laboratory confirmed serogroup W135 infection.

During the month of March 2002, thirteen cases of invasive meningococcal disease have been notified through the ESMD scheme (see Table 4). Three of these (23%) have been laboratory confirmed as serogroup B infection and a further three have been laboratory confirmed as serogroup C infection. Seven cases are unconfirmed. There were no deaths reported during March. All three of the serogroup B

cases occurred in children less than two years old. Two of the serogroup C cases occurred in children aged 3-4 years old and the third in an adult aged 54. One of the children with serogroup C infection had been vaccinated against meningitis C at the age of 16 months. This is the first report in Northern Ireland of Group C infection in a previously vaccinated individual. The second child had no history of meningitis C vaccination. All of the confirmed serogroup B and serogroup C infections presented with septicaemia.

Table 2: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to March 2002

HSSB	Confirmed			Not confirmed	Total
	B	C	Other and ungrouped		
E	6	0	0	6	12
N	9	0	0	1	10
S	6	3	0	4	13
W	4	0	0	0	4
Total	25	3	0	11	39

Table 3: Meningococcal disease: case and death by age, Northern Ireland, January to March 2002

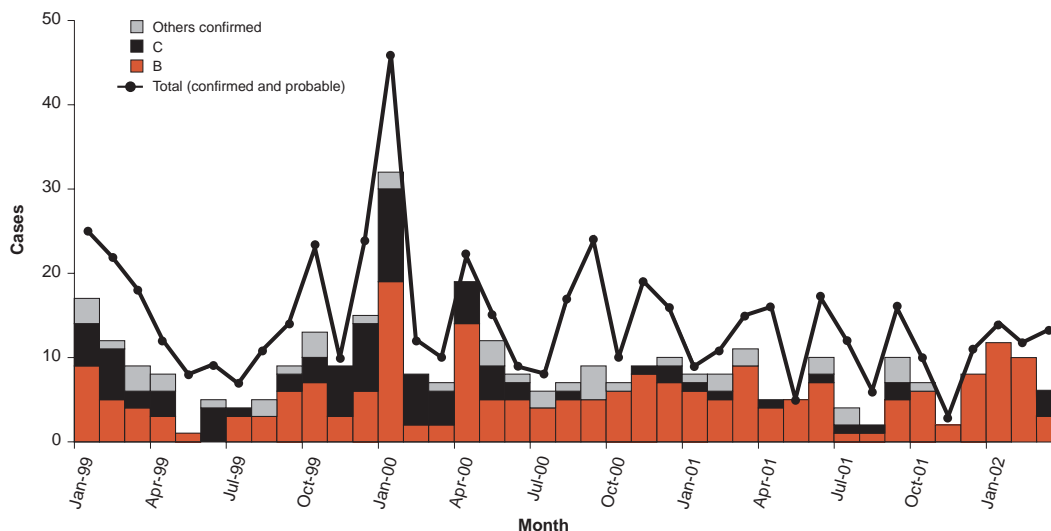
Age group	Confirmed			Not confirmed	Incidence per 100,000 population*	Death
	B	C	Other and ungrouped			
0-2	16	0	0	4	28.7	2
3-4	1	2	0	1	8.2	0
5-14	2	0	0	3	1.9	1
15-17	1	0	0	0	1.3	0
18-24	2	0	0	1	1.9	0
24	3	1	0	0	0.4	0
?	0	0	0	2		0
Total	25	3	13	11	2.3	3

*age-specific incidence rate

Table 4: Meningococcal disease: case and death by age, Northern Ireland, for March 2002

Age group	Confirmed			Not confirmed	Total	Death
	B	C	Other and ungrouped			
0-2	3	0	0	3	6	0
3-4	0	2	0	0	2	0
5-14	0	0	0	1	1	0
15-17	0	0	0	0	0	0
18-24	0	0	0	1	1	0
>24	0	1	0	0	1	0
?	0	0	0	2	2	0
Total	3	3	0	7	13	0

Figure 3: Monthly cases of meningococcal disease from January 1999 to March 2002



Secondary Case of Meningococcal Infection in a family who had previously received chemoprophylaxis

On 28 February a 3 year old boy (child X) was admitted to a hospital in the Southern Board's area with meningococcal meningitis. This was later confirmed to be group B meningococcal meningitis. All close family contacts were given rifampicin as chemoprophylaxis. The family had stayed with other relatives in the Western Board area within the preceding week. The WHSSB had organised chemoprophylaxis for the family contacts. The sister (child Y) of the index case developed skin rash after her first dose of rifampicin, so the child received ceftriaxone in the hospital.

On 7 April, some five weeks later, child Y was admitted to hospital with suspected meningococcal septicaemia. Group B was isolated from blood cultures. Once again, all the close family contacts were given chemoprophylaxis. Once again this family had visited their relations and had stayed in the Western Board area within the preceding week of the onset of the disease.

This is the first case of a cluster within the family setting after a five week period of post

chemoprophylaxis. There may be three explanations for this:

- An unidentified close contact in the Western Board or Southern Board areas.
- Child Y did not respond to chemoprophylaxis after the first case.
- High carriage rates within the community lead to recolonisation.

(contributed by Dr V Tohani, CCDC, Southern Health & Social Services Board)

Laboratory Reports

Comment:

There were two reports of *M. avium-intracellulare* during weeks 1-12 of 2002. One was isolated from lower respiratory tract and one from sputum. The patients were male aged 75 and female aged 64.

There were four reports of *M. tuberculosis* during this twelve week period. Two were isolated from sputum, one was from urine/

Mycobacteria: Laboratory Reports Weeks 01-12

	Number of Reports received			Cumulative total	
	02/01-04	02/05-08	02/09-12	02/01-12	01/01-12
<i>M. avium-intracellulare</i> group	1	1	0	2	2
<i>M. kansasii</i>	0	0	0	0	2
<i>M. tuberculosis</i>	2	2	0	4	9
Total	3	3	0	6	11

kidney and one was from lower respiratory tract. All four patients

were female aged between 41 and 74 years.

Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 09012

Salmonella (other than *enteritidis* or *typhimurium*):

S. brandenburg 1
S. sp 1
S. virchow 2

Comment:

The following were associated with foreign travel:

Male, 44 years, *S. brandenburg*, Tunisia; female, 29 years, *S. virchow*, Morocco.

Cumulative reports of salmonella to week 12 of 2002 have fallen sharply compared with the same period of 2001 (51% decrease). This marked reduction is due to the 88% decrease in cumulative reports of *Salmonella enteritidis*. Reports of cryptosporidium are also

	Number of Reports received		Cumulative total	
	02/09-12	01/09-12	02/01-12	01/01-12
<i>Campylobacter</i>	46	37	139	125
<i>C. difficile</i> Toxin	16	28	75	79
<i>C. perfringens</i>	1	0	5	0
<i>E. coli</i> 0157	0	0	0	1
<i>Salmonella</i> total	9	29	27	55
<i>S. enteritidis</i> (PT 4)	1	22 (17)	4 (1)	34 (27)
<i>S. typhimurium</i> (DT 104)	4	5	10 (2)	11 (3)
<i>Salmonella</i> other	4	2	13	10
<i>Shigella</i>	0	0	3	0
Cryptosporidium	15	41	19	74
<i>Giardia</i>	0	2	4	3
Adenovirus (faeces)	14	12	52	37
Enterovirus (faeces)	3	2	13	3
Rotavirus	26	50	53	75
SRSV	9	14	129	46

exhibiting a marked reduction (74%) compared with the same period last year.

Reports of campylobacter continue to rise and are currently showing an 11% increase on the first 12 week period of 2001.

Hepatitis: Laboratory Reports Weeks 01-12

	Number of Reports received			Cumulative total	
	02/01-04	02/05-08	02/09-12	02/01-12	01/01-12
Hepatitis A	0	1	3	4	0
Hepatitis B	1	4	2	7	2
Hepatitis C	5 (1)	2	1	8 (1)	8

The figure in brackets represents those reports for which an association with intravenous drug use was noted.

Comment:

Hepatitis A

There were four reports of Hepatitis A during weeks 1 - 12 of 2002.

Three were male aged between 23 and 42 years, and the other, aged 47, was of unknown sex.

Hepatitis B

There were seven reports of Hepatitis B during weeks 1-12. Five were female aged between 22 and 30 years and two were male aged 39 and 51.

Hepatitis C

There were 8 reports of Hepatitis C during this twelve week period. One was associated with intravenous drug use. Three were female aged between 48 and 52 years and five were male aged between 24 and 76 years.

Contributing Laboratories

Altnagelvin	Mater
Antrim	Musgrave Park
Belfast City	Regional Mycology
Belvoir Park	Regional Virus
Causeway	Royal Victoria
Craigavon	Tyrone County
Daisyhill	Ulster
Erne	

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Monthly numbers are provisional and should not be used to indicate trends.

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