COMMUNICABLE DISEASES

Monthly Report

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This issue focuses primarily on vaccine preventable infections. In the mumps outbreak the number of new reports has fallen in recent weeks though there are still 70-80 mumps notifications being received weekly. It is likely the summer school holidays will disrupt transmission of infection and a further decline in reports is expected.

There is good news on the vaccination front with the latest quarterly vaccination statistics showing that uptake of MMR vaccine among children by their second birthday has increased to 89.3% which is the highest MMR uptake for three years. Uptake of the other elements of the childhood vaccination programme remains high and is in excess of the DHSSPS target of 95%. These high vaccination uptake levels reflect extensive coordination and action by the DHSSPS, Boards, Trusts, primary care and others over many years resulting in Northern Ireland having vaccination uptake rates among the highest in the UK. It also reflects the strong public and parental support for the vaccination programme.

While we may be enjoying our summer, planning for the winter influenza programme is well advanced and the DHSSPS has issued guidance on the winter programme. New groups recommended for vaccination include those with chronic liver disease and those who are carers for elderly or disabled persons.

The Department has also issued for consultation a major strategic report on the prevention and control of healthcare associated infections (HCAI). This report brings together and builds on a number of recent initiatives and provides a very clear framework to prevent and limit HCAIs. A key component is the need to embed the prevention and control of HCAI into local accountability and governance arrangements in order that “protecting patients and staff from infection is everyone’s responsibility” .

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A strategy for the prevention and control of healthcare asscociated infections (HCAI) in Northern Ireland 2005-2010

The Northern Ireland Department of Health, Social Services and Public Safety (DHSSPS) has published a major strategic report to co-ordinate, underpin and enhance arrangements for the prevention and control of HCAI, particularly those associated with hospitals.

The report builds on a range of initiatives which had been undertaken in recent years in Northern Ireland and which have included: Controls Assurance Standards in Infection Control; the introduction of mandatory surveillance of MRSA bacteraemia, *C. difficile* and orthopaedic surgical site infection; and the development of infection control training materials. Development of the strategy involved evaluating current regional and Trust HCAI surveillance programmes and consultation with front line clinical staff, Trust medical directors, infection control teams, Consultants in Communicable Disease Control, Directors of Public Health and the Health and Social Services Councils who represent the interests of the public. The strategy was also informed by approaches taken by the other UK health departments and evidence of good practice from elsewhere.

Key Elements in the Strategy

- Infection prevention and control is recognised as everyone's business and cannot be the sole responsibility of the infection prevention and control team.
- The prevention and control of HCAI is to be embedded in Trust accountability and governance arrangements.
- Trusts will be required to produce an Annual Infection Reduction Plan, to be agreed with the Health and Social Services Board and submitted to the DHSSPS by the Trust Chief Executive. This will include evidence of progress over the past 12 months and contain measurable outcome targets reflecting the Trust's priorities.
- HCAI surveillance programmes are to be further developed and enhanced. To support this Trusts will designate a surveillance coordinator to liaise with divisional leads, link nurses, the infection prevention and control team and frontline clinical staff.
- Infection prevention and control training will be made mandatory for all Trust staff.
- The need for more effective public engagement is recognised with Trusts being required to demonstrate patient/public involvement in their HCAI reduction plans.

The strategy has been issued for a three month public consultation period and is available from the DHSSPS website (http://www.dhsspsni.gov.uk/publications/2005/prevention-of-HCAIs.pdf)

Influenza Immunisation Programme 2005/2006

The Department of Health, Social Services and Public Safety (DHSSPS) has issued details of the arrangements for the annual winter influenza immunisation programme. The uptake targets for Health and Social Services Boards remain unchanged from 04/05:

- 70% for those aged 65 years and over
- 60% for those under 65 years with at-risk medical conditions.

For the forthcoming winter two additional groups have been recommended to receive influenza immunisation. These are those with chronic liver disease and those who are the carer for an elderly or disabled person.

(reference: http://www.dhsspsni.gov.uk/publications/2005/HSSMD21-05.pdf)

Childhood Vaccine Preventable Illnesses and the Vaccination Programme

The mumps outbreak across Northern Ireland is beginning to show a downward trend. This edition of the Monthly Report presents statistics up to epidemiological week 26, 2005.

Routine surveillance data are otherwise unremarkable.

Vaccination uptake (COVER) statistics are now available for the quarter ended December 2004 and show MMR1 uptake at 24 months of age, at 89.3%; an increase of 1.6 percentage points on the previous quarter's figure.

Childhood Vaccine Preventable Diseases

Routine information on childhood vaccine preventable diseases is available from three sources:

1. *Clinical notifications*

Table 1: Notifications of Vaccine Preventable Infectious Diseases, Northern Ireland*

	Weeks 13-16, 2005	Weeks 17-20, 2005	Weeks 21-24, 2005	Culmulative Total to Week 24, 2005	Cumulative Total to Week 24, 2004
Diphtheria	0	0	0	0	0
Measles	2	3	6	32	50
Mumps	875	553	276	3,917	403
Polio	0	0	0	0	0
Rubella	4	6	1	20	25
Tetanus	0	0	0	0	0
Whooping Cough	2	2	2	14	12

*Data provisional

2. Laboratory reports

Table 2: Laboratory Reports of Vaccine Preventable Infectious Diseases*, Northern Ireland

Disease	Weeks 13-16, 2005	Weeks 17-20, 2005	Weeks 21-24, 2005	Culmulative Total to Week 24, 2005	Cumulative Total to Week 24, 2004
Diphtheria	0	0	0	0	0
Invasive Hib disease	0	2	0	3	2
Measles	0	0	0	0	0
Mumps**	72	40	23	275	54
Polio	0	0	0	0	3
Rubella**	1***	0	0	1	0
Tetanus	0	0	0	0	0
Whooping Cough	0	0	0	1	2

* Data provisional

** Serologically confirmed by RVL and separate from the salivary antibody testing surveillance programme

*** Post vaccination

The Hib cases were aged 5 months to 2 years

The single rubella case was aged 1 year

The single pertussis case was aged 1 year

3. Salivary antibody testing

Report of the salivary antibody testing programme in Northern Ireland, Quarter 2, 2005:

- Salivary testing completed on 19% (325/1682) notifications of measles, mumps and rubella
- 222 cases of mumps confirmed
- No cases of rubella confirmed
- No cases of measles confirmed

Table 3: Salivary Antibody Testing Results, 2004, Northern Ireland*

	Board	Notifications	Salivary test completed	Confirmed Case	Not Confirmed
Measles	NHSSB	3	5	0	5
	SHSSB	4	6	0	6
	EHSSB	3	1	0	1
	WHSSB	2	1	0	1
	Total	**12**	**13**	**0**	**13**
Mumps	NHSSB	282	99	69	30
	SHSSB	426	88	67	21
	EHSSB	756	76	46	30
	WHSSB	218	62	40	22
	Total	**1682**	**325****	**222**	**103**
Rubella	NHSSB	0	0	0	0
	SHSSB	8	5	0	5
	EHSSB	3	0	0	0
	WHSSB	1	1	0	1
	Total	**12**	**6**	**0**	**6**

*Data Provisional

Source: CDSC (Colindale), CDSC (NI)

** In recognition of the increasing pressures on the reference laboratory, CsCDC and primary care teams arising from the mumps outbreak, salivary antibody testing is now limited to those cases born after 1989. Mumps notifications born between 1982 and 1991 are likely to indicate mumps infection (see Monthly Report Volume 14, No 3). Focusing the salivary antibody testing programme on cases born from 1990 onwards will enable early detection of increased transmission in other age groups.

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 of falling vaccination uptake levels it is particularly important to be able to detect an increase in these infections. Consultants in Communicable Disease Control (CsCDC) 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.

Thanks go to CsCDC, GPs and community nurses who participated in the salivary testing programme.

Mumps Outbreak

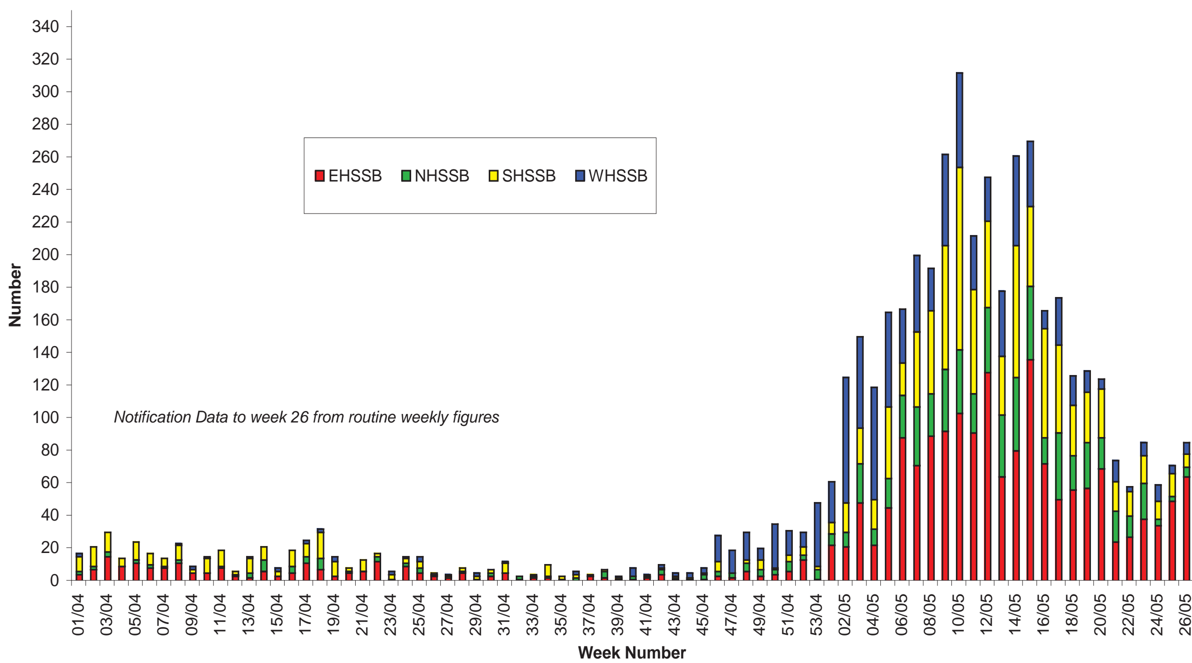
Summary points at week 26, 2005:

- 4,073 mumps notifications were received to week 26 in 2005, compared with 423 for the same period in 2004
- 776 laboratory confirmed cases of mumps have been received to week 26, 2005, compared with 187 for the same period in 2004

Outbreak description

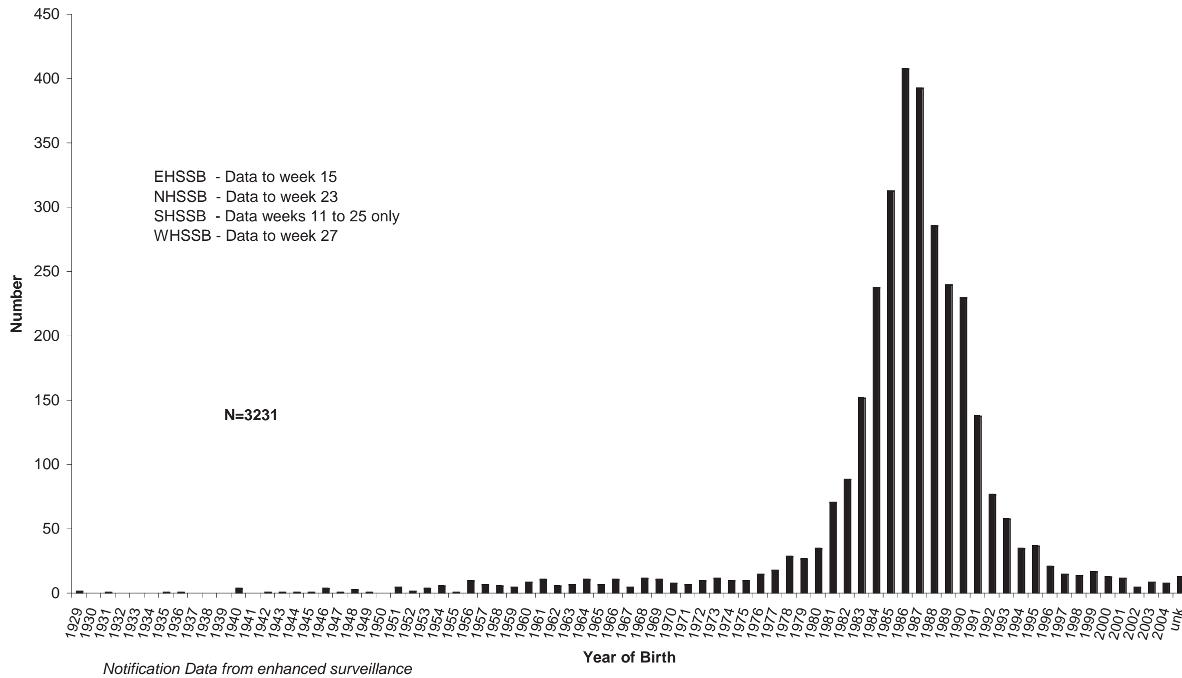
Notifications are beginning to exhibit a downward trend following a peak in March/April. Weekly notifications have fallen from 250 - 260 to 70 - 80. This is likely to reflect increased MMR vaccination in the 'at risk' groups undertaken in the Spring. The MMR vaccination uptake is not yet available.

Figure 1: Provisional Notifications of Mumps, by Board and Week Number, 2004 - 2005, Northern Ireland



The birth year cohort 1982-1991 remains the most severely affected accounting for 77% (2487/3231) of all notifications on whom this information is available.

Figure 2: Provisional Notifications of Mumps by Year of Birth, 2005, Northern Ireland

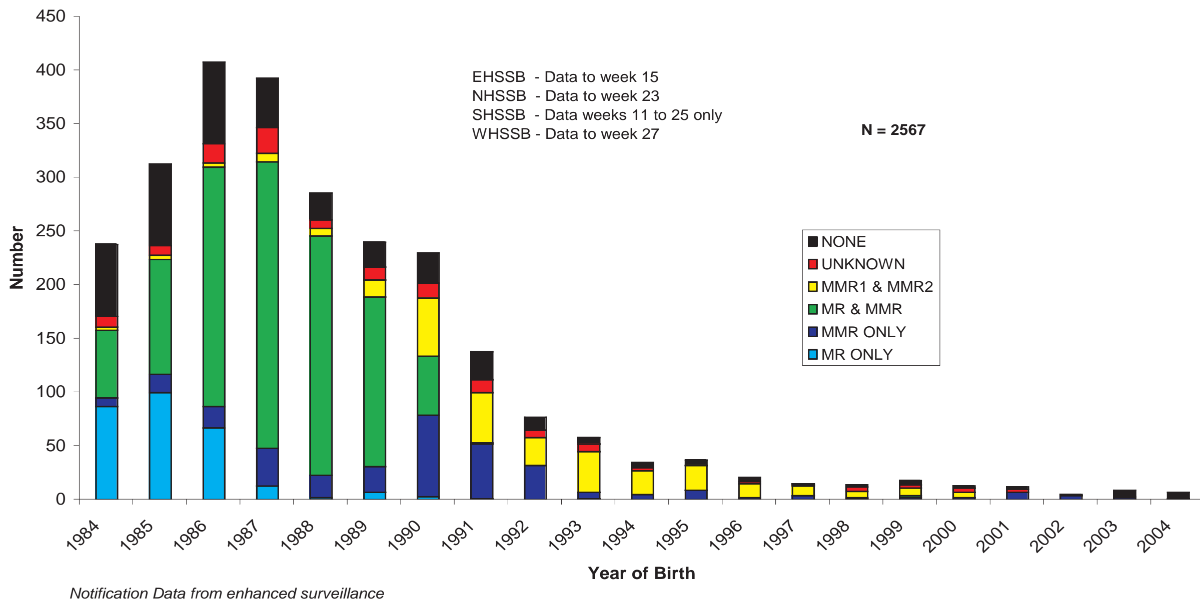


Vaccination status detail is available for 94% (2425/2567) of notifications born after 1983. Data continue to emphasise the need for two doses of mumps-containing vaccine.

6% (143/2246) of cases born 1984-1991 have had two doses of mumps-containing vaccine, with 60% having one dose and 29% having no doses.

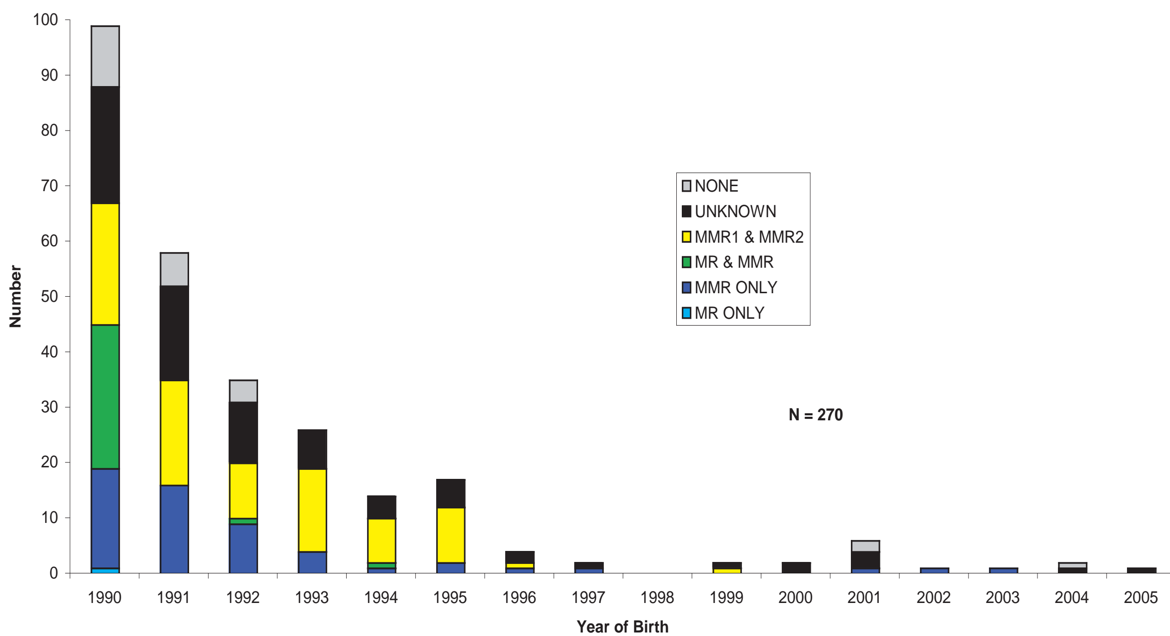
In those born after 1991 the proportion of cases with two doses of mumps-containing vaccine increases to 46% (149/321). This is likely to reflect that the majority of those exposed to mumps in this age group will have had two MMR doses; as opposed to poor vaccine efficacy per se.

Figure 3: Provisional Mumps Notifications by Year of Birth (1984 and Younger) and Vaccination Status, 2005, Northern Ireland



Laboratory testing remains an important check on the validity of notifications in those born after 1991. A provisional analysis of vaccination status in laboratory confirmed cases is presented below.

Figure 4: Provisional Mumps Laboratory Reports (RVL & Salivary Ab) by Year of Birth (1990 and Younger) and Vaccination Status, 2005, Northern Ireland



Vaccination Coverage Statistics for Children in Northern Ireland

COVER/Korner statistics now available for quarter January to March 2005:

- **MMR uptake at 24 months increases by 1.6 percentage point to 89.3%**
- **All uptake rates at 12 months and 5 years showing rise**

The vaccination coverage statistics for Northern Ireland (COVER/Korner Programme) are now available for the first quarter of 2005. 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 the children in the four Boards in Northern Ireland and the United Kingdom as a whole.

Table 4: Completed Primary Immunisations by 12 months of age (January - March 2005), Northern Ireland

Board	% Coverage at 12 months							
	No of children in cohort	Dip3	Tet3	Pol3	Pert3	Hib3	MMR	MenC
Eastern	1942	93.4%	93.40%	93.40%	93.3%	93.7%	0.2%	94.1%
Northern	1359	96.5%	96.50%	96.20%	96.4%	96.4%	0.0%	96.3%
Southern	1079	96.2%	96.20%	96.20%	96.2%	96.4%	0.1%	96.8%
Western	930	97.6%	97.60%	97.10%	97.5%	97.4%	0.1%	97.3%
NI Total	5310	95.5%	95.50%	95.30%	95.4%	95.6%	0.1%	95.8%

- Uptake of all vaccines increase from 0.7 percentage points to 1.1 percentage points compared to the last quarter
- Vaccination uptake for all antigens except MMR1 >95.0%

Table 5: Completed Primary Immunisations by 24 months of age (January - March 2005), Northern Ireland

Board	No of children in cohort	% Coverage at 24 months						
		Dip3	Tet3	Pol3	Pert3	Hib3	MMR	MenC
Eastern	1792	95.9%	95.90%	95.60%	95.4%	96.0%	86.9%	96.2%
Northern	1261	96.9%	96.90%	96.60%	96.6%	97.0%	90.2%	97.2%
Southern	1057	97.6%	97.60%	97.40%	97.4%	97.6%	90.9%	98.1%
Western	907	97.4%	97.20%	97.10%	96.8%	97.4%	90.6%	97.5%
NI Total	5017	96.8%	96.80%	96.50%	96.4%	96.9%	89.3%	97.1%

- MMR increases by 1.6 percentage points to 89.3%. This is the highest level since April – June 2002
- Pert3 increases by 0.1 percentage points
- Dip3, Tet3, Pol3, Hib3 and MenC decrease by 0.2 to 0.6 percentage points but all in excess of the DHSSPS target of 95.0%

Table 6: Completed Primary Immunisations by 12 and 24 months of age (January - March 2005), UK

Country	% Coverage at 12 months				% Coverage at 24 months				
	Dip3	Pert3	Hib3	MenC	Dip3	Pert3	Hib3	MenC	MMR
England	90.2%	90.1%	90.0%	89.9%	93.2%	92.8%	92.9%	92.5%	80.8%
Wales	94.3%	93.9%	94.0%	93.9%	96.1%	95.2%	95.8%	95.8%	82.3%
Scotland	95.1%	94.9%	94.7%	93.8%	97.4%	97.1%	96.7%	96.4%	88.4%
UK	91.0%	90.8%	90.8%	90.6%	93.8%	93.4%	93.5%	93.1%	81.7%

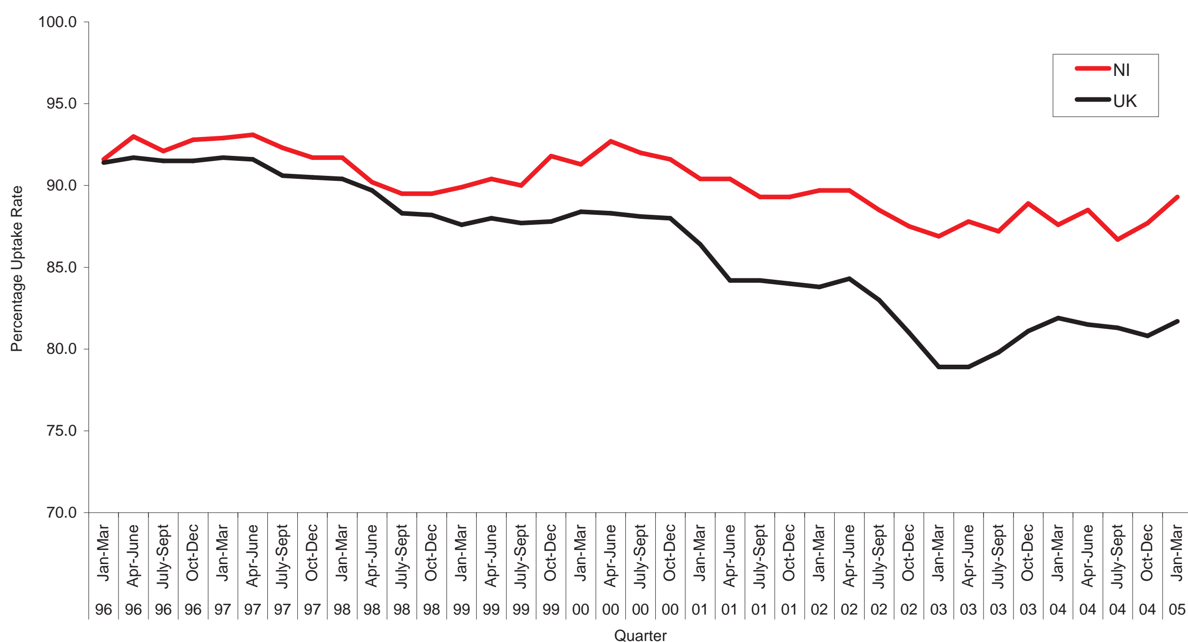
- Northern Ireland has the highest MMR1 uptake in the UK

Table 7: Vaccine Coverage at 5 years (January - March 2005), Northern Ireland

Board	Dip3	Pert3	Hib3	Dip4	MMR1	MMR2	MenC
Eastern	97.1%	96.6%	96.2%	85.4%	94.3%	82.9%	94.6%
Northern	97.9%	97.5%	97.2%	91.2%	96.2%	88.6%	96.8%
Southern	98.0%	97.5%	97.1%	88.9%	97.1%	86.7%	95.6%
Western	98.5%	97.8%	97.9%	90.9%	96.5%	87.3%	92.1%
NI	97.7%	97.2%	96.9%	88.6%	95.7%	85.9%	94.9%
England	93.8%	93.1%	93.2%	79.1%	88.6%	73.9%	91.5%
Wales	95.4%	94.0%	95.2%	83.6%	88.4%	75.0%	94.7%
Scotland	Not Available						
England, Wales & NI	94.1%	93.3%	93.5%	79.7%	88.8%	74.4%	91.8%

- Uptake of all vaccines increase from 0.2 to 1.3 percentage points

Figure 5: MMR Vaccination Uptake Rate at 24 Months, NI & UK 1996 - 2005



For your diary - a one day regional conference

“The changing face of tuberculosis in Northern Ireland:Current issues and future problems”

Wednesday 23 November 2005

Park Avenue Hotel, Belfast

Speakers include -

Prof. P Ormerod, Blackburn Royal Infirmary
Dr P Monk, CCDC, Leicester
Dr K Butler, Consultant on Paediatric Infectious Diseases, Dublin
Dr I Abubakar, Consultant Epidemiologist, HPA Colindale
Dr D Shingadia, Senior Lecturer in Paediatric Infectious Diseases, London

For further information email cdscni@hpa.org.uk

Registration details available in September

Foodborne and Gastrointestinal Tract Infections: Laboratory Reports, Weeks 21-24

	Number of Reports received		Cumulative total	
	05/21-24	04/21-24	05/01-24	04/01-24
Campylobacter	91	97	341	365
C. difficile Toxin	91	98	737	666
C. perfringens	2	1	10	6
E. coli O 157	7	1	13	6
Salmonella total	10	8	55	35
S. enteritidis (PT 4)	6	6	19 (2)	18 (3)
S. typhimurium (DT 104)	2	1	11 (1)	5
Salmonella other	2	1	25	12
Shigella	0	0	1	3
Cryptosporidium	9	15	81	87
Giardia	2	1	10	8
Adenovirus (faeces)	11	13	91	78
Enterovirus (faeces)	1	1	9	5
Rotavirus	68	92	347	353
Norovirus	7	13	183	57

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

S. infantis 1
S. sp 1

Comment:

The following were associated with foreign travel:

Male, age 38 years, *Campylobacter* sp, Turkey; male, age 55 years, *Campylobacter* sp, Spain.

Reports of gastrointestinal infections are showing an increase compared with the same period last year. This is despite delays in laboratory reporting. Reports of *C. difficile* Toxin, *C. perfringens* and *Salmonella* have increased by 11%, 67% and 57% respectively.

Laboratory confirmed cases of *E Coli* O 157 have doubled with 13 cases reported compared to 6 reported during the same period in 2004. Seven were asscociated with an investigation in a school (2 school children and 5 family members).

There have been 10 reported cases of *Giardia* to week 24, 2005, 3 of which were acquired abroad. This compares with 8 reports to week 24, 2004, with only one acquired abroad.

Reports of Norovirus continue to rise.

Reports of *Campylobacter* and *Cryptosporidium* have both declined by 7%; Reports of Rotavirus have slightly decreased compared with the same period last year.

Respiratory Tract Infections: Laboratory Reports, Weeks 09-24

	Number of Reports received				Cumulative Total	
	05/09-12	05/13-16	05/17-20	05/21-24	05/01-08	04/01-08
Coxiella burnetii	1	0	3	1	5	5
Mycoplasma pneumoniae	0	0	2	1	3	8
Respiratory *Chlamydia*	1	1	0	0	3	4
Adenovirus (excluding faeces)	43	14	18	9	107	52
RSV	23	9	2	0	247	284

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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