

COMMUNICABLE DISEASES

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This edition marks the start of the normal influenza reporting period and there is a description of the surveillance arrangements for this winter. In October it is impossible to predict when influenza will begin to circulate later in the winter and how much morbidity it might cause – hence the need for a surveillance programme to alert key stakeholders.

The major theme of this issue is vaccine preventable infections and uptake rates from the childhood vaccination programme. Again there is very good news with MMR uptake increasing to 92.2% - its highest level since April/June 2000. Vaccination uptake rates in Northern Ireland are among the highest in the UK. This reflects considerable work of primary and community care staff, supported by public health colleagues, working with parents. High levels of MMR coverage are important with increasing numbers of confirmed measles cases reported in England mainly among unvaccinated groups particularly the travelling community. There have been no recent confirmed cases of measles locally.

Lastly we need your help. The printed version of the *Monthly Report* was discontinued in 2004 partly because of costs but also to improve the timeliness of publication by minimising time taken by design and printing. Since then the format has changed and we wish to ensure it continues to meet the needs of a diverse readership. We would therefore appreciate if readers could take a few minutes to complete a short survey seeking your views on the format and content. Completed forms can either be posted, faxed or emailed to Julie Boucher as detailed on the survey. A short summary of the analysis will be available in due course.

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Enhanced surveillance of influenza in Northern Ireland (ESINI)

Week 40 (early October) marks the start of the traditional influenza surveillance reporting period in Europe and continues to week 20 next year (mid May). This October marks the eighth year of ESINI. Last season was associated with the highest recorded rates of 'flu/flu-like illness since ESINI started in autumn 2000 with peak morbidity in January and February. This was primarily due to influenza A H3 with no influenza B virus reported. Further details of influenza last season can be obtained from <http://www.cdscni.org.uk/publications/AnnualReports/pdf/0607ESINIsummary.pdf>

The main objectives of this surveillance programme are to:

- provide an early warning scheme for influenza virus circulation in Northern Ireland;
- identify those age groups most affected and;
- identify circulating influenza virus and its matching to the seasonal influenza vaccine.

The scheme involves the weekly compilation of data from sentinel GP practices, Out-of-Hours Centres (formerly Co-Operatives), the Regional Virus Laboratory and the Northern Ireland Statistics and Research Agency.

This season an extra five sentinel practices have been recruited. There are now twenty seven practices participating covering 8.7% of the Northern Ireland population. These are not uniformly spread throughout Northern Ireland as the majority are in the east of the Province. Twenty practices have agreed to take nasal and oro-pharyngeal swabs from patients presenting with clinical influenza. The Regional Virus Laboratory will analyse these samples using PCR techniques for influenza A, B and RSV.

Morbidity information from sentinel GPs is supplemented by call rate data from the Out-of-Hours (OOH) primary care centres. Previously this data related to all calls and it was not possible to extract details of calls due to influenza/flu-like illness. New software is currently being installed in the OOH centres and it will therefore be possible later this winter to extract 'flu/flu-like illness calls and calculate age specific call rates.

Mortality data is provided by the Northern Ireland Statistics and Research Agency. The data includes total deaths registered by week and the proportion due to bronchitis, bronchiolitis, influenza and pneumonia. The reporting period for the registered deaths is the same as that for reported consultations in primary care.

All this information is collated and published in a flu bulletin. When respiratory indices are quiet the bulletin will be published every two weeks but weekly (Wednesday) when influenza starts to circulate. Surveillance continues throughout the year but a bulletin is only produced during the influenza reporting period as defined earlier. The bulletin compares this season's trends with those from previous years and contains a short summary of influenza activity in GB, Ireland and Europe with related web links. In addition to data providers the bulletin is distributed to the Department of Health, Social Services and Public Safety, Health and Social Services Boards and Trusts to enable them to take appropriate action once influenza starts to circulate in Northern Ireland. Should you wish to be on the mailing list to be alerted when the bulletin is available on the CDSC (NI) website please contact Eileen Morelli at 028 9026 3386 or E-mail at eileen.morelli@hpa.org.uk.

Improving the detection and diagnosis of HIV in non-HIV specialties including primary care

A recent DHSSPS letter HSS (MD) 23/2007 issued to all doctors and nurses in Northern Ireland has highlighted best practice in offering and recommending HIV testing in all healthcare settings, not just those traditionally offering the service.

This follows an audit by the British HIV Association of deaths in HIV infected adults which reported that late diagnoses accounted for at least 35% of HIV related deaths; and that a significant proportion of those diagnosed late had been in contact with healthcare professionals in the preceding year with symptoms which in retrospect were likely to be related to HIV.

The letter reminds doctors and nurses of the main risk factors for acquisition of HIV, the fact that patients with HIV may present across a range of clinical areas and seeks to dispel professional concerns around the HIV testing process.

Childhood vaccine preventable illnesses and the vaccination programme

This edition of the *Monthly Report* presents statistics on childhood vaccine preventable diseases up to epidemiological week 36, 2007.

Routine surveillance data are unremarkable. Mumps notifications continue at just above baseline levels.

Vaccination uptake (COVER) statistics are now available for the quarter ended June 2007 and show MMR1 uptake at 24 months of age, at 92.20%; an increase of 0.6 percentage points compared to 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

Disease	Weeks 25-28, 2007	Weeks 29-32, 2007	Weeks 33-36, 2007	Cumulative total to Week 36 2007	Cumulative total to Week 36, 2006
Diphtheria	0	0	0	0	0
Measles	2	3	3	22	42
Mumps	9	10	7	105	166
Polio	0	0	0	0	0
Rubella	2	1	2	19	24
Tetanus	0	0	0	0	0
Whooping Cough	0	1	0	9	17

2. Laboratory reports

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

Disease	Weeks 25-28, 2007	Weeks 29-32, 2007	Weeks 33-36, 2007	Cumulative total to Week 36, 2007	Cumulative total to Week 36, 2006
Diphtheria	0	0	0	0	0
Invasive Hib disease†	0	0	0	0	0
Measles	0	0	0	0	0
Mumps*	0	0	0	8	18
Polio	0	0	0	0	0
Rubella	0	0	0	0	3
Tetanus	0	0	0	0	0
Whooping Cough	0	0	0	0	0

* serologically confirmed by RVL

† invasive disease due to all types of *H. Influenzae* (including untyped) is reported in the regular Positive Blood Culture tables

Note: Invasive disease due to *N. meningitides* and *S. pneumoniae* are reported as separate epidemiological reports

3. Salivary Antibody Testing Results

Table 3: Salivary Antibody Testing Results, Quarter 3, 2007, Northern Ireland

	Board	Quarter 3, 2007				Cumulative to Quarter 3, 2007			
		Notifications*	Salivary test completed†	Confirmed Case	Not Confirmed	Notifications*	Salivary test completed†	Confirmed Case	Not Confirmed
Measles	NHSSB	2	2	0	2	4	6	0	6
	SHSSB	2	1	0	1	6	3	0	3
	EHSSB	3	1	0	1	6	4	0	4
	WHSSB	1	1	0	1	6	5	0	5
	Total	8	5	0	5	22	18	0	18
Mumps	NHSSB	9	5	0	5	44	30	0	30
	SHSSB	2	2	0	2	15	11	0	11
	EHSSB	13	6	1	5	33	15	4	11
	WHSSB	8	4	0	4	23	15	0	15
	Total	32	17	1	16	115	71	4	67
Rubella	NHSSB	1	1	0	1	3	5	0	5
	SHSSB	4	1	0	1	14	6	0	6
	EHSSB	0	0	0	0	2	1	0	1
	WHSSB	2	0	0	0	4	1	0	1
	Total	7	2	0	2	23	13	0	13

Source: CfI (Colindale),
CDSC (NI)

* Notification data to week 39

† Salivary tests may sometimes be performed without the case being notified

- One cases of mumps confirmed
- No cases of measles confirmed
- No cases of rubella confirmed

Vaccination coverage statistics for children in Northern Ireland

COVER/Korner statistics now available for quarter April to June 2007:

- **MMR uptake at 24 months increases to 92.20%**
- **Uptake of other vaccinations at 24 months remains above 95%.**

The vaccination coverage statistics for Northern Ireland (COVER/Korner Programme) are now available for the second quarter of 2007. 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 (April – June 2007), Northern Ireland

Board	% Coverage at 12 months						
	No of children in cohort	Dip3	Tet3	Pol3	Pert3	Hib3	MenC
Eastern	2070	93.30%	93.30%	93.30%	93.30%	93.30%	83.40%
Northern	1443	95.60%	95.60%	95.60%	95.60%	95.60%	90.50%
Southern	1306	96.50%	96.50%	96.50%	96.50%	96.50%	92.50%
Western	970	95.60%	95.60%	95.60%	95.60%	95.60%	90.10%
NI Total	5789	95.00%	95.00%	95.00%	95.00%	95.00%	88.40%

- Uptake of most primary vaccines at 12 months have decreased by 1.3 percentage points and remain at 95% or above. MenC has decreased by 7.4 percentage points to 88.4%. MenC coverage for this cohort has been under estimated due to Child Health Systems following the previous MenC schedule and hence identifying children as incompletely vaccinated. True coverage is likely to be similar to DTaP/IPV/Hib at the same age.

Table 5: Completed Primary Immunisations by 24 months of age (April – June 2007), Northern Ireland

Board	% Coverage at 24 months							
	No of children in cohort	Dip3	Tet3	Pol3	Pert3	Hib3	MMR	MenC
Eastern	2026	96.60%	96.60%	96.60%	96.60%	96.60%	90.70%	96.70%
Northern	1416	97.50%	97.50%	97.50%	97.50%	97.50%	91.80%	97.20%
Southern	1181	98.90%	98.90%	98.90%	98.90%	98.90%	94.00%	98.40%
Western	983	99.00%	99.00%	99.00%	99.00%	99.00%	93.60%	98.80%
NI Total	5606	97.70%	97.70%	97.70%	97.70%	97.70%	92.20%	97.60%

- Uptake of MMR1 has increased by 0.6 percentage points compared to last quarter
- All other vaccinations remain the same or show an increase of 0.1 percentage points
- With the exception of MMR1, uptake remains at 95% or above

Fig 1: Vaccination uptake rates at 24 months Northern Ireland: 1996 – 2007

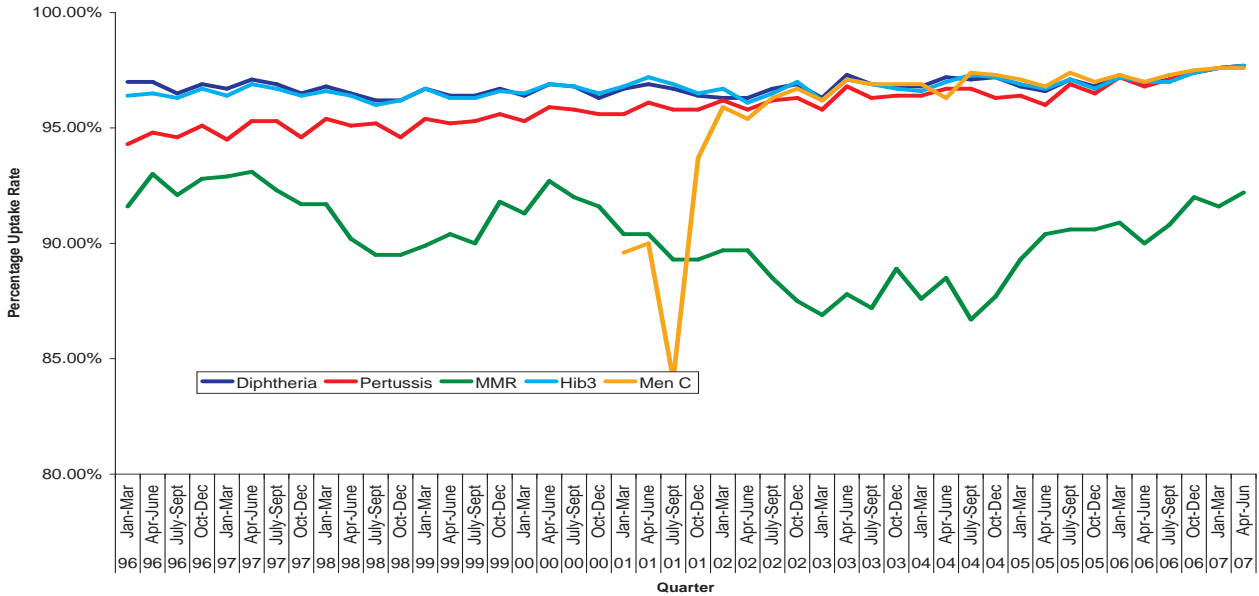


Table 6: Completed Primary Immunisations by 12 and 24 months of age (April – June 2007), UK

Country	% Coverage at 12 months				% Coverage at 24 months				
	Dip3	Pert3	Hib3	MenC	Dip3	Pert3	Hib3	MenC	MMR
England	90.10%	90.10%	90.10%	84.10%	93.00%	93.00%	93.00%	92.90%	84.60%
Scotland	96.40%	96.40%	96.40%	97.20%	97.80%	97.80%	97.80%	97.30%	92.30%
Wales	95.10%	95.10%	95.10%	92.60%	96.80%	96.80%	96.80%	95.50%	88.20%
UK	91.00%	91.00%	91.00%	85.70%	93.70%	93.70%	93.70%	93.50%	85.60%

Table 7: Vaccine Coverage at 5 years (April – June 2007), Northern Ireland and UK

Board	Dip3	Pert3	Hib3	Dip4	MMR1	MMR2	MenC
Eastern	96.10%	96.10%	95.20%	81.60%	94.10%	83.50%	95.10%
Northern	97.80%	97.80%	97.20%	88.00%	95.50%	87.60%	97.30%
Southern	97.40%	97.40%	95.90%	81.90%	94.50%	83.40%	95.60%
Western	98.60%	98.60%	97.50%	91.60%	96.00%	89.50%	96.50%
NI	97.30%	97.30%	96.30%	85.10%	94.90%	85.60%	96.00%
England	92.90%	92.90%	92.20%	78.50%	86.90%	73.50%	92.00%
Wales	95.20%	95.20%	94.80%	85.10%	88.40%	77.50%	93.00%
Scotland	98.40%	98.40%	97.20%	82.60%	94.40%	79.00%	97.80%
UK	93.60%	93.60%	92.90%	79.30%	87.80%	74.50%	92.60%

- Uptake of Dip3, Pert3, Hib3 and MenC show an increase of between 0.1 – 0.5 percentage points
- Uptake of MMR1 and MMR2 has decreased by 0.1 and 0.9 percentage points respectively.
- Uptake of Dip4 has decreased by 3.5 percentage points.

Foodborne and Gastrointestinal Tract Infections: Laboratory reports, Weeks 33-36

	Number of Reports received		Cumulative total	
	07/33-36	06/33-36	07/01-36	06/01-36
<i>Campylobacter</i>	100	85	629	645
<i>C. difficile</i> Toxin	92	114	860	1081
<i>C. perfringens</i>	2	1	10	20
<i>E. coli</i> O 157	7	14	33	35
<i>Salmonella</i> total	21	43	115	153
<i>S. enteritidis</i> (PT 4)	3 (0)	26 (5)	34 (1)	70 (9)
<i>S. typhimurium</i> (DT 104)	2 (0)	4 (1)	21 (0)	34 (5)
<i>Salmonella</i> other	16	13	60	49
<i>Shigella</i>	0	1	13	7
<i>Cryptosporidium</i>	7	19	73	107
<i>Giardia</i>	0	1	3	12
Adenovirus (faeces)	10	6	76	153
Enterovirus (faeces)	9	0	24	3
Rotavirus	4	4	351	411
Norovirus	6	8	260	310

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

<i>S. spp</i>	6
<i>S. adelaide</i>	2
<i>S. infantis</i>	1
<i>S. kentucky</i>	1
<i>S. panama</i>	2
<i>S. pensacola</i>	1
<i>S. unnamed</i>	1

Comment:

The following were associated with foreign travel:

Female, age 46 years, *Campylobacter sp*, Spain

Male, aged 18 years, *Campylobacter sp*, Thailand

Male, aged 32 year, *Campylobacter sp*, ROI

Male, aged 20 years, *Campylobacter sp*, Spain

Male, age 10 years, *Cryptosporidium*, Italy

Male, aged 55 years, *Salmonella sp*, Malta

Male, aged 14 years, *Salmonella enteritidis*, Portugal

With the exception of *Salmonella*, *Shigella* and *Enterovirus* cumulative reports of all foodborne and gastrointestinal tract infections to week 36 have shown a decrease compared with same period last year.

Respiratory Tract Infections: Laboratory reports, Weeks 25-36

	Number of Reports received			Cumulative Total	
	07/25-28	07/2-29-32	07/33-36	07/01-36	06/01-36
<i>Coxiella burnetii</i>	1	0	0	4	12
<i>Mycoplasma pneumoniae</i>	0	0	0	5	58
Respiratory <i>Chlamydia</i>	0	1	0	10	42
<i>Adenovirus</i> (excluding faeces)	1	1	2	21	50
RSV	1	1	1	178	511

Mycobacteria: Laboratory reports, Weeks 25-36

	Number of Reports received			Cumulative total	
	07/25-28	07/29-32	07/33-36	07/01-36	06/01-36
<i>M. abscessus</i>	1	1	0	3	2
<i>M. avium-intracellulare</i> group	4	5	2	22	21
<i>M. bovis</i>	0	0	0	0	1
<i>M. celatum</i>	0	0	0	0	0
<i>M. chelonae</i>	0	1	0	7	3
<i>M. fortuitum</i>	0	0	1	2	1
<i>M. gordonae</i>	0	3	2	13	18
<i>M. kansasii</i>	0	1	0	3	4
<i>M. malmoense</i>	1	0	0	6	2
<i>M. peregrinum</i>	0	0	0	0	0
<i>M. septicum</i>	0	0	0	0	0
<i>M. simiae</i>	0	0	0	0	0
<i>M. sp</i>	0	0	0	1	0
<i>M. terrae</i>	0	0	0	0	0
<i>M. tuberculosis</i>	1	6	2	39	25
<i>M. xenopi</i>	1	0	0	1	0
TOTAL	8	17	7	97	77

Two cases of *M. abscessus* were reported for this period. One case was isolated from gastric washings, male, aged 17 years. Second case isolated from sputum, female, aged 35 years.

Eleven cases of *M. avium-intracellulare* were reported in total. Nine were isolated from sputum, one from urine and one from lower respiratory tract. Seven cases were male, aged between 27 and 74 years. Four cases were female, aged between 30 years and 80 years.

There was one case of *M. chelonae* isolated from sputum during this reporting period. The case was male, aged 72 years.

There was one case of *M. fortuitum* isolated from sputum. The case was male, aged 70 years.

There were five cases of *M. gordonae* during this twelve-week reporting period. Three cases were male, aged between 72 and 78 years. Two were isolated from bronchial samples and one was isolated from sputum. Two cases were female, aged between 48 and 63 years. One case was isolated from urine and the second from lower respiratory tract.

One case of *M. malmoense* was isolated from bronchial samples. The case was male, aged 57 years.

One case of *M. kansasii* was isolated from sputum. The case was male, aged 68 years.

Nine cases of *M. tuberculosis* were reported during this reporting period. Seven cases were male, aged between 1 and 87 years; two cases were female, aged between 39 and 76 years. Two cases were isolated from sputum, two from pus (source unknown), two from bronchial samples, one from tissue, one from skin/wound and one from lower respiratory tract.

One case of *M. xenopi* was isolated from sputum. The case was male, aged 53 years.

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