



# Enhanced Surveillance of Influenza in Northern Ireland (ESINI)

Enhanced surveillance of influenza in Northern Ireland (ESINI) for the 2003-2004 season commenced on 27 September 2003 (Week 40). This is now the fourth year of the scheme and twenty-three Sentinel GP Practices have agreed to participate during the 2003-2004 season. These twenty-three practices are situated throughout the Province (twelve from EHSSB, four from NHSSB, five from SHSSB and two from WHSSB). Together they account for 143,352 persons, approximately 8.5% of the population. In addition, during the summer months (Week 21 - Week 39 of 2003 inclusive), the majority of sentinel GPs undertook to continue supplying consultation data to CDSC (NI). This commitment to the scheme was much appreciated and will help to establish future Northern Ireland baseline levels for both 'flu and 'flu-like illness.

Five out-of-hours medical co-operatives (Co-Ops) have also agreed to supply data for ESINI during the 2003-04 season. This information is in the form of total calls received by each Co-Op per week and includes a breakdown of those calls by age and sex. These Co-Ops cover 1,236,428 persons (73% of the population) in the majority of areas in the Province. It is hoped that, with time, introduction of coding will allow an estimate of the number of calls attributable to respiratory illness.

Enhanced influenza surveillance has taken place in England, Scotland, and Wales and the Republic of Ireland through a network of spotter practices for several years. In Northern Ireland, the ESINI scheme is funded by the Department of Health, Social Services and Public Safety (DHSSPS). It is operated jointly by the Communicable Disease Surveillance Centre (CDSC) NI, the Data Retrieval in General Practice (DRGP) programme, the Regional Virus Laboratory (RVL) and a system of spotter practices. The majority of ESINI spotter

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practices record patient consultation information electronically, using software systems designed specifically for use in General Practice. At the end of each week, records are searched using the appropriate disease codes for influenza and 'flu-like illness and consultation figures are broken down by age and sex. The data from each practice is forwarded to CDSC NI where it is then collated and published in the form of a bulletin every 1-2 weeks, depending upon influenza activity at the time. Each current bulletin is available to download at <http://www.cdscni.org.uk>. A summary of the 2002-03 season may also be downloaded from the same site.

In April 2002, Northern Ireland was admitted to the European influenza surveillance scheme (EISS) as an associate member. In addition to the local bulletin, NI data will also be supplied directly to EISS for inclusion in a weekly European bulletin, which is published on the website <http://www.eiss.org>.

This surveillance system enables prospective planning and advice to the DHSSPS, Boards, Trusts and GP practices. Enhanced virological monitoring using a subset of the general practices will continue throughout the 2003-2004 season. Fifteen of the 23 spotter practices within the ESINI scheme have agreed to take part. Each practice will take nasal and pharyngeal swabs from a number of individuals per week who have symptoms

consistent with clinical 'flu. These swabs will be tested for influenza A and B as well as other respiratory viruses. This part of the ESINI scheme supplements the information acquired from the Regional Virus Laboratory, which normally receives swabs from hospitalised and severely ill patients only. As these additional samples originate from practices that are also supplying consultation data, this should provide a better reflection of community-based disease. It should also be possible to detect the circulation of 'flu within the community at an earlier stage, thus increasing the predictive value of the scheme.

Although influenza activity has remained low during the first three years of the ESINI scheme, its

potential as an early warning system has been apparent recently. During the first week of the 2003-04 season, a total of 7 sentinel GP swabs were submitted to the Regional Virus Laboratory, of which 4 tested positive for the presence of respiratory viruses; one for Influenza A H3 (plus Rhinovirus), one for Adenovirus, one for Rhinovirus and one for Parainfluenza 2 virus.

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Should you wish to be added to the mailing list for the weekly influenza bulletin, please contact Dr Hilary Kennedy on 028 90 263 765 or by email at [hilary.kennedy@hpa.org.uk](mailto:hilary.kennedy@hpa.org.uk)

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# Influenza Vaccination in Northern Ireland

During the winter of 2002-2003, DHSSPS set an uptake target of 70% for influenza vaccination in those aged 65 and over. All 4 Health and Social Services Boards met or exceeded this target and the overall uptake in NI, for this age group, was 72%. An analysis of the 2002-2003 vaccination campaign may be found in the Monthly Report for April 2002, available at <http://www.cdscni.org.uk>

The vaccination campaign for the winter of 2003-2004 was launched on 1 October 2003. Once again, the target uptake for those aged 65 and over has been set at 70%. As in 2002-03, an additional target of 60% has also been set for those who are under 65 years of age and "at risk". It is estimated that approximately 10% of the under 65 population fall into the "at risk" group. This group includes individuals with heart, renal or lung disease, diabetes, those who are immuno-suppressed through disease or chemotherapy and those living in residential homes. CDSC (NI) will be collating influenza vaccination uptake data, and the uptake rate to 31 October will be available in mid-November.

# Vaccination Coverage Statistics for Children in Northern Ireland

The tables below show the coverage data for Northern Ireland and the United Kingdom as a whole, for children reaching their first, second and fifth birthdays during the second quarter of 2003. MMR vaccination at 24 months is currently 87.8% (Figure 1) and uptake levels in Northern Ireland remain considerably higher than the UK average.

## Completed Primary Immunisations by 12 months and 24 months COVER/Körner: Data Northern Ireland (Apr – June 2003)

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	1814	93.2	93.2	92.7	92.9	92.7	0.2	93.2	1884	96.8	96.8	96.5	96.3	96.7	85.0	96.7
Northern	1361	96.3	96.3	96.3	95.9	96.0	0.1	96.0	1416	97.9	97.9	97.5	97.5	97.5	88.7	97.1
Southern	1131	96.2	96.2	96.0	95.8	96.1	0.1	96.1	1097	97.3	97.3	97.3	96.5	97.4	90.8	97.4
Western	960	95.9	95.9	95.8	95.3	96.3	0.0	96.3	931	97.4	97.4	97.1	96.8	96.9	88.6	97.2
<b>NI Total</b>	<b>5266</b>	<b>95.1</b>	<b>95.1</b>	<b>95.1</b>	<b>94.7</b>	<b>94.9</b>	<b>0.1</b>	<b>95.1</b>	<b>5328</b>	<b>97.3</b>	<b>97.3</b>	<b>97.3</b>	<b>96.8</b>	<b>97.1</b>	<b>87.8</b>	<b>97.1</b>

With the exception of MMR which has remained the same, uptake rates of all vaccines at 12 months have increased by 0.6 – 1.1 percentage points. Uptake rates for all vaccines at 24 months have increased by 0.9 – 1.1 percentage points. MMR uptake has risen by 0.9 percentage points.

Country	% Coverage at 12 months				% Coverage at 24 months				
	Dip3	Pert3	Hib3	MenC	Dip3	Pert3	Hib3	MenC	MMR
England	90.7	90.4	90.8	89.8	93.7	93.3	93.5	92.2	77.9
Wales	93.3	92.1	93.1	93.0	95.3	94.3	95.0	94.6	77.1
Scotland	95.5	95.2	95.3	94.6	97.2	96.9	96.9	96.2	85.8
UK	91.4	91.0	91.4	90.5	94.2	93.7	93.9	92.8	78.9

Whilst MMR uptake at 24 months has increased in NI, the UK average uptake rate has remained steady at 78.9%.

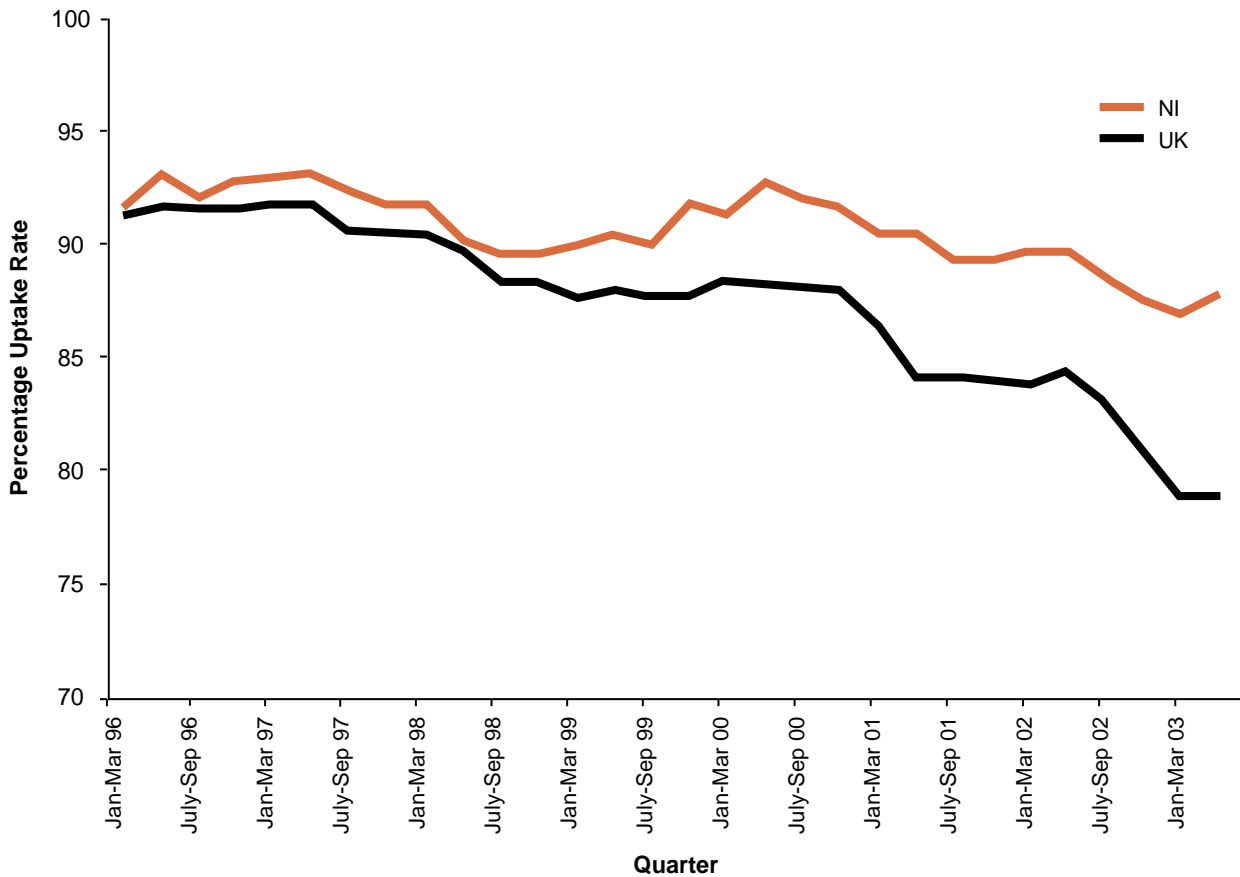
## Vaccine Coverage at 5 years (Apr – June 2003)

Board	Dip3	Pert3	Hib3	Dip4	MMR1	MMR2	MenC
Eastern	97.7	97.0	96.8	88.1	96.6	85.4	94.4
Northern	97.9	97.2	97.4	93.3	96.6	89.6	95.5
Southern	98.6	97.6	98.4	90.8	97.9	89.8	97.4
Western	97.8	96.9	96.8	91.6	97.2	88.7	96.0

NI	98.0	97.9	97.3	90.6	97.0	87.9	95.6
England	94.3	93.4	93.6	80.6	89.9	74.6	86.4
Wales	94.7	92.5	94.2	81.8	90.2	74.0	90.5
Scotland	Not available						
England, Wales & NI	94.4	93.5	93.7	78.4	90.2	72.6	86.9

Compared with last quarter's data, the uptake rate in NI of all vaccines has increased: Hib3 and MMR, by 0.5 percentage points, Dip3 and MenC by 0.6 percentage points, MMR2 by 1.3 percentage points and Pert3 and Dip4 by 1.4 percentage points.

Figure 1: MMR Vaccination Uptake Rate at 24 months, NI and UK, 1996-2003



# 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 the first two quarters of 2003. There were 107 notifications of measles, mumps and rubella. Salivary testing was successfully completed on 58 (54%) individuals.

**Table 1: Salivary Antibody Testing Results Weeks 1-26, 2003**

	Board	Notifications of suspected cases	Salivary test completed	Results		
				Evidence of recent vaccine	Confirmed case	Not confirmed
<b>Measles</b>	EHSSB	8	4	0	0	4
	NHSSB	7	4	0	0	4
	SHSSB	9	8	0	0	8
	WHSSB	13	6	0	0	6
	<b>Total</b>	<b>37</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>22*</b>
<b>Mumps</b>	EHSSB	17	15	0	5	10
	NHSSB	12	6	0	0	6
	SHSSB	5	4	0	0	4
	WHSSB	13	4	0	0	4
	<b>Total</b>	<b>47</b>	<b>29</b>	<b>0</b>	<b>5</b>	<b>24</b>
<b>Rubella</b>	EHSSB	9	4	0	0	3
	NHSSB	3	1	0	0	1
	SHSSB	7	2	0	0	2
	WHSSB	4	0	0	0	0
	<b>Total</b>	<b>23</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>6</b>

*\*includes one equivocal*

Source: CDSC (Colindale)  
DHSSPSNI

The salivary testing programme confirmed 5 cases of mumps during January to June 2003. It did not confirm any cases of measles or rubella.

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.

There have been 5 laboratory confirmed cases of mumps reported to CDSC (NI) to week 26 via the routine laboratory system: 1 male aged 44 and 4 females aged 13, 14, 36 and 47 years. Two cases were resident in EHSSB whilst one case resided in each of the other 3 Boards.

# Protecting women against rubella: switch from single rubella vaccine to MMR

The Department of Health, Social Services and Public Safety (DHSSPS) has advised that once existing stocks of single rubella vaccine are exhausted, women of child-bearing age and health care workers who need to be protected against rubella will be offered the combined measles-mumps-rubella vaccine (MMR). This change has arisen because of difficulties in securing supplies of licensed single rubella vaccine due to decreasing demand around the world as a result of the use of MMR vaccine for non-immune women of child-bearing age.

The Joint Committee on Vaccination and Immunisation have advised that women of child-bearing age who are unprotected

against rubella should continue to be offered a rubella containing vaccine and MMR is a suitable alternative to single rubella vaccine

for this purpose. It will also provide protection against mumps and measles in this age group. This approach is consistent with practices in a number of other countries and with recommendations from the World Health Organisation.

(Ref: HSS(MD) 39/2003)

## Laboratory Reports

### Respiratory Tract Infections: Laboratory Reports, Weeks 25-36

	Number of Reports received			Cumulative total	
	03/25-28	03/29-32	03/33-36	03/01-36	02/01-36
<i>Coxiella burnetii</i>	1	2	0	9	26
<i>Mycoplasma pneumoniae</i>	0	0	0	1	50
Respiratory <i>Chlamydia</i>	0	0	0	0	11
Adenovirus (excluding faeces)	2	2	0	13	38
RSV	3	0	0	107	272

## Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 33-36

	Number of Reports received		Cumulative total	
	03/33-36	02/33-36	03/01-36	02/01-36
<i>Campylobacter</i>	41	71	524	594
<i>C. difficile</i> Toxin	56	57	643	650
<i>C. perfringens</i>	1	0	15	16
<i>E. coli</i> O157	7	8	22	18
<i>Salmonella</i> total	32	36	156	166
<i>S. enteritidis</i> (PT 4)	15 (1)	12 (3)	59 (12)	65 (16)
<i>S. typhimurium</i> (DT 104)	2	10 (5)	32 (7)	50 (13)
<i>Salmonella</i> other	15	14	65	51
<i>Shigella</i>	0	1	10	6
<i>Cryptosporidium</i>	14	3	117	107
<i>Giardia</i>	3	1	13	10
Adenovirus (faeces)	7	7	80	139
Enterovirus (faeces)	2	5	18	41
Rotavirus	1	16	539	358
SRSV	0	21	95	200

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

*S. hadar* ..... 1  
*S. unnamed* ..... 3  
*S. virchow* ..... 2

**Comment:**

The following were associated with foreign travel:

Male, age 1, *Cryptosporidium*, France; Male, age 1, *Cryptosporidium*, Cyprus; Female, age 6, *Cryptosporidium*, Majorca; Female, age 5, *Cryptosporidium*, Majorca; Male, age 12, *S. enteritidis*, Greece; Female, age

2, *S. typhimurium*, Spain; Male, age 33, *Salmonella* sp, Portugal; Female, age 54, *Salmonella* sp, Portugal; Female, age 44, *Salmonella* sp, France; Female, age 39, *Salmonella* sp, Lanzarote.

Reports of *Campylobacter*, *C. difficile* toxin and *C. perfringens* have decreased by 12%, 1% and 6% respectively.

Cumulative reports of *Salmonella* are still exhibiting a decline with 156 laboratory confirmed cases being reported to week 36 of 2003 - a reduction of 6% compared to the same period last year. Reports of *S. enteritidis* and *S. typhimurium*

have also decreased by 9% and 36% respectively.

Reports of *E. Coli* O 157, *Shigella*, *Cryptosporidium*, *Giardia* and Rotavirus reports have risen by 22%, 9%, 30% and 50% respectively to week 36 of 2003 compared to week 36 in 2002.

Adenovirus, Enterovirus and SRSV continue to show a decline compared with the same period last year.

## Infectious Disease Notifications: 2003 Weeks 01-38, Northern Ireland

Disease	Board 03/01-38				Northern Ireland	
	E	N	S	W	Total 2003 01-38	Total 2002 01-38
Acute encephalitis/ Meningitis: bacterial	21	10	6	15	52	51
Acute encephalitis/ Meningitis: viral	2	1	1	1	5	10
Chickenpox	1820	1081	652	510	4063	4108
Dysentery	3	3	1	4	11	6
Food Poisoning	329	277	157	241	1004	942
Gastro-enteritis (Under 2 years)	373	149	8	88	618	657
Hepatitis A	1	0	0	0	1	1
Hepatitis B	10	0	1	1	12	5
Hepatitis Unspecified: Viral	11	0	0	0	11	1
Legionnaires' Disease	1	0	2	0	3	3
Leptospirosis	0	0	0	0	0	1
Malaria	0	0	1	0	1	2
Measles	11	8	11	15	45	72
Meningococcal Septicaemia	11	27	14	9	61	81
Mumps	21	13	13	19	66	58
Paratyphoid Fever	0	0	0	0	0	0
Rubella	10	3	9	4	26	38
Scarlet Fever	168	41	23	26	258	152
TB (Pulmonary)	15	0	4	4	23	45
TB (Non-Pulmonary)	2	0	6	1	9	5
Typhoid	0	0	0	0	0	3
Whooping Cough	8	3	8	14	33	52
Yellow Fever	0	0	0	0	0	0
<b>TOTAL</b>	<b>2817</b>	<b>1616</b>	<b>917</b>	<b>952</b>	<b>6302</b>	<b>6293</b>

*Cumulative numbers are provisional and should not be used to indicate trends*

### 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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