

# Weekly Influenza Surveillance Report



**Week 16 2004**

**Week starting Monday 12<sup>th</sup> April 2004 &  
ending Sunday 18<sup>th</sup> April 2004**

**Report produced: 22/04/2004**

**This report is produced in collaboration with the Departments of Public Health**

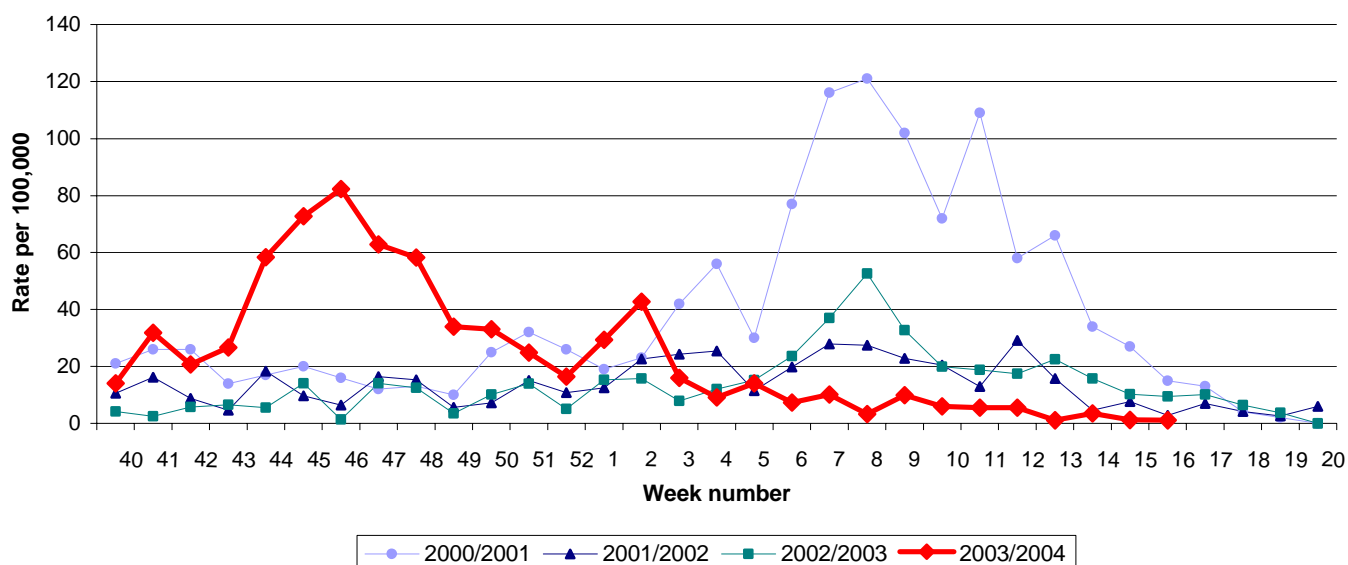
## Summary

Both clinical and virological indicators of influenza activity in Ireland remain at low levels. GP consultation rates for influenza-like illness remain low. No influenza virus positive specimens were detected by the NVRL during week 16.

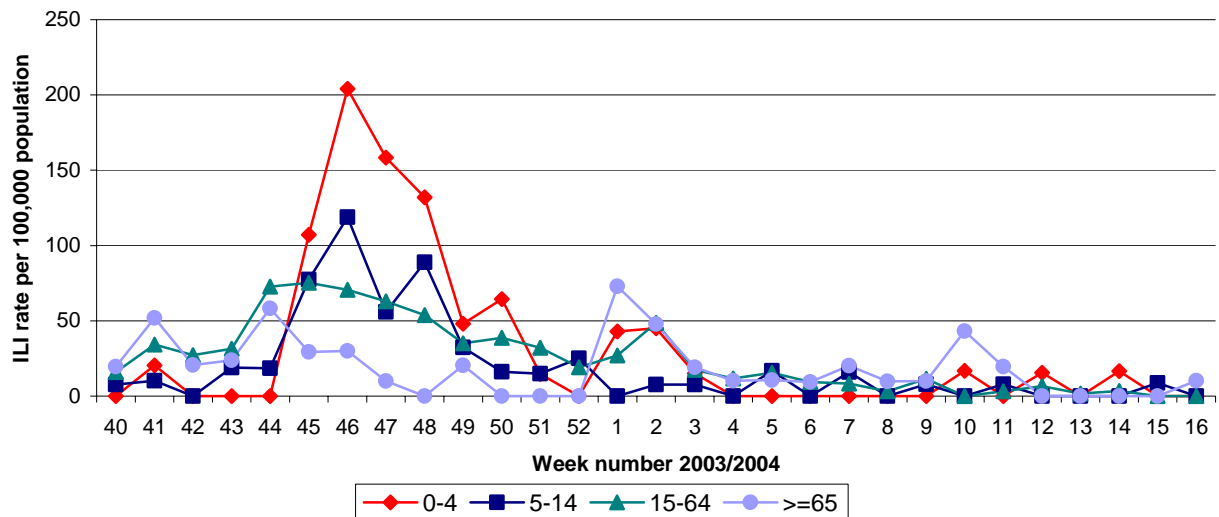
## Clinical data

During week 16 2004 (the week ending the 18<sup>th</sup> of April 2004), one influenza-like illness (ILI) case was reported from sentinel general practices, corresponding to an ILI consultation rate of 1.1 per 100,000 population, a slight decrease from the rate of 1.2 per 100,000 population in week 15 (figure 1). Thirty of the sentinel general practices reported during week 16, with one reporting ILI. The rates for weeks 6 to 16 have been the lowest rates reported for these weeks for any season since surveillance began in 2000.

During week 16, no ILI cases were reported in 0-4, 5-14 and 15-64 year olds. One ILI case was reported in the age group 65 years or older, corresponding to a rate of 10.1 per 100,000 (figure 2). It is important to note that the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.



**Figure 1:** GP consultation rate for influenza-like illness per 100,000 population by report week, during the 2000/2001, 2001/2002, 2002/2003 & 2003/2004-influenza seasons.



**Figure 2:** Age specific GP consultation rate for ILI per 100,000 population by week for the 2003/2004-influenza season. *The denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.*

**Virological data from the National Virus Reference Laboratory**

During week 16, the National Virus Reference Laboratory (NVRL) received one swab from sentinel GPs (table 1). The total number of positive influenza swabs from sentinel GPs for the 2003/2004 season to date is 149: 6 influenza A (unsubtyped), 136 influenza A (H3N2) and 7 influenza B viruses (figure 3).

The NVRL tested 15 respiratory non-sentinel specimens mainly from hospitals and some GPs during week 16, no specimens were positive for influenza A or B, 1 specimen was positive for respiratory syncytial (RSV) virus and three were positive for parainfluenza virus (PIV) type-3 (table 2). Between weeks 40 2003 and 16 2004, a total of 1741 respiratory non-sentinel specimens have been tested by the NVRL, 97 were positive for influenza A, 14 for influenza B, 380 RSV, 5 adenovirus, 6 PIV-1, 5 PIV-2 and 24 PIV-3. Of the 97 influenza A positive non-sentinel specimens detected this season, 64 cases were in the 0 to 4 year age group, 6 were 5-14, 23 were 15-64, one was aged 65 years or older and three were of unknown age group. The total number of RSV positive specimens for the 2003/2004 season is represented in figure 4. Please note that non-sentinel specimens include all specimens referred to the NVRL, these specimens are mainly from hospitals and some GPs and may include more than one specimen from each case.

The total number of influenza positive specimens from all sources (sentinel and non-sentinel) this season is 260: 239 influenza A and 21 influenza B (table 3). Influenza positive specimens by health board are detailed in table 4. Seventy-five influenza positive cases this season were in the 0 to 4 year age group and 31 were in the 5-14 year age group. Detection of influenza in younger age groups is not unexpected as there has been very little influenza in circulation for the last few seasons, therefore the opportunity for development of immunity has been limited. One hundred and forty-four influenza positive specimens this season were in cases aged between 15 and 64 years of age, 6 cases were 65 years or older and 4 cases were of unknown age group.

**Table 1:** Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 15 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (unsubtyped)	Influenza A (H3N2)	Influenza B
16	1	0	0.0	0	0	0
Total	348	149	42.8	6	136	7

**Table 2:** Total number of non-sentinel\*\* respiratory specimens and positive results for week 15 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
16	15	0	0.0	0	0	1
Total	1741	111	6.4	97	14	380

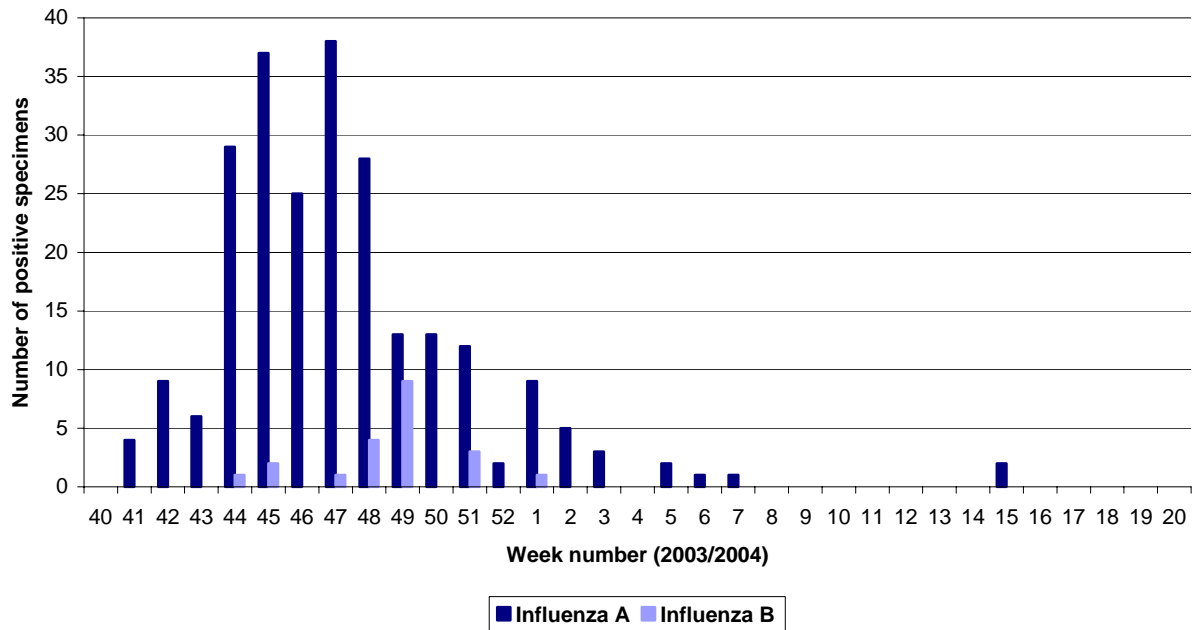
**Table 3:** Total number of sentinel and non-sentinel\*\* respiratory specimens and positive results for week 15 and the 2003/2004 season to date.

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A	Influenza B	RSV
16	16	0	0.0	0	0	1
Total	2089	260	12.5	239	21	380

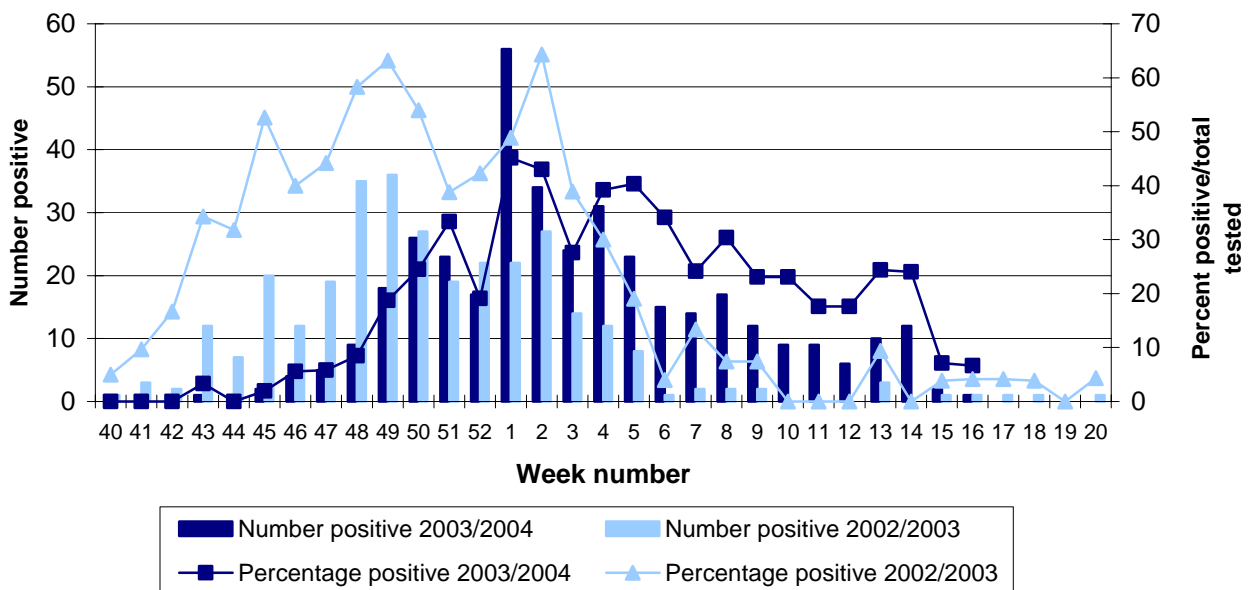
**Table 4:** Total number of sentinel and non-sentinel\*\* influenza A and B positive specimens by health board for week 16 2004 and the 2003/2004 season to date

	Week 15 2004			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	0	0	0	117	9	126
MHB	0	0	0	9	2	11
MWHB	0	0	0	22	1	23
NEHB	0	0	0	35	3	38
NWHB	0	0	0	16	0	16
SEHB	0	0	0	20	3	23
SHB	0	0	0	11	0	11
WHB	0	0	0	9	3	12
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>239</b>	<b>21</b>	<b>260</b>

\*\* Please note that non-sentinel specimens include all specimens referred to the NVRL, these specimens are mainly from hospitals and some GPs and may include more than one specimen from each case.



**Figure 3:** Number of positive influenza A and B sentinel and non-sentinel specimens tested by the NVRL by week number for the 2003/2004 season



**Figure 4:** Number and percentage of non-sentinel RSV positive specimens detected during the 2003/2004 and 2002/2003 influenza seasons.

**Antigenic characterisation**

To date this season, 8 influenza A (H3N2) samples were sequenced at the NVRL and phylogenetic analysis was carried out at Mill Hill laboratories. All 8 samples were characterized as A/Fujian/411/2002-like strains. This year some antigenic drift has been detected in the A (H3N2) strains circulating in Europe, America, Australia and New Zealand. The A/Fujian-like strains are related to the A/Panama-like strain

included in the current 2003/2004 vaccine and antibodies induced against this vaccine strain cross-react with A/Fujian-like strains, but generally to a reduced level. The current vaccine should give good protection against the virus strains in the vaccine, and it is also likely to give significant protection against the A/Fujian strain. The current vaccine is the best protection for those aged 65 years and over and in at risk groups.

### **School outbreak reports & sentinel school absenteeism data**

To date this season, a total of 4 school outbreaks associated with ILI have been reported to NDSC. No increased absenteeism associated with ILI was reported to NDSC for weeks 15 or 16.

### **Sentinel hospital admissions data**

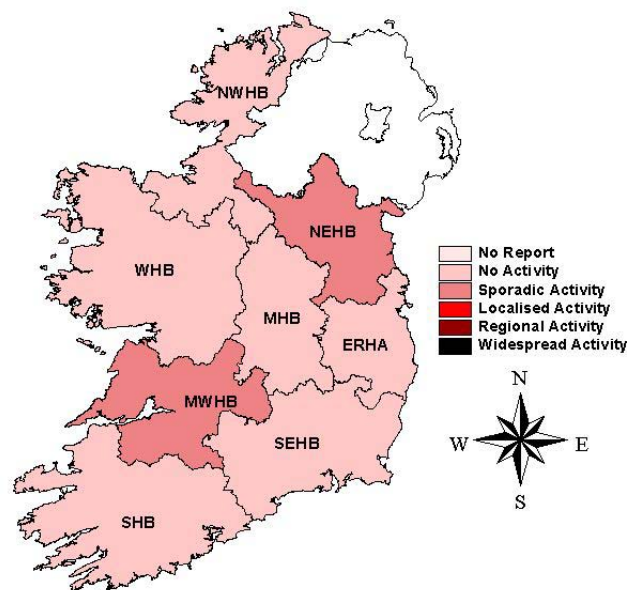
There were no increases in RTI admissions from sentinel hospitals reported to NDSC during week 15.

### **Mortality data**

To date this season, two influenza-associated deaths in 0-4 year olds have been reported to NDSC, one in week 47 and one in week 48.

### **Influenza activity by health board/authority**

Influenza activity is reported on a weekly basis from the Departments of Public Health. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed cases of influenza, and/or sentinel hospital admissions data, and/or sentinel school absenteeism data. During week 15, the NEHB and MWHB reported sporadic influenza activity and the remaining health boards reported no activity (fig. 2).



**Figure 2:** Map of influenza activity by health board/authority during week 15 2004.

### **Influenza activity in Northern Ireland**

Influenza activity in Northern Ireland remained at low levels during weeks 14, 15 & 16. The GP combined ILI and clinical influenza consultation rate for week 16 was 8.1 per 100,000, a decrease from the updated rates for weeks 14 and 15 of 13.6 and 14.9 per 100,000, respectively. No influenza viruses have been detected in Northern Ireland since week 6. <http://www.cdscni.org.uk/>

### **Influenza activity in England, Scotland and Wales**

Both clinical and virological indicators of influenza and other respiratory virus activity are currently low. GP consultations for ILI in England, Wales and Scotland remain low and within baseline activity. During weeks 15 and 16, no influenza virus detections were reported from the ERNVL.

[http://www.hpa.org.uk/infections/topics\\_az/influenza/fluactivity0304.htm](http://www.hpa.org.uk/infections/topics_az/influenza/fluactivity0304.htm)

### **Influenza activity in Europe**

Most countries in Europe reported no influenza activity in week 15. Six countries, all in Western Europe, reported sporadic influenza activity. The number of laboratory confirmed influenza cases were low, with sporadic influenza virus detections in only four countries: France [two A (unsubtyped) and one B], Germany [one A (H3N2)], Ireland [two A (unsubtyped)] and Spain [one A (unsubtyped) and one B].

<http://www.eiss.org/>

### **Influenza activity in Canada**

During week 15, localised activity and an outbreak of influenza in a long-term care facility was reported in Prince Edward Island. The rest of Canada reported either sporadic or no influenza activity. Across Canada, during week 15, sentinel physicians reported 14 cases of ILI per 1000 patient visits, which is below the expected range for this time of year. Health Canada received 1,342 reports of laboratory tests for influenza, including 10 (0.75%) influenza A detections and nine (0.67%) influenza B detections. To date this season influenza A/Fujian/411/2002 (H3N2)-like viruses remain predominant. <http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>

### **Influenza activity in the United States**

In the US, influenza activity remained low during week 14. The percentage of patient visits for ILI has remained below the national baseline since the week ending January 17. Mortality due to pneumonia and influenza remains below the epidemic threshold. During week 14, WHO and NREVSS laboratories reported 629 specimens tested for influenza viruses, 4 (0.6%) of which were positive: 1 influenza A (unsubtyped) and 3 influenza B viruses. Ten states, New York City, Guam and Puerto Rico reported sporadic activity and 38 states reported no influenza activity.

<http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm>

### **Influenza activity Worldwide**

During week 15, localised influenza activity was reported in Chile (15 A unsubtyped) and sporadic activity was reported in China (162 A H3) and Argentina (2 A H3). No influenza activity was reported in Madagascar. <http://rhone.b3e.jussieu.fr/flunet/www/>

## **Avian influenza**

### ***East and Southeast Asia***

There is currently a widespread epidemic in East and Southeast Asia of highly pathogenic avian influenza (HPAI), caused by influenza A (H5N1) in animal populations, particularly domestic fowl and a variety of other birds, that poses a considerable potential human public health risk. For further information on the avian influenza outbreaks please consult the following websites:

NDSC: <http://www.ndsc.ie/DiseaseTopicsA-Z/AvianInfluenza/>

WHO: [http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

### ***US***

The outbreak of HPAI in Texas has been eradicated. Serological sampling of commercial premises will continue until the second week of June, which will fulfil the surveillance standards developed by the United States Department of Agriculture and the Texas Animal Health Commission.

[http://www.aphis.usda.gov/lpa/issues/ai\\_us/ai\\_us.html](http://www.aphis.usda.gov/lpa/issues/ai_us/ai_us.html)

### ***Canada***

As of April 14<sup>th</sup> 2004, avian influenza has been confirmed on 28 commercial farms in the Fraser Valley region of British Columbia (BC). The Government of Canada declared a control area in southern BC to prevent further disease spread. All commercial poultry flocks and other backyard birds in the control area will be depopulated in an effort to eradicate avian influenza. Two human cases of avian influenza A (H7) have been reported in poultry workers. The symptoms of both cases have resolved. At present, there remains no evidence of human-to-human transmission. Surveillance and follow up continues for all exposed and all precautionary measures are being followed.

Canada: <http://www.inspection.gc.ca/english/anima/heasan/disemala/avflu/avflue.shtml>

WHO: [http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

## **Northern Hemisphere influenza vaccine for the 2004/2005**

The WHO has published its recommendations on the composition of influenza vaccines for use in the 2004-2005 Northern Hemisphere influenza season.

- an A/New Caledonia/20/99(H1N1)-like virus
- an A/Fujian/411/2002(H3N2)-like virus<sup>a</sup>
- a B/Shanghai/361/2002-like virus<sup>b</sup>

<sup>a</sup> The currently used vaccine virus is A/Wyoming/3/2003. A/Kumamoto/102/2002 is also available as a vaccine virus.

<sup>b</sup> Candidate vaccine viruses include B/Shanghai/361/2002 and B/Jilin/20/2003, which is a B/Shanghai/361/2002-like virus.

<http://www.who.int/csr/disease/influenza/vaccinerecommendations1/en/>  
[www.emea.eu.int](http://www.emea.eu.int)

**Weekly influenza reports and further information on influenza are available on the NDSC website:**

<http://www.ndsc.ie/Publications/InfluenzaWeeklySurveillanceReport/>

<http://www.ndsc.ie/DiseaseTopicsA-Z/Influenza>

This report was produced by Dr Lisa Domegan, NDSC