

Weekly Influenza Surveillance Report



Week 48 2004

**Week starting Monday 22nd November 2004 &
ending Sunday 28th November 2004**

Report produced: 2/12/2004

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

Summary

During week 48 2004, influenza activity remained at low levels in Ireland. To date this season, seven influenza A (H1N1), one influenza A (H3N2) and ten influenza A (unsubtyped) viruses have been detected. RSV levels continued to increase, with one sentinel and 23 non-sentinel specimens testing positive for RSV in week 48, an increase on the 16 positive non-sentinel specimens in week 47.

Clinical data

During week 48 (week ending 28th November 2004), ten cases of ILI were reported by sentinel general practices, corresponding to an ILI consultation rate of 11.7 per 100,000 population (figure 1). This is an increase from the updated rate of 9.3 per 100,000 population for week 47. Two ILI cases were in the 5-14 age group and eight were in the 15-64 age group (figure 2). Returns were received from 31 out of 35 sentinel GP practices, giving a population coverage of 2.2% (79.6% of the total possible reporting GP patient population). Eight practices reported ILI.

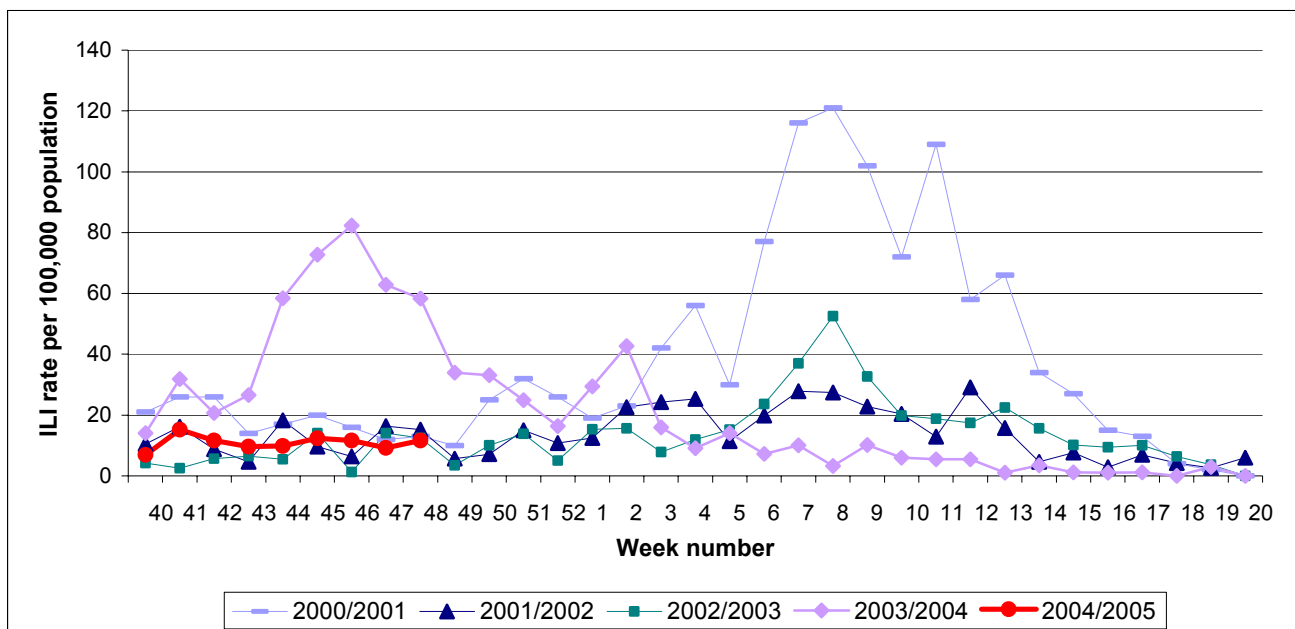


Figure 1. GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005-influenza seasons.

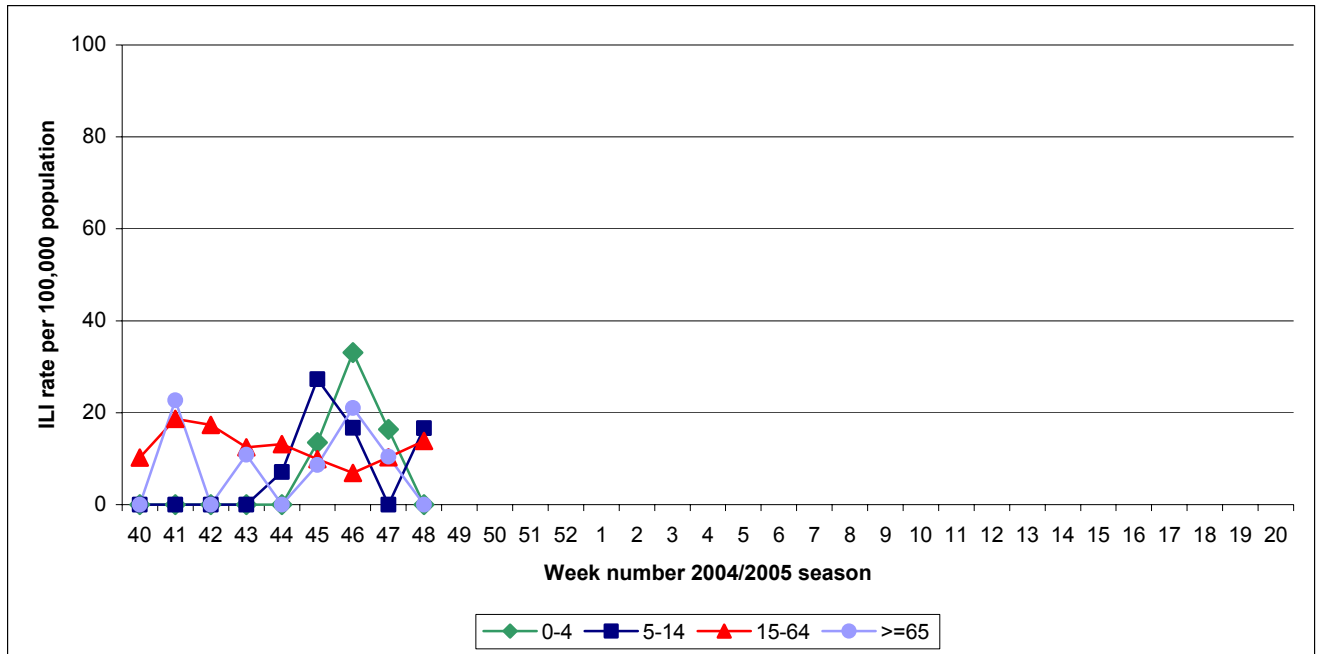


Figure 2. Age specific GP consultation rate* for ILI per 100,000 population by week for the 2004/2005-influenza season

* Please note 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 48 the National Virus Reference Laboratory (NVRL) received ten swabs from sentinel GPs. Three were positive for influenza A (unsubtyped) and one was positive for RSV (tables 1&3). The NVRL also tested 45 respiratory non-sentinel specimens from hospitals, during week 48. One specimen tested positive for influenza A (unsubtyped) and 23 were positive for RSV (tables 2&3, figure 3). During weeks 43-48, the percentage of RSV positive specimens has been noticeably higher than the percentages within the same period in the 2003/2004 season (figure 3).

To date this season, seven influenza A (H1N1), one influenza A (H3N2) and ten influenza A (unsubtyped) viruses have been detected (table 3). Three of these were in the 0-4 age group, five were in the 5-14 age group, eight were in the 15-64 age group and two were aged over 65 years. Of the 88 RSV detections to date, 46 were aged 6 months or less, 29 were aged between 7 and 12 months, 12 were aged between 1 and 4 years and one was older than 5 years.

Antigenic characterisation

One influenza A (H1N1) isolate has been antigenically characterised as A/New Caledonia/20/99-like. The current season's vaccine contains an A/New Caledonia/20/99(H1N1)-like virus and should provide good protection against the strain. The first influenza A (H3N2) positive of the season has been sent to Mill Hill (WHO reference centre in the UK) for antigenic characterisation and results are awaited.

Table 1: Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 48 and for the 2004/2005 season to date

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
48	10	3	30.0	3	0	0	0	1
Total	68	12	17.6	6	0	6	0	3

Table 2: Total number non-sentinel* respiratory specimens and positive results for week 48 and for the 2004/2005 season to date

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
48	45	1	2.2	1	0	0	0	23
Total	318	6	1.9	4	1	1	0	85

* 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.

Table 3: Total number of sentinel and non-sentinel* respiratory specimens and positive results for week 48 and the 2004/2005 season to date

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
48	55	4	7.3	4	0	0	0	24
Total	386	18	4.7	10	1	7	0	88

* 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.

Table 4: Total number of sentinel and non-sentinel* influenza A and B positive specimens by health board for week 48 and the 2004/2005 season to date

	Week 48 2004			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	2	0	2	3	0	3
MHB	0	0	0	0	0	0
MWHB	2	0	2	5	0	5
NEHB	0	0	0	0	0	0
NWHB	0	0	0	2	0	2
SEHB	0	0	0	3	0	3
SHB	0	0	0	4	0	4
WHB	0	0	0	1	0	1
Total	4	0	4	18	0	18

* 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.

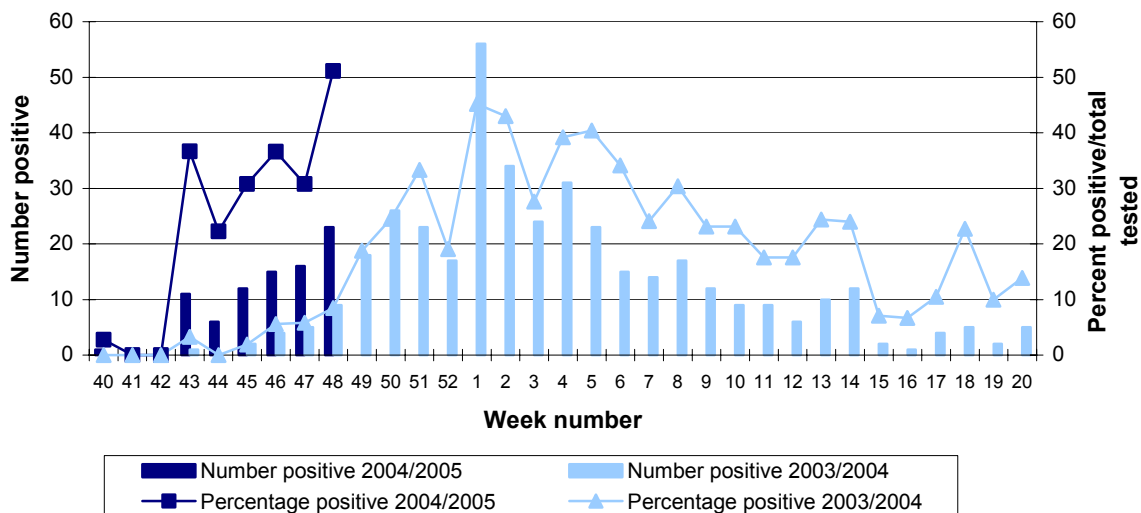


Figure 3. Number and percentage of non-sentinel RSV positive specimens detected during the 2004/2005 and 2003/2004 influenza seasons.

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, sentinel hospital admissions data and/or sentinel school absenteeism data. During week 47, three health boards reported sporadic activity and five health boards reported no activity.

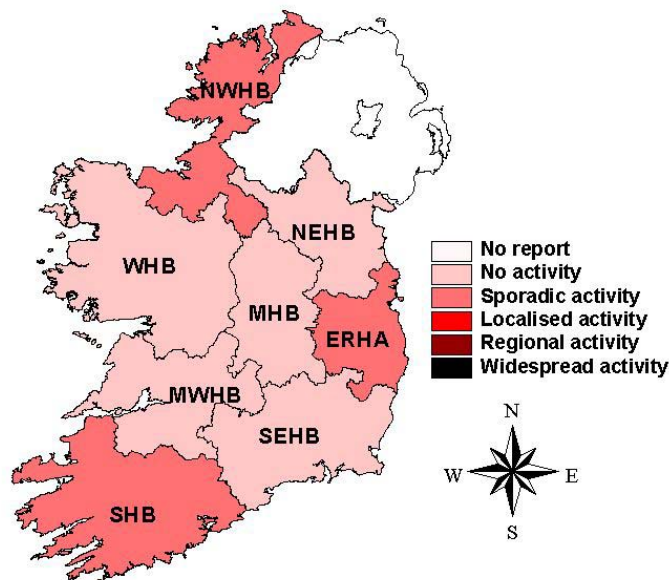


Figure 3: Map of influenza activity by health board/authority during week 47 2004/2005

Influenza activity in Northern Ireland

Influenza activity levels increased in Northern Ireland during week 48. 40 cases of ILI and one case of clinical influenza were reported. These figures correspond to a combined clinical influenza and ILI rate of 33.0 per 100,000 population which is higher than the updated rate of 20.2 in week 47. Returns were received from 21 out of 23 sentinel GP practices, giving a population coverage of 7.3%. Two sentinel swabs and 32 non-sentinel swabs were tested. None were positive for influenza and ten were positive for RSV (eight for RSV-B, 2 for RSV-A). Two non-sentinel samples from week 47 were identified as influenza A (H1).

<http://www.cdscni.org.uk/>

Influenza activity in England, Scotland and Wales

Low levels of influenza activity were reported in the UK during week 48. Rates of ILI in England, Scotland and Wales were similar to those in week 47 and well within baseline levels. There were two detections of influenza A (H1) from non-sentinel specimens in the UK during week 48. Levels of RSV continued to increase, especially among children aged 0-4 years. 13 specimens (one sentinel and twelve non sentinel) tested positive for RSV in Scotland during week 48.

<http://www.show.scot.nhs.uk/scieh/infectious/respiratory/influenzasurveillance/influenzasurveillance.htm>

http://www.hpa.org.uk/infections/topics_az/influenza/flu.htm

Influenza activity in Europe

Influenza activity remained low in Europe during week 47, with sporadic activity reported by Ireland, England, France and Belgium and no activity reported by all other countries. Influenza A (unsubtyped) was detected in Belgium (2), Switzerland (1) and France (1) and two specimens in Sweden tested positive for influenza A (H3). RSV levels have been increasing in Western Europe, as expected for the time of year. RSV was detected in France (58), the Czech Republic (1), the Netherlands (30), Luxembourg (2) and Romania (3) during week 47.

Seven influenza viruses have been antigenically and/or genetically characterised in Europe since week 40 2004. Four were A/Wellington/1/2004 (H3N2)-like (from England, France, Norway and Sweden), one was A/Fujian/411/2002 (H3N2)-like (from Germany) and two were A/New Caledonia/20/99 (H1N1)-like (from England and Ireland).

To date this season, influenza A (H3N2), influenza A (H1N1) and influenza B have been detected in Europe, with most of the positive detections being in Western Europe. It is not yet possible to determine which types and strains will be dominant.

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

Influenza activity in Canada

During week 47 (week ending 20/11/2004), localised activity was reported in three provinces: Alberta (two outbreaks), Ontario (one outbreak) and Nova Scotia (one outbreak). Sporadic activity was reported in British Columbia. Elsewhere in Canada, ILI rates were low. There were eight influenza A detections and one influenza B detection in week 47. Since the start of the 2004/2005 influenza season, 26 influenza viruses have been antigenically characterised. Twenty five were influenza A/Fujian/411/02(H3N2)-like and one was influenza B/Shanghai/361/02-like, both of which, are covered by the current vaccine.

<http://www.phac-aspc.gc.ca/fluwatch/index.html>

Influenza activity in the United States

Influenza activity remained low in the US during week 46 (week ending 20/11/2004). However, in the Mid-Atlantic region there were increases in both the proportion of patient visits to sentinel providers for ILI and the percentage of laboratory specimens testing positive for influenza. Two states reported widespread activity (Alaska and Delaware), and New York State and New York City reported regional activity. WHO and NREVSS laboratories tested 1,118 specimens for influenza. Nine were positive for influenza A (H3N2), 18 were positive for influenza A (unsubtyped) and nine were positive for influenza B. Since October 1st, nine influenza A (H3N2) and two influenza B viruses have been antigenically characterised by the CDC. All of the influenza A viruses were influenza A/Fujian/411/2002-like and both of the influenza B viruses were influenza B/Shanghai/361/02-like.

<http://www.cdc.gov/flu/weekly/>

Influenza activity Worldwide

During week 47, sporadic influenza activity was reported by China (2 A(H3) and 5 B) and the Ukraine (2 A(H3) and 1 A(H1)). Japan also reported an influenza A(H3) detection.

<http://rhone.b3e.jussieu.fr/flunet/www/>

Avian influenza

There have been no new human cases of avian influenza reported by Thailand or Viet Nam this week. Since the beginning of 2004, Thailand and Viet Nam have reported 44 laboratory confirmed cases of human infection with avian influenza A (H5N1). Thirty-two of these were fatal. Although the avian influenza virus is highly pathogenic in humans, there is no evidence of efficient and sustained human-to-human transmission. 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/

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^a
- a B/Shanghai/361/2002-like virus^b

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

^b 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

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/InfluenzaFlu/>