

Weekly Influenza Surveillance Report



Week 49 2004

**Week starting Monday 29th November 2004 &
ending Sunday 5th December 2004**

Report produced: 9/12/2004

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

Summary

During week 49 2004, influenza activity remained at low levels in Ireland. The influenza-like illness (ILI) rate of 16.9 cases per 100,000 population is slightly lower than the updated rate of 18.3 per 100,000 for week 48. To date this season, seven influenza A (H1N1), one influenza A (H3N2) and 15 influenza A (unsubtyped) viruses have been detected. RSV levels continued to rise, with 41 non-sentinel specimens testing positive for RSV in week 49, an increase on the 23 positive non-sentinel specimens in week 48. There were no positive RSV results from sentinel specimens in week 49.

Clinical data

During week 49 (week ending 5th December 2004), 14 cases of ILI were reported by sentinel general practices, corresponding to an ILI consultation rate of 16.9 per 100,000 population (figure 1). This is a decrease from the updated rate of 18.3 per 100,000 for week 48 although both weeks 48 and 49 show an increase from the week 47 rate of 9.3 per 100,000.

One ILI case was in the 5-14 age group, twelve were in the 15-64 age group and one was aged over 64 years (figure 2). The rate of ILI cases among the 5-14 age group in week 49 has decreased from an updated rate of 48.9 per 100,000 population in week 48. The rate of ILI cases in the 15-64 age group has increased over the last 4 weeks whereas the ILI rate in the 0-4 age group has fallen to zero.

Returns were received from 30 out of 35 sentinel GP practices, giving a population coverage of 2.1% (77.1% of the total possible reporting GP patient population). Ten practices reported ILI.

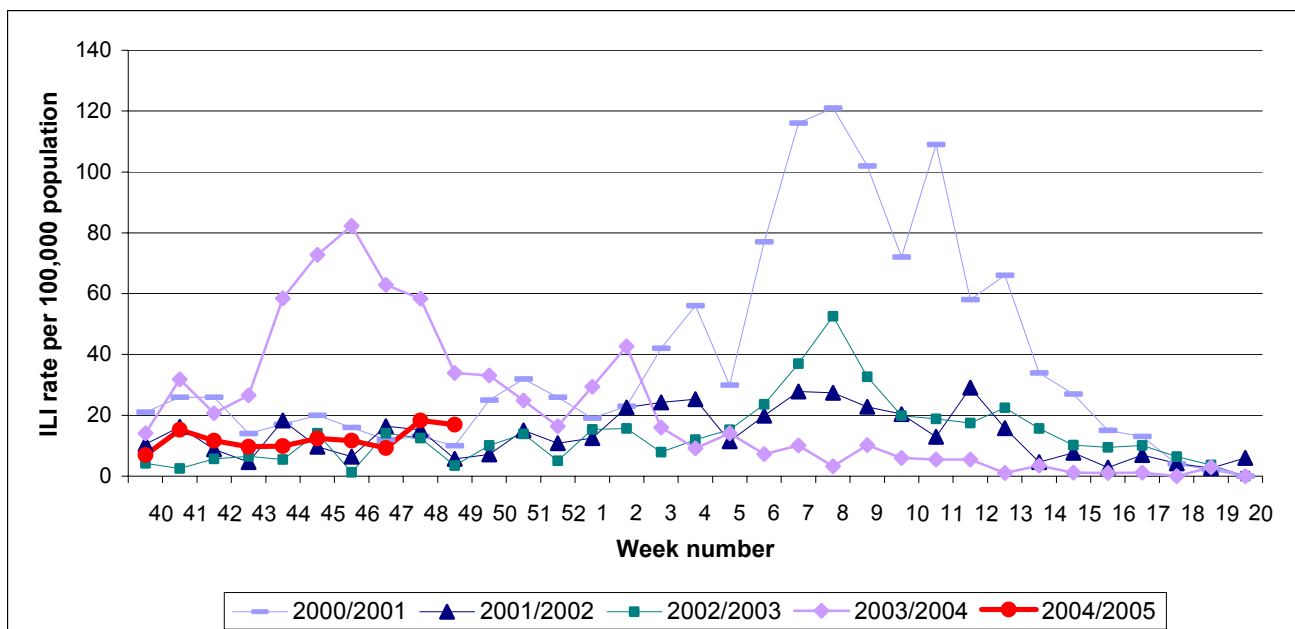


Figure 1. GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005-influenza seasons.

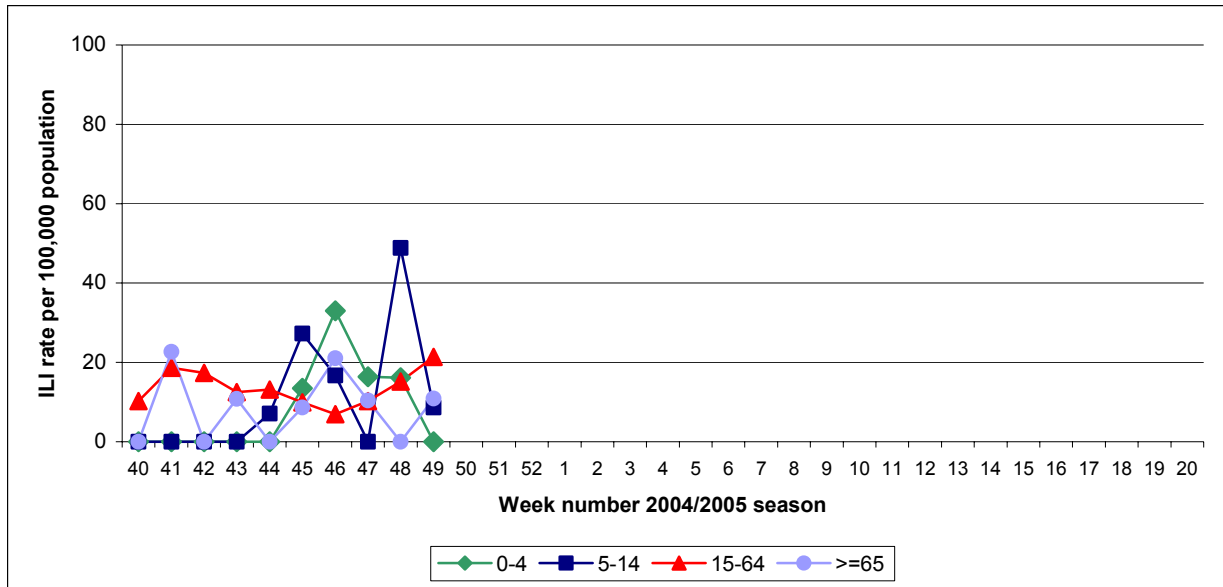


Figure 2. Age specific GP consultation rate* for ILI per 100,000 population by week for the 2004/2005-influenza season

* 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 49 the National Virus Reference Laboratory (NVRL) received ten swabs from sentinel GPs. Four were positive for influenza A (unsubtyped). There were no RSV positives (tables 1&3). The NVRL also tested 78 respiratory non-sentinel specimens from hospitals during week 49. No specimens tested positive for influenza A and 41 were positive for RSV (tables 2&3, figure 3). During weeks 43-49, 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 15 influenza A (unsubtyped) viruses have been detected (table 3). Four of these were in the 0-4 age group, six were in the 5-14 age group, eleven were in the 15-64 age group and two were aged over 64 years. Of the 129 RSV detections to date, 67 were aged 6 months or less, 38 were aged between 7 and 12 months, 21 were aged between 1 and 4 years, and two were aged 5 years or more.

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.

Table 1: Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 49 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
49	10	4	40.0	4	0	0	0	0
Total	77	16	20.8	10	0	6	0	3

Table 2: Total number non-sentinel* respiratory specimens and positive results for week 49 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
49	78	0	0	0	0	0	0	41
Total	401	7	1.7	5	1	1	0	126

* 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 49 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
49	88	4	4.5	4	0	0	0	41
Total	478	23	4.8	15	1	7	0	129

* 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 49 and the 2004/2005 season to date

	Week 49 2004			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	0	0	0	3	0	3
MHB	0	0	0	0	0	0
MWHB	1	0	1	6	0	6
NEHB	0	0	0	0	0	0
NWHB	0	0	0	3	0	3
SEHB	0	0	0	3	0	3
SHB	3	0	3	7	0	7
WHB	0	0	0	1	0	1
Total	4	0	4	23	0	23

* 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.

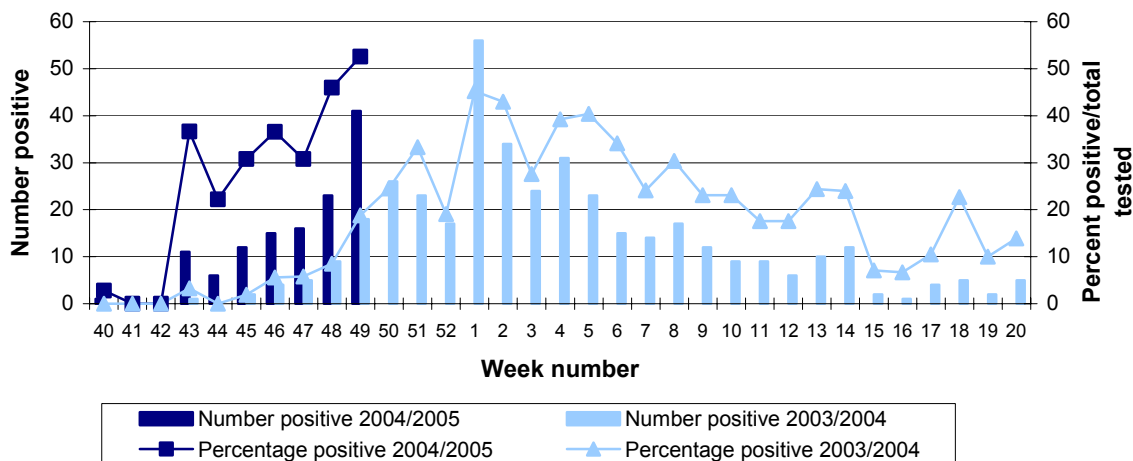


Figure 3. Number and percentage of non-sentinel RSV positive specimens detected during the 2004/2005 and 2003/2004 influenza seasons.

School outbreak reports

A school outbreak of influenza-like illness occurred during week 48 in the MWHB. A total of 32 pupils were reported ill. There were no hospitalisations. Influenza A (unsubtyped) was isolated from two cases. This is the first school outbreak reported this season.

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 48, seven health boards reported sporadic activity and one health board reported no activity.

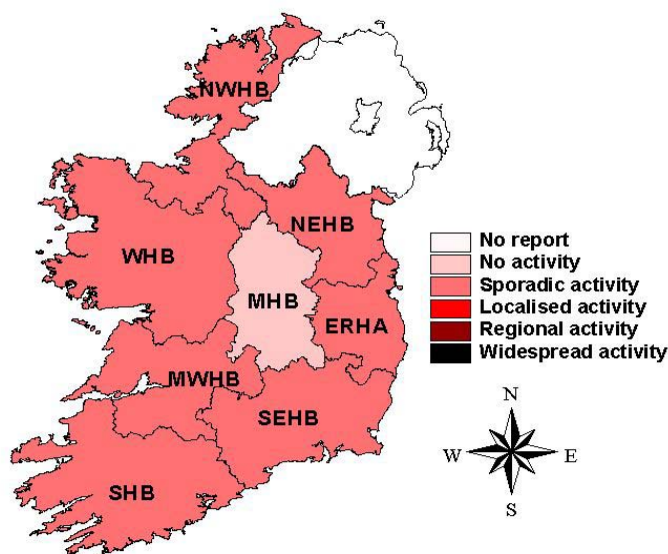


Figure 4: Map of influenza activity by health board/authority during week 48 2004/5

Influenza activity in Northern Ireland

Influenza activity levels remained low in Northern Ireland during week 49. Thirty nine cases of ILI and four cases of clinical influenza were reported. These figures correspond to a combined clinical influenza and ILI rate of 33.8 per 100,000 population which is similar to the rate of 30 per 100,000 in week 48. Returns were received from 21 out of 23 sentinel GP practices, giving a population coverage of 7.5%. There were no sentinel swabs submitted. The figures for non-sentinel swabs were unavailable but approximately 50-60% of those tested at present are positive for RSV-B. There were five influenza A (H1) detections in hospitalised patients, three young children, one young adult and one elderly patient.

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

Influenza activity in England, Scotland and Wales

Low levels of influenza activity were reported in the UK during weeks 48 and 49. Week 49 ILI rates in England (13.8 cases per 100,000 population), Scotland (28 per 100,000) and Wales (0.46 per 100,000) were well within baseline levels. There was a single detection of influenza A (H3) and two positive influenza A (H1) samples from non-sentinel sources in the UK during weeks 48 and 49. RSV levels continued to increase, especially among children in the 0-4 age group.

<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 48, although the number of countries reporting sporadic activity has increased slightly and includes Ireland, England, France, Belgium, Norway, Slovenia and Spain. All other countries reported no activity. Influenza A (unsubtyped) was detected in Belgium (1), Czech Republic (1), Ireland (4), Norway (1), Slovenia (1) and Sweden (3). Four specimens were subtyped, two influenza A (H1) in England, one influenza A (H2) in Spain and one influenza A (H3N2) in Germany. There was one influenza B positive in Norway. RSV levels have been increasing in Western Europe, as expected for the time of year. The number of RSV detections increased in seven countries (England, France, Ireland, Italy, Latvia, the Netherlands, and Scotland) and decreased slightly in four.

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 remains too early to determine which types and strains will be dominant.

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

Influenza activity in Canada

During week 48 (week ending 27/11/2004), localised activity was reported in two provinces: Alberta and Manitoba. Sporadic activity is increasing across the country and was reported in Yukon, Alberta, Ontario, Quebec and Nova Scotia. British Columbia and Saskatchewan reported a mix of localised and sporadic activity. Elsewhere in Canada reported no activity. There were 31 influenza A detections and no influenza B detections in week 48. Since the start of the 2004/2005 influenza season, 52 influenza viruses have been antigenically

characterised. Fifty were influenza A/Fujian/411/02(H3N2)-like and two were 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 47 (week ending 27/11/2004). The proportion of patient visits to sentinel provider (1.8%) was less than the national baseline (2.5%). New York State reported regional activity and two states reported local activity (Minnesota and Washington). WHO and NREVSS laboratories tested 1,383 specimens for influenza. Three were positive for influenza A (H3N2), 15 were positive for influenza A (unsubtyped) and eleven were positive for influenza B. Since October 1st, 26 influenza A (H3N2) and ten influenza B viruses have been antigenically characterised by the CDC. All of the influenza A viruses were influenza A/Fujian/411/2002-like and all of the influenza B viruses were influenza B/Shanghai/361/02-like.

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

Influenza activity Worldwide

During week 48, low levels of influenza activity were reported by China and the Russian Federation. Ukraine reported a slight increase in the incidence of influenza-like-illness with one case of influenza A (H3N2) isolated.

<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/>