Weekly Influenza Surveillance Report

Week 45 2004

Week starting Monday 1st November 2004 &
ending Sunday 7th November 2004

Report produced: 11/11/2004

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

Summary
During week 45 2004, influenza activity remained at low levels in Ireland. Three specimens tested positive for influenza A (unsubtyped) and there was one detection of Influenza A (H1N1). RSV levels have been increasing in Ireland over the past few weeks and twelve non-sentinel respiratory specimens tested positive for RSV in week 45. The UK, France and the Netherlands reported increased RSV levels in week 45.

Clinical data
During week 45 (week ending 7th November 2004), thirteen cases of ILI were reported by sentinel general practices, corresponding to an ILI consultation rate of 15.3 per 100,000 population (figure 1). This is increase from the rate of 9.9 per 100,000 population for week 44. One of the ILI cases was in the 0-4 age group, four were in the 5-14 age group, seven were in the 15-64 age group and one was in the over 65 age group (figure 2). Returns were received from 32 out of 35 sentinel GP practices, giving a population coverage of 2.2% (79.4% of the total possible reporting GP patient population). Nine practices reported ILI.

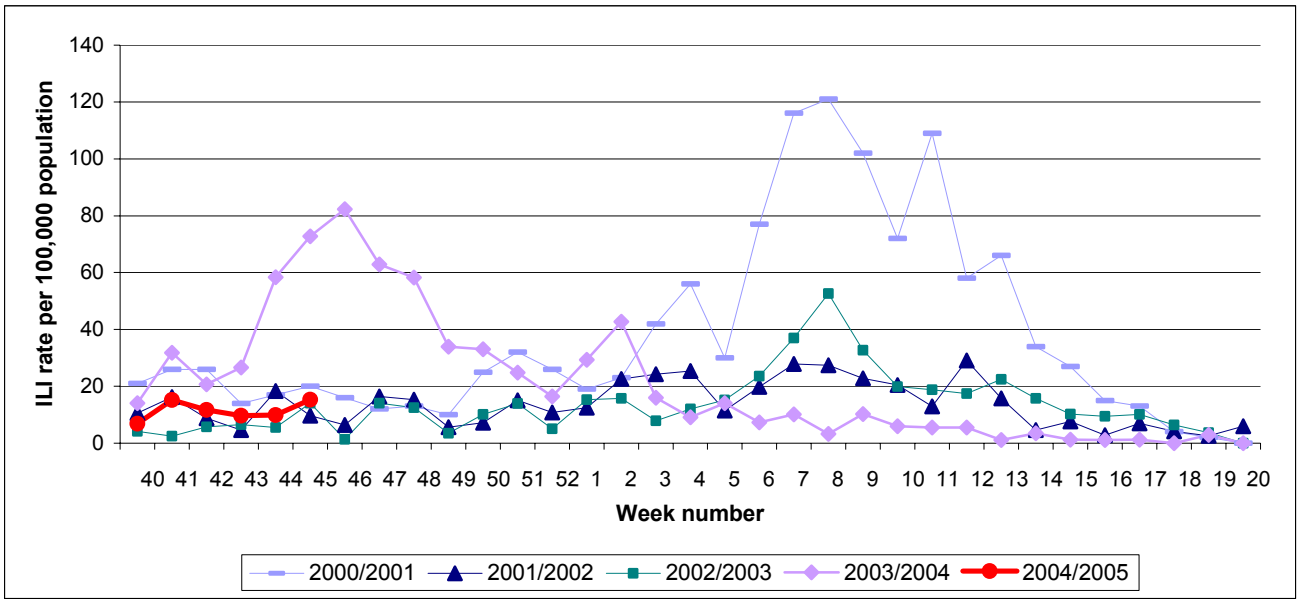

Figure 1. GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005-influenza seasons.

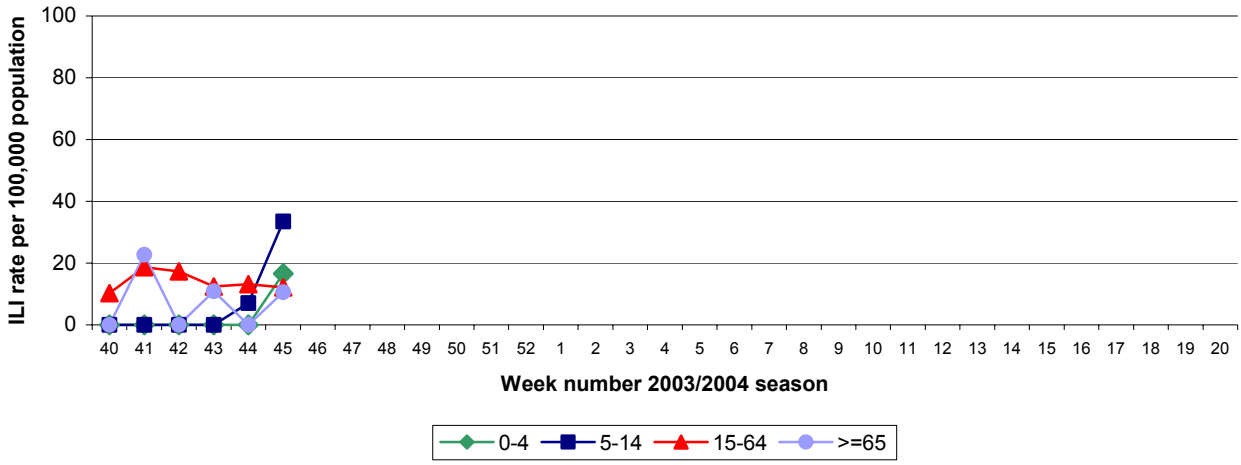

Figure 2. Age specific GP consultation rate* for ILI per 100,000 population by week for the 2004/2005-influenza season

** 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 45 the National Virus Reference Laboratory (NVRL) received twelve swabs from sentinel GPs. Two specimens was positive for influenza A (unsubtyped) and one was positive for influenza A (H1N1) (table 1). The first influenza A (H3N2) and A(H1N1) positives of the 2004/2005 season are undergoing antigenic characterisation.

The NVRL also tested 39 respiratory non-sentinel specimens from hospitals, during week 45. One specimen was positive for influenza A (unsubtyped) and twelve were positive for RSV.

Of the influenza A positives detected in the 2004/2005 season to date, four were in the 15-64 age group, two were in the 0-4 age group and two were in the over 65 age group.

Table 1: Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 45 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
45	12	3	25	2	0	1	0	0
Total	38	4	10.5	3	0	1	0	1

Table 2: Total number non-sentinel* respiratory specimens and positive results for week 45 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
45	39	1	2.6	1	0	0	0	12
Total	173	4	2.3	2	1	1	0	30

** 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 45 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
45	51	4	7.8	3	0	1	0	12
Total	211	8	3.8	5	1	2	0	31

** 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 45 and the 2004/2005 season to date

	Week 45 2004			Season to date		
	Flu A	**Flu B**	**Total**	**Flu A**	**Flu B**	**Total**
ERHA	0	0	0	0	0	**0**
MHB	0	0	0	0	0	**0**
MWHB	0	0	0	1	0	**1**
NEHB	0	0	0	0	0	**0**
NWHB	1	0	1	2	0	**2**
SEHB	1	0	1	3	0	**3**
SHB	2	0	2	2	0	**2**
WHB	0	0	0	0	0	**0**
Total	**4**	**0**	**4**	**8**	**0**	**8**

** 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.*

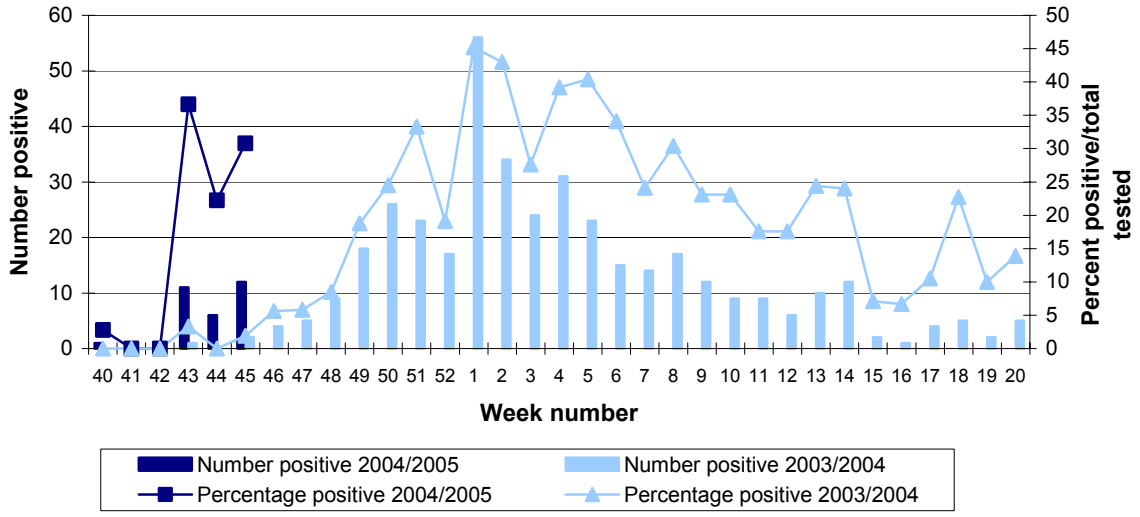

Figure 3. Number and percentage of non-sentinel RSV positive specimens detected during the 2004/2005 and 2003/2004 influenza seasons.

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

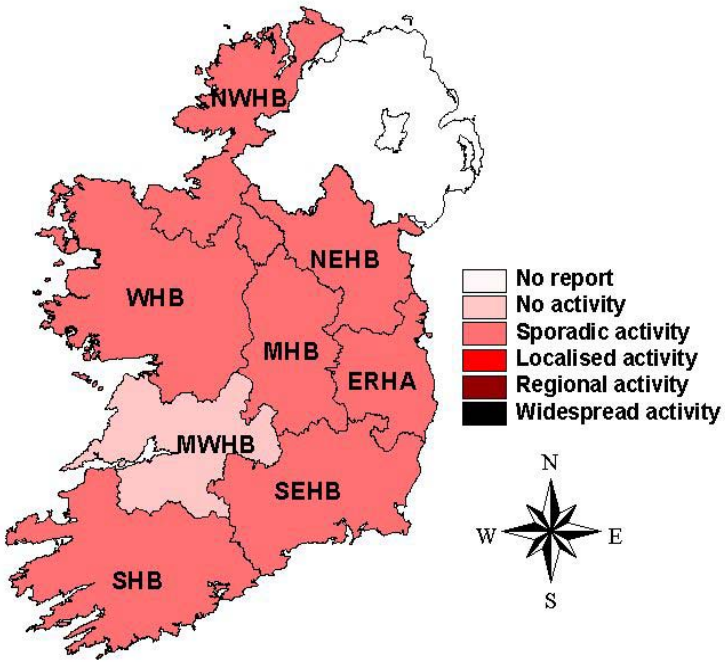

Figure 3: Map of influenza activity by health board/authority during week 44 2004

Influenza activity in Northern Ireland
Influenza activity levels remained low in Northern Ireland during week 45, with the clincial influenza and ILI rates largely unchanged. Returns were received from 20 out of 23 sentinel GP practices, giving a population coverage of 6.8%. Twenty-four cases of ILI and two cases of clinical influenza were reported, corresponding to a combined rate of 23.3 per 100,000 population. One sentinel specimen tested positive for influenza A (H1N untyped) and one non-sentinel specimen tested positive for RSV.
http://www.cdscni.org.uk//

Influenza activity in England, Scotland and Wales
Low levels of influenza activity were reported throughout the UK during week 45. Rates of influenza-like-illness in England were similar to week 44 and within baseline levels. Influenza activity levels in Scotland and Wales were also well within baseline levels. During week 45, the ERNVL reference laboratory detected influenza in two sentinel specimens. One was influenza A(H1N untyped) and the second was influenza A (H3N untyped). Since week 40 2004, one influenza A (H3N2) virus has been antigenically characterised as A/Wellington/1/2004(H3N2)-like. Levels of RSV continued to increase, with RSV detected

in non-sentinel specimens in England (65) and Wales (7), and in sentinel and non-sentinel specimens in Scotland (7) during week 45.
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 45, with only sporadic laboratory detections (in Ireland and the United Kingdom). Levels of RSV continued to increase, with RSV detected in 33 specimens (32 non-sentinel and one sentinel) in France, one sentinel specimen in Luxembourg and seven non-sentinel specimens in the Netherlands. Five 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) and one was A/Fujian/411/2002 (H3N2)-like (from Germany).
http://www.eiss.org/

Influenza activity in Canada
During week 44 (week ending 30/10/2004), localised activity was reported in British Columbia and Ontario, with outbreaks reported in a hospital and long-term care facility, respectively. Elsewhere in Canada ILI rates were low and the sentinel GP network reported an ILI rate of 14 cases per 100,000 population. In week 44, there were 14 influenza A and no influenza B detections. Since the start of the 2004/2005 influenza season, 13 influenza viruses have been antigenically characterised. Twelve were influenza A/Fujian/411/02(H3N2)-like and one was influenza B/Shanghai/361/02.
http://www.phac-aspc.gc.ca/fluwatch/index.html

Influenza activity in the United States
Low levels of influenza activity were also seen in the US during week 43 (week ending 30/10/2004). New York State reported regional influenza activity and Texas reported local activity. All other states reported either sporadic or no activity. WHO and NREVSS laboratories tested 1,046 specimens for influenza. Two were positive for influenza A (H3N2), ten were positive for influenza A (unsubtyped) and influenza B was detected in three samples. Since October 1st, three influenza A (H3N2) viruses have been antigenically characterised by the CDC. All were influenza A/Fujian/411/2002-like.
http://www.cdc.gov/flu/weekly/fluactivity.htm

Influenza activity Worldwide
Influenza activity in New Zealand in 2004 peaked late in the season (in week 38), with an ILI consultation rate of 127.5 per 100,000 population. Activity was at low levels during week 44 (week ending 22/10/2004), with sentinel GPs reporting an ILI consultation rate of 5.0 per 100,000 population. During the 2004 season, a total of 836 influenza isolates were identified in New Zealand. Of these, 55.4% were A/Fujian/411/02(H3N2)-like, 33.1% were A (unsubtyped), 4.1% were A/Wellington/1/2004 (H3N2)-like, 0.1% were A/New Caledonia/20/99(H1N1), 4.2% were influenza B (not typed), 1.7% were B/Sichuan/379/99 and 1.4% were B/Shanghai/361/02. Australia and New Zealand:
http://www.influenzacentre.org/
http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Avian influenza
On October 29th, the WHO issued a warning that domestic ducks might be acting as a silent reservoir for the H5N1 virus. A recent laboratory study showed that domestic ducks were shedding the virus for longer time periods than in 2003 and that most showed no symptoms of illness. This report and other recent evidence indicate that the H5N1 virus circulating in some parts of Asia has increased its pathogenicity in chickens and mice and expanded its host range to include mammals such as felines. To date, no evidence has linked human H5N1 cases to exposure to asymptomatic ducks.

Thailand
On October 25th, the Ministry of Public Health in Thailand confirmed an additional fatal case of human infection with H5N1 avian influenza. The patient was a 14-year-old girl from Sukhothai Province. She developed symptoms on the 8th October and died 11 days later. Chickens at her household died suddenly in late September. Since the beginning of 2004, Thailand has reported 17 laboratory confirmed cases of human infection with avian influenza A (H5N1). Twelve of these have been fatal. There is no evidence that efficient and sustained human-to-human transmission is currently occurring in Thailand.

Viet Nam
Since January 2004, Viet Nam has reported 27 laboratory confirmed cases of human infection with avian influenza A (H5N1). Twenty of these have been fatal. 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/