

Weekly Influenza Surveillance Report



Week 40 2004

**Week starting Monday 27th September 2004 &
ending Sunday 3rd October 2004**

Report produced: 07/10/2004

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

Background to the sentinel influenza surveillance scheme

Welcome to the first influenza surveillance report of the 2004/2005-influenza season. This is the fifth season of influenza surveillance using computerised sentinel general practices in Ireland. The National Disease Surveillance Centre (NDSC) is working in collaboration with the National Virus Reference Laboratory (NVRL) and the Irish College of General Practitioners (ICGP) on the sentinel surveillance project.

Sentinel GPs

Thirty-five general practices have been recruited to report electronically, on a weekly basis, the number of patients with influenza-like illness (ILI). ILI is defined as the sudden onset of symptoms with a temperature of 38°C or more, with two or more of the following: headache, sore throat, dry cough and myalgia. Patients are those attending for the first time with these symptoms. In total, the 35 sentinel general practices cover an estimated total practice population size of 107,254, representing 2.7% of the population. Practices are located in all health boards with their location based on the population of each health board.

Sentinel GPs send a combined nasopharyngeal and throat swab, to the NVRL, on at least one patient per week where a clinical diagnosis of ILI is made. The NVRL report on a weekly basis, positive or negative results by PCR and/or Shell Vial by influenza type and subtype to NDSC.

Regional influenza activity

The Departments of Public Health send an influenza activity index (no report, no activity, sporadic-, localised-, regional- or widespread activity) for each health board/authority every week, to NDSC. The activity index is analogous to that used by the WHO global influenza surveillance system and the European Influenza Surveillance Scheme. The index is based on sentinel GP ILI consultation rates, laboratory confirmed cases of influenza, sentinel hospital admissions data and/or sentinel school absenteeism levels. Sentinel hospital data are based on: total admissions per week, total A&E admissions per week and total respiratory admissions per week (the definition of respiratory illness in this instance includes upper respiratory tract infection, lower respiratory tract infection, pneumonia, asthma, chronic bronchitis, and exacerbations of chronic obstructive airways disease). One sentinel hospital is located in each health board. Sentinel primary and secondary schools in each health board are located in close vicinity to the sentinel GPs. Each sentinel school reports absenteeism data to the Departments of Public Health on a weekly basis. The activity index by health board is included in a map of Ireland in the weekly influenza surveillance report.

Weekly influenza surveillance report

NDSC is responsible for producing a weekly influenza report, which is sent to all those involved in influenza surveillance and also posted on the NDSC website every Thursday www.ndsc.ie. Results of clinical and virological data are reported, along with a map of influenza activity, and a summary of influenza activity worldwide.

The influenza surveillance period runs from week 40 in October to week 20 in May, with the week running Monday to Sunday.

Summary

During week 40 2004, influenza activity was at low levels in Ireland, with four cases of ILI reported by the sentinel GPs. Two sentinel swabs were submitted to the NVRL for testing. One tested positive for influenza A. This was the first influenza virus detection, in Ireland, for the 2004/2005 influenza season.

Clinical data

During week 40 2004 (week ending the 3rd of October 2004), four influenza-like illness (ILI) cases were reported by sentinel general practices, corresponding to an ILI consultation rate of 6 per 100,000 population (figure 1). Twenty-five of the 35 (71.4%) sentinel general practices reported during week 40 2004, with three reporting ILI. All four ILI cases were in the 15-64 age group.

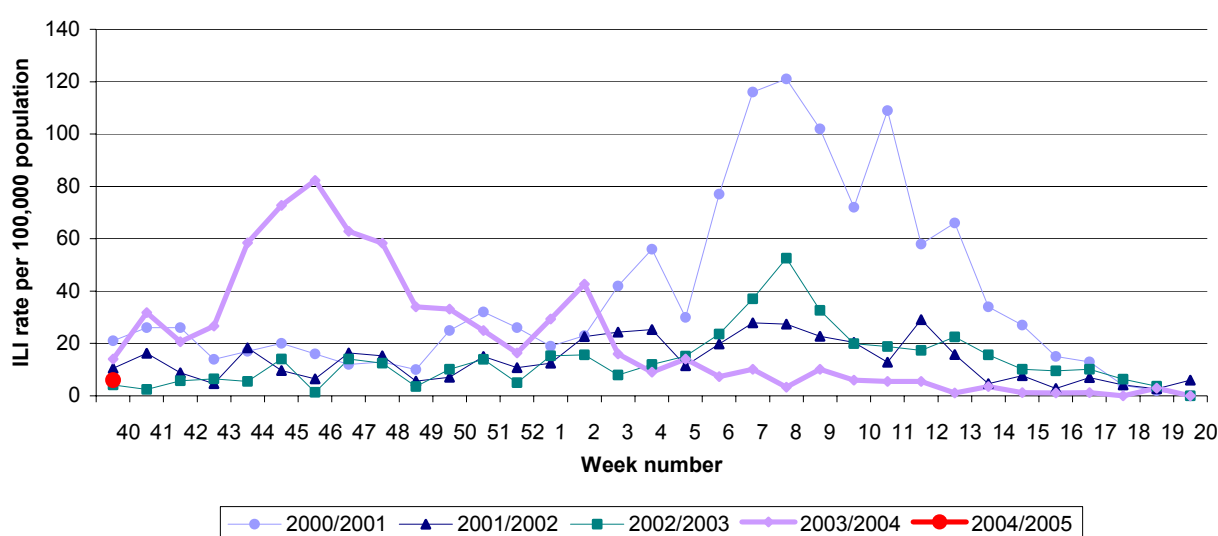


Figure 1. GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005-influenza seasons.

Virological data from the National Virus Reference Laboratory

During week 40, the National Virus Reference Laboratory (NVRL) received two swabs from sentinel GPs. One was positive for Influenza A (unsubtyped) and the other was negative for influenza and for RSV (table 1). The influenza A virus detected during week 40 was the first detection of influenza in Ireland this season and this isolate will be subtyped and antigenically characterised in the coming weeks.

The NVRL also tested 36 respiratory non-sentinel specimens, mainly from hospitals and some GPs, during week 40. No specimens were positive for influenza A, influenza B, parainfluenza virus type 1, type 2 or type 3. One specimen was positive for respiratory syncytial virus (RSV).

Table 1: Total number of sentinel and non-sentinel* influenza A and B positive specimens by health board for week 40 and the 2004/2005 season to date

	Week 40 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	1	0	1	1	0	1
NEHB	0	0	0	0	0	0
NWHB	0	0	0	0	0	0
SEHB	0	0	0	0	0	0
SHB	0	0	0	0	0	0
WHB	0	0	0	0	0	0
Total	1	0	1	1	0	1

* 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.

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. Reporting of influenza activity by health board will begin next week.

Influenza activity in Northern Ireland

Low levels of ILI were reported in Northern Ireland during week 40. Returns were received from 21 sentinel GP practices, giving a population coverage of 7.4%. Fifteen cases of ILI were reported, corresponding to an ILI rate of 11.9 per 100,000 population. No influenza viruses were detected during week 40.

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

Influenza activity in England, Scotland and Wales

Clinical ILI activity was at the lower end of the baseline range in the UK in week 40. The RCGP scheme GP consultation rate for ILI was 8.4 per 100,000 population during week 39 in England. Returns from the Scottish sentinel GP scheme showed an ILI rate of 9 per 100,000 population in week 40. There have been no laboratory confirmed cases of influenza reported by the UK to date this season.

SCIEH:

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

HPA: http://www.hpa.org.uk/infections/topics_az/influenza/fluactivity0304.htm

Influenza activity in Europe

During week 40, low levels of influenza activity were seen throughout Europe. The first confirmed detection of influenza (influenza A (H3N2)) in Europe was in Norway in week 36. EISS will begin publishing its weekly electronic bulletin on the 15th October. <http://www.eiss.org/>

Influenza activity in Canada

Increased activity, including four outbreaks of laboratory confirmed influenza have been reported in Eastern Ontario for weeks 34-36 2004. All four outbreaks have been

confirmed as influenza A by rapid antigen testing. Strain characterisation of the virus associated with the first outbreak has identified the strain as A/Fujian/411/02(H3N2)-like virus. Elsewhere in Canada influenza-like illness rates are low, with only British Columbia reporting sporadic detections of influenza.

<http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>

Influenza activity in the United States

Reports on influenza surveillance for the 2003/2004 season in the US will be available on October 15th 2004.

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

Influenza activity Worldwide

During week 40, sporadic activity was reported in Australia (6 A (unsubtyped) and 6 B) and China (49 A(H3), 1 A(H1), 3 A (unsubtyped) and 13 B). No activity was reported in Denmark, France, Portugal and Switzerland.

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

There have been a number of localised outbreaks reported in New Zealand in recent weeks. An ILI consultation rate of 64.7 was reported for week 40. This represents a decrease from rates reported in weeks 38 and 39. Laboratory analysis has identified influenza A/Fujian/411/2002 (H3N2) as the predominant circulating strain.

http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Avian influenza

Thailand

Since the beginning of 2004, Thailand has reported 16 laboratory confirmed cases of human infection with avian influenza A (H5N1). Eleven of these have been fatal. On the 28th of September Thai officials announced a probable case of human-to-human transmission in a family cluster of cases. Specimens from this cluster are being analysed at a WHO collaborating laboratory to determine if the genetic makeup of the virus has changed. There is no evidence that efficient and sustained human-to-human transmission is currently occurring in Thailand. 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/>