

# Influenza Weekly Surveillance Report



A REPORT BY THE HEALTH PROTECTION SURVEILLANCE CENTRE IN COLLABORATION WITH THE IRISH COLLEGE OF GENERAL PRACTITIONERS, THE NATIONAL VIRUS REFERENCE LABORATORY & THE DEPARTMENTS OF PUBLIC HEALTH

Week 41 2008 (6<sup>th</sup> - 12<sup>th</sup> October 2008)

## Summary

During week 41 2008, influenza activity was at low levels in Ireland, with nine influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 41.

## Background

This is the ninth season of influenza surveillance using computerised sentinel general practices in Ireland. The Health Protection Surveillance Centre (HPSC) is working in collaboration with the Irish College of General Practitioners (ICGP), the National Virus Reference Laboratory (NVRL) and the Departments of Public Health on this sentinel surveillance project. Fifty-two sentinel general practices have been recruited to report on the number of patients with ILI on a weekly basis. 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. Sentinel GPs send a combined nasal and throat swab,

to the NVRL, on at least one patient per week where a clinical diagnosis of ILI is made during the influenza season. This report includes data on ILI cases reported by sentinel GPs, influenza test results from the NVRL, influenza notifications, registered deaths attributed to influenza, and regional influenza activity reported by the Departments of Public Health.

## Results

### Clinical Data

Nine ILI cases were reported from sentinel GPs during week 41 2008, corresponding to an ILI consultation rate of 6.2 per 100,000 population, a decrease from the updated rate of 8.0 per 100,000 population during week 40 2008 (figure 1). This ILI rate is below the baseline threshold and within expected levels for the start of the influenza season. The mean ILI rate for week 41 for the last nine seasons (2000/2001-2008/2009) is 14.2 per 100,000 population.

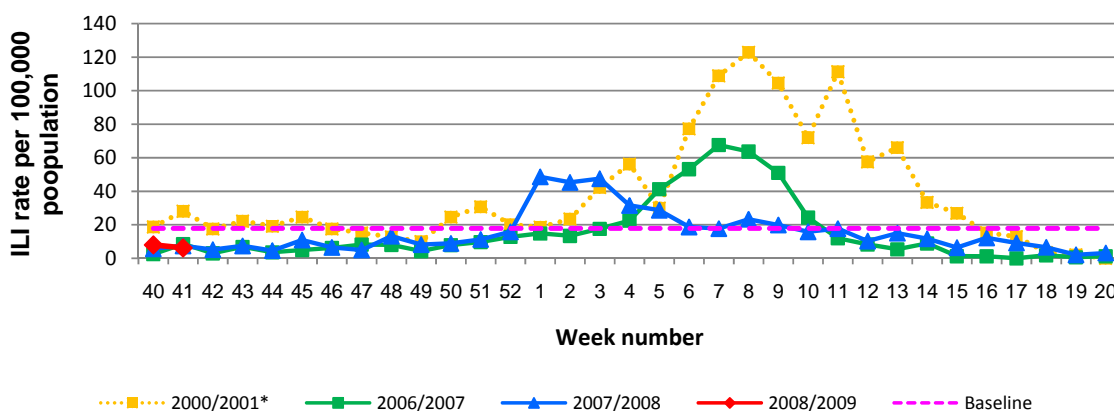
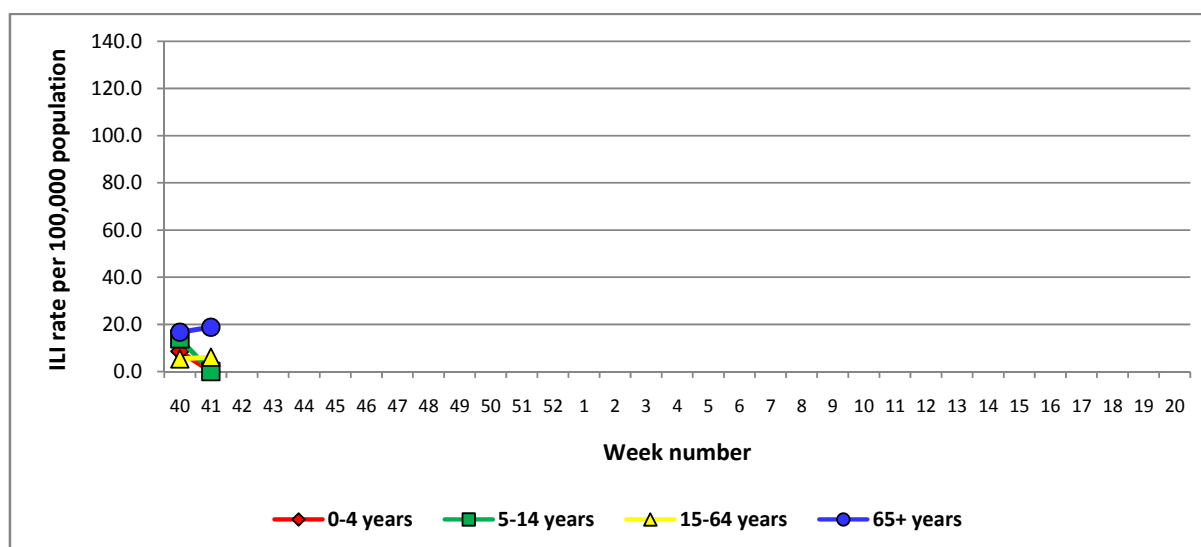


Figure 1: Influenza baseline activity threshold and GP consultation rate for ILI per 100,000 population by week, during the 2000/2001\*, 2006/2007, 2007/2008 and 2008/2009 influenza seasons

\*Highest recorded levels of ILI activity since initiation of sentinel surveillance

## Results (continued)

Forty-one of 52 (79.0%) sentinel general practices reported during week 41 2008, with seven reporting ILI cases. Six ILI cases were reported in the 15-64 year age group (6.1 per 100,000 population) and three ILI cases (18.8 per 100,000 population) were reported in those aged 65 years or older, as shown in figure 2. No ILI cases were reported in the 0-4 year age group or the 5-14 year age group.



**Figure 2:** Age specific GP consultation rate\* for ILI per 100,000 population by week during the 2008/2009 influenza season  
\*Please note the denominator used in the age specific consultation rate is from the 2006 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

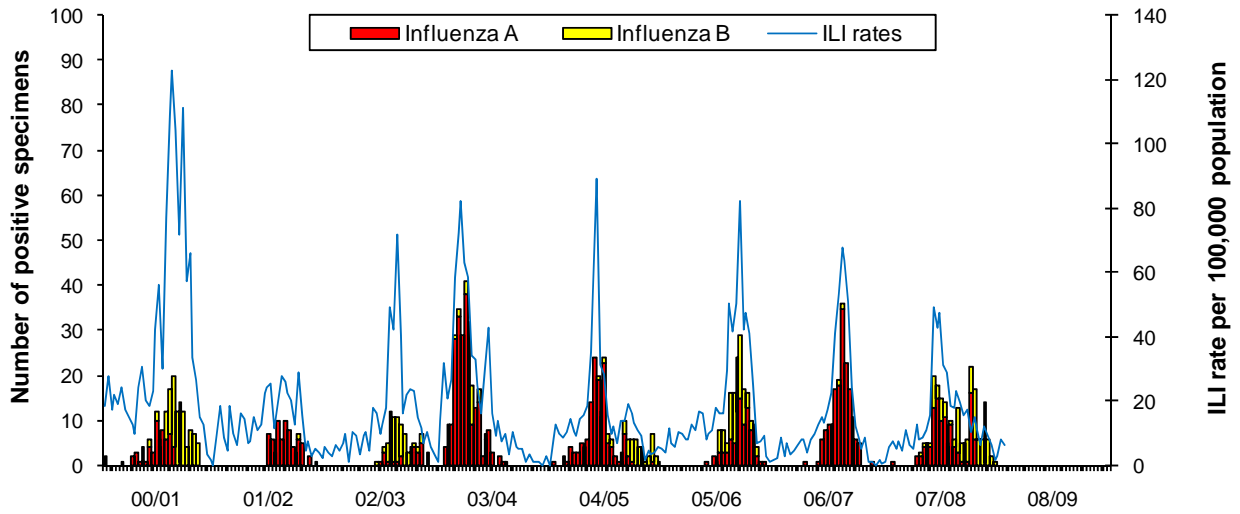
### Virological Data from the NVRL

The NVRL tested one specimen taken by sentinel GPs during week 41 2008, which was negative for influenza virus. The NVRL also tested 43 non-sentinel specimens taken during week 41 2008, mainly from hospitalised paediatric cases. All non-sentinel specimens were negative for influenza virus and seven were positive for respiratory syncytial virus (RSV) (table 1). Figure 3 compares the ILI consultation rates by season and the number of positive influenza specimens tested by the NVRL. Figure 4 compares the number and percentage of non-sentinel RSV positive specimens detected during the 2007/2008 and 2008/2009 influenza seasons. The RSV percentage positive for week 41 2008 (16.3%) is higher than the mean percentage positive value (7.3%) for week 41 for the last nine seasons (2000/2001 -2008/2009).

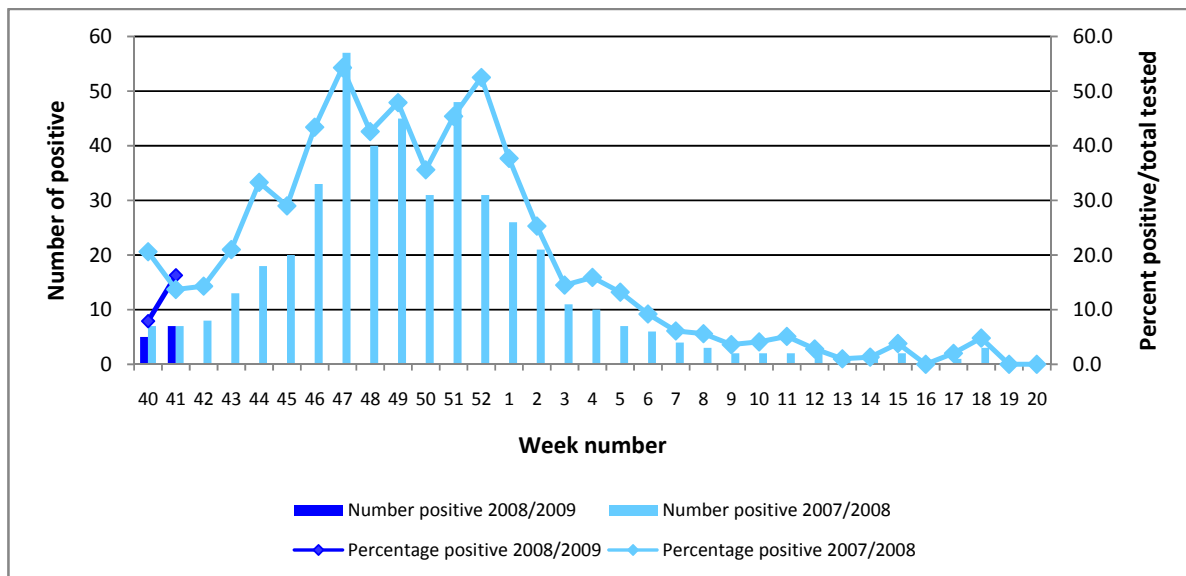
**Table 1:** Number of sentinel and non-sentinel\* respiratory specimens and positive results for week 41 2008

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
41 2008	Sentinel	1	0	0.0	0	0	NA
	Non-Sentinel	43	0	0	0	0	7
	<b>Total</b>	<b>44</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>7</b>
40-41 2008	Sentinel	5	0	0.0	0	0	NA
	Non-Sentinel	106	0	0.0	0	0	12
	<b>Total</b>	<b>111</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>12</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



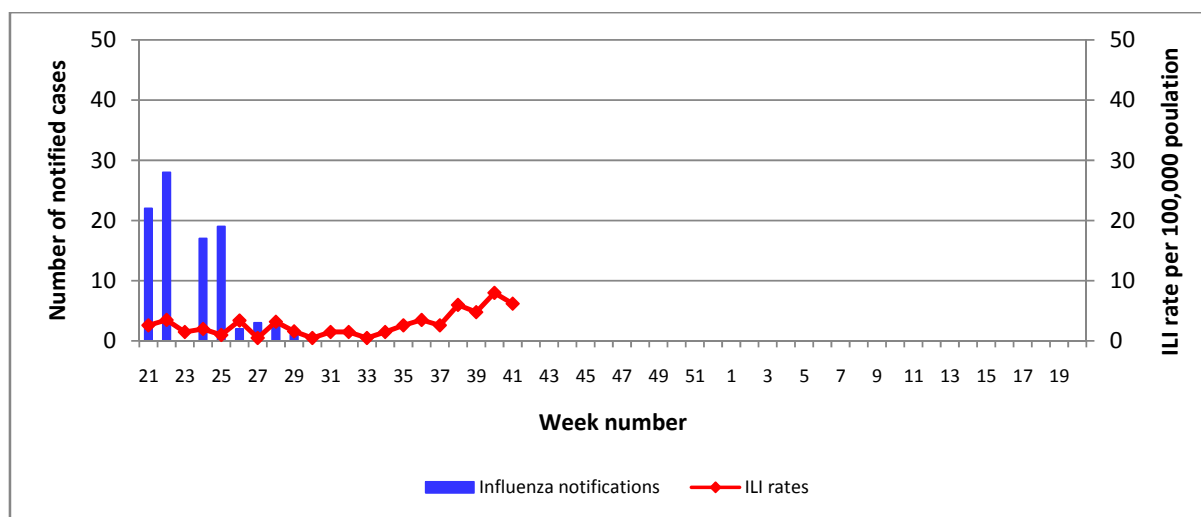
**Figure 3:** GP ILI consultation rate per 100,000 population and the number of positive influenza specimens detected by the NVRL by week and season, 2000/2001 - 2008/2009



**Figure 4.** Number and percentage of non-sentinel RSV positive specimens detected during the 2007/2008 and 2008/2009 influenza seasons

### Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 41 2008. It should be noted that 87 influenza (type unspecified) cases notified to HPSC during the 2008 summer season (weeks 21-39 2008) were possible cases (i.e. clinical cases with no laboratory confirmation). These were late GP notifications from HSE-E for 2007. Influenza cases notified to HPSC during the summer of 2008 and during the 2008/2009 influenza season are shown in figure 5 and compared to GP ILI consultation rates.



**Figure 5:** Number of notifications\* of influenza by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2008 and the 2008/2009 influenza season  
 \*Notification data are provisional and were extracted from [CIDR](#) on the 15/10/2008 at 15.10

### Baseline thresholds

A baseline threshold of 17.8 cases per 100,000 population will be used alongside expert opinion to assess influenza activity during the 2008/2009 influenza season in Ireland. This baseline was derived from the EISS method using a mathematical algorithm to identify the influenza activity period of the previous eight seasons.

### Mortality Data

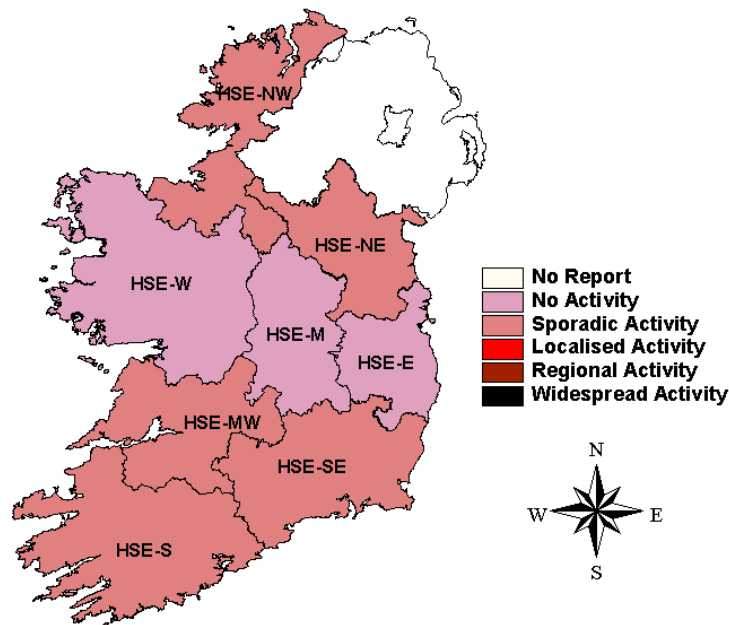
One death attributed to influenza was registered with the General Register Office (GRO) during the summer of 2008. This death was an adult over 65 years of age who died in March 2008. Influenza was the secondary cause of death in this case. No influenza associated deaths were registered with the GRO during week 41 2008.

### Outbreak Reports

No ILI/influenza outbreaks were reported to HPSC during the summer of 2008 or during week 41 2008.

### Regional Influenza Activity by HSE-Area

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 influenza cases and ILI/influenza outbreaks. Each Department of Public Health has established one sentinel hospital in each HSE-Area, to report total hospital admissions, accident and emergency admissions and respiratory admissions data on a weekly basis. Sentinel primary and secondary schools were also established in each HSE-Area in close proximity to the sentinel GPs, reporting absenteeism data on a weekly basis. No increases in absenteeism were reported from sentinel schools during week 40 2008. No increases in respiratory admissions were reported by sentinel hospitals during week 40 2008. During week 40 2008 sporadic influenza activity (based on isolated cases of ILI) was reported in five HSE-areas: HSE-MW, -NE, -NW, -SA and -SE (figure 6).



**Figure 6:** Map of influenza activity by HSE-Health Area during week 40 2008

### ***Influenza Activity in Northern Ireland***

During week 41 2008, five cases of clinical influenza and 19 ILI cases were reported in Northern Ireland, corresponding to a combined rate of 16.2 per 100,000 population, a decrease from the updated rate of 19.6 per 100,000 for week 40 2008. Three sentinel specimens and 22 non-sentinel specimens were tested for influenza during week 41 2008 and none were positive. <http://www.cdscni.org.uk>

### ***Influenza Activity in England, Scotland & Wales***

Influenza activity remains low across the UK. In England and Wales, the ILI rate remained low at 6.2 per 100,000 population in week 41 2008, similar to the rate of 6.8 per 100,000 population in week 40 2008. The rate remains below the baseline activity threshold of 30 per 100,000 population. In Scotland, the ILI rate was 6 per 100,000 population during week 41 2008, a decrease from the rate of 8 per 100,000 population in week 40 2008. Activity remains below the Scottish baseline threshold of 50 per 100,000 population. Detections of influenza from NHS and HPA laboratories were at low levels during week 41 2008, with two influenza A and one influenza B detected. Two specimens sent to the Respiratory Virus Unit at the Centre for Infections tested positive for influenza during week 41 2008, one A(H1) and one A (H3).

[http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/activity0708/weekly\\_summary.htm](http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/activity0708/weekly_summary.htm)

### ***Influenza Activity in Europe***

Influenza surveillance data for Europe can be accessed at the following link:

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

### ***Influenza Activity in Canada***

Influenza surveillance data for Canada can be accessed at the following link:

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

### ***Influenza Activity in the United States***

Influenza surveillance data for the United States can be accessed at the following link:

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

### ***Influenza Activity Worldwide***

Global Influenza surveillance data can be accessed at the following link:

<http://gamapserver.who.int/GlobalAtlas/home.asp>

### ***Avian Influenza***

As of the 16<sup>th</sup> of October 2008, 387 confirmed human cases and 245 (63.3%) deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Bangladesh, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Lao Peoples Democratic Republic, Myanmar, Nigeria, Pakistan, Thailand, Turkey and Viet Nam.

Further information on avian influenza is available on the following websites:

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

HPSC <http://www.ndsc.ie/hpsc/A-Z/Respiratory/AvianInfluenza/>

ECDC <http://www.ecdc.eu.int/>

### ***Northern Hemisphere Influenza Vaccine for the 2008/2009 Season***

The members of the WHO Collaborating Centres on Influenza have recommended that influenza vaccines for the 2008/2009 influenza season in the Northern Hemisphere contain the following strains:

- an A/Brisbane/59/2007 (H1N1)-like virus;
- an A/Brisbane/10/2007 (H3N2)-like virus;\*
- a B/Florida/4/2006-like virus.#

\* A/Brisbane/10/2007 is a current southern hemisphere vaccine virus.

# B/Florida/4/2006 and B/Brisbane/3/2007 (a B/Florida/4/2006-like virus) are current southern hemisphere vaccine viruses. [http://www.who.int/csr/disease/influenza/recommendations2008\\_9north/en/index.html](http://www.who.int/csr/disease/influenza/recommendations2008_9north/en/index.html)

**Further information on influenza can be found on the [HPSC website](#)**

### **Acknowledgements**

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**This report was produced by Sarah Jackson and Dr. Joan O'Donnell, HPSC**