

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 2007 (8th - 14th October 2007)

Summary

During week 41 2007, influenza activity was at low levels in Ireland, with ten influenza-like illness (ILI) cases reported by sentinel GPs. The NVRL confirmed one influenza A positive specimen during week 41 2007, the first influenza positive specimen of the 2007/2008 season.

Background

This is the eighth 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. Forty-nine 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

Ten ILI cases were reported from sentinel GPs during week 41 2007, corresponding to an ILI consultation rate of 6.2 per 100,000 population, a slight increase from the updated rate of 5.7 per 100,000 in week 40 2007 (figure 1). Forty-four of 49 (89.8%) sentinel general practices reported during week 41 2007, with seven reporting ILI cases.

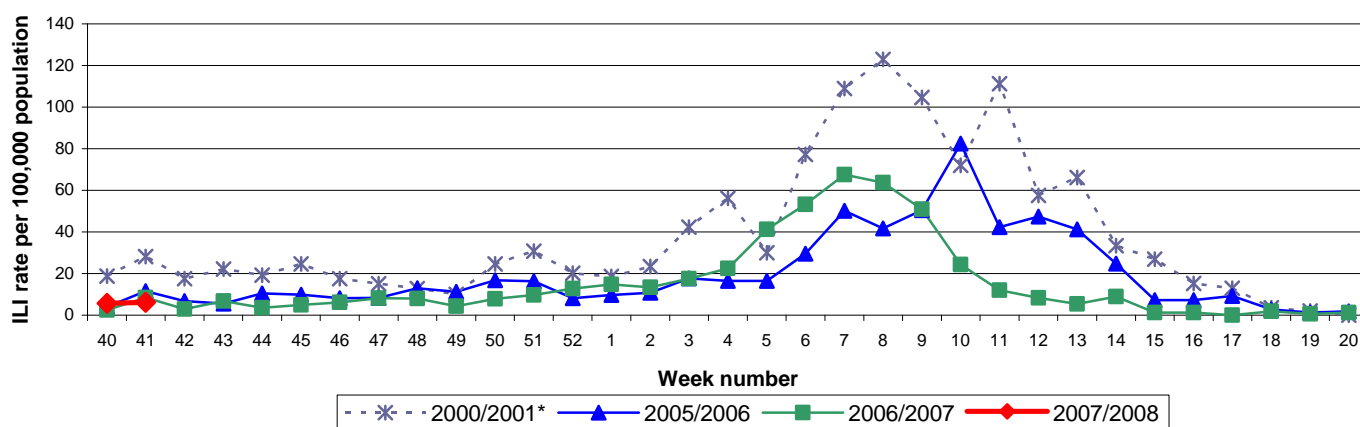


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001*, 2005/2006, 2006/2007 & 2007/2008 influenza seasons *Highest recorded levels of ILI activity since initiation of sentinel surveillance

Results (continued)

One ILI case was reported in the 0-4 year age group (8.7 per 100,000 population), eight ILI cases were reported in the 15-64 year age group (7.2 per 100,000 population) and one ILI case (5.6 per 100,000 population) was reported in those aged 65 years or older, as shown in figure 2. No ILI cases were reported in the 5-14 year age group.

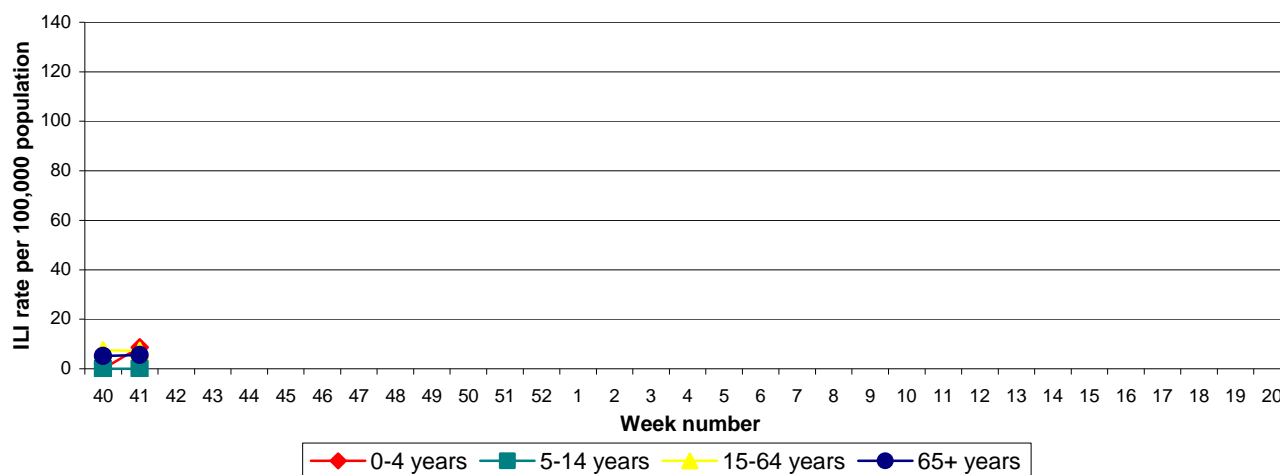


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2007/2008 influenza season
*Please note the denominator used in the age specific consultation rate is from the 2006 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

Virological Data from the NVRL

The NVRL tested six specimens taken by sentinel GPs during week 41 2007. One sentinel specimen was positive for influenza A, this is the first positive influenza specimen from sentinel or non-sentinel sources detected by the NVRL for the 2007/2008 season. The NVRL also tested 51 non-sentinel specimens taken during week 41 2007, mainly from hospitalised paediatric cases. All non-sentinel specimens were negative for influenza virus and six were positive for respiratory syncytial virus (RSV) (table 1). RSV detections decreased during week 41 2007, compared to week 40 2007.

Influenza positive specimens by HSE-Area and age group (in years), for week 41 2007 and the 2007/2008 season to date are shown in tables 2 and 3, respectively. 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 2006/2007 and 2007/2008 influenza seasons.

Table 1: Number of sentinel and non-sentinel* respiratory specimens and positive results for week 41 2007 and the 2007/2008 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
41 2007	Sentinel	6	1	16.7	1	0	NA
	Non-Sentinel	51	0	0	0	0	6
	Total	57	1	1.8	1	0	6
40-41 2007	Sentinel	10	1	10.0	1	0	NA
	Non-Sentinel	85	0	0.0	0	0	13
	Total	95	1	1.1	1	0	13

*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 2: Total number of sentinel and non-sentinel* influenza A and B positive specimens by HSE-Area for week 41 2007 and the 2007/2008 season to date

	Week 41 2007			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
HSE-ER	0	0	0	0	0	0
HSE-M	0	0	0	0	0	0
HSE-MW	0	0	0	0	0	0
HSE-NE	0	0	0	0	0	0
HSE-NW	0	0	0	0	0	0
HSE-SE	0	0	0	0	0	0
HSE-S	1	0	1	1	0	1
HSE-W	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

Table 3: Total number of sentinel and non-sentinel* influenza A and B positive specimens by age group (in years) for week 41 2007 and the 2007/2008 season to date

	Week 41 2007			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
0-4 years	0	0	0	0	0	0
5-14 years	0	0	0	0	0	0
15-64 years	1	0	1	1	0	1
65 years and older	0	0	0	0	0	0
Age group unknown	0	0	0	0	0	0
Total	1	0	1	1	0	1

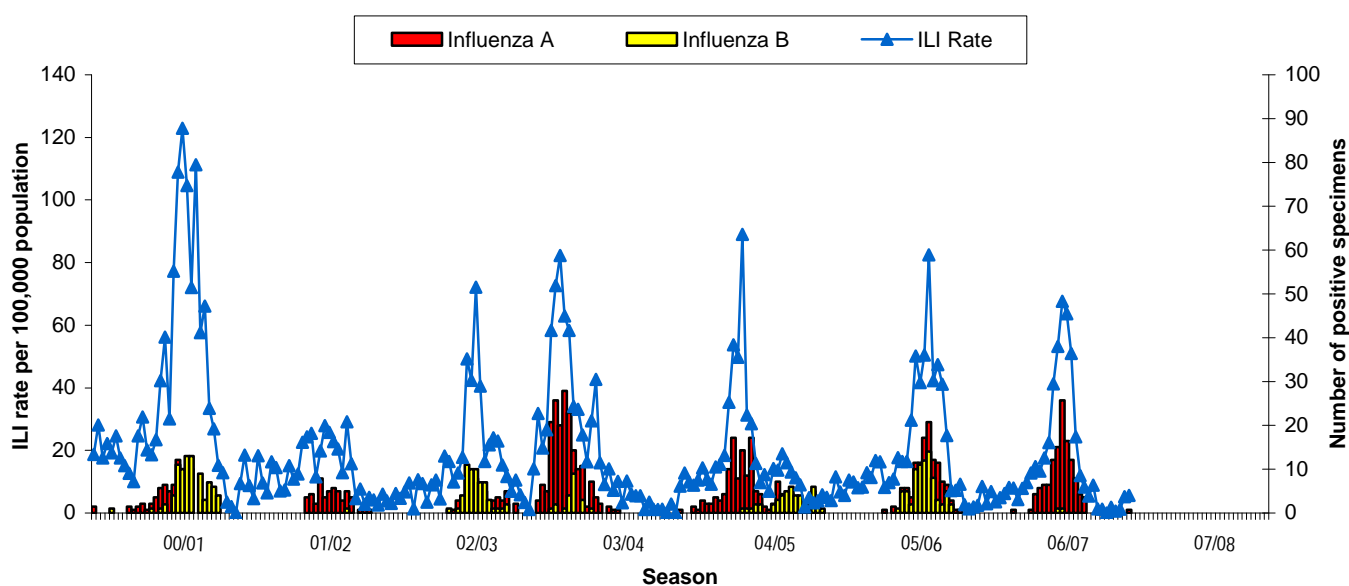


Figure 3: GP ILI consultation rate per 100,000 population and the number of positive influenza specimens detected by the NVRL by week and season, 2000/2001 - 2007/2008

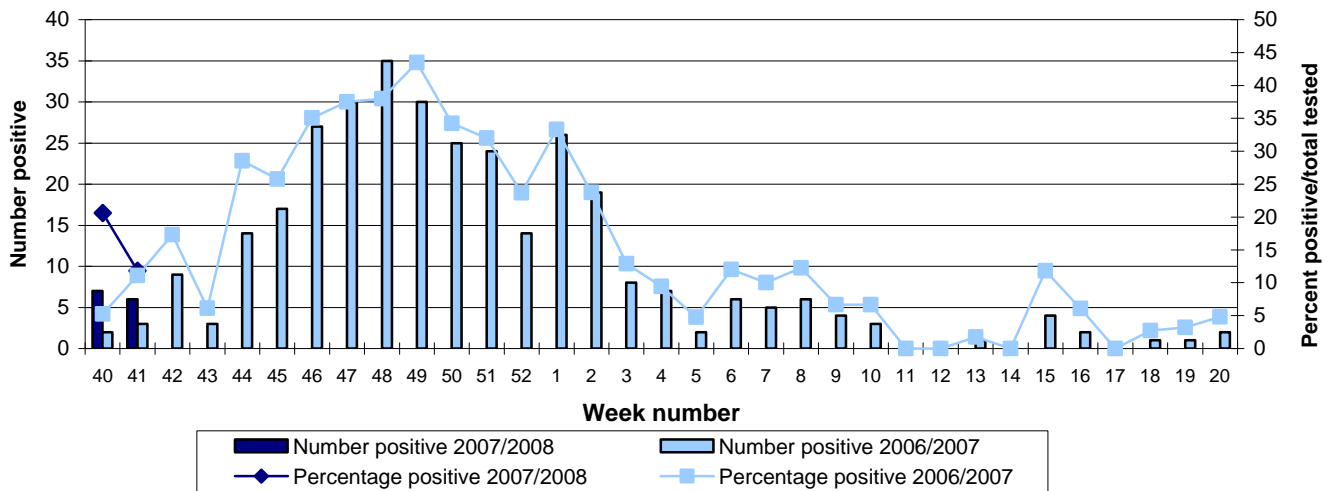


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2006/2007 and 2007/2008 influenza seasons

Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 41 2007. Influenza cases notified to HPSC during the summer of 2007 and during the 2007/2008 influenza season are shown in figure 5 and compared to GP ILI consultation rates.

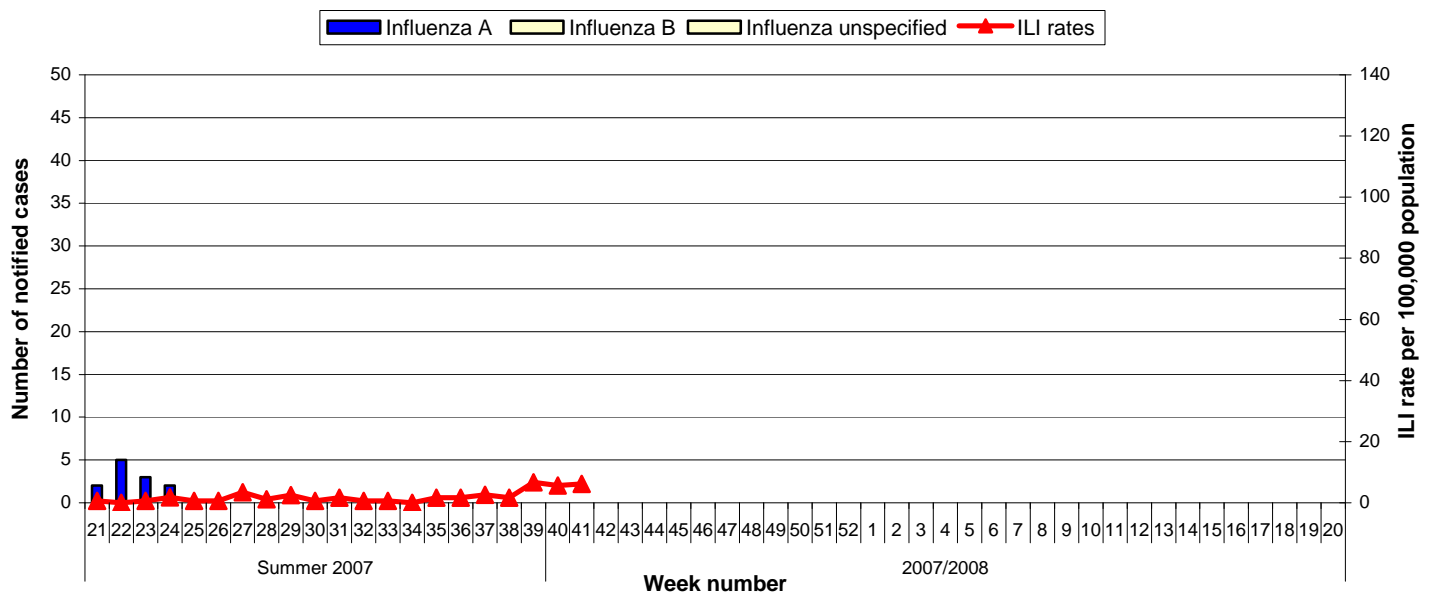


Figure 5: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2007 and the 2007/2008 influenza season
 *Notification data are provisional and were extracted from [CIDR](#) on the 18/10/2007 at 08.39

Mortality Data

No influenza associated deaths were registered with the GRO and reported to HPSC to date this season.

Outbreak Reports

No ILI/influenza outbreaks have been reported to HPSC to date this season.

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. Increased absenteeism was reported in two sentinel secondary schools (one in week 40 2007 and one in week 41 2007) and one primary school (in week 40 2007). During week 40 2007 sporadic influenza activity (based on isolated cases of ILI) was reported in four HSE-Areas: HSE-ER, -NE, -SE and -W (figure 6).

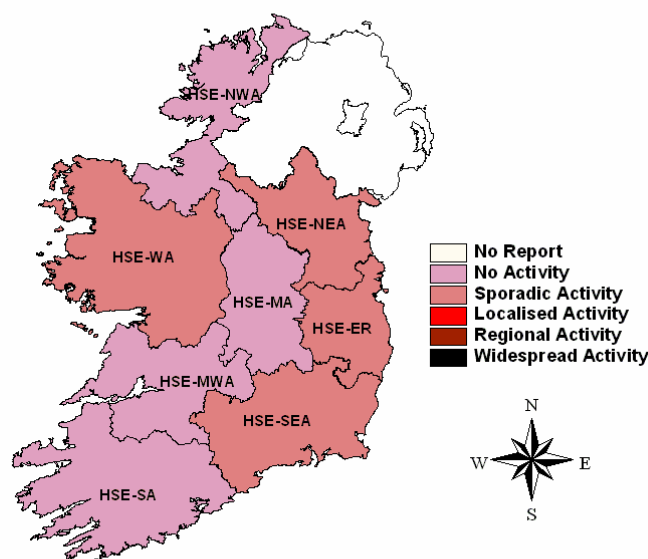


Figure 6: Map of influenza activity by HSE-Health Area during week 40 2007

Influenza Activity in Northern Ireland

During week 41 2007, nine cases of clinical influenza and 31 ILI cases were reported in Northern Ireland, corresponding to a combined rate of 26.9 per 100,000 population, an increase from the updated rate of 18.7 per 100,000 for week 40 2007. Twenty-three non-sentinel swabs were tested during week 41 2007, none of which were positive for influenza virus. <http://www.cdscni.org.uk>

Influenza Activity in England, Scotland & Wales

During week 41 2007, clinical influenza activity in England, Scotland and Wales has remained low and stable; below baseline activity thresholds. Two samples referred to the Centre for Infections' Respiratory Virus Unit tested positive for influenza A (both H1 subtype) during week 41 2007. One influenza B detection was reported in week 40 2007. <http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/flureports0708.htm>

Influenza Activity in Europe

During weeks 38 and 39 2007, low levels of influenza activity were reported throughout Europe. During week 38 2007, two influenza B detections (one in Estonia and one in Sweden) and a single detection of influenza A (H3) from Belgium were reported. There have been no reports of unusual influenza activity in Europe since week 22 2007, when an outbreak of avian influenza A (H7N2) with transmission to humans was reported in the United Kingdom. <http://www.eurosurveillance.org/ew/2007/070531.asp#2>. The first surveillance report of influenza activity in

Europe for the 2007/2008 season will be published by the European Influenza Surveillance Scheme (EISS) on the 19th of October 2007. <http://www.eiss.org/index.cgi>

Influenza Activity in Canada

During weeks 39 and 40 2007, influenza activity remained low in Canada with three regions reporting sporadic activity. The ILI consultation rates increased in weeks 39 and 40 2007 compared to previous weeks (14 and 15 per 1,000 patient visits respectively) but are within the expected range. In weeks 39 and 40 2007, only 3 of the 2143 (0.1%) specimens tested were positive for influenza A virus. One school outbreak of ILI was reported in week 40 2007. Since the start of the season, one outbreak in a long term care facility has been reported.

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

Influenza Activity in the United States

During week 40 2007, low levels of influenza activity were reported in the United States. The proportion of outpatient visits for ILI was below national and region-specific baseline levels. One state reported local influenza activity; eight states and Puerto Rico reported sporadic influenza activity; and 41 states and the District of Columbia reported no influenza activity. Twelve (1.5%) specimens tested by the U.S. World Health Organisation and National Respiratory and Enteric Virus Surveillance System collaborating laboratories were positive for influenza (11 influenza A and one influenza B). The proportion of deaths attributed to pneumonia and influenza was slightly above the epidemic threshold. <http://www.cdc.gov/flu/weekly/fluactivity.htm>

Influenza Activity Worldwide

During week 40 2007, sporadic influenza activity was reported in China (3 A H1, 11 A H3, 1 A untyped and 27 B) and Sri-Lanka (1 B). No influenza activity was reported in South Africa.

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

Avian Influenza

As of the 17th of October 2007, 331 confirmed human cases and 203 (61.3%) deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Lao Peoples Democratic Republic, Nigeria, Thailand, Turkey and Viet Nam.

The Ministry of Health of Indonesia has announced the death of a previously confirmed case of H5N1 infection. The 12-year-old male from Tangerang District in Banten Province died on the 13th of October 2007. Of the 109 cases confirmed to date in Indonesia, 88 have been fatal.

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

WHO 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 2007/2008 Season

The members of the WHO Collaborating Centres on Influenza have recommended that influenza vaccines for the 2007/2008 influenza season in the Northern Hemisphere contain the following strains:

- an A/Solomon Islands/3/2006 (H1N1)-like virus
- an A/Wisconsin/67/2005 (H3N2)-like virus^a
- a B/Malaysia/2506/2004-like virus

Candidate vaccine viruses include:

- ^aA/Wisconsin/67/2005 (H3N2) and A/Hiroshima/52/2005

<http://www.who.int/csr/disease/influenza/recommendations2007north/en/print.html>

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

Acknowledgements

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This report was produced by Dr. Lisa Domegan and Dr. Joan O'Donnell, HPSC