

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 45 2006 (6th to 12th November 2006)

Summary

During week 45 2006, influenza activity was at low levels in Ireland, with six influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 45.

Background

This is the seventh 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-eight 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

Six ILI cases were reported from sentinel GPs during week 45 2006, corresponding to an ILI consultation rate of 5 per 100,000 population, an increase from the updated rate of 3.7 during week 44 (figure 1).

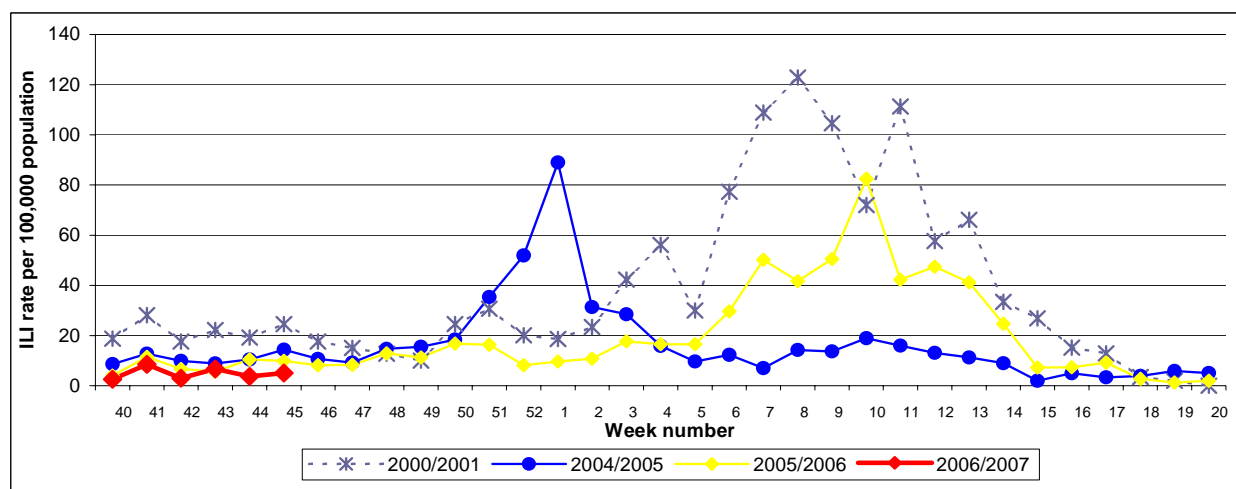


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001*, 2004/2005, 2005/2006 & 2006/2007 influenza seasons.

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

Results (continued)

Two ILI cases were aged 0-4 years (23.4 per 100,000 population) and four ILI cases were aged between 15-64 years (4.9 per 100,000 population) as shown in figure 2. Thirty-five of the 48 (72.9%) sentinel general practices reported during week 45 2006, with six reporting ILI.

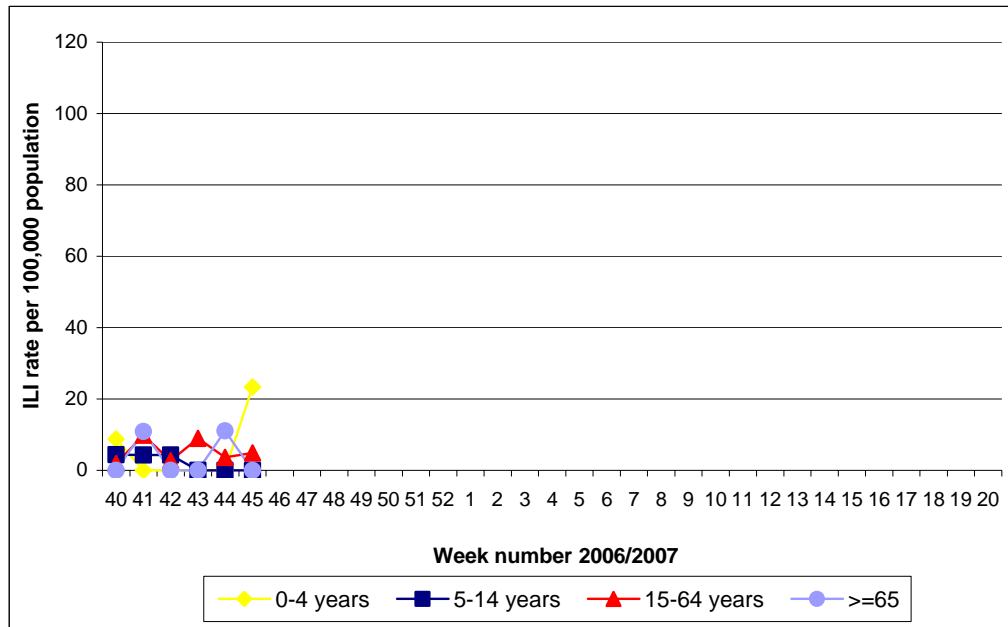


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2006/2007 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

Virological Data from the National Virus Reference Laboratory (NVRL)

The NVRL tested eight specimens taken by sentinel GPs during week 45 2006, all of which were negative for influenza virus. The NVRL also tested 65 non-sentinel specimens taken during week 45 2006, mainly from hospitalised paediatric cases. Seventeen non-sentinel specimens were positive for respiratory syncytial virus (RSV) and none were positive for influenza virus (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 2005/2006 and 2006/2007 influenza seasons

Table 1: Number of sentinel and non-sentinel* respiratory specimens and positive results for week 45 2006 and the 2006/2007 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
45 2006	Sentinel	8	0	0.0	0	0	NA
	Non-Sentinel	65	0	0.0	0	0	17
	Total	73	0	0.0	0	0	17
40-45 2006	Sentinel	29	0	0.0	0	0	NA
	Non-Sentinel	280	0	0.0	0	0	48
	Total	309	0	0.0	0	0	48

*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.

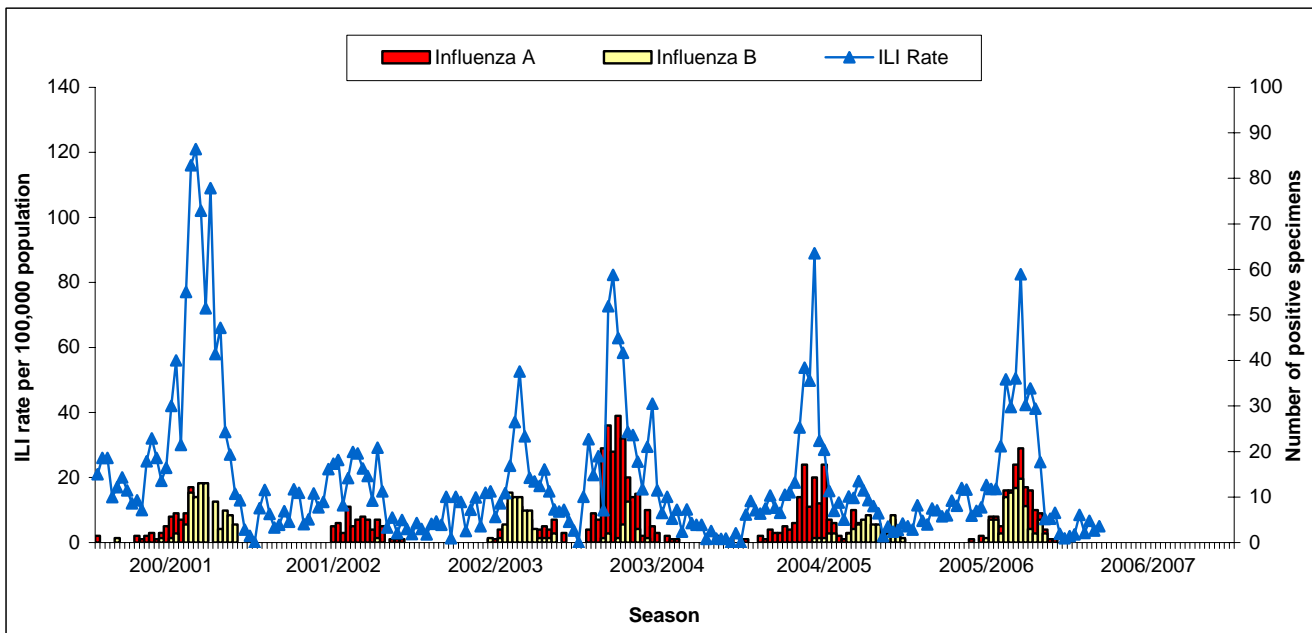


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006 & 2006/2007 seasons.

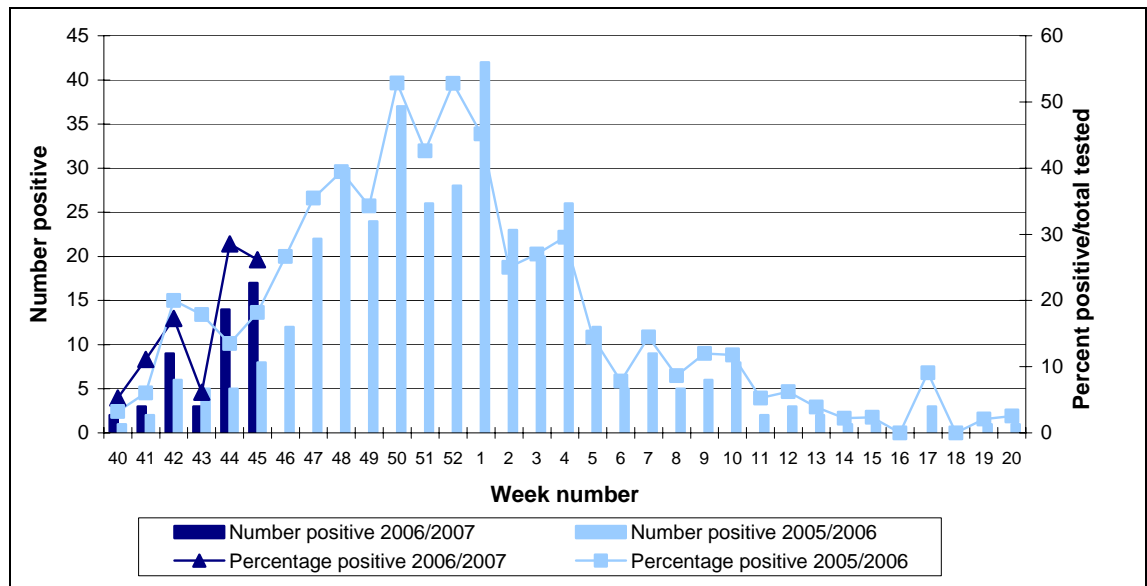


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2005/2006 and 2006/2007 influenza seasons.

Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 45 2006. Influenza cases notified to HPSC during the summer of 2006 and during the 2006/2007 influenza season are shown in figure 5 and compared to ILI consultation rates.

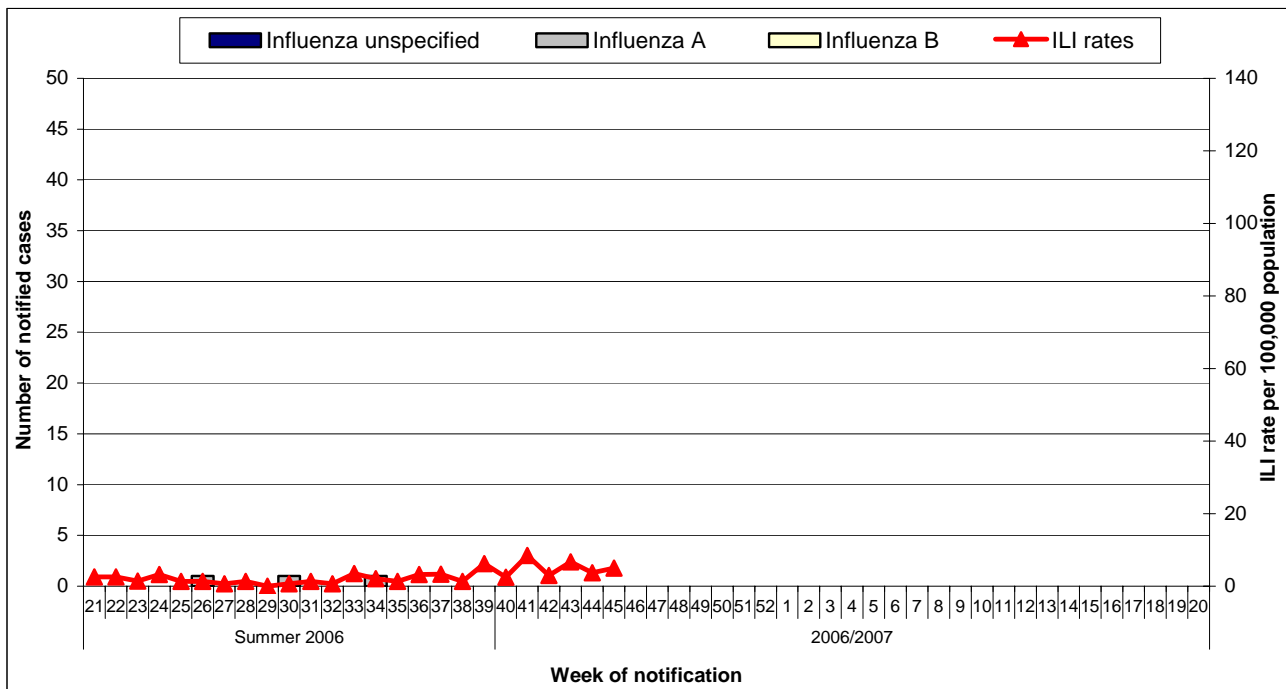


Figure 5: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2006 and the 2006/2007 influenza season. *Notification data are provisional and were extracted from [CIDR](#) on the 15/11/2006 at 10.05

Mortality Data

No deaths registered during week 45 2006 were attributed to influenza.

Outbreak Reports

No influenza/ILI outbreaks were reported to HPSC during week 45 2006.

Regional Influenza Activity by HSE-Health 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 influenza/ILI 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. Sporadic influenza activity, based on isolated cases of ILI, was reported by HSE-ER, -MWA,-SA and -WA during week 44 2006 (figure 6). No activity was reported from HSE-MA, -NEA, -NWA and -SEA. No increases in hospital admissions or sentinel school absenteeism were reported to HPSC for week 44 2006.

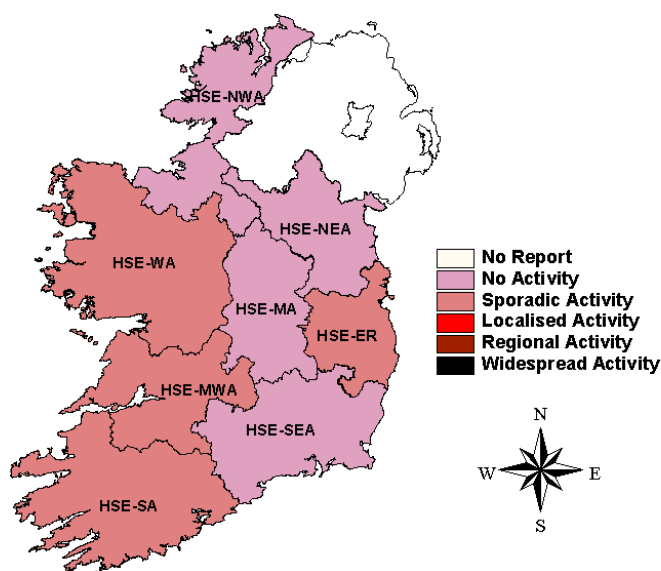


Figure 6: Map of influenza activity by HSE-Health Area during week 44 2006

Influenza Activity in Northern Ireland

Sixty-eight ILI cases and one case of clinical influenza were reported from sentinel GPs in Northern Ireland during week 45 2006, corresponding to a combined rate of 72.7 per 100,000 population, an increase from the updated rate of 38.1 per 100,000 population during week 44. There were no laboratory detections of influenza for week 45 2006. <http://www.cdscni.org.uk>

Influenza Activity in England, Scotland & Wales

Influenza activity in the United Kingdom is currently well below baseline levels. Influenza-like illness episode incidence rates remain at similar levels to previous weeks (6.57 per 100 000 in week 44 2006 and 7.86 per 100 000 during week 45 2006), well below the baseline activity threshold of 30 per 100,000 consultations. Two influenza viruses, from southern England, have been detected from samples referred to the Influenza Laboratory at the Centre for Infections RVU since the beginning of the 2006/2007 season: one Influenza A(H1) subtype from a hospital source during week 43 2006 and one A(H3) subtype from a community sample in week 45 2006. <http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/activity0607/flureport.htm>

Influenza Activity in Europe

During week 44 2006, national network levels of ILI and/or acute respiratory infection (ARI) were at a low level in 26 countries that reported the intensity indicator to the European Influenza Surveillance Scheme (EISS). Two countries did not report the intensity and the geographic spread indicator. For the countries reporting geographic spread indicator, regional data from France indicated some sporadic activity (which means that isolated cases of laboratory confirmed influenza infection have been found) whilst 25 countries reported no activity. This means that influenza activity is at baseline levels. So far this season, the consultation rates for ILI and/or ARI have been at baseline levels across the whole of Europe.

The total number of respiratory specimens collected by sentinel physicians in week 44 was 199, of which two (1.0%) were positive for influenza virus. Both specimens were from Spain, one was positive for influenza A virus and the other tested positive for influenza B virus. In addition, one non-sentinel specimen (e.g. specimens collected in hospitals) from England was positive for influenza A virus untyped. Based on subtyping data of all influenza virus detections for the 2006/2007 season to date, (N=20; sentinel and non-sentinel data), 14 (70%) were A untyped, one A (H1), one A (H1N1), and four (20%) were B.

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

Influenza Activity in Canada

During week 44 2006, localized influenza activity was reported in the Central West region of Ontario and sporadic influenza activity was reported in regions of British Columbia and Alberta. The rest of the country reported no activity. In week 44, 7 (0.5%) of the 1,446 specimens tested for influenza virus were positive. The majority (95%) of influenza detections so far this season were influenza A viruses. The ILI consultation rate remained low with a rate of 6 per 1,000 patient visits in week 44 with a sentinel response rate of 65%. There was one outbreak of influenza A reported in a long term care facility in Ontario.

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

Influenza Activity in the United States

During week 44 2006, a low level of influenza activity was reported in the United States. Eighty-four (4.8%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. One state reported regional influenza activity, two states reported local influenza activity, 12 states and the District of Columbia reported sporadic influenza activity, 34 states and New York City reported no influenza activity and one state did not report influenza activity.

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

Influenza Activity Worldwide

During week 44 2006 the following influenza isolates were reported; China 5 (1 A (H3) and 4 A untyped), Madagascar 7 A (H3) and New Caledonia 1 A untyped.

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

Avian Influenza

As of the 15th of November 2006, 258 confirmed human cases and 153 deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey and Vietnam.

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 2006/2007 Season

The members of the WHO Collaborating Centres on Influenza recommended that influenza vaccines for the 2006/2007 influenza season in the Northern Hemisphere contain the following strains:

- an A/New Caledonia/20/99(H1N1)-like virus;
- an A/Wisconsin/67/2005 (H3N2)-like virus^a;
- a B/Malaysia/2506/2004-like virus^b

Candidate vaccine viruses include:

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

^bB/Malaysia/2506/2004 virus and B/Ohio/1/2005

<http://www.who.int/csr/disease/influenza/recommendations2007north/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 & Dr Joan O'Donnell, HPSC