

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 47 2005 (21st to 27th Nov 2005)

Summary

During week 47 2005, influenza activity was at low levels in Ireland, with seven influenza-like illness (ILI) cases reported by sentinel GPs. To date this season, no positive influenza specimens have been detected by the NVRL. In recent weeks, several European countries, including Ireland, have reported increases in respiratory syncytial virus detections.

Background

This is the sixth 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. Thirty-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 38⁰C 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. 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

Seven ILI cases were reported by the sentinel GPs during week 47 2005, corresponding to an ILI consultation rate of 6.8 per 100,000 population, a slight decrease from the updated rate of 8.6 per 100,000 population for week 46 2005 (figure 1).

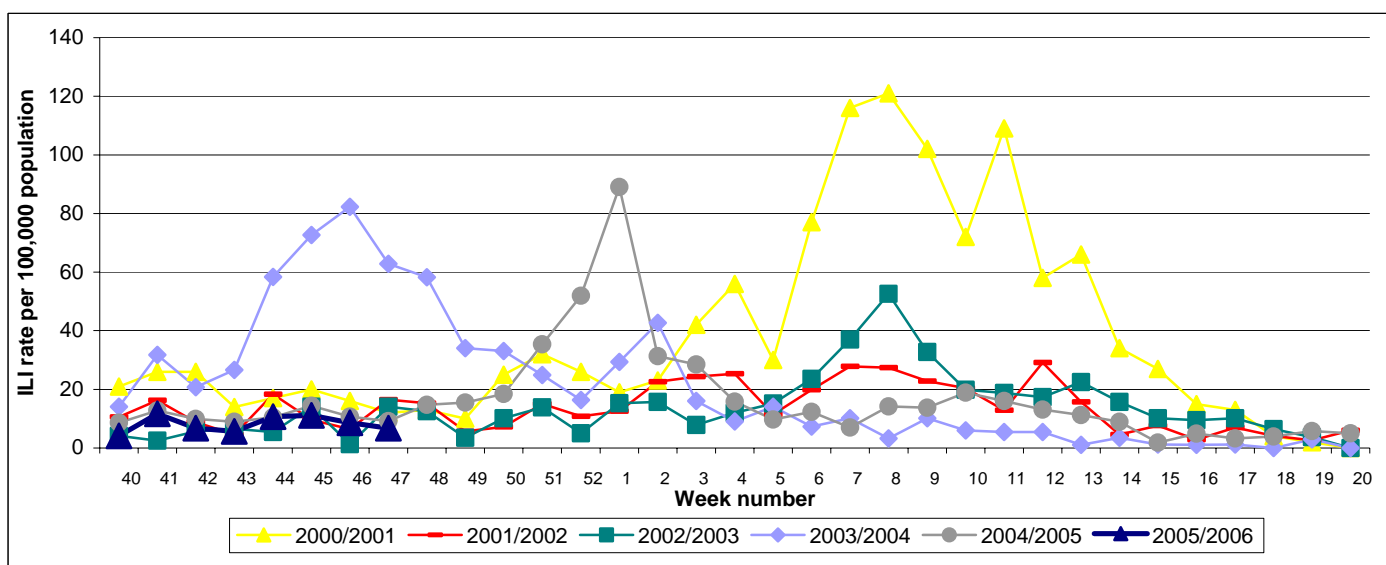


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005 & 2005/2006 influenza seasons.

Results (continued)

All seven ILI cases reported by sentinel GPs during week 47 2005, were aged between 15 and 64 years of age (10.0 per 100,000 population) (figure 2). Thirty-two (82.1%) sentinel general practices reported during week 47 2005, with six reporting ILI.

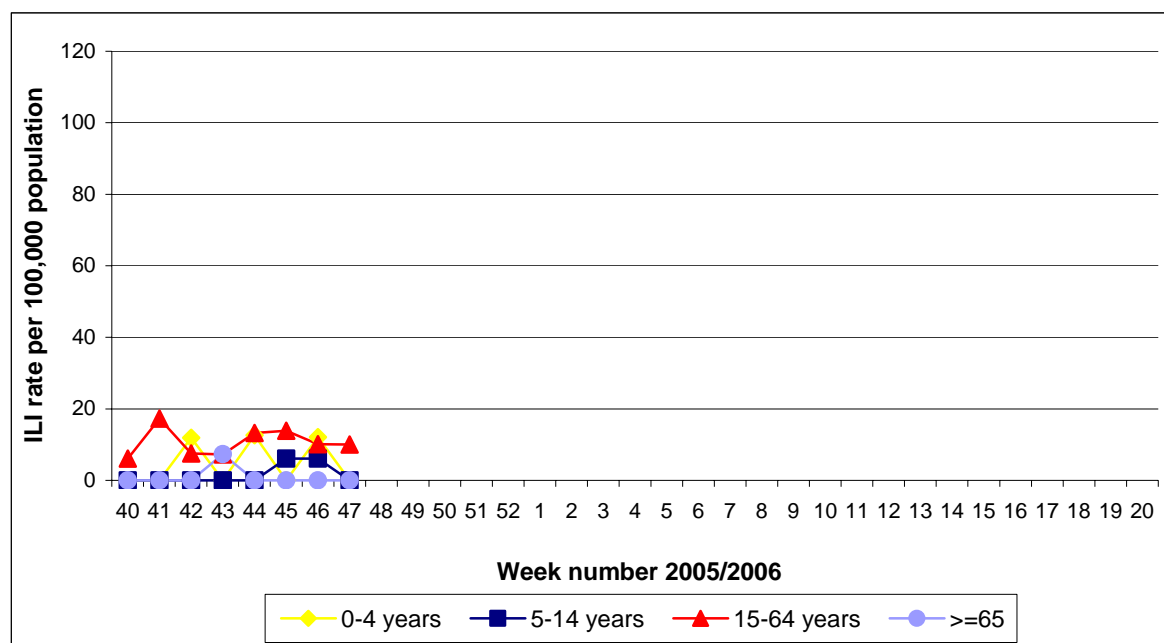


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2005/2006 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

Virological Data from the National Virus Reference Laboratory (NVRL)

To date this season, no positive influenza specimens have been detected by the NVRL (table 1). The NVRL tested seven specimens taken by sentinel GPs during week 47 2005. All were negative for influenza virus. The NVRL also tested 59 non-sentinel specimens, taken during week 47 2005, mainly from hospitalised paediatric cases. All specimens tested negative for influenza. Twenty non-sentinel specimens tested positive for respiratory syncytial virus (RSV) and one non-sentinel specimen was positive for parainfluenza virus type 1. Figure 3 compares the ILI consultation rates by season and the number of positive influenza specimens tested by the NVRL.

Table 1: Total number of sentinel and non-sentinel* respiratory specimens and positive results for week 47 2005 and the 2005/2006 season to date.

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
47 2005	Sentinel	7	0	0.0	0	0	NA
	Non-Sentinel	59	0	0.0	0	0	20
	Total	66	0	0.0	0	0	20
40-47 2005	Sentinel	55	0	0.0	0	0	NA
	Non-Sentinel	309	0	0.0	0	0	61
	Total	364	0	0.0	0	0	61

*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.

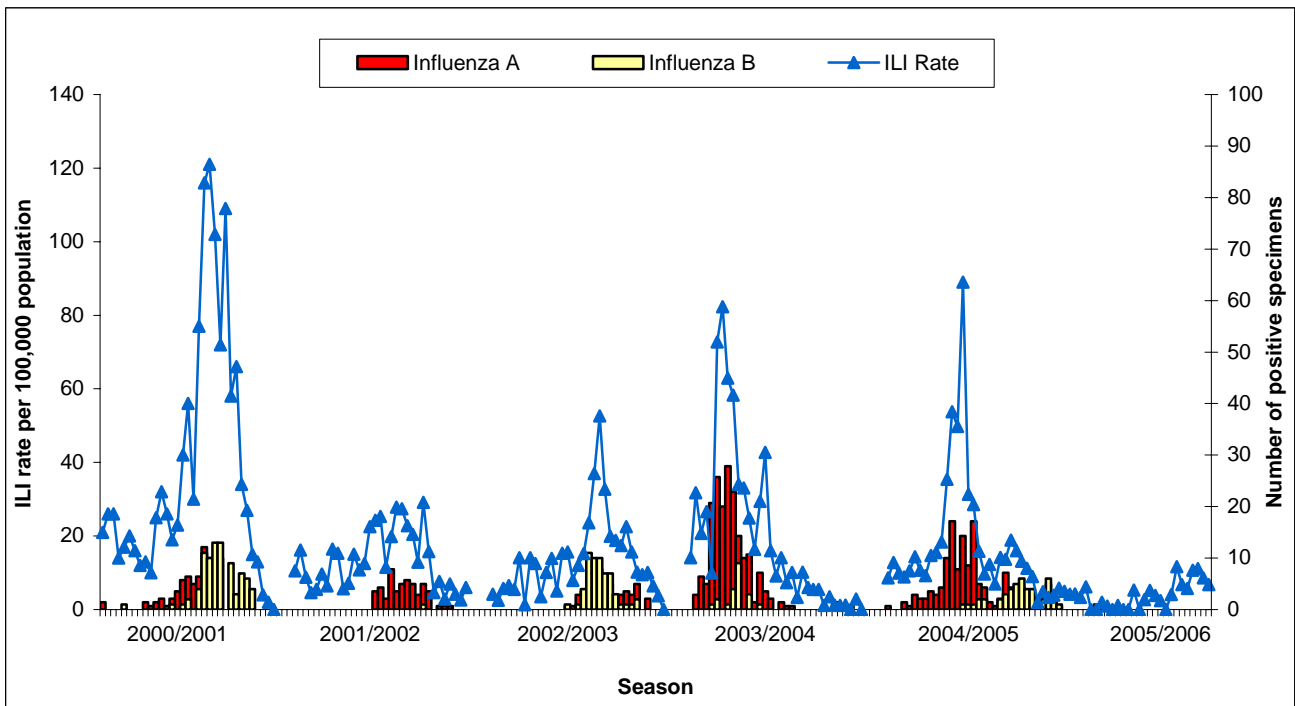


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005 seasons, summer 2005 and the 2005/2006 season.

Weekly Influenza Notifications

No influenza notifications were reported to HPSC during week 47 2005. One influenza B case was notified to HPSC during week 40 2005, however this was a late notification from April 2005. Influenza cases notified to HPSC during the summer of 2005 and during the 2005/2006 influenza season are shown in figure 4, and compared to ILI consultation rates.

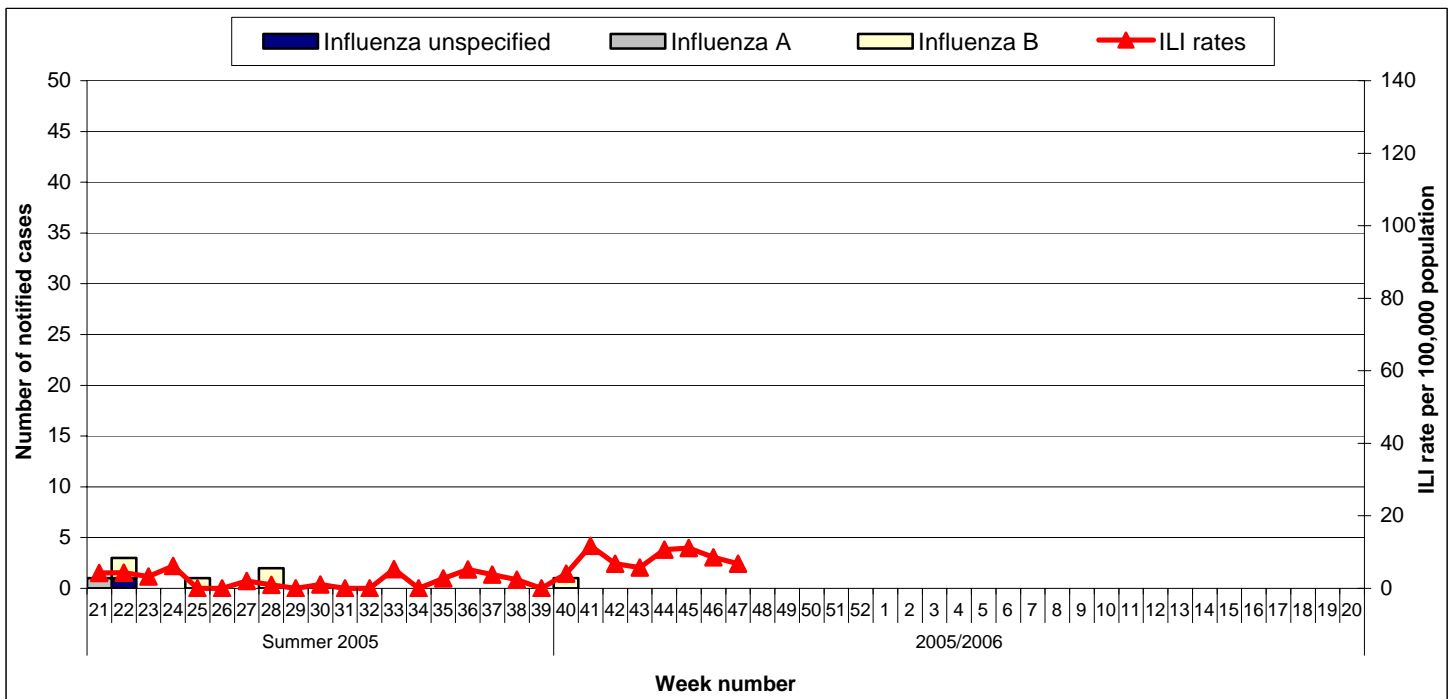


Figure 4: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2005 and the 2005/2006 influenza season.
 *Notification data for weeks 21-47 2005 are provisional and were extracted from [CIDR](#) on the 30/11/2005 at 16.30.

Mortality Data

No deaths registered to date this season were attributed to influenza.

Outbreak Reports

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

Hospital Admissions

Each Department of Public Health has established one sentinel hospital in each HSE-Health Area, to report total hospital admissions, accident and emergency admissions and respiratory admissions data on a weekly basis. A slight increase in respiratory admissions was reported from a sentinel hospital in HSE-NEA for weeks 45 and 46 2005.

School Absenteeism

Sentinel primary and secondary schools have been established in each HSE-Health Area in close proximity to the sentinel GPs, reporting absenteeism data on a weekly basis. No significant increases in school absenteeism were reported to HPSC to date this season.

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. Five HSE-Health Areas reported sporadic influenza activity during week 46 2005 (figure 5), based on isolated cases of ILI. A sporadic case of ILI was reported from a nursing home in HSE-NEA during week 43.

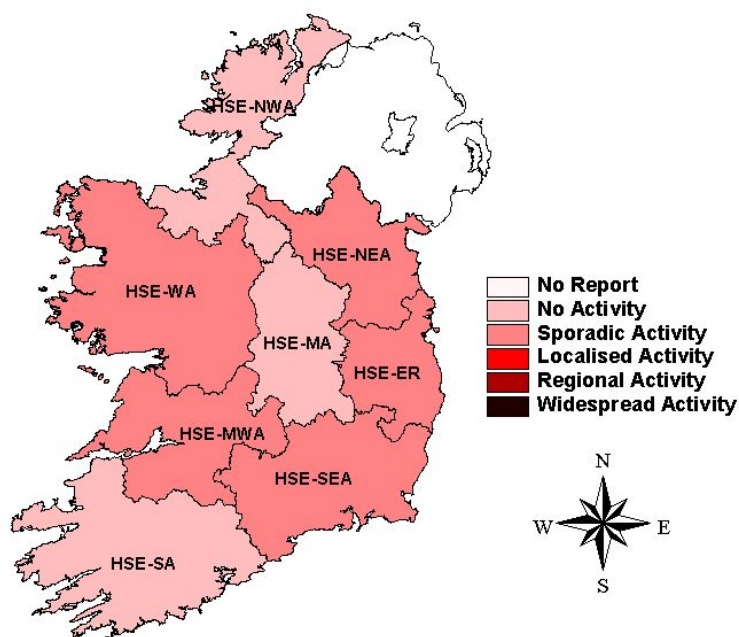


Figure 5: Map of influenza activity by HSE-Health Area during week 46 2005

Influenza Activity in Northern Ireland

Twenty-two cases of ILI and one case of clinical influenza were reported by sentinel GPs in Northern Ireland during week 47 2005, corresponding to a combined rate of 20.5 per 100,000 population. This is a slight decrease from the updated rate of 24.7 per 100,000 for week 46. There have been no laboratory detections of influenza to date this season in Northern Ireland. <http://www.cdscni.org.uk>

Influenza Activity in England, Scotland & Wales

Influenza activity in the United Kingdom remained low during weeks 46 2005 and 47 2005. GP consultations for ILI remain at similar levels to previous weeks with slightly higher rates recorded amongst those aged 0–4 years and in northern and central England. GP consultations for influenza and ILI also remain at similar levels to previous weeks in Scotland and Wales, with influenza activity remaining at baseline levels. Detections of influenza and other respiratory viruses from specimens collected during routine testing and by sentinel systems remain within expected levels for this time of year. http://www.hpa.org.uk/infections/topics_az/influenza/flureports0506.htm

Influenza Activity in Europe

During week 46 2005, influenza activity in Europe remained at baseline levels. Laboratory confirmed cases of influenza have been found sporadically throughout Europe so far this season: in the Czech Republic, England, Estonia, France, Poland, Portugal, Scotland, Slovenia, Sweden, Switzerland and Wales. As all the types and subtypes of influenza viruses that circulated last season have been detected in Europe this season, it remains to be seen which virus will become dominant. No human cases of influenza A (H5N1) virus have been reported in Europe. The total number of respiratory specimens collected by sentinel physicians in week 46 2005 was 282, of which one was positive for influenza A virus in the Czech Republic. In addition, 1181 non-sentinel specimens were analysed and six tested positive for influenza virus: three influenza A (H3N2) in Sweden, two A untyped in Scotland and one B in Portugal. Six influenza virus detections reported to the European Influenza Surveillance Scheme this season have been antigenically and/or genetically characterised: four A (H3) A/California/7/2004 (H3N2)-like, one B/Shanghai/10/2003-like and one A/New Caledonia/20/99 (H1N1)-like. While influenza activity in Europe remains low, increases of RSV detections were reported by various countries (England, Estonia, France, Ireland, Latvia, Luxembourg and Sweden) during week 46. <http://www.eiss.org/index.cgi>

Influenza Activity in Canada

During week 46, localised influenza activity was reported in Alberta, sporadic activity was reported in parts of British Columbia and Ontario, while the rest of Canada reported no activity. The ILI rate was reported as 12 per 1000 patient visits in week 46, which is below the expected range for this week. During week 46, the Public Health Agency of Canada received 1386 reports of laboratory tests for influenza, with three influenza A and four influenza B detections. During week 46, one new outbreak of laboratory-confirmed influenza in a school was reported in Alberta. Since the start of the 2005/2006 influenza season, the National Microbiology Laboratory has antigenically characterised six influenza viruses; four A/California/07/04-like viruses and two B/Shanghai/361/02-like. <http://www.phac-aspc.gc.ca/fluwatch/index.html>

Influenza Activity in the United States

During week 46, influenza activity occurred at a low level in the United States. The proportion of patient visits to sentinel providers for ILI and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. Twenty states, New York City, and the District of Columbia reported sporadic influenza activity, and 30 states reported no influenza activity. During week 46, WHO and NREVSS laboratories reported 1,708 specimens tested for influenza viruses and 18 (1.1%) were positive. Of these, 5 were influenza A (H3N2) viruses, 11 were influenza A (untyped) and 2 were influenza B viruses. During the 2005/2006 season to date, CDC has antigenically characterised one influenza A (H3N2) virus as A/California/07/2004-like (which is the influenza A H3N2 component recommended for the 2005/2006 influenza vaccine) and one influenza B virus as belonging to the B/Victoria/2/87 lineage. Influenza B viruses currently circulating can be divided into two antigenically distinct lineages represented by B/Yamagata/16/88 and B/Victoria/2/87 viruses; the recommended B component for the 2005/2006 influenza vaccine is from the B/Yamagata lineage. <http://www.cdc.gov/flu/>

Influenza Activity Worldwide

During week 46 2005, Australia (1 B), Brazil, China (1 A H1, 5 H3, 1 A untyped & 5 B), Egypt (1 A H1), Israel (1 B), Mexico (1 A H1, 14 A H3 & 25 A untyped), Mongolia (1 A untyped), the Russian Federation, Tunisia (6 A H1) and the Ukraine all reported sporadic influenza activity. Two influenza A (H3) and two influenza B viruses were reported from Japan during week 46 2005. <http://gamapserver.who.int/GlobalAtlas/home.asp>

Avian Influenza

As of the 29th of November 2005, 133 confirmed human cases and 68 deaths of avian influenza A (H5N1) cases have been reported to the WHO from Indonesian, Vietnam, Thailand, Cambodia and China.

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

WHO http://www.who.int/csr/disease/avian_influenza/en/

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

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

Northern Hemisphere Influenza Vaccine for the 2005/2006 Season

The members of the WHO Collaborating Centres on Influenza recommended that influenza vaccines for the 2005/2006 influenza season in the Northern Hemisphere contain the following strains:

- an A/New Caledonia/20/99(H1N1)-like virus
- an A/California/7/2004(H3N2)-like virus^a
- a B/Shanghai/361/2002-like virus^b

a Candidate vaccine viruses are being developed (for further information please see WHO update at <http://www.who.int/influenza>)

b The currently used vaccine viruses are B/Shanghai/361/2002, B/Jiangsu/10/2003 and B/Jilin/20/2003.

<http://www.who.int/csr/disease/influenza/vaccinerecommendations1/en/>
www.emea.eu.int

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

Acknowledgements

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