

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 46 2005 (14th to 20th Nov 2005)

Summary

During week 46 2005, influenza activity was at low levels in Ireland, with nine influenza-like illness (ILI) cases reported by sentinel GPs. To date this season, no positive influenza specimens have been detected by the NVRL.

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

Nine ILI cases were reported by the sentinel GPs during week 46 2005, corresponding to an ILI consultation rate of 9.1 per 100,000 population. This was slightly lower than the updated rate of 10.9 per 100,000 population reported for week 45 2005 (figure 1).

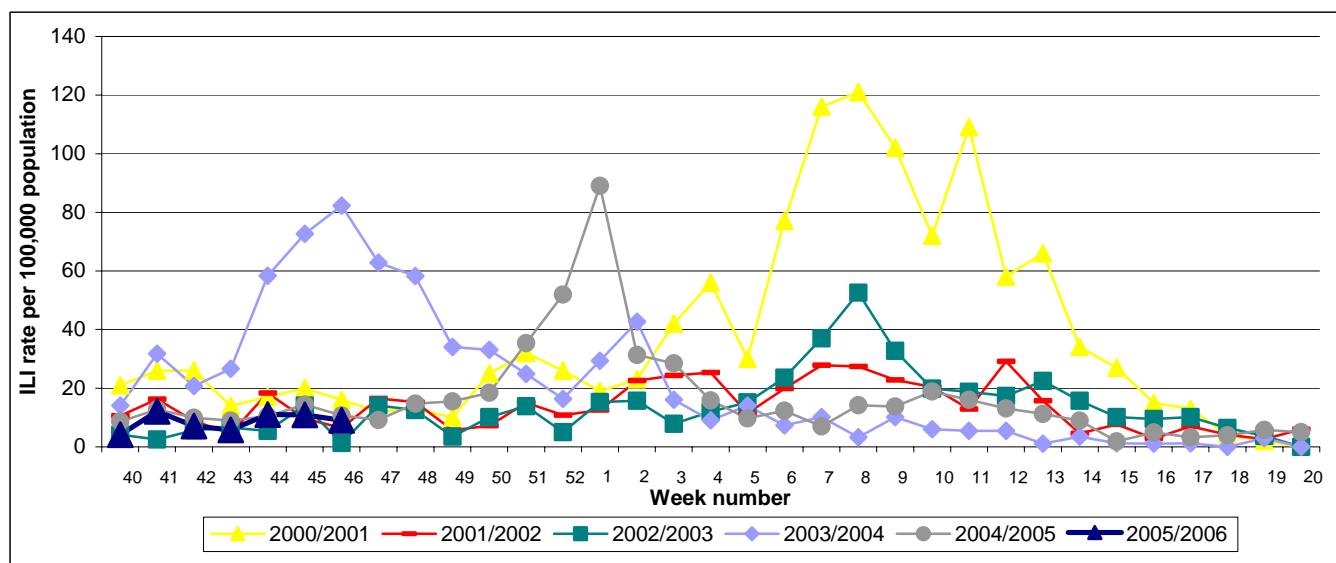


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005 & 2005/2006 influenza seasons.

Results (continued)

Seven ILI cases were aged between 15 and 64 years of age (10.5 per 100,000 population), one case was aged between 0 and 4 years (14.3 per 100,000 population) and one case was aged between 5 and 14 years (7.2 per 100,000 population) (figure 2). Thirty-one (79.5%) sentinel general practices reported during week 46 2005, with eight reporting ILI.

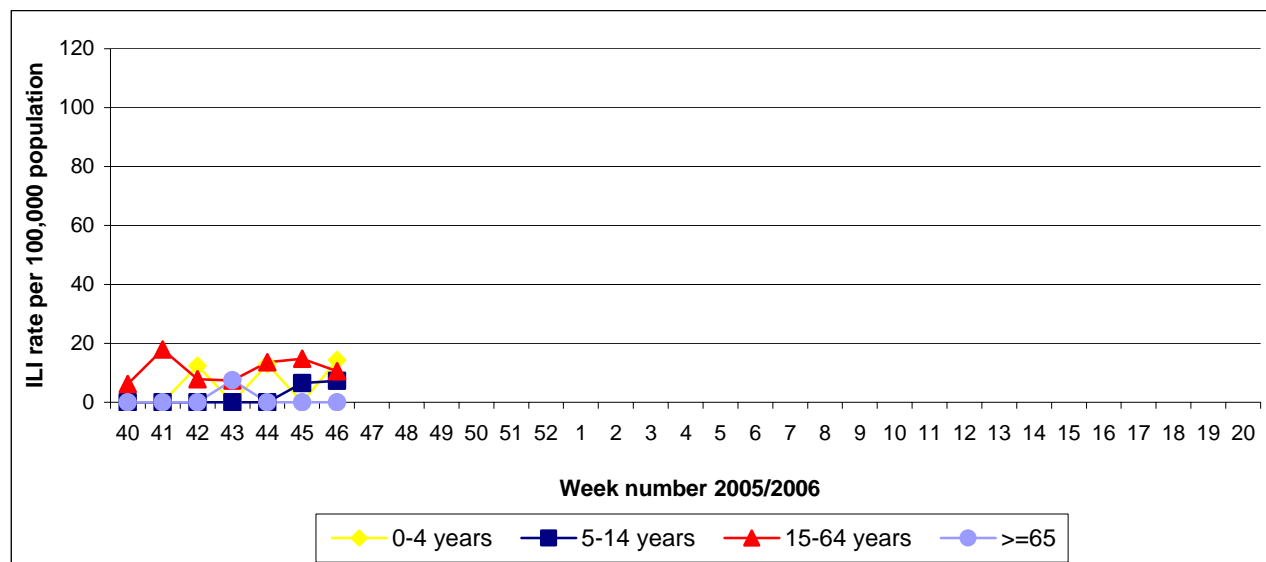


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2005/2006 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is 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 nine specimens taken by sentinel GPs during week 46 2005. All were negative for influenza virus. The NVRL also tested 45 non-sentinel specimens, taken during week 46 2005, mainly from hospitalised paediatric cases. One result is pending and the remaining 44 specimens tested negative for influenza. Respiratory syncytial virus (RSV) was detected in twelve of the non-sentinel specimens. 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 46 2005 and the 2005/2006 season to date.

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
45 2005	Sentinel	9	0	0.0	0	0	NA
	Non-Sentinel	45	0	0.0	0	0	12
	Total	54	0	0.0	0	0	12
40-46 2005	Sentinel	47	0	0.0	0	0	NA
	Non-Sentinel	250	0	0.0	0	0	41
	Total	297	0	0.0	0	0	41

*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.

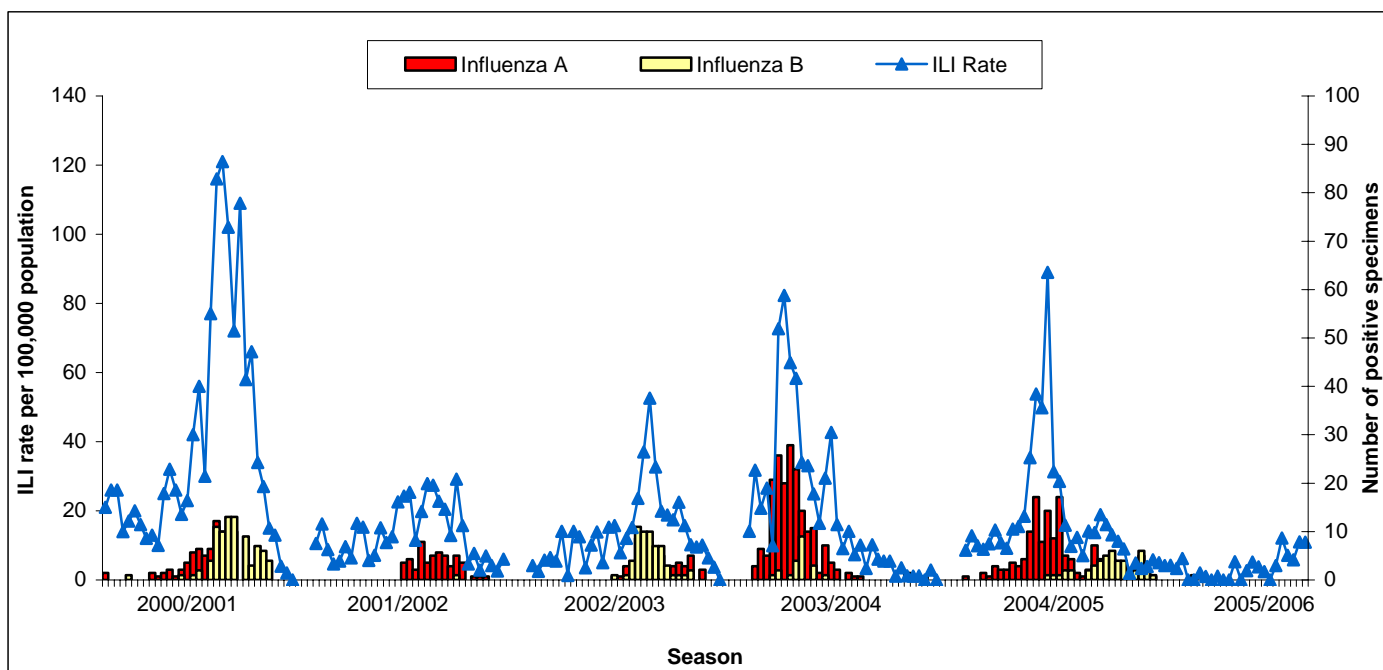


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005 seasons, summer 2005 and the 2005/2006 season.

Weekly Influenza Notifications

No influenza notifications were reported to HPSC during week 46 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.

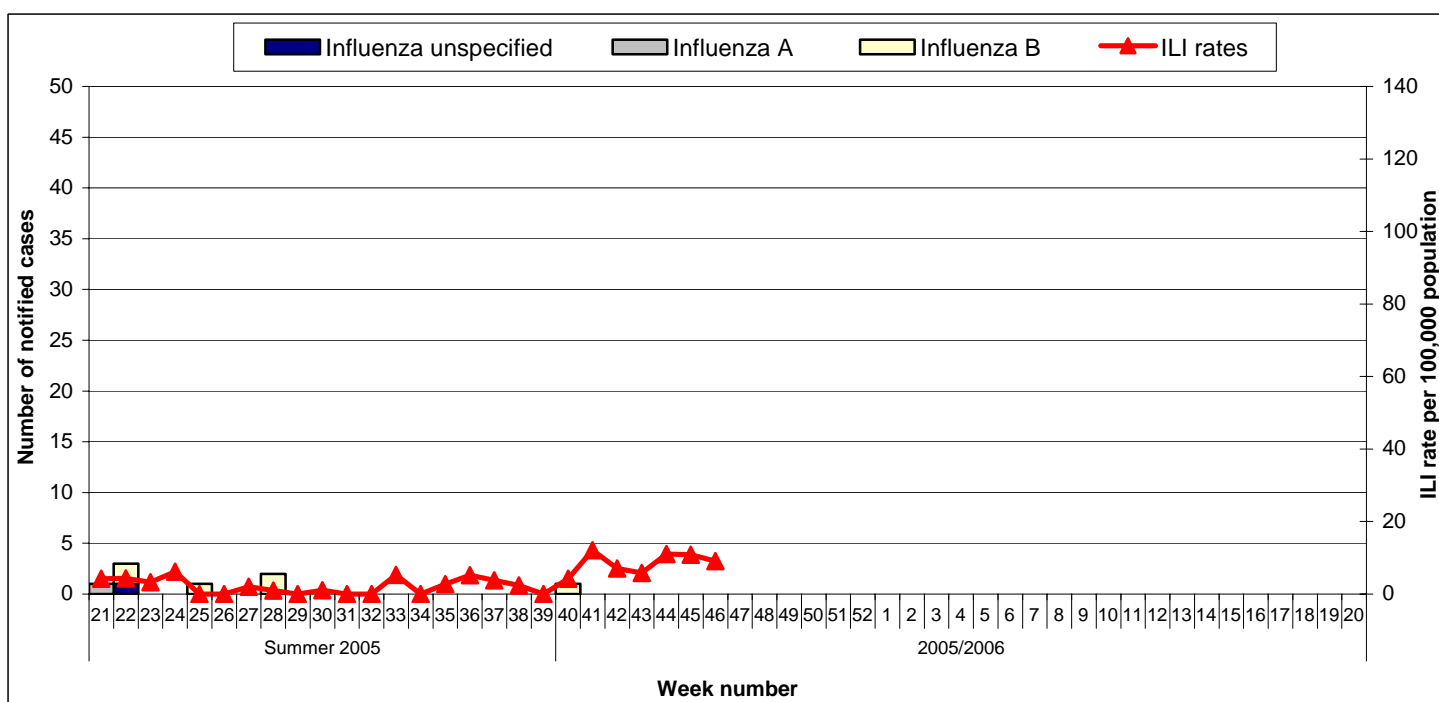


Figure 4: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2005 and the 2005/2006 influenza season.
 *Notification data are provisional and were extracted from [CIDR](#) on the 22/11/2005 at 15.54.

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. No significant increases in hospital admissions were reported to HPSC to date this season.

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. Four HSE-Health Areas reported sporadic influenza activity during week 45 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.

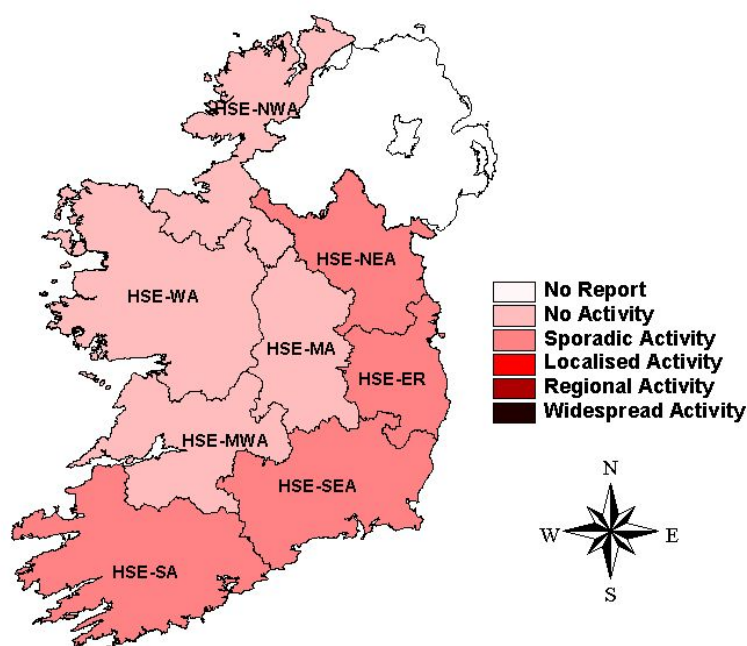


Figure 5: Map of influenza activity by HSE-Health Area during week 45 2005

Influenza Activity in Northern Ireland

Thirty-four cases of ILI and one case of clinical influenza were reported by sentinel GPs in Northern Ireland during week 46 2005, corresponding to a combined rate of 24.7 per 100,000 population. This is an increase from the updated rate of 17.5 per 100,000 for week 45. 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 at baseline levels during week 46. GP consultation rates for ILI in England and Scotland were similar to those in Ireland. Virological detections of influenza and RSV continue to increase but remain at expected levels for the time of year.

http://www.hpa.org.uk/infections/topics_az/influenza/flureports0506.htm

Influenza Activity in Europe

Influenza activity in Europe remains at baseline levels, with all countries reporting low intensity of influenza activity to the European Influenza Surveillance Scheme (EISS) during week 45 2005. Sporadic laboratory confirmed cases of influenza were detected in United Kingdom and Slovenia in week 45 2005. The total number of respiratory specimens collected by sentinel physicians in week 45 2005 was 267, of which none were influenza virus positive. In addition, 850 non-sentinel specimens were analysed and seven tested positive for influenza virus: one influenza A (H3N2) in Slovenia, three influenza A (one A H3 and two A untyped) in Scotland and one A (H3N2) and two B in England. The haemagglutinin of the influenza A (H1N1) virus from Switzerland was antigenically and genetically characterised as A/New Caledonia/20/99 (H1N1)-like. As all types and subtypes of influenza viruses that have circulated last season have been detected it remains to be seen which virus type or subtype will become dominant in Europe this season. No confirmed cases of humans infected with the avian influenza A (H5N1) virus have been reported in Europe. <http://www.eiss.org/index.cgi>

Influenza Activity in Canada

During week 45 2005, sporadic influenza activity was reported in parts of British Columbia and Ontario, while the rest of Canada reported no activity. The ILI rate was reported as 14 per 1000 patient visits in week 45, which is below the expected range for this week. The Public Health Agency of Canada received 990 reports of laboratory tests for influenza during week 45 2005, with one positive influenza A and one positive influenza B. During week 45, no new outbreaks were reported. To date this season, three long term care facility outbreaks have been reported (one in each of Manitoba, Saskatchewan, & British Columbia). Since the start of the 2005/2006 influenza season, the National Microbiology Laboratory has antigenically characterized 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 45 2005, 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-one states, New York City, the District of Columbia and Puerto Rico reported sporadic influenza activity and 29 states reported no influenza activity. During week 45, WHO and NREVSS laboratories reported 1,243 specimens tested for influenza viruses, 9 (0.7%) were positive: 2 influenza A (H3N2), 6 influenza A (untyped) viruses, and 1 influenza B. CDC has antigenically characterised two influenza viruses collected by U.S. laboratories since October 1, 2005: 1 influenza A (H3N2) virus and 1 influenza B virus. The influenza A (H3N2) virus was characterised as A/California/07/2004-like, which is the influenza A (H3N2) component recommended for the 2005-06 influenza vaccine. The influenza B virus was identified 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 45 2005, China (1 A H3, 2 A untyped & 5 B), Mexico (2 A H1, 14 A H3 & 6 A untyped), Mongolia, Tunisia (1 B) and Ukraine all reported sporadic influenza activity. No influenza activity was reported from Chile during week 45 2005. <http://gamapserver.who.int/GlobalAtlas/home.asp>

Avian Influenza

As of the 17th of November 2005, 130 confirmed human cases and 67 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

HPSC, ICGP and NVRL wish to thank the sentinel GPs who have participated in the GP sentinel surveillance system and who have contributed towards this report

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