

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 40 2008 (29th September - 5th October 2008)

Summary

Welcome to the first influenza surveillance report of the 2008/2009-influenza season. During week 40 2008, influenza activity was at low levels in Ireland, with 13 influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 40.

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

Thirteen ILI cases were reported from sentinel GPs during week 40 2008, corresponding to an ILI consultation rate of 8.9 per 100,000 population (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 40 for the last nine seasons (2000/2001-2008/2009) is 8.4 per 100,000 population. ILI GP consultation rates during the summer of 2008 were at low levels, peaking during week 38 2007 at 6.3 per 100,000 population.

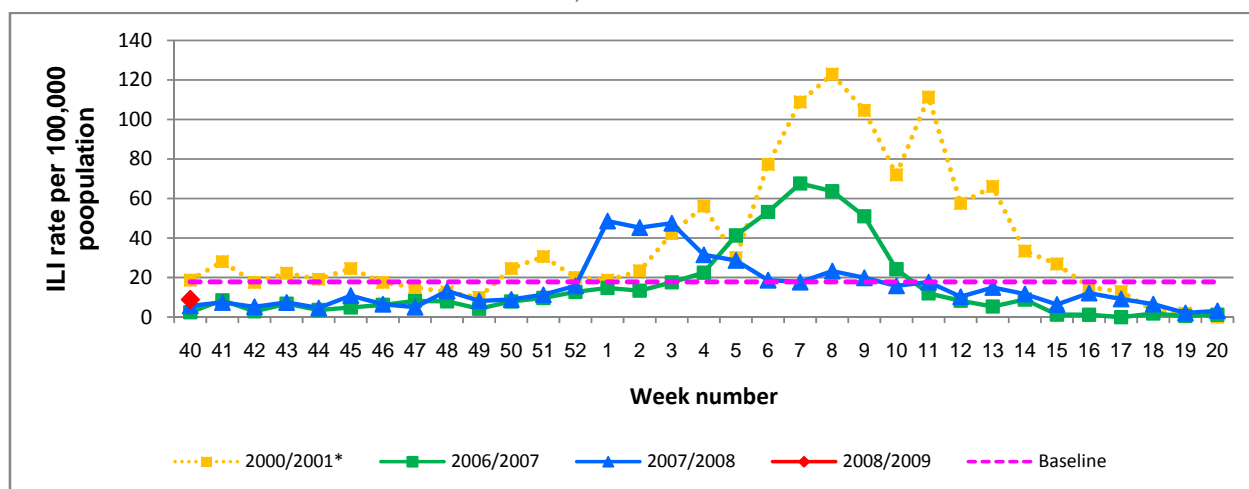


Figure 1: Influenza baseline activity threshold and GP consultation rate for ILI per 100,000 population by week, during the 2000/2001*, 2006/2007, 2007/2008 and 2008/2009 influenza seasons

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

Results (continued)

Thirty-nine of 52 (75.0%) sentinel general practices reported during week 40 2008, with five reporting ILI cases. One ILI case was reported in the 0-4 year age group (9.6 per 100,000 population), three cases in the 5-14 year age group (15.4 per 100,000), six cases in the 15-64 year age group (6.0 per 100,000 population) and three ILI cases (18.5 per 100,000 population) were reported in those aged 65 years or older, as shown in figure 2.

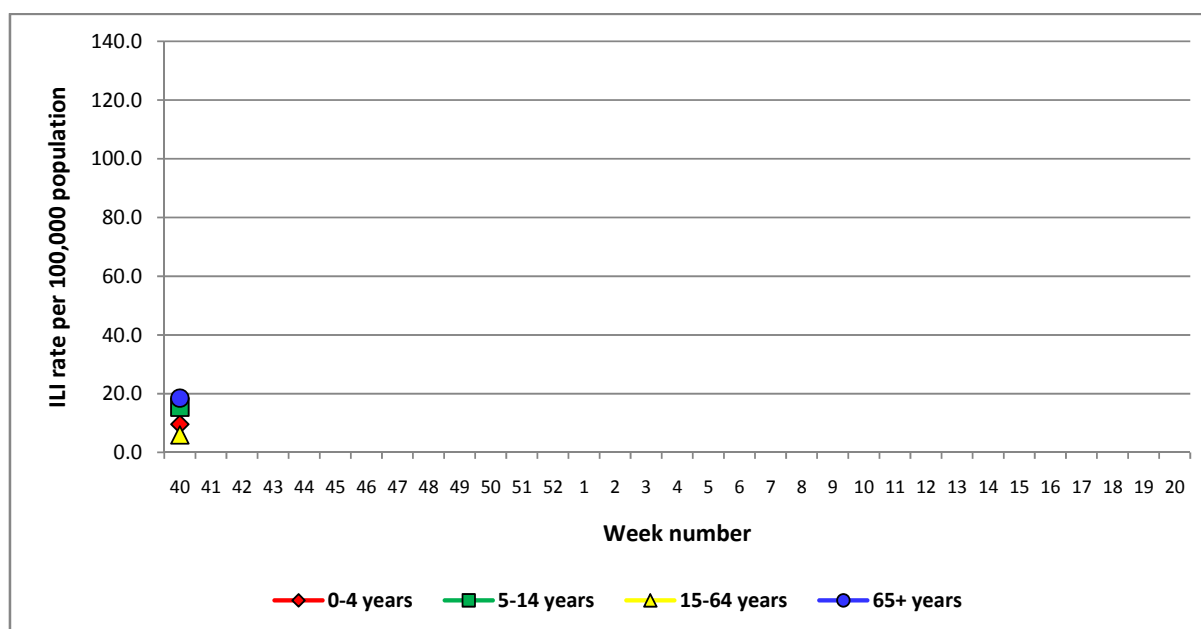


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2008/2009 influenza season
*Please note the denominator used in the age specific consultation rate is from the 2006 census data; this assumes that the age distribution of the sentinel general practices is similar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

Virological Data from the NVRL

The NVRL tested two specimens taken by sentinel GPs during week 40 2008, both of which were negative for influenza virus. The NVRL also tested 61 non-sentinel specimens taken during week 40 2008, 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). 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 40 2008 (9.8%) is slightly higher than the mean percentage positive value (6.1%) for week 40 for the last nine seasons (2000/2001 -2008/2009).

Table 1: Number of sentinel and non-sentinel* respiratory specimens and positive results for week 40 2008

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
40 2008	Sentinel	2	0	0.0	0	0	NA
	Non-Sentinel	61	0	0.0	0	0	6
	Total	63	0	0.0	0	0	6

*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

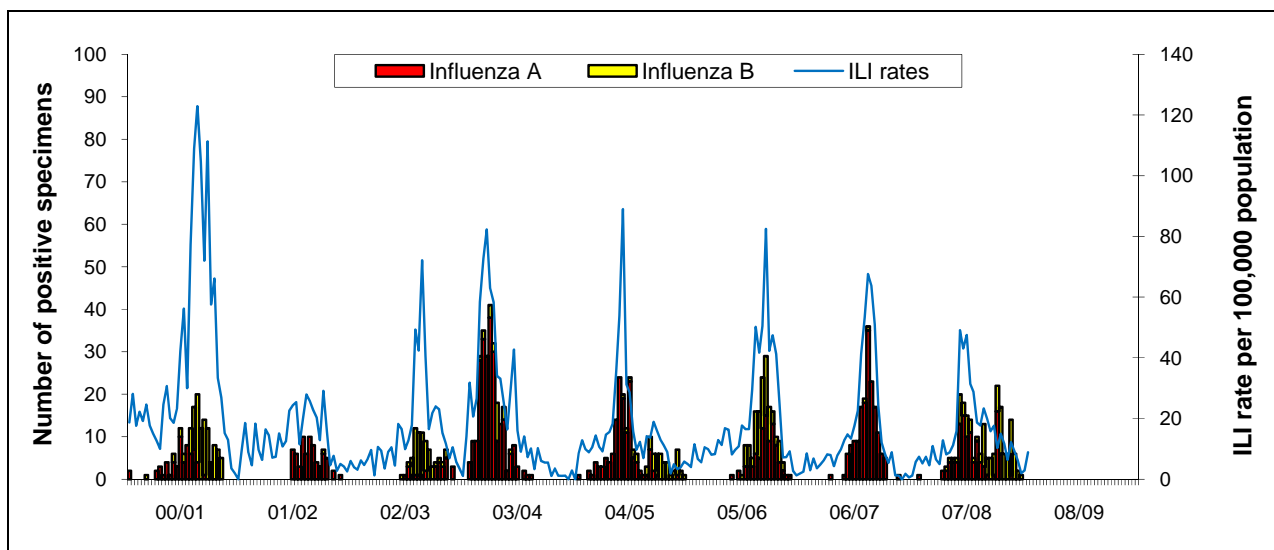


Figure 3: GP ILI consultation rate per 100,000 population and the number of positive influenza specimens detected by the NVRL by week and season, 2000/2001 - 2008/2009

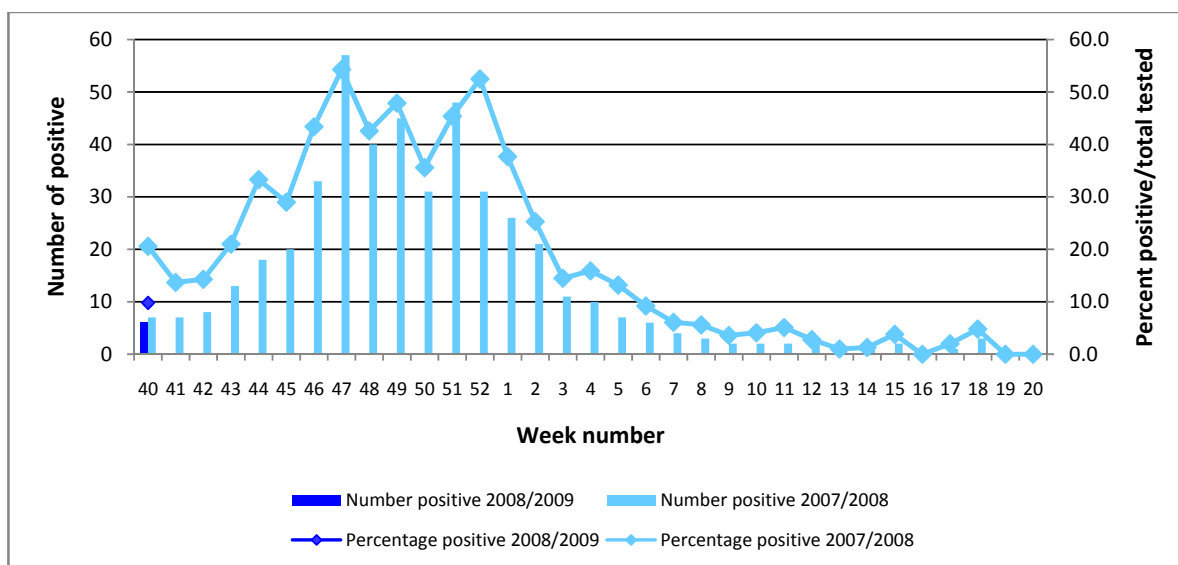


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2007/2008 and 2008/2009 influenza seasons

Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 40 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.

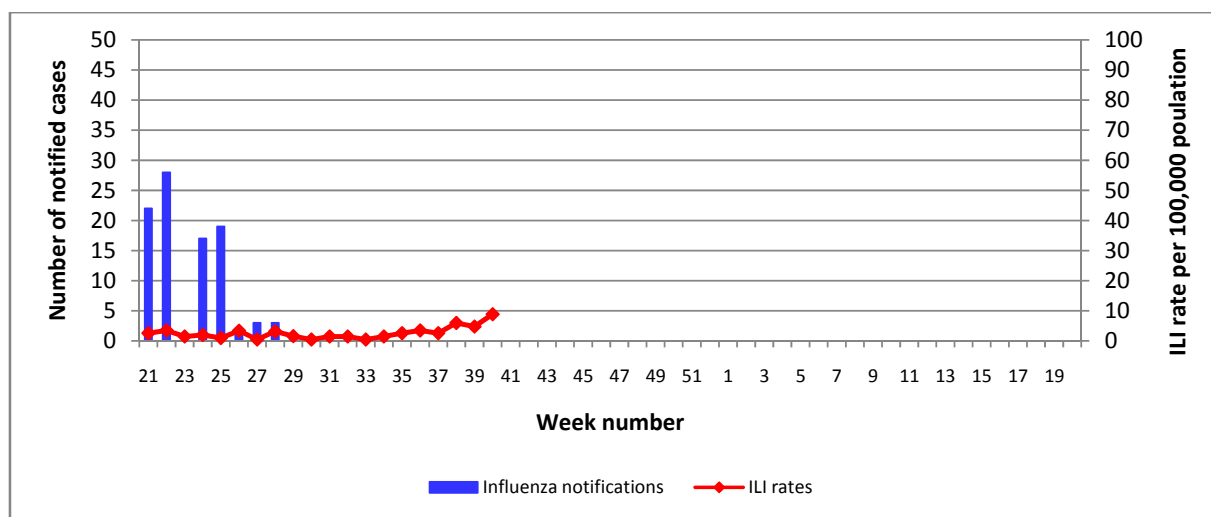


Figure 5: Number of notifications* of influenza by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2008 and the 2008/2009 influenza season

*Notification data are provisional and were extracted from [CIDR](#) on the 08/10/2008 at 13.10

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 40 2008.

Outbreak Reports

No ILI/influenza outbreaks were reported to HPSC during the summer of 2008 or during week 40 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. A map of influenza activity by HSE-Area will be produced each week in this report. Reporting of influenza activity by HSE-Area will begin next week.

Influenza Activity in Northern Ireland

During week 40 2008, three cases of clinical influenza and 29 ILI cases were reported in Northern Ireland, corresponding to a combined rate of 19.6 per 100,000 population, an increase from the updated rate of 13.3 per 100,000 for week 39 2008. No sentinel specimens were tested for influenza during week 40 2008. Eleven non-sentinel specimens were tested for influenza during week 40 2008 and none were positive. <http://www.cdscni.org.uk>

Influenza Activity in England, Scotland & Wales

Influenza activity remains low across the UK. Some clinical indicators of influenza activity have slightly increased in England during week 40 2008. Activity is currently below baseline levels. Detections of influenza and RSV from NHS and HPA laboratories were at low levels during week 40 2008. No specimens sent to the Respiratory Virus Unit at the Centre for Infections tested positive for influenza or RSV during week 40 2008.

http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/activity0708/weekly_summary.htm

Avian Influenza

As of the 8th 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/

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

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 Sarah Jackson, Dr. Derval Igoe and Dr. Joan O'Donnell, HPSC