

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 48 2005 (28th Nov to 4th Dec 2005)

Summary

During week 48 2005, influenza-like illness (ILI) increased slightly, but remained at low levels in Ireland, with 13 ILI cases reported by sentinel GPs. To date this season, no positive influenza specimens have been detected by the NVRL. In recent weeks, increases in respiratory syncytial virus detections have been reported in Ireland and several other European countries.

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

Thirteen ILI cases were reported by sentinel GPs during week 48 2005, corresponding to an ILI consultation rate of 12.3 per 100,000 population, a slight increase from the updated rate of 7.9 per 100,000 population for week 47 2005 (figure 1).

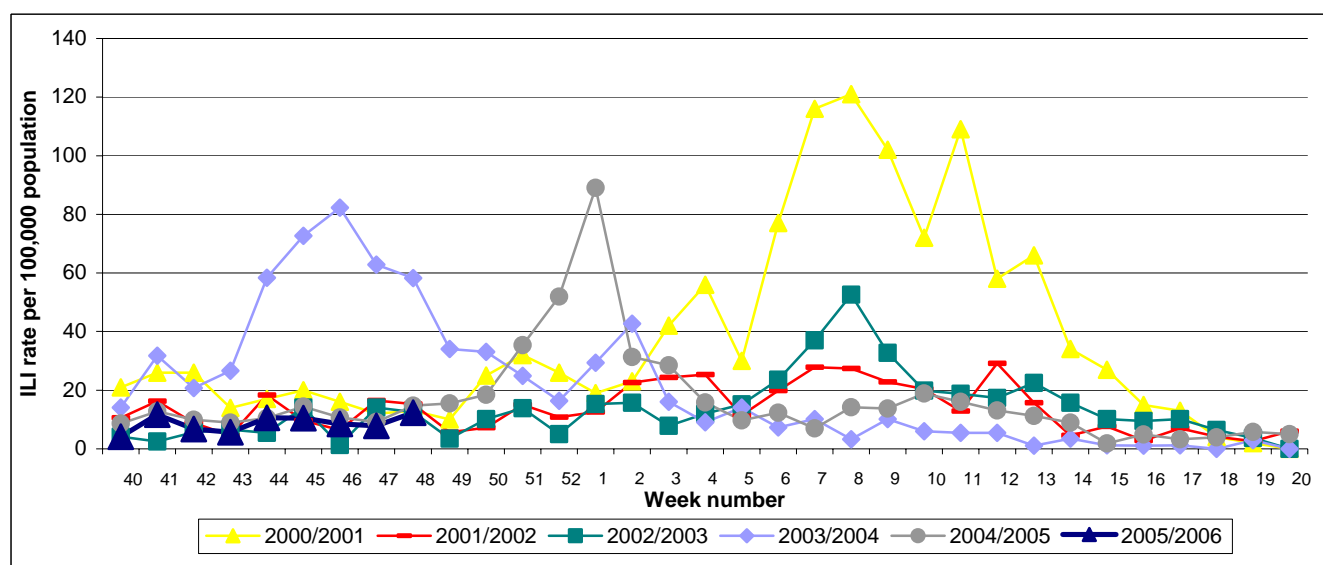


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005 & 2005/2006 influenza seasons.

Results (continued)

One ILI case was aged between 5 and 14 years (15.3 per 100,000 population), 11 cases were aged between 15 and 64 years of age (6.7 per 100,000 population) and the age was unknown for one case (figure 2). Thirty-one (79.5%) sentinel general practices reported during week 48 2005, with eight reporting ILI.

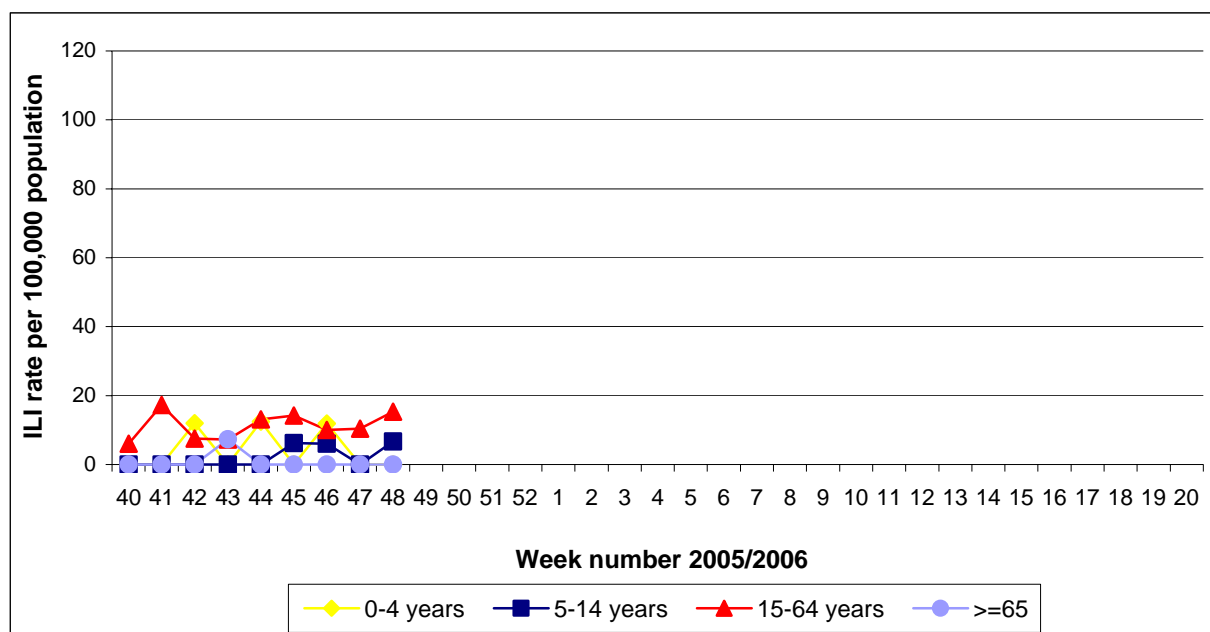


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2005/2006 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is 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 ten specimens taken by sentinel GPs during week 48 2005. All were negative for influenza virus. The NVRL also tested 65 non-sentinel specimens, taken during week 48 2005, mainly from hospitalised paediatric cases. All specimens tested negative for influenza. Figure 3 compares the ILI consultation rates by season and the number of positive influenza specimens tested by the NVRL. Twenty-three non-sentinel specimens tested positive for respiratory syncytial virus (RSV) and one non-sentinel specimen was positive for parainfluenza virus type 2. The percentage of RSV positive non-sentinel specimens has been increasing since week 44 2005 (figure 4).

Table 1: Total number of sentinel and non-sentinel* respiratory specimens and positive results for week 48 2005 and the 2005/2006 season to date.

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
48 2005	Sentinel	10	0	0.0	0	0	NA
	Non-Sentinel	65	0	0.0	0	0	23
	Total	75	0	0.0	0	0	23
40-48 2005	Sentinel	66	0	0.0	0	0	NA
	Non-Sentinel	375	0	0.0	0	0	84
	Total	441	0	0.0	0	0	84

*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.

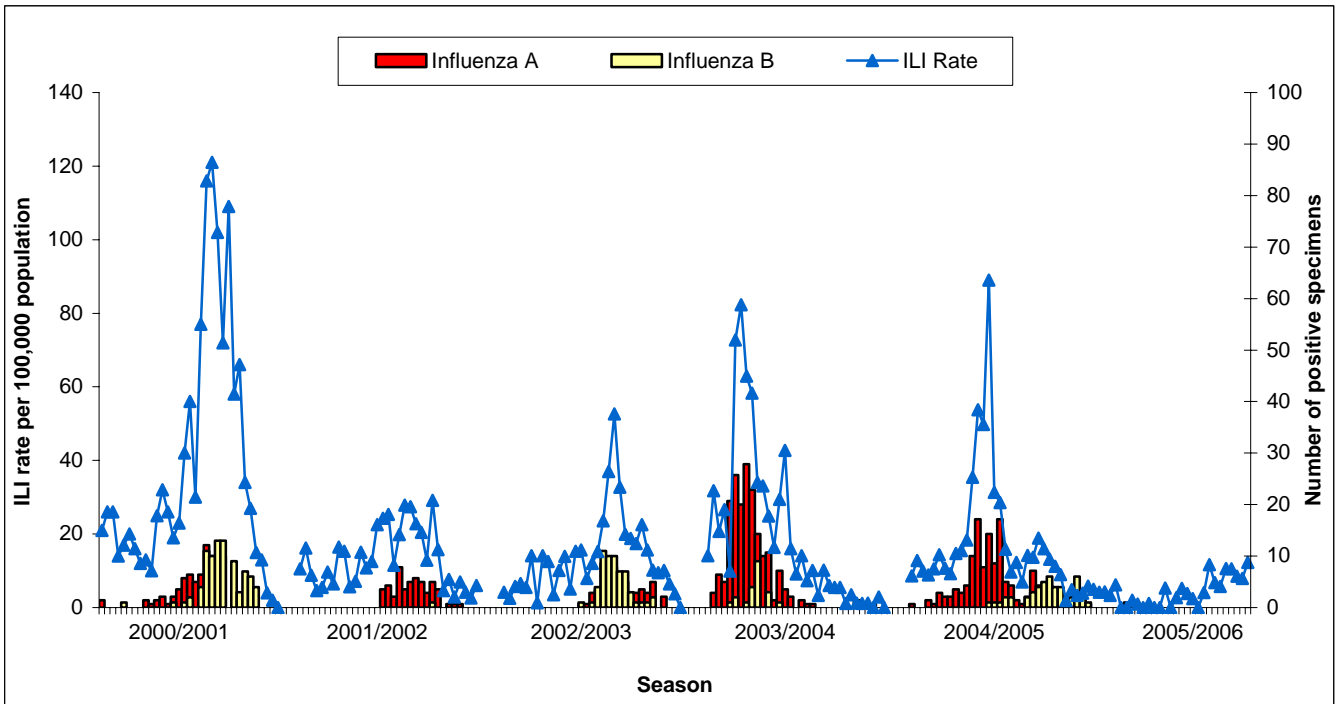


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 & 2004/2005 seasons, summer 2005 and the 2005/2006 season.

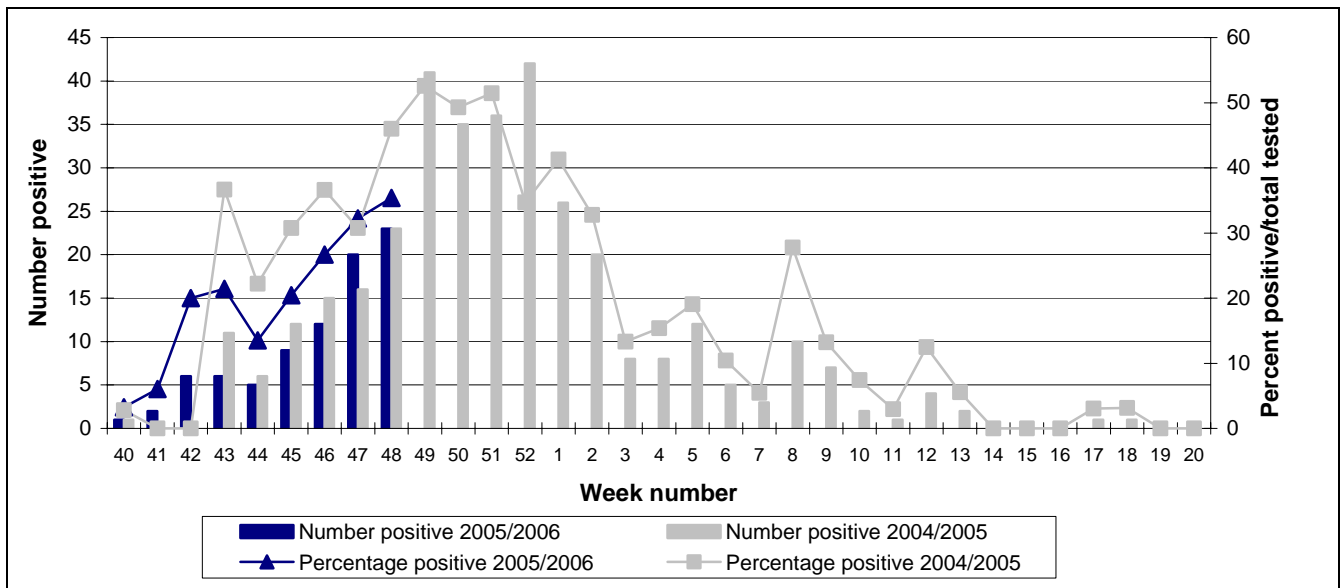


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2005/2006 and 2004/2005 influenza seasons.

Weekly Influenza Notifications

No influenza notifications were reported to HPSC during week 48 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 5, and compared to ILI consultation rates.

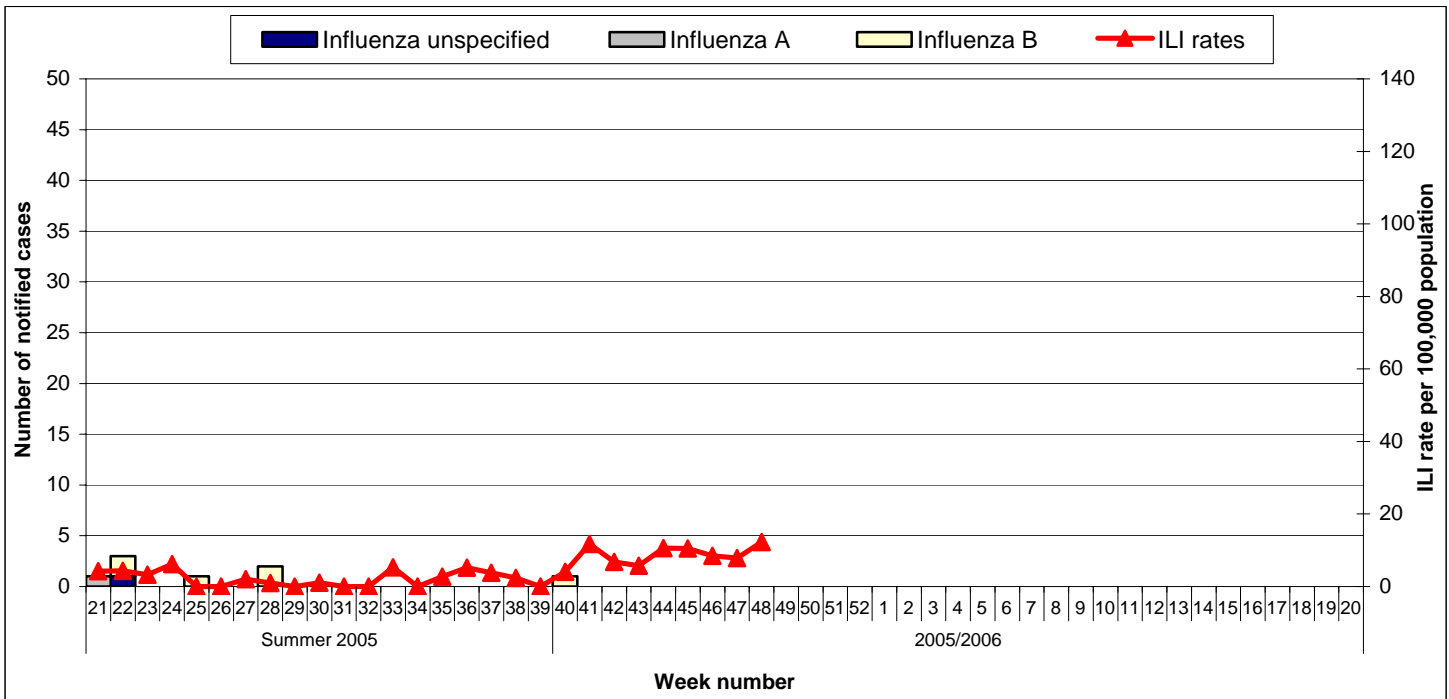


Figure 5: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2005 and the 2005/2006 influenza season. *Notification data are provisional and were extracted from [CIDR](#) on the 07/12/2005 at 10.26.

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. There was a slight increase in hospital respiratory admissions in sentinel hospitals in HSE-ER and –SEA during week 47 and in HSE-WA during week 48.

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 47 2005 (figure 6), based on isolated cases of ILI. A sporadic case of ILI was reported from a nursing home in HSE-NEA during week 43.

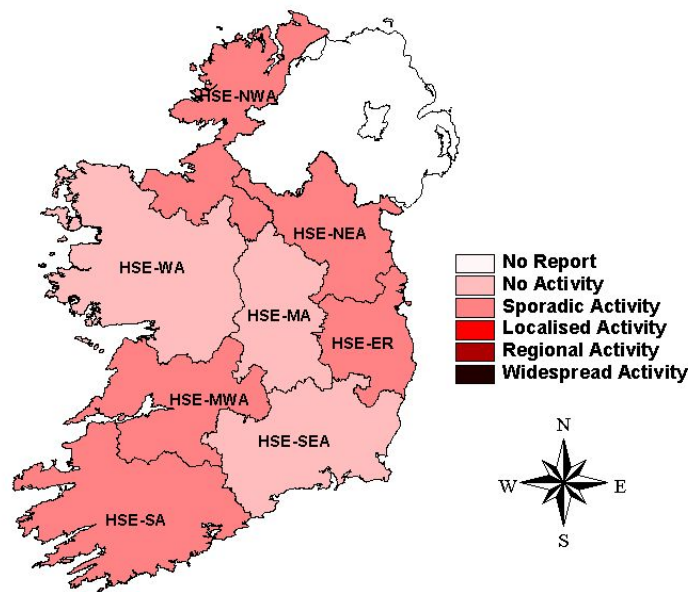


Figure 6: Map of influenza activity by HSE-Health Area during week 47 2005

Influenza Activity in Northern Ireland

Thirty-four cases of ILI were reported by sentinel GPs in Northern Ireland during week 48 2005, corresponding to a rate of 28.3 per 100,000 population. This is a slight increase from the updated rate of 20.9 per 100,000 for week 47. 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 47 2005, clinical influenza activity in Europe remained at baseline levels. Sporadic laboratory confirmed cases of influenza were detected in Latvia (1 B), Germany (1 A untyped), Hungary (1 A untyped), Portugal (1 A H1 & 2 B) and Spain (1 B) in week 47 2005. To date this season, 61% of total influenza virus detections (N=46) have been influenza A (17 A untyped, 9 A H3 & 2 A H1) and 39% (18/46) influenza B. It is still too early to say which virus will be dominant in Europe during the 2005/2006 season. Based on the characterisation data of all influenza virus detections up to week 47/2005, three have been antigenically and/or genetically characterised: two A/California/7/2004 (H3N2)-like and one A/New Caledonia/20/99 (H1N1)-like. No human cases of influenza A (H5N1) virus have been reported in Europe. Whilst influenza activity in Europe remains low, England, France, Ireland, Latvia and Sweden are reporting increases in laboratory detections of RSV, an infection with symptoms often similar to influenza. <http://www.eiss.org/index.cgi>

Influenza Activity in Canada

During week 47, sporadic activity was reported in parts of British Columbia, Alberta, Ontario and Quebec, while the rest of Canada reported no activity. The ILI rate was reported as 17 per 1000 patient visits in week 47, which is

within the expected range for this week. The Public Health Agency of Canada received 1424 reports of laboratory tests for influenza, with 4 influenza A and 5 influenza B detections. To date this season, three long term care facility outbreaks have been reported. Since the start of the 2005/2006-influenza season, the National Microbiology Laboratory has antigenically characterised 12 influenza viruses; eight A/California/07/04-like viruses, two B/Hong Kong/330/01-like viruses and two B/Shanghai/361/02-like viruses. <http://www.phac-aspc.gc.ca/fluwatch/index.html>

Influenza Activity in the United States

During week 47, influenza activity occurred at a low level in the United States. Twenty-three states, New York City, the District of Columbia, and Puerto Rico reported sporadic influenza activity, and 27 states reported no influenza activity. The proportion of patient visits to sentinel providers for ILI and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. During week 47, WHO and NREVSS laboratories reported 1,204 specimens tested for influenza viruses and 22 (1.8%) were positive: 4 A (H3N2), 15 A (unsubtyped) and 3 influenza B viruses. CDC has antigenically characterised 3 influenza viruses collected by U.S. laboratories since October 1, 2005. One influenza A (H3N2) virus was characterised as A/California/07/2004-like, which is the influenza A (H3N2) component recommended for the 2005/2006 influenza vaccine. One influenza B virus was characterised as B/Florida/07/2004-like and the other influenza B virus was identified as belonging to the B/Victoria 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 influenza B/Florida/07/2004-like virus is a minor antigenic variant of B/Shanghai/361/2002, the recommended influenza B component for the 2005/2006-influenza vaccine. <http://www.cdc.gov/flu/>

Influenza Activity Worldwide

During week 47 2005, Brazil (1 A untyped), China (9 A H3, 4 A untyped & 3 B), Mexico (2 A H1, 3 A H3 & 8 A untyped), the Russian Federation, Tunisia (3 A H1 & 1 A H3) and the Ukraine all reported sporadic influenza activity. No influenza activity was reported from the Philippines. One influenza A (H3) virus was reported from Japan during week 47 2005. <http://gamapserver.who.int/GlobalAtlas/home.asp>

Avian Influenza

As of the 6th of December 2005, 134 confirmed human cases and 69 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