

# 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 44 2007 (29<sup>th</sup> October – 4<sup>th</sup> November 2007)

## Summary

During week 44 2007, influenza activity was at low levels in Ireland, as expected for the time of year. Eight influenza-like illness (ILI) cases were reported by sentinel GPs during this period. No positive influenza specimens were detected by the NVRL during week 44 2007. NVRL detections of respiratory syncytial virus from non-sentinel sources are increasing; however remain at similar levels to last season.

## Background

This is the eighth 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-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 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

Eight ILI cases were reported from sentinel GPs during week 44 2007, corresponding to an ILI consultation rate of 4.9 per 100,000 population, a decrease from the updated rate of 6.9 per 100,000 in week 43 2007 (figure 1). Forty-five of 49 (91.8%) sentinel general practices reported during week 44 2007, with seven reporting ILI cases.

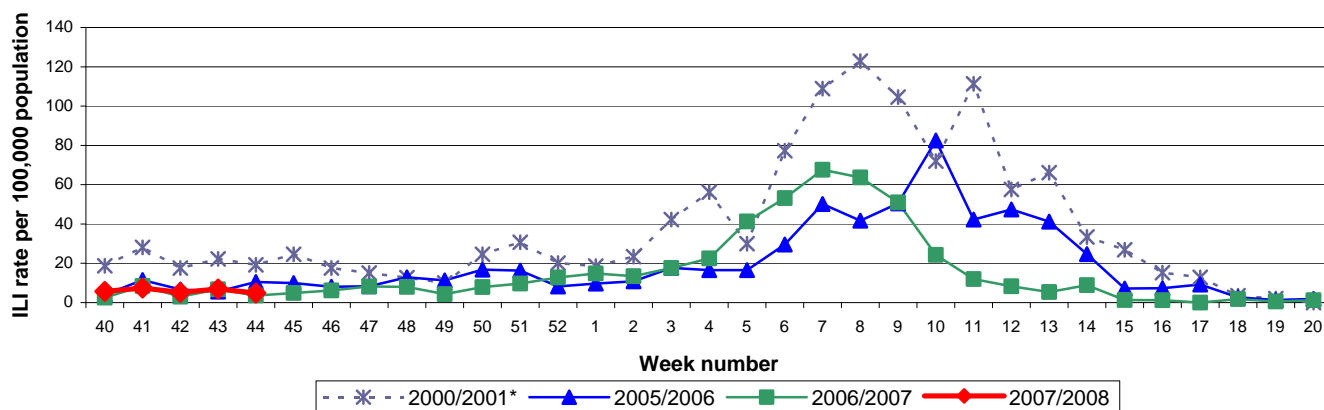
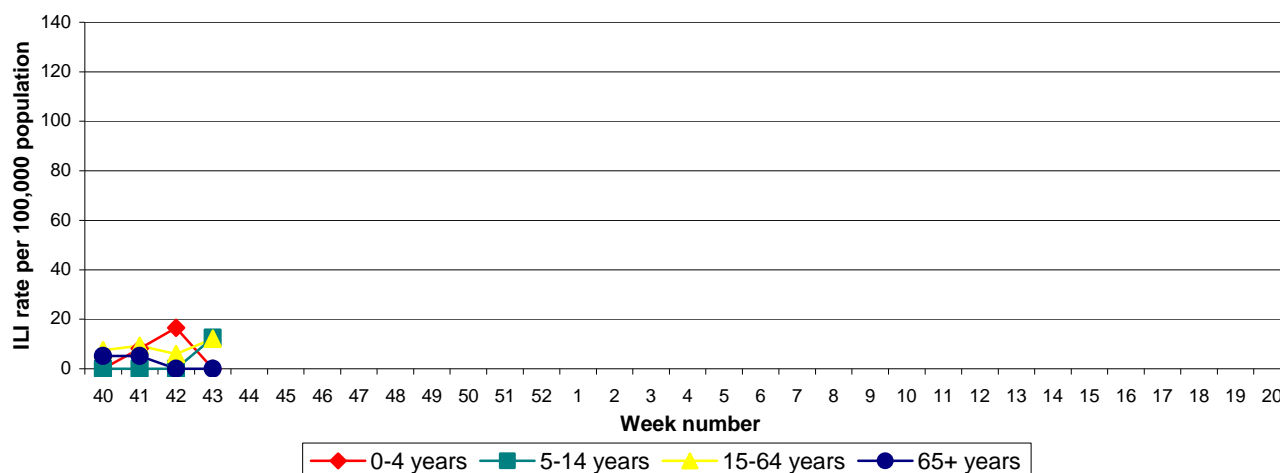


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001\*, 2005/2006, 2006/2007 & 2007/2008 influenza seasons \*Highest recorded levels of ILI activity since initiation of sentinel surveillance

## Results (continued)

One ILI case was reported in the 5-14 year age group (4.6 per 100,000 population), six ILI cases were reported in the 15-64 year age group (5.3 per 100,000 population) and one ILI case was reported in those aged 65 years or older (5.5 per 100,000 population), as shown in figure 2. No ILI cases were reported in the 0-4 year age group.



**Figure 2:** Age specific GP consultation rate\* for ILI per 100,000 population by week during the 2007/2008 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 one specimen taken by sentinel GPs during week 44 2007, which was negative for influenza virus. The NVRL also tested 52 non-sentinel specimens taken during week 44 2007, mainly from hospitalised paediatric cases. All non-sentinel specimens were negative for influenza virus and 15 were positive for respiratory syncytial virus (RSV) (table 1). To date this season, only one specimen (from sentinel sources) has tested positive for influenza virus, influenza A (H3). NVRL detections of RSV from non-sentinel sources have increased in recent weeks; however remain at similar levels to the 2006/2007 season.

Influenza positive specimens by HSE-Area and age group (in years) for week 44 2007 and the 2007/2008 season to date are shown in tables 2 and 3, respectively. 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 2006/2007 and 2007/2008 influenza seasons.

**Table 1:** Number of sentinel and non-sentinel\* respiratory specimens and positive results for week 44 2007 and the 2007/2008 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV	% RSV Positive
<b>44 2007</b>	Sentinel	1	0	0.0	0	0	NA	NA
	Non-Sentinel	52	0	0.0	0	0	15	28.8
	<b>Total</b>	<b>53</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>28.3</b>
<b>Season to date</b>	Sentinel	24	1	4.2	1	0	NA	NA
	Non-Sentinel	255	0	0.0	0	0	50	19.6
	<b>Total</b>	<b>279</b>	<b>1</b>	<b>0.4</b>	<b>1</b>	<b>0</b>	<b>50</b>	<b>17.9</b>

\*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

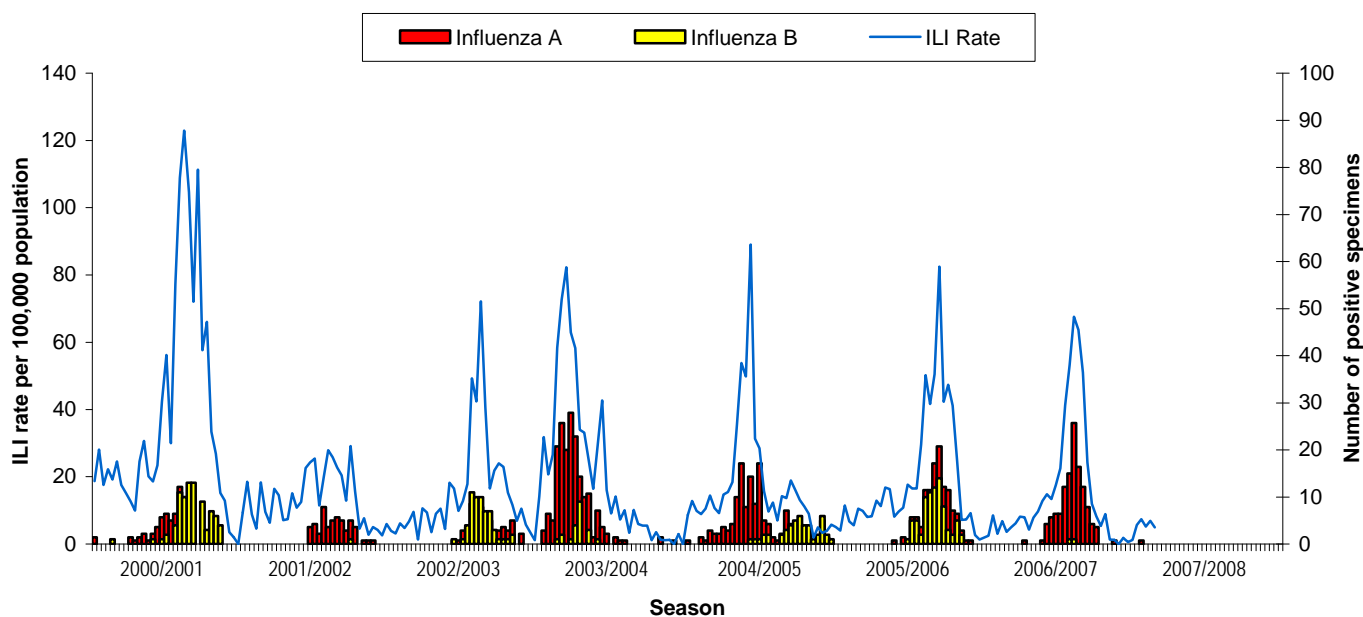
**Table 2:** Total number of sentinel and non-sentinel\* influenza A and B positive specimens by HSE-Area for week 44 2007 and the 2007/2008 season to date

	Week 44 2007			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
HSE-ER	0	0	0	0	0	0
HSE-M	0	0	0	0	0	0
HSE-MW	0	0	0	0	0	0
HSE-NE	0	0	0	0	0	0
HSE-NW	0	0	0	0	0	0
HSE-SE	0	0	0	0	0	0
HSE-S	0	0	0	1	0	1
HSE-W	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>

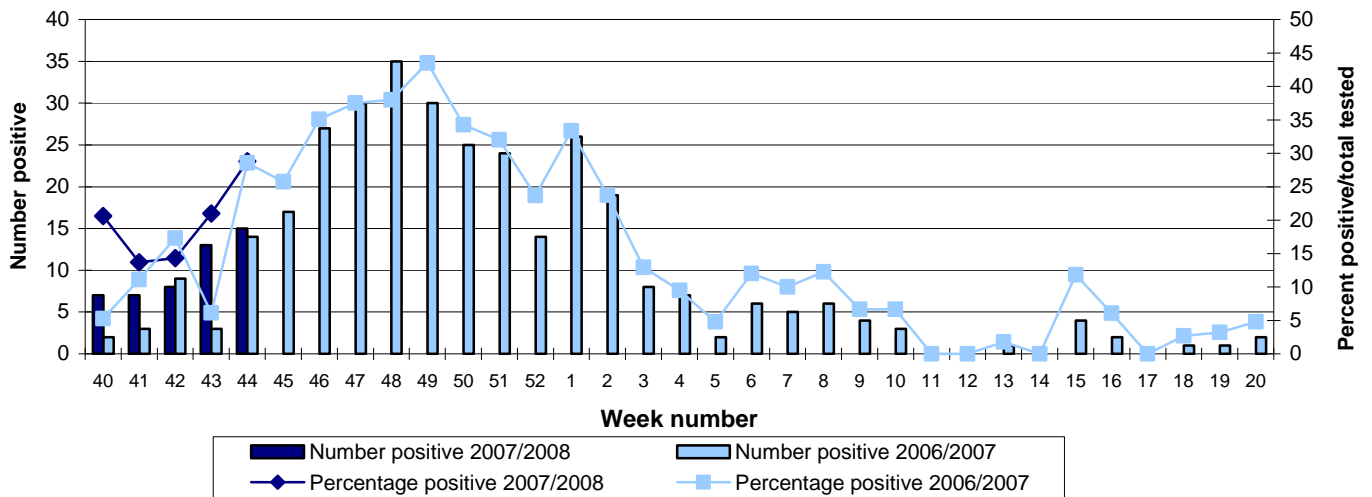
\* Please note that non-sentinel specimens include all specimens referred to the NVRL, these specimens are mainly from hospitals and some GPs and may include more than one specimen from each case

**Table 3:** Total number of sentinel and non-sentinel\* influenza A and B positive specimens by age group (in years) for week 44 2007 and the 2007/2008 season to date

	Week 44 2007			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
0-4 years	0	0	0	0	0	0
5-14 years	0	0	0	0	0	0
15-64 years	0	0	0	1	0	1
65 years and older	0	0	0	0	0	0
Age group unknown	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>



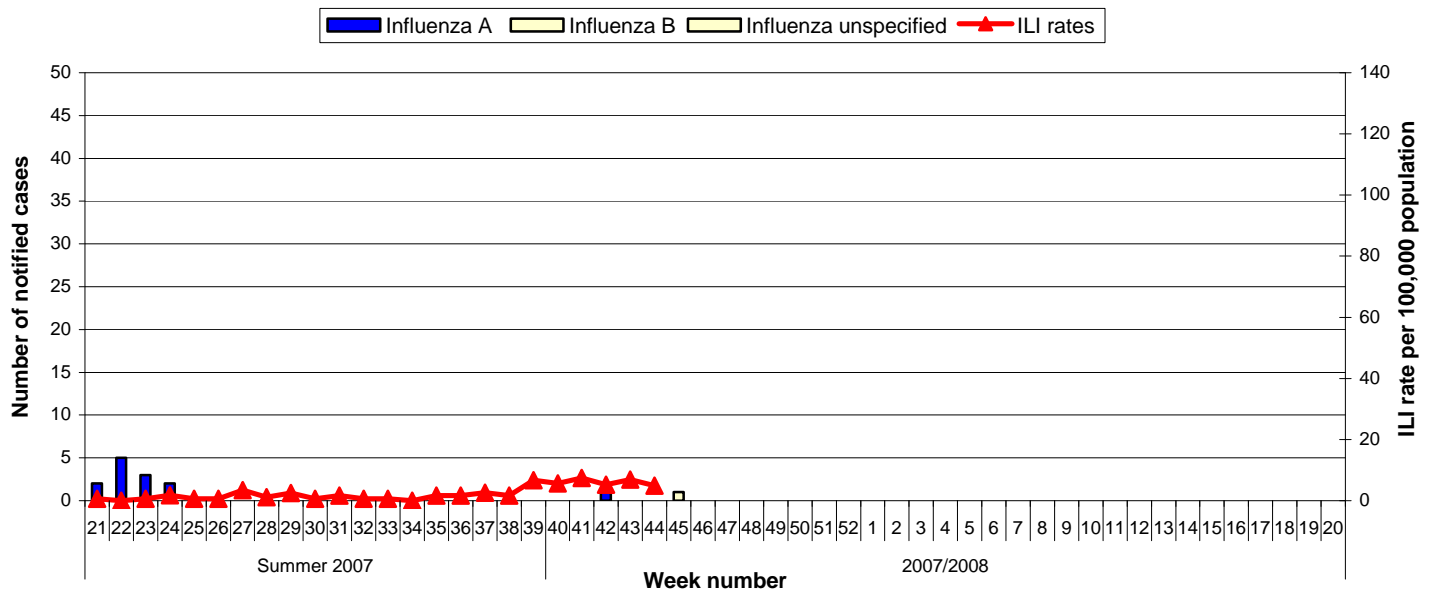
**Figure 3:** GP ILI consultation rate per 100,000 population and the number of positive influenza specimens detected by the NVRL by week and season, 2000/2001 - 2007/2008



**Figure 4.** Number and percentage of non-sentinel RSV positive specimens detected during the 2006/2007 and 2007/2008 influenza seasons

**Weekly Influenza Notifications**

One possible influenza case (type unspecified) was notified from HSE-E during week 45 2007. Influenza cases notified to HPSC during the summer of 2007 and during the 2007/2008 influenza season are shown in figure 5 and compared to GP 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 2007 and the 2007/2008 influenza season  
 \*Notification data are provisional and were extracted from [CIDR](#) on the 07/11/2007 at 16:29

**Mortality Data**

No influenza associated deaths were registered with the GRO and reported to HPSC to date this season.

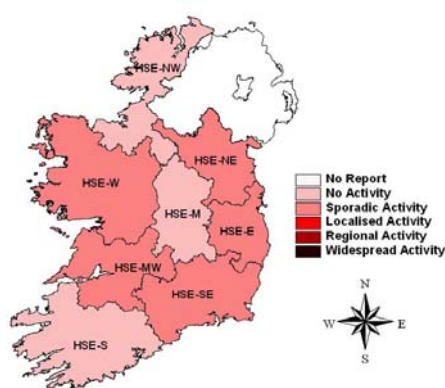
**Outbreak Reports**

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

### ***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.

Increased absenteeism reported from several sentinel schools during week 43 2007, was mainly due to school mid-term breaks (which occurred during weeks 43 & 44 2007). Increased respiratory admissions were reported in sentinel hospitals in HSE-E and -S, the levels are as expected for the time of year. During week 43 2007, sporadic influenza activity (based on isolated cases of ILI) was reported in five HSE-Areas: HSE-E, -NE, -MW, -SE and -W. No influenza activity was reported in HSE-M, -NW and -S during week 43 2007 (figure 6).



**Figure 6:** Map of influenza activity by HSE-Health Area during week 43 2007

### ***Influenza Activity in Northern Ireland***

During week 44 2007, six cases of clinical influenza and 18 ILI cases were reported in Northern Ireland, corresponding to a combined rate of 16.8 per 100,000 population, a slight decrease from the updated rate of 17.3 per 100,000 for week 43 2007. Twenty-eight non-sentinel were tested during week 44 2007, none of which were positive for influenza virus. <http://www.cdscni.org.uk>

### ***Influenza Activity in England, Scotland & Wales***

Influenza activity remains low and below baseline thresholds across the United Kingdom. Clinical indicators of influenza activity have increased slightly in England from 7.8 per 100,000 population in week 43 2007 to 9.8 per 100,000 in week 44 2007 and in Wales from 1.0 per 100,000 to 2.7 per 100,000. The consultation rate in Scotland decreased from 17 per 100,000 in week 43 2007 to 11 per 100,000 in week 44 2007. Detections of influenza A and B from NHS and HPA laboratories are at low levels, as expected for this time of year. Laboratory confirmed infections of RSV are increasing and are at higher levels than those recorded last season. Since week 40 2007, six influenza viruses have been isolated: four A (H1), one A (H3) and one B.

<http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/flureports0708.htm>

### ***Influenza Activity in Europe***

Levels of influenza activity remain low in Europe, with sporadic influenza activity reported in France and England and the remaining 26 countries reporting no influenza activity during week 43 2007. The total number of respiratory specimens collected by sentinel physicians in week 43 2007 was 176, none of which were positive for influenza virus. Two non-sentinel specimens were positive for influenza virus during week 43 2007: one A (unsubtyped) from England and one A (H1) from Slovakia. To date this season, the consultation rates for ILI and/or acute respiratory infections (ARI) across the whole of Europe have been at levels usually seen outside the winter period. Only sporadic laboratory confirmed cases of influenza have been reported since week 40 2007: in Denmark, England, France, Germany, Hungary, Ireland, the Netherlands, Scotland, Slovakia, Spain and Sweden. It is too

early to say which virus type or subtype will become dominant in Europe this season. Based on the antigenic/genetic characterisation of four influenza viruses, three were A/Solomon Island/3/2006 (H1N1)-like and one was B/Florida/4/2006-like (the B/Yamagata/16/88 lineage). <http://www.eiss.org/index.cgi>

### ***Influenza Activity in Canada***

Influenza activity remained low in Canada during week 43 2007, with most regions across the country reporting no activity. The ILI consultation rate declined from previous weeks to 8 ILI consultations per 1,000 patient visits, which is below the expected range. In week 43 2007, none of the 1,268 (0%) specimens tested were positive for influenza virus. Of the influenza detections to date this season, 88% (15/17) were influenza A and 12% (2/17) were influenza B. Four influenza viruses have been characterised this season, two A/Wisconsin/67/2005(H3N2)-like viruses and two B/Florida/07/2004-like viruses (the B/Yamagata/16/1988 lineage). <http://www.phac-aspc.gc.ca/fluwatch/index.html>

### ***Influenza Activity in the United States***

During week 43 2007, a low level of influenza activity was reported in the United States. Two states reported local activity, 14 states, the District of Columbia, and Puerto Rico reported sporadic influenza activity; and 34 states reported no influenza activity. The proportion of outpatient visits for ILI and ARI was below national and region-specific baseline levels. Thirty-three (2.6%) specimens tested by U.S. WHO and NREVSS collaborating laboratories were positive for influenza: 29 A (unsubtyped) and 4 B. <http://www.cdc.gov/flu/weekly/fluactivity.htm>

### ***Influenza Activity Worldwide***

During week 43 2007, sporadic influenza activity was reported in China (4 A H1, 3 A H3 and 27 B) and no influenza activity was reported in Sri-Lanka and Tunisia. Five influenza A (H1) virus detections were reported from Japan during week 43 2007. <http://gamapserver.who.int/GlobalAtlas/home.asp>

### ***Avian Influenza***

As of the 5<sup>th</sup> of November 2007, 334 confirmed human cases and 205 (61.4%) deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Lao Peoples Democratic Republic, Nigeria, Thailand, Turkey and Viet Nam. The Ministry of Health in Indonesia has announced a new case of human infection of H5N1 avian influenza. A 30-year-old female from the Banten Province developed symptoms on the 23<sup>rd</sup> October 2007 and died in an AI referral hospital on the 3<sup>rd</sup> November 2007. The investigation found that there were poultry deaths in the case's neighborhood in the days prior to her onset of symptoms. Of the 112 cases confirmed to date in Indonesia, 90 have been fatal.

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

WHO [http://www.who.int/csr/disease/avian\\_influenza/en/](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 2007/2008 Season***

The members of the WHO Collaborating Centres on Influenza have recommended that influenza vaccines for the 2007/2008 influenza season in the Northern Hemisphere contain the following strains:

- an A/Solomon Islands/3/2006 (H1N1)-like virus
- an A/Wisconsin/67/2005 (H3N2)-like virus<sup>a</sup>
- a B/Malaysia/2506/2004-like virus

Candidate vaccine viruses include:

- <sup>a</sup>A/Wisconsin/67/2005 (H3N2) and A/Hiroshima/52/2005

<http://www.who.int/csr/disease/influenza/recommendations2007north/en/print.html>

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

### **Acknowledgements**

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**This report was produced by Dr. Lisa Domegan and Dr. Joan O'Donnell, HPSC**