

# 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 2006 (27<sup>th</sup> November to 3<sup>rd</sup> December 2006)**

## Summary

During week 48 2006, influenza activity was at low levels in Ireland, with 12 influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 48.

## Background

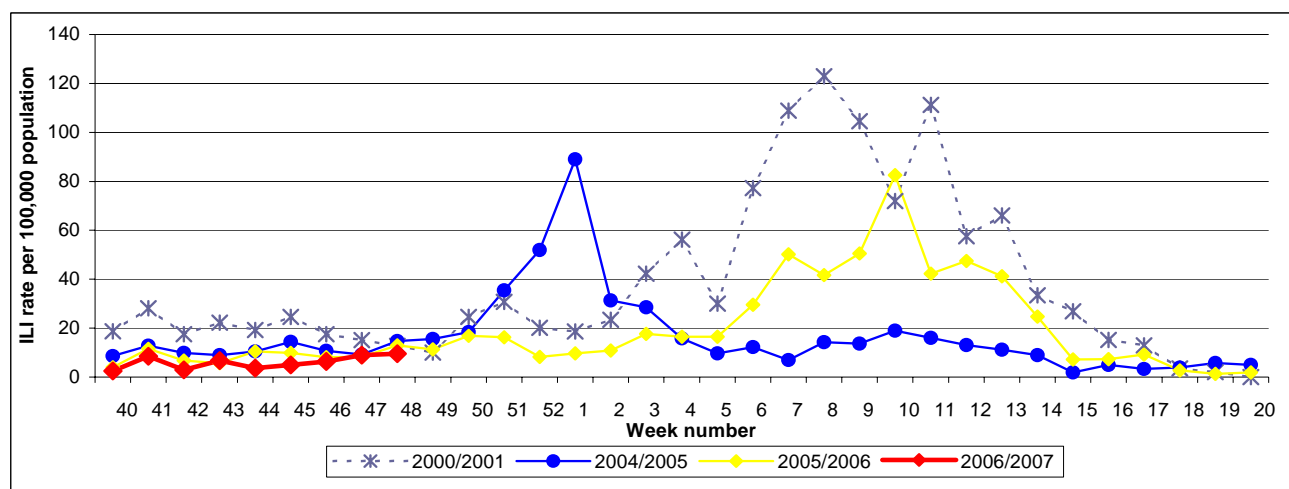
This is the seventh season of influenza surveillance using computerised sentinel general practices in Ireland. The Health Protection Surveillance Centre (HPSC) is working in collaboration with the Irish College of General Practitioners (ICGP), the National Virus Reference Laboratory (NVRL) and the Departments of Public Health on this sentinel surveillance project. Forty-eight 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

Twelve ILI cases were reported from sentinel GPs during week 48 2006, corresponding to an ILI consultation rate of 9.5 per 100,000 population, a slight increase from the updated rate of 9 during week 47 (figure 1).

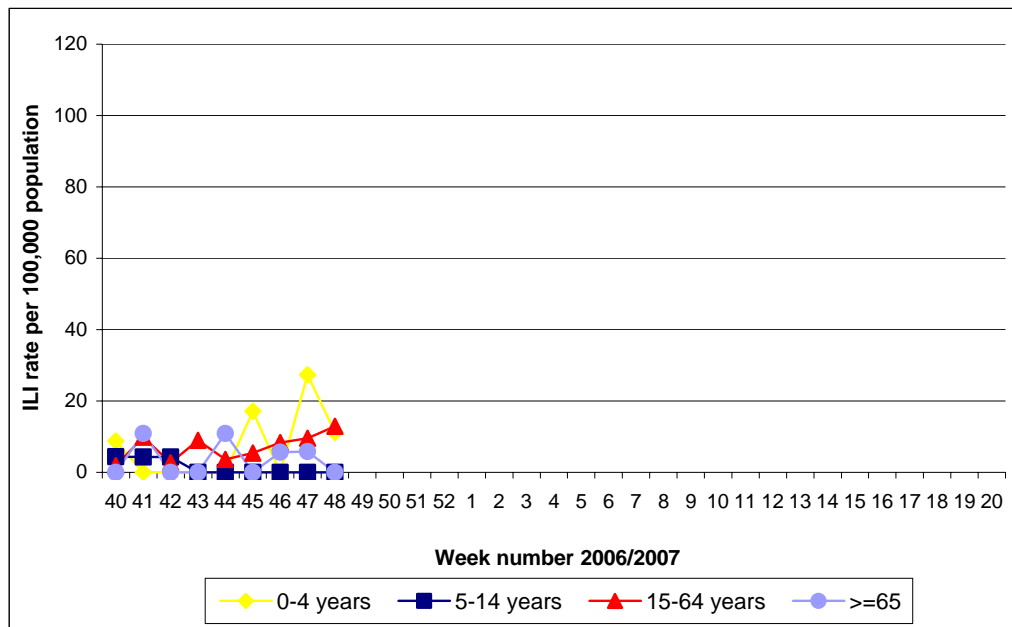


**Figure 1:** GP consultation rate for ILI per 100,000 population by week, during the 2000/2001\*, 2004/2005, 2005/2006 & 2006/2007 influenza seasons.

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

## Results (continued)

One ILI case was aged 0-4 years (11.2 per 100,000 population) and 11 cases were aged 15-64 years (12.9 per 100,000 population) as shown in figure 2. Thirty-five of the 48 (72.9%) sentinel general practices reported during week 48 2006, with nine reporting ILI.



**Figure 2:** Age specific GP consultation rate\* for ILI per 100,000 population by week during the 2006/2007 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.

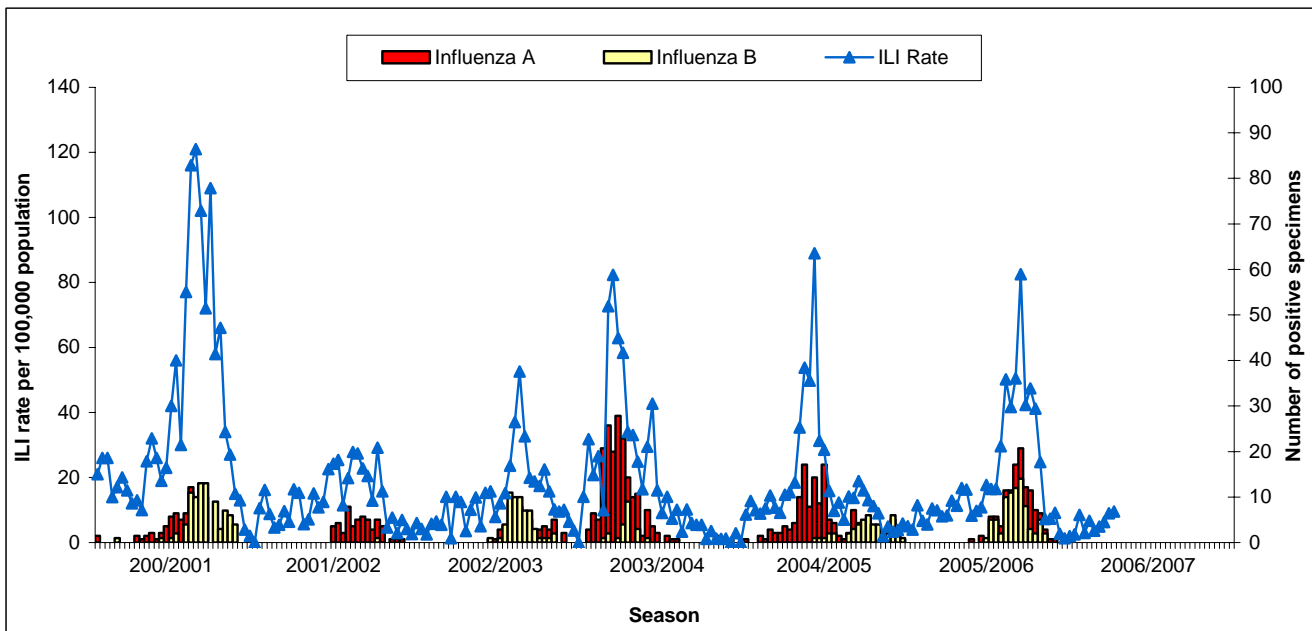
### Virological Data from the National Virus Reference Laboratory (NVRL)

The NVRL tested six specimens taken by sentinel GPs during week 48 2006, all of which were negative for influenza virus. The NVRL also tested 92 non-sentinel specimens taken during week 48 2006, mainly from hospitalised paediatric cases. Thirty-five non-sentinel specimens were positive for respiratory syncytial virus (RSV) and none were positive for influenza virus (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 2005/2006 and 2006/2007 influenza seasons

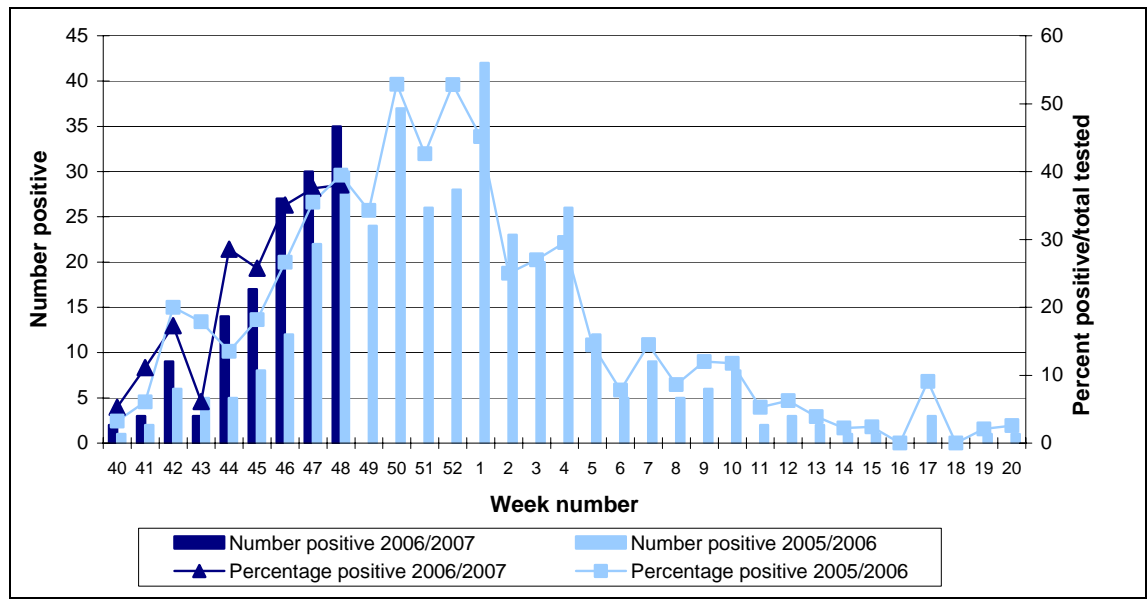
**Table 1:** Number of sentinel and non-sentinel\* respiratory specimens and positive results for week 48 2006 and the 2006/2007 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
<b>48 2006</b>	Sentinel	6	0	0.0	0	0	NA
	Non-Sentinel	92	0	0.0	0	0	35
	<b>Total</b>	<b>98</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>35</b>
<b>40-48 2006</b>	Sentinel	50	0	0.0	0	0	NA
	Non-Sentinel	530	0	0.0	0	0	140
	<b>Total</b>	<b>580</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>140</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.



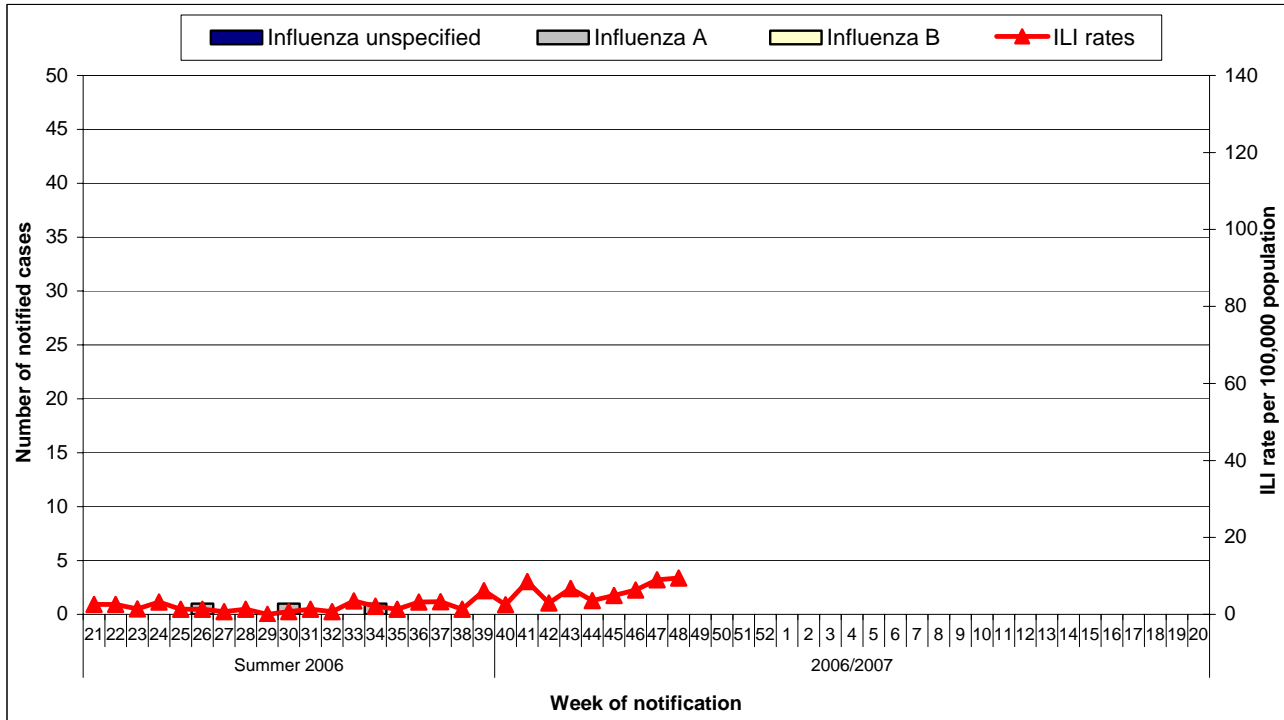
**Figure 3:** ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006 & 2006/2007 seasons.



**Figure 4.** Number and percentage of non-sentinel RSV positive specimens detected during the 2005/2006 and 2006/2007 influenza seasons.

### Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 48 2006. Influenza cases notified to HPSC during the summer of 2006 and during the 2006/2007 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 2006 and the 2006/2007 influenza season.

\*Notification data are provisional and were extracted from [CIDR](#) on the 06/12/2006 at 13.33

### Mortality Data

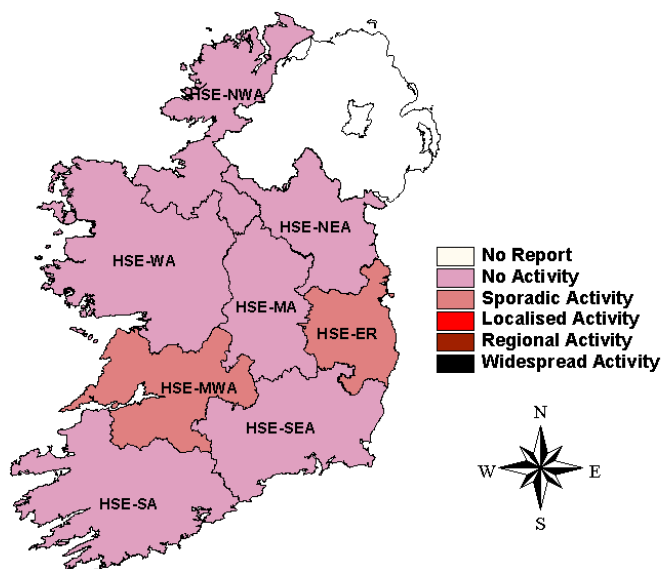
No deaths registered during week 48 2006 were attributed to influenza.

### Outbreak Reports

No influenza/ILI outbreaks were reported to HPSC during week 48 2006.

### ***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. 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. Sporadic influenza activity, based on isolated cases of ILI, was reported by HSE-ER and -MWA and no activity was reported from HSE-MA, -NEA, -NWA, -SA, -SEA and -WA during week 47 2006 (figure 6). During week 47, one sentinel school in HSE-SA reported high levels of absenteeism due to respiratory illness and one sentinel hospital in HSE-ER reported an increase in respiratory admissions.



**Figure 6:** Map of influenza activity by HSE-Health Area during week 47 2006

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

Forty-nine ILI cases and one case of clinical influenza were reported from sentinel GPs in Northern Ireland during week 48 2006, corresponding to a combined rate of 49.7 per 100,000 population, a slight increase from the updated rate of 48.6 per 100,000 population during week 47. There were no laboratory detections of influenza for week 47 2006.

<http://www.cdscni.org.uk>

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

Influenza activity remains very low across the United Kingdom. Clinical indicators of influenza activity have remained stable in England, Scotland and Wales. All remain well below clinical baselines thresholds where used. Reports of influenza A and B from NHS and HPA laboratories are also at low levels. Laboratory confirmed infections of Respiratory Syncytial Virus (RSV) are increasing, but remain at levels similar to those recorded last season. RSV has been detected from four community specimens sent to the Respiratory Virus Unit (RVU) at the Centre for Infections during week 48 2006. Three influenza detections were made, all of which proved to be influenza A(H3). All positive detections of RSV and influenza during week 48 2006 were from central England.

<http://www.hpa.org.uk/infections/topics%5Faz/influenza/seasonal/activity0607/flureport.htm>

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

During week 47 2006, national network levels of influenza-like illness (ILI) and/or acute respiratory infection (ARI) were at a low level in all 26 countries that reported the intensity indicator to the European Influenza Surveillance Scheme (EISS). The total number of respiratory specimens collected by sentinel physicians was 394, of which ten (2.5%) were positive for influenza virus. The positive specimens were collected in the Czech Republic (two), France (one), Italy (two), Poland (one), Spain (one) and Sweden (one). In addition, ten non-sentinel specimens (e.g. specimens collected in hospitals), collected in France (one), Hungary (one) and Sweden (eight), were positive for influenza virus. Based on subtyping data of all influenza virus detections (N=68; sentinel and non-sentinel data), 52 (76%) were A untyped, four (6%) were A(H1), two (3%) were A(H1N1), one (1%) was influenza A(H3), four (6%) were A(H3N2) and five (7%) were B.

<http://www.eiss.org/index.cgi>

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

During week 47, localised influenza activity was reported in regions of British Columbia, Alberta and Ontario. Sporadic influenza activity was reported in regions of Alberta, Saskatchewan and Ontario while the rest of the country reported no activity. In week 47, 29 (1.8%) of the 1,655 specimens tested for influenza virus were positive and all were influenza A. The majority of influenza detections to date this season were influenza A viruses. The ILI consultation rate declined from the previous week to a rate of 12 per 1,000 patient visits in week 47, which is below the expected range for this week with a sentinel response rate of 66%. Note that fluctuations in the ILI consultation rate are affected by the rate of response by sentinels each week. During week 47, 5 new influenza outbreaks were reported in schools in Alberta and British Columbia. The National Microbiology Laboratory (NML) has characterised 10 influenza viruses for the 2006-2007 influenza season: 2 A/Wisconsin/67/2005(H3N2)-like viruses (from Ontario and Alberta) and 8 A/New Caledonia/20/99(H1N1)-like viruses (all from Alberta). Both strains are included in the composition of the 2006-2007 Canadian influenza vaccine.

<http://www.phac-aspc.gc.ca/fluwatch/index.html>

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

During week 47, a low level of influenza activity was reported in the United States. Sixty-seven (3.7%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories were positive for influenza. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. One state reported widespread influenza activity, three states reported regional influenza activity, four states reported local influenza activity, 24 states, the District of Columbia and New York City reported sporadic influenza activity and 18 states reported no influenza activity.

<http://www.cdc.gov/flu/>

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

During week 47 2006 the following influenza isolates were reported; Chile 7 (4 A untyped and 3 B), China 5 (1 A (H3) and 4 untyped) and Iran 3 A (H3).

<http://gamapserver.who.int/GlobalAtlas/home.asp>

### ***Avian Influenza***

As of the 6<sup>th</sup> December 2006, 258 confirmed human cases and 154 (60%) deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey and Vietnam. The Ministry of Health in Indonesia has confirmed the country's 57th death from H5N1 avian influenza. The 35-year-old female, whose infection was announced on 13 November, died early in the morning on 28 November in hospital. Of the 74 cases confirmed to date in Indonesia, 57 (77%) 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 2006/2007 Season***

The members of the WHO Collaborating Centres on Influenza recommended that influenza vaccines for the 2006/2007 influenza season in the Northern Hemisphere contain the following strains:

- an A/New Caledonia/20/99(H1N1)-like virus;
- an A/Wisconsin/67/2005 (H3N2)-like virus<sup>a</sup>;
- a B/Malaysia/2506/2004-like virus<sup>b</sup>

Candidate vaccine viruses include:

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

<sup>b</sup>B/Malaysia/2506/2004 virus and B/Ohio/1/2005

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

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

#### **Acknowledgements**

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**This report was produced by Sarah Jackson & Dr Joan O'Donnell, HPSC**