

# 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 49 2006 (4<sup>th</sup> to 10<sup>th</sup> December 2006)

## Summary

During week 49 2006, influenza activity was at low levels in Ireland, with six influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 49 but one pending sentinel specimen from week 48 tested positive for influenza A(H3).

## 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-six 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

Six ILI cases were reported from sentinel GPs during week 49 2006, corresponding to an ILI consultation rate of 3.9 per 100,000 population, a decrease from the updated rate of 8.7 during week 48 (figure 1).

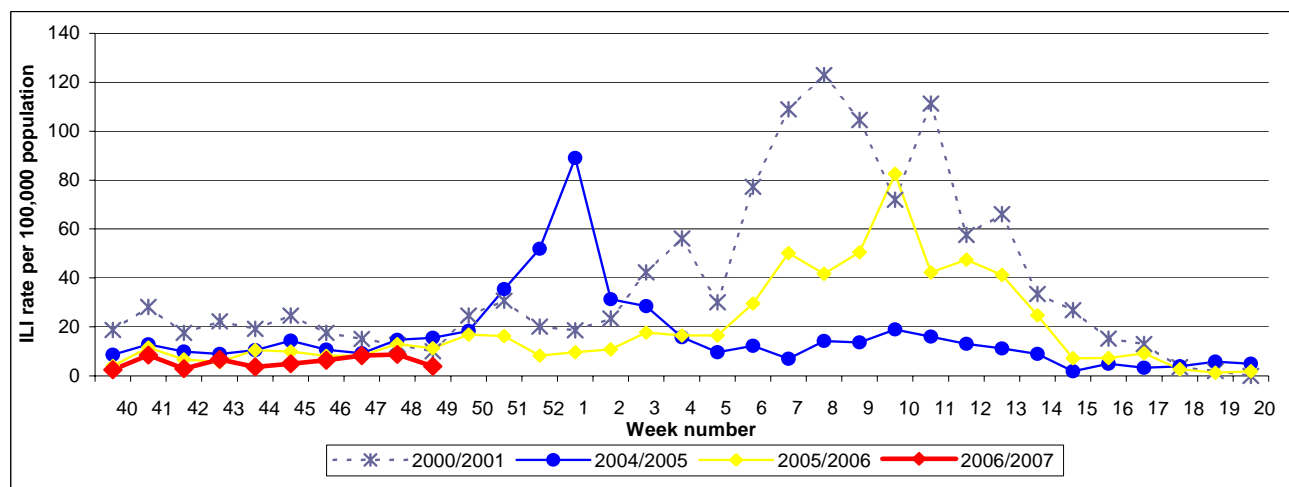
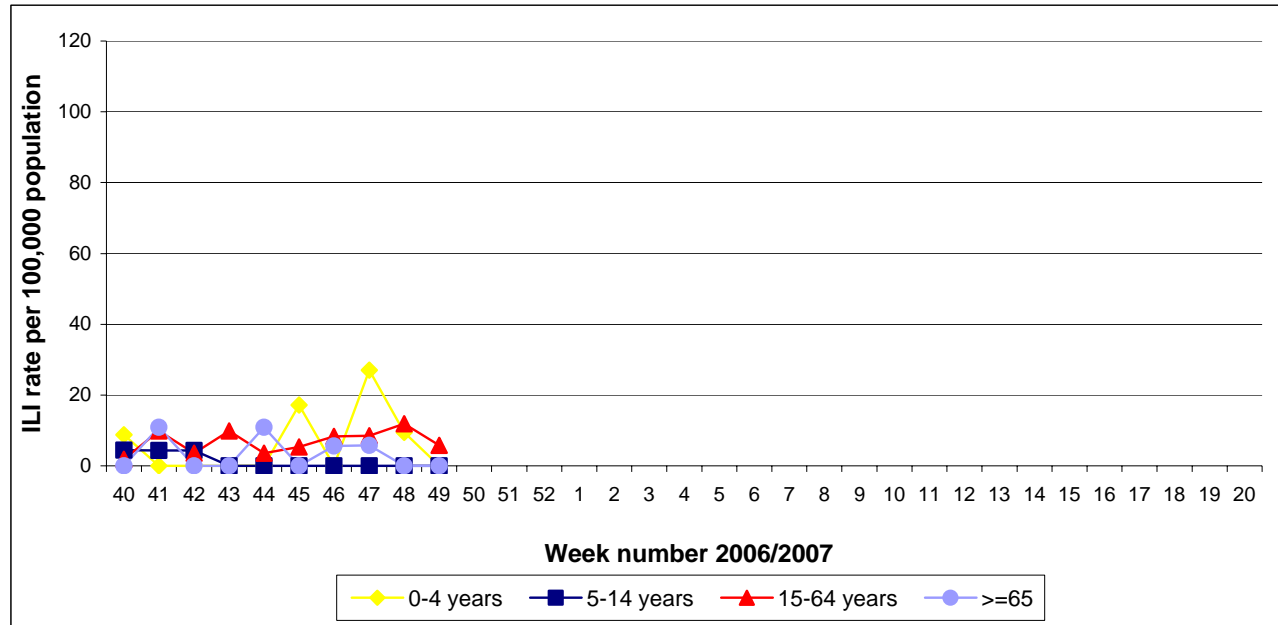


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001\*, 2004/2005, 2005/2006 & 2006/2007 influenza seasons.

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

## Results (continued)

All six cases were in the 15-64 year age group, corresponding to a rate of 5.8 per 100,000 population, as shown in figure 2. Forty-two of the 46 (91.3%) sentinel general practices reported during week 49 2006, with four 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.

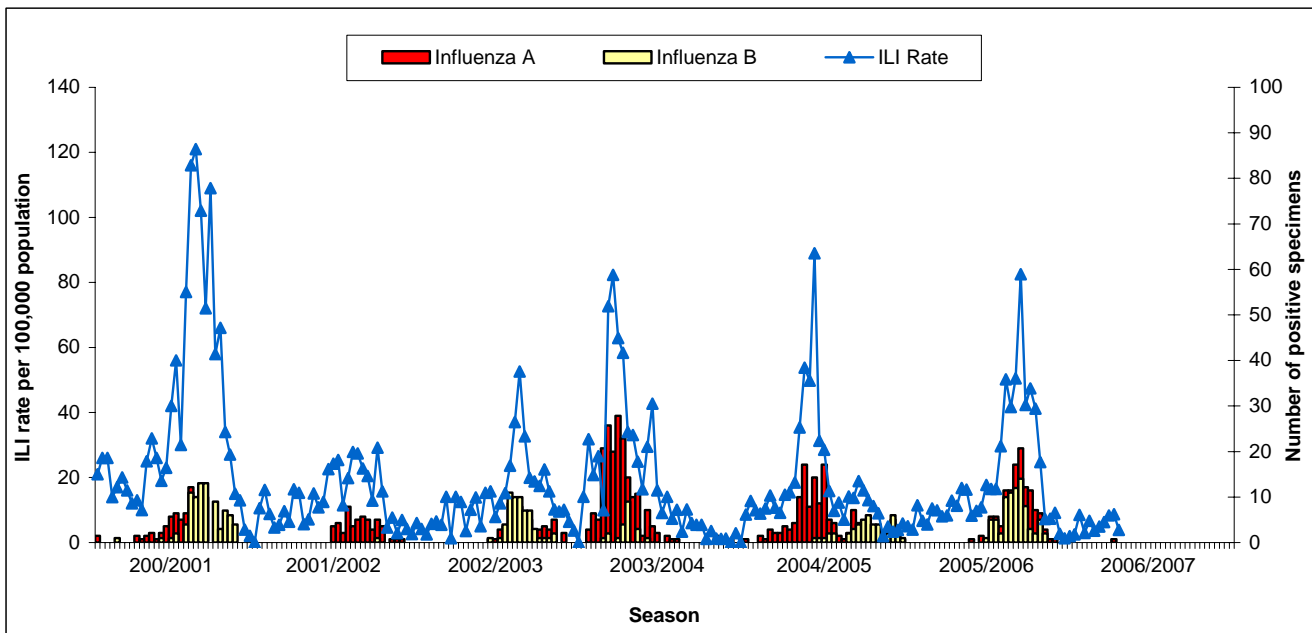
### ***Virological Data from the National Virus Reference Laboratory (NVRL)***

The NVRL tested three specimens taken by sentinel GPs during week 49 2006, all of which were negative for influenza virus. One pending sentinel specimen in an adult female in the 15-64 year age group from week 48 tested positive for influenza A(H3). This is the first influenza detection of the 2006/2007 influenza season. The NVRL also tested 67 non-sentinel specimens taken during week 49 2006, mainly from hospitalised paediatric cases. Twenty-eight 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

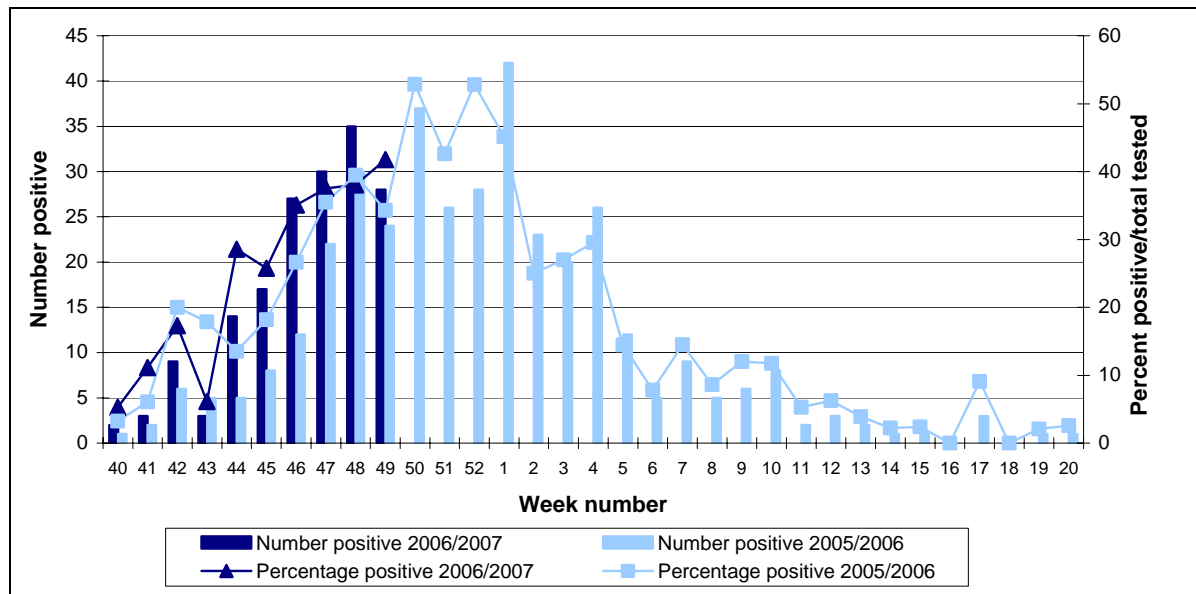
**Table 1:** Number of sentinel and non-sentinel\* respiratory specimens and positive results for week 49 2006 and the 2006/2007 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
<b>49 2006</b>	Sentinel	3	0	0.0	0	0	NA
	Non-Sentinel	67	0	0.0	0	0	28
	<b>Total</b>	<b>70</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>28</b>
<b>40-49 2006</b>	Sentinel	53	1	1.9	0	0	NA
	Non-Sentinel	597	0	0.0	0	0	168
	<b>Total</b>	<b>650</b>	<b>1</b>	<b>0.2</b>	<b>0</b>	<b>0</b>	<b>168</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.



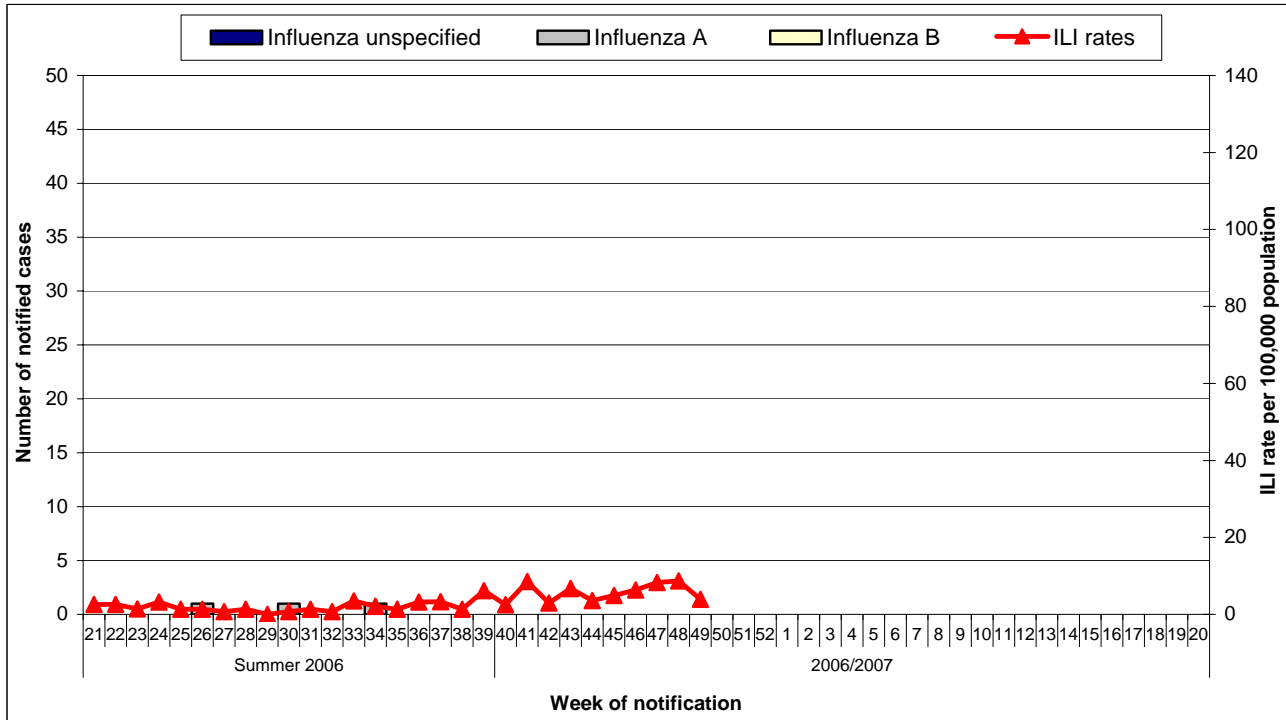
**Figure 3:** ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006 & 2006/2007 seasons.



**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 49 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 13/12/2006 at 14.41

### Mortality Data

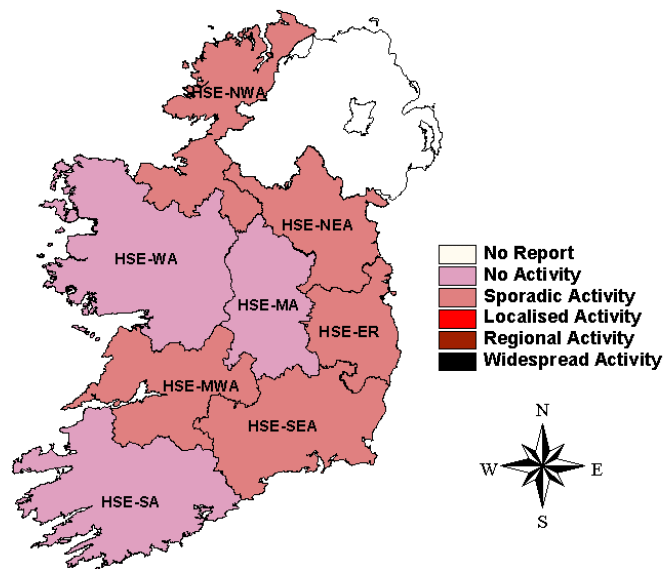
No deaths registered during week 49 2006 were attributed to influenza.

### Outbreak Reports

No influenza/ILI outbreaks were reported to HPSC during week 49 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, -MWA, -NEA, -NWA and -SEA. No activity was reported from HSE-MA, -SA and -WA during week 48 2006 (figure 6). During week 48, one sentinel school in HSE-MWA reported high levels of absenteeism and one sentinel hospital in HSE-MA reported an increase in respiratory admissions.



**Figure 6:** Map of influenza activity by HSE-Health Area during week 48 2006

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

One hundred and seven ILI cases and one case of clinical influenza were reported from sentinel GPs in Northern Ireland during week 49 2006, corresponding to a combined rate of 106.1 per 100,000 population, a sharp increase from the updated rate of 44.2 per 100,000 population during week 48. There were no laboratory detections of influenza for week 49 2006.

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

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

Clinical influenza activity in the United Kingdom is currently well within baseline levels in England, Wales and Scotland. No samples referred to the Centre for Infections Respiratory Virus Unit (RVU) tested positive for influenza during week 49 2006. Detections of Respiratory Syncytial Virus (RSV) remained within expected levels for this time of year.

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

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

During week 48 2006, national network levels of influenza-like illness (ILI) and/or acute respiratory infection (ARI) were at a low level in all 27 countries. Data from England, France, Hungary, Italy and Sweden indicated some sporadic activity (isolated cases of laboratory confirmed influenza) whilst 21 countries reported no activity. The total number of respiratory specimens collected by sentinel physicians was 447, of which nine (2.0%) were positive for influenza virus. The positive specimens were collected in England (three), France (three), Spain (two) and Switzerland (one). In addition, 14 influenza positive specimens from non-sentinel sources were reported (e.g. specimens collected in hospitals) including England (one), Hungary (one), Sweden (seven) and Switzerland (five). All specimens from Switzerland were influenza A. Based on subtyping data of all influenza virus detections (N=103; sentinel and non-sentinel data), 72 (69.9%) were A unsubtype, four (3.9%) were A(H1), two (1.9%) were A(H1N1), 5 (4.8%) were influenza A(H3), ten (9.7%) were A(H3N2) and ten (9.7%) were B.

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

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

During week 48, localised influenza activity was reported in regions of Alberta and Ontario. Sporadic influenza activity was reported in a few regions (in the West, Ontario and Quebec), however, the majority of regions in the rest of the country reported no activity. In week 48, 35 (1.8%) of the 1,956 specimens tested for influenza virus were positive and all were influenza A. The majority (97%) of influenza detections to date this season were influenza A viruses. The ILI consultation rate for week 48 was 30 per 1,000 patient visits, a sharp increase from the week 47 rate of 11 per 1,000 patient visits, which is within the expected range for this week. During weeks 47 and 48, the sentinel response rate was 73%. During week 48, 1 new outbreak of ILI was reported in a school in Alberta. The National Microbiology Laboratory (NML) has characterised 20 influenza viruses for the 2006-2007 influenza season: 7 A/Wisconsin/67/2005(H3N2)-like viruses (from Ontario) and 13 A/New Caledonia/20/99(H1N1)-like viruses (from Alberta and British Columbia). 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 48, a low level of influenza activity was reported in the United States. One hundred and six (4.3%) 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. Four states reported regional influenza activity, four states reported local influenza activity, 27 states, the District of Columbia and New York City reported sporadic influenza activity and 15 states reported no influenza activity.

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

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

During week 48 2006 the following influenza isolates were reported; China 6 (1 A unsubtype, 3 A(H1) and 2 B), Madagascar 1 B and Morocco 2 A(H3).

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

### ***Avian Influenza***

As of the 14<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.

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**

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, HPSC**