

# Weekly Influenza Surveillance Report



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive



**Week 6 2005**

**Week starting Monday 7<sup>th</sup> February 2005 &  
ending Sunday 13<sup>th</sup> February 2005**

**Report produced: 17/02/2005**

**This report is produced in collaboration with the Departments of Public Health**

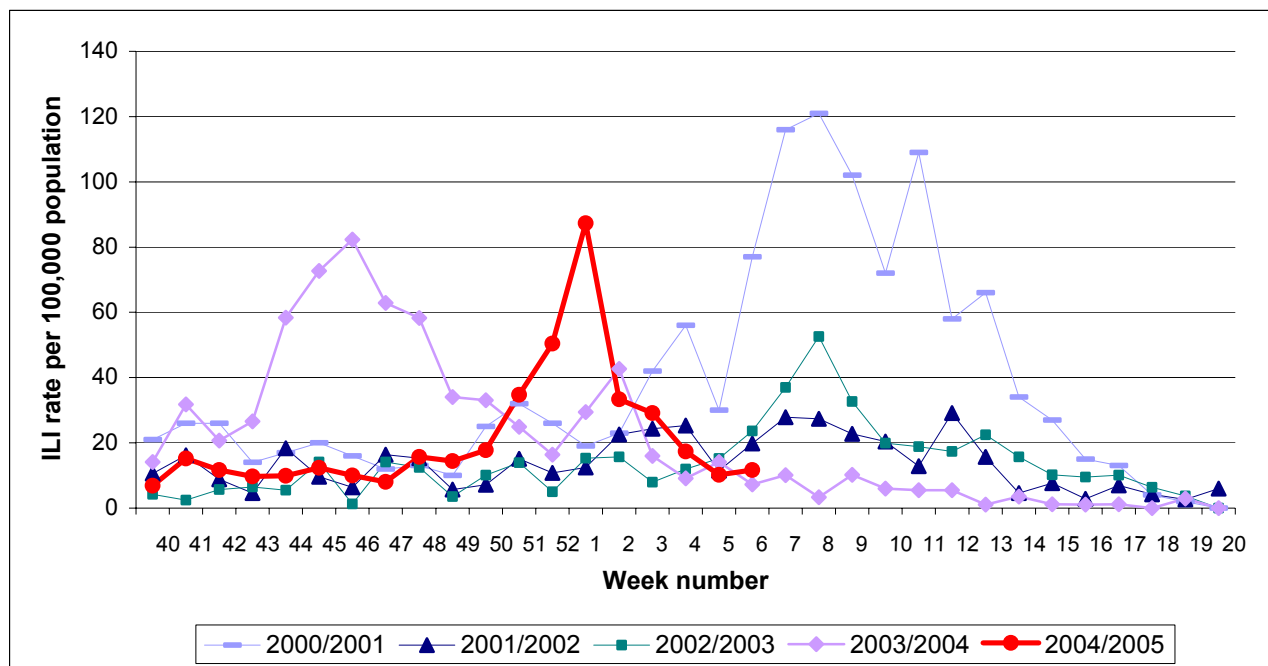
## Summary

During week six 2004, influenza activity remained at low levels in Ireland, with eleven cases of influenza-like illness (ILI) reported by the sentinel GPs. Of the five sentinel swabs submitted to the NVRL for testing, two were positive for influenza A. To date this season, 63 influenza A (unsubtyped), 43 influenza A (H3N2), 36 influenza A (H1N1) and 7 influenza B viruses have been detected by the NVRL.

## Clinical data

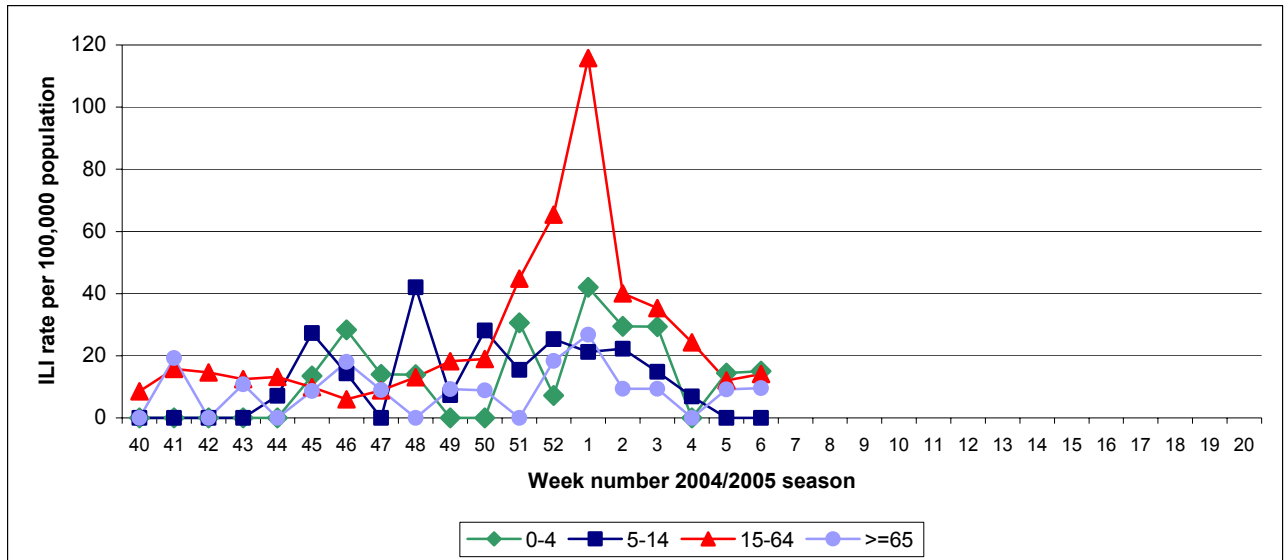
During week six (week ending 13<sup>th</sup> February 2005), eleven cases of ILI were reported by sentinel general practices, corresponding to an ILI consultation rate of 11.7 per 100,000 population (figure 1). This is an increase from the updated week rate for week five of 10.2 per 100,000.

One of the ILI cases was in the 5-14 years age group, nine were in the 15-64 years age group and one was aged over 65 years. Returns were received from 29 out of 36 sentinel GP practices, giving a population coverage of 2.4% (83.4% of the total possible reporting GP patient population). Nine practices reported ILI.



**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\*\*-influenza seasons.

*\*\*Please note that for comparison with previous years, data for week 52 2004 on this graph represents the average of weeks 52/04 and 53/04*



**Figure 2.** Age specific GP consultation rate\* for ILI per 100,000 population by week\*\* for the 2004/2005-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.

\*\*Please note that for comparison with previous years, data for week 52 2004 on this graph represents the average of weeks 52/04 and 53/04

### **Virological data from the National Virus Reference Laboratory**

The National Virus Reference Laboratory (NVRL) received five swabs taken during week six by sentinel GPs (tables 1&3). Two of these tested positive for influenza A (unsubtyped). The NVRL also tested 48 respiratory non-sentinel specimens, taken in hospitals, during week six. Five tested positive for RSV and none were positive for influenza (tables 2&4, figure 3).

To date this season, 63 influenza A (unsubtyped), 43 influenza A (H3N2), 36 influenza A (H1N1) and 7 influenza B viruses have been detected by the NVRL (table 3). Twenty-five of these were in the 0-4 years age group, 23 were in the 5-14 years age group, 83 were in the 15-64 years age group and 16 were aged over 64 years. Of the 321 RSV detections to date, 183 were aged 6 months or less, 81 were aged between 7 and 11 months, 36 were aged between 1 and 4 years, and 15 were aged 5 years or older. Ages were unavailable for six of the RSV-positive patients and two of the influenza-positive patients.

**Table 1:** Total number of sentinel specimens tested for influenza and positive results by type and subtype for week 6 2005 and the 2004/2005 season to date

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
6	5	2	40.0	2	0	0	0	0
Total	262	103	39.3	19	42	35	7	5

**Table 2:** Total number non-sentinel\* respiratory specimens and positive results by type and subtype for week 6 2005 and the 2004/2005 season to date

Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
6	48	0	0.0	0	0	0	0	5
Total	1010	46	4.6	44	1	1	0	316

**Table 3:** Total number of sentinel and non-sentinel\* respiratory specimens and positive results for week 6 2005 and the 2004/2005 season to date

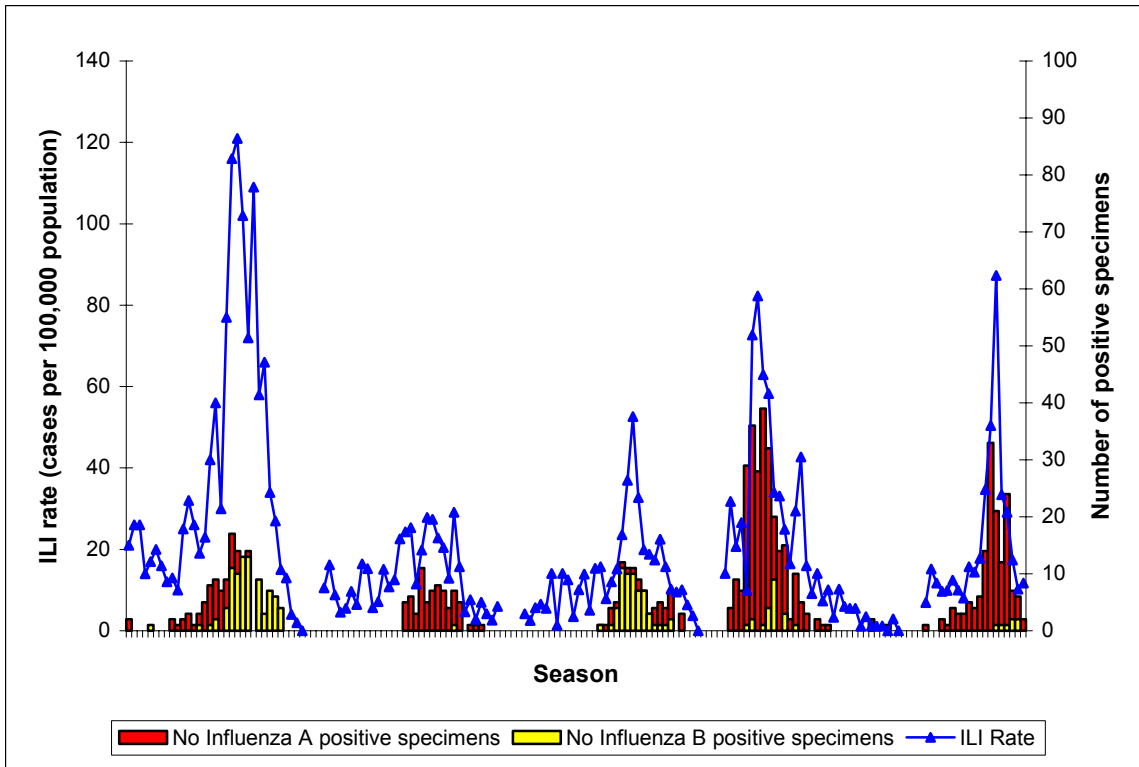
Week number	Total specimens	Influenza positive specimens	% Influenza positive	Influenza A (Unsubtyped)	Influenza A (H3N2)	Influenza A (H1N1)	Influenza B	RSV
6	53	2	3.8	2	0	0	0	5
Total	1272	149	11.7	63	43	36	7	321

\*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.

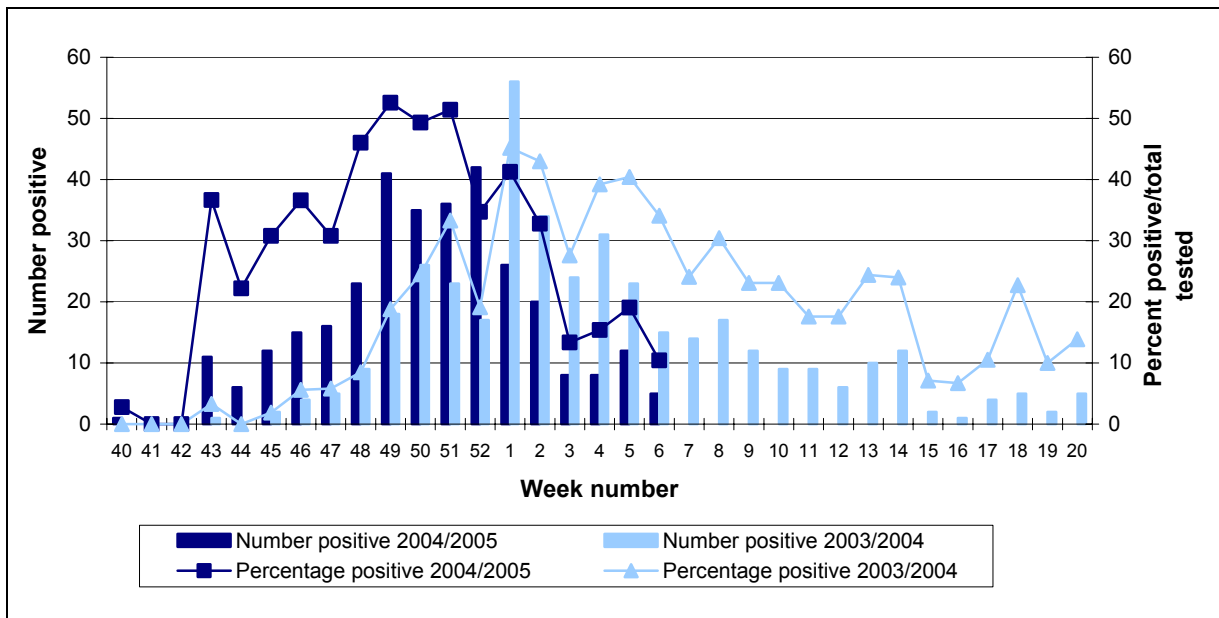
**Table 4:** Total number of sentinel and non-sentinel\* influenza A and B positive specimens by health board for week 6 2005 and the 2004/2005 season to date

	Week 6 2005			Season to date		
	Flu A	Flu B	Total	Flu A	Flu B	Total
ERHA	0	0	0	54	2	56
MHB	1	0	1	4	0	4
MWHB	0	0	0	14	1	15
NEHB	0	0	0	9	0	9
NWHB	0	0	0	8	0	8
SEHB	1	0	1	26	2	28
SHB	0	0	0	10	1	11
WHB	0	0	0	17	1	18
<b>Total</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>142</b>	<b>7</b>	<b>149</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 and number of positive specimens detected during the 2000/2001, 2001/2002, 2002/2003, 2003/2004 and 2004/2005 seasons.



**Figure 4.** Number and percentage of non-sentinel RSV positive specimens detected during the 2004/2005\*\* and 2003/2004 influenza seasons.

\*\*Please note that for comparison with previous years, data for week 52 2004 on this graph represents the average of weeks 52/04 and week 53/04

### Antigenic characterisation

Two specimens have been characterised to date this season. One influenza A (H1N1) isolate has been antigenically characterised as A/New Caledonia/20/99-like. The current season's vaccine contains an A/New Caledonia/20/99(H1N1)-like virus and should provide good protection against the strain. One influenza A (H3N2) isolate was found to be closest in antigenic character to the reference viruses A/Shantou/1219/04 and A/Oslo/807/04. The current vaccine will also provide protection against these strains.

### Outbreak reports

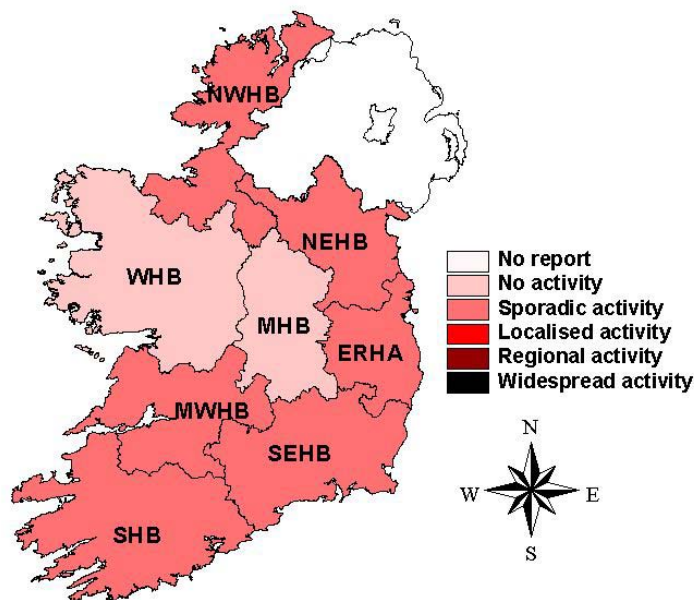
Two influenza outbreaks have been reported this season to date. An outbreak of influenza A (H3N2) in a long-stay care facility for the elderly was reported by the ERHA during week three. Thirty-seven patients and 19 staff members were affected, this corresponds to an attack rate of 33.4%. Control measures have been implemented and no new cases have been reported since January 25<sup>th</sup>. A school outbreak of influenza-like illness occurred during week 48 in the MWHB. A total of 32 pupils were reported ill. There were no hospitalisations. Influenza A (unsubtyped) was isolated from two cases.

### Mortality data

There were no influenza deaths reported during week six.

### Influenza activity by health board/authority

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 cases of influenza, sentinel hospital admissions data and/or sentinel school absenteeism data. During week five, six health boards reported sporadic activity and two reported no activity.



**Figure 4:** Map of influenza activity by health board/authority during week 5 2004/5

### **Influenza activity in Northern Ireland**

Influenza activity levels remained low in Northern Ireland during week six. No cases of clinical influenza and 60 cases of ILI were reported. These figures correspond to a combined ILI and clinical influenza rate of 46.3 cases per 100,000 population, which is lower than the updated rate of 65.1 per 100,000 population, from week five. Returns were received from 21 of the 24 sentinel GP practices, giving a population coverage of 7.6%. During week six, influenza A (H3) was detected in one specimen from a hospitalised child. RSV levels were also low, with RSV detected in six non-sentinel specimens.

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

### **Influenza activity in England, Scotland and Wales**

During week six, influenza activity levels in England remained above baseline, but within normal seasonal activity thresholds. The GP consultation rate for ILI remained the same as that for week five (34 consultations per 100,000 population). ILI consultation rates increased in Scotland (39 per 100,000 population, compared to 22 per 100,000 population in week five) and decreased in Wales (2 per 100,000 population, compared to 5 per 100,000 population in week five). Influenza viruses were detected in 27 community samples and 9 hospital samples in the UK; 26 of these were influenza A (H3), 7 were influenza A (H1) and 3 were influenza B. RSV was detected in two community samples.

One hundred and seventy influenza viruses have been characterised this season to date in the UK. Ninety-five were influenza A/Wellington//1/2004(H3N2)-like, 60 were influenza A/New Caledonia/20/99 (H1N1)-like, 13 were influenza B/Shanghai/361/02-like and 2 were influenza B/Hong Kong/330/-01-like.

<http://www.show.scot.nhs.uk/scieh/infectious/respiratory/influenzasurveillance/influenzasurveillance.htm>

[http://www.hpa.org.uk/infections/topics\\_az/influenza/flu.htm](http://www.hpa.org.uk/infections/topics_az/influenza/flu.htm)

### **Influenza activity in Europe**

During week six, influenza activity increased across most of Europe. Spain and Portugal were the only countries to report decreasing influenza activities. Widespread outbreaks were reported by twelve countries; Austria, Belgium, Czech Republic, France, Germany, Italy, Luxembourg, Netherlands, Norway, Portugal, Slovenia and Switzerland.

Four hundred and ninety (32.0%) sentinel swabs and 464 (24.9%) non-sentinel swabs tested positive for influenza. Of these, 621 (65.1%) were influenza A (unsubtyped), 22 (2.3%) were influenza A (H1), 16 (1.7%) were influenza A (H1N1), 100 (10.5%) were influenza A (H3), 95 (10%) were influenza A (H3N2) and 100 (10.5%) were influenza B.

Five hundred and five influenza viruses have been antigenically and/or genetically characterised in Europe since week 40 2004. Of these, 302 (59.8%) were A/Wellington/1/2004 (H3N2)-like, 115 (22.8%) were A/New Caledonia/20/99 (H1N1)-like, 15 (3%) were A/Fujian/411/2002 (H3N2)-like, 2 (0.4%) were A/Panama/2007/99 (H3N2)-like, 47 (9.3%) were B/Jiangsu/10/2003-like and 24 (4.8%) were B/Hong Kong/330/2001-like.

To date this season, influenza A (H3N2), influenza A (H1N1) and influenza B have been detected in Europe. The dominant virus type has been influenza A, accounting for 91.8% of detections. Where influenza A viruses have been subtyped, 83.5% have been influenza A (H3N2) and 16.5% have been influenza A (H1N1). <http://www.eiss.org/>



### **Influenza activity in Canada**

During week five (week ending 05/02/2005), influenza activity remained high in Canada, with widespread influenza activity reported in British Columbia, Alberta, Saskatchewan and Ontario. Elsewhere in Canada either localised, sporadic or no activity was reported. Sentinel physicians reported 36 cases of ILI per 1,000 patient visits, during week five. Influenza A was detected in 976 of the 4146 specimens sent for laboratory confirmation. Influenza B was detected in 39. Since the start of the 2004/2005 influenza season, 334 influenza viruses have been antigenically characterised. Three hundred and twelve (93.4%) were influenza A/Fujian/411/02(H3N2)-like, twenty-one were influenza B/Shanghai/361/02-like (6.3%) and one (0.3%) was influenza B/Hong Kong/330/01-like. To date this season, there have been a total of 434 influenza outbreaks, of which 341 occurred in retirement homes, 32 in hospitals and 61 in schools. <http://www.phac-aspc.gc.ca/fluwatch/index.html>

### **Influenza activity in the United States**

Influenza activity in the US continued to increase during week five (week ending 05/02/2005). Almost five percent (4.6%) of patient visits to US sentinel providers were due to ILI. This is above the national baseline of 2.5%. During week five, 7.8% of all deaths, reported by the vital statistics offices of 122 cities, were attributed to pneumonia or influenza. This percentage is below the epidemic threshold level of 8.2% for week five. During week five, 27 states reported widespread influenza activity, 16 states and New York City reported regional activity and the remaining states reported either local or sporadic activity.

WHO and NREVSS laboratories tested 3,446 specimens for influenza during week five. Two hundred and fifty-five of these were positive for influenza A (H3N2), 404 were positive for influenza A (unsubtyped) and influenza B was detected in 123 specimens. Since October 1<sup>st</sup>, 256 influenza viruses have been antigenically characterised by the CDC. One hundred and twenty-five influenza A (H3N2) viruses were characterised as antigenically similar to the A/Wyoming/3/2003 and forty-nine were more closely related to a newer reference strain, A/California/7/2004 (H3N2). Sixty-four influenza B viruses were characterised as B/Shanghai/361/02-like and the remaining 16 influenza B viruses were characterised as belonging to the B/Victoria lineage. Two influenza A (H1N1) viruses were characterised as antigenically similar to the haemagglutinin of the vaccine strain A/New Caledonia/20/99.

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

### **Influenza activity Worldwide**

During week six, widespread influenza outbreaks were reported in the Ukraine (10 influenza B viruses were detected) and local outbreaks were reported in Madagascar (2 influenza A (unsubtyped) viruses were detected) and Finland (18 influenza A (unsubtyped) and 2 influenza A (H3) viruses were detected). Sporadic influenza activity was reported in China, Bulgaria and Poland.

<http://rhone.b3e.jussieu.fr/flunet/www/>

### **Avian influenza**

The first human case of avian influenza in Cambodia was reported on the February 2<sup>nd</sup>. The 25 year-old woman developed symptoms on January 21<sup>st</sup>, was hospitalised in neighbouring Viet Nam on January 27<sup>th</sup> and died three days later. Tests undertaken on February 1<sup>st</sup> were positive for influenza A(H5). Her 14 year-old brother died after experiencing respiratory symptoms and it is suspected that he was also infected with avian influenza. Officials from the Ministry of Health of Cambodia and the World Health Organisation (WHO) have stepped



up surveillance in Kampot province in Cambodia in response to these deaths and are implementing campaigns to increase awareness of avian influenza in the region.

The total number of laboratory-confirmed cases of avian influenza A (H5N1) in Thailand, Viet Nam and Cambodia since the January 2004 is now 55. Forty-two (76.4%) of these were fatal. Although the avian influenza virus is highly pathogenic in humans, there is no evidence of efficient and sustained human-to-human transmission. For further information on the avian influenza outbreaks please consult the following websites:

HPSC: <http://www.hpsc.ie/DiseaseTopicsA-Z/AvianInfluenza/>

WHO: [http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

### **Northern Hemisphere influenza vaccine for 2004/2005**

The vaccine currently in use is in accordance with the WHO recommendations on the composition of influenza vaccines for use in the 2004-2005 Northern Hemisphere influenza season, which are:

- an A/New Caledonia/20/99(H1N1)-like virus
- an A/Fujian/411/2002(H3N2)-like virus<sup>a</sup>
- a B/Shanghai/361/2002-like virus<sup>b</sup>

<sup>a</sup> The currently used vaccine virus is A/Wyoming/3/2003. A /Kumamoto/102/2002 is also available as a vaccine virus.

<sup>b</sup> Candidate vaccine viruses include B/Shanghai/361/2002 and B/Jilin/20/2003, which is a B/Shanghai/361/2002-like virus.

### **Northern Hemisphere influenza vaccine for 2005/2006**

The WHO announced its recommendations for the composition of the influenza vaccine for the northern hemisphere for 2005/2006 on February 10<sup>th</sup> 2005. The members of the WHO Collaborating Centres on Influenza recommended that influenza vaccines contain the following strains:

- an A/New Caledonia/20/99(H1N1)-like virus
- an A/California/7/2004(H3N2)-like virus<sup>a</sup>
- a B/Shanghai/361/2002-like virus<sup>b</sup>

<sup>a</sup> Candidate vaccine viruses are being developed (for further information please see WHO update at <http://www.who.int/influenza>)

<sup>b</sup> 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](http://www.emea.eu.int)

**Weekly influenza reports and further information on influenza are available on the HPSC website:**

<http://www.hpsc.ie/Publications/InfluenzaWeeklySurveillanceReport/>  
<http://www.hpsc.ie/DiseaseTopicsA-Z/InfluenzaFlu/>