

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 46 2006 (13th to 19th November 2006)

Summary

During week 46 2006, influenza activity was at low levels in Ireland, with 10 influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 46.

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

Ten ILI cases were reported from sentinel GPs during week 46 2006, corresponding to an ILI consultation rate of 7.1 per 100,000 population, an increase from the updated rate of 5.1 during week 45 (figure 1).

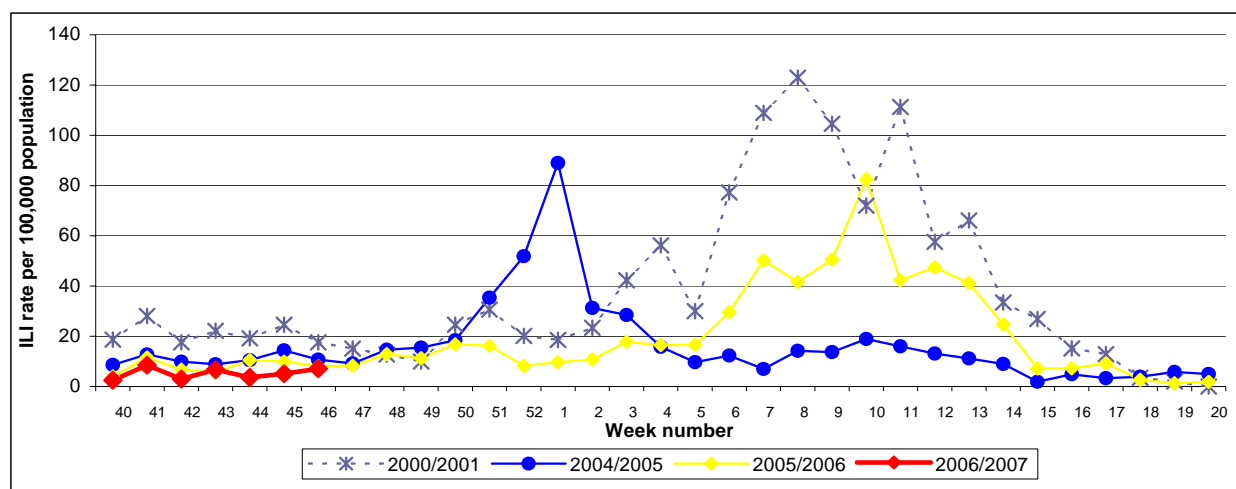


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001*, 2004/2005, 2005/2006 & 2006/2007 influenza seasons.

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

Results (continued)

Nine ILI cases were aged between 15-64 years (9.4 per 100,000 population) and one was aged 65 years and older (6.4 per 100,000 population) as shown in figure 2. Thirty-eight of the 48 (79.2%) sentinel general practices reported during week 46 2006, with eight reporting ILI.

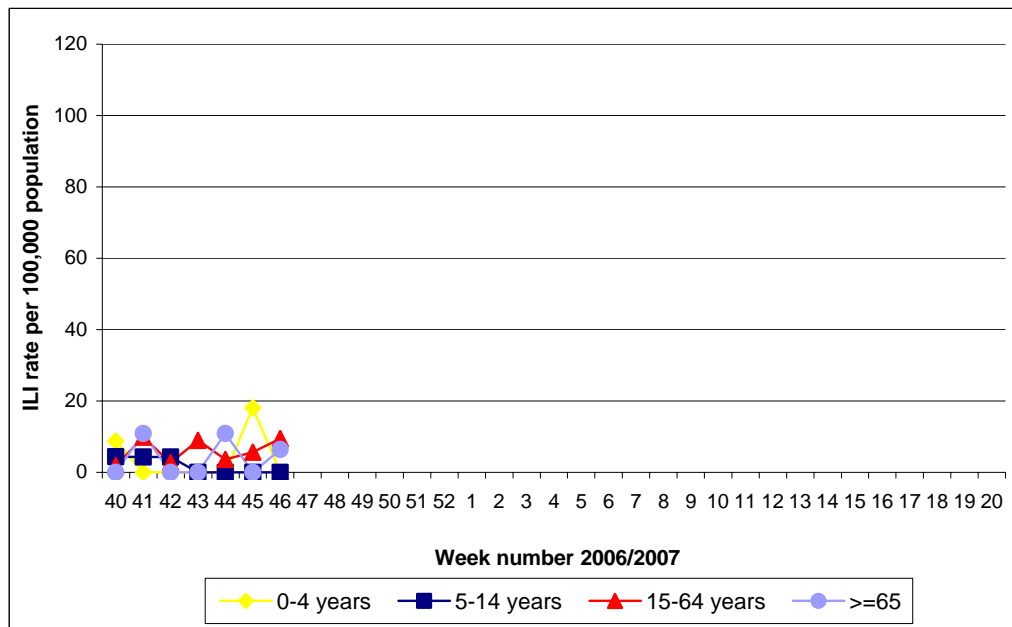


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2006/2007 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is 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 46 2006, all of which were negative for influenza virus. The NVRL also tested 73 non-sentinel specimens taken during week 46 2006, mainly from hospitalised paediatric cases. Twenty-six non-sentinel specimens were positive for respiratory syncytial virus (RSV), one was positive for parainfluenza virus type 3 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 46 2006 and the 2006/2007 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
46 2006	Sentinel	6	0	0.0	0	0	NA
	Non-Sentinel	73	0	0.0	0	0	26
	Total	79	0	0.0	0	0	26
40-46 2006	Sentinel	33	0	0.0	0	0	NA
	Non-Sentinel	354	0	0.0	0	0	74
	Total	387	0	0.0	0	0	74

*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.

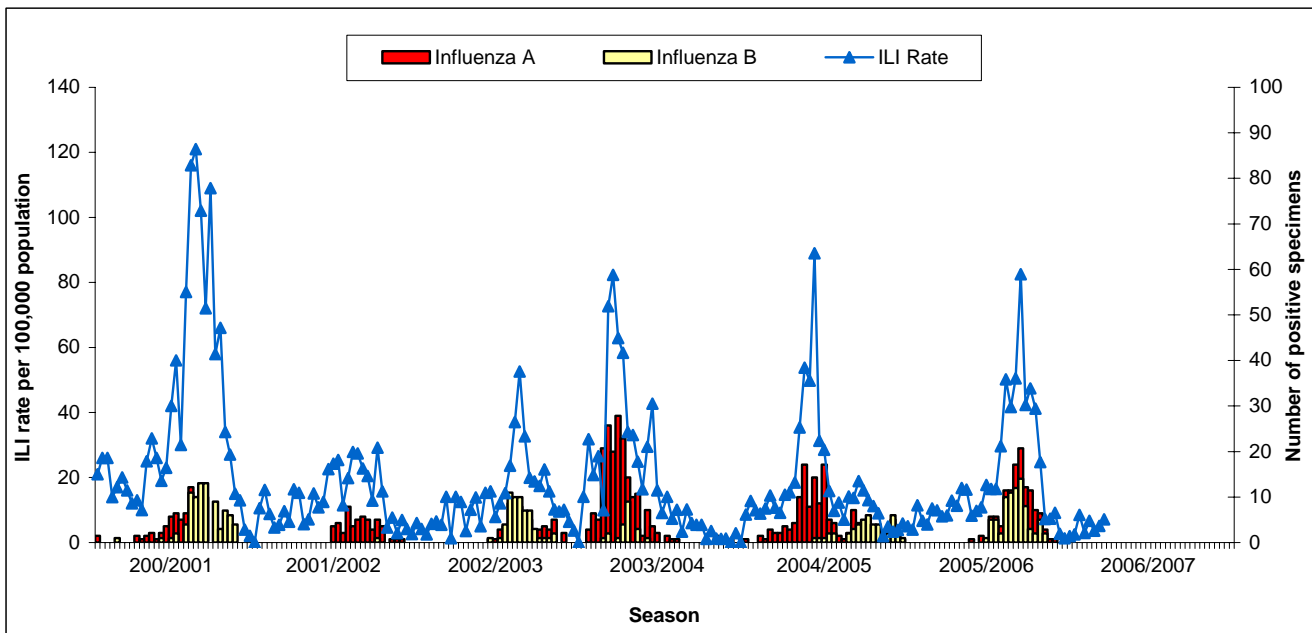


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006 & 2006/2007 seasons.

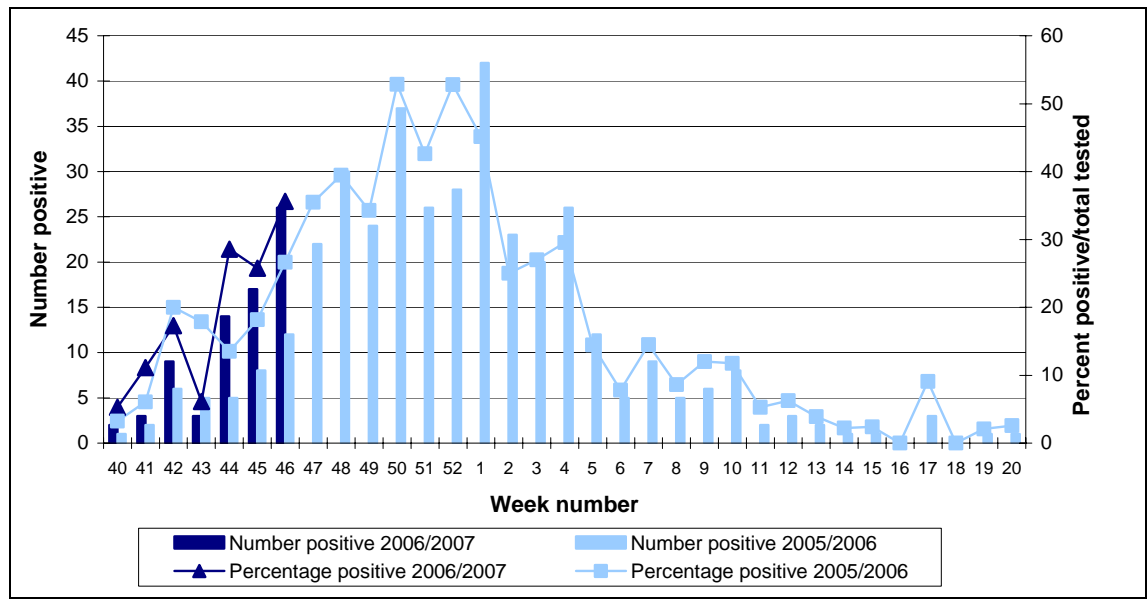


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2005/2006 and 2006/2007 influenza seasons.

Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 46 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.

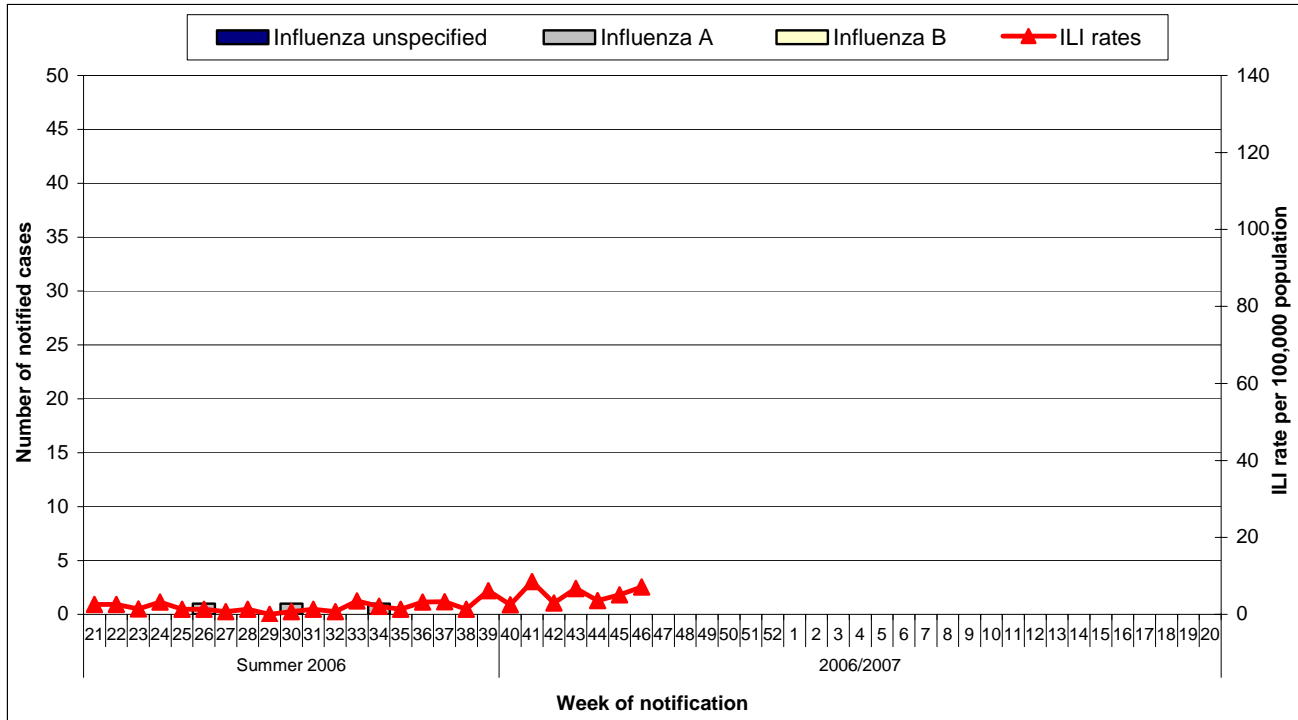


Figure 5: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2006 and the 2006/2007 influenza season. *Notification data are provisional and were extracted from [CIDR](#) on the 22/11/2006 at 12.48

Mortality Data

No deaths registered during week 46 2006 were attributed to influenza.

Outbreak Reports

No influenza/ILI outbreaks were reported to HPSC during week 46 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, -MA, -MWA, -MWA and -SA during week 45 2006 (figure 6). No activity was reported from HSE-NEA, -SEA and -WA. One sentinel school in HSE-NWA reported high levels of absenteeism due to respiratory illness during week 45 2006. Increases in respiratory admissions were reported from both sentinel hospitals in HSE-ER during week 45 2006.

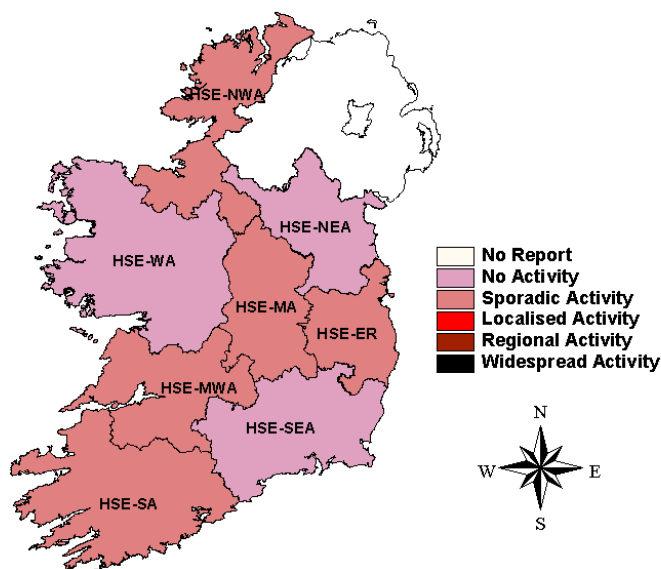


Figure 6: Map of influenza activity by HSE-Health Area during week 45 2006

Influenza Activity in Northern Ireland

Fifty-nine ILI cases and two cases of clinical influenza were reported from sentinel GPs in Northern Ireland during week 46 2006, corresponding to a combined rate of 65.1 per 100,000 population, a slight increase from the updated rate of 64.3 per 100,000 population during week 45. There were no laboratory detections of influenza for week 46 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. One RSV has been detected from a community specimen sent to the Respiratory Virus Unit (RVU) at the Centre for Infections during week 46. No influenza detections were made. Since week 40 2006, there have been three influenza detections by the RVU: two from southern England (one Influenza A(H1) and one A(H3)) and one A (H3) from Wales.

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

Influenza Activity in Europe

During week 45 2006, national network levels of ILI and/or acute respiratory infection (ARI) were at a low level in the 27 countries that reported the intensity indicator to the European Influenza Surveillance Scheme (EISS). For the geographical spread indicator, regional data from England and France indicated some sporadic activity (which means that isolated cases of laboratory confirmed influenza infection have been found) whilst 24 countries reported no activity (which means that influenza activity is at baseline levels). So far this season, the consultation rates for ILI and/or ARI have been at baseline levels across the whole of Europe.

The total number of respiratory specimens collected by sentinel physicians was 374, of which two (0.5%) were positive for influenza virus. Of these, one specimen from the Czech Republic was positive for influenza A unsubtype and one from England was positive for influenza A (H3). In addition, five non-sentinel specimens (e.g. specimens collected in hospitals) were positive for influenza A unsubtype. Of these, two specimens were collected in France, two in Sweden and one in Hungary. Twenty-five countries reported no dominant influenza virus type and Sweden reported influenza A as the dominant subtype. Based on subtyping data of sentinel and non-sentinel influenza virus detections (N=31), 22 (71%) were A unsubtype, four (13%) were A (H1), one A (H1N1) (3%), one (3%) was A (H3), and three (10%) were B. No viruses have been antigenically and/or genetically characterised since week 40 2006

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

Influenza Activity in Canada

During week 45, localised influenza activity was reported in the Central West region of Ontario and in Northern Alberta. Sporadic influenza activity was reported in regions of British Columbia, Alberta, Saskatchewan and Ontario while the rest of the country reported no activity. In week 45, 12 (0.9%) of the 1,284 specimens tested for influenza virus were positive. The majority (97%) of influenza detections so far this season were influenza A viruses. The ILI consultation rate remained low with a rate of 13 per 1,000 patient visits in week 45 and a sentinel response rate of 68%. The National Microbiology Laboratory (NML) has characterised seven influenza viruses for the 2006-2007 influenza season: one A/Wisconsin/67/2005(H3N2)-like virus from Ontario and six A/New Caledonia/20/99(H1N1)-like viruses 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 45, a low level of influenza activity was reported in the United States. Eighty-two (4.6%) 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 ILI and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. Two states reported regional influenza activity, four states reported local influenza activity, 21 states and the District of Columbia reported sporadic influenza activity and 23 states and New York City reported no influenza activity.

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

Influenza Activity Worldwide

During week 45 2006 the following influenza isolates were reported; Argentina 3 (2 A unsubtype and 1 B), China 3 (1 A (H3) and 2 A unsubtype) and Madagascar 2 (1 A (H1) and 1 A (H3)).

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

Avian Influenza

As of the 22nd of November 2006, 258 confirmed human cases and 153 deaths from avian influenza A (H5N1) have been reported to the WHO from Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey and Vietnam. On November 13th, the Ministry of Health in Indonesia confirmed an additional two cases of human infection with the H5N1 avian influenza virus. The first newly confirmed case was a 35-year-old female whose source of exposure is currently under investigation. This case is currently hospitalised. The second case occurred in a 30-month-old male who has died. The initial investigation of source of exposure in the latter case found reports of chicken deaths near his home in the days prior to symptom onset. Of the 74 cases confirmed to date in Indonesia, 56 have been fatal.

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

WHO 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^a;
- a B/Malaysia/2506/2004-like virus^b

Candidate vaccine viruses include:

^aA/Wisconsin/67/2005 (H3N2) and A/Hiroshima/52/2005

^bB/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