

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 47 2006 (20th to 26th November 2006)

Summary

During week 47 2006, influenza activity was at low levels in Ireland, with 11 influenza-like illness (ILI) cases reported by sentinel GPs. No specimens tested by the NVRL were positive for influenza virus during week 47.

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

Eleven ILI cases were reported from sentinel GPs during week 47 2006, corresponding to an ILI consultation rate of 9 per 100,000 population, an increase from the updated rate of 6.4 during week 46 (figure 1).

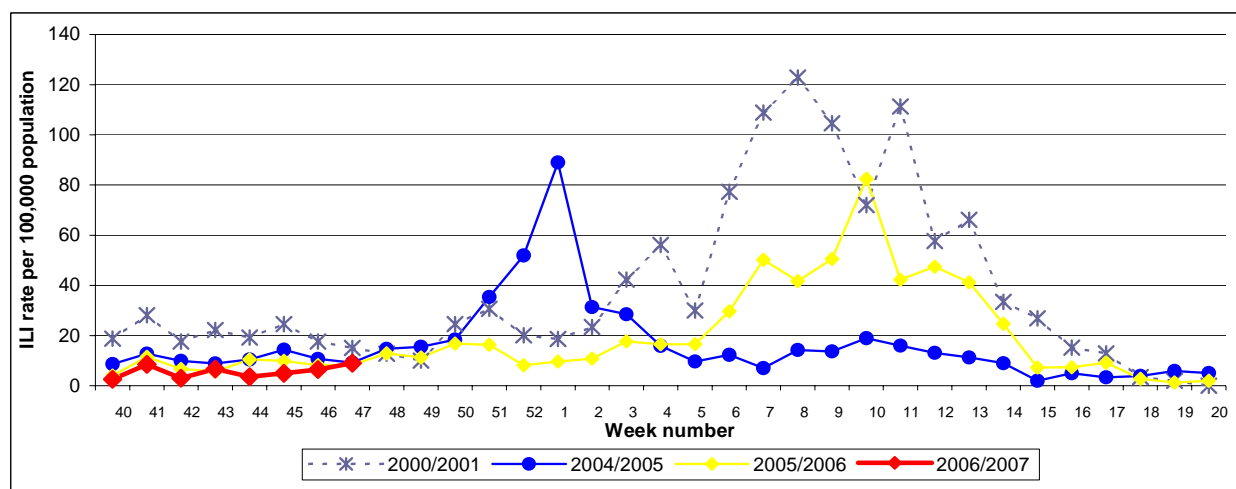


Figure 1: GP consultation rate for ILI per 100,000 population by week, during the 2000/2001*, 2004/2005, 2005/2006 & 2006/2007 influenza seasons.

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

Results (continued)

Three ILI cases were aged 0-4 years (34.6 per 100,000 population), seven cases were aged 15-64 years (8.5 per 100,000 population) and one was aged 65 years and older (7.4 per 100,000 population) as shown in figure 2. Thirty-four of the 48 (70.8%) sentinel general practices reported during week 47 2006, with six reporting ILI.

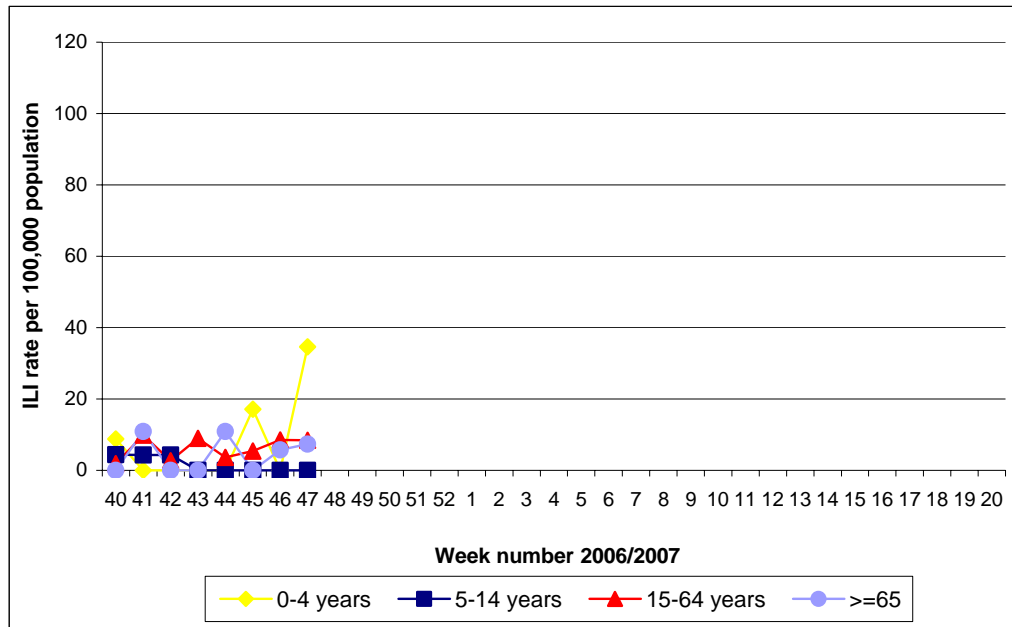


Figure 2: Age specific GP consultation rate* for ILI per 100,000 population by week during the 2006/2007 influenza season. *Please note the denominator used in the age specific consultation rate is from the 2002 census data; this assumes that the age distribution of the sentinel general practices is similar to the national age distribution.

Virological Data from the National Virus Reference Laboratory (NVRL)

The NVRL tested 10 specimens taken by sentinel GPs during week 47 2006, all of which were negative for influenza virus. The NVRL also tested 78 non-sentinel specimens taken during week 47 2006, mainly from hospitalised paediatric cases. Twenty-nine non-sentinel specimens were positive for respiratory syncytial virus (RSV), one was positive for adenovirus, one was positive for parainfluenza virus type 1 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 47 2006 and the 2006/2007 season to date

Week Number	Specimen Type	Total Specimens	No. Influenza Positive	% Influenza Positive	Influenza A	Influenza B	RSV
47 2006	Sentinel	10	0	0.0	0	0	NA
	Non-Sentinel	78	0	0.0	0	0	29
	Total	88	0	0.0	0	0	29
40-47 2006	Sentinel	45	0	0.0	0	0	NA
	Non-Sentinel	436	0	0.0	0	0	104
	Total	481	0	0.0	0	0	104

*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.

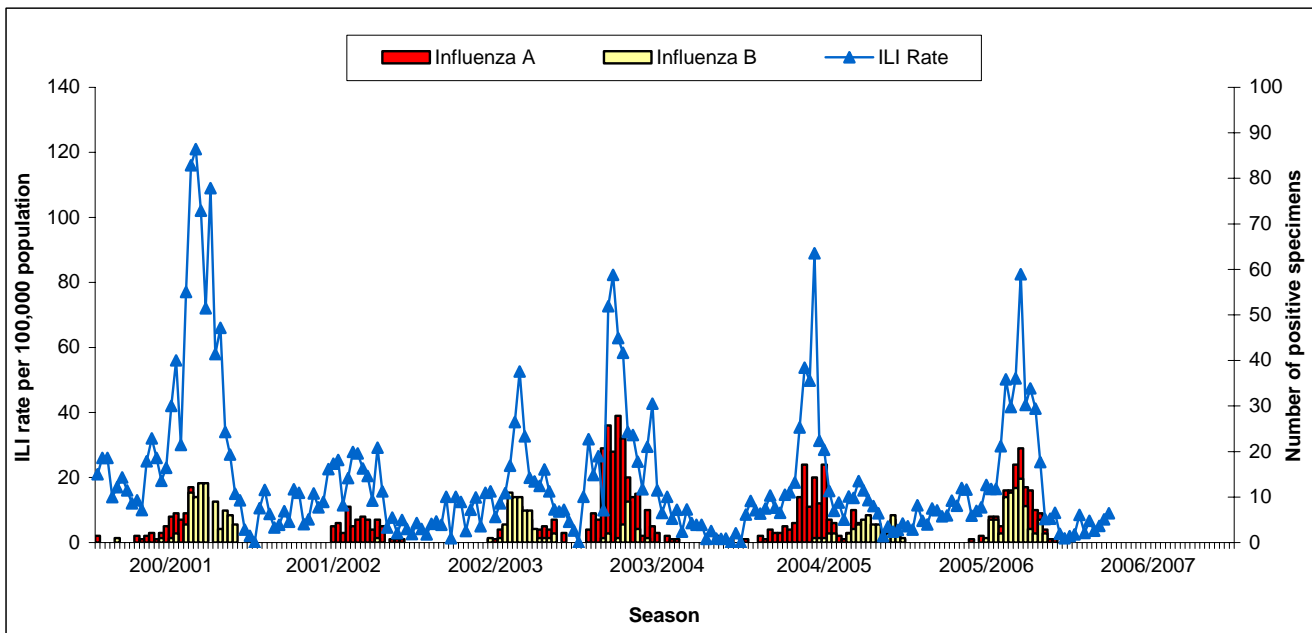


Figure 3: ILI rate per 100,000 population and the number of positive influenza specimens detected by the NVRL during the 2000/2001, 2001/2002, 2002/2003, 2003/2004, 2004/2005, 2005/2006 & 2006/2007 seasons.

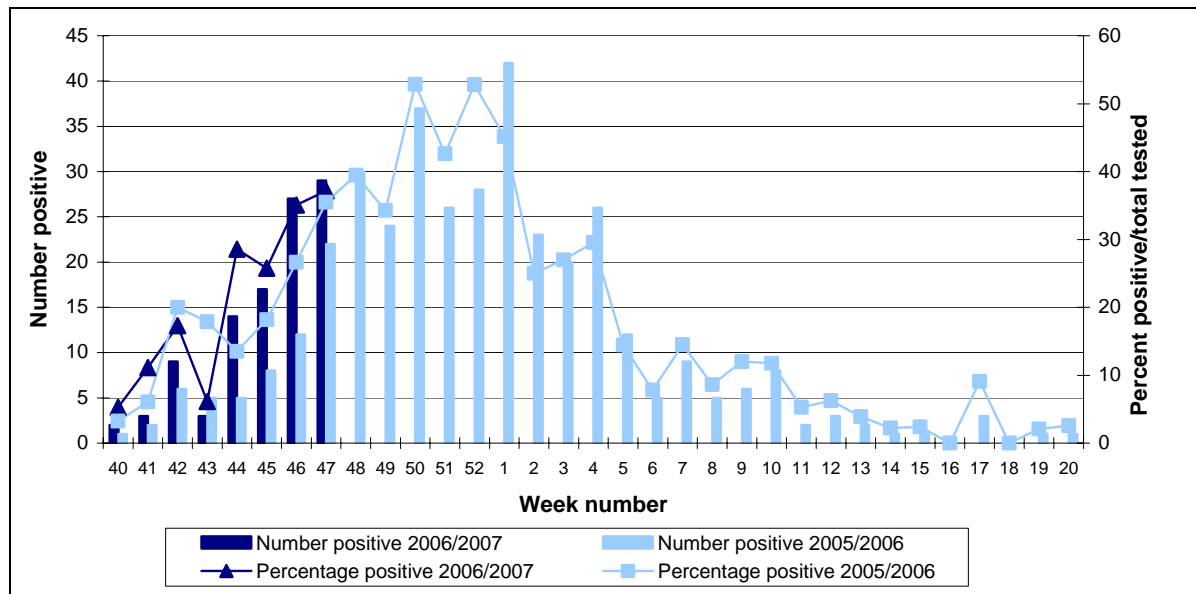


Figure 4. Number and percentage of non-sentinel RSV positive specimens detected during the 2005/2006 and 2006/2007 influenza seasons.

Weekly Influenza Notifications

No influenza cases were notified to HPSC during week 47 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.

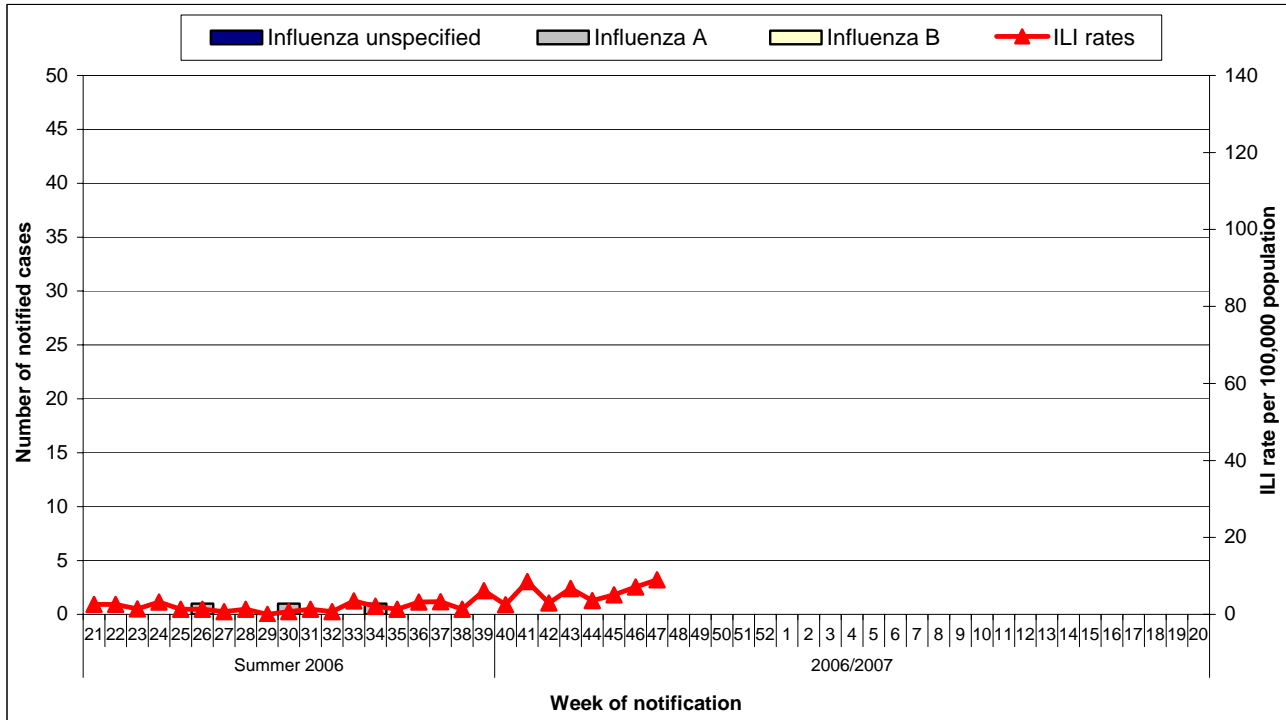


Figure 5: Number of notifications* of influenza (possible & confirmed) by type and by week of notification compared to sentinel GP ILI consultation rates per 100,000 population during the summer of 2006 and the 2006/2007 influenza season.

*Notification data are provisional and were extracted from [CIDR](#) on the 28/11/2006 at 15.27

Mortality Data

No deaths registered during week 47 2006 were attributed to influenza.

Outbreak Reports

No influenza/ILI outbreaks were reported to HPSC during week 47 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, -SEA and -WA during week 46 2006 (figure 6). No activity was reported from HSE-MA, -NWA and -SA. One sentinel school in HSE-SA reported high levels of absenteeism due to respiratory illness during week 46 2006.

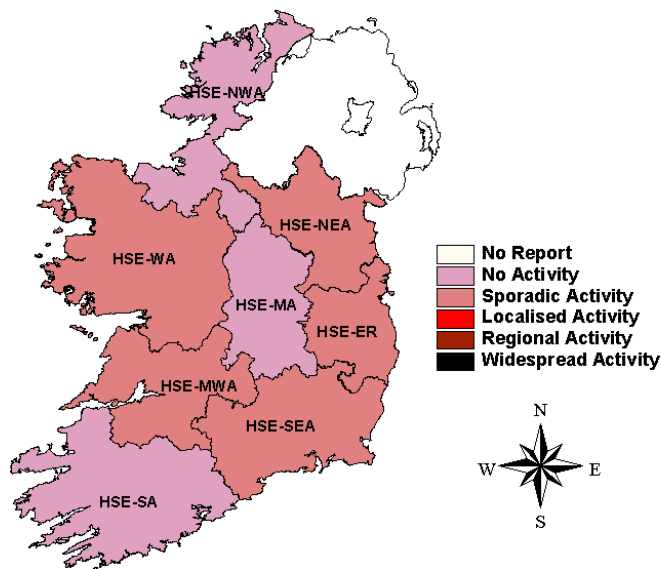


Figure 6: Map of influenza activity by HSE-Health Area during week 46 2006

Influenza Activity in Northern Ireland

Fifty-two ILI cases were reported from sentinel GPs in Northern Ireland during week 47 2006, corresponding to a rate of 66.1 per 100,000 population, an increase from the updated rate of 53.9 per 100,000 population during week 46. There were no laboratory detections of influenza for week 47 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. Influenza-like illness incidence rates remain at similar levels to previous weeks (10.2 per 100 000 in both weeks 46 and 47 2006), well below the baseline activity threshold of 30 per 100 000 consultations. One sample referred to the Centre for Infections Respiratory Virus Unit (RVU), tested positive for influenza during week 47 2006. It was an Influenza A (H3) subtype which was isolated from a community source in the central region of England. No outbreaks of influenza have been reported to the Centre for Infections during weeks 46 and 47 2006.

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

Influenza Activity in Europe

During week 46 2006, national network levels of influenza-like illness (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 France and Scotland indicated some sporadic activity (which means that isolated cases of laboratory confirmed influenza infection have been found) whilst 25 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 449, of which six (1.3%) were positive for influenza virus. Of these, four specimens (Austria (1), the Czech Republic (1) and France (2)) were positive for influenza A virus untyped, one was positive for influenza A(H3) (Greece) and one was positive for influenza A(H3N2) (Spain). In addition, six non-sentinel specimens (e.g. specimens collected in hospitals) collected in France (1), Sweden (4) and Switzerland (1) were positive for influenza A virus untyped. Based on subtyping data of all influenza virus detections (N=48; sentinel and non-sentinel data), 35 (73%) were A untyped, four (8%) were A(H1), two (4%) were A(H1N1), two (4%) were influenza A(H3), two (4%) were A(H3N2) and three (6%) were B.

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

Influenza Activity in Canada

During week 46, localised influenza activity was reported in the Central Alberta and Central West region of Ontario. 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 46, 12 (0.8%) of the 1,519 specimens tested for influenza virus were positive. The majority (96%) of influenza detections so far this season were influenza A viruses. The ILI consultation rate rose to a rate of 21 per 1,000 patient visits in week 46, which is within the expected range for this week. The sentinel response rate was 55%. During week 46, 1 new influenza outbreak was reported in a school in Alberta. 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 46, a low level of influenza activity was reported in the United States. Sixty-eight (3.2%) 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, 23 states, the District of Columbia and New York City reported sporadic influenza activity and 19 states reported no influenza activity.

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

Influenza Activity Worldwide

During week 46 2006 the following influenza isolates were reported; Argentina 1 B, China 3 (1 A (H3) and 2 A untyped), Iran 3 B, Japan 4 A (H1) and Madagascar 1 A (H3).

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

Avian Influenza

As of the 29th of November 2006, 258 confirmed human cases and 154 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/

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