

HPA Weekly National Influenza Report

Summary of UK* surveillance of influenza and other seasonal respiratory illness.
Prepared by the Influenza / Respiratory Virus Team, HPA Centre for Infections



20 December 2007 (Week 51)

*Incorporating data from the Royal College of General Practitioners (England), The National Public Health Service for Wales (NPHS), Health Protection Scotland (HPS), CDSC (Northern Ireland), the Office for National Statistics (England and Wales) and NHS Direct (HPA West Midlands).

Covered in this report:

Data with the exception of ONS and MOSA: 10/12/07- 16/12/07 (Week 50/07)

ONS and MOSA: 03/12/07-09/12/07 (Week 49/07)

Summary

During week 50/07, clinical influenza activity remained low in the UK, increasing in Scotland and Northern Ireland, decreasing slightly in England and remaining stable in Wales. Countries with baseline activity thresholds are below this level. Of the samples referred to the Centre for Infections' Respiratory Virus Unit (RVU), 16 tested positive for influenza A(H1N1) and three for respiratory syncytial virus (RSV) during these weeks. In Europe, levels of influenza activity remain low and at levels normally seen outside the seasonal influenza peak period.

The Ministry of Health of Indonesia has announced the death of a previously confirmed case of H5N1 infection. The 47-year-old male from Tangerang District in Banten Province died on 13 December. The Ministry of Health in Pakistan has informed WHO of 8 suspected human cases of H5N1 avian influenza infection in the Peshawar area of the country. The Ministry of Health in Myanmar has confirmed the country's first case of human infection with the H5N1 avian influenza virus. The case is a 7-year-old female from Kyaing Tone Township, Shan State (East).

According to the World Health Organization (WHO), the total number of confirmed human infections worldwide with H5N1, since December 2003, is 340 of which 209 (61%) have died.

Clinical indices of acute respiratory illness (England, Wales, Scotland and N. Ireland)

England

Royal College of General Practitioners
(<http://www.rcgp.org.uk/bru/index.asp>)

The influenza-like illness episode incidence rates** decreased slightly from 15.8 per 100 000 persons in week 49/07 to 14.3 per 100 000 in week 50/07. The rates are well below the baseline activity threshold of 30 per 100 000 (Figure 1).

Activity was at baseline levels in all regions and highest in southern England at 16.5 per 100 000. Activity was also at baseline levels in all age groups and highest in the 15-44 years age group at 19.6 per 100 000 (Figure 2).

Rates for acute bronchitis increased from 129.2 per 100,000 in week 49/07 to 136.2 per 100,000 in week 50/07. The episode incidence rate was highest in the 0-4 years age group at 345.6 per 100,000.

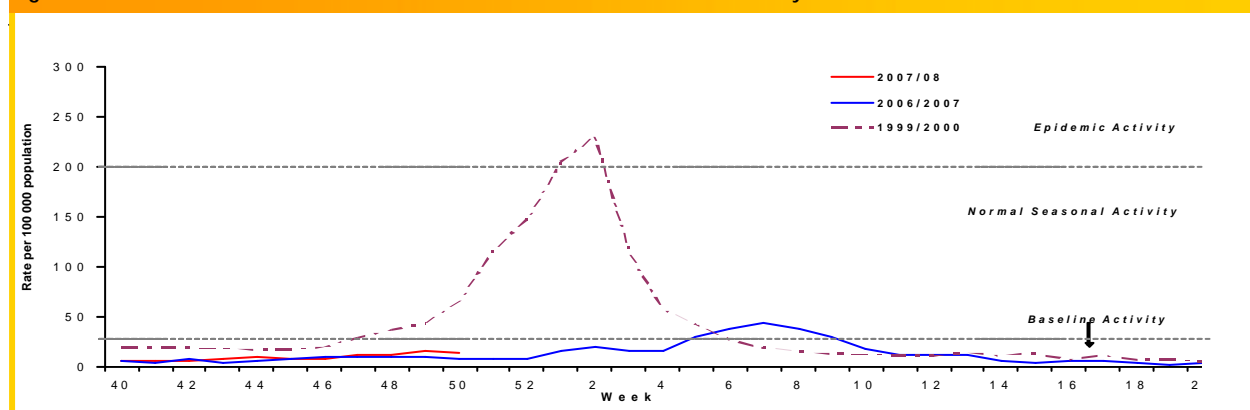
Scotland

(<http://www.hps.scot.nhs.uk/>)

Health Protection Scotland

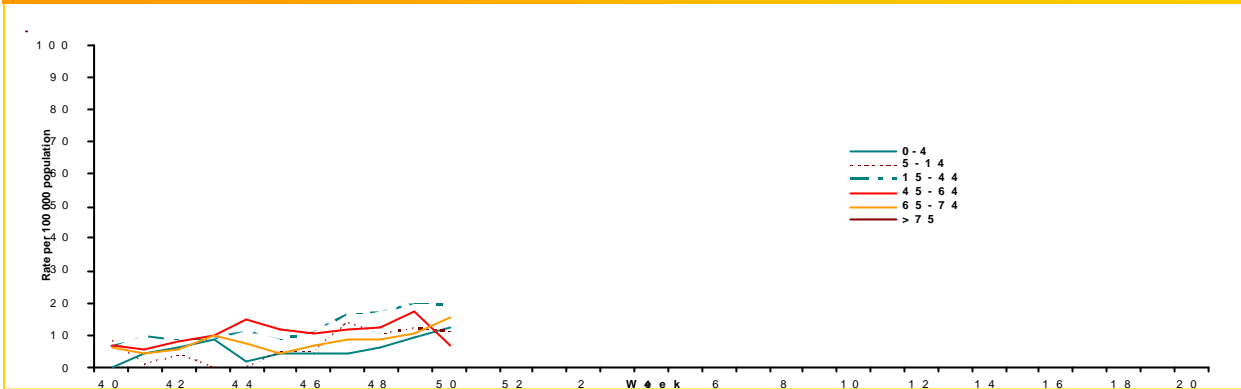
GP consultation rates for influenza-like illness increased from 14 per 100 000 in week 49/07 to 23 per 100 000 in week 50/07. These rates are beneath the Scottish baseline threshold of 50 consultations per 100 000 (Figure 3).

Figure 1: RCGP consultation rate for influenza – like illness, 2007/08 and recent years.



**The phrase "episode incidence rates by week of occurrence" is more accurate and better reflects the definition of first or new consultations for an episode of illness, compared to "RCGP consultation rates".

Figure 2 RCGP Episode incidence rates for influenza-like illness (ILI) by age group, 2007/08



Wales

National Public Health Service

(<http://www.wales.nhs.uk/sites/home.cfm?OrgID=368>)

GP consultation rates for influenza remained low at 1.01 per 100 000 in week 50/07, well below the baseline threshold of 25 consultations per 100 000 (Figure 3).

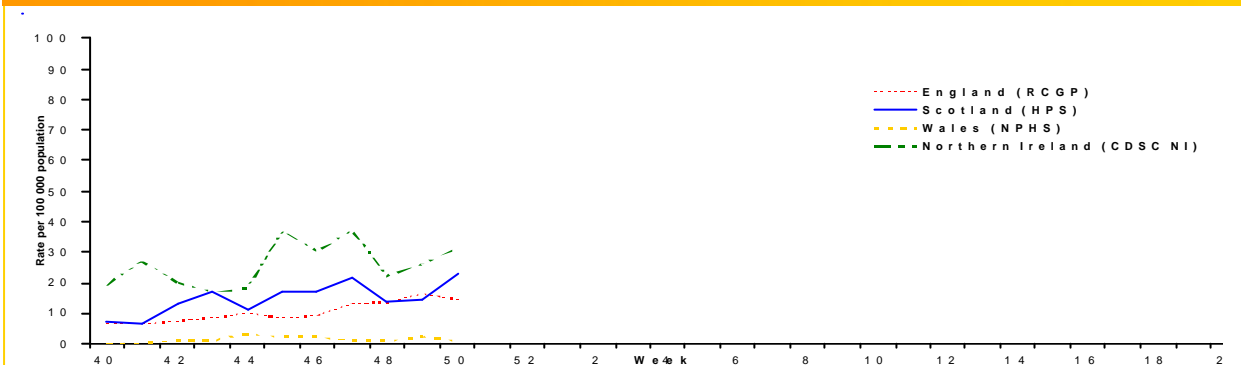
Northern Ireland

CDSC Northern Ireland

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

The combined rate for influenza and influenza-like illness increased from the updated rate of 26.0 per 100 000 in week 49/07 to 31.0 per 100 000 in week 50/07 (Figure 3). Thresholds for this scheme are not yet available.

Figure 3 GP Consultation rates for influenza in the U.K



Other clinical Indices (U.K)

Outbreak Reports:

No outbreaks of human influenza were reported during week 50/07.

The Centre for Infections would welcome any documented reports of influenza outbreak investigations.

Please e-mail respcdsc@hpa.org.uk

Medical Officers of Schools Association (MOSA)

Most of the schools participating in the MOSA scheme have now broken up. Reporting will recommence in January.

QFLU

Health Protection Agency and Nottingham University Division of Primary Care.

This primary care surveillance system uses QFLU, a database of general practice derived data. In weeks 49/07 and 50/07, approximately 3000 practices reported from England, Wales, Scotland and Northern Ireland covering a population of around 21 million. The rate of influenza-like illness decreased slightly from 12.6 per

100 000 in week 49/07 to 12.1 per 100 000 in week 50/07. The highest rates were in London.

NHS Direct total call activity

England and Wales

(<http://www.nhsdirect.nhs.uk/>)

The NHS Direct threshold values that will be used this winter are: cold/flu calls (all ages) - 1.2% of total calls; fever calls (5-14yrs) - 9% of total calls.

The national proportion of fever calls for 5-14 yrs decreased from 7.9% in week 49/07 to 6.5% in week 50/07 and the national proportion of cold-flu calls (all ages) remained stable at 0.7% in week 49/07 and 0.8% in week 50/07. Both are below the threshold values.

Mortality Data

Office for National Statistics

(<http://www.statistics.gov.uk/>)

The number of deaths registered in England and Wales increased from 10,118 in week 48/07 to 10,554 in week 49/07. Deaths caused by underlying respiratory diseases remained stable at 1,356 in week 48/07 and 1,380 in week 49/07.

Laboratory indices of acute respiratory illness

RVU (Cfl) Influenza Reference Laboratory

Sixteen samples tested positive for influenza A(H1) and three for respiratory syncytial virus (RSV) during week 50/07 (Table 1). Since week 40/07, 52 community samples have tested positive for influenza (56% in the 15-44 age group). There have been eighteen positive hospital samples (44% in the <5 years age group).

Please note that these data are provisional.

Table 1: 'Detections' PCR and isolation of influenza and RSV made by RVU (Cfl) Reference Laboratory. Samples from community and hospital sources, by week of report.

Influenza Detections by PCR and Isolation				
Influenza type (subtype)	A (H1)	A (H3)	B	RSV*
Week 50/07	16	0	0	3
Cumulative to date (week 40/07 – 49/07)				
Northern England	3	0	2	5
Central England	15	1	1	7
Southern England	44	2	2	2
Wales	0	0	0	0
Scotland	0	0	0	0
Northern Ireland	0	0	0	0
Cumulative Total	62	3	5	14

* RSV detection is by PCR only

Virological data from Northern Ireland

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

Of the 43 samples tested during week 50/07, none were positive for influenza and 25 were positive for RSV (all were hospitalised infants).

Other NHS and HPA laboratories (England and Wales)

During week 50/07, 14 samples were positive for influenza A and two for influenza B. Compared to recent years, the number of RSV detections for this period are raised (Table 2).

Please note that these data are provisional.

Table 2: "Detections' (isolation, PCR, direct immunofluorescence and paired sera tests) of influenza and RSV reported to Cfl by NHS and HPA microbiology laboratories. Data for England and Wales by RCGP region, by week of report

	Detection (isolates, DIF and PCR)		
	Influenza A	Influenza B	RSV*
Week 50/07	14	2	395
Cumulative to Date (week 40/07 - 50/07)			
Northern England	15	7	619
Central England	16	2	722
Southern England	7	3	513
Wales	0	0	71
Cumulative Total	38	12	1925

*Detections of RSV by isolation are not included.

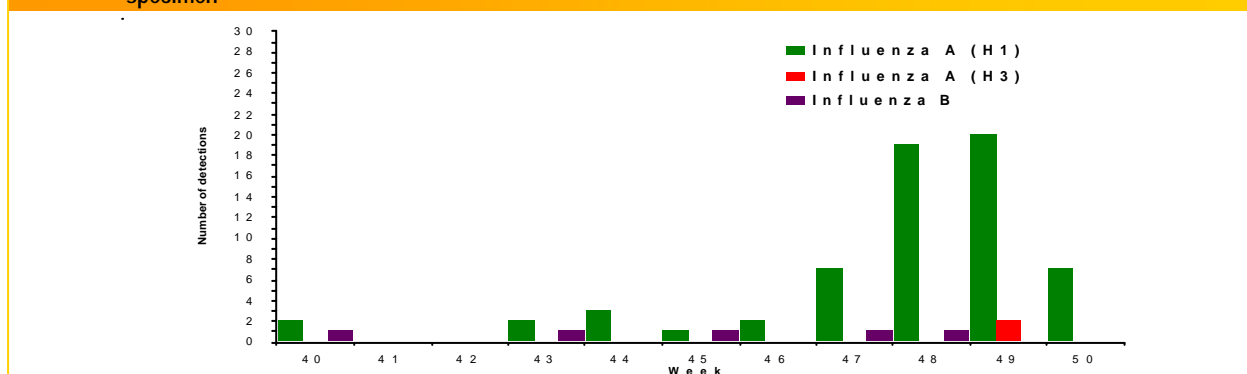
Virological data from Scotland:

(<http://www.show.scot.nhs.uk/sciehl/>)

Of the 27 samples submitted from sentinell sources during week 49/07, six were positive for RSV, one for coronavirus, one for rhino virus, one for parainfluenza type 2 and three for human metapneumovirus.

Of the samples from routine hospital and community sources during weeks 49/07 and 50/07, seven were positive for influenza A and two for influenza B. RSV detections increased from 103 in week 49/07 to 174 in weeks 50/07; these numbers are higher than for the same period in 2005 and 2006 but not outside expected seasonal levels.

Figure 4 : Total (Community and Hospital) Influenza detections (PCR and Isolation) characterised by RVU,Cfl, by week of specimen



Avian Influenza (H5N1)

The Ministry of Health of Indonesia has announced the death of a previously confirmed case of H5N1 infection. The 47-year-old male from Tangerang District in Banten Province died on 13 December. Of the 115 cases confirmed to date in Indonesia, 93 have been fatal.

The Ministry of Health in Pakistan has informed WHO of 8 suspected human cases of H5N1 avian influenza infection in the Peshawar area of the country. These cases were detected following a series of culling operations in response to outbreaks of H5N1 in poultry. One of the cases has now recovered and a further two suspected cases have since died. WHO is providing technical support to the MoH in epidemiological investigations, reviewing the surveillance, prevention and control measures that have been implemented and carrying out viral sequencing of avian and human isolates.

The Ministry of Health in Myanmar has confirmed the country's first case of human infection with the H5N1 avian influenza virus. The case is a 7-year-old female from Kyaing Tone Township, Shan State (East).

According to the World Health Organization (WHO), the total number of confirmed human infections worldwide with H5N1, since December 2003, is 340 of which 209 (61%) have died.

Useful link:

Situation updates from WHO (human):

http://www.who.int/csr/disease/avian_influenza/en/

Situation summary from the HPA (avian and human):

http://www.hpa.org.uk/infections/topics_az/influenza/avian/situation_update.htm

Influenza activity outside the UK

Europe

European Influenza Surveillance System (EISS)

www.eiss.org

Levels of influenza activity remained low in Europe, at levels normally seen outside the seasonal influenza peak period. A total of 29 countries reported no or only sporadic influenza activity in week 49/07.

The total number of respiratory specimens collected by sentinel physicians in week 49/07 was 568, of which 69 (12.2%) were influenza virus positive; 21 type A not subtyped, 41 type A subtype H1, five type A subtype H3 and two type B. In addition, 27 influenza virus detections (18 type A not subtyped, three type A subtype H1 and six type B) were reported from non-sentinel sources (e.g. specimens collected for diagnostic purposes in hospitals).

Of the total virus detections since week 40/07, 76% were influenza A of which about 90% were of the H1 subtype.

Ireland

Health Protection Surveillance Centre (HPSC)

<http://www.hpsc.ie/>

During week 50/07, seven ILI cases were reported from sentinel GPs corresponding to an ILI consultation rate of 7.2 per 100,000, a slight decrease from the updated rate of 8.4 per 100,000 in week 49/07.

Eleven sentinel specimens were tested for influenza during week 50/07 and 3 were positive for influenza A and one was positive for influenza B. Eighty-six non-sentinel specimens were tested for influenza and all were negative. Thirty-four non-sentinel specimens were positive for RSV. To date this season, seven influenza A and two influenza B viruses have been detected from sentinel and non-sentinel sources.

Canada

Public Health Agency of Canada

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

During week 49/07, influenza activity levels remained low in Canada overall with the majority of influenza surveillance regions across the country still reporting no activity (n=48). Seventeen regions reported sporadic influenza activity and only two regions (in central Alberta and the Interior region of British Columbia) reported localized activity. Note: No data was received from the Toronto region in Ontario this week. The proportion of positive influenza tests increased from 0.6% (10/1,789) in the previous week to 2.2% (48/2,135) in week 49/07. This week, the majority of influenza detections were for influenza A viruses (91.7% or 44/48) and the highest number of detections coming from Ontario (n=34 or 71%). Of the influenza detections to date, 85% (83/98) were influenza A and 15% (15/98) were influenza B. The ILI consultation rate increased slightly from the previous week to 18 ILI consultations per 1,000 patient visits and is still within the expected rate for this week. The sentinel response rate was 64%. Two new outbreaks of ILI were reported in schools in Alberta and British Columbia this week. Since the start of the season, no new laboratory-confirmed influenza-associated paediatric hospitalizations were reported through the Immunization Monitoring Program Active (IMPACT) network.

The National Microbiology Laboratory (NML) has characterized 33 influenza viruses for the 2007-2008 influenza season: 18 A(H1N1), six A(H3N2) and nine B viruses. All influenza A(H1N1) viruses were antigenically similar to A/Solomon Islands/3/2006. Of the six influenza A(H3N2) viruses characterized, five were antigenically similar to A/Wisconsin/67/2005 and one was antigenically similar to A/Brisbane/10/2007. One of the five A/Wisconsin-like viruses had reduced titer to A/Wisconsin/67/2005 reference antiserum. Of the nine influenza B isolates characterized, two were antigenically similar to B/Malaysia/2506/2004 and seven were antigenically similar to B/Florida/4/2006 (belonging to the B/Yamagata lineage).

United States of America

Centers for Disease Control and Prevention

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

During week 49/07, a low level of influenza activity was reported in the United States. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold. The proportion of outpatient visits for influenza-like illness (ILI) and acute respiratory illness (ARI) was below national and region-specific baseline levels. One state reported regional activity, six states reported local influenza activity; 32 states, the District of Columbia, and Puerto Rico reported sporadic influenza activity; and 11 states reported no influenza activity.

During week 49/07, WHO and NREVSS laboratories reported 2,559 specimens tested for influenza viruses, 121 (4.7%) of which were positive, including 12 influenza A (H1) viruses, two influenza A (H3) viruses, 97 influenza A viruses that were not subtyped, and 10 influenza B viruses. The District of Columbia and 35 states from all nine surveillance regions have reported laboratory-confirmed influenza this season.

Other country reports can be obtained from the World Health Organisation:

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

Acknowledgements

Data for this report were collated by the Influenza/Respiratory Virus Team:

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