

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

28 November 2007 (Week 48)

*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: 12/11/07- 25/11/07 (Weeks 46/07 & 47/07)

ONS and MOSA: 05/11/07-18/11/07 (Week 45/07 & 46/07)

Summary

During weeks 46/07 and 47/07, clinical influenza activity remained low in the UK, increasing in England and Scotland and remaining stable in Northern Ireland. Countries with baseline activity thresholds are below this level. Five samples referred to the Centre for Infections' Respiratory Virus Unit (RVU) tested positive for influenza A(H1N1) during these weeks. In Europe, levels of influenza activity remain low at levels normally seen outside the seasonal influenza peak period, with 30 countries reporting no or only sporadic influenza activity

On the 21 November the Department for the Environment Food and Rural Affairs (Defra) decided, as part of its epidemiological investigation into the outbreak of H5N1 avian influenza on a poultry farm in Suffolk, that a fifth premises in the surveillance zone should be declared as a Dangerous Contact. All poultry on this premises will be culled as a precautionary measure.

According to the World Health Organization (WHO), the total number of confirmed human infections of H5N1 worldwide, since December 2003, is 335 of which 206 (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** increased from 9.1 per 100 000 persons in week 46/07 to 13.1 per 100 000 in week 47/07. 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 14.8 per 100 000. Activity was also at baseline levels in all age groups and highest in the 15-44 years age group at 16.4 per 100 000 (Figure 2).

Rates for bronchitis increased from 105.6 per 100,000 in week 46/07 to 128.1 per 100,000 in week 47/07. The episode incidence rate was highest in the 0-4 years age group at 490.9 per 100,000 in week 47/07.

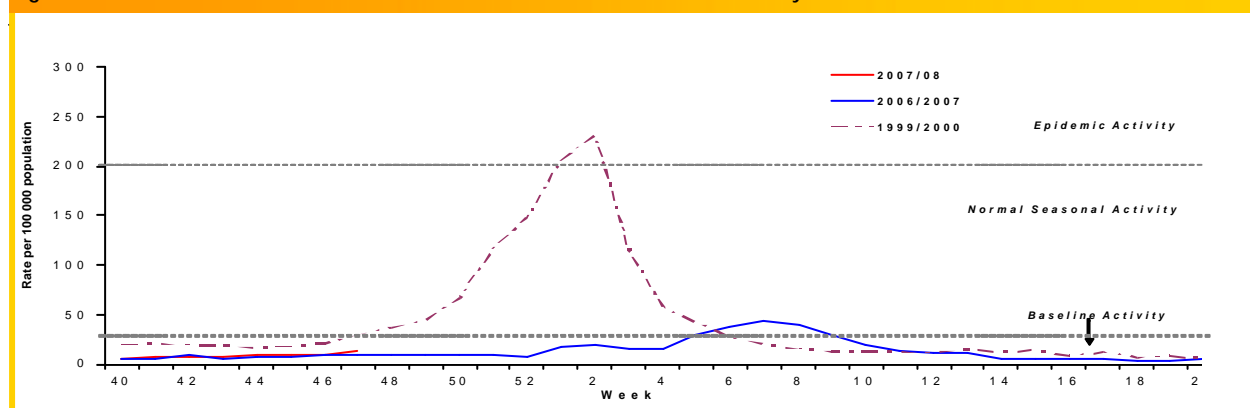
Scotland

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

Health Protection Scotland

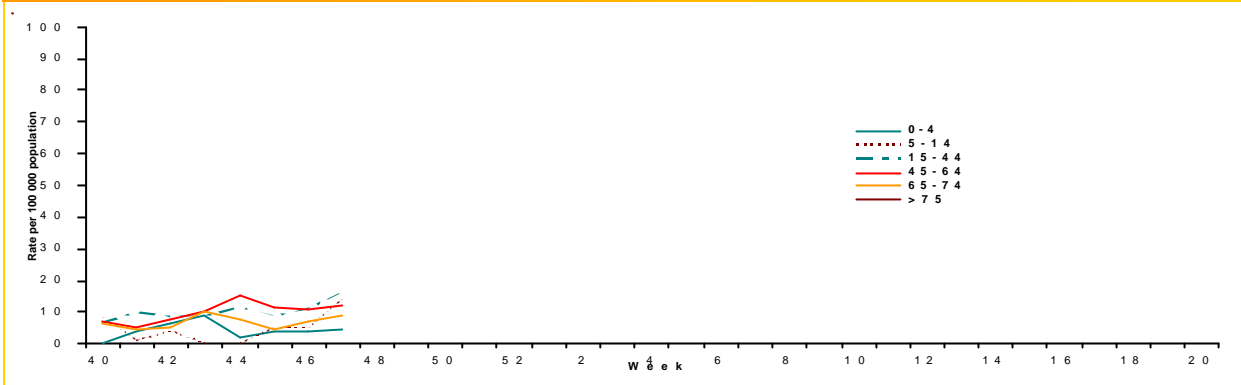
GP consultation rates for influenza-like illness increased from 17 per 100 000 in week 46/07 to 22 per 100 000 in week 47/07. These rates are well beneath the Scottish baseline threshold of 50 consultations per 100 000 (Figure 3).

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 2.0 per 100 000 in week 46/07 and 1.4 per 100 000 in week 47/07, well below the baseline threshold of 25 consultations per 100 000 (Figure 3).

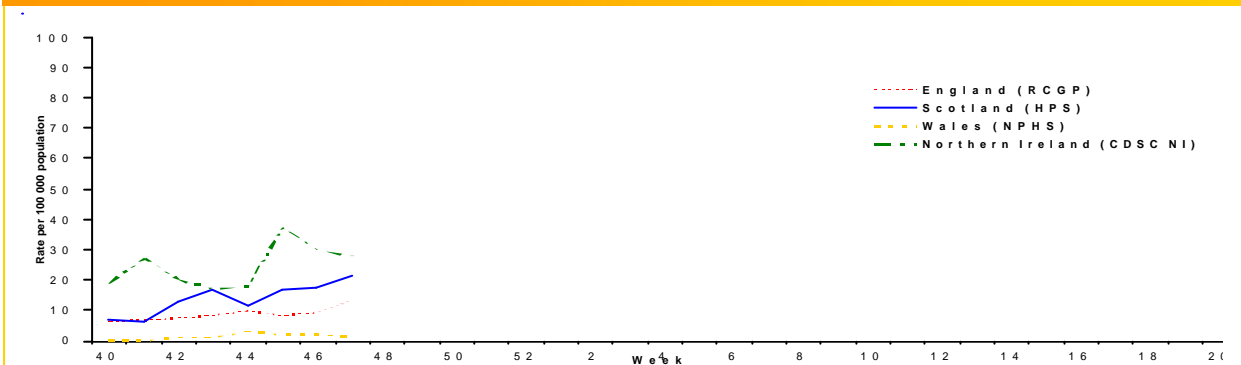
Northern Ireland

CDSC Northern Ireland

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

The combined rate for influenza and influenza-like illness remained stable at 29.9 per 100 000 in week 46/07 and 27.8 per 100 000 in week 47/07 (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 weeks 46/07 or 47/07.

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)

Nineteen schools participating in the MOSA scheme reported data for week 45/07 and 21 in week 46/07. The rate of influenza and influenza like illness increased from no activity in week 45/07 to 2.37 per 1000 pupils (16 episodes) in week 46/07.

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 46/07 and 47/07, 3067 and 3135 practices respectively reported from England, Wales, Scotland and Northern

Ireland. These practices covered a population of 20.5 million in week 46/07 and 21.0 million in week 47/07. The rate of influenza-like illness increased slightly from 7.7 per 100 000 in week 46/07 and 9.3 per 100 000 in week 47/07. 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 was 6.4% in week 47/07, a slight increase from 5.9% in week 46/07, and the national proportion of cold-flu calls remained stable at 0.5% in both week 46/07 and week 47/07. 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 remained stable at 9469 in week 45/07 to 9446 in week 46/07. Deaths caused by diseases of the respiratory tract decreased from 1227 in week 45/07 to 1064 in week 46/07.

Laboratory indices of acute respiratory illness
RVU (Cfl) Influenza Reference Laboratory

Five samples tested positive for influenza A(H1) during weeks 46/07 and 47/07 and six samples tested positive for respiratory syncytial virus (RSV) (Table 1). Since week 40/07, six community sample has tested positive for influenza (five in the 15-44 age group). Of the ten positive hospital samples four were from the 5-14 years age group and three from 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 type (subtype)	Influenza Detections by PCR and Isolation			
	A (H1)	A (H3)	B	RSV*
Week 46/07	1	0	0	2
Week 47/07	4	0	0	4
Cumulative to date (week 40/07 – 47/07)				
Northern England	0	0	2	3
Central England	4	0	0	3
Southern England	9	0	1	2
Wales	0	0	0	0
Scotland	0	0	0	0
Northern Ireland	0	0	0	0
Cumulative Total	13	0	3	8

* RSV detection is by PCR only

Other NHS and HPA laboratories (England and Wales)

During weeks 46/07 and 47/07, six samples were positive for influenza A and four for influenza B. RSV was detected in 259 specimens during these weeks (Table 2). Compared to recent years, the number of RSV detections for this period are raised.

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 46/07	1	1	262
Week 47/07	5	3	149
Cumulative to Date (week 40/07 - 47/07)			
Northern England	2	6	283
Central England	5	0	250
Southern England	3	0	210
Wales	0	0	26
Cumulative Total	10	6	769

*Detections of RSV by isolation are not included.

Virological data from Northern Ireland

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

Of the 51 samples tested during week 47/07, the first positive influenza A of the season was from a female infant and three infants and one adult male were positive for RSV. All detections were from hospitalised patients.

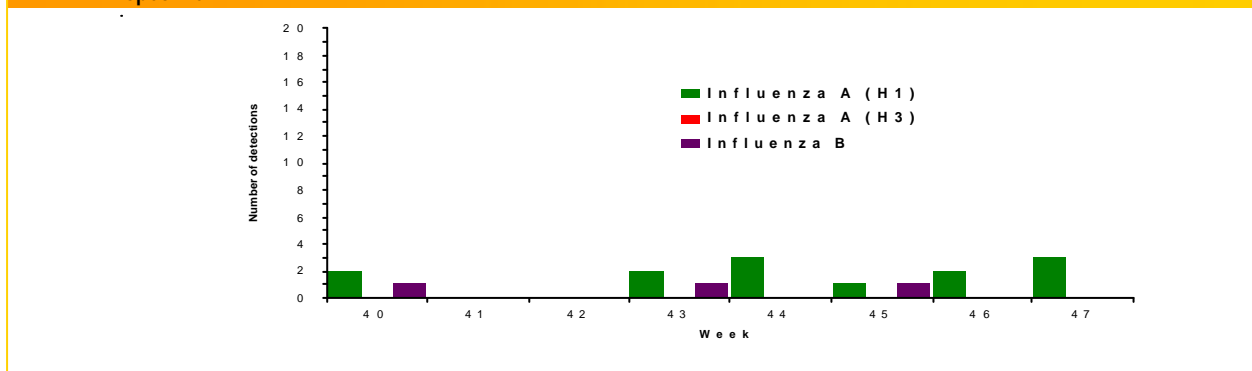
Virological data from Scotland:

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

Of the six samples submitted from snetinell sources during week 47/07, one was positive for RSV and one for rhino virus.

Fifty-six samples from routine hospital and NHS sources have tested positive for RSV during week 44/07 and 25 tested positive for rhino virus.

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



Avian Influenza (H5N1)

On the 21 November the Department for the Environment Food and Rural Affairs (Defra) decided, as part of its epidemiological investigation into the outbreak of H5N1 avian influenza on a poultry farm in Suffolk, that a fifth premises in the surveillance zone should be declared as a Dangerous Contact. All poultry on this premises will be culled as a precautionary measure.

For further information please visit:

<http://www.defra.gov.uk/animalh/diseases/notifiable/disease/ai/latest-situation/index.htm>

According to the World Health Organization (WHO), the total number of confirmed human infections worldwide with H5N1, since December 2003, is 335 of which 206 (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 remain low at levels normally seen outside the seasonal influenza peak period, with 30 countries reporting no or only sporadic influenza activity this week. There has been no significant change in influenza activity since the start of the 2007-2008 winter season in week 40/07. So far, sporadic laboratory confirmed cases of influenza have been reported across Europe.

The total number of respiratory specimens collected by sentinel physicians in week 46/07 was 473, of which 15 (3.2%) were influenza virus positive; seven type A not subtyped, three type A subtype H1 and five type B. In addition, 14 influenza virus detections (six type A not subtyped, two type A subtype H1 and six type B) were reported from non-sentinel sources (e.g. specimens collected for diagnostic purposes in hospitals). Influenza virus detections were reported from 12 countries across Europe.

Ireland

Health Protection Surveillance Centre (HPSC)

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

During week 47/07, nine ILI cases were reported from sentinel GPs corresponding to an ILI rate of 5.5 per 100,000 population, a decrease from the updated rate of 6.6 per 100,000 population in week 46/07.

Seven sentinel and 95 non-sentinel specimens were tested for influenza during week 47/07, all were negative for influenza. Forty seven of the non-sentinel specimens were positive for RSV.

Canada

Public Health Agency of Canada

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

During week 46/07, influenza activity levels remained low in Canada where most regions across the country reported no activity. The number of regions reporting sporadic influenza activity declined from 11 regions in week 45/07 to nine regions in week 46/07. However, localized activity was reported in two new regions (in central Alberta and Toronto). In week 46/07, 3 (0.2%) of the 1,617 specimens tested were positive for influenza virus: one influenza A (from Ontario) and two influenza B (from Alberta). Of the influenza detections to date, 81% (22/27) were influenza A and 19% (5/27) were influenza B. The ILI consultation rate remains low at 10 ILI consultations per 1,000 patient visits with a low sentinel response rate of 56% in week 46/07 (sentinel response rates are expected to increase as the season progresses). In week 46/07, one new influenza outbreak was reported in a long term care facility (LTCF) in Alberta. Since the start of the season, 4 LTCF outbreaks have been reported (2 in Ontario and 2 in Alberta). In the current season to date, 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 seven influenza viruses for the 2007-2008 influenza season: 1 A(H1N1), 4 A(H3N2) and two B viruses. The influenza A/H1N1 virus was antigenically similar to A/Solomon Islands/3/2006 (which is the influenza A(H1N1) component recommended for the 2007-2008 influenza vaccine). Of the four influenza A(H3N2) viruses characterized, three were antigenically similar to A/Wisconsin/67/2005 (which is the influenza A(H3N2) component recommended for the 2007-2008 influenza vaccine) and one was antigenically similar to A/Brisbane/10/2007. One of the three A/Wisconsin-like viruses had reduced titer to A/Wisconsin/67/2005 reference antiserum. The two influenza B isolates characterized were antigenically similar to B/Florida/4/2006, belonging to the B/Yamagata lineage, and is the B component recommended for the 2008 influenza vaccine in the Southern Hemisphere

United States of America

Centers for Disease Control and Prevention

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

During week 46/07 (November 11-17, 2007), 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 baseline levels. The Mountain region reported ILI slightly above their region-specific baseline. Two states reported local activity; 20 states and the District of Columbia reported sporadic influenza activity; and 28 states reported no influenza activity.

During week 46/07, WHO and National Respiratory and Enteric Virus Surveillance System laboratories reported 2,265 specimens tested for influenza viruses, 64 (2.8%) of which were positive, including 10 influenza A (H1) viruses (Mountain, New England, and Pacific regions), one influenza A (H3) virus (West South Central region), and 53 influenza A viruses that were not subtyped (East North Central, Mountain, Pacific, South Atlantic, and West South Central regions). The District of Columbia and 25 states from all nine surveillance regions have reported laboratory-confirmed influenza this season with Florida, Hawaii, and Texas accounting for 257 (77.2%) of the 333 reported influenza viruses.

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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