

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



31 October 2007 (Week 44)

*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: 15/10/07- 28/10/07(Week 42/07 & 43/07)

ONS and MOSA: 08/10/07-21/10/07 (Week 41/07 & 42/07)

Summary

During weeks 42/07 and 43/07, clinical influenza activity in England and Wales remains low and stable while a slight increase was seen in Scotland and a slight decrease in Northern Ireland. Countries with baseline activity thresholds are below this level. No samples referred to the Centre for Infections' Respiratory Virus Unit (RVU) tested positive for influenza and one tested positive for RSV in week 42/07. In Europe, levels of influenza activity are currently low with 26 countries reporting no or only sporadic influenza activity this week.

The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 5-year-old female from the Tangerang District, Banten Province developed symptoms on 14 October, was hospitalized on 20 October and died in an AI referral hospital on 22 October. The investigation found that there were poultry deaths in the case's neighborhood in the two weeks prior to her onset of symptoms. Of the 110 cases confirmed to date in Indonesia, 89 have been fatal. The total number of confirmed human infections worldwide, since December 2003, is 332 of which 204 (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** remained relatively stable at 6.9 per 100 000 persons in week 42/07 and 8.2 per 100 000 in week 43/07. The rates for both weeks 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 8.9 per 100 000. Activity was also at baseline levels in all age groups and highest in the 65 and over age group at 10.1 per 100 000 (Figure 2).

Rates for bronchitis increased from 95.8 per 100 000 in week 42/07 to 100.9 per 100 000 in week 43/07. The episode incidence rate was highest in the 65 and over age group at 221.3 per 100 000 in week 43/07.

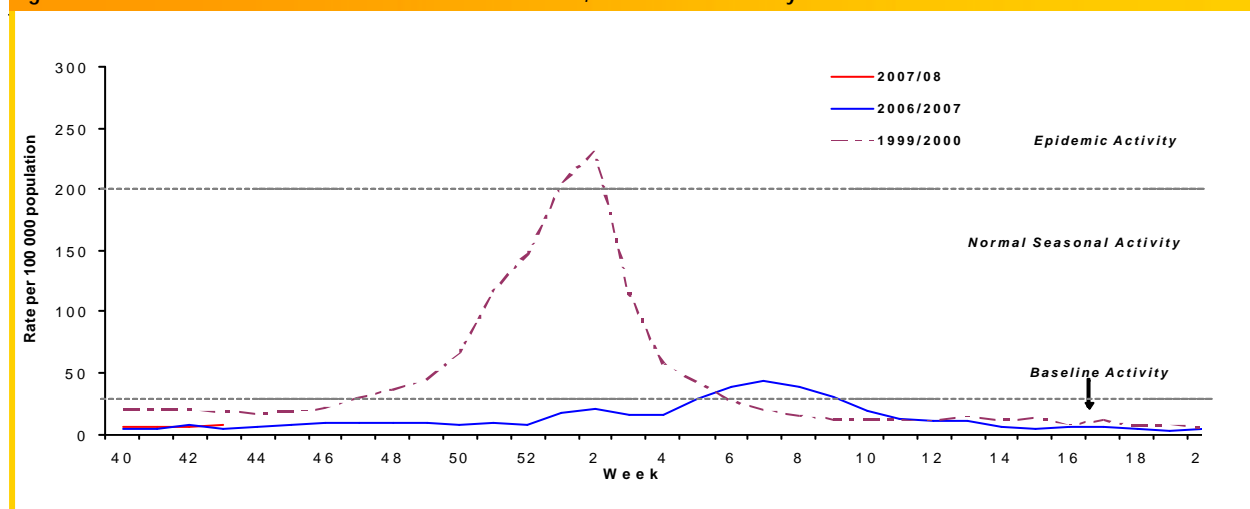
Scotland

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

Health Protection Scotland

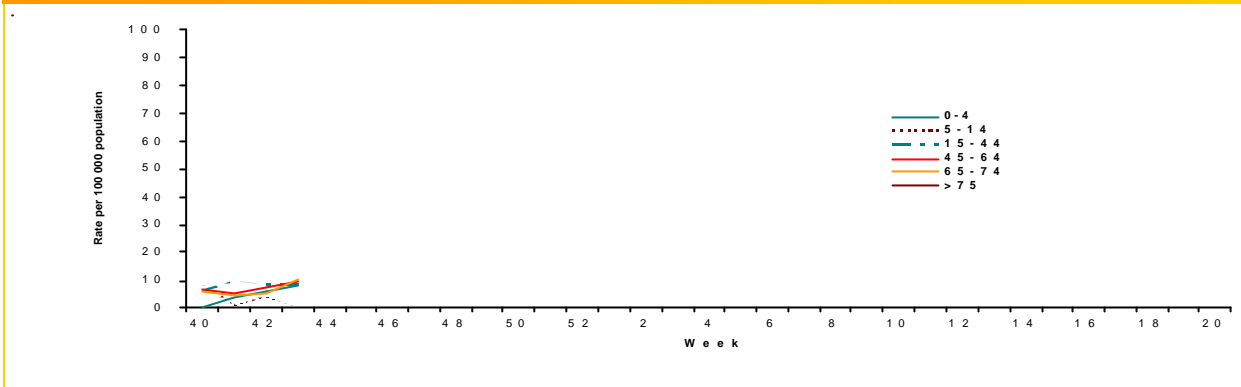
GP consultation rates for influenza-like illness increased slightly from 13 consultations per 100 000 in week 42/07 to 17 per 100 000 in week 43/07. These rates are well beneath the Scottish baseline threshold of 50 consultations per 100 000 (Figure 3).

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 0.68 per 100 000 in week 42/07 and 1.01 per 100 000 in week 43/07, well below the baseline threshold of 25 consultations per 100 000 (Figure 3).

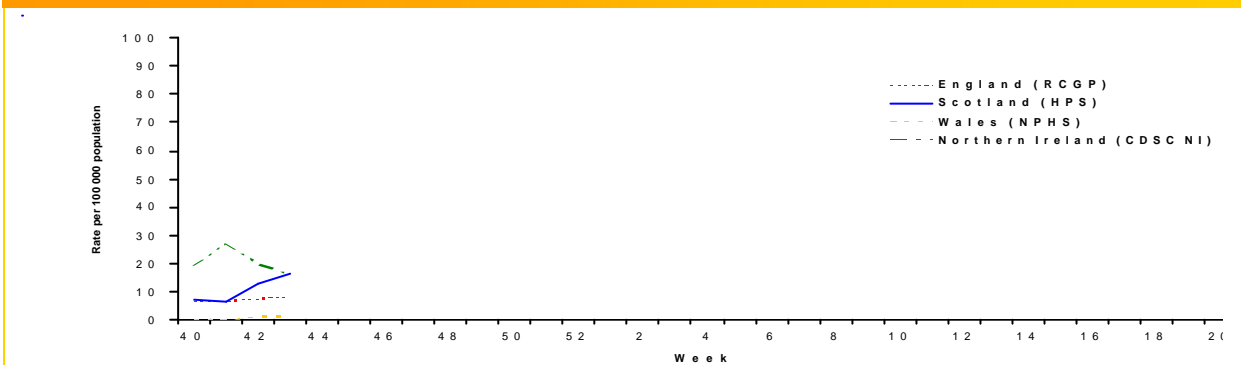
Northern Ireland

CDSC Northern Ireland

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

The combined rate for influenza and influenza-like illness decreased from the updated rate of 20.17 per 100 000 in week 42/07 to 16.42 per 100 000 in week 41/07 (Figure 3). No thresholds are available as yet.

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



Other clinical Indices (U.K)

Outbreak Reports:

No outbreaks of influenza were reported during weeks 42/07 or 43/07.

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 weeks 41/07 and 42/07. There were no episodes during either week.

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 week 43/07, 3000 practices reported from England, Wales, Scotland and Northern Ireland. These practices covered a population of 20.2 million. The rate of influenza-like illness remained low at 7.0 per 100 000 in week 42/07

and 7.5 per 100 000 in week 43/07. The highest rates were in London and the West Midlands.

NHS Direct total call activity

England and Wales

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

Experience from several years' surveillance of NHS Direct calls has shown that rises in cold/flu calls (all ages) and fever calls (5-14yrs) may provide early warning of a rise in influenza and influenza-like-illness in the community. 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 4.4% in week 43/07 and the national proportion of cold-flu calls for 15-44 yrs was 0.5%. Both are below the threshold values. The national proportions of NHS Direct cold/flu calls and fever calls (all ages) are also within baseline levels.

The NHS Direct England and Wales total call rate was 189.8 per 100,000 persons during week 43/07.

Mortality Data Office for National Statistics

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

The number of deaths registered in England and Wales increased from 8409 in week 41/07 to 8936 in week 42/07. Deaths caused by diseases of the respiratory system decreased from 1163 in week 41/07 to 1033 in week 42/07.

Laboratory indices of acute respiratory illness

RVU (Cfl) Influenza Reference Laboratory

One sample referred to the Centre for Infections Respiratory Virus Unit (RVU), tested positive for RSV during weeks 42/07.

There were no influenza detections during week 42/07 or 43/07. Since week 40/07, no community samples have tested positive for influenza; of the three positive hospital samples two were from the 5-14 years age group and one was from the under 5 years.

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 42/07 | 0 | 0 | 0 | 1 |
| Week 43/07 | 0 | 0 | 0 | 0 |
| Cumulative to date (week 40/07 – 43/07) | | | | |
| Northern England | 0 | 0 | 1 | 0 |
| Central England | 1 | 0 | 0 | 0 |
| Southern England | 1 | 0 | 0 | 1 |
| Wales | 0 | 0 | 0 | 0 |
| Scotland | 0 | 0 | 0 | 0 |
| Northern Ireland | 0 | 0 | 0 | 0 |
| Cumulative Total | 2 | 0 | 1 | 1 |

* RSV detection is by PCR only

Other NHS and HPA laboratories (England and Wales)

During weeks 42/07 and 43/07, two samples were positive for influenza; one was influenza A from central England and the other was Influenza B from northern England. RSV was detected in 96 specimens during these weeks (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 42/07 | 0 | 1 | 49 |
| Week 43/07 | 1 | 0 | 47 |
| Cumulative to Date (week 40/07 - 43/07) | | | |
| Northern England | 0 | 1 | 45 |
| Central England | 3 | 0 | 40 |
| Southern England | 0 | 0 | 43 |
| Wales | 0 | 0 | 1 |
| Cumulative Total | 3 | 0 | 129 |

*Detections of RSV by isolation are not included.

Virological data from Northern Ireland

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

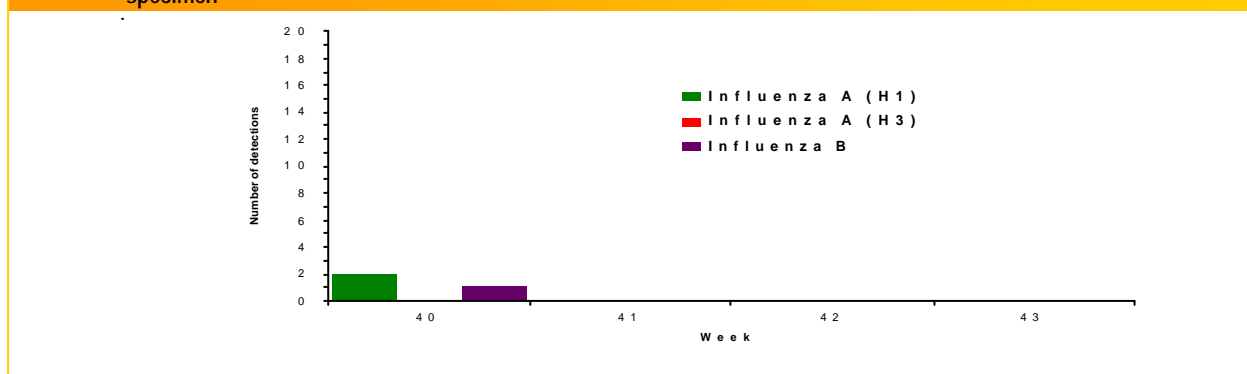
No influenza virus detections to date in Northern Ireland. There were four RSV detections in hospitalized infants.

Virological data from Scotland:

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

We are currently awaiting virological data from Scotland. When we have received this data we will update this report accordingly.

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



Avian Influenza (H5N1)

On the 25 October 2007, the Ministry of Health of Indonesia announced a new case of human infection of H5N1 avian influenza. A 5-year-old female from the Tangerang District, Banten Province developed symptoms on 14 October, was hospitalized on 20 October and died in an AI referral hospital on 22 October. The investigation found that there were poultry deaths in the case's neighborhood in the two weeks prior to her onset of symptoms. Of the 110 cases confirmed to date in Indonesia, 89 have been fatal.

The total number of confirmed human infections worldwide, since December 2003, is 332 of which 204 (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 are currently low in Europe, with 26 countries reporting no or only sporadic influenza activity this week.

The total number of respiratory specimens collected by sentinel physicians in week 42/07 was 153, of which two (1.3%) were influenza virus positive (one H3N2 and one H1; both in Spain). In addition, four influenza B and three influenza A virus detections were reported from non-sentinel sources (e.g. specimens collected for diagnostic purposes in hospitals). The non-sentinel findings were reported by Denmark (B), England (B), Germany (H3), Hungary (A not subtyped) and Sweden (two Bs and one A not subtyped).

Based on (sub)typing data of all influenza virus detections in the last four weeks (N=27; sentinel and non-sentinel data), eight were A (not subtyped), six were A(H1), four were A(H3) and nine were B. The influenza virus detections were reported by the following countries: Denmark (2), England (5), France (5), Germany (3), Hungary (1), Ireland (1), the Netherlands (3), Spain (3) and Sweden (4).

Ireland

Health Protection Surveillance Centre (HPSC)

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

Twelve ILI cases were reported from sentinel GPs during week 43/07, corresponding to an ILI consultation rate of 10 per 100,000 population, an increase from the updated rate of 5.3 per 100,000 population in week 42/07. Six sentinel specimens and 47 non-sentinel specimens were tested by the NVRL for influenza virus during week 43/07, none were positive for influenza. Eight non-sentinel specimens were positive for RSV.

Canada

Public Health Agency of Canada

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

During week 42/07, influenza activity increased in the southern region of Alberta, where localized activity was reported, while influenza activity remained low in the rest of the country. The number of regions reporting sporadic influenza activity increased from four to seven regions this week compared to the previous week. In week 42/07, 10 of the 1,238 (0.8%) specimens tested was positive for influenza virus, only one of which was influenza B (from Nova Scotia). Of the influenza detections to date, 88% (15/17) were influenza A and 12% (2/17) were influenza B. The ILI consultation rate remained similar to previous weeks (12 ILI consultations per 1,000 patient visits) and is within the expected range. Sentinel response rates over recent weeks have been low but are expected to increase as the season progresses. In week 42/07, one new outbreak in a long term care facility (LTCF) was reported in southern Alberta. Since the start of the season, 2 LTCF outbreaks have been reported (in Ontario and 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 four influenza viruses for the 2007-2008 influenza season; two A/Wisconsin/67/2005(H3N2)-like viruses (from Ontario and British Columbia) and 2 B/Florida/07/2004-like viruses belonging to the B/Yamagata/16/1988 lineage (from Nova Scotia and Ontario).

United States of America

Centers for Disease Control and Prevention

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

During week 42/07 (October 14-20, 2007), a low level of influenza activity was reported in the United States. The proportion of deaths attributed to pneumonia and influenza was slightly above 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. Thirteen states, the District of Columbia, and Puerto Rico reported sporadic influenza activity; and 37 states reported no influenza activity.

During week 42, WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories reported 1,349 specimens tested for influenza viruses, 29 (2.2%) of which were positive, including two influenza A (H1) viruses (New England region) and 27 influenza A viruses that were not subtyped (Mountain, Pacific, South Atlantic, and West North Central, West South Central regions).

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

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

Acknowledgements

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