

HPA Weekly National Influenza Report

Summary of UK* surveillance of influenza and other seasonal respiratory illness



28 October 2008 (Week 44)

*Incorporating data from the Royal College of General Practitioners (RCGP) (England and Wales), The National Public Health Service for Wales (NPHS), Health Protection Scotland (HPS), Communicable Disease Surveillance Centre Northern Ireland (CDSC Northern Ireland), the Office for National Statistics (ONS) (England and Wales), Medical Officers of Schools Association (MOSA) (England) and NHS Direct (England and Wales).

Covered in this report:

Data, except that from ONS, MOSA and non-UK sources: 13/10/08 - 26/10/08 (Weeks 42 and 43, 2008)

Data from ONS, MOSA and non-UK sources: 29/09/08 - 05/10/08 (Weeks 41 and 42, 2008)

Summary

During weeks 42/08 and 43/08, influenza activity across the UK remained at low levels. Activity is still at baseline levels in England, Scotland and Wales; thresholds have not been set for Northern Ireland. However, RCGP has reported an increased rate of influenza-like illness in the under one year old age group of 21.5 per 100,000 in week 43/08 compared with nothing reported in the same age group in the previous three weeks. Of the samples referred to the Centre for Infections' Respiratory Virus Unit (RVU) during weeks 42/08 and 43/08, six were positive for influenza A, two A (H1) and two A (H3). Other NHS and HPA laboratories in England and Wales reported 15 influenza A and one influenza B during these two weeks. Two outbreaks of respiratory illness were reported, one from a care home in South East England and the other from a nursing home in East England. In the second outbreak 5 out of 6 samples tested positive for influenza A. These outbreaks are still under investigation. The weekly vaccine uptake rates for the 65 years and over age group increased from 39.8% in week 42/08 to 50.5% in week 43/08. The uptake rates for the under 65 years at risk group increased from 20.1% in week 42/08 to 26.5% in week 43/08. Influenza activity was at low levels throughout Europe.

Antiviral drug susceptibility test

Neuraminidase inhibitor susceptibility testing on 6 out of 8 A (H3) isolates since week 36/08 showed that all of them are sensitive to oseltamivir and zanamivir but resistant to amantadine. 3/3 A (H1) received and tested were resistant to oseltamivir but sensitive to zanamivir and amantadine. All of the 3 influenza B isolates received are sensitive to oseltamivir and zanamivir.

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

England and Wales

Royal College of General Practitioners

<http://www.rcgp.org.uk/bru/index.asp>

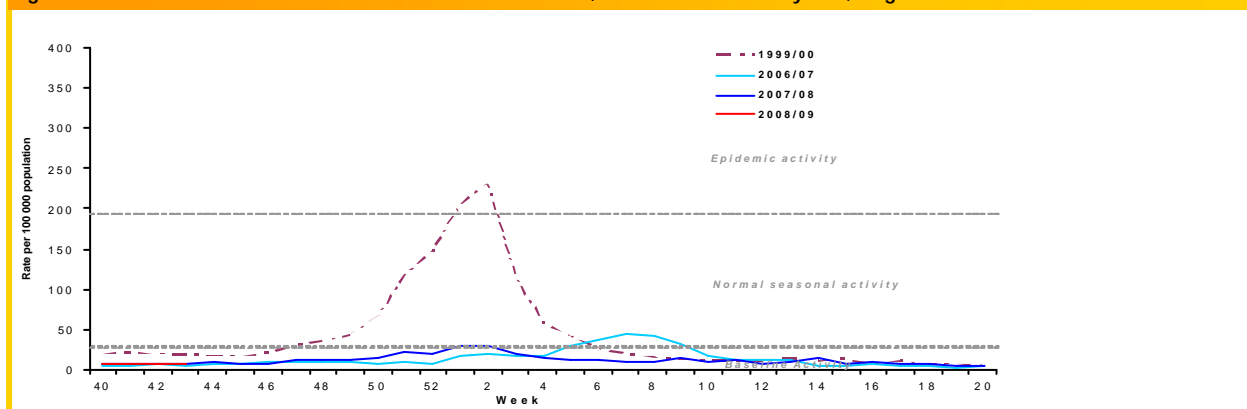
The overall influenza-like illness incidence rate** remained low at 7.8 per 100,000 persons in week 43/08, which has increased slightly from 6.9 per 100,000 in week 42/08. The rate remains below the baseline activity threshold of 30 per 100,000 (Figure 1).

Rates of influenza-like illness remained low in all regions

in weeks 42/08 and 43/08 with the central region having the highest rate at 10.3 per 100,000 in week 43/08. The rate was highest in the 0-1 year age group at 21.5 per 100,000 in week 43/08 (Figure 2).

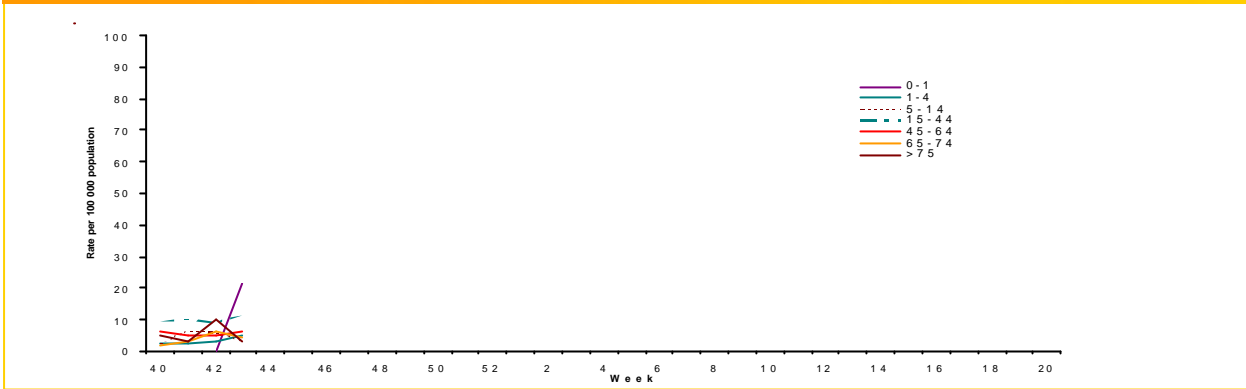
The rate for acute bronchitis increased from 91.5 per 100,000 in week 41/08 to 101.3 per 100,000 in week 42/08 and then decreased to 88.6 per 100,000 in week 43/08. The episode incidence rate was highest in the 0-1 year age group at 300.9 per 100,000 in week 43/08.

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



** RCGP incidence rates in this report only refer to first or new episodes of infection diagnosed by a GP.

Figure 2 RCGP Episode incidence rates for influenza-like illness (ILI) by age group, England and Wales.



Scotland

Health Protection Scotland

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

GP consultation rates for influenza increased from 8 per 100 000 in week 41/08 to 9 per 100,000 in week 42/08 and remained the same at 9 in week 43/08. Activity remains below the Scottish baseline threshold of 50 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 17.3 per 100,000 (updated rate) in week 42/08 to 22.4 per 100,000 in week 43/08 (Figure 3). No threshold has been set for Northern Ireland.

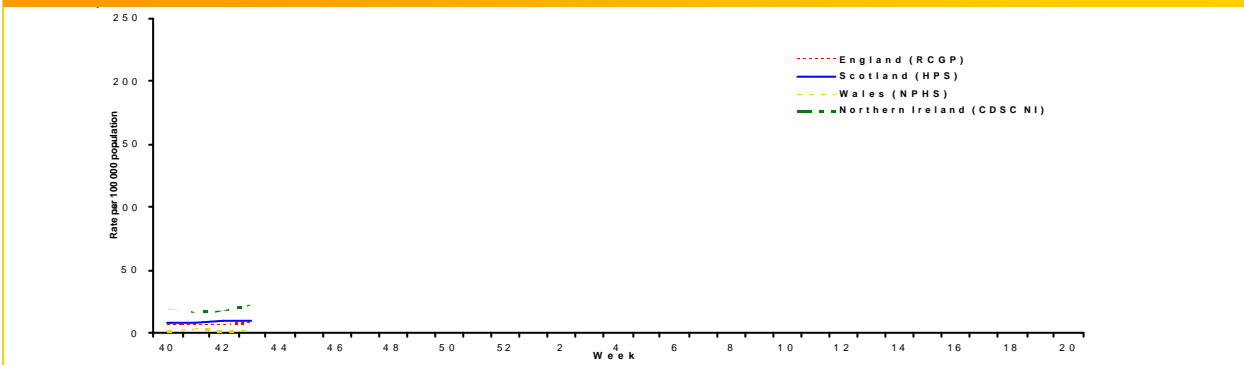
Wales

National Public Health Service

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

GP consultation rates for influenza increased from 1.1 per 100 000 in week 42/08 to 2.1 per 100,000 in week 43/08. Both figures are well below the baseline threshold of 25 consultations per 100,000 (Figure 3).

Figure 3 GP Consultation rates for influenza/influenza-like illness in the U.K



QSurveillance

HPA and Nottingham University Division of Primary Care.

<http://www.qresearch.org>

This primary care surveillance system uses QSurveillance, a database of general practice derived data. During weeks 42/08 and 43/08, approximately 3200 practices reported from England, Wales, Scotland and Northern Ireland covering a population of around 21 million. The rate of influenza-like illness remained similar in week 42/08 as in week 43/08 (6.6 vs 6.9 per 100,000). In week 42/08, the highest rates were in London, N. Ireland and West Midlands. Regional data for week 43/08 is not yet available.

NHS Direct total call activity

England and Wales

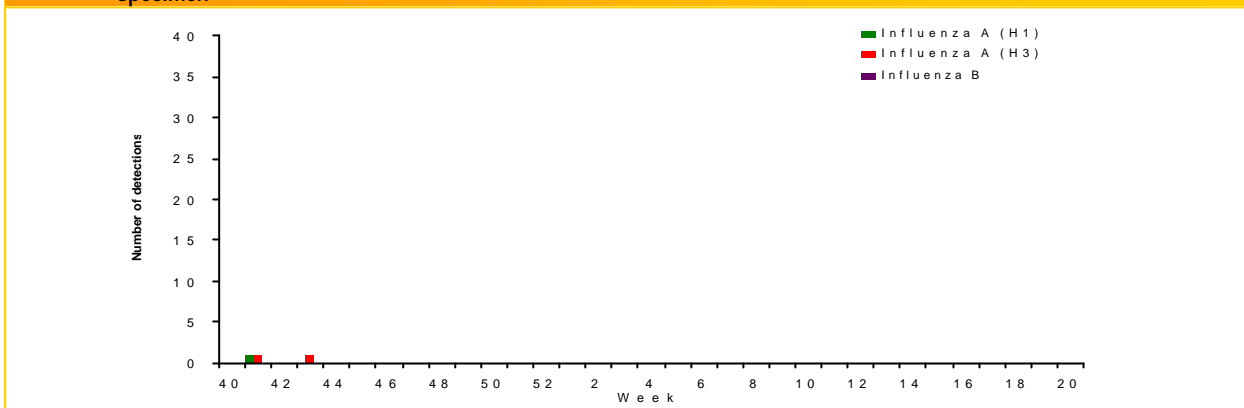
<http://www.nhsdirect.nhs.uk/>

Cold/flu and fever calls were low and within the baseline levels during weeks 42/08 and 43/08. The proportion of cold/flu calls increased slightly in week 43/08 compared to week 42/08. Fever calls in the 5-14 age group were slightly increased in week 43/08 compared to week 42/08.

Medical Officers of Schools Association (MOSA)

During week 41/08, 20 schools reported data. No new episodes of influenza like illness were reported. 30 new episodes of upper respiratory tract infection were reported equalling the rate of 5 per 1000 population. Week 42/08 is half-term so no data is reported.

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



Laboratory indices of acute respiratory illness

Respiratory Virus Unit (RVU) Influenza Reference Laboratory, Cfl

72 community specimens and 15 hospital specimens were tested during weeks 42/08 and 43/08. Six specimens tested positive for influenza A viruses in weeks 42/08 and 43/08 (Table 1). Four specimens were further characterised: two A/H1 and two A/H3 (Figure 4).

Neuraminidase inhibitor susceptibility testing on 6 out of 8 A (H3) isolates since week 36/08 showed that all of them are sensitive to oseltamivir and zanamivir but resistant to amantadine. All three A (H1) specimens received and tested are resistant to oseltamivir but sensitive to zanamivir and amantadine. All three influenza B isolates received are sensitive to oseltamivir and zanamivir.

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 42/08	0	1	0	1
Week 43/08	3	2	0	1
Cumulative to date (week 40/08 – 41/08)				
Northern England	0	2	0	1
Central England	0	2	0	0
Southern England	5	2	0	2
Wales	0	2	0	0
Scotland	0	0	0	0
Northern Ireland	0	0	0	0
Cumulative Total	5	8	0	3

* RSV detection is by PCR only

Other NHS and HPA laboratories (England and Wales)

An increased number of positives for influenza A and RSV have been reported in week 43/08 compared to previous weeks (Table 2).

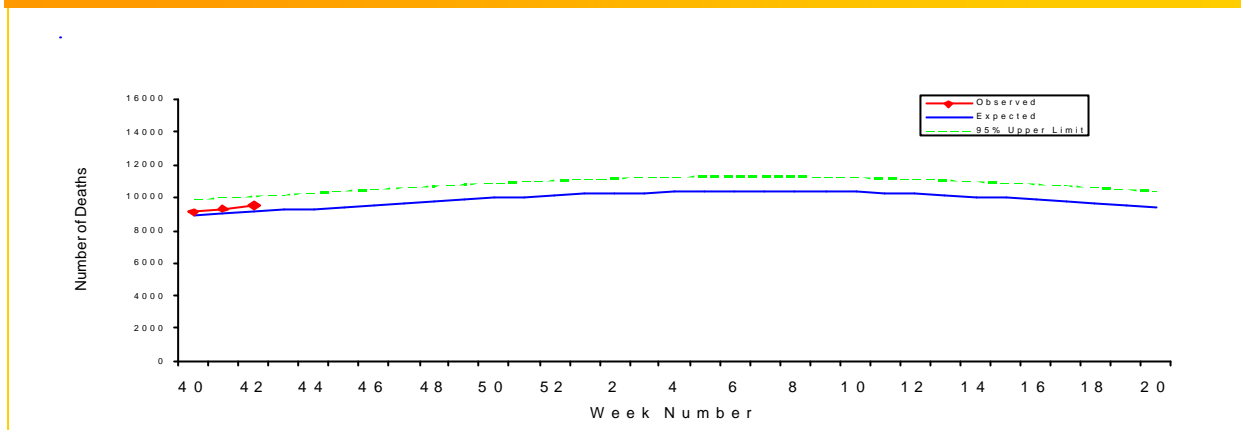
Please note that these data are provisional.

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 42/08	2	1	65
Week 43/08	13	0	132
Cumulative to Date (week 40/08 - 43/08)			
Northern England	3	2	105
Central England	5	0	48
Southern England	7	0	93
Wales	2	0	12
Cumulative Total	17	2	258

*Detections of RSV by isolation are not included.

Figure 5 : Weekly all cause registered deaths in England and Wales



HPA CfI Virological Surveillance of Influenza (England)

This parallel GP sentinel scheme reported 7 out of 34 (20.6%) and one out of eight (12.5%) influenza A positive cases during weeks 42/08 and 43/08, respectively, including one influenza A (H1) showing resistance to oseltamavir in week 42/08. Five specimens were positive for other respiratory viruses in week 42/08, in week 43/08 one specimen was positive for RSV.

Virological data from Northern Ireland

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

Of the 68 specimens tested in weeks 42/08 and 43/08, none were positive for influenza and 5 for RSV.

Virological data from Scotland

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

During week 43/08 out of five sentinel samples, which were received through SERVIS, one was positive for RSV and one for rhinovirus; of the routine samples reported from hospital and community sources 7 were positive for RSV. No virological data were received for week 42/08.

Other Reports (UK)

Mortality Data

Office for National Statistics

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

The number of deaths registered in England and Wales increased from 9,321 in week 41/08 to 9,501 in week 42/08. Deaths due to all respiratory diseases (as underlying cause) slightly decreased from 1,105 (updated figure) to 1,090 during these same weeks. The weekly all cause registered deaths are shown in Figure 5. No excess deaths were detected.

Outbreak Reports:

Two outbreak reports of respiratory infections were received in week 44/08 so far. One was reported from a care home in South East England and the other from a nursing home in East England. In the second outbreak 5 out of 6 samples tested positive for influenza A. These outbreaks are still under investigation.

CfI would welcome any reports of influenza outbreak investigations (e-mail respcdsc@hpa.org.uk)

Flu Vaccination Campaign 2008/09 (England)

The weekly data on flu vaccination uptake in England have shown a steady increasing trend since the start of the campaign in September 2008 from a sample of GPs in England. The uptake rates for the 65 years and over age group increased from 39.8% in week 42/08 to 50.5% in week 43/08. The uptake rates for the under 65 years at risk group increased from 20.1% in week 42/08 to 26.5% in week 43/08. 47.6% and 48.9% of general practices provided data for weeks 42/08 and 43/08, respectively.

Avian Influenza

The WHO continues to monitor and report on new cases of human infection with A(H5N1) avian influenza when they occur.

There have been no new human cases since the last cases reported from Indonesia on 10 September 2008.

According to WHO, the total number of confirmed human infections worldwide with H5N1, since December 2003, is 387 of which 245 (63%) 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

In weeks 41 and 42/08, low level of seasonal influenza activity was seen across all European countries participated in the EISS.

Out of the total 199 respiratory specimens collected by sentinel physicians during week 42/08, four specimens tested positive for influenza, two type A not subtyped in Ireland and two subtype A(H3N2), one each in The Netherlands and Sweden. In addition, six non-sentinel specimens tested positive including one A(H1), one A(H3N2) in Sweden, one flu B in in England and three flu A not subtyped.

Ireland

Health Protection Surveillance Centre (HPSC)

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

Influenza activity in Ireland during weeks 41 and 42/08 were at low levels. 13 ILI cases were reported and the ILI consultation rate was 7.3 per 100,000 increased from 5.7 per 100,000 in week 41/08. Two sentinel specimens were tested positive for flu A.

Canada

Public Health Agency of Canada

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

During weeks 41 and 42/08, influenza activity remained low with the majority of the influenza surveillance regions reporting no activity and five regions reporting sporadic influenza activity. One specimen tested positive for influenza B in week 42/08.

Since 1 September 2008, four influenza viruses have been characterised: one influenza A/Brisbane/59/2007(H1N1)-like, two influenza B/Florida/4/2006-like and one B/Malaysia/2506/2004-like. A/Brisbane/59/2007(H1N1) and B/Florida/4/2006 are the components recommended for the 08/09 influenza vaccine.

United States of America

Centers for Disease Control and Prevention (CDC)

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

During weeks 41 and 42/08, sporadic influenza activity was reported. Eleven states (Alaska, California, Colorado, Connecticut, Florida, Hawaii, Indiana, Texas, Utah, Washington and West Virginia), the District of Columbia and Puerto Rico were reported as having sporadic influenza activity in week 42/08. 38 states reported no activity and one state did not report.

During week 42/08, WHO and NREVSS laboratories reported 999 specimens tested for influenza viruses, ten of which were positive: one influenza A (H3), eight influenza A viruses that were not subtyped and one influenza B virus.

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

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

Acknowledgements

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