

# HPA Weekly National Influenza Report

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



04 March 2009 (Week 10)

\*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), NHS Direct (England and Wales) and Q Surveillance (England, Northern Ireland, Scotland and Wales).

## Covered in this report:

Data, except that from ONS, MOSA and non-UK sources: 16/02/09 - 01/03/09 (Weeks 08 & 09, 2009)

Data from ONS, MOSA and non-UK sources: 09/02/09 - 22/02/09 (Weeks 07 & 08, 2009)

## Summary

Influenza activity is low across the UK.

In weeks 08 and 09/09 GP consultation rates decreased and remained below baseline levels in England. In Scotland and Wales the rates increased slightly but remain below baseline levels. In Northern Ireland the consultation rate has also increased but thresholds have not yet been set. The proportion of cold/flu and fever calls to NHS direct in England and Wales remains below baseline levels.

In week 09/09, four specimens tested positive for influenza virus (one A (H1) and three B) at the Centre for Infections' Respiratory Virus Unit (RVU). Other NHS and HPA laboratories in England and Wales reported 10 influenza A, and 22 influenza B positive specimens in week 09/09. Eleven Scottish and two Northern Irish influenza-positive specimens were reported in week 09/09. No outbreaks have been reported in the last two weeks. The proportion of people over 65 years who have received this season's influenza vaccine was 74.1% in week 05/09, and 47.2% in those aged under 65 years in risk groups. Characterisation of 623 influenza viruses since week 40/08 by RVU have shown that the majority of circulating strains are well-matched to the current influenza vaccine.

Most countries in central Europe continue to report medium intensity activity, and activity is low but increasing in eastern Europe. Influenza activity is generally declining in western Europe. Influenza A(H3) continues to be the predominant circulating virus although the proportion of influenza B virus detections continues to increase.

## Antiviral drug susceptibility testing

Since week 40/08 all of the 193 influenza A (H3) isolates tested for drug sensitivity have been found to be sensitive to oseltamivir and zanamivir, but resistant to amantadine. Eighty-six influenza A (H1) specimens have been tested for anti-viral drug resistance, 85 of these were resistant to oseltamivir and all were sensitive to zanamivir and amantadine. Twenty-two influenza B specimens have been tested and all were sensitive to oseltamivir and zanamivir.

## Clinical indices of acute respiratory illness (England, Wales, Scotland and Northern Ireland)

### England and Wales

#### Royal College of General Practitioners

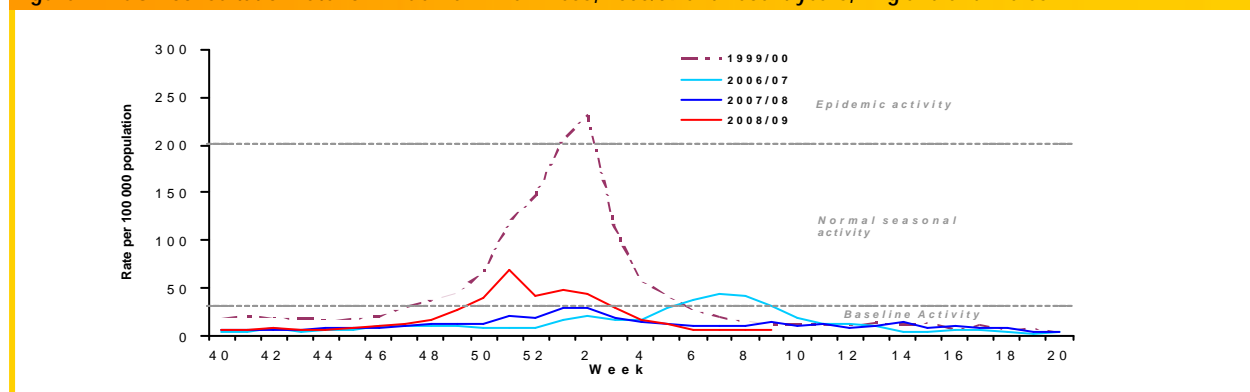
<http://www.rcgp.org.uk/bru/index.asp>

The overall influenza-like illness incidence rate\*\* changed very little from 7.4 per 100,000 in week 08/09 to 7.1 per 100,000 in week 09/09. This rate remains below the baseline threshold of 30 per 100,000. In the same time period the rate in the north decreased from 4.9 per 100,000 to 3.9 per 100,000, in the central region it decreased from 8.7 per 100,000 to 8.0 per 100,000 and

in the south the rate was stable at 7.3 per 100,000 in week 08/09 and 7.5 per 100,000 in week 09/09. The highest rate is still in the 15-44 year (10.9 per 100,000 in week 09/09) group (Figure 2).

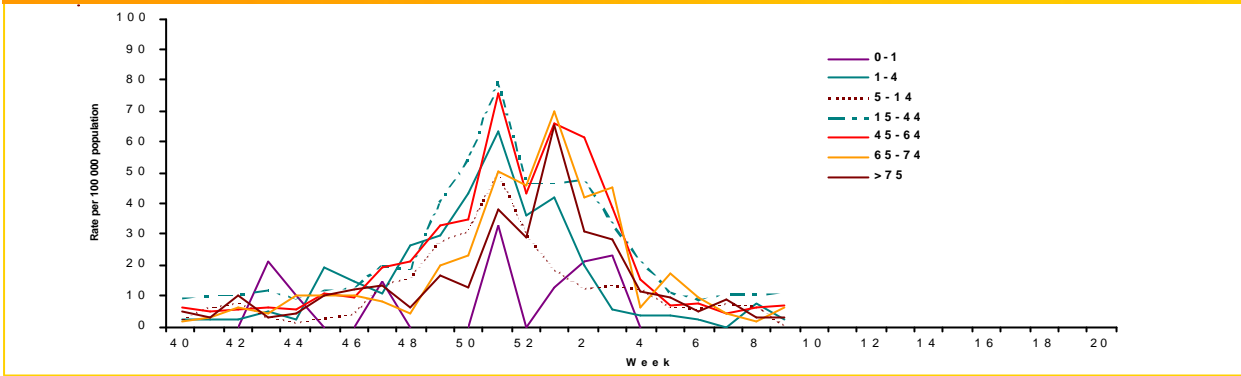
The overall rate for acute bronchitis increased from 78.4 per 100,000 in week 08/09 to 89.6 per 100,000 in week 09/09. In week 09/09 the highest rate was in the under one year group at 324.2 per 100,000 which was increased from 319.5 per 100,000 in week 08/09.

Figure 1: RCGP consultation rate for influenza – like illness, 2008/09 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.



**Wales**

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

GP consultation rates for influenza increased slightly from 1.4 per 100,000 in week 08/09 to 4.2 per 100,000 in week 09/09. Both figures are 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 20.5 per 100,000 in week 08/09 (updated rate) to 31.4 per 100,000 in week 09/09 (Figure 3). The highest rate was in the 1-4 year group at 66.8 per 100,000. No threshold has been set for Northern Ireland.

**Scotland**  
 Health Protection Scotland  
<http://www.hps.scot.nhs.uk/>

GP consultation rates for influenza increased slightly from 9 per 100,000 in week 08/09 to 11 per 100,000 in week 09/09 (Figure 3). This remains below the Scottish baseline threshold of 50 consultations per 100,000.

**QSurveillance**

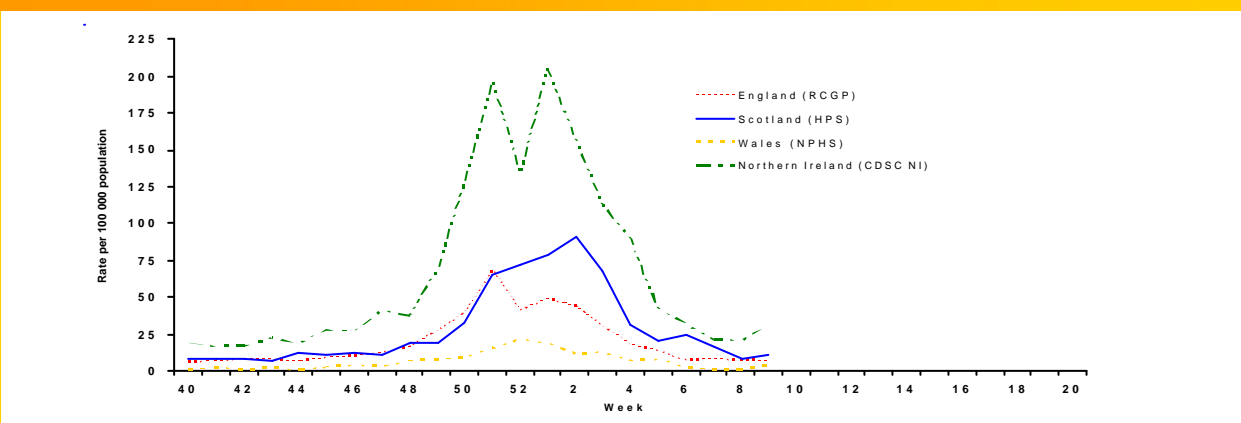
HPA and Nottingham University Division of Primary Care.  
<http://www.qresearch.org>

This primary care surveillance system uses QSurveillance, a database of general practice derived data. During weeks 08 and 09/09, around 3200 practices reported from across the UK covering a population of around 22 million. The rate of influenza-like illness was stable at 6.2 per 100,000 in week 08/09 and 6.3 per 100,000 in week 09/09. The rates have decreased in all the age groups with the highest rates in the 15-44 year age group (8.0 per 100,000 in week 09/09). The rates were highest in London.

**NHS Direct total call activity**  
 England and Wales  
<http://www.nhsdirect.nhs.uk/>

The proportion of cold/flu calls was 0.4% in both week 08 and 09/09, which is below the threshold of 1.2%. The proportion of fever calls in 5-14 year olds decreased from 6.5% in week 08/09 to 5.5% in week 09/09, it remains below the threshold of 9%.

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



**Medical Officers of Schools Association (MOSA)**

There are no data from the MOSA scheme for weeks 07 or 09/09 as the schools have been on half-term holidays.

## Laboratory indices of acute respiratory illness

### Respiratory Virus Unit (RVU) Influenza Reference Laboratory, Cfl

In weeks 08 and 09/09 28 specimens tested positive for influenza; three A (H1), seven A (H3) and 18 B. Since week 40/08 the majority of influenza A (H1) isolates have come from the south west of England, but influenza A (H3) has been more common in all regions (table 1).

Since week 40/08 623 viruses have been characterised: 54 A (H1) Brisbane/59/2007 (H1N1)-like, 520 A (H3) A/ Brisbane/10/2007 (H3N2)-like, five B/Florida/4/2006-like (vaccine strains), and 44 B/Malaysia/2506/2004-like.

Since week 40/08, all 193 A (H3) isolates tested have been found to be resistant to amantadine, but sensitive to oseltamivir and zanamivir. Eighty-six influenza A (H1) specimens have been tested; 85 were resistant to oseltamivir and all were sensitive to zanamivir and amantadine. Twenty-two influenza B specimens have been tested; all were 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 type (subtype)	A (H1)	A (H3)	B	RSV*
Week 08/09	2	7	15	0
Week 09/09	1	0	3	0
<b>Cumulative to date (week 40/08 – 09/09)</b>				
NE England	2	30	10	0
NW England	10	174	10	1
Yorkshire/Humber	13	178	15	9
East Midlands	8	160	2	3
West Midlands	2	105	3	6
East of England	2	229	11	12
London	9	316	29	8
SE England	3	194	18	12
SW England	35	135	4	2
Northern Ireland	0	9	0	0
Scotland	7	26	2	0
Wales	6	8	0	0
<b>Cumulative Total</b>	<b>97</b>	<b>1564</b>	<b>104</b>	<b>53</b>

\* RSV detection is by PCR only

### HPA Virological Surveillance of Influenza (England)

One sample was submitted from this parallel GP sentinel scheme in week 08/09, it was positive for influenza B. Between weeks 40/08 and 09/09, 893 specimens have been submitted and 304 (34%) have been positive for influenza; 275 influenza A and 29 influenza B.

### Other NHS and HPA laboratories (England and Wales)

The number of specimens positive for influenza A has increased from three in week 08/09 to ten in week 09/09 and the number of influenza B positives has increased from 15 to 22 (Table 2).

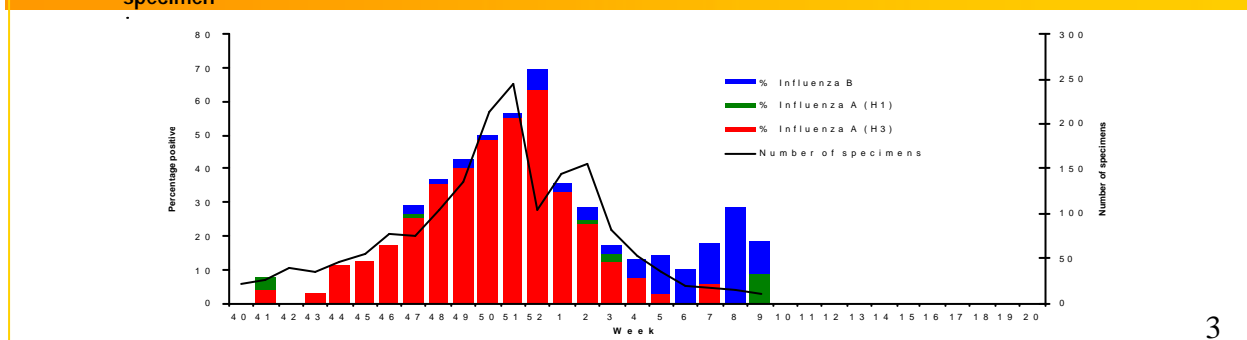
Please note that these data are provisional.

**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**

	Influenza A	Influenza B	RSV*
Week 08/09	3	15	73
Week 09/09	10	22	97
<b>Cumulative to Date (week 40/08 - 09/09)</b>			
Northern England	294	47	1509
Central England	393	23	856
Southern England	443	48	2189
Wales	61	3	343
<b>Cumulative Total</b>	<b>1191</b>	<b>121</b>	<b>4897</b>

\*Detections of RSV by isolation are not included.

**Figure 4 : Proportion of RCGP specimens positive for influenza detected (PCR and Isolation) by RVU,Cfl, by week of specimen**



## Virological data from Northern Ireland

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

In weeks 08 and 09/09 two specimens (one sentinel, one non-sentinel) were positive for influenza B and 13 non-sentinel specimens were positive for RSV.

## Virological data from Wales

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

To date this season 16 of 90 (18%) sentinel samples and 81 non-sentinel samples have been positive for influenza.

## Virological data from Scotland

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

During week 09/09, two of 14 sentinel samples were positive for influenza B. Twenty-four routine samples from hospital and community sources were also tested in week 09/09; nine were positive for influenza; five A (one A(H1) and two A (H3)) and four B. Fifteen non-sentinel samples were positive for RSV.

## Other Reports (UK)

### Mortality Data

#### Office for National Statistics

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

In week 08/09 an estimated 10,391 deaths were registered. In week 07/09, an estimated 1468 (13.4%) of 10,931 registered deaths were due to respiratory illness, this is a decrease from 15.7% (1630/10,374) in the previous week. In the seven week period from week 50/08 to week 05/09, HPA estimates that there have been approximately 9200\* all-cause excess deaths compared to the expected number at this time of year. It should be noted that this excess mortality is due to all causes and cannot be specifically attributed to influenza. No excess was observed in weeks 07 or 08/09. Figure 5 shows the estimated weekly all-cause registered deaths.

\* Provisional data, above threshold

### Outbreak Reports:

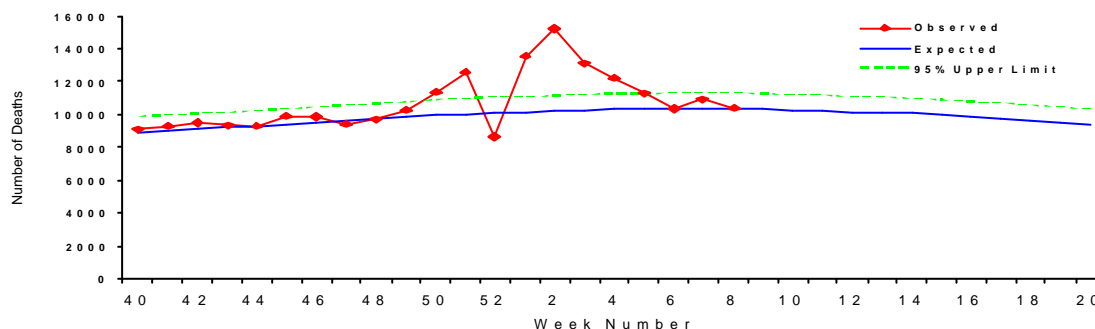
No new respiratory disease outbreaks have been reported in the last two weeks.

So far this season, 65 outbreaks have been reported, the majority, 39 (60%), from care homes, 17 (26%) have been from schools and the remainder from army barracks (three), hospitals (five) or other locations (one). In 54 of the outbreaks, samples were taken and of these, influenza A was detected in at least one sample from 43 (80%) outbreaks. The outbreaks were reported from most regions with the greatest number from the east of England (17 outbreaks, 26%) and the south east (13 outbreaks, 20%).

Cfl welcomes reports of respiratory illness outbreaks. A reporting form can be found at:

[http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1231490117848](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1231490117848) or by emailing the influenza team on [respcdsc@hpa.org.uk](mailto:respcdsc@hpa.org.uk).

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



## Flu Vaccination Campaign 2008/09 (England)

Data on influenza vaccination uptake were taken weekly from a sample of GPs in England.

Steady increasing trends were seen from the start of the campaign in September 2008.

The final weekly data were taken in week 05/09 when the proportion vaccinated in the over 65 year age group reached 74.1% and in the under 65 years at risk group, the proportion was 47.2%. The proportion of carers vaccinated by week 05/09 was 38.9%

Data Source: The National Influenza Vaccine Uptake Monitoring Programme (HPA/DH)

## Avian Influenza

The WHO continues to monitor and report on new cases of human infection with A(H5N1) avian influenza when they occur. Since 18 February 2009 WHO has reported two new cases of influenza A (H5N1); one in Egypt and one in Viet Nam. One is reported to be hospitalised and one has died. According to WHO, the total number of confirmed human infections worldwide with H5N1, since December 2003, is 409 of which 256 (62.6%) have died.

### Useful links:

Situation updates from WHO (human):

[http://www.who.int/csr/disease/avian\\_influenza/en/](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](http://www.hpa.org.uk/infections/topics_az/influenza/avian/situation_update.htm)

## Influenza activity outside the UK

### Ireland

Health Protection Surveillance Centre (HPSC)  
(<http://www.hpsc.ie/>)

The Irish ILI consultation rate decreased from 8.9 (updated rate) per 100,00 in week 08/09 to 8.0 per 100,000 population in week 09/09. Both figures are below the Irish baseline threshold of 17.8 per 100,000.

In weeks 08 and 09/09 three of seven sentinel samples were positive for influenza (one A (H3) and two B), one of 120 non-sentinel samples were positive for influenza A and two for RSV.

### Europe

European Influenza Surveillance System (EISS)  
([www.eiss.org](http://www.eiss.org))

Most countries in central Europe continue to report medium intensity activity, and activity is low but increasing in eastern Europe. Influenza activity is generally declining in western Europe. Influenza A(H3) continues to be the predominant circulating virus although the proportion of influenza B virus detections continues to increase.

In week 08/09, influenza activity was reported as high in Slovakia for the first time this season, medium in 20 countries, and low in twelve. Widespread influenza activity was reported in nine countries, regional activity in nine, local activity in six and sporadic or no activity in the remaining ten.

Of the 1960 respiratory specimens collected by sentinel physicians during week 08/09, 518 (26%) tested positive for influenza, 207 type A (not subtyped), 133 A (H3), nine A (H1) and 169 type B. In addition, 674 non-sentinel specimens tested positive including 373 influenza A (not subtyped), 150 A (H3), 61 A (H1), and 90 type B. Since week 40/08, 2784 viruses have been characterised; 2586 of these seem to be a good match to the strains recommended for the 2008-09 vaccine, the remaining 198 (7.1%) were B/Malaysia/2506/2004-like.

### Canada

Public Health Agency of Canada  
(<http://www.phac-aspc.gc.ca/fluwatch/index.html>)

During weeks 07 and 08/09, influenza activity continued to increase with more regions reporting localized and sporadic activity. The proportion of samples positive for influenza increased to 16.8% (914/5431) in week 08/09. Thirty-three new influenza outbreaks were reported in week 08/09 (five in care homes, one in a hospital and 27 in schools).

Since 1 September 2008, 356 influenza viruses have been characterised: 85 influenza A/Brisbane/59/2007(H1N1)-like, 49 A/Brisbane/10/2007 (H3N2)-like, six influenza B/Florida/4/2006-like and 216 B/Malaysia/2506/2004-like, the latter was a component of the 2007/08 vaccine. All of 167 influenza A (H1N1) isolates that have been tested have been found to be resistant to oseltamivir.

### United States of America

Centers for Disease Control and Prevention (CDC)  
(<http://www.cdc.gov/flu/weekly/>)

During weeks 07 and 08/09, influenza levels continued to increase. In week 08/09 27 states reported widespread activity, 17 states reported regional activity, the District of Columbia and six states reported local influenza activity and Puerto Rico reported sporadic influenza activity.

In week 08/09 the proportion of samples positive for influenza increased to 24.6% (1405/5715): 297 influenza A (H1), 31 A (H3), 622 A (not subtyped) and 455 influenza B.

Since week 40/08 476 influenza viruses have been characterised; 325 A/Brisbane/59/2007 (H1N1)-like, 37 A/Brisbane/10/2007 (H3N2)-like, 33 B/Florida/04/2006-like, which are the components recommended for the 2008-09 vaccine, and 81 from the B/Victoria lineage.

Of the 325 influenza A (H1) viruses tested this season, 321 (98.8%) have been found to be resistant to oseltamivir, but all are sensitive to zanamivir.

### 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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