

# HPA Weekly National Influenza Report

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



04 February 2009 (Week 06)

\*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: 26/01/09 - 01/02/09 (Week 05, 2009)

Data from ONS, MOSA and non-UK sources: 19/12/08 - 25/01/09 (Week 04, 2009)

## Summary

Influenza activity is decreasing across the UK.

In week 05/09 GP consultation rates decreased and remained below baseline levels in England and Scotland. In Wales the rate has increased slightly but remains below baseline. In Northern Ireland the consultation rate has decreased but thresholds have not yet been set. The proportions of cold/flu and fever calls to NHS direct in England and Wales have decreased, and remain below baseline levels.

In week 05/09, 21 specimens tested positive for influenza virus (three A (H1), 14 A (H3) and four B) at the Centre for Infections' Respiratory Virus Unit (RVU). Other NHS and HPA laboratories in England and Wales reported 66 influenza A, and 16 influenza B positive specimens in week 04/09. Nineteen Scottish and four Northern Irish influenza-positive specimens were reported in week 05/09. No respiratory disease outbreaks have been reported recently. 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 539 influenza viruses since week 40/08 by RVU have shown that the majority of circulating strains are well-matched to the current influenza vaccine.

Influenza activity continued to intensify and spread across Europe, with most countries reporting medium to high intensity in week 04/09.

Full reports will now be published fortnightly, with a summary in alternate weeks, unless activity increases again.

## Antiviral drug susceptibility testing

Since week 40/08 all of the influenza A (H3) isolates that have been tested for drug sensitivity have been found to be sensitive to oseltamivir and zanamivir, but resistant to amantadine. Forty-three influenza A (H1) specimens have been tested for anti-viral drug resistance, 42 of these were resistant to oseltamivir and all were sensitive to zanamivir and amantadine. Twelve 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

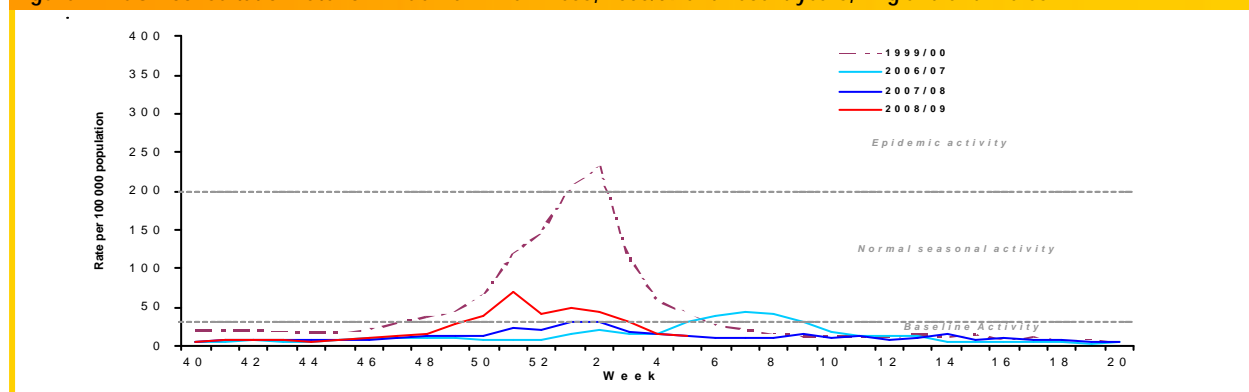
<http://www.rcgp.org.uk/bru/index.asp>

The overall influenza-like illness incidence rate\*\* decreased from 16.8 per 100,000 in week 04/09 to 12.7 per 100,000 in week 05/09. This rate remains below the baseline threshold of 30 per 100,000. The rates for all three regions decreased correspondingly. The rate in the northern region was the lowest at 9.0 per 100,000, in the central region it was 12.3 per 100,000 and in the

south the rate was 14.3 per 100,000. The rates have decreased in most age groups with the highest now in the 15-44 year (16 per 100,000) group (Figure 2).

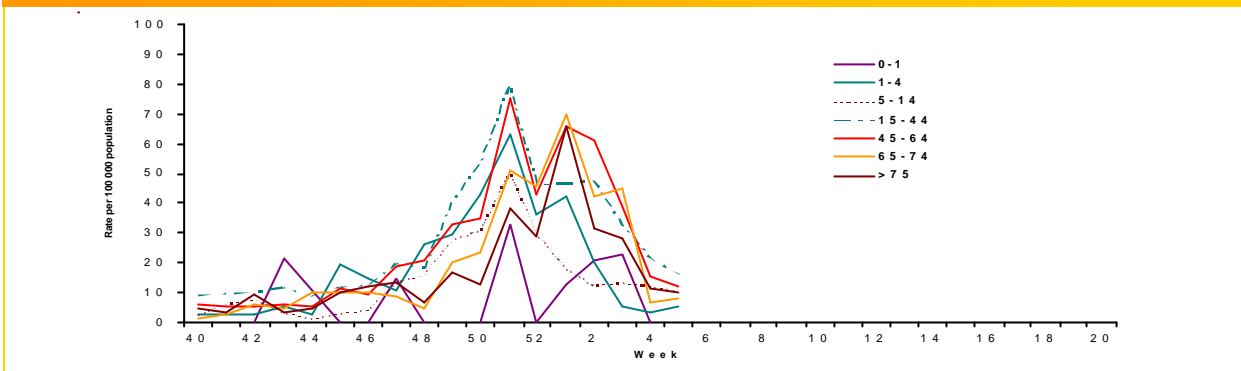
The overall rate for acute bronchitis remained constant at 102.8 per 100,000 in week 05/09. The rate increased in most age groups with the highest rate in the under one year group of 468.6 per 100,000 which had increased from 250 per 100,000 in week 04/05. The rate continued to decrease in the over 75 years group.

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 6.8 per 100,000 in week 04/09 to 8.3 per 100,000 in week 05/09. 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 decreased from 91.1 per 100,000 in week 04/09 (updated rate) to 42.1 per 100,000 in week 05/09 (Figure 3). The highest rate was in the 65-74 year group at 71.1 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 decreased from 31 per 100,000 in week 04/09 to 21 per 100,000 in week 05/09 (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 week 05/09, over 3200 practices reported from across the UK covering a population of over 21 million. The rate of influenza-like illness decreased from 12.8 per 100,000 in week 04/09 to 10.2 per 100,000 in week 05/09. The rates have decreased in all the age groups with the highest rates in the 15-44 year (11.5 per 100,000) and 45-64 year (15.3 per 100,000) age groups. The rates were highest in London.

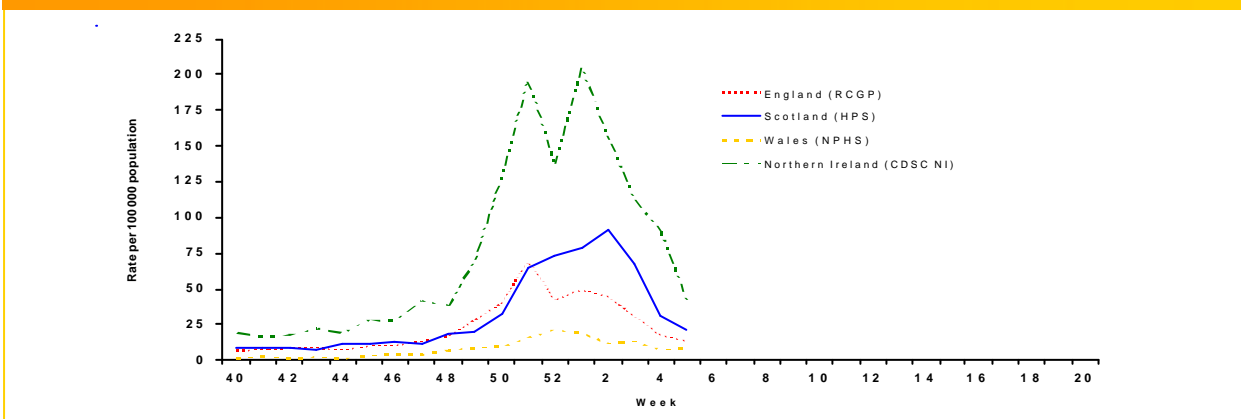
**NHS Direct total call activity**

**England and Wales**

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

The proportions of cold/flu calls decreased from 0.6 % in week 04/09 to 0.5% in week 05/09, which is below the threshold of 1.2%. The proportion of fever calls in 5-14 year olds remained constant at 5.6% in weeks 04/09 and 05/09.

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



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

In week 04/09 22 schools reported data. There were 35 new episodes of upper respiratory tract infection giving a rate of 5.4 per 1000, this is decreased from the previous week's rate of 7.1 per 1000 and low compared to the peak this season in week 50/08 with 260 episodes giving

a rate of 118.4 per 1000. In week 04/09 there were 40 new episodes of influenza or ILI which gives a rate of 6.2 per 1000 which is increased from the previous week's rate of 1.9 per 1000.

## Laboratory indices of acute respiratory illness

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

In week 05/09 21 specimens tested positive for influenza; three A (H1), 14 A (H3) and 4 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 40/08 539 viruses have been characterised: 48 A (H1) Brisbane/59/2007 (H1N1)-like, 464 A (H3) A/Brisbane/10/2007 (H3N2)-like, five B/Florida/4/2006-like (vaccine strains), and 22 B/Malaysia/2506/2004-like.

Since week 40/08, all 152 A (H3) isolates that have been tested have been found to be resistant to amantadine, of these 82 have been tested and found to be sensitive to oseltamivir and zanamivir. Forty-three influenza A (H1) specimens have been tested for anti-viral resistance since week 40/08, 42 of these were resistant to oseltamivir and all were sensitive to zanamivir and amantadine. Twelve influenza B specimens have been tested so far and were sensitive to oseltamivir and zanamivir.

**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 04/09	2	23	6	4
Week 05/09	3	14	4	1
<b>Cumulative to date (week 40/08 – 05/09)</b>				
NE England	2	27	7	0
NW England	8	133	3	1
Yorkshire/Humber	9	129	9	8
East Midlands	6	115	1	2
West Midlands	2	94	2	6
East of England	2	187	10	11
London	7	248	16	7
SE England	2	172	10	12
SW England	33	98	2	2
Northern Ireland	0	7	0	0
Scotland	1	2	0	0
Wales	3	7	0	0
<b>Cumulative Total</b>	<b>75</b>	<b>1219</b>	<b>60</b>	<b>49</b>

\* RSV detection is by PCR only

Three of 29 (10%) specimens from the RCGP surveillance scheme were positive for influenza in week 05/09 (figure 4), this is a decrease from 13% positive in week 04/09.

Please note that these data are provisional.

### HPA Virological Surveillance of Influenza (England)

Two of 15 samples submitted in week 04/09 from this parallel GP sentinel scheme were positive for influenza A and one for influenza B. Between weeks 40/08 and 05/09, 779 specimens have been submitted and 263 (34%) have been positive for influenza; 247 influenza A and 16 influenza B.

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

The number of specimens positive for influenza A has increased from 42 in week 04/09 to 66 in week 05/09 and the number of influenza B positives has also increased from four to 16 (Table 2).

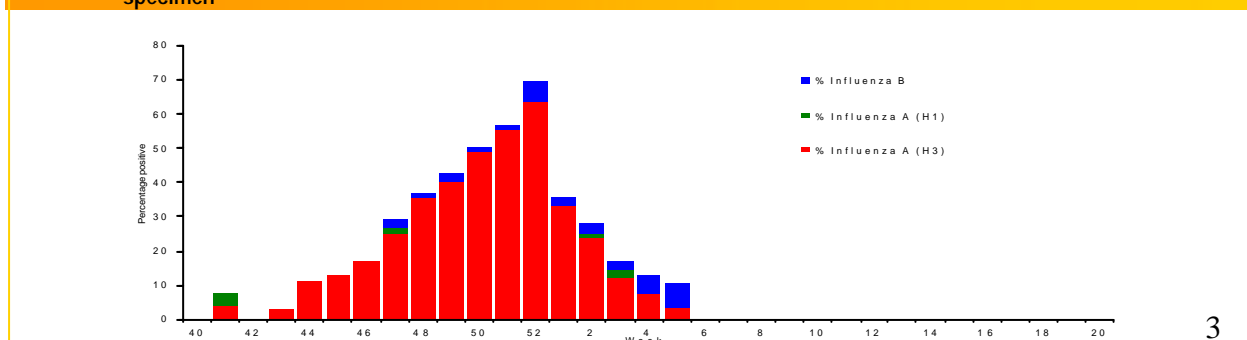
Please note that these data are provisional.

**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 04/09	42	4	141
Week 05/09	66	16	190
<b>Cumulative to Date (week 40/08 - 05/09)</b>			
Northern England	277	21	1419
Central England	382	9	797
Southern England	427	18	2056
Wales	53	1	294
<b>Cumulative Total</b>	<b>1139</b>	<b>49</b>	<b>4566</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/>)

No sentinel samples were tested in week 05/09. Of the 53 non-sentinel samples tested, four (7.5%) were positive for influenza (one A and three B) and 14 for RSV.

## Virological data from Wales

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

In week 04/09 three sentinel samples were tested and none were positive for influenza. To date this season 16 of 86 (18%) sentinel samples and 64 non-sentinel samples have been positive for influenza.

## Virological data from Scotland

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

During week 05/09, one of eight sentinel samples were positive for influenza A. One sentinel sample was positive for RSV and two were positive for other viruses.

Thirty-nine routine samples from hospital and community sources were also tested in week 05/09; 18 (46%) were positive for influenza; 14 A (three A(H1) and seven A(H3)) and four B; and 14 further were positive for RSV.

## Other Reports (UK)

### Mortality Data

#### Office for National Statistics

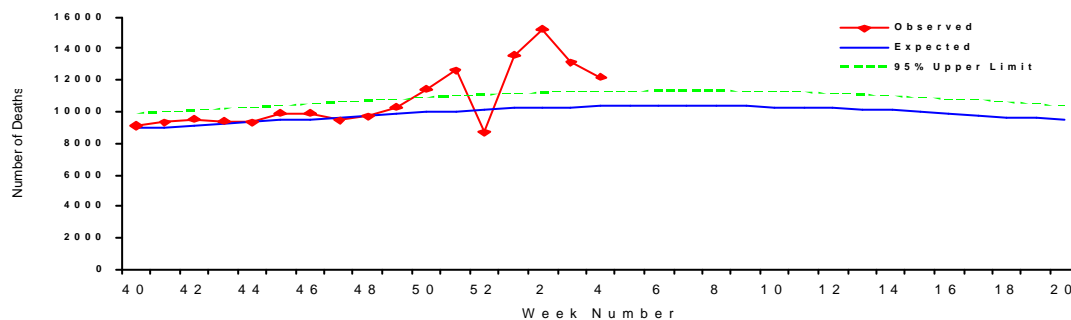
(<http://www.statistics.gov.uk/>)

In week 04/09 an estimated 12,192 deaths were registered. In week 03/09, an estimated 2720 (20.7%) of 13,128 registered deaths were due to respiratory illness.

In the seven week period from week 50/08 to week 03/09 HPA estimates that there have been approximately 9100\* 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. Figure 5 shows the estimated weekly all-cause registered deaths.

\* Provisional data. above threshold

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



## Flu Vaccination Campaign 2008/09 (England)

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

Steady increasing trends have been seen since the start of the campaign in September 2008.

In week 05/09 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. On 2 February 2009 WHO reported one new case of influenza A (H5N1) in China, a 21 year old female who remains in hospital. According to WHO, the total number of confirmed human infections worldwide with H5N1, since December 2003, is 404 of which 254 (63%) 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 42.9 (updated rate) per 100,00 in week 04/09 to 34.6 per 100,000 population in week 05/09. The rate is still above the Irish baseline threshold of 17.8 per 100,000 population.

In week 05/09 eight (44%) of 18 sentinel samples were positive for influenza (three A (H3), one A (H1), one A (untyped) and three B) and five of 64 non-sentinel samples were positive for RSV.

### Europe

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

Influenza activity continued to intensify and spread across Europe, with most countries reporting medium to high intensity. Influenza A (H3) continues to be the predominant circulating virus. In week 04/09, influenza activity was reported as high in Germany, Luxembourg, Poland, Sweden and Switzerland, medium intensity in 17 and low in six countries. Geographical spread was reported as widespread in 14 countries; regional in three countries; local in four countries; and sporadic or no activity was reported in seven countries.

Out of the total 2874 respiratory specimens collected by sentinel physicians during week 04/09, 999 (34.8%) specimens tested positive for influenza, 300 type A (not subtyped), 586 A (H3), 53 A (H1) and 60 type B. In addition, 905 non-sentinel specimens tested positive including 662 influenza A (not subtyped), 217 A (H3), six A (H1), and 20 type B.

Since week 40/08, 1040 viruses have been characterised; 1014 of these seem to be a good match to the strains recommended for the 2008-09 vaccine, the remaining 26 were B/Malaysia/2506/2004-like.

### Canada

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

During week 04/09, influenza activity continued to increase with more regions reporting localized (n=7) and sporadic activity (n=22). Overall, there was a slight decrease in the consultation rates. The proportion of samples positive for influenza increased to 7.3% (251/3423). Four new influenza outbreaks were reported (one in a care home and three in schools).

Since 1 September 2008, 134 influenza viruses have been characterised: 30 influenza A/Brisbane/59/2007(H1N1)-like, eight A/Brisbane/10/2007 (H3N2)-like, five influenza B/Florida/4/2006-like and 91 B/Malaysia/2506/2004-like, the latter was a component of the 2007/08 vaccine. Seventy-nine influenza A (H1N1) isolates have been tested and found to be resistant to oseltamivir.

### United States of America

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

During week 04/09, influenza levels continued to slowly increase. Two states (Virginia and New Jersey) reported widespread activity, 14 states reported regional activity, 12 states reported local influenza activity and the District of Columbia, Puerto Rico and 22 states reported sporadic influenza activity.

In week 04/09 WHO and NREVSS laboratories reported 3711 specimens tested for influenza viruses, 588 (15.8%) of which were positive: 74 influenza A (H1), 14 A (H3), 420 A (not subtyped) and 80 influenza B.

One human case of swine influenza A (H1N1) was reported from South Dakota in week 04/09.

Since week 40/08 229 influenza viruses have been characterised; 142 A/Brisbane/59/2007 (H1N1)-like, 35 A/Brisbane/10/2007 (H3N2)-like, 17 B/Florida/04/2006-like, which are the components recommended for the 2008-09 vaccine, and 35 from the B/Victoria lineage. Of the 165 influenza A (H1) viruses tested this season, 162 (98.2%) 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:

Estelle McLean, Joy Field and Richard Pebody

Respiratory and Systemic Infections Department  
HPA Centre for Infections, 61 Colindale Avenue  
London NW9 5EQ, United Kingdom  
Tel: (0)20 8327 7768; Fax: (0)20 8200 7868  
E-mail: [respcdsc@hpa.org.uk](mailto:respcdsc@hpa.org.uk)

Maria Zambon, Joanna Ellis, Angie Lackenby, Alison Birmingham and Praveen Sebastianpillai

Respiratory Virus Unit, Virus Reference Department  
HPA Centre for Infections, 61 Colindale Avenue  
London NW9 5HT, United Kingdom  
Tel: (0)20 8327 6239; Fax: (0)20 8205 8195  
E-mail: [ernvl@hpa.org.uk](mailto:ernvl@hpa.org.uk)

If you wish to be included on our email notification list please send your address to: [respcdsc@hpa.org.uk](mailto:respcdsc@hpa.org.uk)