

# HPA Weekly National Influenza Report

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



31 December 2008 (Week 01)

\*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: 22/12/08 - 28/12/08 (Week 52, 2008)

Data from ONS, MOSA and non-UK sources: 15/12/08 - 21/12/08 (Week 51, 2008)

## Summary

Influenza activity continues to be widespread across the UK. GP consultation rates remained above the threshold levels in England and Scotland in week 52/08. Rates decreased in England, which may be due to the incomplete data during the Christmas holiday period, but increased in Scotland and Wales. In Northern Ireland the consultation rate has decreased in week 52/08 compared to last week (week 51/08) but thresholds have not yet been set. Of the samples referred to the Centre for Infections' Respiratory Virus Unit (RVU) during week 52/08, 102 were positive for influenza A; four A (H1) and 98 A (H3), and five for influenza B. Other NHS and HPA laboratories in England and Wales reported 145 influenza A and ten influenza B positive specimens in week 52/08. Twenty-four Scottish and 14 Northern Irish influenza positive specimens were reported in week 52. One outbreak of respiratory illness was reported recently in a care home in England. The proportion of people over 65 years who have received this season's influenza vaccine was 72% in week 50/08, and 44.2% in those aged under 65 years in risk groups. Characterisation of 218 influenza viruses since week 40/08 by RVU have shown that the majority of circulating strains are well-matched by the current influenza vaccine. Influenza activity is reported to be increasing throughout the rest of Europe with one country reporting 'high' level and four countries reporting 'medium' levels of influenza activity in week 51/08.

## Antiviral drug susceptibility testing

Neuraminidase inhibitor susceptibility testing was not carried out during this Christmas - New Year holiday period.

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

### England and Wales

Royal College of General Practitioners

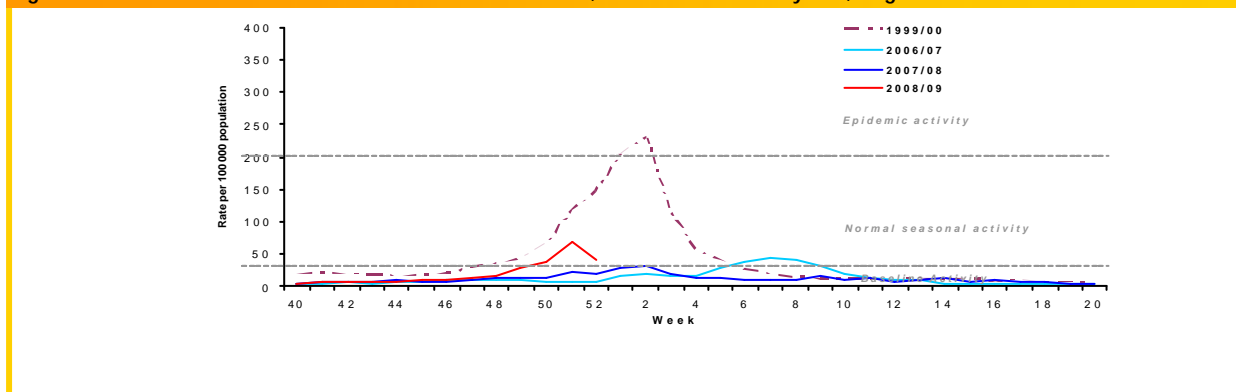
<http://www.rcgp.org.uk/bru/index.asp>

The overall influenza-like illness incidence rate\*\* decreased from 68.5 per 100,000 in week 51/08 to 41.3 per 100,000 in week 52/08. Although this week's data are incomplete due to the Christmas holiday, this rate is still above the baseline threshold of 30 per 100,000. The rates for all three regions decreased correspondingly. The rate in the northern region was

lowest at 21.4 per 100,000. The highest rate in week 52/08 was in the south region at 46.7 per 100,000 and in the central the rate was 43.7 per 100,000. The rates were highest in the 15-44 year age group at 46.4 per 100,000 and in the 45-64 year age group at 43.3 per 100,000 in week 52/08 (Figure 2).

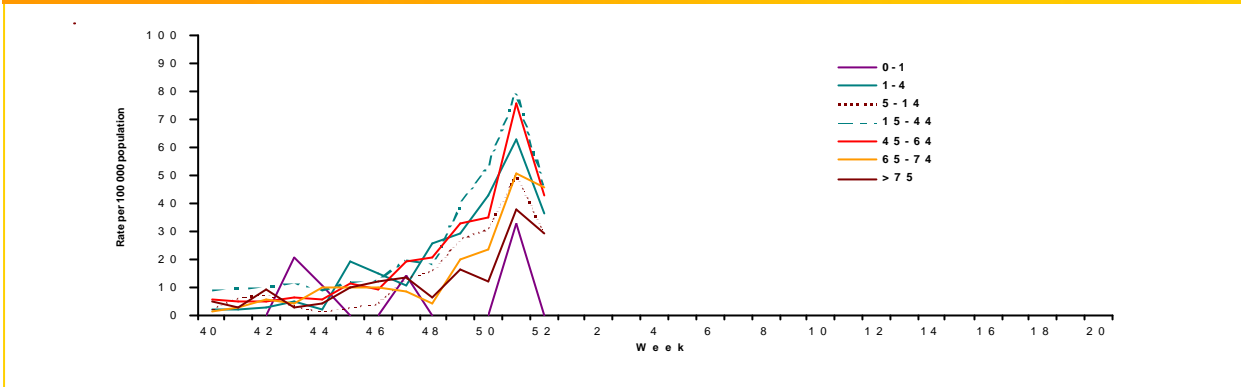
The rate for acute bronchitis decreased for this week (52/08) as well to 133.7 compared to 218.7 per 100,000 in week 51/08. The highest rate is now in the under one year group at 487.6 per 100,000 in week 52/08.

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.



**Scotland**

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

GP consultation rates for influenza increased from 65.0 per 100,000 in week 51/08 to 73.0 per 100,000 in week 52/08 (Figure 3). This exceeds the Scottish baseline threshold of 50 consultations per 100,000.

**Northern Ireland**

CDSC Northern Ireland  
<http://www.cdscni.org.uk/>

The combined rate for influenza and influenza-like illness decreased from 196.5 (updated rate) per 100,000 in week 51/08 to 136.3 per 100,000 in week 52/08 (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>

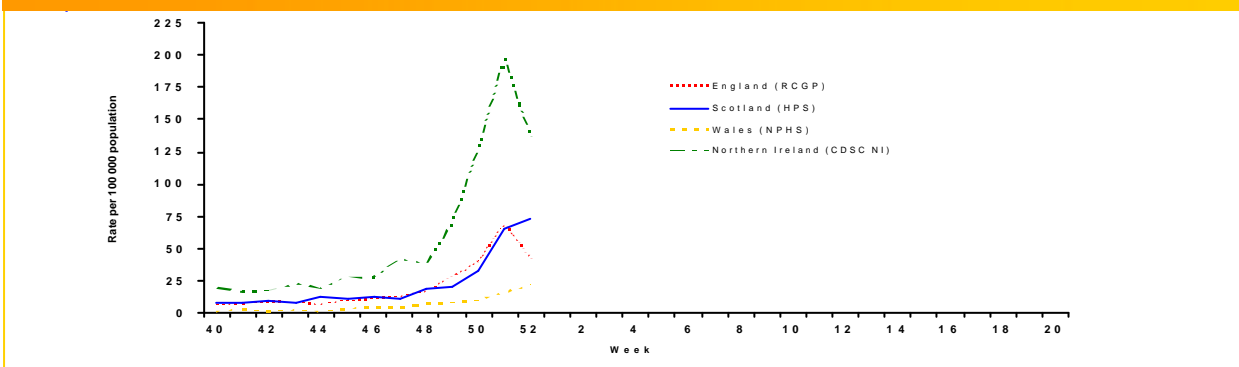
GP consultation rates for influenza increased from 15.6 per 100,000 in week 51/08 to 21.5 per 100,000 in week 52/08. Both figures are below the baseline threshold of 25 consultations per 100,000 (Figure 3).

**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 52/08, over 3200 practices reported from England, Wales, Scotland and Northern Ireland covering a population of over 21 million. The rate of influenza-like illness decreased from 42.6 per 100,000 in week 51/08 to 25.0 per 100,000 in week 52/08. The highest rates are in the 25-44 and 45-64 year age groups. The rates were highest in Northern Ireland, London, S E Coast and South West.

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



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

The proportions of cold/flu and fever calls were over the baseline and were still increasing in week 51/08. No data available for week 52/08 due to technical problems.

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

There is no data for weeks 49, 50, 51 and 52/08 as the school students are on holiday

## Laboratory indices of acute respiratory illness

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

One hundred and nine specimens tested positive for influenza in week 52/08 (Table 1). Since week 40/08 218 viruses have been characterised: 26 A (H1) Brisbane/59/2007 (H1N1)-like, 183 A (H3) A/Brisbane/10/2007 (H3N2)-like, one B/Florida/4/2006-like which are all vaccine strains, and eight B/Malaysia/2506/2004-like. 70.7% of specimens from the RCGP surveillance scheme were positive for influenza in week 52/08, this is above the threshold of 30% (figure 4).

Neuraminidase inhibitor susceptibility testing was not carried out during this Christmas - New Year holiday period and this work will resume next week. Results between week 40/08 - 51/08 were summarized in our last week's report.

**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 51/08	3	145	8	1
Week 52/08	4	98	5	2
<b>Cumulative to date (week 40/08 – 52/08)</b>				
Northern England	7	109	8	2
Central England	7	182	2	7
Southern England	28	357	13	23
Wales	2	3	0	0
Scotland	1	2	0	0
Northern Ireland	0	5	0	0
<b>Cumulative Total</b>	<b>45</b>	<b>658</b>	<b>23</b>	<b>32</b>

\* RSV detection is by PCR only

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

The number of specimens positive for influenza A has increased from 131 in week 51/08 to 145 in week 52/08 and the number of influenza B positives increased from 2 in week 51/08 to 10 in week 52/08, and the number of RSV positives slightly increased (from 327 to 333) in the same time period. To date, a higher number of influenza A positive specimens have come from central and southern England. (Table 2).

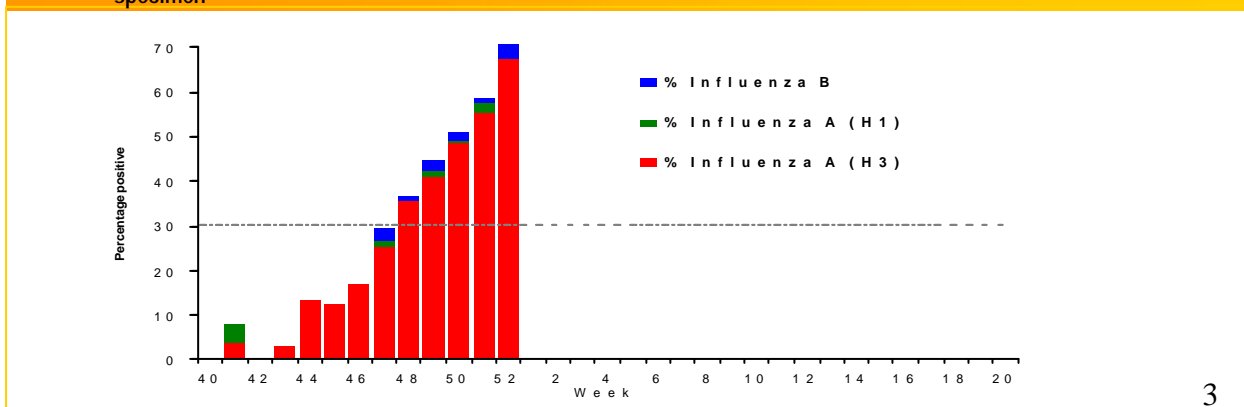
Please note that these data are provisional.

**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 51/08	131	2	327
Week 52/08	145	10	333
<b>Cumulative to Date (week 40/08 - 52/08)</b>			
Northern England	167	13	1183
Central England	179	4	469
Southern England	184	4	1473
Wales	28	0	235
<b>Cumulative Total</b>	<b>558</b>	<b>21</b>	<b>3360</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**



## HPA CfI Virological Surveillance of Influenza (England)

No data available for week 52/08 from this parallel GP sentinel scheme. Week 51/08 data were reported in our last week's report. Between week 40/08 and 51/08, 479 specimens have been submitted and 135 (28.2%) have been positive for influenza; 125 influenza A and ten influenza B.

## Virological data from Northern Ireland

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

Twenty-five sentinel samples were tested in week 52/08 of which 14 (56%) were positive for influenza (13 A and one B). Of the 44 non-sentinel samples tested, six (18.2%) were positive for influenza (five A and one B) and 21 for RSV.

## Virological data from Scotland

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

During week 52/08, twenty three (47%) out of 49 sentinel samples were positive for influenza A including 17 A(H3) and three of the influenza A (H3) cases were also positive for other respiratory viruses. One influenza B positive case was also infected with corona virus; two further samples were positive for RSV; three samples were positive for rhinovirus. Seventy-seven routine samples reported from hospital and community sources were also tested; 31 (40.3%) were positive for influenza A (four A (H1) and 27 A (H3)), one influenza B and 55 were positive for RSV.

## Virological data from Wales

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

To date this season seven of 44 sentinel samples and 28 non-sentinel samples have been positive for influenza A. In week 51/08 12 sentinel samples were tested and five of these were positive for influenza.

## Other Reports (UK)

### Mortality Data

#### Office for National Statistics

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

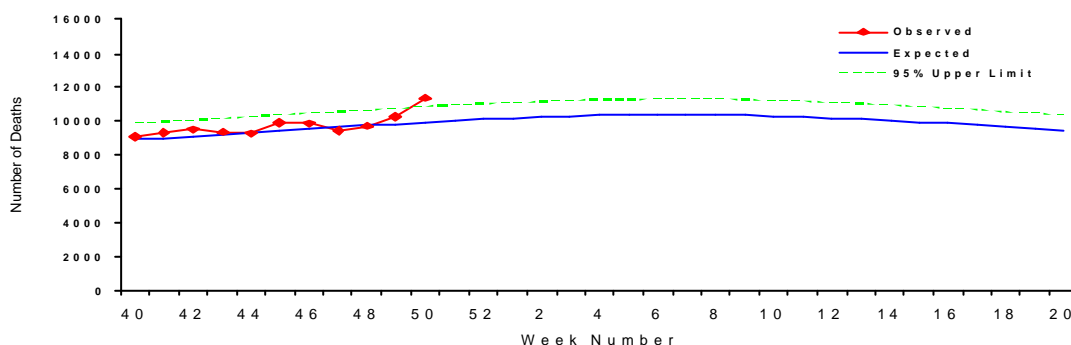
The data for the number of deaths registered in England and Wales for week 51 are not available during the Christmas - New Year period. Previous data up to week 50/08 were summarised in our last week's report. The weekly all cause registered deaths up to week 50/08 are shown in Figure 5.

### Outbreak Reports:

One respiratory outbreak has been reported recently which occurred in a care home in West Yorkshire, England and laboratory testing results for this outbreak are still awaited.

CfI welcomes reports of respiratory illness outbreaks. Please email any reports to [respdsc@hpa.org.uk](mailto:respdsc@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 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 50/08 the proportion vaccinated in the over 65 year age group was 72% and in the under 65 years at risk group, the proportion vaccinated was 44.2%.

No vaccine uptake data is available for weeks 51 and 52/08. It should be noted that all data is provisional.

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 16 December there have been no further cases of avian influenza confirmed by WHO.

According to WHO, the total number of confirmed human infections worldwide with H5N1, since December 2003, is 391 of which 247 (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

### Europe

#### European Influenza Surveillance System (EISS)

[www.eiss.org](http://www.eiss.org)

In week 51/08, influenza activity reached high intensity in Portugal and medium intensity in Bulgaria, Ireland, Spain and the UK (England and Northern Ireland). Geographical spread was reported as local in France and Switzerland, regional in Spain and Wales, and widespread in England, Northern Ireland and Portugal. Given the current epidemiological and virological situation it is anticipated that in the coming weeks seasonal influenza activity will increase in a number of European countries.

Out of the total 1062 respiratory specimens collected by sentinel physicians during week 51/08, 346 (32.6%) specimens tested positive for influenza, 105 type A (not subtyped), 223 A (H3), six A (H1) and 12 type B. In addition, 354 non-sentinel specimens tested positive including 310 influenza A (not subtyped), 27 A (H3), four A (H1), and 13 type B. These positive specimens were reported from 21 countries.

Since week 40/08, 234 viruses have been characterised; 226 of these seem to be a good match to the strains recommended for the 2008-09 vaccine, the remaining eight were B/Malaysia/2506/2004-like.

### Ireland

#### Health Protection Surveillance Centre (HPSC)

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

In week 52/08 the Irish ILI consultation rate increased to 72.8 from the updated rate of 61 per 100,000 population in week 51/08. Both rates are well above the Irish baseline threshold of 17.8 per 100,000 population.

No virological data for week 52/08 are available as yet.

### Canada

#### Public Health Agency of Canada

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

During week 51/08, influenza activity remained low with the majority of the influenza surveillance regions reporting no activity and 11 regions reporting sporadic influenza activity. Overall there was a slight increase in the consultation rates. Thirty two of 2383 (1.3%) specimens tested positive for influenza in week 51/08. No outbreak was reported in week 51/08.

Since 1 September 2008, 20 influenza viruses have been characterised: three influenza A/Brisbane/59/2007(H1N1)-like, two A/Brisbane/10/2007 (H3N2)-like, three influenza B/Florida/4/2006-like and 12 B/Malaysia/2506/2004-like, the latter was a component of the 2007/08 vaccine. Six 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 51/08, a low level of influenza activity was reported. Two states reported regional activity; six states reported local influenza activity; Puerto Rico and 36 states reported sporadic influenza activity, and five states reported no activity.

In week 51/08 WHO and NREVSS laboratories reported 3035 specimens tested for influenza viruses, 103 (3.4%) of which were positive: 22 influenza A (H1), three A (H3), 55 A (not subtyped) and 23 influenza B.

Since week 40/08 85 influenza viruses have been characterised; 49 A/Brisbane/59/2007 (H1N1)-like, seven A/Brisbane/10/2007 (H3N2)-like, nine B/Florida/04/2006-like, which are the components recommended for the 2008-09 vaccine, and 20 from the B/Victoria lineage. Of the 65 influenza A (H1) viruses tested this season, 64 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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