

Summary

- Pandemic influenza activity continues to increase across the UK, particularly in school-aged children.
- In week 38 (week ending 20 September), the weekly influenza/ILI consultation rates increased in all UK countries. Rates are below the normal winter seasonal baseline thresholds in England, Wales and Scotland, but are above newly defined provisional threshold levels in Northern Ireland.
- The [National Pandemic Flu Service](#) (NPFS) continues to issue antiviral drugs to people in England with an influenza-like illness who call or log onto the internet site. The number of assessments and antiviral collections through this service have increased over the past week.
- At least 21 schools throughout England have reported outbreaks of ILI, since the beginning of the autumn term, with virological confirmation of pandemic influenza in at least one case in 11 of the schools. School outbreaks have also been reported from Scotland and Northern Ireland.
- Interpretation of data to produce estimates on the number of new cases continues to be subject to a considerable amount of uncertainty with the move to National Pandemic Flu Service (NPFS). HPA modelling gives an estimate of 9000 (range 5000 – 20,000) new cases in England in week 38. The estimated number of new cases has increased in all regions and age groups.
- The main influenza virus circulating in the UK continues to be the pandemic (H1N1) 2009 strain, with few influenza H1 (non-pandemic), H3 and B viruses detected. Two of 973 pandemic viruses tested have been confirmed to carry a mutation which confers resistance to the antiviral drug oseltamivir; both have been shown phenotypically to be resistant to the drug but retain sensitivity to zanamivir.
- The majority of pandemic influenza cases continue to be mild. The cumulative number of deaths reported due to pandemic (H1N1) 2009 in the UK is 82. There was a total of 324 new patients hospitalised in England with suspected pandemic influenza in week 38; an increase from the previous week. The highest hospitalisation rates have consistently been in the under 5-year age group and the recent increases have been seen particularly in children under 15.
- According to the European Centre for Disease Prevention and Control (ECDC), by 22 September, 4144 deaths due to pandemic influenza had been reported globally. In week 37 Ireland, Sweden, and Northern Ireland reported medium activity, while other European countries reported low levels.

Weekly consultation rates in national sentinel influenza schemes

The National Pandemic Flu Service (NPFS) became operational in England on Thursday 23 July at 15.00. The service issues antiviral drugs to people with an influenza-like illness who do not fall into a specified risk group (e.g. aged less than 1 year, pregnant or with a high-risk underlying medical condition). According to [FluSurvey](#), an internet-based monitoring system for influenza surveillance which relies on members of the public reporting their health status weekly, the proportion of participants with influenza-like illness who reported that they contacted their GP fell after NPFS was launched. This will have affected GP consultation rates from week 30 onwards. The under 1 year olds are the only age group that are not considered by NPFS and will always be referred to the health service. NPFS is currently not operational in Northern Ireland, Scotland and Wales.

In week 38, the weekly influenza/ILI consultation rates increased in England, Scotland, Northern Ireland and Wales (table 1, figures 1 and 2).

The overall RCGP (England and Wales) ILI consultation rate has increased to 16.2 per 100,000 which is below the winter baseline activity threshold of 30 per 100,000. The rates have increased in two RCGP regions, with the greatest increase in the central region (14.9 to 20.7 per 100,000), but have decreased in the north. The combined influenza/ILI rate in Northern Ireland has continued to increase sharply and is above the newly defined provisional threshold of 70 per 100,000. The gradual increasing trend observed in the ILI rate in Scotland in recent weeks continues, and the rate of 48.6 per 100,000 is approaching the winter baseline threshold of 50 per 100,000. The influenza rate has doubled in Wales from 7.2 to 13.9 per 100,000 though it remains below the winter baseline threshold of 25 per 100,000. The weekly ILI QSurveillance rate also increased; thresholds have not yet been set.

The consultation rates in the RCGP scheme have increased in most age groups (figure 3), with the greatest increase in the 5-14 year-olds (14.1 to 22.6 per 100,000). The rate in the <1 year group has remained stable: this group are not assessed by NPFS. Rates increased in all age groups in the QSurveillance scheme, including the under one-year-olds (15.2 to 23 per 100,000); the largest increase was in the 5-14 year-olds (13.6 to 25.7 per 100,000). In Wales the highest GP consultation rate is now in the 15-24 year group (31.6 per 100,000), the greatest increase was in the 5-14 year olds (5.9 to 26.9 per 100,000). In Northern Ireland the rates have increased in most age groups, with a steep increase observed in the 5-14 year-olds (170.2 to 278.2 per 100,000). In Scotland, the highest rates were in the 1-4 year age group (increased from 194.1 to 230.4 per 100,000), an increase was also observed in the 5-14 year olds (56.1 to 89.5 per 100,000).

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

For further information on the different schemes, including why differences are seen between the four countries, please see [Interpreting the HPA National Weekly report](#).

Table 1: GP weekly consultation rates for influenza/ILI in the UK

Scheme / Country	Baseline Threshold (per 100,000)	Clinical rate per 100,000				
		Week 34	Week 35	Week 36	Week 37	Week 38
RCGP (England & Wales)	30	16.6	11.8	8.6	12.9	16.2
RCGP North	30	16.9	10.6	3.7	13.4	8.8
RCGP Central	30	18.8	14.7	9.6	15.0	20.7
RCGP South	30	14.7	10.2	9.6	11.1	16.0
Northern Ireland	70*	77.3	55.1	61.9	111.4	134
Scotland	50	27.4	29.2	31.9	36.9	48.6
Wales	25	9.5	10.9	9.7	7.2	13.9
QSurveillance® (UK**)	N/A	19.3	14.4	10.9	14.5	17.3

* Provisional threshold, defined in September 2009; ** based on data from 43% of England's populations, 10% of the population in Wales, 17% in Northern Ireland and 0% in Scotland

Figure 1: GP weekly consultation rates for influenza/ILI in the UK national sentinel influenza schemes, 2008/09.

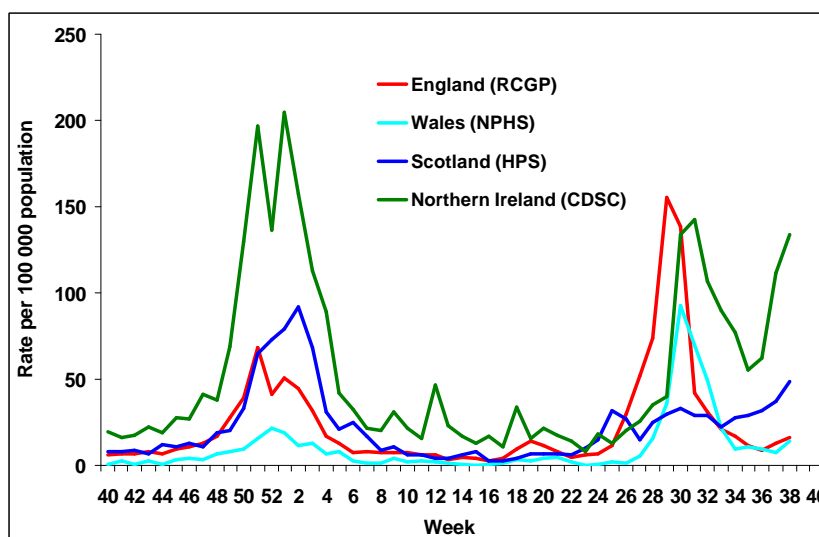
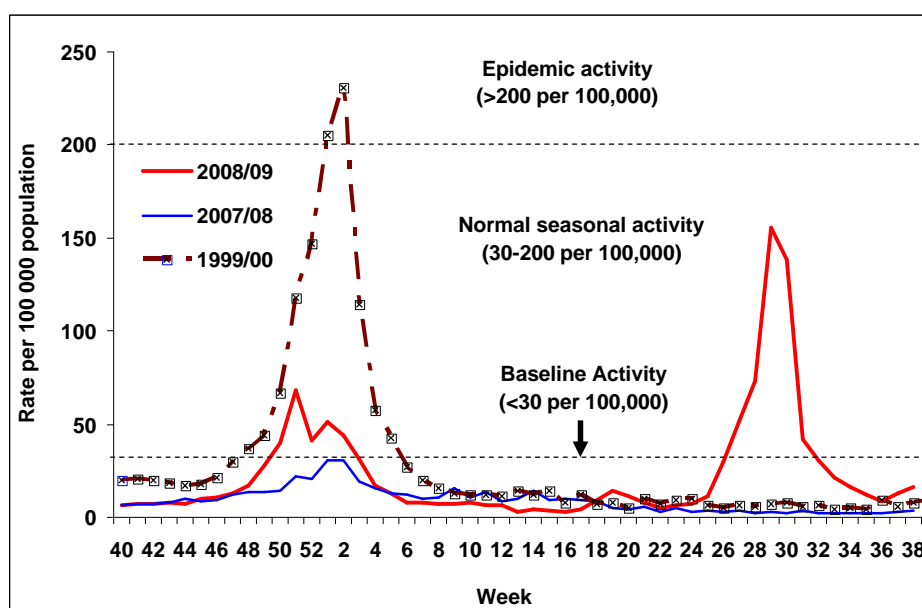


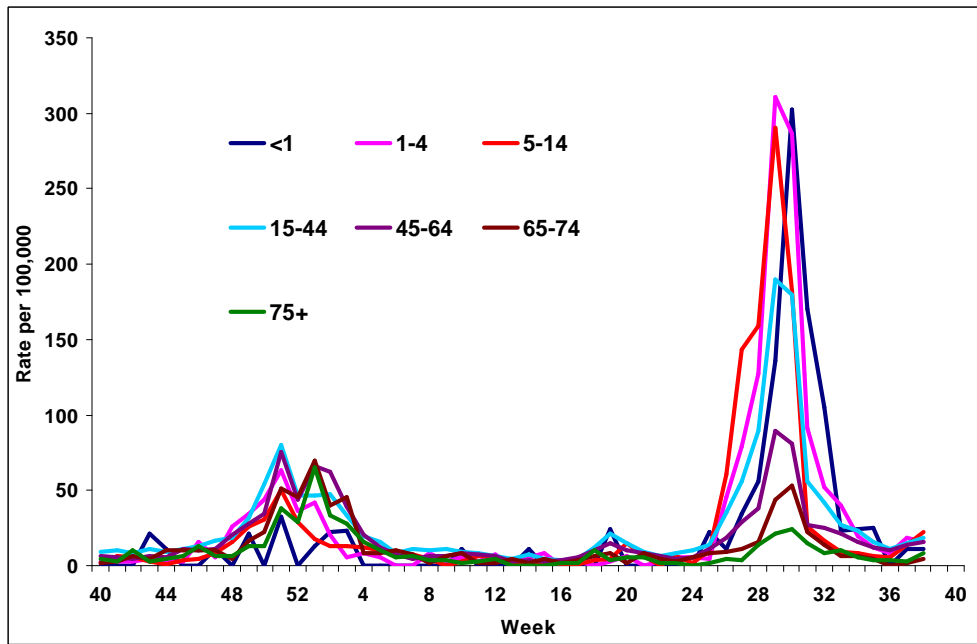
Figure 2: RCGP weekly consultation rate for influenza like illness 2008/09 and recent years.



HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Figure 3: RCGP weekly consultation rate for influenza like illness 2008/09, by age group.



Enhanced Daily Syndromic Surveillance (<http://www.hpa.org.uk/hpr/infections/primarycare.htm>)

QSurveillance®

The daily GP consultation rates are likely to have been affected by the introduction of the National Pandemic Flu Service on 23 July.

The daily GP ILI consultation rate on Tuesday 22 September was 4.9 per 100,000 compared to 3.1 per 100,000 seven days previously on 15 September (figure 4). Rates in English SHAs are at levels equivalent to estimated rates when 'normal seasonal influenza' is circulating during the winter, except in the South East Coast and South West SHAs where rates are equivalent to baseline winter activity. The daily consultation rates in the under-one year age group (not considered by NPFS) have increased recently (figure 5).

Figure 4: QSurveillance® – 7-day moving average daily consultation rate for influenza-like illness in the UK* (all ages) in 2008 and 2009.

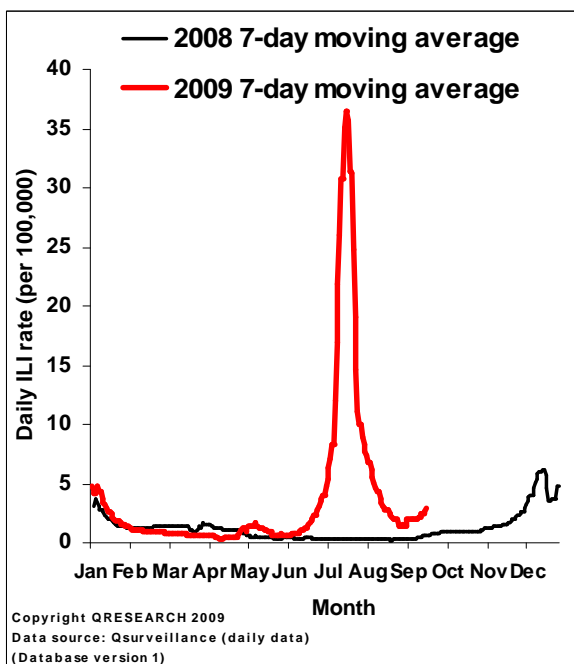
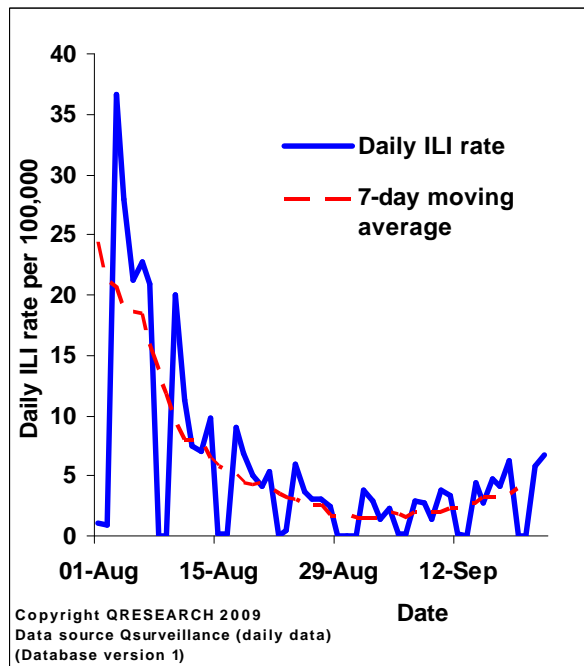


Figure 5: QSurveillance® – daily consultation rate and 7-day moving average for influenza-like illness in children aged under one year in the UK*.



* based on data from 43% of England's populations, 10% of the population in Wales, 17% in Northern Ireland and 0% in Scotland

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

National Pandemic Flu Service (NPFS)

The National Pandemic Flu Service (NPFS) became operational in England at 15:00 on 23 July 2009. In the last week, the numbers have increased (figure 6). The largest numbers of antiviral collections have been in the north west and Yorkshire and Humber (figure 7) and in children and young adults (figure 8). The largest increase in the number of antiviral collections was again the 5-14 year group (2886 to week 37 to 5580 in week 38).

Figure 6: Daily number of assessments and antivirals collected, through NPFS England.

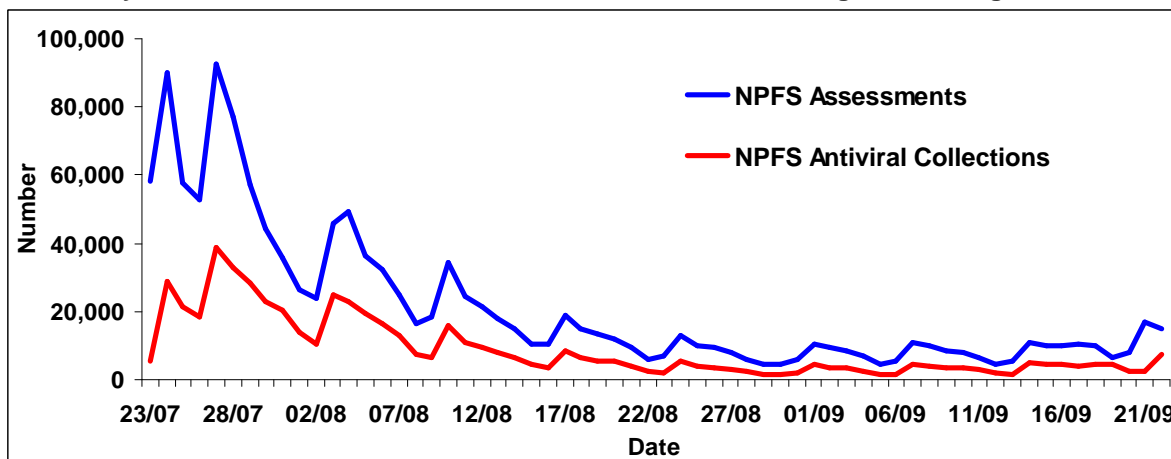


Figure 7: Daily number of antivirals collected, through NPFS, by Strategic Health Authority.

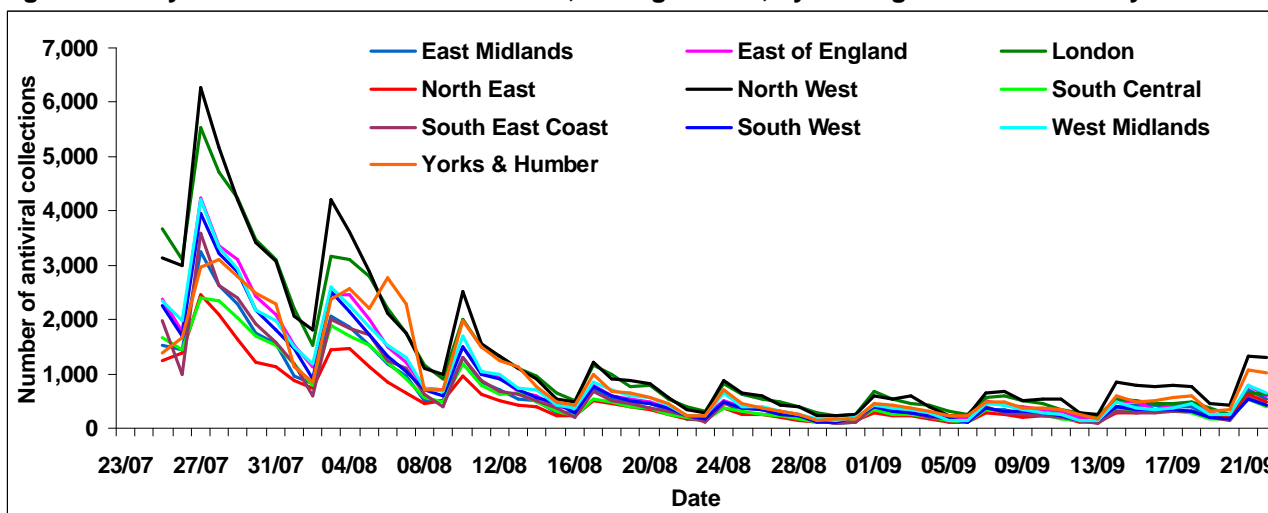
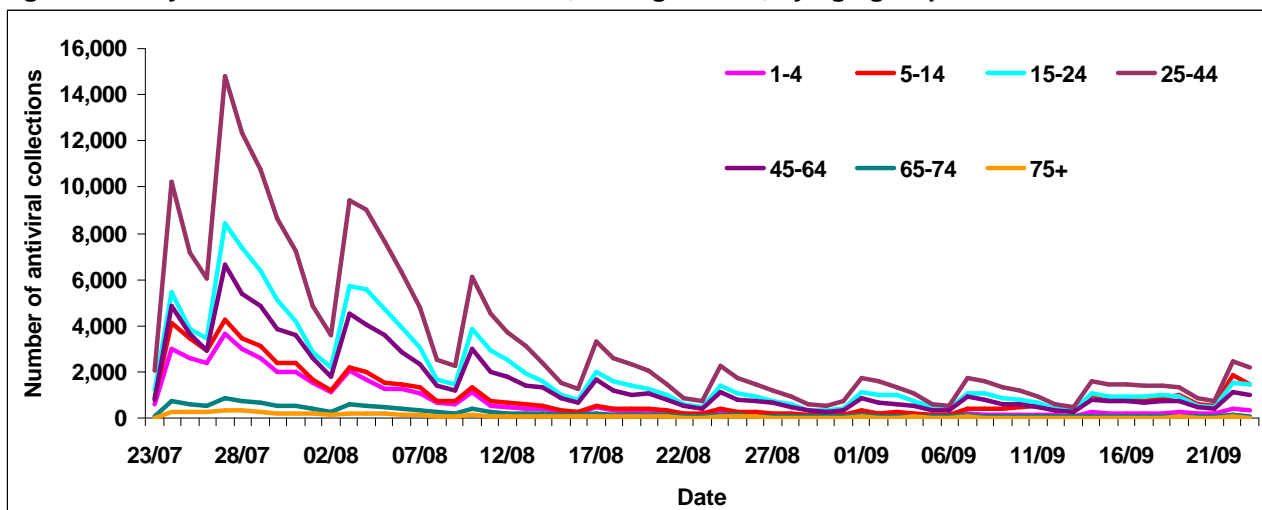


Figure 8: Daily number of antivirals collected, through NPFS, by age group.



HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Modelling by the Health Protection Agency

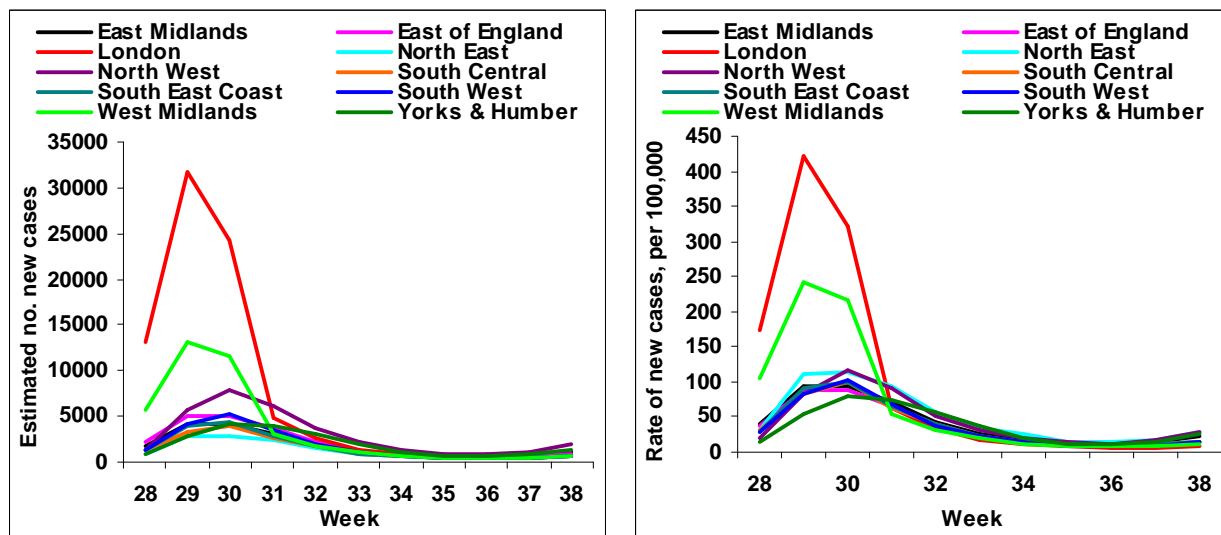
The number of pandemic influenza (H1N1) 2009 cases is estimated using a statistical model. The model relies on data from various surveillance systems and studies. The key surveillance systems that are used consist of the primary care based Q Surveillance® scheme, the RCGP and HPA Regional Microbiology Network sentinel surveillance scheme and latterly data from the NPFS. To provide an estimate of the number of pandemic cases that present to their GP the estimated number of primary care attendances with influenza like illness is multiplied by the positivity rates from testing within sentinel GP schemes. To estimate the number of pandemic (H1N1) 2009 that present to NPFS, the number of NPFS antiviral collections are multiplied by positivity rates from testing from people contacting NPFS. To provide an overall estimate of number of cases in the population, these two estimates are combined and scaled up to allow for a range of 30% to 70% of pandemic (H1N1) 2009 cases contacting either NPFS or a GP.

Further details on the methodology used can be found on the [HPA website](#).

In week 38, 9000 new cases are estimated to have occurred (range 5000 – 20,000), an increase from 5000 (3000 – 11,000) in week 37. The estimated number of new cases has increased in all regions, with the highest rates in the north of England. The rates in London, which saw the highest rates over the summer, remain low. The estimated number of cases has also increased in all age groups, particularly in the 5-14 year olds, which had the highest rates over the summer (figures 9 and 10).

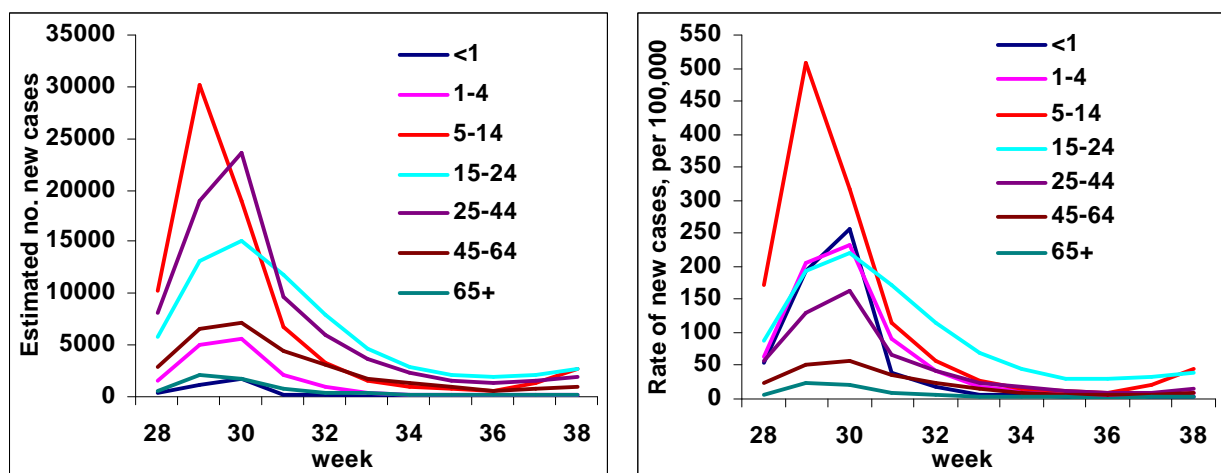
It should be noted that these estimates are subject to a considerable amount of uncertainty.

Figure 9: Estimated number and rate per 100,000* of new cases of pandemic influenza in England, by week and SHA.



* Based on mid-2007 estimates of England population from ONS.

Figure 10: Estimated number and rate per 100,000* of new cases of pandemic influenza in England by week and age group.



* Based on mid-2007 estimates of England population from ONS.

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Outbreaks

In England, since the beginning of the autumn term, there have been 11 schools with virologically confirmed pandemic influenza in the following regions; North West (2); North East (1); Yorkshire and Humber (3); London (1); South East (3); and West Midlands (1). A further 10 schools are under investigation because of increased absenteeism rates. Both primary and secondary schools have been affected. In week 38 in Northern Ireland, outbreaks of ILI were reported from two schools (one primary and one special needs school).

Microbiological surveillance

The predominant influenza strain circulating is still the pandemic H1N1 2009. Very few other influenza viruses have been detected recently at the Respiratory Virus Unit, Centre for Infections, Colindale (RVU). Other circulating respiratory pathogens such as RSV are at levels expected for the time of year.

There have now been 13,770 laboratory confirmed cases of pandemic (H1N1) 2009 in the UK since the beginning of the pandemic (Table 2). There has been a decrease in the number of laboratory confirmed cases since the UK went to treatment only phase on 02 July.

In addition, there have been 376 cumulative confirmed cases reported from the UK Overseas Territories and Crown Dependencies: Anguilla (1), Bermuda (1), British Virgin Islands (12), Cayman Islands (102 – and one death), The Falklands (7), Gibraltar (14), Guernsey (17), Isle of Man (33), Jersey (102), Sovereign Base Area Cyprus (51), Turks and Caicos Islands (36).

Table 2: Cumulative number of laboratory confirmed cases, as of 22 September

Region / Country	Cumulative number of laboratory confirmed cases
England	11,331
Northern Ireland	275
Scotland	2035
Wales	129
Total UK	13,770

Enhanced Virological Community and Primary Care Surveillance

In England three schemes for virological surveillance of influenza are being used: two GP-based (RCGP/HPA and HPA/RMN) and one through NPFS (previous through NHS Direct); the proportions positive have remained stable in week 38 though fewer specimens have been tested recently compared to previous weeks (table 3, figure 11). Schemes through primary care are also used in Wales, Scotland and Northern Ireland (table 3). In week 38 the proportion positive from Northern Ireland increased to 38.7% and increased to 22.2 in Scotland. It is important to note that samples taken in recent weeks may still be awaiting processing so these data should be treated with caution. More details on these schemes can be read at [‘Interpreting the HPA National Weekly Influenza Report’](#).

Table 3: Total number of samples tested and positive for pandemic influenza A (H1N1) 2009 from virological sentinel schemes in England (GP and NHS Direct/NPFS), Wales, Scotland and Northern Ireland by week*.

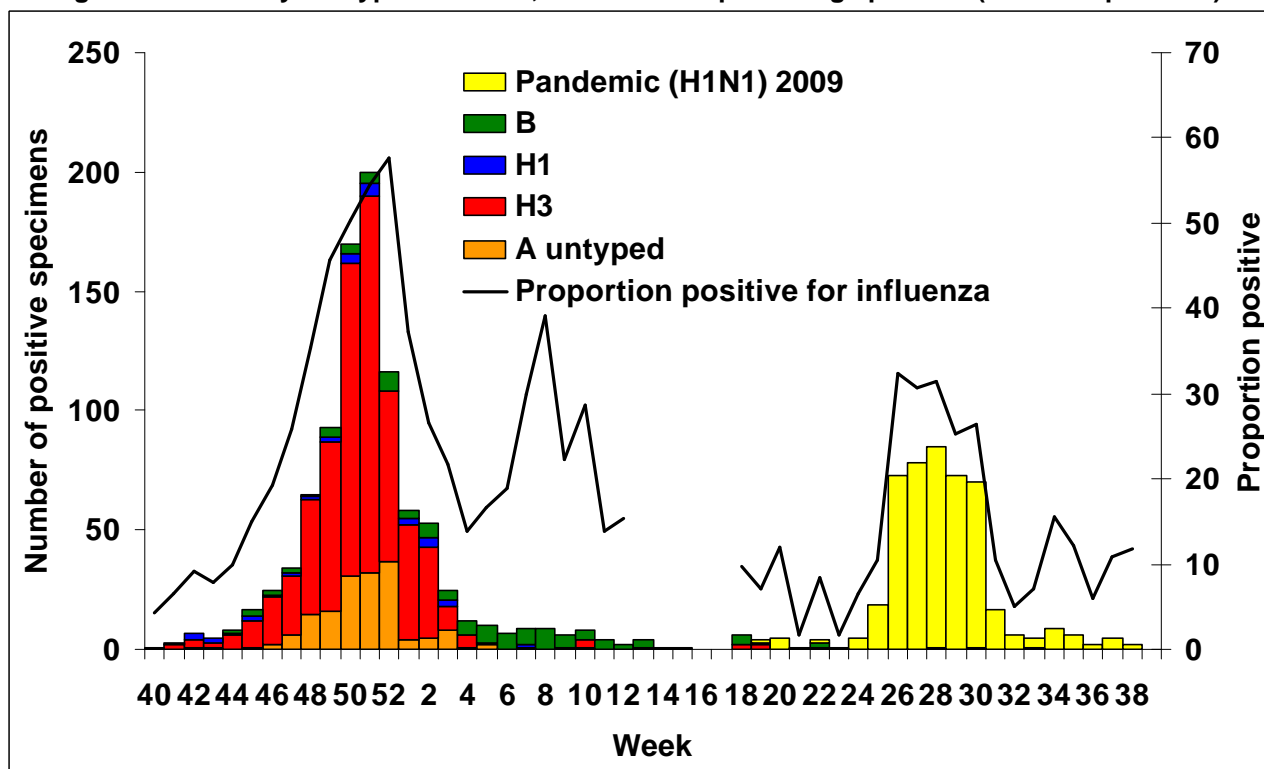
Week	England (GP)			England (NHSD/NPFS**)			Wales (GP)			Scotland (GP)			N. Ireland*** (GP)		
	Total tested	Pandemic n	%	Total tested	Pandemic n	%	Total tested	Pandemic n	%	Total tested	Pandemic n	%	Total tested	Pandemic n	%
18-29	1623	341	21.0	2367	188	7.9	46	2	4.3	344	8	2.3	50	2	4.0
30	265	69	26.0	167	12	7.2	4	0	0.0	73	11	15.1	22	5	22.7
31	162	17	10.5	no data			9	1	11.1	120	10	8.3	41	7	17.1
32	118	6	5.1	523	44	8.4	10	1	10.0	96	8	8.3	42	4	9.5
33	70	4	5.7	322	21	6.5	5	0	0.0	63	8	12.7	25	4	16.0
34	58	9	15.5	246	13	5.3	3	0	0.0	76	8	10.5	40	13	32.5
35	49	6	12.2	237	13	5.5	0	0	0.0	60	6	10.0	17	4	23.5
36	33	2	6.1	290	30	10.3	1	1	—	90	19	21.1	14	3	21.4
37	46	5	10.9	314	36	11.5	0	0	—	89	10	11.2	21	3	14.3
38	17	2	11.8	324	32	9.9	4	1	—	54	12	22.2	31	12	38.7

* All data are based on week of specimen, except for Northern Ireland which is by week of report; ** Sampling from NHS Direct stopped after week 30 and started from NPFS in week 32, hence there is no data for week 31. *** Until week 28 it was not possible to differentiate between sentinel and non-sentinel pandemic (H1N1) 2009 positive specimens in Northern Ireland.

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Figure 11: The number of samples testing positive for influenza in the two GP-based English sentinel virological schemes by subtype and week, with the total percentage positive (week of specimen).



NB. Proportion positive omitted when fewer than 10 specimens reported; data for the most recent weeks are subject to change due to reporting lag.

Antiviral susceptibility

Testing for antiviral susceptibility is carried out at the Respiratory Virus Unit (RVU), Centre for Infections, Colindale. Nine hundred and seventy-three viruses have been analysed for the marker commonly associated with resistance to oseltamivir in seasonal influenza (H275Y); two samples were found to carry this mutation. Of these 913 viruses, 254 have been fully tested for susceptibility; both of the two viruses carrying the H275Y mutation have been confirmed to be phenotypically resistant to oseltamivir whilst retaining sensitivity to zanamivir. Samples have been tested for resistance from age regions and age groups in the UK (tables 4 and 5).

Table 4: Samples tested for antiviral susceptibility at RVU, by test method, source and region.

Region	Samples tested for Resistance				Proportion resistant
	Screened for H274Y mutation		Fully tested		
	Hospital	Community	Hospital	Community	
East of England	32	14	21	3	0%
East Midlands	15	7	8	3	0%
London	117	173	45	14	0%
North East	39	7	4	0	0%
North West	61	9	7	1	3.6%
South East	88	31	53	9	0%
South West	44	9	6	1	0%
West Midlands	117	60	41	5	0%
Yorkshire and Humber	16	9	8	1	0%
Ireland	8	0	7	0	0%
Northern Ireland	1	0	0	0	0%
Scotland	46	1	14	1	0%
Wales	2	0	0	0	0%
Unknown Region	65	2	1	1	0%
Total	651	322	215	39	0.2%

NB: figures may fluctuate due to de-duplication and correction of database.

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Table 5: Samples tested for antiviral susceptibility at RVU, by test method, source and age group.

Age Group	Samples tested for Resistance				Proportion resistant
	Screened for H274Y mutation		Fully tested		
	Hospital	Community	Hospital	Community	
<1	41	6	20	0	0%
1-4	35	9	8	0	0%
5-14	150	107	54	21	0%
15-44	292	173	110	14	0%
45-64	68	26	21	4	1.2%
65	5	1	2	0	16.7%
Unknown	60	0	0	0	0.0%
Total	651	322	215	39	0.2%

NB: figures may fluctuate due to de-duplication and correction of database.

Antimicrobial susceptibility

Bacterial susceptibility to antimicrobial agents is monitored by the HPA for lower respiratory tract isolates of *Staphylococcus aureus*, *Streptococcus pneumoniae* and *Haemophilus influenzae*. Guidelines for clinical management of patients with an influenza-like illness during an influenza pandemic (W S Lim, Thorax 2007;62;1-46, section 8.1.3) recommend co-amoxiclav or a tetracycline for treating bacterial pneumonia in a primary care setting. There have been no significant changes to susceptibility trends for these two antibiotics in recent years and no appreciable changes in resistant patterns in the twelve weeks before 13 September 2009. Over 89% of all isolates of the three organisms are susceptible to tetracyclines (table 6).

Table 6: Bacterial specimens tested for susceptibility to tetracyclines and co-amoxiclav in HPA/NHS labs in England, Wales and Northern Ireland for 12 weeks up to 13 September 09.

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
<i>S. aureus</i>	2007	94	348	78
<i>S. pneumoniae</i>	1180	89	1171*	93*
<i>H. influenzae</i>	4850	99	4428	91

* *S. pneumoniae* isolates are not routinely tested for susceptibility to co-amoxiclav, however laboratory results for benzylpenicillin are extrapolated to determine sensitivity to other β -lactams such as co-amoxiclav.

Disease severity and mortality data

Disease severity continues to be monitored. HPA receives data on hospitalisation and deaths due to pandemic influenza in England from the Department of Health, and from the relevant bodies in Scotland, Wales and Northern Ireland.

In England, on 23 September there were 218 hospitalised patients with suspected pandemic influenza, an increase from 143 seven days previously. Of the 218, 25 (11.5%) were in intensive care and 78 were newly hospitalised in the 24 hours up to 8am. In week 38 (the 7 days up to 8am Monday 21 September), 324 new patients were hospitalised with suspected pandemic influenza corresponding to a rate of 0.6 per 100,000 population, which is increased from the previous week's rate of 0.5 per 100,000 (table 6). The highest hospitalisation rate has consistently been in those aged under 5 years, the weekly and daily rates have increased in most age groups recently (figure 12). It should be noted that the hospitalisations are current, not cumulative, and are for suspected pandemic influenza rather than virologically confirmed infection. Historical data for hospitalisation for influenza-like illness are not available for comparison.

In Scotland there have been 157 cumulative hospitalisations of patients with confirmed pandemic influenza, 53 in Wales and 126 in Northern Ireland.

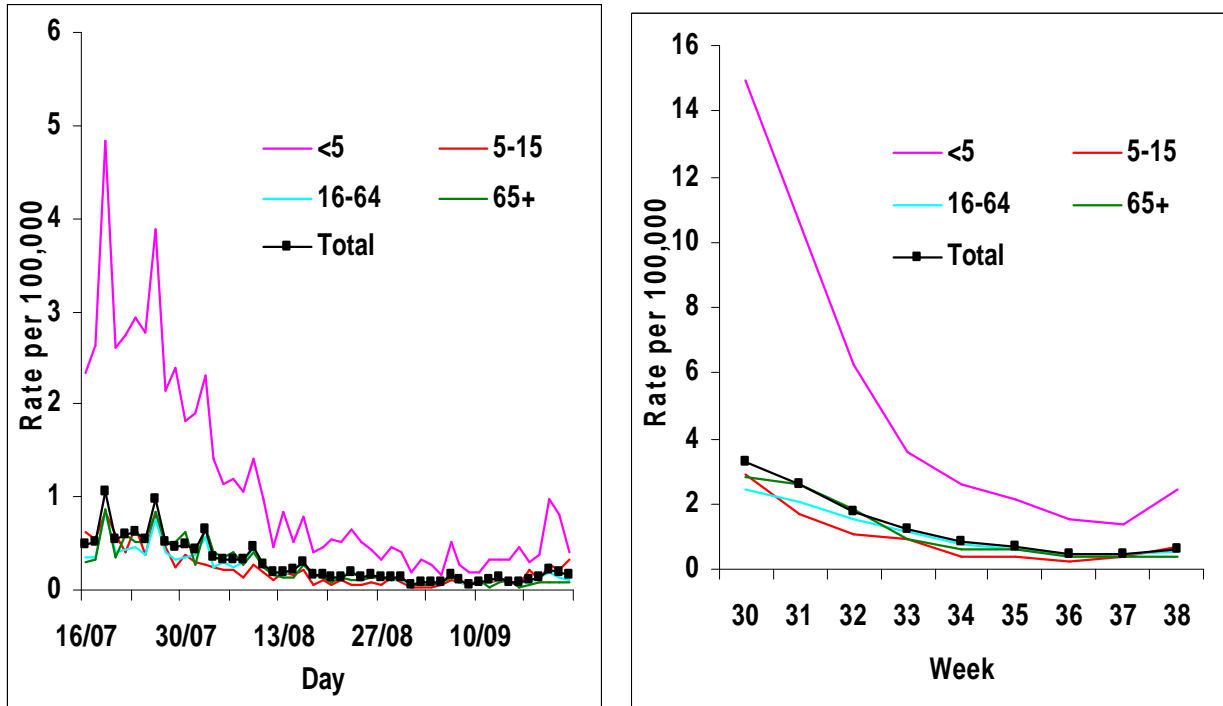
Table 6: Current inpatients with suspected pandemic influenza in England, up to 23 September 2009.

	Number (rate per 100,000* population)				
	<5	5-15	16-64	65+	Total
Patients currently hospitalised (as of 8am 23 Sept)	28 (0.9)	39 (0.6)	128 (0.4)	23 (0.3)	218 (0.4)
Patients currently in ICU (as of 8am 23 Sept)	1 (0.0)	6 (0.1)	17 (0.1)	1 (0.0)	25 (0.0)
New patients hospitalised in 24 hours up to 8am 23 Sept	12 (0.4)	21 (0.3)	39 (0.1)	6 (0.1)	78 (0.2)
New patients hospitalised in week 36 (7 days to 8am Mon 07 Sept)	44 (1.5)	17 (0.3)	147 (0.4)	30 (0.4)	238 (0.5)
New patients hospitalised in week 37 (7 days to 8am Mon 14 Sept)	40 (1.4)	28 (0.4)	148 (0.4)	30 (0.4)	246 (0.5)
New patients hospitalised in week 38 (7 days to 8am Mon 21 Sept)	73 (2.5)	47 (0.7)	176 (0.5)	28 (0.3)	324 (0.6)

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Figure 12: Daily (in 24 hours up to 8am*) and weekly (up to 8am Monday) rates (per 100,000) of new admissions to hospital with suspected pandemic influenza in all English NHS trusts.

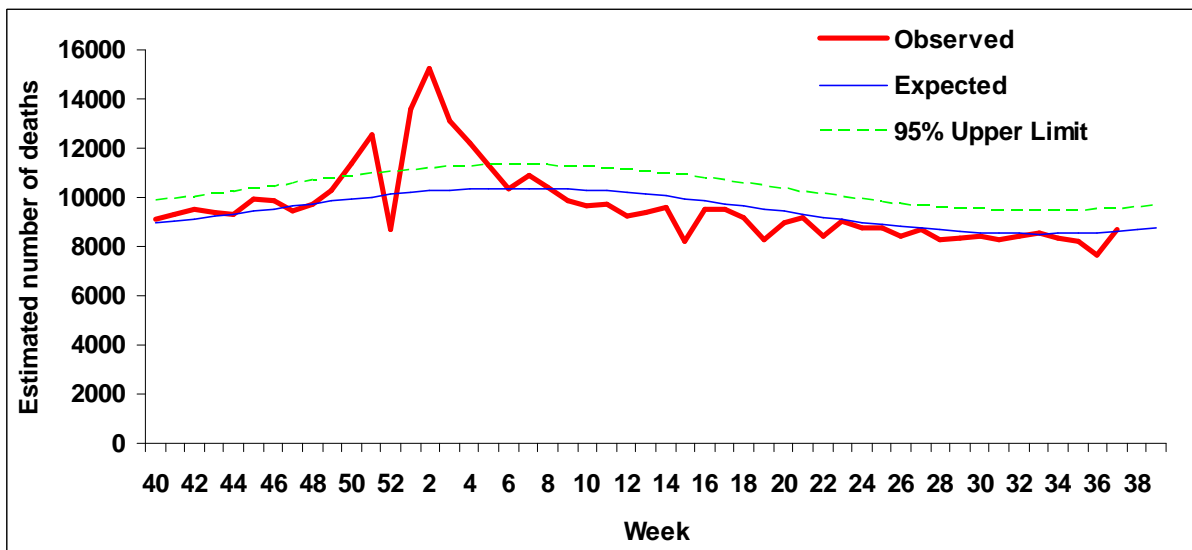


* Weekend data were incorporated into Monday's data

Eighty-two deaths (70 in England, nine in Scotland, two in Northern Ireland and one in Wales) have been reported across the UK in people with pandemic H1N1 infection.

HPA receives weekly death registrations from the Office for National Statistics. In week 37/09, an estimated 8704 all-cause deaths were registered, which is an increase compared to 7657 in week 36/09 (low number is most likely due to registry office closure in the bank holiday that week). It should be noted that these deaths are due to all causes and cannot be attributed to influenza. The weekly number is in the expected range for this time of year and no excess deaths have been observed since week 05/09 in February (figure 13).

Figure 13: Estimated weekly all-cause mortality in England and Wales, 2008/09 season.



HPA Weekly National Influenza Report

24 September 2009 (Week 39)

International Situation

Confirmed global deaths reported by ECDC (Update 16:00 CEST 22 September 2009)

There have been 4144 deaths due to pandemic influenza reported globally. In the last seven days, the number of deaths reported globally has increased by 12%, slightly higher compared to the 6% increase reported last week. [Note that confirmed case numbers are no longer reported for most countries as they do not give a representative view of the situation, and so global totals are not reported here.]

WHO global summary

This update summarises information published by the World Health Organization (WHO) about the latest global situation and is also published on the HPA website at

<http://www.hpa.org.uk/HPA/Topics/InfectiousDiseases/InfectionsAZ/1251473469008/>

WHO reported on 18 September that for:

- **Tropical regions:** influenza transmission remains active in tropical regions of Asia and the Americas. Regional to widespread influenza activity continues to be reported throughout much of South and Southeast Asia, with increasing trends in respiratory diseases being reported in India and Bangladesh. Regional to widespread influenza activity continues to be reported for tropical regions of Central and South America without a consistent pattern in the trend of respiratory diseases, although continued increases are being reported in Bolivia and Venezuela.
- **Temperate southern hemisphere regions:** (represented by countries such as Chile, Argentina, Australia, New Zealand, and South Africa); influenza activity continues to decrease or return to baseline.
- **Temperate northern hemisphere regions:** activity is variable. In the United States, regional increases in influenza activity are being reported (particularly in the southern, south eastern and north eastern states). Most of Europe and Central Asia is reporting low respiratory disease activity, although France has reported increases in activity above the seasonal epidemic threshold and geographically localised influenza activity is being reported in several countries (Austria, Georgia, Ireland, Luxembourg, Norway, Portugal, the Czech Republic, Cyprus, and Israel). In Canada, influenza activity remains low. In Japan, influenza activity increased above the seasonal epidemic threshold with the most notable increases being reported on the southern island of Okinawa.

Pandemic (H1N1) influenza virus continues to be the predominant circulating virus of influenza, with some variation between the northern hemisphere (57%) and the southern hemisphere (94%). On average, pandemic (H1N1) influenza accounted for 58% of all influenza detected worldwide in week 36, which is a decrease from 76% in week 35. Other influenza viruses detected included: influenza A H3 (22%), seasonal A H1 (4%), A not subtyped (16%), and B (2%). All pandemic H1N1 2009 influenza viruses analysed to date have been antigenically and genetically similar to A/California/7/2009-like pandemic H1N1 2009 virus.

Worldwide, over 10,000 isolates of the pandemic (H1N1) 2009 virus have been tested for antiviral resistance and found to be sensitive to oseltamivir. Only 26 isolates of oseltamivir resistant influenza virus have so far been reported to WHO from around the world, all of which carry the same H275Y mutation. This mutation confers resistance to the antiviral oseltamivir but not to the antiviral zanamivir. Twelve of the 26 cases have been associated with the use of oseltamivir as post-exposure prophylaxis and five with its long term use as treatment in patients with immunosuppression. WHO is closely monitoring the situation in collaboration with its partners.

WHO does not report any new information about clinical features, at risk groups, or public health responses this week, but has welcomed offers of vaccine donations for the developing world from the United States of America, Australia, Brazil, France, Italy, New Zealand, Norway, Switzerland, and the United Kingdom.

Country updates

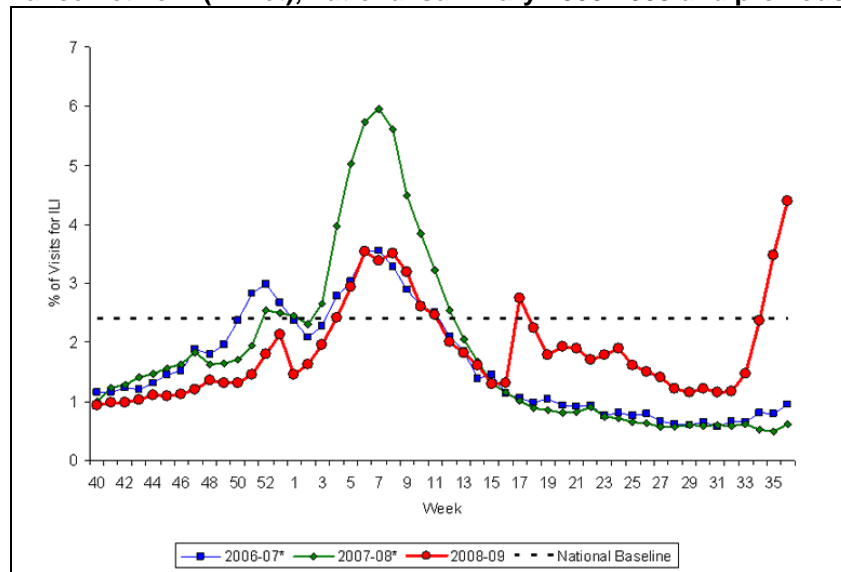
USA

Latest data from CDC <http://www.cdc.gov/flu/weekly/> (week 36: 6 – 12 Sep 2009) shows that influenza activity has risen sharply in the US in recent weeks. Specific indicators show that visits to doctors for influenza like illness have increased over the last five weeks (Figure 14) and have reached levels higher than seen in some recent seasonal epidemics. The highest attack rates are in school-aged children.

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Figure 14. Percentage of visits for influenza-like illness (ILI) reported by the U.S. outpatient influenza-like illness surveillance network (ILINet), national summary 2008-2009 and previous two seasons



Twenty-one states have been reporting widespread influenza activity which is very unusual for September (Alabama, Alaska, Arizona, Arkansas, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Mississippi, Nevada, New Mexico, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, and Virginia). Total influenza hospitalisation rates for adults and children have been similar to or lower than seasonal influenza hospitalisation rates depending on age group, but are higher than expected for this time of year. The proportion of deaths attributed to pneumonia and influenza has been low and within the bounds of what is expected at this time of year. 99% of all subtyped influenza A viruses being reported to CDC have been 2009 influenza A (H1N1) viruses.

Canada

Latest data from the Public Health Agency of Canada http://www.phac-aspc.gc.ca/fluwatch/09-10/w35_09/index-eng.php#g1 (week 36: 6 - 12 Sep 2009) shows that the overall influenza activity remains similar to the previous week. The national ILI consultation rate has increased slightly to 23 consultations per 100,000 but remains within expected levels for the time of year. Week 35 marked the start of the flu season in Canada.

France

Latest data from the l'Institut de Veille Sanitaire (InVS) http://www.invs.sante.fr/display/?doc=surveillance/grippe_dossier/index_h1n1.html shows that in metropolitan France from 7 to 13 September the incidence of consultations for clinical influenza estimated by the Sentinel network increased to 164 cases per 100,000 inhabitants which is above the epidemic threshold (84 cases for 100,000 inhabitants). There has also been an increase in clustered influenza activity, particularly in schools.

Ireland

As of week 37 (7 -13 Sep 2009), overall, the ILI rates during the past seven weeks are above baseline levels but have remained relatively stable and would be considered to be normal seasonal activity for the winter period. The influenza-like illness (ILI) GP consultation was 37.9 per 100,000 population in week 37, a slight increase compared to the updated rate of 36.8/100,000 for week 36. <http://www.hpsc.ie/hpsc/A-Z/EmergencyPlanning/AvianPandemicInfluenza/SwineInfluenza/Surveillance%20Reports/File,3749,en.pdf>

Japan

The number of reported cases of influenza like illness increased in week 35 (24 – 30 August 2009) with the number of cases reported per 'sentinel' in Japan being 2.52, a slight increase on the previous week (2.47). Okinawa Prefecture had the highest reported cases per 'sentinel' (36.00) although this represents a decrease compared to the previous week. Current influenza activity in Okinawa is similar to the seasonal influenza activity observed in winter. The next highest number was reported from Oita Prefecture in Kyushu region (3.72) and Osaka Prefecture (3.08).

http://idsc.nih.gov/jp/disease/swine_influenza_e/idsc_e2009/09idsc14e.html

HPA Weekly National Influenza Report

24 September 2009 (Week 39)

Australia

As of 11 September 2009, 36,028 cases and 169 deaths had been reported; the number of new notifications of laboratory confirmed pandemic (H1N1) 2009 have decreased nationally over the past few weeks. Overall, ILI presentations to General Practitioners continue to decrease and are lower than 2007 and 2008 rates nationally. In most jurisdictions ILI data have decreased or plateaued in this period with New South Wales reporting a slight increase in activity. The number of cases per day requiring hospitalisation has decreased since late August. Indigenous Australians are approximately 8 times more likely than non-Indigenous Australians to be hospitalised for pandemic (H1N1) 2009. Australian jurisdictions have reported that 687 (15%) of all 4,642 cases hospitalised since the beginning of the outbreak were Aboriginal and/or Torres Strait Islander.

[http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/2A63E217E78BB952CA257609001BFB3F/\\$File/ozflu-no18-2009.pdf](http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/2A63E217E78BB952CA257609001BFB3F/$File/ozflu-no18-2009.pdf)

Other intelligence:

1. Economic consequences to society of pandemic H1N1 influenza 2009 – preliminary results for Sweden published in Eurosurveillance: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19333>
2. Preliminary, unpublished, study results from Australia suggest most pregnant pandemic influenza patients referred to the ICU in three Melbourne hospitals were deficient in IgG2.
http://ecdc.europa.eu/en/healthtopics/Documents/090917_Influenza_AH1N1_Situation_Report_1700hrs.pdf

More information on Pandemic (H1N1) 2009 can be found from the following websites:

- ECDC: <http://www.ecdc.europa.eu/en/Health%5Ftopics/novel%5Finfluenza%5Fvirus/2009%5FOutbreak/>
- WHO: <http://www.who.int/csr/disease/swineflu/en/index.html>

Acknowledgements

This report was prepared by Estelle McLean, Jo Lawrence, Hongxin Zhao and Richard Pebody. We are grateful to all who provided data for this report including the RCGP Research and Surveillance Centre, the HPA Real-time Syndromic Surveillance team, the HPA Respiratory Virus Unit at the Centre for Infections, the HPA Modelling and Statistics unit, the HPA Travel and Migrant Health section, regional microbiology laboratories, QSurveillance®, NHS Direct, ONS, the Department of Health, Health Protection Scotland, National Public Health Service (Wales) and the CDSC Northern Ireland.

Any queries relating to this report should be directed to respcdsc@hpa.org.uk.

This report is published on the [Health Protection Agency](http://www.hpa.org.uk) website. An email alert is sent once the report is published, to join this mailing list please send an email with 'Join flu report mailing list' as the subject and your name and email address in the body of the email to respcdsc@hpa.org.uk. If you no longer wish to receive this email, please send an email to this effect to the same address.