HPA Weekly National Influenza Report

17 September 2009 (Week 38)

Summary

- Several indicators suggest that pandemic influenza activity has started to increase in many areas of the UK, particularly in school-aged children.
- In week 37 (week ending 13 September), the weekly influenza/ILI consultation rates increased in England, Scotland and Northern Ireland but decreased slightly in Wales, however all rates were below the normal winter seasonal baseline thresholds (where defined).
- 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 remained fairly stable over the past week.
- At least six schools in England and eight in Scotland have observed high absenteeism rates recently. Pandemic influenza has been virologically confirmed in at least one pupil in six (three in England, three in Scotland) of these schools.
- 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 5000 (range 3000 – 11,000) new cases in England in week 37. The estimated number of new cases has remained stable 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 through sentinel and non-sentinel surveillance. Two of 913 pandemic viruses tested in England have been confirmed to carry a mutation which confers resistance to the antiviral drug oseltamivir, and one of these has been shown phenotypically to be resistant to the drug but retains 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 78. There was a total of 246 new patients hospitalised in England with suspected pandemic influenza in week 37; a slight increase from the previous week. The highest hospitalisation rates have consistently been in the under 5-year age group. Hospitalisation rates have remained fairly stable and low in recent weeks in all age groups.
- According to the European Centre for Disease Prevention and Control (ECDC), by 08 September, 3496 deaths due to pandemic influenza had been reported globally. In week 36 Ireland, Malta, Norway and Sweden 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 37, the weekly influenza/ILI consultation rates increased in England, Scotland and Northern Ireland but decreased slightly in Wales (table 1, figures 1 and 2).

The overall RCGP (England and Wales) ILI consultation rate has increased to 12.9 per 100,000 which is below the winter baseline activity threshold of 30 per 100,000. The rates have increased in all three RCGP regions, with the greatest increase in the north (3.7 to 13.4 per 100,000). The combined influenza/ILI rate in Northern Ireland has increased sharply. The gradual increasing trend observed in the ILI rate in Scotland in recent weeks continues, though the rate of 36.9 per 100,000 remains below the winter baseline threshold of 50 per 100,000. The influenza rate has decreased slightly in Wales and remains below the winter baseline threshold of 25 per 100,000. The weekly ILI QSurveillance rate increased; thresholds have not yet been set.

The consultation rates in the RCGP scheme have increased in most age groups (figure 3), the largest increase in the <1 year group (0 to 11.4 per 100,000 in week 37): this group are not assessed by NPFS. Rates increased in all age groups in the QSurveillance scheme, including the under one-year-olds (12 to 15.2 per 100,000); the largest increase was in the 5-14 year-olds (6.9 to 13.6 per 100,000). In Wales the highest GP consultation rate is now in the 0-4 year group (13.5 per 100,000). In Northern Ireland the rates have increased in all age groups under 45, with the highest increases in the 5-14 year-olds (42.6 to 170.2 per 100,000). In Scotland, the highest rates were in the 1-4 year age group (increased from 141.8 to 194.1 per 100,000) and the greatest increase was in the <1 year group (increased from 45.9 to 149.8 per 100,000).

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 33	Week 34	Week 35	Week 36	Week 37
RCGP (England & Wales)	30	21.1	16.6	11.8	8.6	12.9
RCGP North	30	25.3	16.9	10.6	3.7	13.4
RCGP Central	30	29.0	18.8	14.7	9.6	15.0
RCGP South	30	13.8	14.7	10.2	9.6	11.1
Northern Ireland	N/A	88.7	77.3	55.1	61.9	107.9
Scotland	50	22	27.4	29.2	31.9	36.9
Wales	25	21.8	9.5	10.9	9.7	7.2
QSurveillance® (UK*)	N/A	30.8	19.3	14.4	10.9	14.5

** 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.

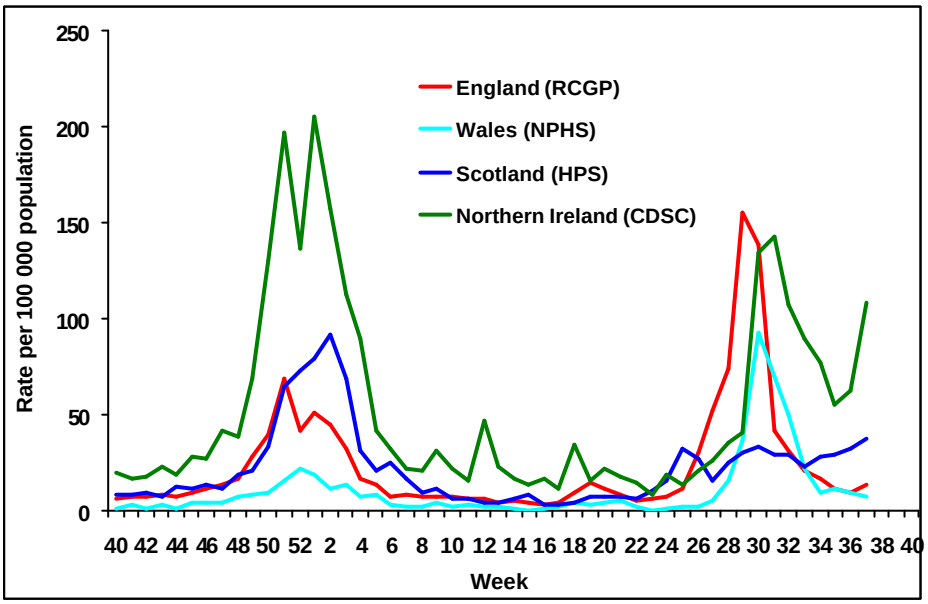


Figure 2: RCGP weekly consultation rate for influenza like illness 2008/09 and recent years.

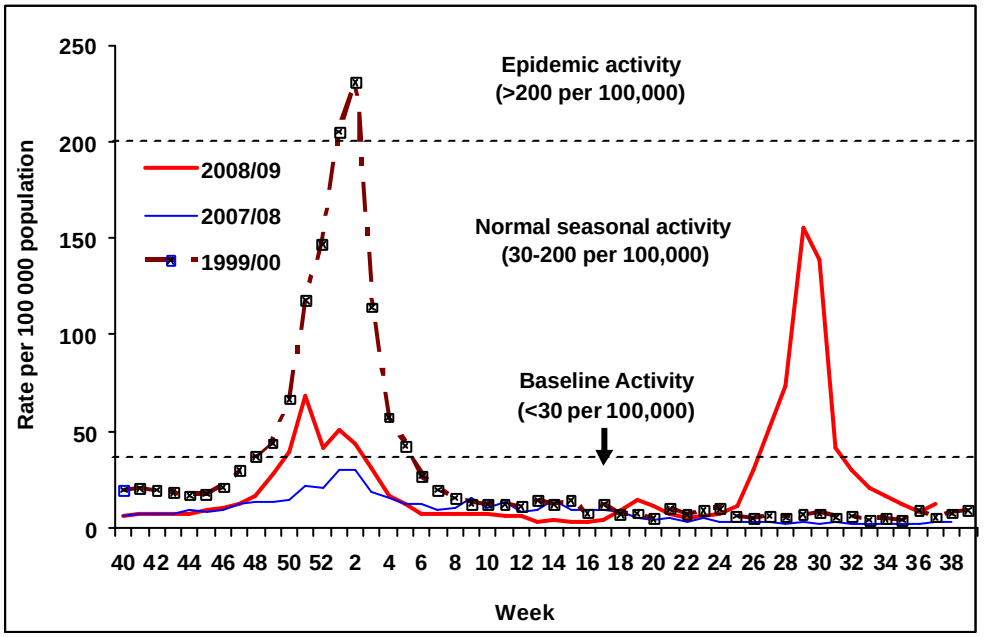
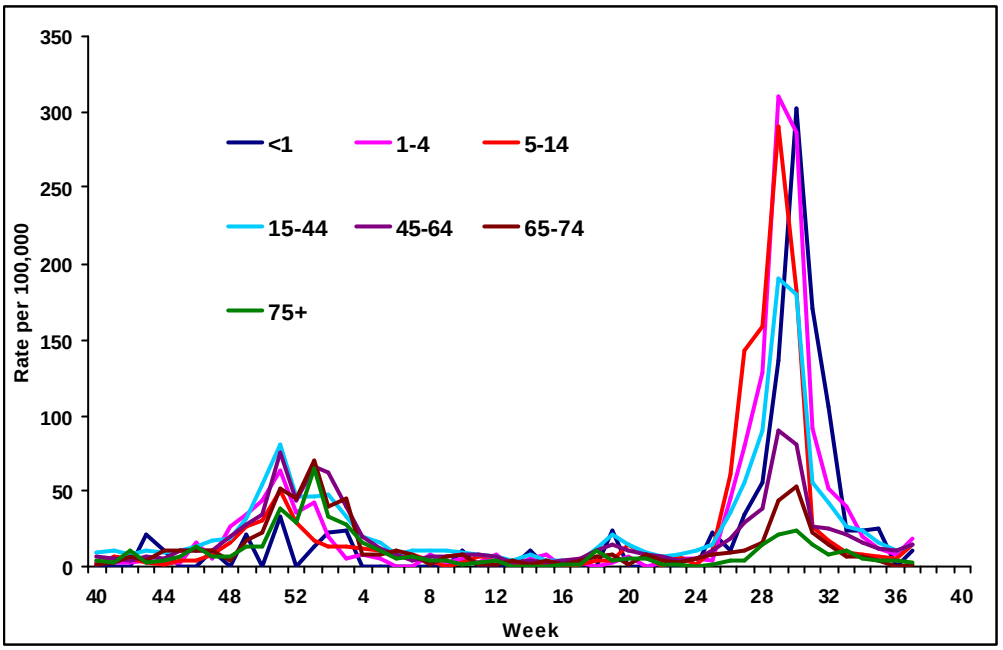


Figure 3: RCGP weekly consultation rate for influenza like illness 2008/09, by age group.



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 15 September was 3.1 per 100,000 compared to 3.0 per 100,000 seven days previously on 08 September (figure 4). Rates in all English SHAs are at levels equivalent to estimated rates corresponding to baseline activity in the winter. The daily consultation rates in the under-one year age group (not considered by NPFS) have remained low and stable 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.

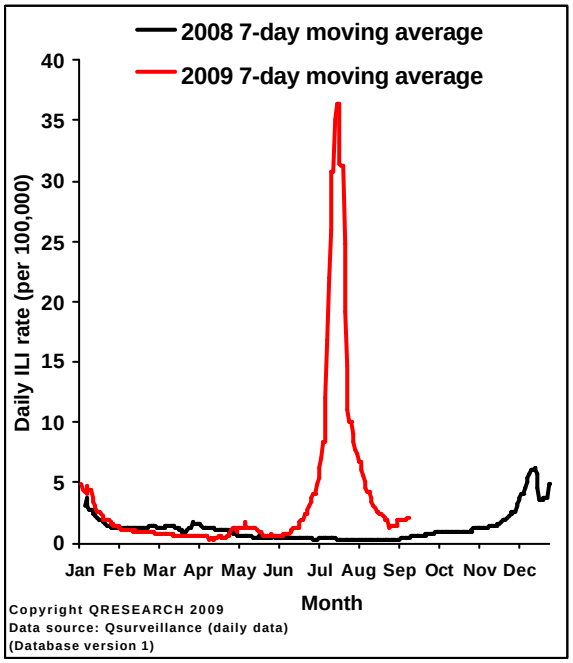
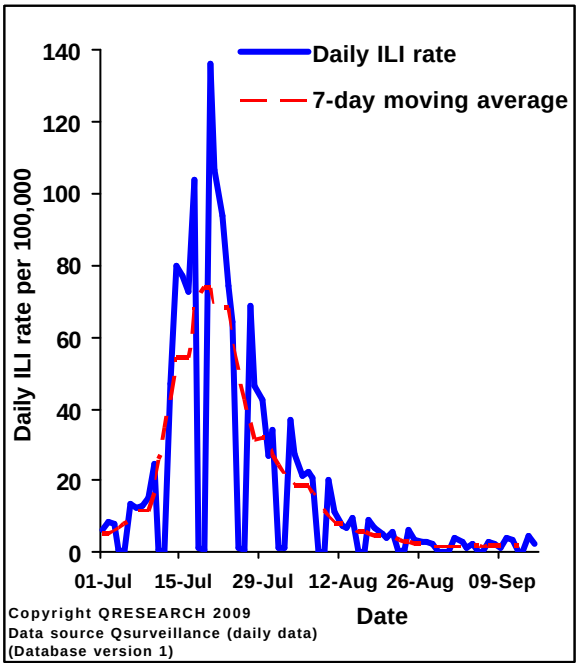


Figure 5: QSurveillance® – daily consultation rate and 7-day moving average for influenza-like illness in children aged under one year in the UK*.



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

National Pandemic Flu Service (NPFS)

The National Pandemic Flu Service (NPFS) became operational in England at 15:00 on 23 July 2009. In the seven weeks of operation of the NPFS, there has been an overall steady decline in activity (in both assessments and antiviral collections) with a peak on each Monday (figure 6). In the last three weeks, the numbers have remained fairly constant. The largest numbers of antiviral collections have been in the north west recently (figure 7). Data available by age group (figure 8) in week 37 compared with week 36 show a doubling of numbers collecting antivirals in 5-14 year age group (from 1437 in week 36 to 2886 in week 37).

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

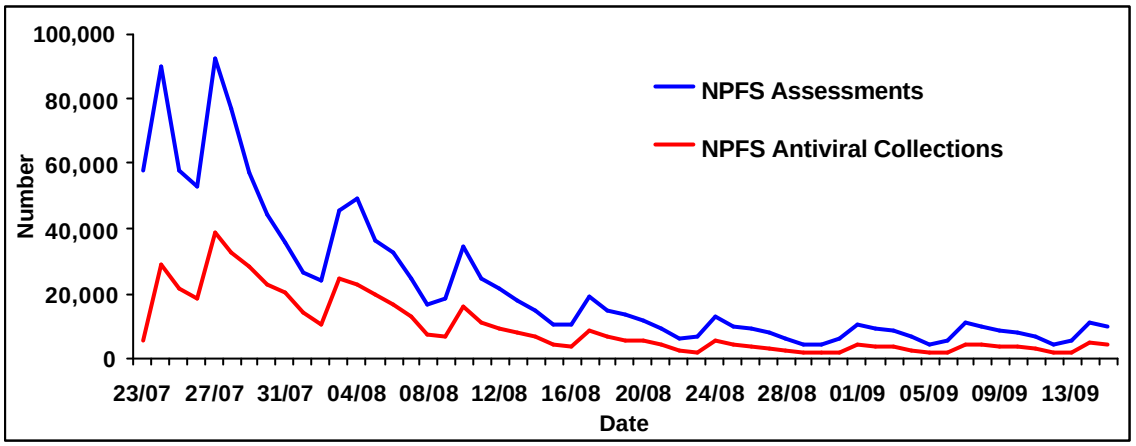


Figure 7: Daily number of antivirals collected, through NPFS, by Strategic Health Authority.

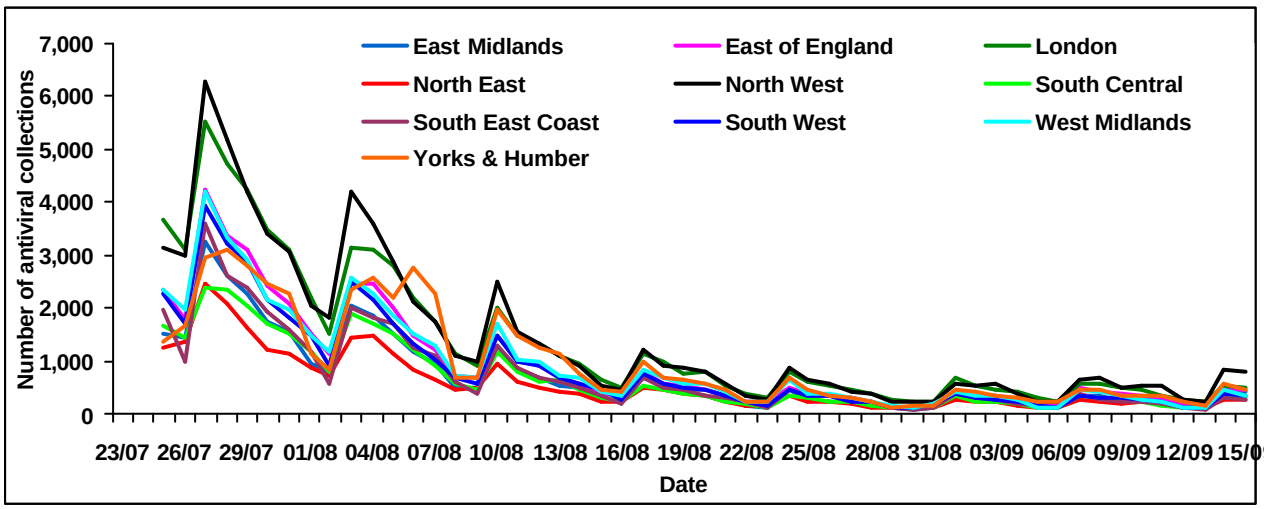
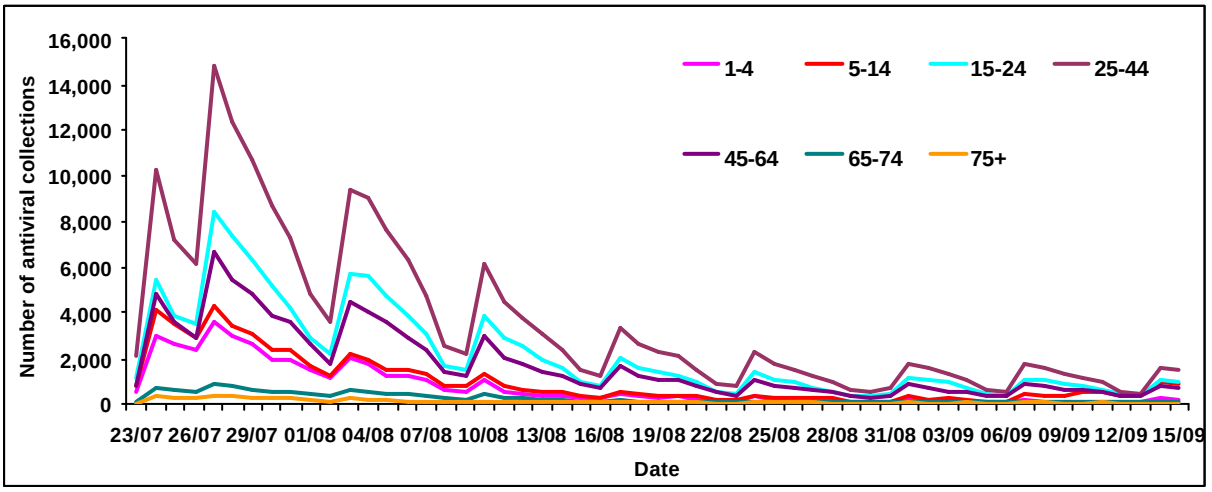


Figure 8: Daily number of antivirals collected, through NPFS, by age group.



Modelling by the Health Protection Agency

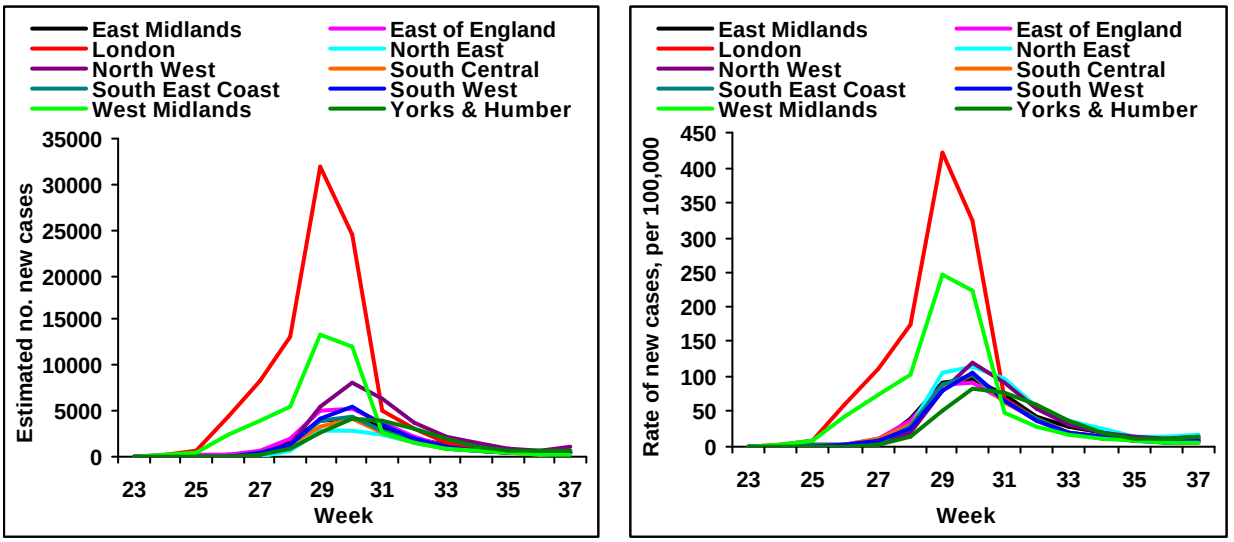
The number of pandemic influenza (H1N1) 2009 cases is estimated using a statistical model. The model relies on data from various surveillance systems and studies. The key surveillance systems that are used consist of the primary care based Q Surveillance® scheme, the RCGP and HPA Regional Microbiology 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 37, 5000 new cases are estimated to have occurred (range 3000 – 11,000). The estimated number of new cases has remained fairly stable in all regions and age groups (figures 9 and 10).

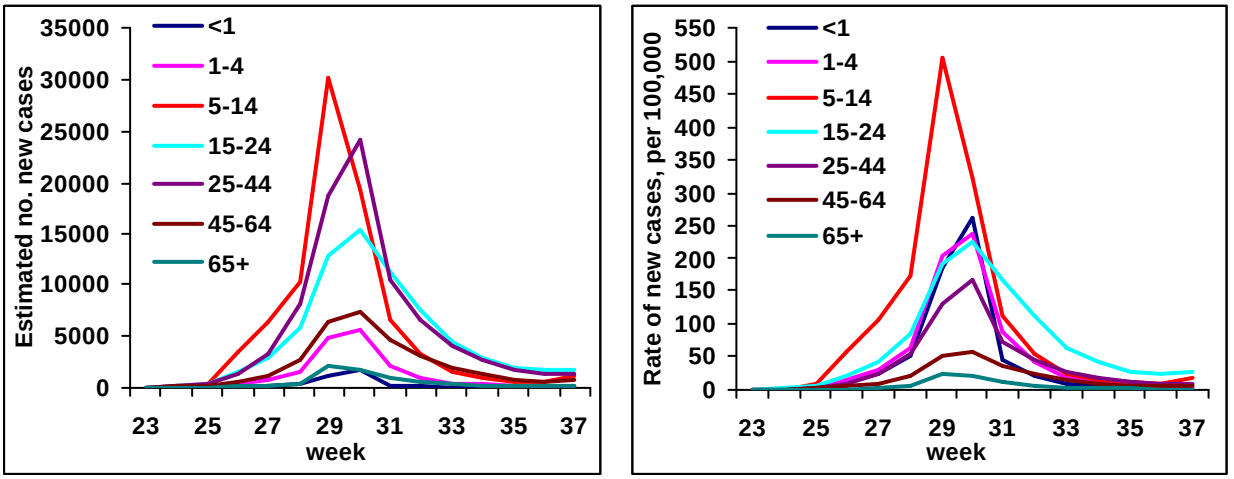
It should be noted that these estimates are subject to a considerable amount of uncertainty.

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.*

Outbreaks

The HPA is aware of at least six schools in England with high rates of pupil absence – swabs from pupils at three of these schools have been positive for pandemic influenza. These schools are distributed across England. Eight Scottish schools have reported increased absenteeism to Health Protection Scotland, and in three the diagnosis of at least one case of pandemic influenza has been confirmed. In these three, the absenteeism rates have now fallen to expected levels for the time of year.

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 13,471 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 366 cumulative confirmed cases reported from the UK Overseas Territories and Crown Dependencies: Anguilla (1), Bermuda (1), British Virgin Islands (10), Cayman Islands (101 – and one death), The Falklands (7), Gibraltar (14), Guernsey (17), Isle of Man (31), Jersey (102), Sovereign Base Area Cyprus (46), Turks and Caicos Islands (36).

Table 2: Cumulative number of laboratory confirmed cases, as of 09 September

Region / Country	Cumulative number of laboratory confirmed cases
England	11,228
Northern Ireland	228
Scotland	1892
Wales	123
Total UK	13,471

Enhanced Virological Community and Primary Care Surveillance

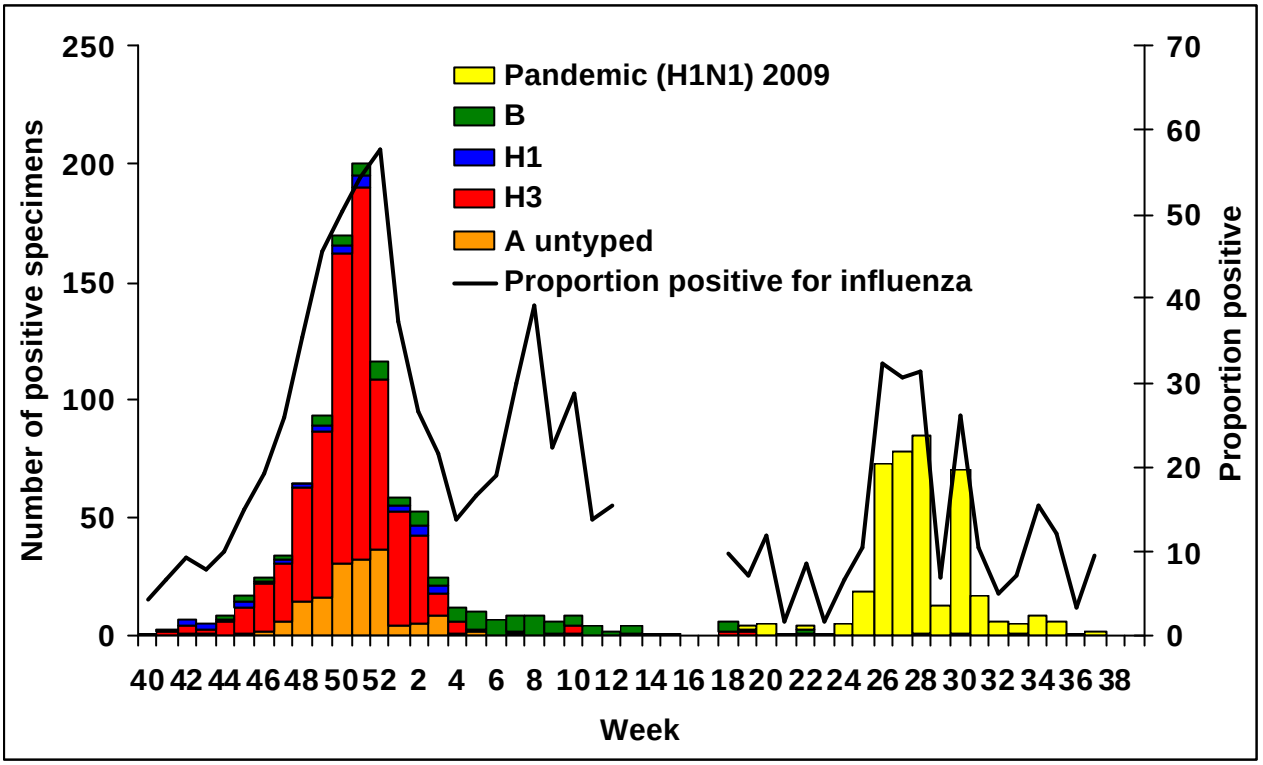
In England three schemes for virological surveillance of influenza are being used: two GP-based (RCGP/HPA and HPA/RMN) and one through NPFS (previous through NHS Direct); the proportions positive have increased slightly in week 37 though fewer specimens have been tested recently compared to previous weeks (table 3, figure 11). Schemes through primary care are also used in Wales, Scotland and Northern Ireland though fewer viruses have been detected (table 3). In week 37 the proportion positive from Northern Ireland decreased to 14.3% and decreased to 12.2 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	Pandemic %	Total tested	Pandemic n	Pandemic %	Total tested	Pandemic n	Pandemic %	Total tested	Pandemic n	Pandemic %	Total tested	Pandemic n	Pandemic %
18-28	1333	268	20.1	2015	161	8.0	34	1	0.0	245	2	0.8	37	1	2.7
29	288	73	25.3	329	25	7.6	13	1	7.7	99	6	6.1	13	1	7.7
30	267	69	25.8	157	25	15.9	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	526	44	8.4	10	1	10.0	98	8	8.2	42	4	9.5
33	70	4	5.7	322	22	6.8	5	0	0.0	63	8	12.7	25	4	16.0
34	58	9	15.5	244	12	4.9	3	0	0.0	76	8	10.5	40	13	32.5
35	49	6	12.2	235	13	5.5	0	0	0.0	60	6	10.0	17	4	23.5
36	30	1	3.3	266	27	10.2	1	1	—	90	19	21.1	14	3	21.4
37	21	2	9.5	51	6	11.8	0	0	0.0	41	5	12.2	21	3	14.3

** 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.*

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 thirteen viruses have been analysed for the marker commonly associated with resistance to oseltamivir in seasonal influenza (H274Y); two samples were found to carry this mutation. Of these 913 viruses, 253 have been fully tested for susceptibility; one of the two samples carrying the H274Y mutation has been confirmed to be phenotypically resistant to oseltamivir whilst retaining sensitivity to zanamivir. Testing is ongoing for the second sample. 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.

	Samples tested for Resistance				
	Screened for H274Y mutation		Fully tested		Proportion
Region	Hospital	Community	Hospital	Community	resistant
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	6	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	5	2	1	1	0%
Total	**591**	**322**	**214**	**39**	**0.2%**

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

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	1	0	16.7%
Total	**591**	**322**	**214**	**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*. According to guidelines for clinical management of patients with an influenza-like illness during an influenza pandemic (W S Lim, Thorax 2007;62;1-46) the antibiotics recommended for treating bacterial pneumonia in a primary care setting are co-amoxiclav or a tetracycline (Section 8.1.3 of the guidelines). There have been no significant changes to susceptibility trends for these two antibiotics in recent years and the results of a twelve week analysis (Table 6) show that over 89% of all isolates of the three organisms were susceptible to tetracyclines. There were no appreciable changes in resistant patterns for either tetracyclines or co-amoxiclav in the twelve weeks before 06 September 2009.

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 06 September 09.

Organism	Tetracyclines		Co-amoxiclav	
	Specimens tested (N)	Specimens susceptible (%)	Specimens tested (N)	Specimens susceptible (%)
S. aureus	1979	94	344	77
S. pneumoniae	1211	89	1209*	92*
H. influenzae	4886	99	4446	91

** S. pneumoniae isolates are not routinely tested for susceptibility to co-amoxiclav, however laboratory results for benzyl-penicillin are extrapolated to determine sensitivity to other ß-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 16 September there were 143 hospitalised patients with suspected pandemic influenza, a slight increase from 132 seven days previously. Of the 143, 23 (16.1%) were in intensive care and 43 were newly hospitalised in the 24 hours up to 8am. In week 37 (the 7 days up to 8am Monday 14 September), 246 new patients were hospitalised with suspected pandemic influenza corresponding to a rate of 0.5 per 100,000 population, which is no change from the previous week's rate (table 6). The highest hospitalisation rate has consistently been in those aged under 5 years, and a small increase in this age group was observed recently. Rates in all other all age groups have remained fairly stable in the past two weeks (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.

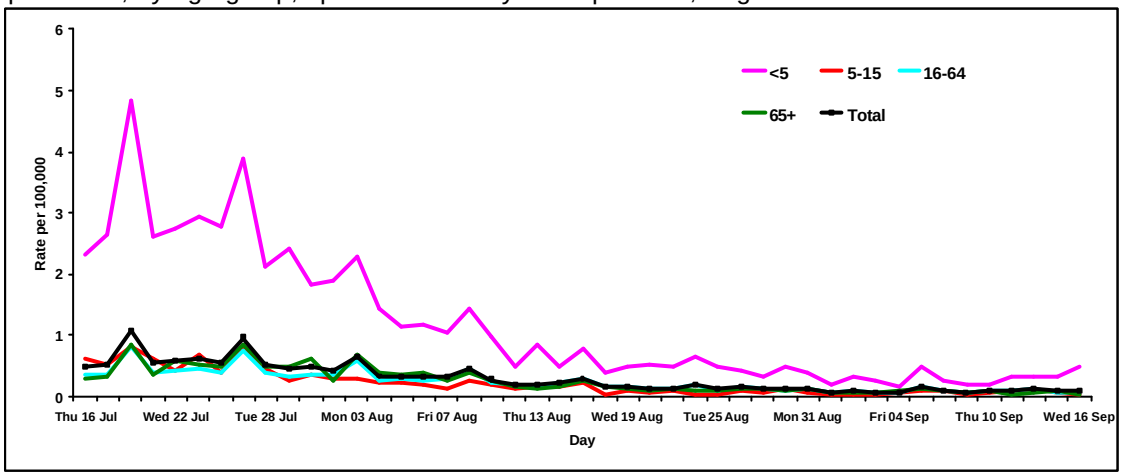
In Scotland there have been 143 cumulative hospitalisations of patients with confirmed pandemic influenza, 48 in Wales and 97 in Northern Ireland.

Table 6: Current inpatients with suspected pandemic influenza in England, up to 16 September 2009.

	Number (rate per 100,000* population)				
	<5	5-15	16-64	65+	Total
Patients currently hospitalised (as of 8am 16 Sept)	24 (0.8)	13 (0.2)	84 (0.3)	22 (0.3)	143 (0.3)
Patients currently in ICU (as of 8am 16 Sept)	0 (0.0)	2 (0.0)	17 (0.1)	4 (0.0)	23 (0.0)
New patients hospitalised in 24 hours up to 8am 16 Sept	14 (0.0)	3 (0.0)	23 (0.0)	3 (0.0)	43 (0.0)
New patients hospitalised in week 30 (7 days to 8am Mon 27 July)	442 (15.0)	195 (2.9)	799 (2.4)	229 (2.8)	1665 (3.3)
New patients hospitalised in week 31 (7 days to 8am Mon 03 Aug)	312 (10.6)	112 (1.7)	667 (2.0)	208 (2.6)	1299 (2.6)
New patients hospitalised in week 32 (7 days to 8am Mon 10 Aug)	184 (6.2)	72 (1.1)	505 (1.5)	147 (1.8)	908 (1.8)
New patients hospitalised in week 33 (7 days to 8am Mon 17 Aug)	106 (3.6)	59 (0.9)	367 (1.1)	77 (1.0)	609 (1.2)
New patients hospitalised in week 34 (7 days to 8am Mon 24 Aug)	76 (2.6)	24 (0.4)	263 (0.8)	50 (0.6)	413 (0.8)
New patients hospitalised in week 35 (7 days to 8am Mon 31 Aug)*	64 (2.2)	27 (0.4)	209 (0.6)	48 (0.6)	348 (0.7)
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)

** No report available for Monday 31 August due to bank holiday, Monday's data incorporated into Tuesday's report. Number of new cases for 72 hours up to Monday 31 Aug estimated using a reduction factor of 0.67 from the previous Monday, based on observed ratios.*

Figure 12: Daily rate (per 100,000) of new admissions to hospital with suspected pandemic influenza in 24 hours up to 8am*, by age group, up to Wednesday 16 September, England.

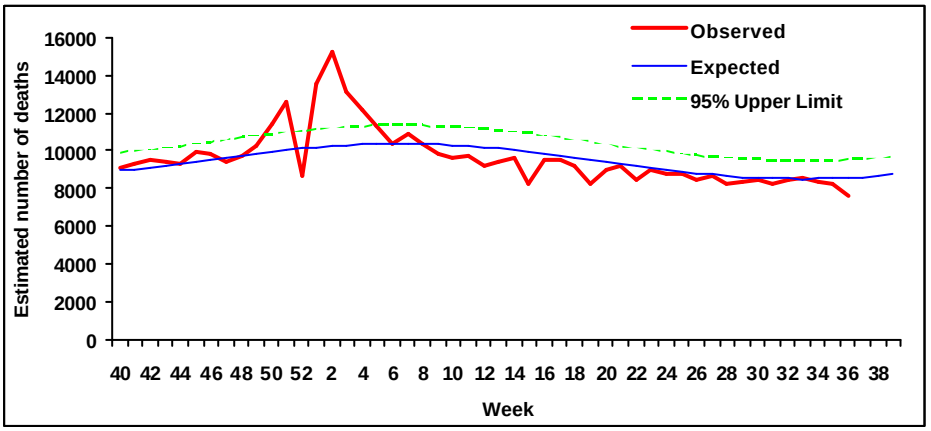


** Weekend data were incorporated into Monday's data*

Seventy-eight deaths (67 in England, eight 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 36/09, an estimated 7657 all-cause deaths were registered, which is a decrease (most likely due to registry office closure in the bank holiday that week) compared to 8229 in week 35/09. 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.



International Situation

Confirmed global deaths reported by ECDC (Update 17:00 CEST 15 September 2009)
There have been 3696 deaths due to pandemic influenza reported globally. In the last seven days, the number of deaths reported globally has increased by 6%, a much slower increase compared to recent weeks when global deaths have increased by an average of 20% each 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 11 September that for:

- **Tropical regions:** increasing levels of respiratory disease continue to be reported from tropical regions of Asia (India, Bangladesh, and Cambodia) and South America (Bolivia, Ecuador, and Venezuela), though many countries in Central America and the Caribbean have reported declining activity for the second week in a row.
- **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 south eastern states). Most of Europe is reporting low or moderate respiratory disease activity, but parts of Eastern Europe are beginning to report increases in activity.

Pandemic (H1N1) influenza virus continues to be the predominant circulating virus of influenza, both in the northern and southern hemisphere, accounting for 76% of all influenza detected in week 35, which is an increase from 61% in week 34. 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. Only 21 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 confers resistance to the antiviral oseltamivir but not to the antiviral zanamivir. Twelve of the 21 cases have been associated with the use of oseltamivir as post-exposure prophylaxis and four with its long term use as treatment in patients with immunosuppression. WHO is closely monitoring the situation in collaboration with its partners, but is not changing its guidelines for use of antiviral drugs at this time.

With respect to new information about the clinical picture associated with pandemic H1N1 (2009) virus, WHO highlights a study from the USA of 36 fatal cases in children. Two-thirds had high-risk underlying medical conditions and a significant proportion had evidence of secondary bacterial infections.
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5834a1.htm

Country updates of particular note this week

USA
Latest data from CDC http://www.cdc.gov/flu/weekly/ (week 35: 30 Aug – 5 Sep 2009) show influenza activity has continued to increase in the US for a second week. Indicators show that southern states and the region including the states of New Jersey, New York, Puerto Rico, and the Virgin Islands have shown elevated levels of outpatient consultations for influenza-like-illness. Eleven states and Guam reported geographically widespread influenza activity, 13 states and Puerto Rico reported regional influenza activity, 10 states and the District of Columbia reported local influenza activity, 14 states reported sporadic influenza activity, two states reported no influenza activity, and the U.S. Virgin Islands did not report. 1,085 (20.5%) of all specimens tested were positive for influenza. Ninety seven percent of all sub-typed influenza A viruses were 2009 influenza A (H1N1) viruses. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold. The 2009-10 influenza season officially begins 4 October 2009.

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 35: 30 Aug – 5 Sep 2009) shows that the overall influenza activity increased slightly this week relative to the previous week; two regions (Newfoundland/Labrador) reported localised activity in week 35 compared to none reported the previous week. One influenza outbreak was reported. The intensity of pandemic H1N1 remains low to moderate. The national ILI consultation rate and

the proportion of positive tests remain stable compared to week 34. Week 35 marks the start of the flu season in Canada.

Ireland

As of week 37 (31 Aug – 6 Sep 2009), overall, the ILI rates during the past seven weeks have remained relatively stable and would be considered to be normal seasonal activity for the winter period. The influenza-like illness (ILI) GP consultation rate increased slightly to 37.4 per 100,000 population in week 36 (from the updated rate of 33.9/100,000 for week 35) http://www.hpsc.ie/hpsc/A-Z/EmergencyPlanning/AvianPandemicInfluenza/SwineInfluenza/Surveillance%20Reports/

India

As of 15 September 2009, 6,558 confirmed cases of pandemic H1N1 (2009) influenza and 201 deaths have been reported in India. The trend has been increasing with regional geographic spread; the states most affected are Maharashtra (2,117 cases, 87 deaths), Delhi (1,371 cases, 6 deaths), Tamil Nadu (849 cases, 3 deaths), and Karnataka (772 cases, 66 deaths). According to Indian Ministry of Health, India is still trying to contain the outbreak (http://mohfw-h1n1.nic.in/).

Japan

Latest available information available from the Ministry of Health, Labour and Welfare on 2 September 2009, shows that the trend of ILI reported from 5,000 sentinel sites in Japan was increasing in week 34 compared to the previous week; 11,636 cases have been reported from these sentinel sites. As of 1 September 2009, eight deaths have been reported. Ninety nine percent of influenza virus isolated/detection from the ILI cases during EW 31 to EW 35 are pandemic influenza A H1N1 (2009). http://www.mhlw.go.jp/za/0806/c17/c17.html

Australia

Influenza activity in 2009 started earlier than in 2008 and there was a rapid increase in the number of confirmed influenza cases (both seasonal and pandemic (H1N1) 2009) from week 21 (starting 16 May 2009). The high numbers of seasonal influenza cases seen during May and June are most likely due to the increase in testing for A H1N1 2009. http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm.

Other intelligence:

1. WHO has published new advice on measures that can be undertaken in schools to reduce the impact of the H1N1 influenza pandemic http://www.who.int/csr/disease/swineflu/notes/h1n1_school_measures_20090911/en/index.html
2. First published trials of specific pandemic vaccines with ECDC comment - Immune responses after one or two doses of monovalent unadjuvanted and adjuvanted influenza A (H1N1) 2009 vaccines. http://ecdc.europa.eu/en/activities/sciadvice/Lists/ECDC%20Reviews/ECDC_DispForm.aspx?List=512ff74f%2D77d4%2D4ad8%2Db6d6%2Dbf0f23083f30&ID=649
3. A series of papers on H1N1 vaccine trials, response and policy have been published in the New England Journal of Medicine http://h1n1.nejm.org/
4. Oseltamivir-Resistant 2009 Pandemic Influenza A (H1N1) Virus Infection in Two Summer Campers Receiving Prophylaxis --- North Carolina, 2009. Report in the MMWR http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5835a1.htm
5. Media reports state that there are now 23 cases of oseltamivir resistance, including a new case reported in Australia and Canada http://www.google.com/hostednews/canadianpress/article/ALeqM5hT8tjvLw6zhgRgtNDx93i8MsbVew

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.

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