Influenza Surveillance in Ireland - Weekly Update

Influenza Week 40 2009 (28th September to 4th October 2009)

Summary

- Overall, influenza activity increased during week 40:
  - The sentinel GP influenza-like illness (ILI) consultation rate was 88.4 per 100,000 population in week 40, an increase in comparison to the updated rate of 77.0 per 100,000 reported during week 39*
  - The sentinel GP age-specific ILI consultation rates increased substantially in the0-4 year age group, from 48.6 in week 39 to 135.0 in week 40 2009
  - The number of laboratory confirmed cases of pandemic (H1N1) 2009 continued to increase
  - The number of hospitalised cases of pandemic (H1N1) 2009 increased
- The number of pandemic (H1N1) 2009 outbreaks remains stable
- The proportion of flu–related calls to GP Out-of-Hours services remained stable during week 40
- The proportion of sentinel specimens testing positive for pandemic (H1N1) 2009 was 36.6% during week 40
- Pandemic (H1N1) 2009 is the main influenza virus circulating; in week 40, 100% of specimens positive for influenza were pandemic (H1N1) 2009 (including 39 probable pandemic (H1N1) 2009 awaiting confirmation)
- Based on the surveillance of laboratory confirmed cases of pandemic (H1N1) 2009, as of 26th September:
  - 1,613 confirmed cases were notified in Ireland
  - Children and young adults remain the most affected groups; 82.1% of cases were less than 35 years of age
  - Clinical illness continues to be mild in the majority of cases
- Four deaths in confirmed cases of pandemic (H1N1) 2009 have been reported to date

Introduction

In order to monitor influenza activity in Ireland a number of surveillance systems are in place:

1. Irish College of General Practitioners (ICGP) sentinel surveillance system
2. GP Out-of-Hours system
3. Virological data from the National Virus Reference Laboratory (NVRL), Cork University Hospital (CUH) and University College Hospital, Galway (UCHG)
4. Enhanced surveillance system for pandemic (H1N1) 2009 using the Computerised Infectious Disease Reporting system (CIDR)
5. Outbreak reporting (CIDR)

Details of these surveillance systems are provided in Appendix A at the back of this report.

*Since the last report, extra information on the number of ILI consultations occurring in week 39 was provided by sentinel GPs and the rate for the week was adjusted accordingly

1. GP sentinel surveillance system

Clinical Data

During week 40 2009, 54 of 61 (88.5%) ICGP sentinel general practices provided data, with 45 practices reporting 193 influenza-like illness (ILI) cases and 16 practices reporting no ILI cases. This corresponds to an ILI consultation rate of 88.4 per 100,000 population, which is an increase compared to the updated rate of 77.0 per 100,000 population reported during week 39 2009.[†] The ILI rate remains well above the baseline threshold level of 17.8 per 100,000 population. Figure 1 shows the ILI consultation rates, the baseline threshold rate and the number of positive specimens detected by the National Virus Reference Laboratory (NVRL), Cork University Hospital (CUH) and University College Hospital, Galway (UCHG). Since week 39 2009, CUH and UCHG have reported influenza positive non-sentinel specimens and they are included in figure 1. Influenza A untypable isolates (probable pandemic (H1N1) 2009) are specimens that are awaiting laboratory confirmation as pandemic (H1N1) 2009.

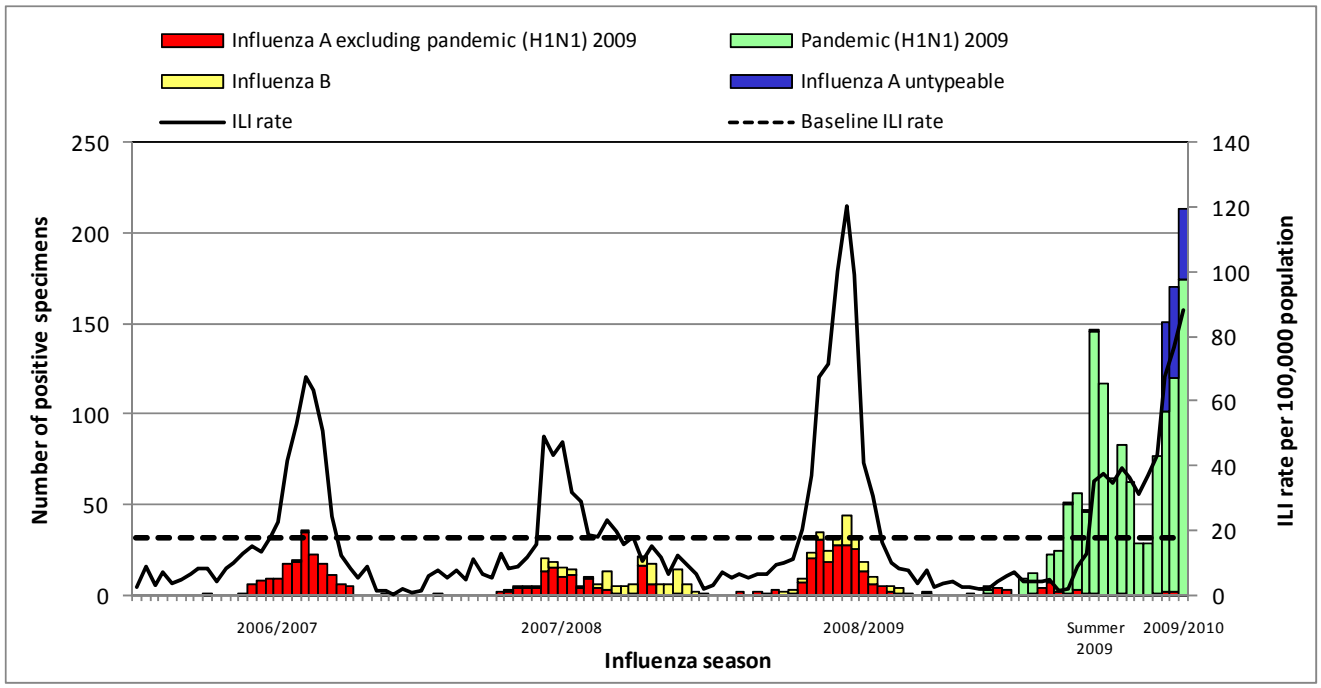

Figure 1. ILI GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza specimens, by influenza week and season[‡]

Source: NVRL, CUH & UCHG laboratory data and ICGP clinical ILI data

During week 40 2009, sentinel GPs reported 21 ILI cases in the 0-4 year age group (135.0 per 100,000 population), 42 cases in the 5-14 year age group (145.2 per 100,000 population), 123 cases in the 15-64 year age group (82.2 per 100,000 population) and seven cases in those aged 65 years and older (29.1 per 100,000 population) (figure 2).

[†] Since the last report, extra information on the number of ILI consultations occurring in week 39 was provided by sentinel GPs and the rate for the week was adjusted accordingly

[‡] Please note that virological data up to week 38 2009 refers to NVRL data only. Virological data from week 39 2009 onwards refers to data from NVRL, CUH & UCHG. Virological data from CUH for week 40 2009 includes 39 influenza A untypable detections which are awaiting confirmation as pandemic (H1N1) 2009.

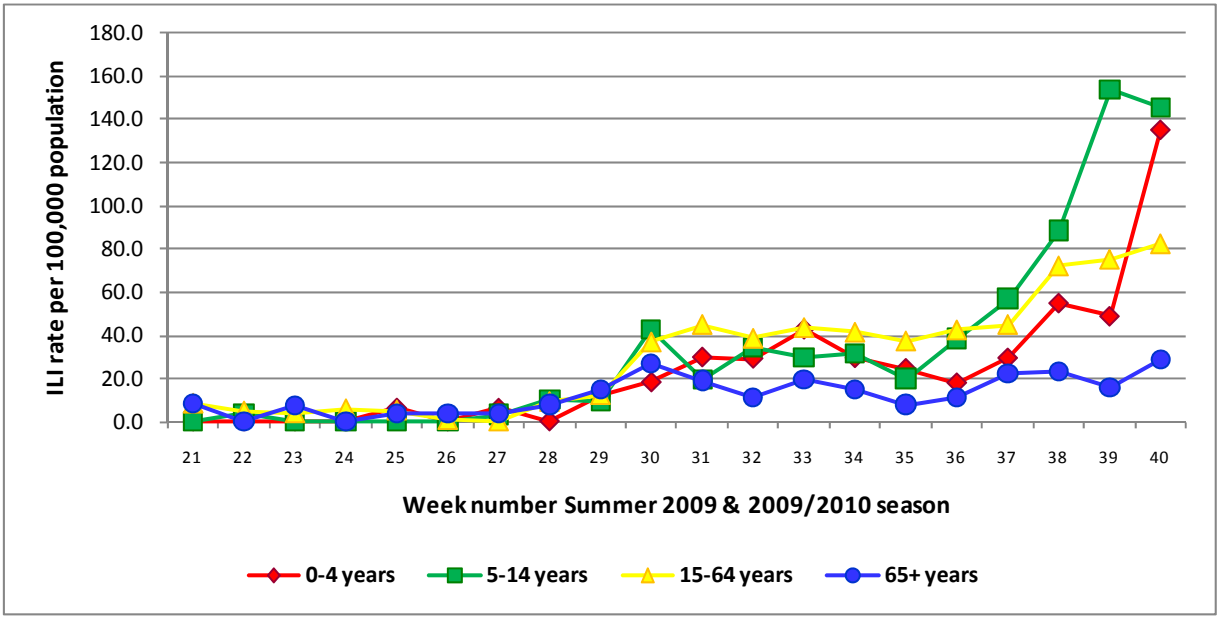

Figure 2: Age specific sentinel GP consultation rate for ILI per 100,000 population by week during the Summer 2009 and 2009/2010 influenza seasons

Source: ICGP ILI clinical data

Regional Influenza Activity by HSE-Area

Influenza activity is reported on a weekly basis from the Departments of Public Health in each HSE area. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed influenza cases and ILI/influenza outbreaks. Sporadic influenza activity (based on isolated cases of ILI and/or positive virological results) was provisionally reported by HSE-M, -NW and -S while localised activity (due to increases in ILI in local areas or two or more outbreaks within a HSE area) was reported by HSE-E, -MW, -NE, -SE and -W during week 40 2009 (figure 3).

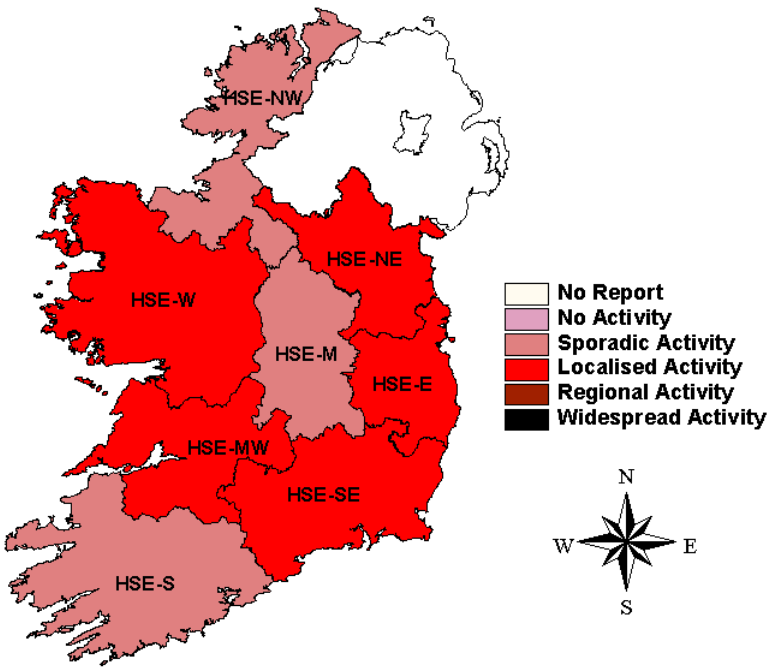

Figure 3: Map of provisional influenza activity by HSE area during influenza week 40 2009

Sentinel hospitals and schools

The Departments of Public Health have established at least one sentinel hospital in each HSE area, to report data on total hospital admissions, total emergency admissions and total respiratory admissions by age group on a weekly basis. Sentinel primary and secondary schools were also established in each area, in close proximity to the sentinel GPs, to report absenteeism data on a weekly basis. During influenza week 40 2009, hospital data were received from four HSE areas (HSE-NW, HSE-S, HSE-SE and HSE-W). No increases in the proportion of respiratory admissions were reported from sentinel hospitals. No increases in absenteeism were reported from sentinel schools during week 40 2009.

2. GP Out-Of-Hours services surveillance

The Department of Public Health in the HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours services in Ireland. Clinical details from all calls are recorded. Records with clinical symptoms reported as flu or influenza are extracted for analysis. This information may act as an early indicator of increased ILI activity. However, data are self-reported by callers and are not based on coded influenza diagnoses. There was a marked increase in the percentage of flu-related calls between weeks 28 to 30. During week 40, the percentage of flu-related calls was 6.5%, which was similar to the proportion of flu-related calls (6.1%) reported during week 39 (figure 4).

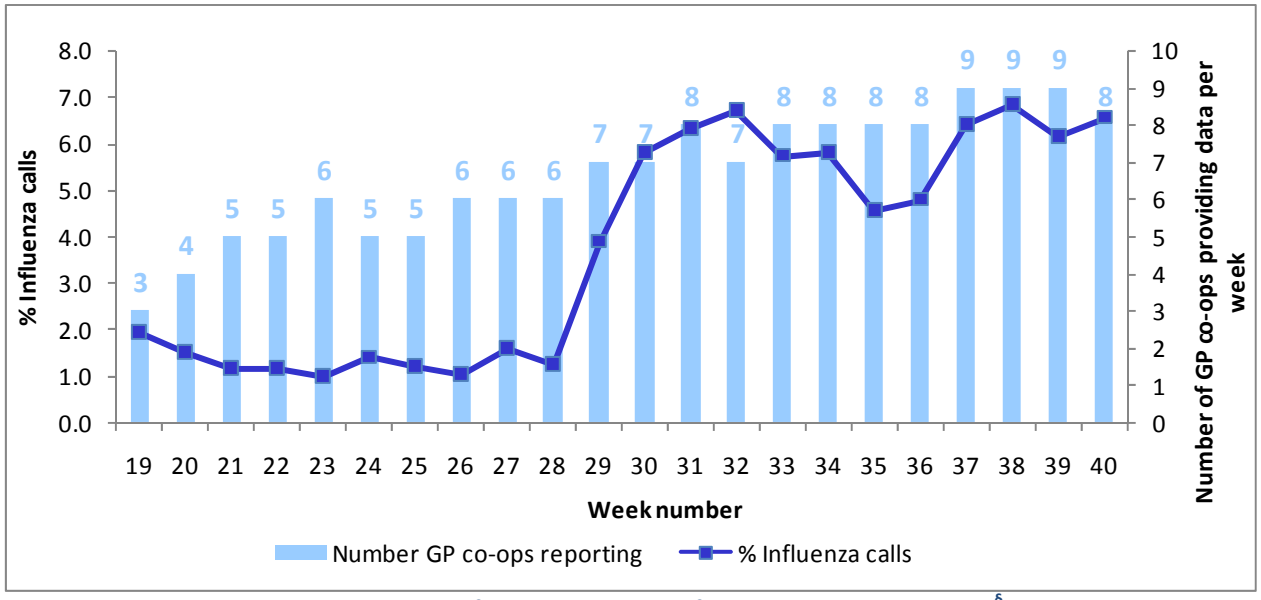

Figure 4: Flu-related calls as a proportion of total calls to Out-of-Hours GP Co-ops by week[§]

Source: HSE-NE.

[§] Week 40: data received from CARE-Doc, D-Doc, K-Doc, NE-Doc, NoW-Doc, Shannon-Doc, South Doc and West-Doc. Not all services provided data for all weeks.

3. Virological Data from the National Virus Reference Laboratory (NVRL), Cork University Hospital (CUH) & University College Hospital, Galway (UCHG)

Ninety-three specimens from sentinel GPs were tested by the NVRL during week 40 2009, 34 (36.6%) of which were positive for pandemic (H1N1) 2009.

The NVRL also tested 352 non-sentinel specimens taken during the same week. Of these, 102 (29.0%) were positive for pandemic (H1N1) 2009. No specimens were positive for other influenza A subtypes, influenza B, or other respiratory viruses (table 1 and table 3). Figure 5 shows the number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2009/2010 and Summer 2010 influenza seasons, compared to the 2008/2009 and Summer 2009 influenza seasons.[**]

UCHG tested 76 non-sentinel specimens taken during week 40 2009. Thirty-seven (48.7%) of the non-sentinel specimens tested positive for pandemic (H1N1) 2009 (table 2).

CUH tested 139 non-sentinel specimens taken during week 40 2009. Thirty-nine (28.1%) of the non-sentinel specimens tested positive for influenza A untypable (probable pandemic (H1N1) 2009) and one was positive for pandemic (H1N1) 2009 (0.7%) (table 2).

Pandemic (H1N1) 2009 is the main influenza virus circulating. During week 40, 100% of specimens positive for influenza were pandemic (H1N1) 2009 (including 39 probable pandemic (H1N1) 2009). For the summer 2009 and 2009/2010 seasons to date, confirmed pandemic (H1N1) 2009 has accounted for 93.2% of influenza positive specimens (table 1).

During week 40, the percentage of sentinel and non-sentinel specimens testing positive for pandemic (H1N1) 2009 was 32.3%, an increase compared to 30.7% positive during week 39. Figure 6 shows the number of sentinel specimens tested by the NVRL for influenza and non-sentinel specimens tested by the NVRL, CUH and UCHG for influenza and the percentage of specimens testing positive for influenza by week number for the Summer 2009 and 2009/2010 influenza seasons.

The NVRL has performed neuraminidase sequencing on 23 non-sentinel pandemic (H1N1) 2009 isolates. Oseltamivir susceptibility results are available for 23 isolates, of which all were susceptible to oseltamivir. Zanamivir susceptibility results are available for 17 isolates, of which all were susceptible to zanamivir.

[**] Please note that non-sentinel specimens relate to specimens referred to the NVRL (other than sentinel specimens) and may include more than one specimen from each case

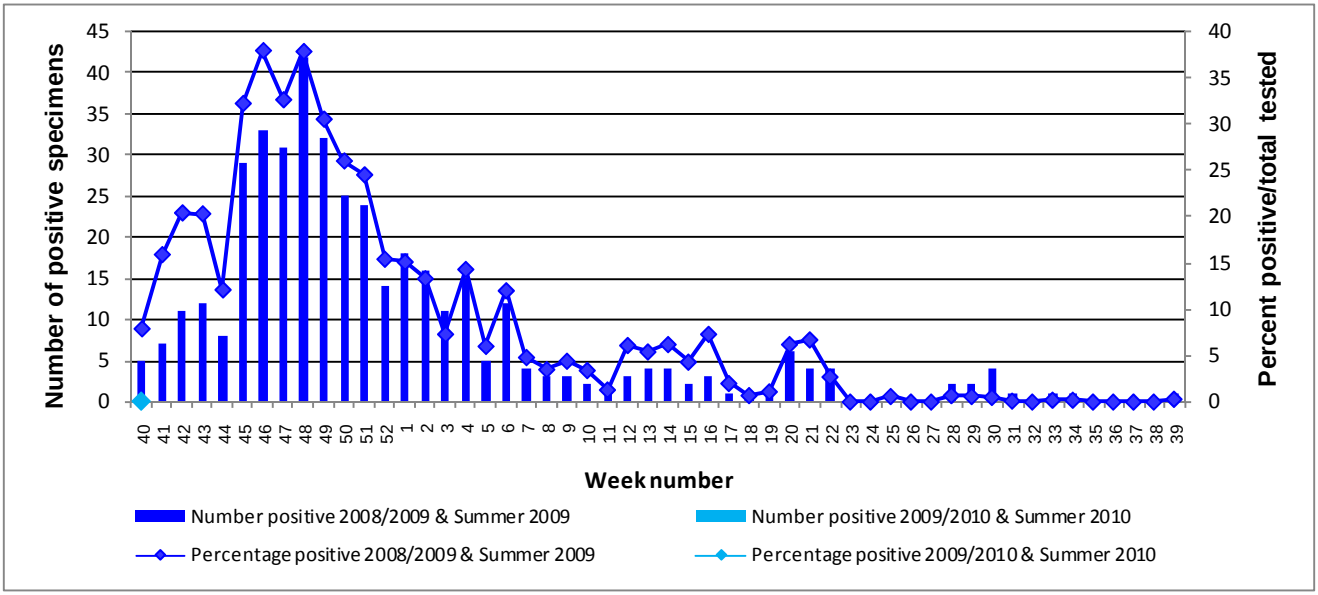

Figure 5: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2009/2010 and Summer 2010 influenza seasons, compared to the 2008/2009 and Summer 2009 influenza seasons

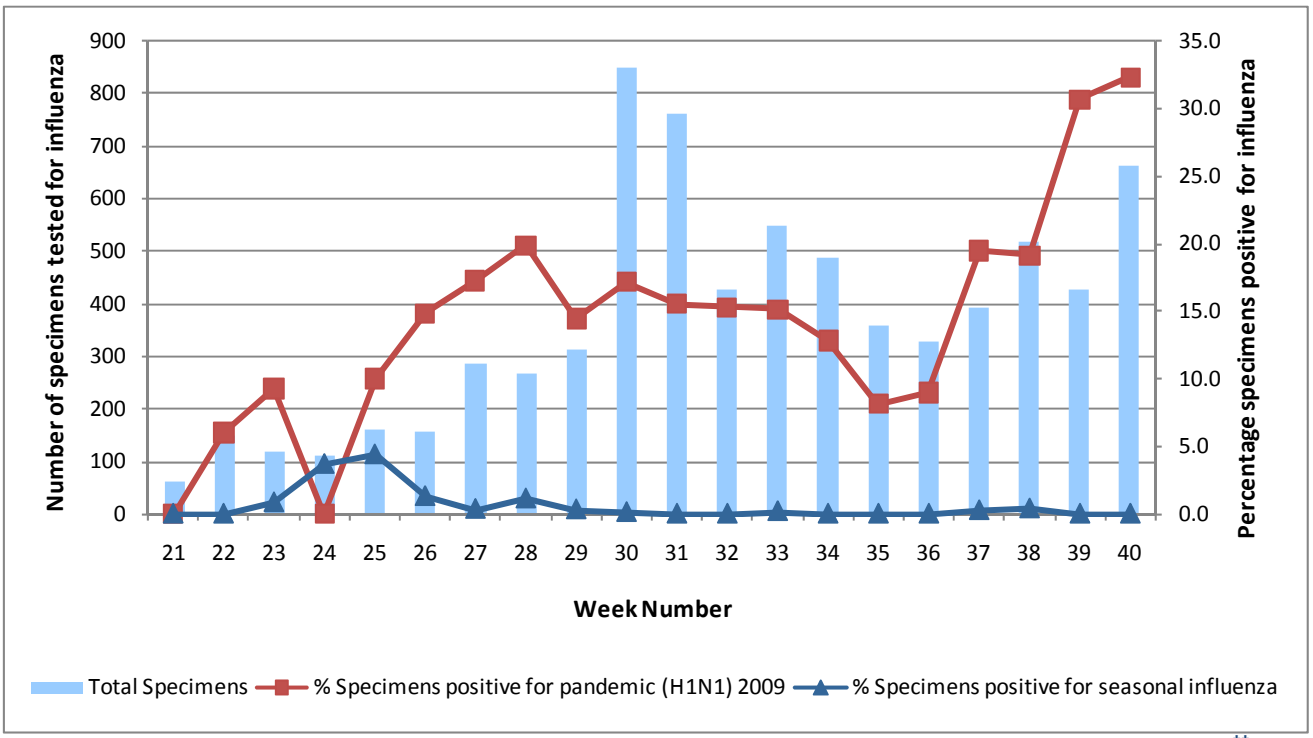

Figure 6: Number of sentinel and non-sentinel specimens tested for influenza and percentage influenza positive[††]

Source: NVRL, CUH & UCHG

[††] Please note that virological data up to week 38 2009 refers to NVRL data only. Virological data from week 39 2009 onwards refers to data from NVRL, CUH & UCHG. Virological data from CUH for week 40 2009 includes 39 influenza A untypable detections which are awaiting confirmation as pandemic (H1N1) 2009.

Table 1: Number of sentinel and non-sentinel respiratory specimens tested and positive results, influenza week 40 2009 and Summer 2009 & 2009/2010 seasons to date‡‡

Source: NVRL, CUH & UCHG

Week number	Specimen type	Total Specimens	Number Influenza Positive	% Influenza Positive	Pandemic (H1N1) 2009	Influenza A untypable	Influenza A(H3)	Influenza A(H1)	Influenza A§§	Influenza B	% Pandemic (H1N1) 2009
40 2009	Sentinel	93	34	36.6	34	0	0	0	0	0	100.0
	Non-sentinel	567	179	31.6	140	39	0	0	0	0	78.2
	Total	**660**	**213**	**32.3**	**174**	**39**	**0**	**0**	**0**	**0**	**81.7**
Summer 2009 & 2009/2010 seasons to date	Sentinel	789	191	24.2	188	0	3	0	0	0	98.4
	Non-sentinel	6812	1193	17.5	1102	39	14	3	35	3	92.4
	Total	**7601**	**1384**	**18.2**	**1290**	**39**	**17**	**3**	**35**	3	**93.2**

Table 2: Number of non-sentinel respiratory specimens tested and positive results by laboratory, influenza week 40 2009 and Summer 2009 & 2009/2010 seasons to date‡‡

Source: NVRL & UCHG

Week number	Laboratory	Total specimens tested	Number influenza positive	% Influenza positive	Pandemic (H1N1) 2009	% Pandemic (H1N1) 2009	Influenza A §§	Influenza A untypable
40 2009	NVRL	352	102	29.0	102	100.0	0	0
	CUH	139	40	28.8	1	2.5	0	39
	UCHG	76	37	48.7	37	100.0	0	0
	Total	**567**	**179**	**31.6**	**140**	**78.2**	**0**	**39**
Summer 2009 & 2009/2010 season to date	NVRL	6350	1014	16.0	990	97.6	21	0
	CUH	268	89	33.2	22	24.7	0	39
	UCHG	194	90	46.4	90	100.0	2	0
	Total	**6812**	**1193**	**17.5**	**1102**	**92.4**	**23**	**39**

Table 3: Number of non-sentinel specimens tested by the NVRL for other respiratory pathogens and positive results, influenza week 40 2009 and Summer 2009 ‡‡

Source: NVRL

Week number	Total specimens	RSV	% RSV Positive	Adenovirus	% Adenovirus positive	Parainfluenza virus type 1	% Parainfluenza virus type 1	Parainfluenza virus type 2	% Parainfluenza virus type 2	Parainfluenza virus type 3	% Parainfluenza virus type 3
40 2009	352	0	0	0	0.0	0	0.0	0	0.0	0	0.0
Summer 2009	5998	21	0.4	4	0.1	4	0.1	0	0.0	6	0.1

‡‡ Please note that virological data up to week 38 2009 refers to NVRL data only. Virological data from week 39 2009 onwards refers to data from NVRL, CUH & UCHG. Virological data from CUH for week 40 2009 includes 39 influenza A untypable detections which are awaiting confirmation as pandemic (H1N1) 2009.

§§ Influenza A not further subtyped

4. Laboratory confirmed cases of pandemic (H1N1) 2009 (CIDR)

As of 3rd October 2009, a total of 1,613 confirmed cases of pandemic (H1N1) 2009 infection were reported. Figure 7 shows the number of confirmed pandemic (H1N1) 2009 cases by week of notification.

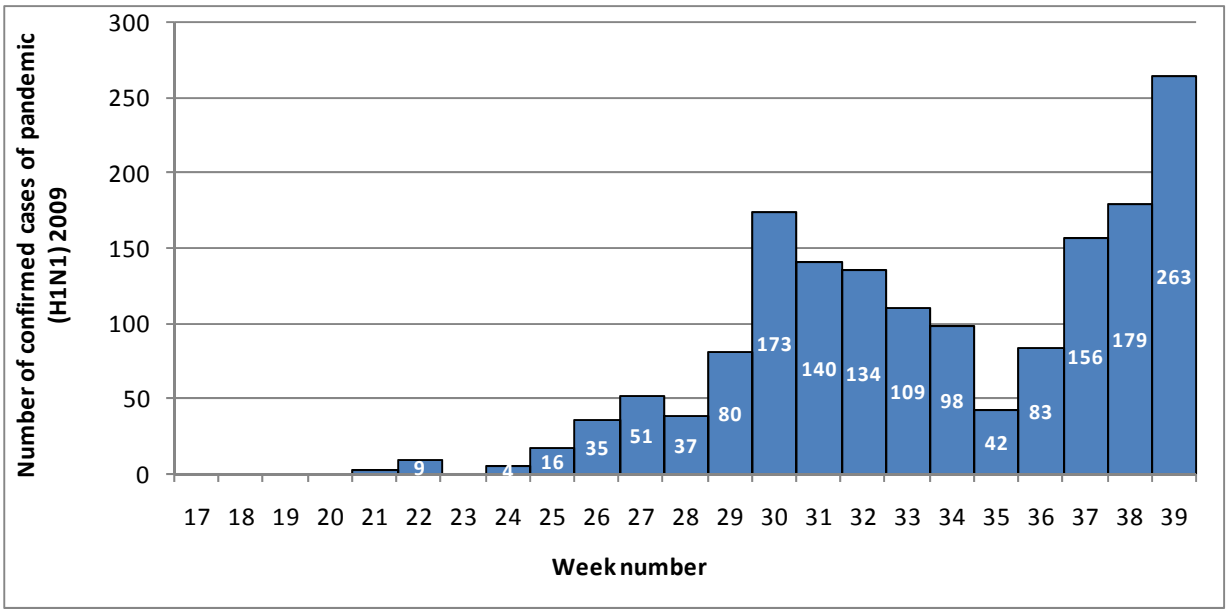

Figure 7: Number of confirmed cases of pandemic (H1N1) 2009 by week of notification[***]

Source: CIDR

Age and Sex

Of the 1,613 confirmed cases reported to date, 817 were female (50.7%), 780 were male (48.4%) and sex was not reported for 16 cases (1.0%). The median age of cases was 20 years (range: 0-78 years) and 82.1% were less than 35 years of age. The highest age specific rate was observed in the 15-19 year age group. Figure 8 shows the number of cases and notification rates per 100,000 population by age group.

[***]As WHO has advised Member States to reduce laboratory testing of suspect cases and to move to clinical diagnosis of influenza-like illness, the number of laboratory confirmed cases of pandemic (H1N1) 2009 reported here understates the actual number of cases in the population.

Week number on figure 7 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore weeks 17-39 above is equivalent to weeks 18-40 on the influenza system

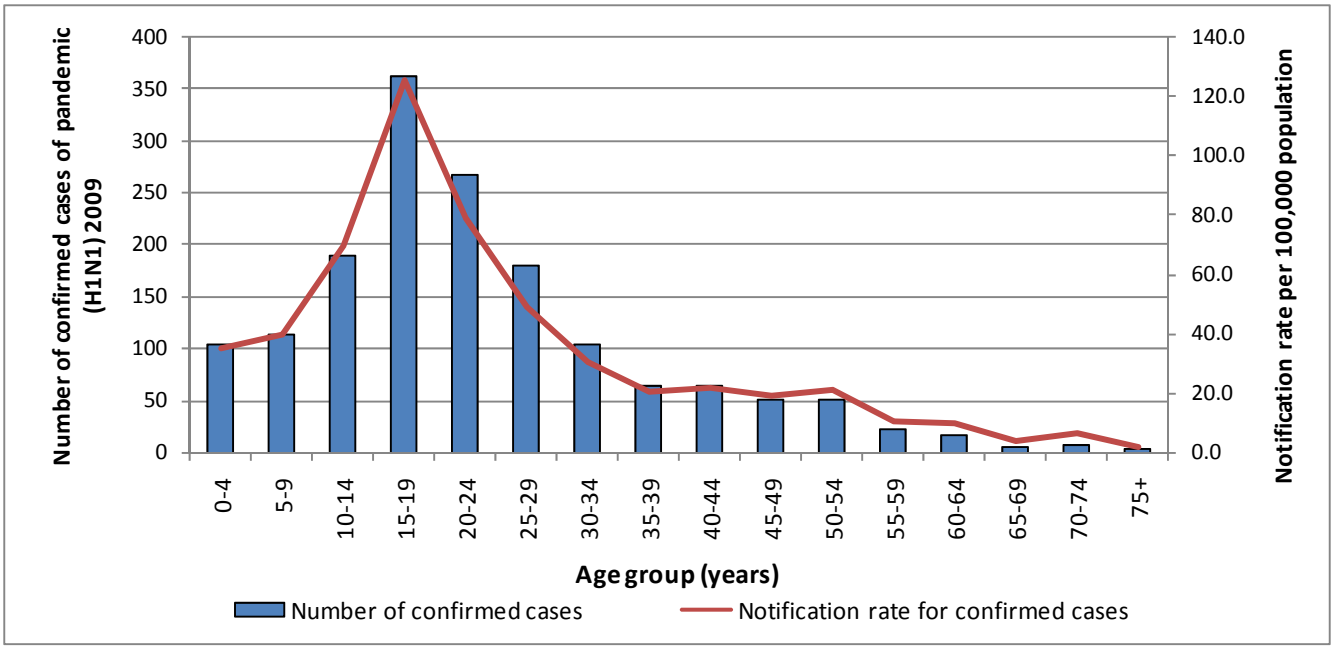

Figure 8: Number of confirmed cases of pandemic (H1N1) 2009 and notification rate per 100,000 population by age group (years)
Source: CIDR

HSE area

All HSE areas have reported confirmed cases. The numbers and rates by HSE area are shown in table 4. The highest rate for week 39 was in HSE-W (13.3 per 100,000 population).

Table 4: Number and rate per 100,000 population for confirmed cases of pandemic (H1N1) 2009 by HSE area
Source: CIDR

HSE Area	Week 39[†††]: 27th September to 3rd October 2009		Week 17 - Week 39 2009	
	Number of confirmed cases	Rate per 100,000 population	Number of confirmed cases	Rate per 100,000 population
HSE-E	61	4.1	479	31.9
HSE-M	7	2.8	40	15.9
HSE-MW	14	3.9	121	33.5
HSE-NE	22	5.6	164	41.6
HSE-NW	16	6.7	101	42.6
HSE-SE	9	2.0	79	17.1
HSE-S	79	12.7	259	41.7
HSE-W	55	13.3	370	89.3
Total	**263**	**6.2**	**1613**	**38.0**

[†††] Week number in table 4 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore week 39 above is equivalent to week 40 on the influenza system

Severity of illness

Clinical illness continues to be mild in the majority of cases. Four deaths have been reported to date in Ireland. The first death occurred during week 32 2009, the second death during week 34 2009 and two deaths occurred during week 39.

Reported complications have been mostly respiratory in nature; 40 cases developed pneumonia and eight developed acute respiratory distress syndrome (ARDS) (six of these also had pneumonia). Other reported complications included otitis media, chest infections, acute renal failure and multi-organ failure.

Hospitalised cases

Of the 1,613 confirmed cases, 204 (12.6%) were reported as having been admitted to hospital. Of the 204 hospitalised cases, 17 (8.3%) were admitted to ICU. Figure 9 shows the number of hospitalised cases of confirmed pandemic (H1N1) 2009 by week number. One hundred and forty-four hospitalised cases have recovered or are recovering (70.6%), 17 are still ill (8.3%), outcome is awaited for 39 (19.1%) and four cases died (2.0%). Table 5 shows the number of hospitalised cases by age group (years) and sex.

Eighty-seven (42.6%) of the hospitalised cases had pre-existing clinical conditions including chronic heart disease, chronic liver disease, chronic renal disease, chronic respiratory disease, chronic neurological disease, asthma, haemoglobinopathy, immunosuppression, diabetes mellitus, severe obesity (BMI ≥40) and pregnancy.

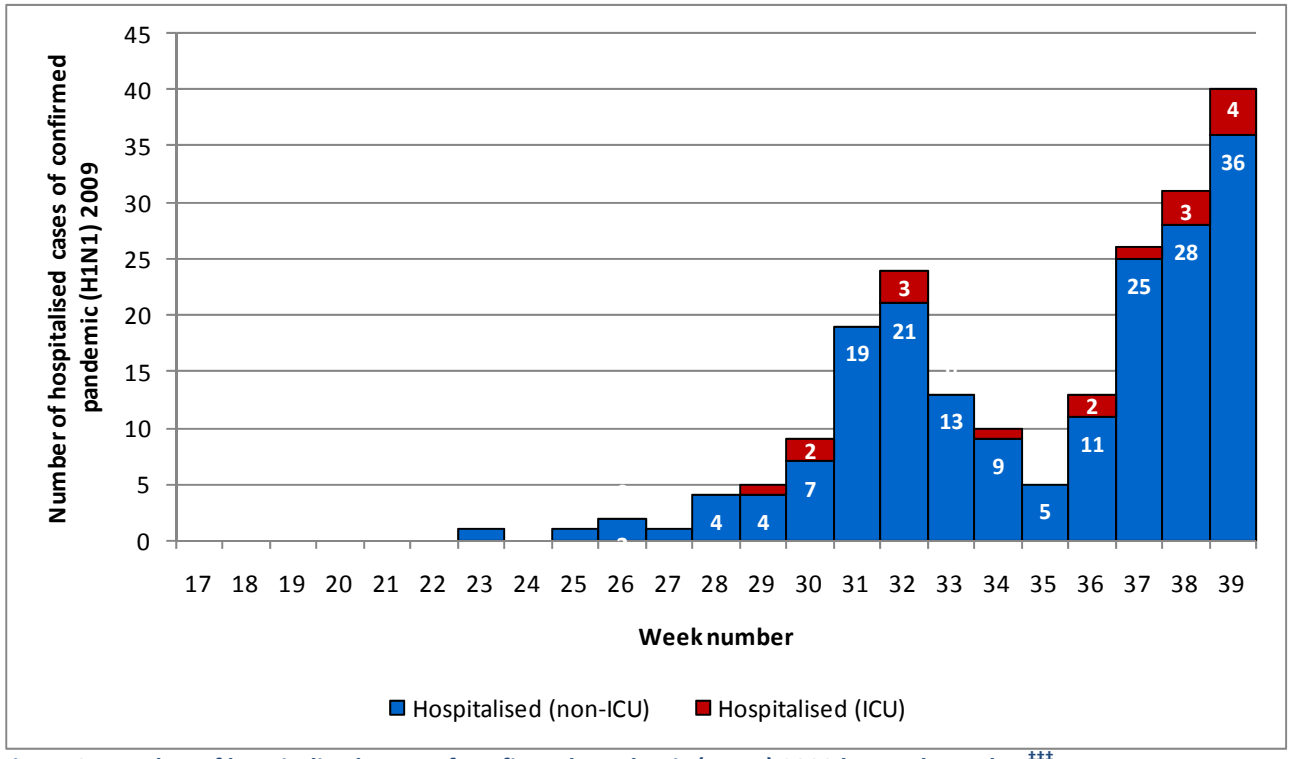

Figure 9: Number of hospitalised cases of confirmed pandemic (H1N1) 2009 by week number[‡‡‡]

Source: CIDR

[‡‡‡] Week number in Figure 9 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore week 39 above is equivalent to week 40 on the influenza system

Table 5: Number of hospitalised cases of confirmed pandemic (H1N1) 2009 by age group (years) and sex
Source: CIDR

Age group (years)	Female	Male	Total
0-4	15	13	**28**
5-9	7	12	**19**
10-14	5	9	**14**
15-19	13	18	**31**
20-24	19	10	**29**
25-29	12	7	**19**
30-34	7	6	**13**
35-39	3	2	**5**
40-44	8	5	**13**
45-49	4	3	**7**
50-54	4	3	**7**
55-59	3	5	**8**
60-64	2	3	**5**
65-69	1	1	**2**
70-74	0	2	**2**
75+	2	0	**2**
Total	**105**	**99**	**204**

6. Outbreak surveillance (CIDR)

As of 7th October 2009 at 18.15 hours, 41 general outbreaks of pandemic (H1N1) 2009 have been reported in Ireland since week 23 2009. Please note this section no longer reports family outbreaks and only includes general outbreaks. These outbreaks involved 1091 people in total, of which 112 (10.3%) were laboratory confirmed cases of pandemic (H1N1) 2009. The number ill per outbreak has ranged between two and 150 people.

Twenty-seven outbreaks occurred in educational settings, four were in residential institutions, two in crèches, two were travel related, two were related to social gatherings and one each were in a community hospital/long-stay unit, a hotel, a workplace and an intellectual disability unit (figure 10). Of the 1091 outbreak associated cases, 70 were female, 70 were male and sex was not reported for 951 cases. Table 6 summarises the pandemic (H1N1) 2009 outbreaks to date by location, while table 7 summarises the pandemic (H1N1) 2009 outbreaks by HSE area. Table 8 shows the number of outbreak associated pandemic (H1N1) 2009 cases by age group (years).

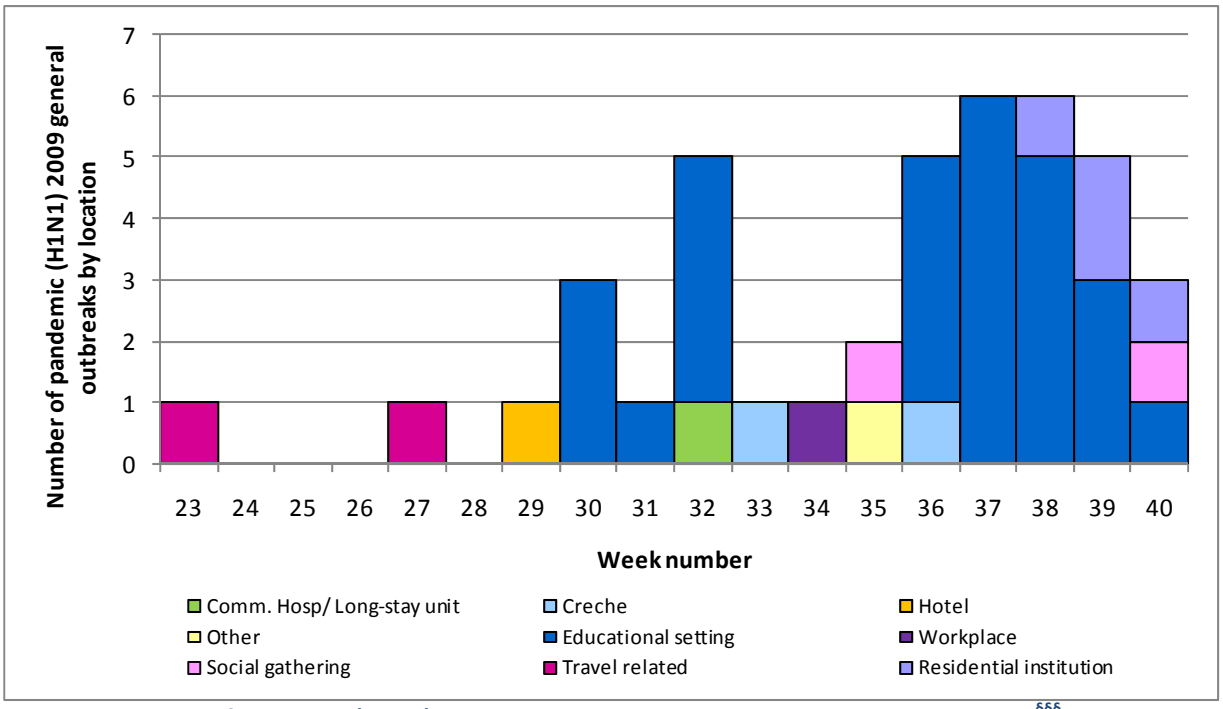

Figure 10: Number of pandemic (H1N1) 2009 general outbreaks by location and week number[§§§]

Source: CIDR

[§§§] Week number in Figure 10 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore week 40 above is equivalent to week 41 on the influenza system and only represents data from Sunday 4th October to Wednesday 7th October @ 18.15 hours

Table 6: Summary of pandemic (H1N1) 2009 general outbreaks by location, to date[****]

Source: CIDR

Location	Number of outbreaks	Total number ill	Total number laboratory investigated
Comm. Hosp/ Long-stay unit	1	5	2
Creche	2	9	5
Hotel	1	3	1
Other	1	3	3
Educational setting	27	987	77
Residential institution	4	68	13
Social gathering	2	4	3
Travel related	2	9	8
Workplace	1	3	0
Total	**41**	**1091**	**112**

Table 7: Summary of pandemic (H1N1) 2009 general outbreaks by HSE area, to date[***]

Source: CIDR

HSE Area	Number of outbreaks	Total number ill	Total number laboratory confirmed
HSE-E	3	56	5
HSE-M			
HSE-MW	6	20	18
HSE-NE	10	222	21
HSE-NW	5	269	19
HSE-SE	1	35	4
HSE-S	6	117	18
HSE-W	10	372	27
Total	**41**	**1091**	**112**

Table 8: Number of general outbreak associated pandemic (H1N1) cases of by age group (years), to date[***]

Source: CIDR

	0-1	2-4	5-9	10-19	20-49	50-64	65+	Age unknown	Total
Number of cases	8	9	5	599	62	4	0	404	**1091**

[****] Data taken from CIDR at 07/10/2009 @ 18.15 hours

International summary

The total numbers of confirmed cases and deaths worldwide by World Health Organization (WHO) region are shown in table 9. The numbers shown are likely to be an underestimate of the numbers of cases as many countries are now moving to selective testing policies.

Table 9: Reported number of confirmed pandemic (H1N1) 2009 cases and deaths by WHO region
Source: WHO 2nd October 2009

WHO Region	Cumulative total as of 2nd October 2009	
	Cases††††	Deaths
Africa (AFRO)	8352	42
Americas (AMRO)	137147	3020
Eastern Mediterranean (EMRO)	12008	74
Europe (EURO)	Over 56000	At least 176
South-East Asia (SEARO)	33594	413
Western Pacific (WPRO)	96197	383
Total	**Over 343298**	**At least 4108**

United Kingdom

During week 39, pandemic influenza activity continued to increase in many areas of the UK, particularly in school-aged children. Although most cases continued to be mild, 84 people have died to date. The highest hospitalisation rates have consistently been in children aged less than 5 years and recent increases have been seen in children under 15 years of age. Two of 1,023 (0.2%) pandemic viruses tested in England have been confirmed to carry a mutation which confers resistance to the antiviral drug oseltamivir. Both of these have been shown phenotypically to be resistant to the drug but retain sensitivity to zanamivir.
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1243928258754

Europe

During week 38 2009, Northern Ireland reported medium influenza activity while all other countries reported low activity. Hungary, Slovenia and Spain reported local activity while other countries reported sporadic or no activity. http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=447

USA

During week 38 (20th to 26th September 2009), influenza activity remained elevated in the United States. During week 38, 2,126 (22.8%) specimens tested by U.S. WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza. Of all subtyped influenza A viruses being reported to CDC, 99% were pandemic (H1N1) 2009 viruses.
http://www.cdc.gov/flu/weekly/

Canada

During week 38 (20th to 26th September 2009), the national ILI consultation rate was 31 consultations per 1,000 visits, similar to the previous week's rate (32 per 1,000 visits). This rate is slightly above the range of expected levels for this time of year. During week 38, the intensity of pandemic (H1N1) infection 2009 in the population was low to moderate with only a small number of hospitalisations (n=12) and no deaths reported. The national

†††† Given that countries are no longer required to test and report individual cases, the number of cases reported significantly understates the actual number of cases.

hospitalisation rate was 4.4 per 100,00 population with the highest rates in children aged less than 15 years of age (10.5 per 100,000). In comparison, the national mortality rate was 0.23 per 100,000 population, with those aged 45 years and older having the highest mortality rate (0.34 per 100,000).
http://www.phac-aspc.gc.ca/fluwatch/index-eng.php

New Zealand

ILI rates have been decreasing in New Zealand in recent weeks. This decline continued in week 39, but the ILI rate remained higher than for the same time period in previous years. To date, the highest ILI rates have been in children and teenagers aged 0 to 19 years. During week 39, 100% of specimens positive for influenza were pandemic (H1N1) 2009. http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Australia

As of 6th October, there were 36,927 confirmed cases of pandemic (H1N1) 2009 and 183 (0.5%) deaths associated with pandemic (H1N1) 2009. The total number of hospitalisations in Australia since pandemic (H1N1) 2009 was identified is 4,806 (13.0 %).
http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm
http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/updates

Other countries

- Mexico: A high intensity of respiratory diseases has been reported for two consecutive weeks (week 37 and 38).
- Central and Western Asia: Although overall influenza activity remains low, an increase in transmission has been noted in a number of countries and continues to intensify in others. In Japan, influenza activity has been above the seasonal epidemic threshold since week 33.
- Tropical regions of the Americas and Asia: Influenza transmission remains active but the trends in respiratory diseases activity are mixed. Although respiratory disease activity is geographically regional to widespread throughout the tropical region of the Americas, many countries have been recently reporting a declining trend (Bolivia, Brazil, Costa Rica, El Salvador, Panama, Paraguay, Venezuela), while others recently reported an increasing trend (Columbia and Cuba).
- Tropical regions of Asia: There continues to be an increasing trend in respiratory diseases in parts of India and in Cambodia.
- Southeast Asia: Declining transmission has been recently reported.
- Temperate regions of the southern hemisphere: Influenza transmission has largely returned to baseline (Chile and Argentina).
  www.who.int/topics/influenza/en/

Further information on influenza in Ireland and internationally can be found on the following websites:

Ireland	www.hpsc.ie
Europe – ECDC	http://ecdc.europa.eu/
Europe – EISN	http://ecdc.europa.eu/en/activities/surveillance/EISN/Pages/home.aspx
Northern Ireland	http://www.cdscni.org.uk/

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Appendix A

Sentinel surveillance for influenza

This is the tenth season of influenza surveillance using computerised sentinel general practices in Ireland. The Health Protection Surveillance Centre (HPSC) is working in collaboration with the Irish College of General Practitioners (ICGP), the National Virus Reference Laboratory (NVRL) and the Departments of Public Health on this sentinel surveillance project. Sixty-one sentinel general practices covering 5.7% of the national population have been recruited to report on the number of patients with ILI on a weekly basis.

ILI is defined as the sudden onset of symptoms with a temperature of 38°C or more, with two or more of the following: headache, sore throat, dry cough and myalgia.

Sentinel GPs send a combined nasal and throat swab, to the NVRL, on at least five patients per week where a clinical diagnosis of ILI is made during the influenza season.

Influenza test results from the NVRL are provided on both sentinel and non-sentinel specimens. Influenza test results from Cork University Hospital (CUH) and University College Hospital, Galway (UCHG) are also provided on non-sentinel specimens.

Laboratory confirmed pandemic (H1N1) 2009

Since the end of April 2009, a case-based surveillance system for pandemic (H1N1) 2009 has been in operation in Ireland following the declaration by World Health Organization (WHO) of a public health emergency of international concern due to the virus. Basic demographic data are collected on all laboratory confirmed cases and additional enhanced data are collected on all hospitalised laboratory confirmed cases. Data are collated on the Computerised Infectious Disease Reporting (CIDR) system using information available from the National Virus Reference Laboratory (NVRL), Departments of Public Health, clinicians and a number of other laboratories. Data presented in this report are based on details recorded on the CIDR system.