

Influenza Surveillance in Ireland - Weekly Update

Influenza Week 42 2009 (12th to 18th October 2009)



Summary

- Overall, influenza activity continued to increase during week 42:
 - ♦ The sentinel GP influenza-like illness (ILI) consultation rate was 158.8 per 100,000 population in week 42, a sharp increase in comparison to the updated rate of 91.6 per 100,000 reported during week 41. * This rate is the highest ILI rate reported since sentinel influenza surveillance began in 2000
 - ♦ The sentinel GP age-specific ILI consultation rates increased sharply in the 5-14 year age group and substantially in the 0-4 year age group
 - ♦ The proportion of sentinel specimens testing positive for pandemic (H1N1) 2009 was 52.5% during week 42, an increase from 36.7% in week 41
 - ♦ The number of laboratory confirmed cases of pandemic (H1N1) 2009 continued to increase
 - ♦ The number of hospitalised cases of confirmed pandemic (H1N1) 2009 also increased
 - ♦ The number of pandemic (H1N1) 2009 and ILI outbreaks increased sharply during week 41, the majority of which were in educational settings
 - ♦ Sentinel schools reported increased absenteeism during week 42
 - ♦ Two of ten sentinel hospitals (HSE-E &-W) reported an increase in the proportion of respiratory admissions during week 42
 - ♦ The proportion of flu-related calls to GP Out-of-Hours services increased slightly during week 42
- Pandemic (H1N1) 2009 is the main influenza virus circulating; in week 42, 100% of specimens positive for influenza were pandemic (H1N1) 2009 (including 68 probable pandemic (H1N1) 2009 awaiting confirmation)
- Based on the surveillance of laboratory confirmed cases of pandemic (H1N1) 2009, as of 17th October:
 - ♦ 2,192 confirmed cases have been notified in Ireland
 - ♦ Children and young adults remain the most affected groups; 82.0% of cases are less than 35 years of age
 - ♦ Clinical illness continues to be mild in the majority of cases
- Eight deaths in confirmed cases of pandemic (H1N1) 2009 have been reported to date

* Since the last report, extra information on the number of ILI consultations occurring in week 41 was provided by sentinel GPs and the rate for the week was adjusted accordingly

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.

1. GP sentinel surveillance system

Clinical Data

During week 42 2009, 49 of 61 (80.3%) ICGP sentinel general practices provided data, with 40 practices reporting 307 influenza-like illness (ILI) cases and 21 practices reporting no ILI cases. This corresponds to an ILI consultation rate of 158.1 per 100,000 population, which is a sharp increase compared to the updated rate of 91.6 per 100,000 population reported during week 41 2009.[†] This rate is the highest ILI rate observed since sentinel influenza surveillance commenced in Ireland in 2000. The second highest ILI rate observed was 122.9 per 100,000 population in the 2000/2001 influenza season. 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 unsubtype isolates (probable pandemic (H1N1) 2009) are specimens that are awaiting laboratory confirmation as pandemic (H1N1) 2009.

[†] Since the last report, extra information on the number of ILI consultations occurring in week 41 was provided by sentinel GPs and the rate for the week was adjusted accordingly

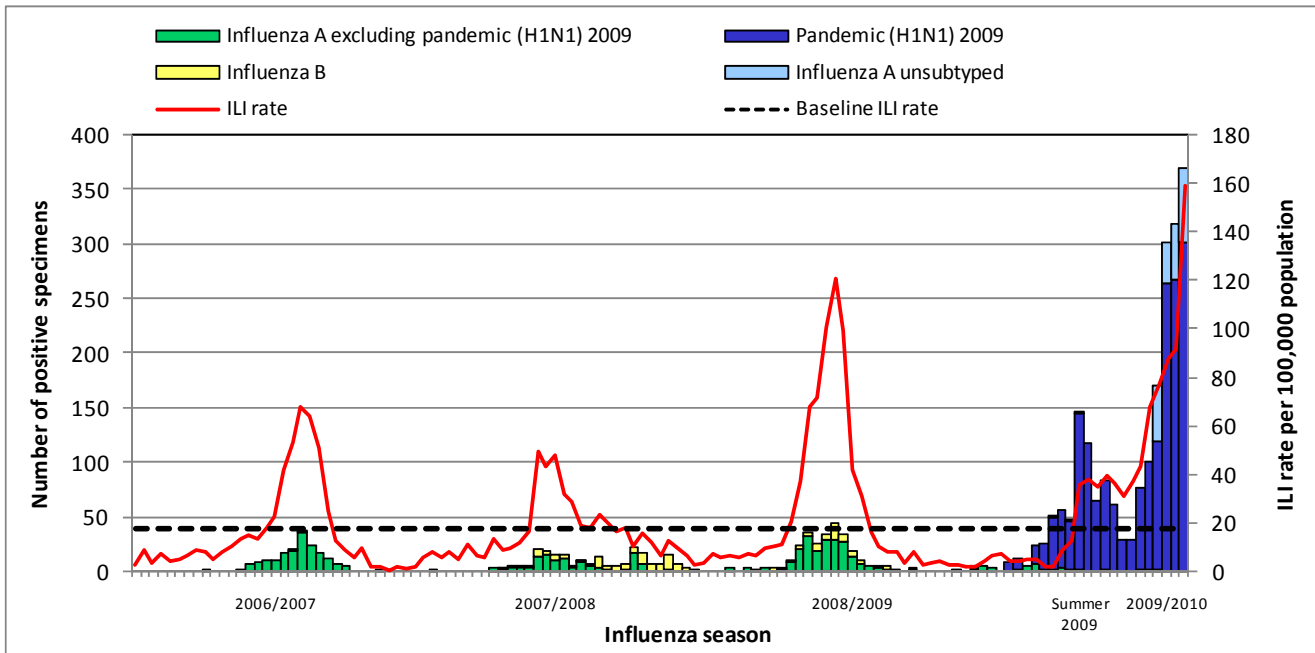


Figure 1. ILI GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza specimens, by influenza week and season[‡]

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

During week 42 2009, sentinel GPs reported 33 ILI cases in the 0-4 year age group (239.3 per 100,000 population), 115 cases in the 5-14 year age group (448.5 per 100,000 population), 157 cases in the 15-64 year age group (118.4 per 100,000 population) and two cases in those aged 65 years and older (9.4 per 100,000 population) (figure 2).

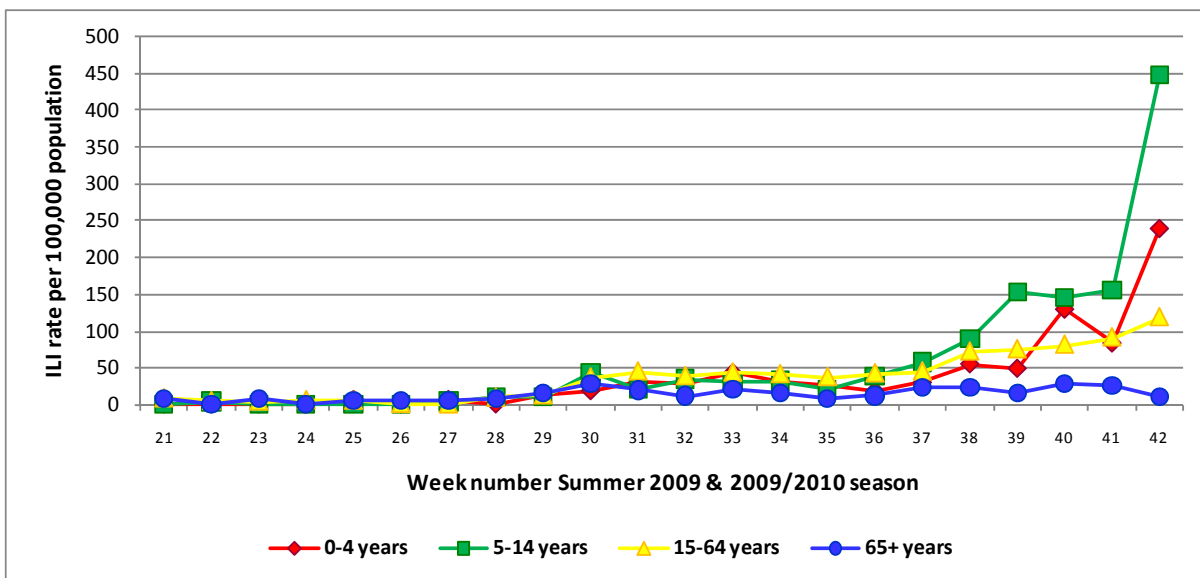


Figure 2: Age specific sentinel GP consultation rate for ILI per 100,000 population by week during the Summer 2009 and 2009/2010 influenza seasons

Source: ICGP ILI clinical data

[‡] 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 includes 187 influenza A unsubtype detections which are awaiting confirmation as pandemic (H1N1) 2009.

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.

During week 42 2009, localised influenza activity (due to increases in ILI in local areas or two or more outbreaks within a HSE area and laboratory confirmed cases of influenza) was reported by HSE-M, -S and -SE, regional activity (based on increases in ILI in one or more counties of a HSE area and laboratory confirmed cases of influenza) was reported by HSE-MW and -W, while widespread activity (based on increases in ILI in two or more counties of a HSE area comprising >50% of a HSE area's population and laboratory confirmed cases of influenza) was reported by HSE-E and -NE (figure 3).

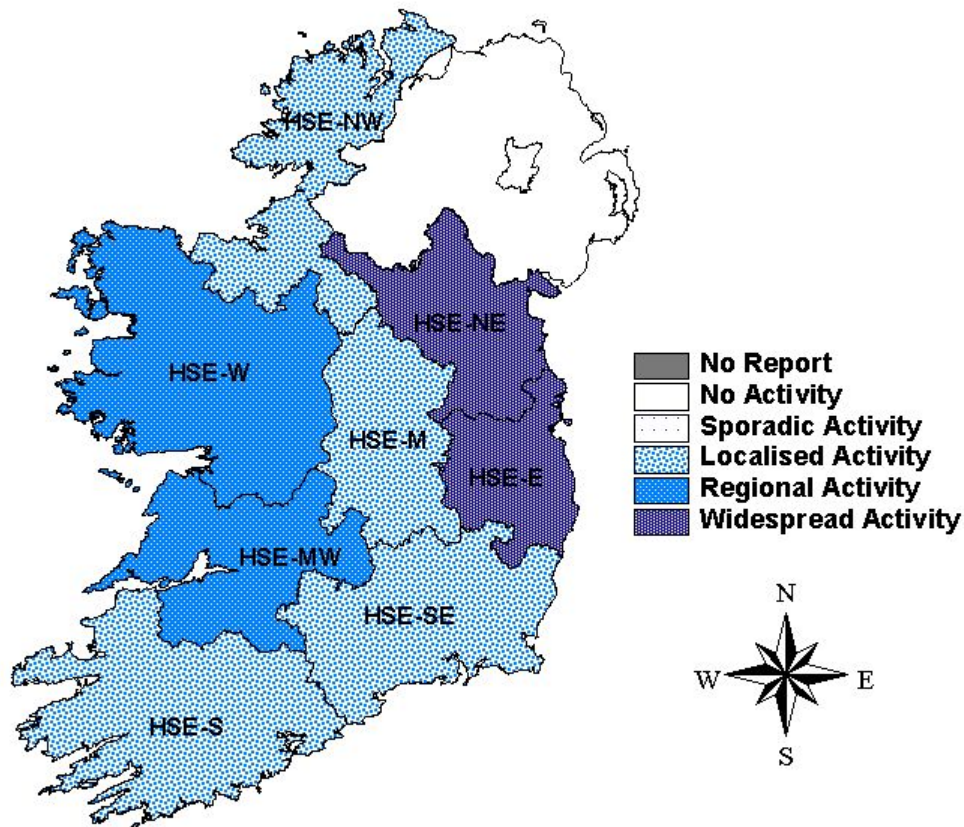


Figure 3: Map of provisional influenza activity by HSE area during influenza week 42 2009

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 42 2009, sentinel school and hospital data were received from all HSE areas. Increases in the proportion of respiratory admissions were reported from sentinel hospitals in HSE-E and -W. Increases in absenteeism were reported from three sentinel primary schools (HSE-E, -MW and -NW) and three sentinel secondary schools (HSE-E, -NW and -W) during week 42 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 42, the percentage of flu-related calls was 7.0%, an increase compared to the proportion of flu-related calls (6.2%) reported during week 41 (figure 4).

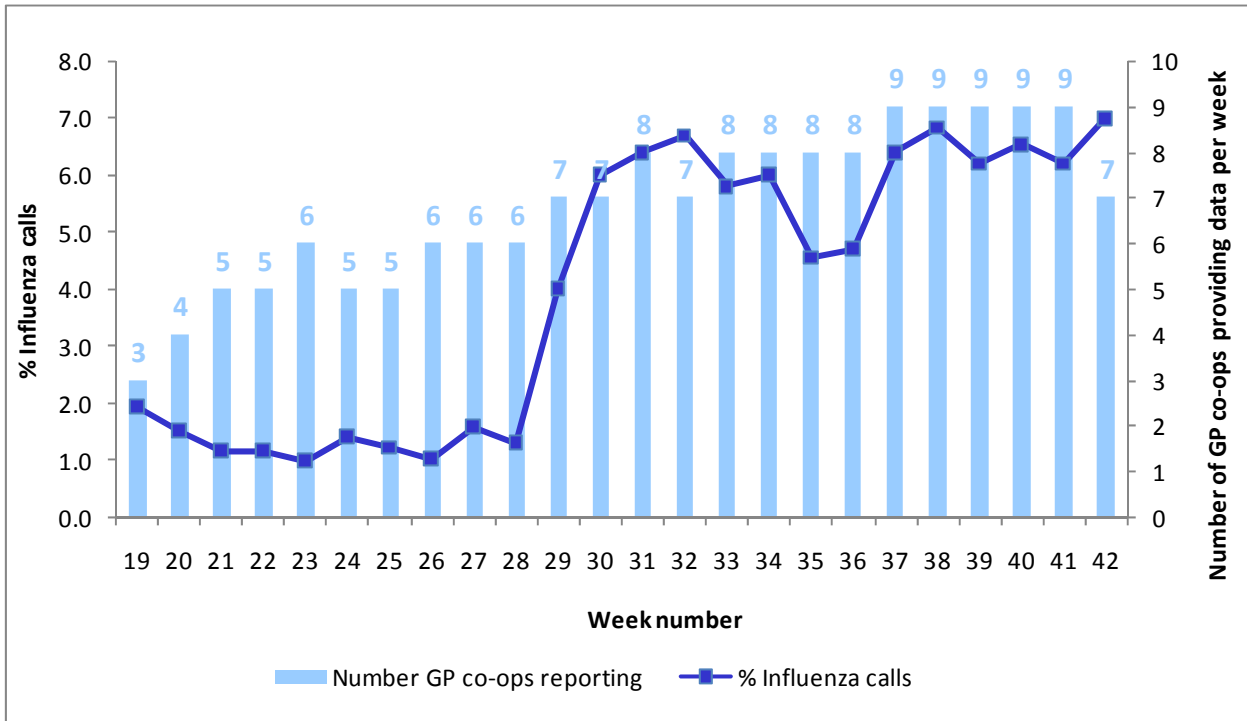


Figure 4: Flu-related calls as a proportion of total calls to Out-of-Hours GP Co-ops by week[§]

Source: HSE-NE.

[§] Week 42: data received from D-Doc, K-Doc, MI-Doc, NoW-Doc, Shannon-Doc, South Doc, 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)

One hundred and sixty-two specimens from sentinel GPs were tested by the NVRL during week 42 2009, 85 (52.5%) of which were positive for pandemic (H1N1) 2009.

The NVRL also tested 453 non-sentinel specimens taken during the same week. Of these, 166 (36.6%) were positive for pandemic (H1N1) 2009. No specimens were positive for other influenza A subtypes, influenza B or adenovirus. Four specimens tested positive for RSV (0.9%) and two specimens tested positive for parainfluenza virus type 1 (0.4%), (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 88 non-sentinel specimens taken during week 42 2009, 51 (58.0%) of which were positive for pandemic (H1N1) 2009 (table 2).

CUH tested 188 non-sentinel specimens taken during week 42 2009. Ninety-four (50.0%) specimens tested positive for influenza A; 26 pandemic (H1N1) 2009 and 68 influenza A untyped (probable pandemic (H1N1) 2009) (table 2).

Pandemic (H1N1) 2009 is the main influenza virus circulating. During week 42, 100% of specimens positive for influenza were pandemic (H1N1) 2009 (including 68 probable pandemic (H1N1) 2009). For the summer 2009 and 2009/2010 seasons to date, confirmed pandemic (H1N1) 2009 has accounted for 91.8% of influenza positive specimens (table 1).

During week 42, the percentage of sentinel and non-sentinel specimens testing positive for pandemic (H1N1) 2009 was 44.4%, an increase compared to 31.3% positive during week 41. 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

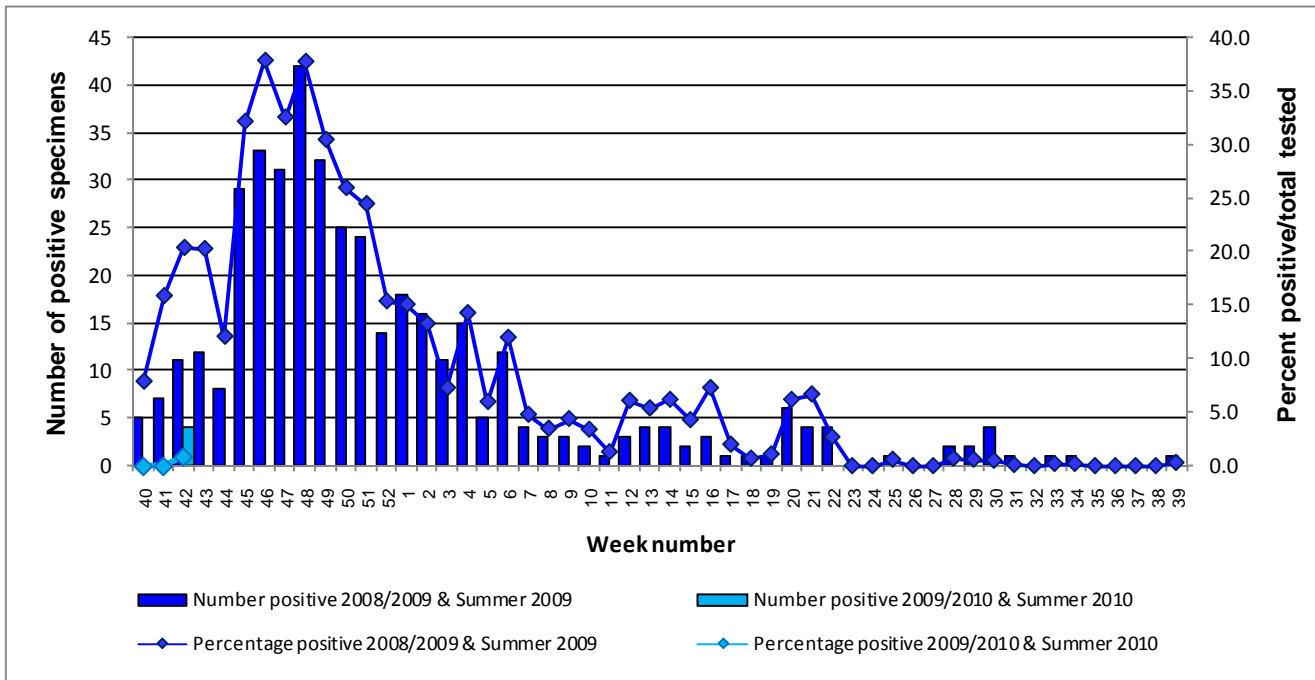


Figure 5: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2009/2010 and Summer 2010 influenza seasons, compared to the 2008/2009 and Summer 2009 influenza seasons

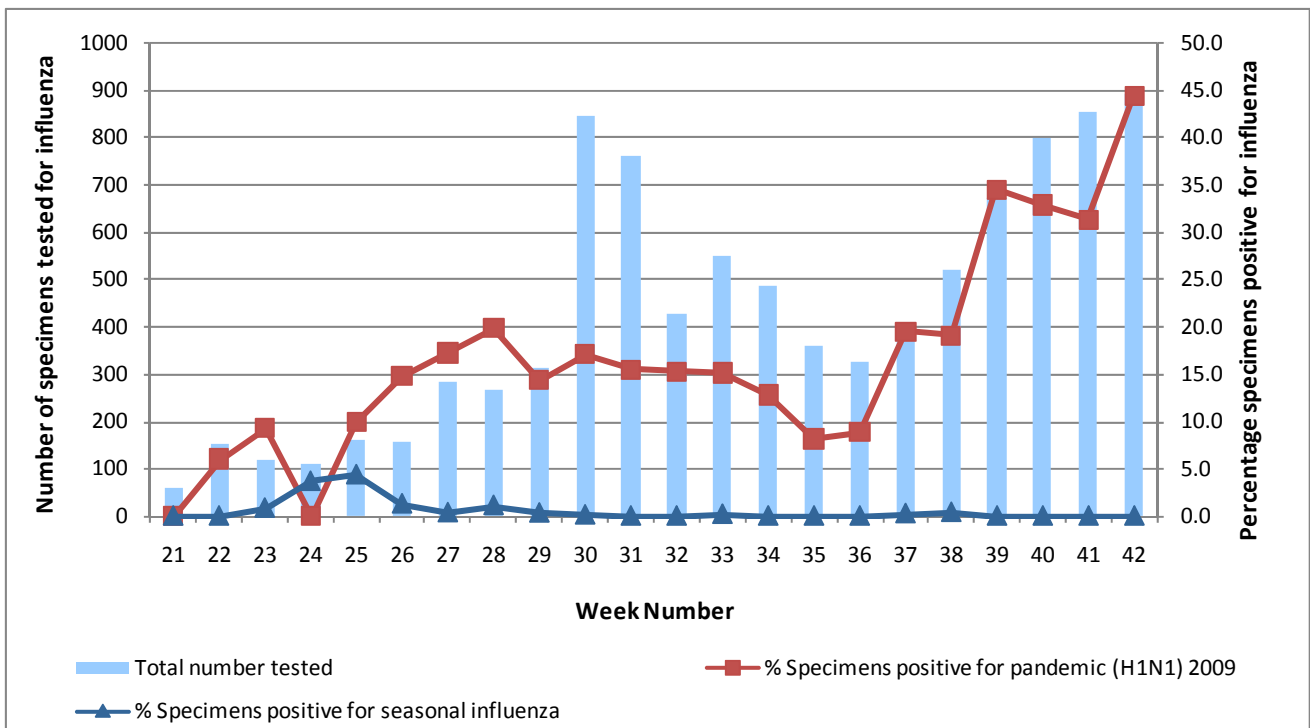


Figure 6: Number of sentinel and non-sentinel specimens tested for influenza and percentage influenza positive^{††}
 Source: NVRL, CUH & UCHG

^{††} 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 includes 187 influenza A unsubtype 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 42 2009 and Summer 2009 & 2009/2010 seasons to date**

Source: NVRL, CUH & UCHG

Week number	Specimen type	Total Specimens tested	Number Influenza Positive	% Influenza Positive	Confirmed Pandemic (H1N1) 2009	Probable Pandemic (H1N1) 2009	Influenza A(H3)	Influenza A(H1)	Influenza A (unsubtyped)	Influenza B	% Pandemic (H1N1) 2009
42 2009	Sentinel	162	85	52.5	85	0	0	0	0	0	100.0
	Non-sentinel	729	311	42.7	243	68	0	0	0	0	100.0
	Total	891	396	44.4	328	68	0	0	0	0	100.0
Summer 2009 & 2009/2010 seasons to date	Sentinel	1110	336	30.3	333	0	3	0	0	0	99.1
	Non-sentinel	8469	1762	20.8	1550	187	0	0	22	3	98.6
	Total	9579	2098	21.9	1883	187	3	0	22	3	98.7

Table 2: Number of non-sentinel respiratory specimens tested and positive results by laboratory, influenza week 42 2009 and Summer 2009 & 2009/2010 seasons to date**

Source: NVRL, CUH & UCHG

Week number	Laboratory	Total specimens tested	Number influenza positive	% Influenza positive	Confirmed Pandemic (H1N1) 2009	Probable Pandemic (H1N1) 2009	% Pandemic (H1N1) 2009	Influenza A (unsubtyped)	Influenza B
42 2009	NVRL	453	166	36.6	166	0	100.0	0	0
	CUH	188	94	50.0	26	68	100.0	0	0
	UCHG	88	51	58.0	51	0	100.0	0	0
	Total	729	311	42.7	243	68	100.0	0	0
Summer 2009 & 2009/2010 season to date	NVRL	7441	1330	17.9	1306	0	98.2	21	3
	CUH	635	236	37.2	49	187	100.0	0	0
	UCHG	393	196	49.9	195	0	99.5	1	0
	Total	8469	1762	20.8	1550	187	98.6	22	3

Table 3: Number of non-sentinel specimens tested by the NVRL for other respiratory pathogens and positive results, influenza week 42 2009 and Summer 2009 & 2009/2010 seasons to date**

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
42 2009	453	4	0.9	0	0.0	2	0.4	0	0.0	0	0.0
Summer 2009	6093	21	0.3	4	0.1	4	0.1	0	0.0	6	0.1
2009/2010 season to date	1348	4	0.3	0	0.0	2	0.1	0	0.0	0	0.0

** 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 includes 187 influenza A unsubtyped detections which are awaiting confirmation as pandemic (H1N1) 2009.

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

As of 17th October 2009, a total of 2,192 confirmed cases of pandemic (H1N1) 2009 infection were reported. Figure 7 shows the number of confirmed pandemic (H1N1) 2009 cases by week of notification.

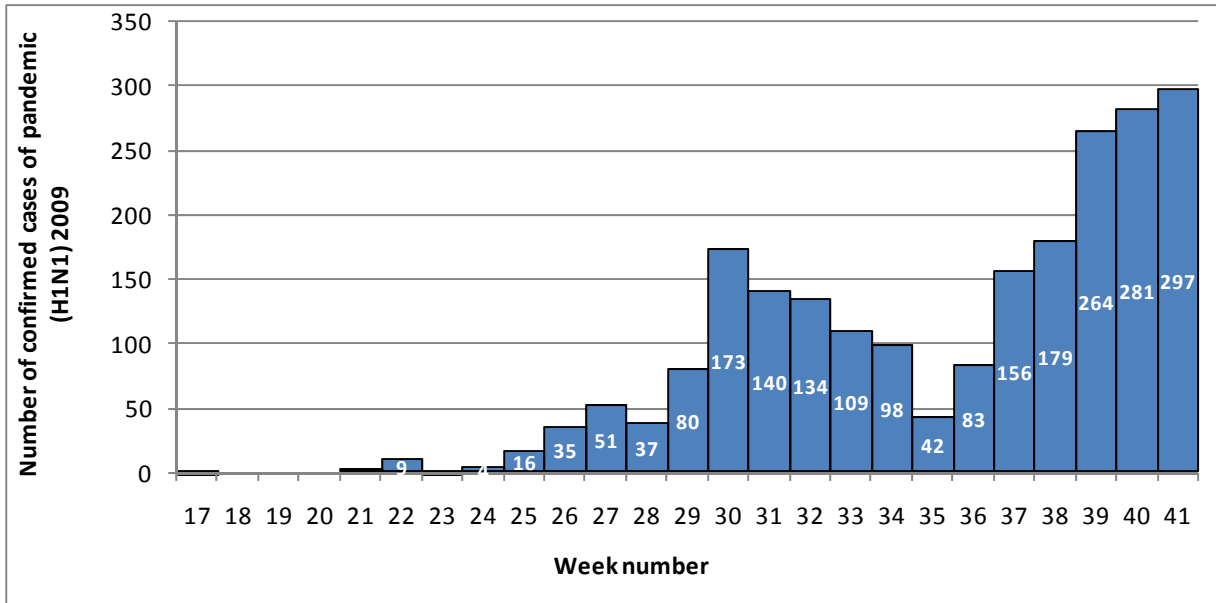


Figure 7: Number of confirmed cases of pandemic (H1N1) 2009 by week of notification⁵⁵

Source: CIDR

Age and Sex

Of the 2,192 confirmed cases reported to date, 1,140 were female (52.0%), 1,034 were male (47.2%) and sex was not reported for 18 cases (0.8%). The median age of cases was 19 years (range: 0-82 years) and 82.0% 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.

⁵⁵As 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 17-41 above is equivalent to weeks 18-42 on the influenza system.

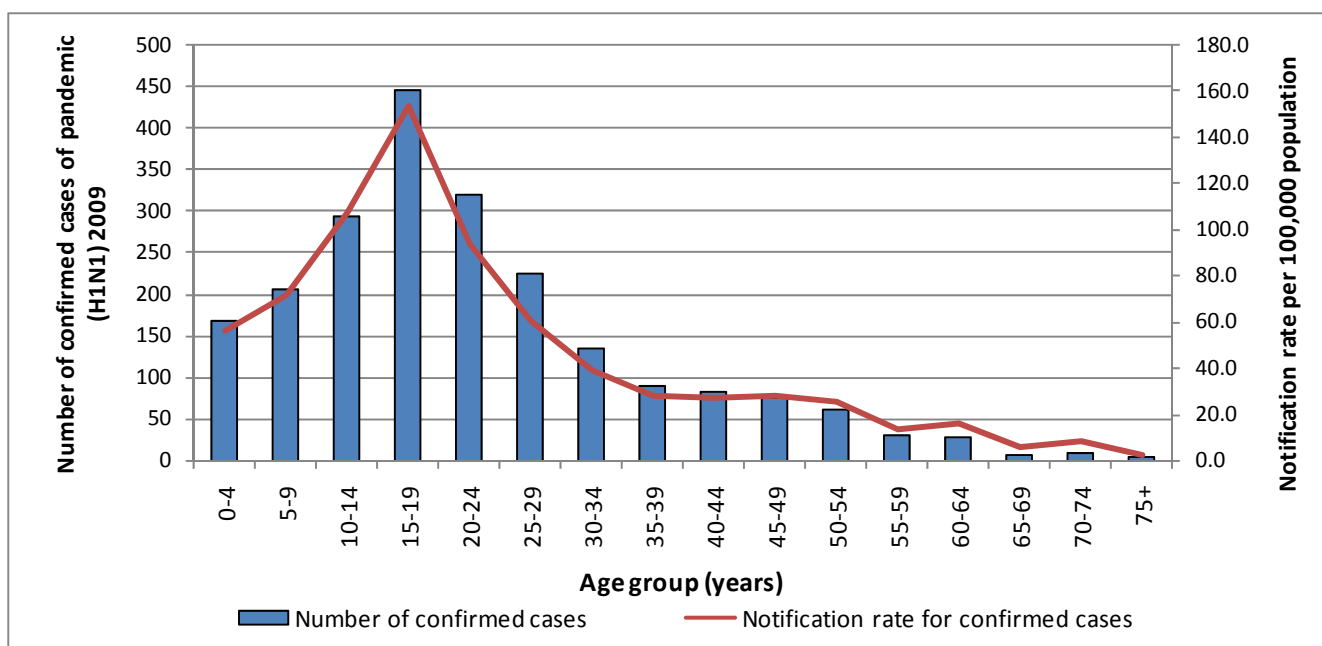


Figure 8: Cumulative number of confirmed cases of pandemic (H1N1) 2009 and notification rate per 100,000 population by age group (years)

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 41 was in HSE-S (15.6 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 41 ^{***} : 11 th to 17 th October 2009		Week 17 - Week 41 2009	
	Number of confirmed cases	Rate per 100,000 population	Number of confirmed cases	Rate per 100,000 population
HSE-E	94	6.3	644	42.9
HSE-M	8	3.2	54	21.5
HSE-MW	12	3.3	142	39.3
HSE-NE	13	3.3	193	49.0
HSE-NW	8	3.4	118	49.8
HSE-SE	9	2.0	107	23.2
HSE-S	97	15.6	437	70.4
HSE-W	56	13.5	497	120.0
Total	297	7.0	2192	51.7

*** 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 41 above is equivalent to week 42 on the influenza system

Severity of illness

Clinical illness continues to be mild in the majority of cases. Of the 2,192 confirmed cases, outcome was reported for 755 (34.4%) cases. Of the 755 confirmed cases where outcome was reported, 715 have recovered or are recovering (94.7%), 32 are still ill (4.2%) and eight cases have died (1.1%). Table 5 shows the number of deaths in confirmed cases of pandemic (H1N1) 2009.

Table 5: Number of deaths due to pandemic (H1N1) 2009

Week number	Number of deaths due to pandemic (H1N1) 2009
32	1
34	1
39	2
41	1
42	3
Total	8

Reported complications have been mostly respiratory in nature; 63 cases developed pneumonia and 17 developed acute respiratory distress syndrome (ARDS) (15 of these also had pneumonia). Other reported complications included otitis media, chest infections, acute renal failure and multi-organ failure.

Hospitalised cases

Of the 2,192 confirmed cases, 325 (14.8%) were reported as having been admitted to hospital. Of the 325 hospitalised cases, 26 (8.0%) were admitted to ICU. Figure 9 shows the number of hospitalised cases of confirmed pandemic (H1N1) 2009 by week number while Table 6 shows the number of hospitalised cases by age group (years) and sex. One hundred and forty-six (44.9%) 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.

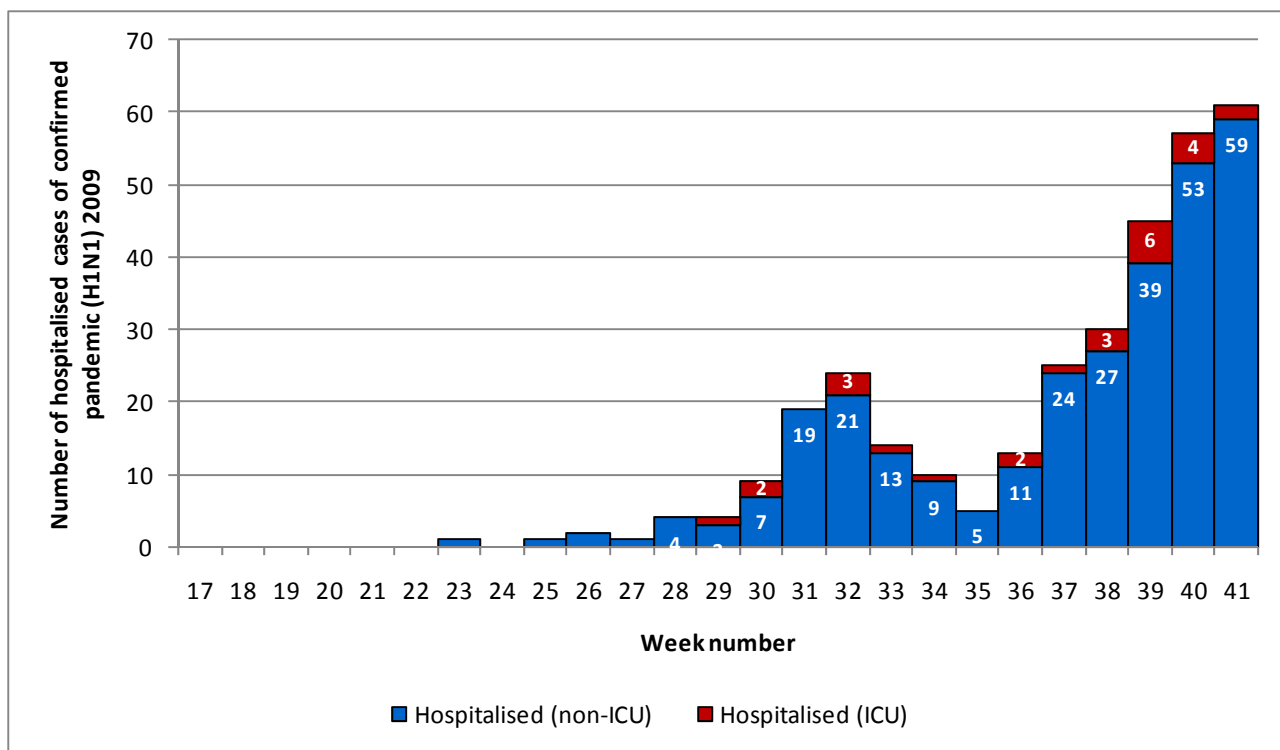


Figure 9: Number of hospitalised cases of confirmed pandemic (H1N1) 2009 by week number⁺⁺⁺
Source: CIDR

Table 6: 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	25	28	53
5-9	14	21	35
10-14	10	16	26
15-19	21	23	44
20-24	25	14	39
25-29	17	9	26
30-34	9	10	19
35-39	6	5	11
40-44	11	7	18
45-49	10	3	13
50-54	7	6	13
55-59	5	6	11
60-64	3	5	8
65-69	2	2	4
70-74	0	2	2
75+	3	0	3
Total	168	157	325

⁺⁺⁺ 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 41 above is equivalent to week 42 on the influenza system

6. Outbreak surveillance (CIDR)

As of 21st October 2009 at 18.15 hours, 84 general outbreaks of pandemic (H1N1) 2009 and ILI 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 1,987 people in total, of which 152 (7.6%) were laboratory confirmed cases of pandemic (H1N1) 2009. The number ill per outbreak has ranged between two and 150 people.

Sixty-four outbreaks occurred in educational settings, four were in residential institutions, three in crèches, two were travel related, two were related to social gatherings, two were in workplaces, one each were in a community hospital/long-stay unit, a hotel and an intellectual disability unit and outbreak location was not reported for four outbreaks (figure 10). Of the 1,987 outbreak associated cases, 75 were female, 131 were male and sex was not reported for 1,781 cases. Table 7 summarises the pandemic (H1N1) 2009 and ILI outbreaks to date by location, while table 8 summarises the pandemic (H1N1) 2009 and ILI outbreaks by HSE area. Table 9 shows the number of outbreak associated pandemic (H1N1) 2009 and ILI cases by age group (years).

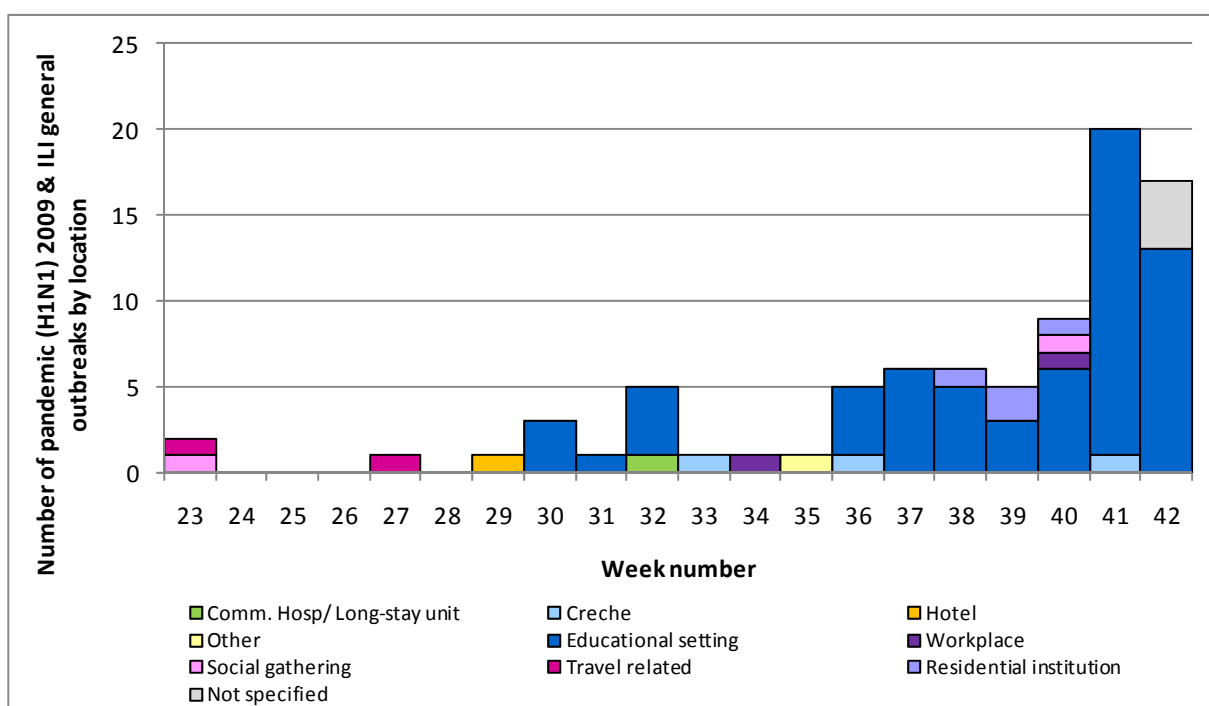


Figure 10: Number of pandemic (H1N1) 2009 and ILI general outbreaks by location and week number^{†††}

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 42 above is equivalent to week 43 on the influenza system and only represents data from Sunday 18th October to Wednesday 21st October @ 18.15 hours

Table 7: Summary of pandemic (H1N1) 2009 and ILI 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	3	31	5
Hotel	1	3	1
Not specified	4	45	3
Other	1	3	3
Educational setting	64	1813	110
Residential institution	4	69	15
Social gathering	2	4	3
Travel related	2	9	8
Workplace	2	5	2
Total	84	1987	152

Table 8: Summary of pandemic (H1N1) 2009 and ILI general outbreaks by HSE area, to date^{§§§}

Source: CIDR

HSE Area	Number of outbreaks	Total number ill	Total number laboratory confirmed
HSE-E	19	309	22
HSE-M	0	0	0
HSE-MW	7	32	21
HSE-NE	14	506	30
HSE-NW	9	343	21
HSE-SE	5	107	6
HSE-S	19	268	23
HSE-W	11	422	29
Total	84	1987	152

Table 9: Number of general outbreak associated pandemic (H1N1) and ILI cases of by age group (years), to date^{§§§}

Source: CIDR

Number of cases	0-1	2-4	5-9	10-19	20-49	50-64	65+	Age unknown	Total
	8	28	220	924	77	4	0	726	1987

^{§§§} Data taken from CIDR at 15/10/2009 @ 18.15 hours

International summary

The total numbers of confirmed cases and deaths reported worldwide by the World Health Organization (WHO) region are shown in table 10. 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 10: Reported number of confirmed pandemic (H1N1) 2009 cases and deaths by WHO region

Source: WHO 16th October 2009

WHO Region	Cumulative total as of 16 th October 2009	
	Cases ****	Deaths
Africa (AFRO)	12456	70
Americas (AMRO)	153697	3406
Eastern Mediterranean (EMRO)	13855	90
Europe (EURO)	Over 61000	At least 207
South-East Asia (SEARO)	39522	530
Western Pacific (WPRO)	118702	432
Total	Over 399232	At least 4735

United Kingdom

During week 41, pandemic influenza activity continued to increase in many areas of the UK, particularly in school-aged children and young adults. Although most cases continued to be mild, 105 people have died to date. The highest hospitalisation rates have consistently been in children aged less than 5 years and have increased in this group recently. Two of 1,562 (0.1%) 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 41 2009, Northern Ireland reported high intensity activity and Belgium, Malta, Spain and Sweden reported medium intensity activity. Belgium, Ireland and the Netherlands reported widespread activity. Eleven countries reported increasing intensity activity, compared to week 40 2009.

<http://ecdc.europa.eu/en/publications/Pages/Publications.aspx>

USA

During week 41 (4th to 10th October 2009), influenza activity continued to increase in the United States. During week 41, 4,093 (29.4%) 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, 100% were pandemic (H1N1) 2009 viruses.

<http://www.cdc.gov/flu/weekly/>

Canada

During week 41 (4th to 10th October 2009), the national ILI consultation rate was 43 consultations per 1,000 visits, an increase compared to the previous week's rate (36 per 1,000 visits). This rate is above the range of expected levels for this time of year. During week 41, the intensity of pandemic (H1N1) infection 2009 in the

**** 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.

population was moderate with 37 hospitalisations and two deaths reported. The national hospitalisation rate was 4.6 per 100,000 population with the highest rates in children aged less than 15 years of age (10.9 per 100,000). In comparison, the national mortality rate was 0.24 per 100,000 population, with those aged 45 years and older having the highest mortality rate (0.35 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 41, 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 41, no specimens tested positive for influenza.

http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Australia

As of 16th October, there were 36,942 confirmed cases of pandemic (H1N1) 2009 and 185 (0.5%) deaths associated with pandemic (H1N1) 2009. The total number of hospitalisations in Australia since pandemic (H1N1) 2009 was identified is 4,886 (13.2 %).

<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

- **Northern Asia:** Experiencing increased rates of ILI, well above baseline in some countries. Of note, nearly half of the influenza viruses detected in China are seasonal influenza A (H3N2) viruses, which appeared prior to and are co-circulating with pandemic (H1N1) 2009 virus.
- **Tropical zones:** Continue to have transmission that is mixed as some countries have now peaked and are declining, while others are experiencing increases. In the tropical region of the Americas, several Caribbean Island nations are now reporting increased rates of illness while Brazil, Costa Rica and other countries on the continent ILI rates are declining. In South Asia, most countries now report a decline in rates of illness.
- **Temperate zones of the Southern Hemisphere:** Influenza rates in the temperate zones of the Southern Hemisphere have all returned to below baseline levels and very few detections of pandemic (H1N1) 2009 virus are being reported.

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.