

# Influenza Surveillance in Ireland - Weekly Update

## Influenza Week 39 2009 (21<sup>st</sup> to 27<sup>th</sup> September 2009)



### Summary

- Overall, influenza activity increased during week 39:
  - ◆ The sentinel GP influenza-like illness (ILI) consultation rate was 76.3 per 100,000 population in week 39, an increase in comparison to the updated rate of 67.6 per 100,000 reported during week 38\*
  - ◆ The sentinel GP age-specific ILI consultation rates increased substantially in the 5-14 year age group, from 88.2 in week 38 to 148.9 in week 39 2009
  - ◆ The proportion of sentinel specimens testing positive for pandemic (H1N1) 2009 was 45.7% during week 39, a substantial increase compared to 28.3% positive during week 38
  - ◆ The number of laboratory confirmed cases of pandemic (H1N1) 2009 increased
- The number of outbreaks reported in schools remains stable
- The proportion of flu-related calls to GP Out-of-Hours services decreased slightly during week 39
- Pandemic (H1N1) 2009 is the main influenza virus circulating; in week 39, 98.8% of specimens positive for influenza were pandemic (H1N1) 2009
- Based on the surveillance of laboratory confirmed cases of pandemic (H1N1) 2009, as of 26<sup>th</sup> September:
  - ◆ 1,353 confirmed cases were notified in Ireland
  - ◆ Children and young adults remain the most affected groups; 81.8% of cases were less than 35 years of age
  - ◆ Clinical illness continues to be mild in the majority of cases
  - ◆ The number of hospitalised cases of pandemic (H1N1) 2009 remained stable
- Two deaths in confirmed cases of pandemic (H1N1) 2009 have been reported to date (in weeks 32 and 34)

### 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.

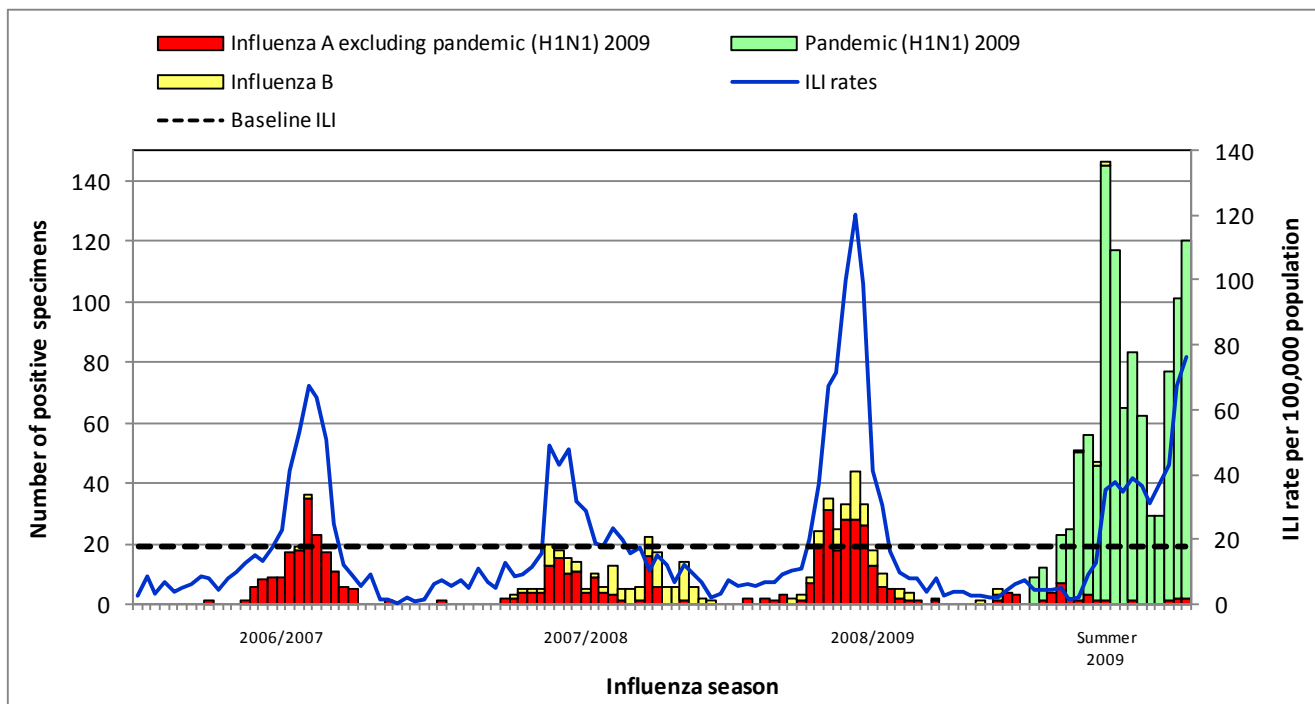
---

\* Since the last report, extra information on the number of ILI consultations occurring in week 38 was provided by sentinel GPs and the rate for the week was adjusted accordingly

## 1. GP sentinel surveillance system

### Clinical Data

During week 39 2009, 55 of 61 (90.2%) ICGP sentinel general practices provided data, with 39 practices reporting 170 influenza-like illness (ILI) cases and 22 practices reporting no ILI cases. This corresponds to an ILI consultation rate of 76.3 per 100,000 population, which is an increase compared to the updated rate of 67.6 per 100,000 population reported during week 38 2009.<sup>†</sup> 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 are included in figure 1.



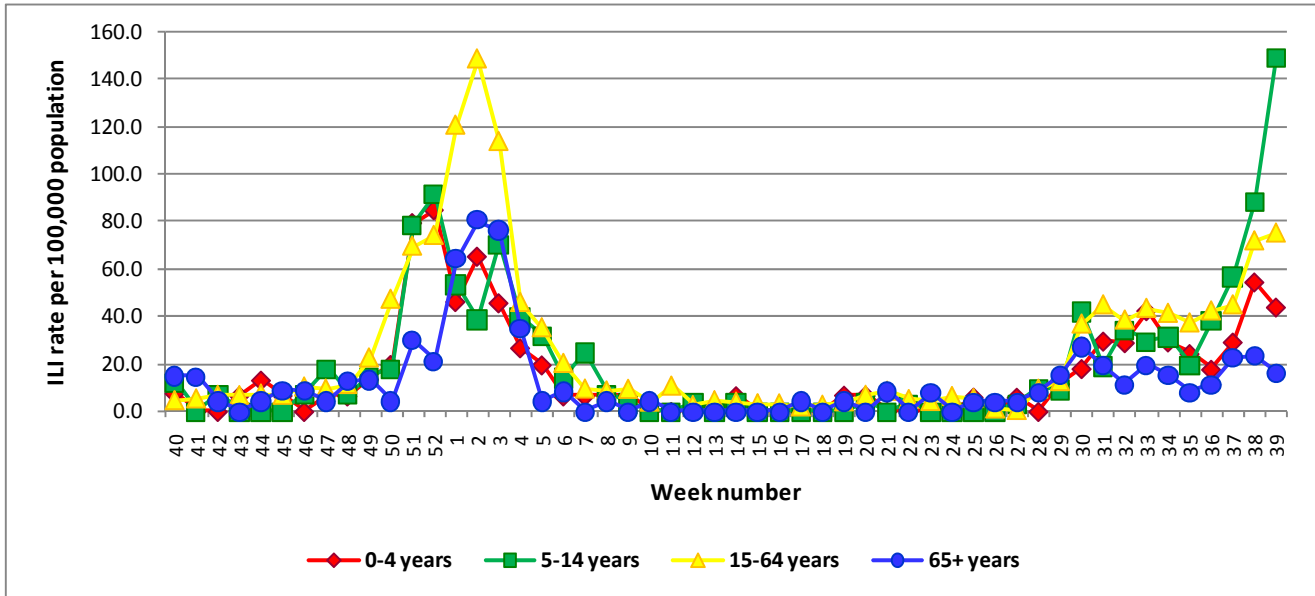
**Figure 1. ILI GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza specimens, by influenza week and season<sup>‡</sup>**

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

During week 39 2009, sentinel GPs reported seven ILI cases in the 0-4 year age group (44.1 per 100,000 population), 44 cases in the 5-14 year age group (148.9 per 100,000 population), 115 cases in the 15-64 year age group (75.3 per 100,000 population) and four cases in those aged 65 years and older (16.3 per 100,000 population) (figure 2).

<sup>†</sup> Since the last report, extra information on the number of ILI consultations occurring in week 38 was provided by sentinel GPs and the rate for the week was adjusted accordingly

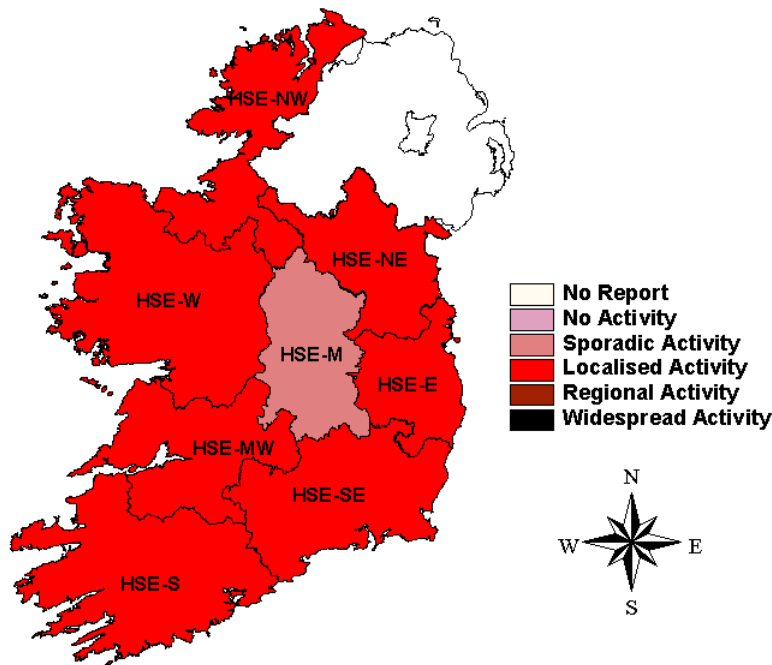
<sup>‡</sup> Please note that virological data up to week 38 2009 refers to NVRL data only. Virological data for week 39 2009 refers to data from NVRL, CUH & UCHG



**Figure 2: Age specific sentinel GP consultation rate for ILI per 100,000 population by week during the 2008/2009 and Summer 2009 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 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, -NW, -S, -SE and -W during week 39 2009 (figure 3).



**Figure 3: Map of provisional influenza activity by HSE area during influenza week 39 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 39 2009, hospital data were received from five HSE areas (HSE-M, HSE-MW, HSE-NW, HSE-SE and HSE-W). No increases in the proportion of respiratory admissions were reported from sentinel hospitals. Small increases in school absenteeism were reported from HSE-M during week 39 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 39, the percentage of flu-related calls was 6.1, a slight decrease compared to the proportion of flu-related calls (6.8%) reported during week 38 (figure 4).

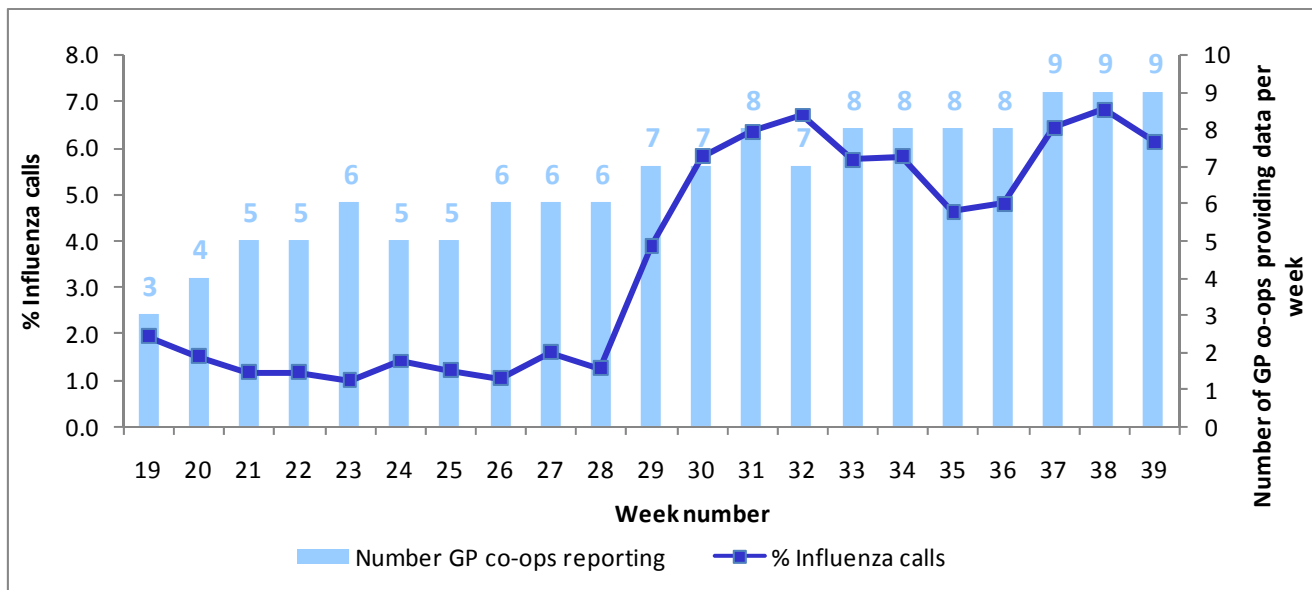


Figure 4: Flu-related calls as a proportion of total calls to Out-of-Hours GP Co-ops by week<sup>§</sup>

Source: HSE-NE.

<sup>§</sup> Week 39: data received from CARE-Doc, D-Doc, K-Doc, NE-Doc, NoW-Doc, MI-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)

Ninety-two specimens from sentinel GPs were tested by the NVRL during week 39 2009, 42 (45.7%) of which were positive for pandemic (H1N1) 2009.

The NVRL also tested 315 non-sentinel specimens taken during the same week. Of these, 270 specimens were tested for pandemic (H1N1) 2009, 59 (21.9%) of which were positive. One non-sentinel specimen was positive for RSV (0.3%). Figure 5 shows the number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2008/2009 and Summer 2009 influenza seasons, compared to the 2007/2008 and Summer 2008 influenza seasons. No specimens were positive for influenza B, adenovirus or parainfluenza viruses (table 1 and table 3).<sup>\*\*</sup>

CUH tested 100 non-sentinel specimens taken during week 39 2009. Twenty-three (23.0%) of the non-sentinel specimens tested positive for influenza (21 pandemic (H1N1) 2009 and two influenza A untyped) (table 2).

UCHG tested 92 non-sentinel specimens taken during week 39 2009. Thirty-eight (41.3%) of the non-sentinel specimens tested positive for pandemic (H1N1) 2009 (table 2).

Pandemic (H1N1) 2009 is the main influenza virus circulating. During week 39, 98.8% of specimens positive for influenza were pandemic (H1N1) 2009, while for the summer 2009 season to date, pandemic (H1N1) 2009 has accounted for 97.4% of influenza positive specimens (table 1).

During week 39, the percentage of sentinel & non-sentinel specimens testing positive for pandemic (H1N1) 2009 was 26.7%, an increase compared to 19.1% positive during week 38. 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 influenza season.

The NVRL has performed neuraminidase sequencing on 10 non-sentinel pandemic (H1N1) 2009 isolates. All have been fully susceptible to the neuraminidase inhibitors, oseltamivir and zanamivir.

---

<sup>\*\*</sup> 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

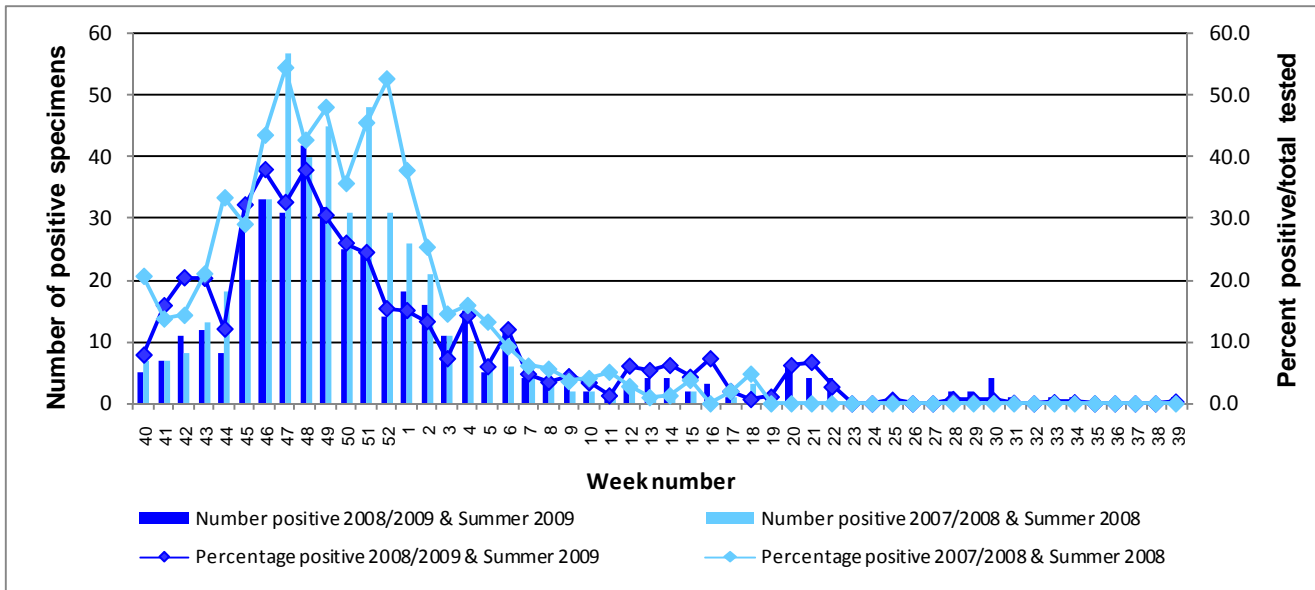


Figure 5: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2008/2009 and Summer 2009 influenza seasons, compared to the 2007/2008 and Summer 2008 influenza seasons

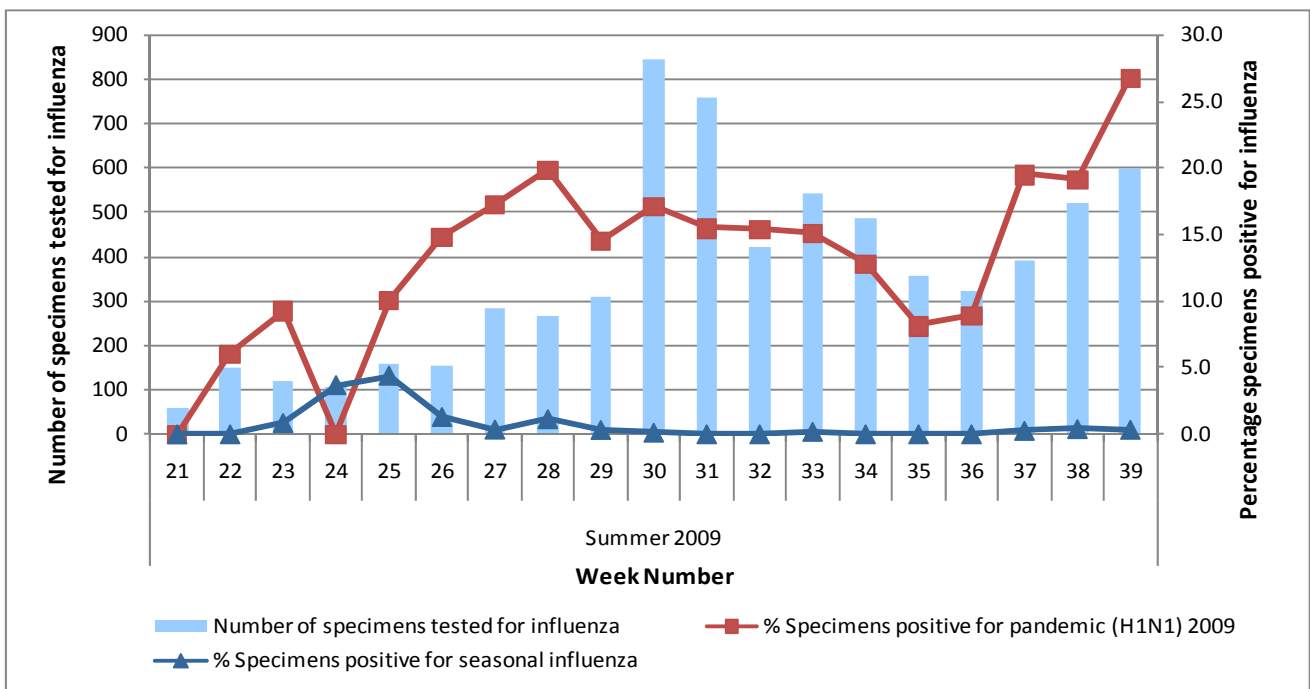


Figure 6: Number of sentinel and non-sentinel specimens tested for influenza and percentage influenza positive<sup>††</sup>  
 Source: NVRL, CUH & UCHG

<sup>††</sup> Please note that data for weeks 21-38 in figure 5 refers to NVRL data only. Week 39 data refers to data from NVRL, CUH & UCHG.

**Table 1: Number of sentinel and non-sentinel respiratory specimens tested and positive results, influenza week 39 2009 and Summer 2009 season to date<sup>‡‡</sup>**

Source: NVRL, CUH & UCHG

Week number	Specimen type	Total specimens	Number influenza	% Influenza Positive	Pandemic (H1N1) 2009	Influenza A(H3)	Influenza A(H1)	Influenza A <sup>§§</sup>	Influenza B	% Pandemic (H1N1) 2009
<b>39 2009</b>	Sentinel	92	42	45.7	42	0	0	0	0	100
	Non-sentinel	507	120	23.7	118	0	0	2	0	98.3
	<b>Total</b>	<b>599</b>	<b>162</b>	<b>27.0</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>98.8</b>
<b>Summer season to date</b>	Sentinel	665	148	22.3	145	3	0	0	0	<b>98.0</b>
	Non-sentinel	6190	950	15.3	924	14	3	6	3	<b>97.3</b>
	<b>Total</b>	<b>6855</b>	<b>1098</b>	<b>16.0</b>	<b>1069</b>	<b>17</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>97.4</b>

**Table 2: Number of non-sentinel respiratory specimens tested and positive results by laboratory, influenza week 39 2009**

Source: NVRL, CUH & UCHG

Week number	Laboratory	Total specimens	Number influenza Positive	% Influenza Positive	Pandemic (H1N1) 2009	% Pandemic (H1N1) 2009	Influenza A*
<b>39 2009</b>	NVRL	315	59	18.7	59	100.0	0
	CUH	100	23	23.0	21	91.3	2
	UCHG	92	38	41.3	38	100.0	0
	<b>Total</b>	<b>507</b>	<b>120</b>	<b>23.7</b>	<b>118</b>	<b>98.3</b>	<b>2</b>

**Table 3: Number of non-sentinel specimens tested by the NVRL for other respiratory pathogens and positive results, influenza week 39 2009 and Summer 2009 season 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
<b>39 2009</b>	315	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0
<b>Summer season to date</b>	5998	21	0.4	4	0.1	4	0.1	0	0.0	6	0.1

<sup>‡‡</sup> Please note that CUH & UCHG data is for week 39 2009 only

<sup>§§</sup> Influenza A - not subtyped yet, but not pandemic (H1N1) 2009

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

As of 26<sup>th</sup> September 2009, a total of 1,353 confirmed cases of pandemic (H1N1) 2009 infection were reported. Figure 7 shows the number of confirmed pandemic (H1N1) 2009 cases by week of notification.

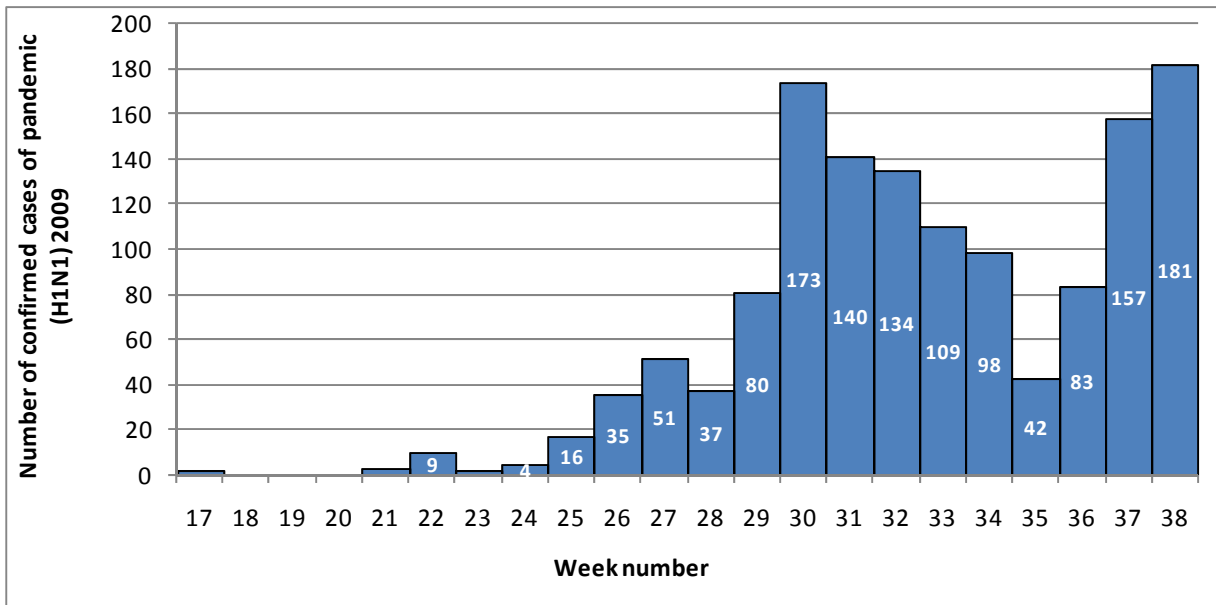


Figure 7: Number of confirmed cases of pandemic (H1N1) 2009 by week of notification \*\*\*

Source: CIDR

#### Age and Sex

Of the 1,353 confirmed cases reported to date, 678 were female (50.1%), 663 were male (49.0%) and sex was not reported for 12 cases (0.9%). The median age of cases was 20 years (range: 0-79 years) and 81.8% 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 6 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore weeks 17-38 above is equivalent to weeks 18-39 on the influenza system



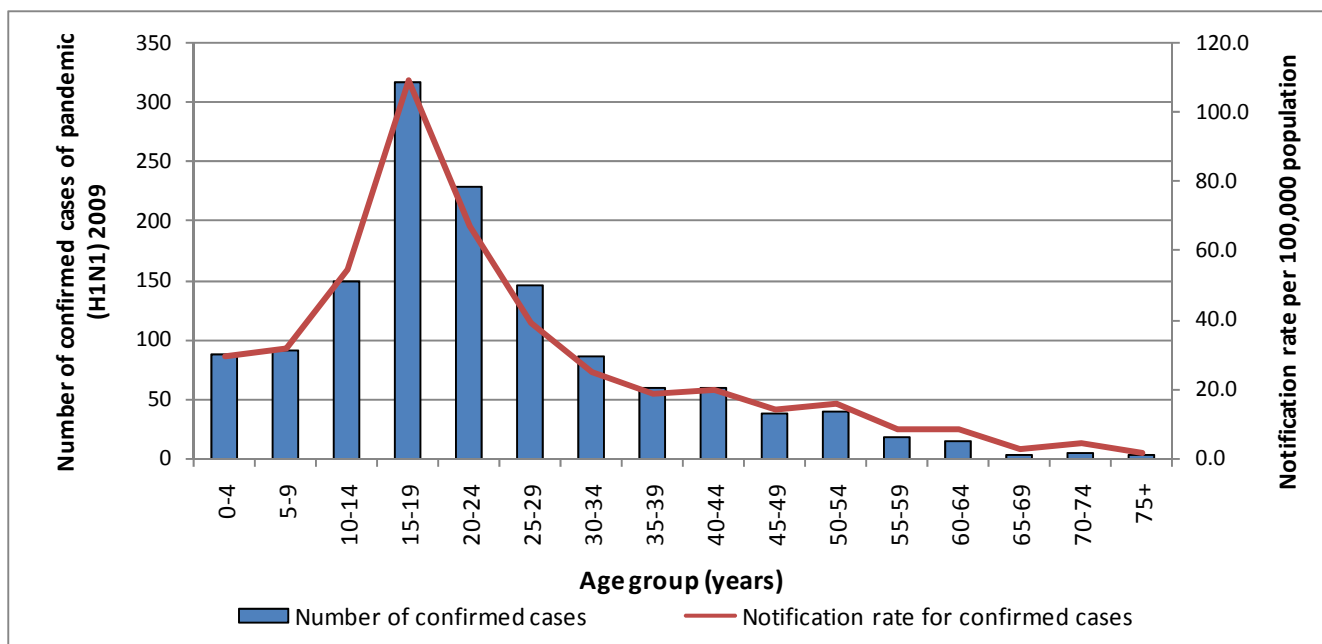


Figure 8: Number of confirmed cases of pandemic (H1N1) 2009 and notification rate per 100,000 population by age group (years)

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 38 was in HSE-W (16.9 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 38 <sup>†††</sup> : 20 <sup>th</sup> to 26 <sup>th</sup> September 2009		Week 17 - Week 38 2009	
	Number of confirmed cases	Rate per 100,000 population	Number of confirmed cases	Rate per 100,000 population
HSE-E	39	2.6	419	27.9
HSE-M	4	1.6	33	13.1
HSE-MW	22	6.1	107	29.6
HSE-NE	14	3.6	142	36.0
HSE-NW	8	3.4	86	36.3
HSE-SE	6	1.3	70	15.2
HSE-S	18	2.9	181	29.1
HSE-W	70	16.9	315	76.0
<b>Total</b>	<b>181</b>	<b>4.3</b>	<b>1353</b>	<b>31.9</b>

<sup>†††</sup> Week number in table 2 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore week 38 above is equivalent to week 39 on the influenza system

### Severity of illness

Clinical illness continues to be mild in the majority of cases. Two deaths have been reported to date in Ireland. The first death occurred in a female during week 32 2009 and the second death was in a male during week 34 a 2009.

Reported complications have been mostly respiratory in nature; 34 cases developed pneumonia and six developed acute respiratory distress syndrome (ARDS) (four of these also had pneumonia). Other reported complications included otitis media, chest infections, acute renal failure and multi-organ failure.

### Hospitalised cases

Of the 1,353 confirmed cases, 157 (11.6%) were reported as having been admitted to hospital. Of the 157 hospitalised cases, 13 (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 eleven hospitalised cases have recovered or are recovering (70.7%), 16 are still ill (10.2%), outcome is awaited for 28 (17.8%) and two cases died (1.3%). Table 5 shows the number of hospitalised cases by age group (years) and sex.

Seventy-one (45.2%) of the hospitalised cases had pre-existing clinical conditions including chronic heart disease, chronic liver disease, chronic respiratory disease, chronic neurological disease, asthma, haemoglobinopathy, immunosuppression, diabetes mellitus, severe obesity (BMI  $\geq 40$ ) and pregnancy.

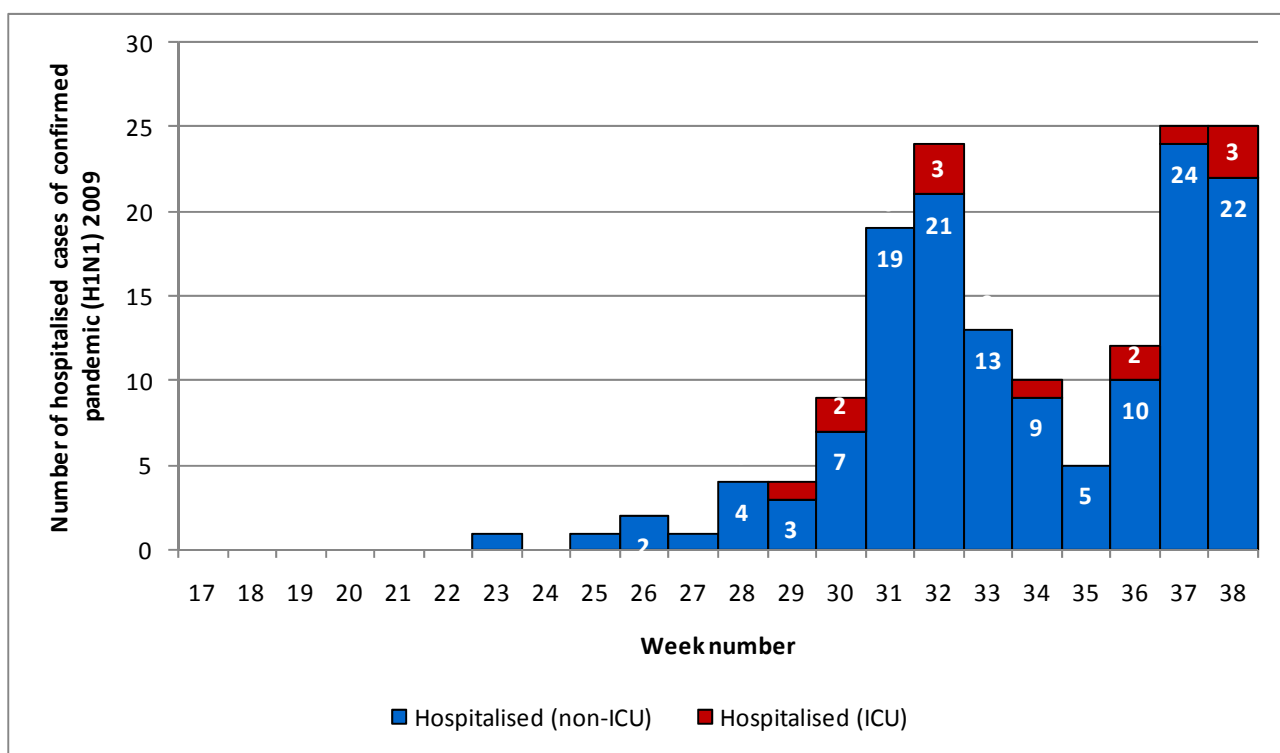


Figure 9: Number of hospitalised cases of confirmed pandemic (H1N1) 2009 by week number<sup>\*\*\*</sup>

Source: CIDR

<sup>\*\*\*</sup> Week number in Figure 8 is based on infectious disease notification week number, which is one week behind the international influenza week number. Therefore week 37 above is equivalent to week 38 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	9	10	19
5-9	6	10	16
10-14	5	8	13
15-19	12	14	26
20-24	14	9	23
25-29	8	2	10
30-34	6	5	11
35-39	2	0	2
40-44	6	4	10
45-49	4	2	6
50-54	4	2	6
55-59	1	5	6
60-64	2	2	4
65-69	1	1	2
70-74	0	1	1
75+	2	0	2
<b>Total</b>	<b>82</b>	<b>75</b>	<b>157</b>

## 6. Outbreak surveillance (CIDR)

As of 30<sup>th</sup> September 2009 at 18.00 hours, 35 general outbreaks of pandemic (H1N1) 2009 and one general ILI outbreak have been reported in Ireland since week 23 2009. Please note this section will no longer report family outbreaks and now only includes general outbreaks. These outbreaks involved 947 people in total, of which 86 (9.1%) 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, two in crèches, two were travel related and one each were in a community hospital/long-stay unit, a hotel, a workplace, an intellectual disability unit and one was related to a social gathering (figure 10). Of the 947 outbreak associated cases, 70 were female, 70 were male and sex was not reported for 807 cases. Table 6 summarises the pandemic (H1N1) 2009 and ILI outbreaks to date by location, while table 7 summarises the pandemic (H1N1) 2009 and ILI outbreaks by HSE area. Table 8 shows the number of outbreak associated pandemic (H1N1) 2009 and ILI cases by age group (years).

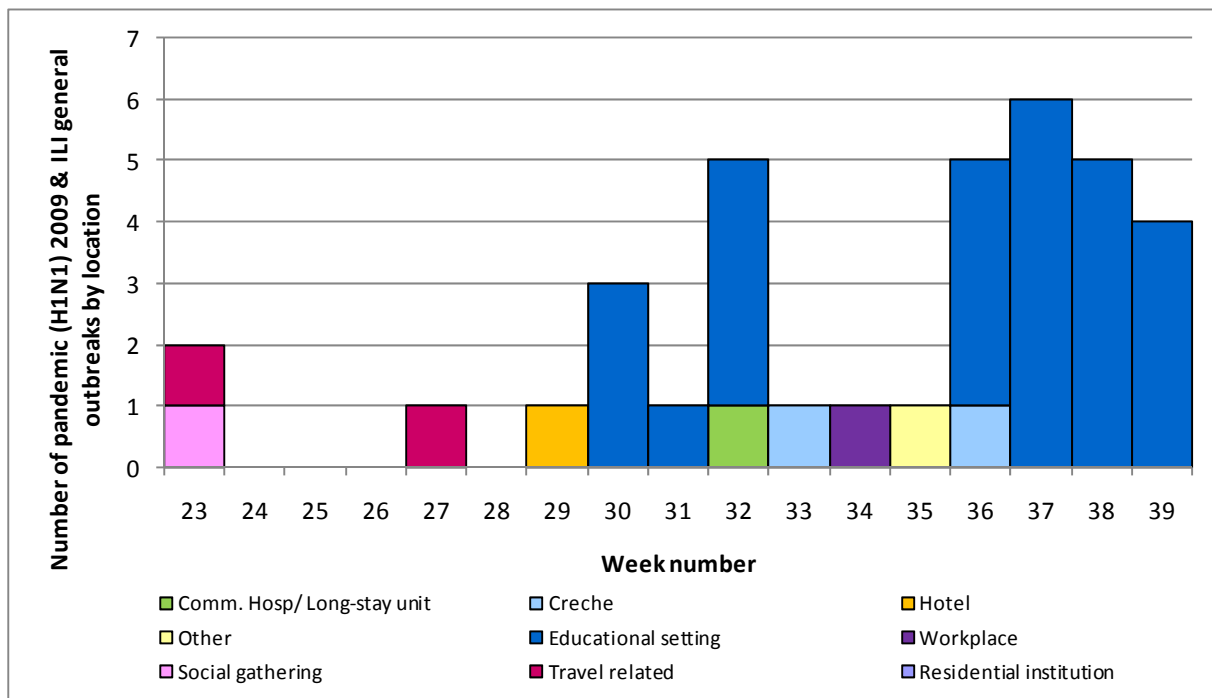


Figure 10: Number of pandemic (H1N1) 2009 general outbreaks by location and week number<sup>§§§</sup>

Source: CIDR

<sup>§§§</sup> 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 and only represents data from Sunday 27<sup>th</sup> to Wednesday 30<sup>th</sup> September @ 18.00 hours

**Table 6: 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 confirmed
Comm. Hosp/ Long-stay unit	1	5	2
Creche	2	9	5
Hotel	1	3	1
Other	1	3	3
Educational setting	27	913	65
Workplace	1	3	0
Travel related	2	9	8
Social gathering	1	2	2
<b>Total</b>	<b>36</b>	<b>947</b>	<b>86</b>

**Table 7: 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	2	19	2
HSE-M	0	0	0
HSE-MW	6	14	18
HSE-NE	10	217	17
HSE-NW	4	250	14
HSE-SE	1	35	4
HSE-S	4	42	5
HSE-W	9	370	26
<b>Total</b>	<b>36</b>	<b>947</b>	<b>86</b>

**Table 8: 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
	5	6	0	585	53	4	0	294	<b>947</b>

\*\*\*\* Data taken from CIDR at 30/09/2009, 18.00 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 20<sup>th</sup> September 2009

WHO Region	Cumulative total as of 20 <sup>th</sup> September 2009	
	Cases <sup>††††</sup>	Deaths
Africa (AFRO)	8264	41
Americas (AMRO)	130448	2948
Eastern Mediterranean (EMRO)	11621	72
Europe (EURO)	At least 53000	Over 154
South-East Asia (SEARO)	30293	340
Western Pacific (WPRO)	85299	362
<b>Total</b>	<b>At least 318925</b>	<b>Over 3917</b>

### United Kingdom

During week 38, pandemic influenza activity continued to increase in many areas of the UK, particularly in school-aged children. Although most cases continued to be mild, 82 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 973 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](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](http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=447)

### USA

During week 37 (13<sup>th</sup> to 19<sup>th</sup> September 2009), influenza activity increased in the United States. During week 37, 2,326 (23.9%) 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/>

<sup>††††</sup> 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.

## Canada

During week 37 (13<sup>th</sup> to 19<sup>th</sup> September 2009), the national ILI consultation rate was 32 consultations per 1,000 visits, an increase in comparison to the previous week's rate (23 per 1,000 visits). This rate is above the range of expected levels for this time of year. During week 37, the intensity of pandemic (H1N1) infection 2009 in the population was low to moderate with only a small number of hospitalisations (n=8) and two deaths reported. The national hospitalisation rate was 4.4 per 100,00 population with the highest rates in children aged less than 15 years of age (10.4 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 (0.33 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 38, but the ILI rate remains 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 38, 100% of specimens positive for influenza were pandemic (H1N1) 2009. [http://www.surv.esr.cri.nz/virology/influenza\\_weekly\\_update.php](http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php)

## Australia

As of 18<sup>th</sup> September 2009, overall current national influenza activity continues to decrease. Most jurisdictions have reported that pandemic (H1N1) 2009 activity has peaked and is decreasing. ILI presentations to GPs have remained steady or decreased in most states and territories. At a national level, rates are below levels seen during the same period in 2007 and 2008. The proportion of tests positive for pandemic (H1N1) 2009 increased slightly for this reporting period, with a national proportion positive of 93%. As of 24<sup>th</sup> September, there were 36,559 confirmed cases of pandemic (H1N1) 2009 and 178 (0.5%) deaths associated with pandemic (H1N1) 2009. The number of people with pandemic (H1N1) 2009 requiring hospitalisation continues to decrease. As of the 24<sup>th</sup> September 2009, the total number of hospitalisations in Australia since pandemic (H1N1) 2009 was identified is 4,778 (13.1 %). Of the 4,778 cases ever hospitalised, 290 are currently hospitalised, 54 (18.6%) of whom are in intensive care units. Due to underlying chronic disease and social deprivation, indigenous Australians are approximately 10 times more likely than non-indigenous Australians to be hospitalised for pandemic (H1N1) 2009. The overall hospitalisation rate is 21 per 100,000 population with the highest rates in children aged less than 5 years of age.

<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

In Japan, influenza activity continues to be slightly above the seasonal epidemic threshold. In the tropical regions of the Americas and Asia, influenza activity remains variable. In parts of India, Bangladesh and Cambodia, influenza transmission continues to be active, while other countries in Southeast Asia have been recently reporting declining transmission (Indonesia, Singapore and Thailand). Although most countries in the tropical regions of the Americas are still reporting regional to widespread geographic spread of influenza activity, there is no consistent pattern in the trend of respiratory diseases. Peru and Mexico have reported an increasing trend in some areas, while most others are reporting an unchanged or decreasing trend (most notably, Bolivia, Venezuela and Brazil).

In the temperate regions of the southern hemisphere, influenza transmission has largely returned to baseline (Chile and Argentina) or is continuing to decline (South Africa). [www.who.int/topics/influenza/en/](http://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](http://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/>

**Acknowledgements**

**HPSC wishes to thank the Departments of Public Health, HSE-NE, ICGP, NVRL, CUH and UCHG for providing data for this report**



## Appendix A

### **Sentinel surveillance for influenza**

This is the ninth 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 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.