Influenza Surveillance in Ireland – Weekly Report

Influenza Week 4 2011 (24th – 30th January 2011)

Intensive Care Society of Ireland

Summary

- Influenza activity has peaked for the 2010/2011 influenza season and is now declining albeit at a slower rate, and remains above baseline threshold levels. However, activity in 5-14 year olds continues to increase in the community and is mainly associated with influenza B.
- The sentinel GP influenza-like illness (ILI) consultation rate was 93.2 per 100,000 population in week 4 2011, a slight decrease from the updated rate of 107.5 per 100,000 reported during week 3 2011.
- Influenza B is the predominant circulating influenza type in Ireland, accounting for 60.0% of all positive influenza specimens detected by the NVRL in week 4 2011.
- The proportion of influenza A (H1N1 2009) positive specimens decreased, accounting for 36.8% of all positive influenza specimens detected by the NVRL in week 4 2011.
- The weekly number of hospitalised cases of influenza decreased in week 4 2011.
- To date (February 2nd 2011) this season, 803 confirmed influenza cases have been hospitalised, 103 cases have been admitted to ICU and 15 deaths have been reported to HPSC.
- The proportion of influenza–related calls to GP Out-of-Hours services decreased slightly in week 4 2011, coinciding with the decrease in sentinel GP ILI consultation rates.
- As of February 2nd 2011, 14 influenza/ILI outbreaks have been reported to HPSC this season.
- The number of respiratory syncytial virus (RSV) positive detections remained stable in week 4 2011.

Surveillance Systems

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

1. Irish College of General Practitioners (ICGP) GP sentinel surveillance system
2. Virological data from the National Virus Reference Laboratory (NVRL)
3. GP Out-of-Hours surveillance system
4. Influenza notifications reported on the Computerised Infectious Disease Reporting system (CIDR)
5. Enhanced surveillance of all hospitalised confirmed influenza cases aged 0-14 years
6. Intensive Care Society of Ireland (ICSI) enhanced surveillance of all critical care patients with confirmed influenza A (H1N1 2009)
7. Outbreak reporting on CIDR
8. Network of sentinel schools reporting absenteeism and sentinel hospitals reporting admission data

1. GP sentinel surveillance system

Clinical Data

During week 4 2011, 52 of 60 (86.7%) sentinel general practices provided data, with 45 practices (86.5%) reporting 219 influenza-like illness (ILI) cases. This corresponds to an ILI consultation rate of 93.2 per 100,000 population, a small decrease compared to the updated rate of 107.5 per 100,000 reported during week 3 2011. The ILI rate for week 4 2011 is above the Irish baseline threshold (17.8 per 100,000 population). Seven (13.5%) sentinel practices reported no ILI cases during week 4 2011. Figure 1 shows the ILI consultation rates, the baseline threshold rate and the number of positive specimens detected by the NVRL.

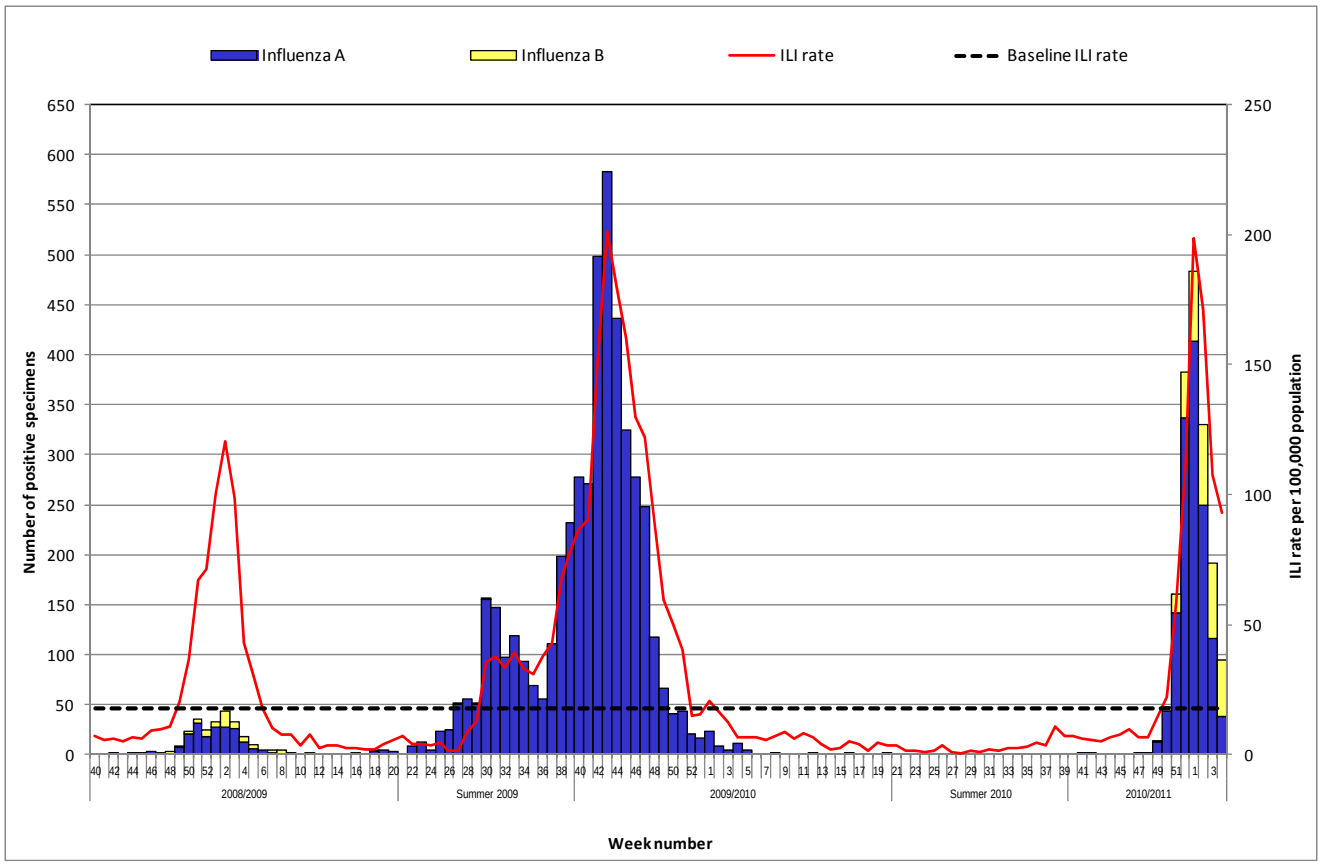

Figure 1. ILI sentinel GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season.
Source: Clinical ILI data from ICGP and virological data from the NVRL[1][2]

ILI age specific rates were highest in the 5-14 year age group during week 4 2011. ILI rates increased in this age group for the seventh consecutive week. ILI rates decreased in the 15-64 year age group and in those aged 65 years or older, and remained unchanged in the 0-4 year age group during week 4 2011, compared to the previous week. During week 4 2011, 23 ILI cases were reported in the 0-4 year age group (137.3 per 100,000), 83 cases were reported in the 5-14 year age group (266.4 per 100,000), 111 in the 15-64 year age

[1] Please note that in addition to the NVRL, Cork University Hospital (CUH) and Galway University Hospital(s) (GUH) also tested for influenza A (H1N1 2009) during the pandemic period.
[2] Sentinel GP consultations and virological data are updated on an ongoing basis, ILI rates and virological data are adjusted accordingly.

group (68.9 per 100,000) and 2 ILI cases in those aged 65 years or older (7.7 per 100,000). Age specific ILI rates in the 0-4 and 5-14 year olds remain at a significantly lower level than those reported during the pandemic period in 2009/2010. During the pandemic period, ILI rates in 0-4 year olds peaked at 387.3 per 100,000 population and at 772.0 per 100,000 population in 5-14 year olds.

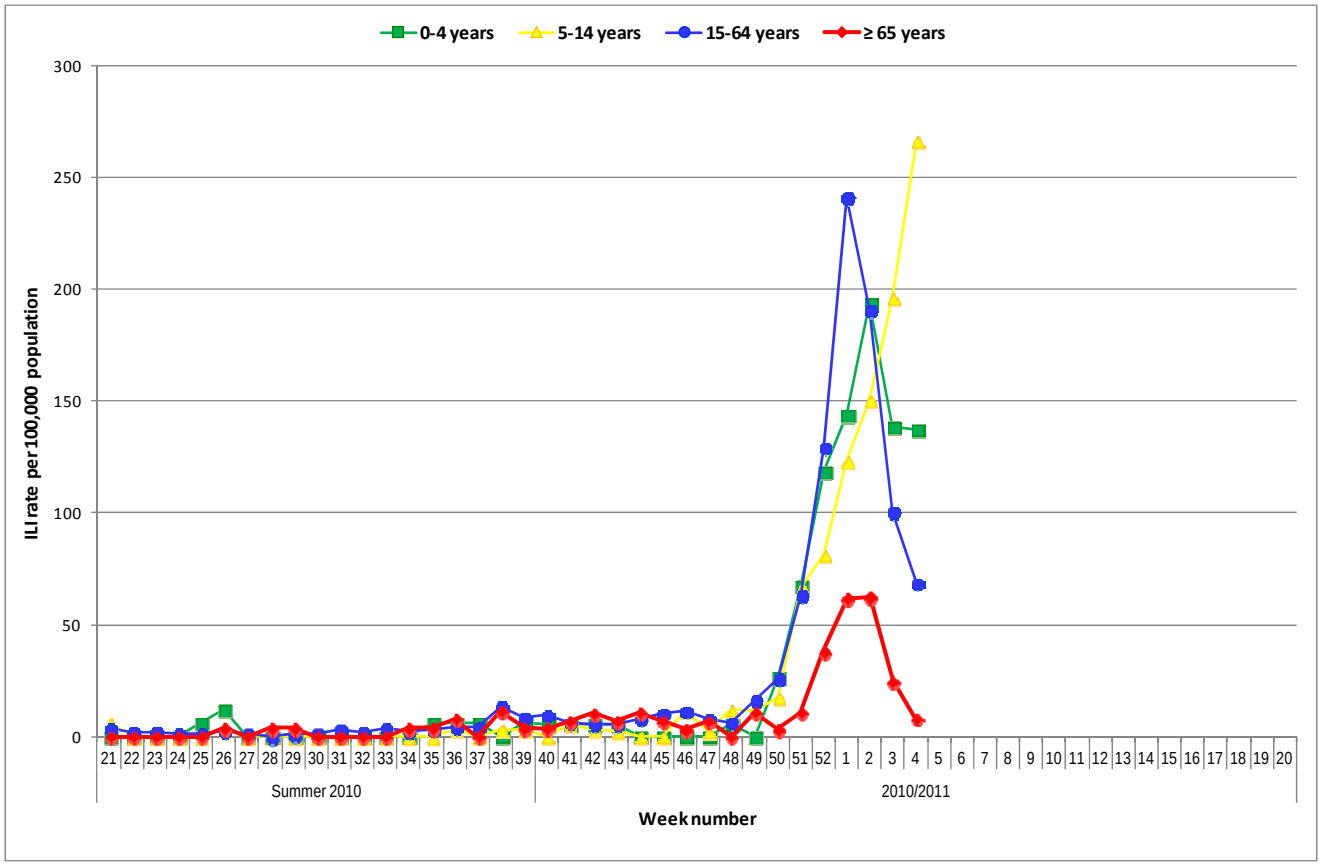

Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2010 and the 2010/2011 influenza season to date
Source: ICGP ILI clinical data

2. Virological Data from the National Virus Reference Laboratory (NVRL)[‡]

The data reported in this section for the 2010/2011 influenza season refers to specimens tested by the National Virus Reference Laboratory (NVRL). A total of 496 specimens (82 sentinel and 414 non-sentinel specimens) were tested by the NVRL during week 4 2011. Ninety-five (19.2%) specimens were positive for influenza: 34 (35.8%) influenza A (H1N1 2009), one (1.1%) influenza A (H3), three (3.2%) influenza A (unsubtyped) and 57 (60.0%) influenza B. Influenza B is now the predominant circulating influenza type in Ireland, accounting for 60.0% of all positive influenza specimens detected by the NVRL in week 4 2011.

Of the 82 GP sentinel specimens taken during week 4 2011, 28 (34.1%) were positive for influenza: 6 (21.4%) influenza A (H1N1 2009) and 22 (78.6%) influenza B. Of the 414 non-sentinel specimens taken during week 4 2011, 67 (16.2%) were positive for influenza: 28 (41.8%) A (H1N1 2009), 1 (1.5%) A (H3), 3 (4.5%) A (unsubtyped) and 35 (52.2%) B. Forty-two percent of all influenza B positive specimens detected during week 4 2011 were in the 5-14 year age group.

To date this season, 5457 sentinel and non-sentinel specimens were tested by the NVRL, 1710 (31.3%) specimens tested positive for influenza: 1302 influenza A (H1N1 2009), 31 influenza A (H3), 25 influenza A (unsubtyped) and 352 influenza B. Of the 1710 positive influenza specimens, 1358 (79.4%) were influenza A and 352 (20.6%) were influenza B. Of the 1302 influenza A (H1N1 2009) specimens detected, 251 were sentinel specimens and 1051 were from non-sentinel sources (figures 3 & 4).

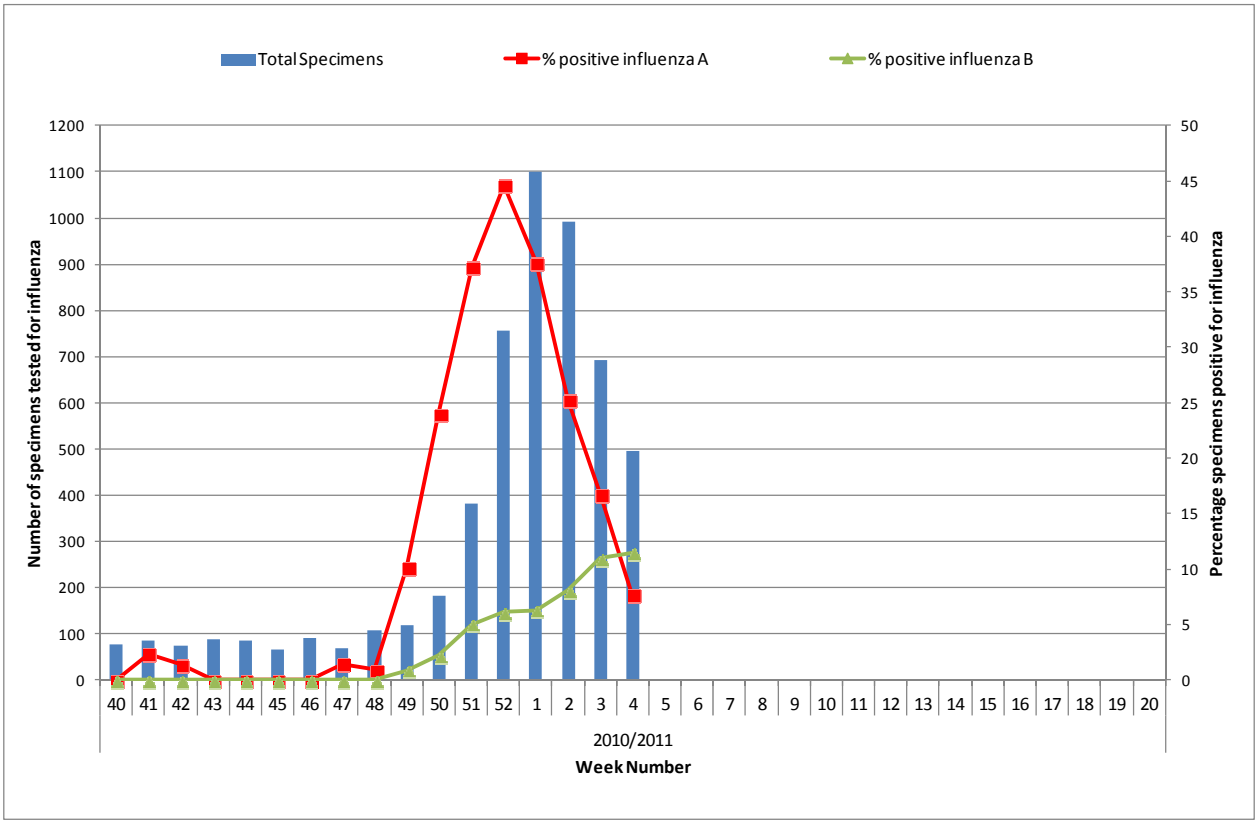

Figure 3: Number of sentinel and non-sentinel specimens tested for influenza and percentage influenza positive by week for the 2010/2011 influenza season. *Source: NVRL*[§]

[‡] It should be noted that virological data refer to weekly data received from the NVRL on Tuesday of each week.

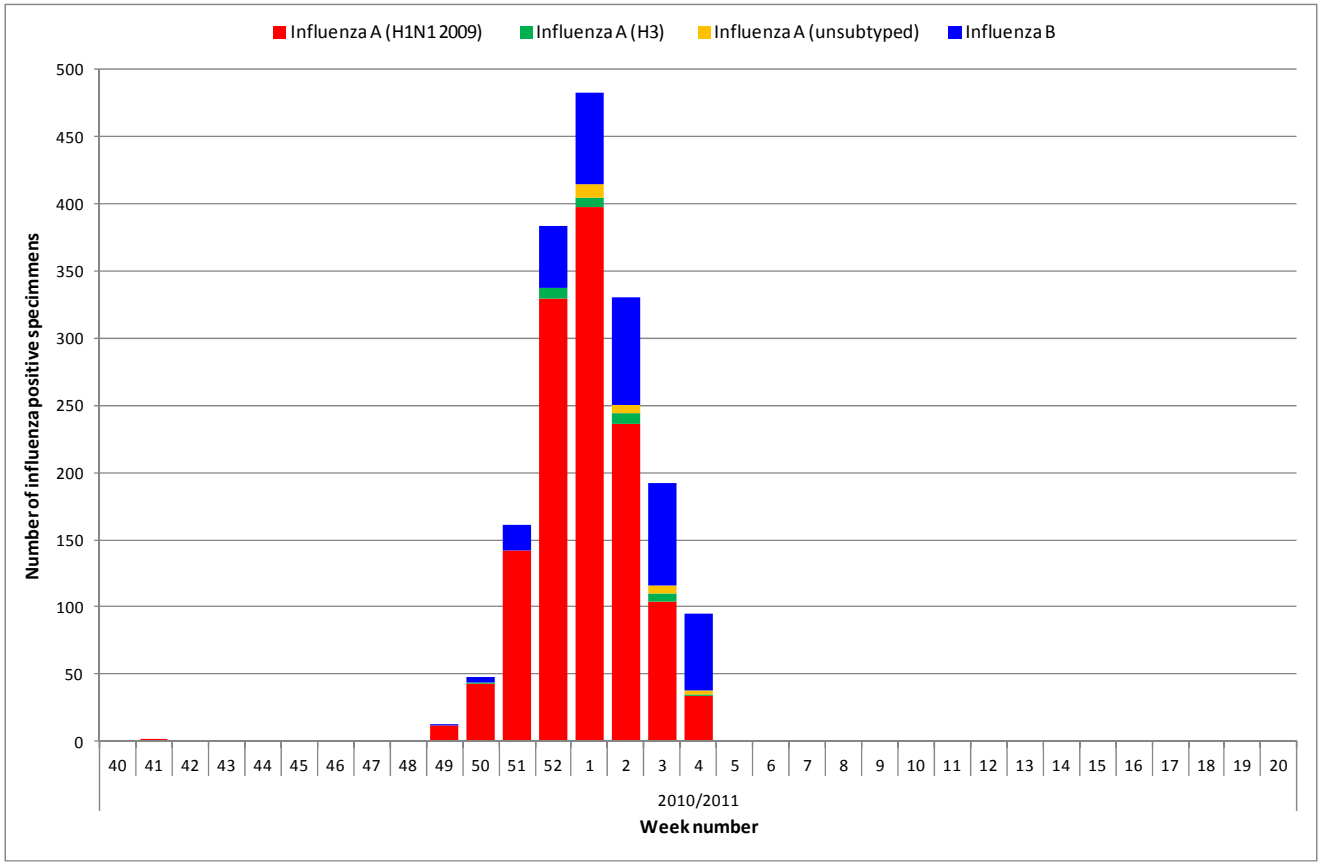

Figure 4: Number of sentinel and non-sentinel specimens positive for influenza by type/subtype and week for the 2010/2011 influenza season. *Source: NVRL*[**]

Of the 414 non-sentinel specimens tested during week 4 2011, 6.0% (n=25) were positive for RSV, remaining stable compared to the updated numbers (n=25, 4.3%) for week 3 2011 (Tables 1 & 2). The current proportion of RSV positive detections remains at low levels, compared to average proportions for the same period over the last 10 years. It should be noted that RSV data only include specimens referred to the NVRL for RSV testing. Not all hospitals refer respiratory specimens for RSV testing to the NVRL. Figure 5 shows the number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2010/2011 and 2009/2010 seasons.[††]

There were no positive detections of adenovirus or parainfluenza viruses reported from the NVRL for week 4 2011. To date this season, there have been sporadic detections of adenovirus and parainfluenza virus (PIV) types -1, -2 and -3.

[§] 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.

[††] 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.

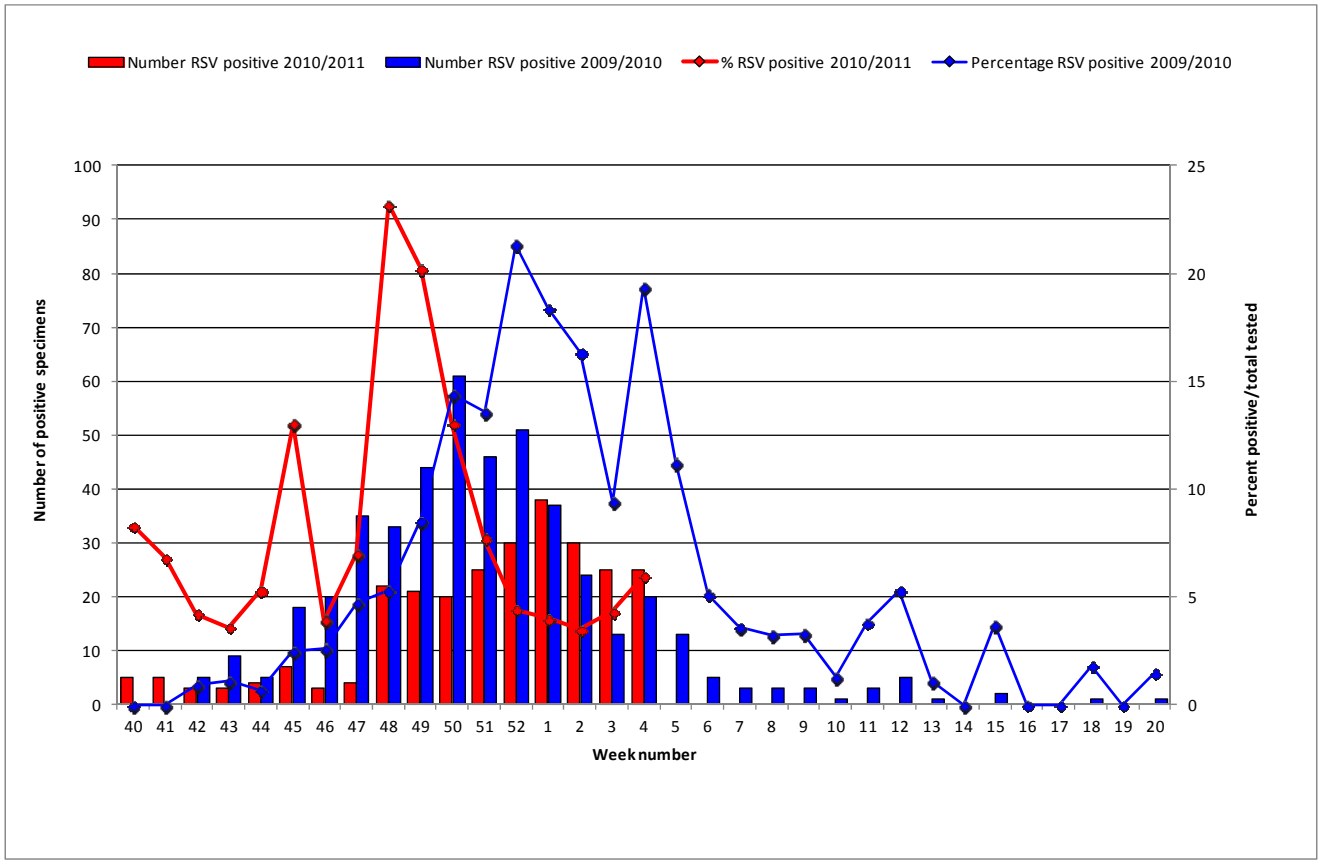

Figure 5: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2010/2011 season, compared to the 2009/2010 season. *Source: NVRL*

Table 1: Number of sentinel and non-sentinel[⌗⌗] respiratory specimens tested by the NVRL and positive influenza results, for week 4 2011 and the season to date *Source: NVRL*

Week number	Specimen type	Total specimens tested	Number influenza positive	% Influenza positive	Influenza A					Influenza B
					Total influenza A	A (H1N1 2009)	A (H3)	A (H1)	A (unsubtyped)	
4 2011	Sentinel	82	28	34.1	6	6	0	0	0	22
	Non-sentinel	414	67	16.2	32	28	1	0	3	35
	Total	**496**	**95**	**19.2**	**38**	**34**	**1**	**0**	**3**	**57**
2010/2011 season	Sentinel	751	375	49.9	258	251	4	0	3	117
	Non-sentinel	4706	1335	28.4	1100	1051	27	0	22	235
	Total	**5457**	**1710**	**31.3**	**1358**	**1302**	**31**	**0**	**25**	**352**

Table 2: Number of non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 4 2011 and the season to date *Source: NVRL*

Week number	Total specimens tested	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
4 2011	414	25	6.0	0	0.0	0	0.0	0	0.0	0	0.0
2010/2011 season	4706	270	5.7	12	0.3	6	0.1	2	0.04	4	0.1

[⌗⌗] 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.

3. Regional Influenza Activity by HSE-Area

Influenza activity is reported on a weekly basis for each HSE area. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed influenza cases and ILI/influenza outbreaks.

During week 4 2011, widespread influenza activity was reported from three HSE-Areas (HSE-E, -NE and -MW), regional influenza activity from HSE-S and –SE, localised activity was reported from HSE-M and -W and sporadic activity in HSE-NW (figure 6).

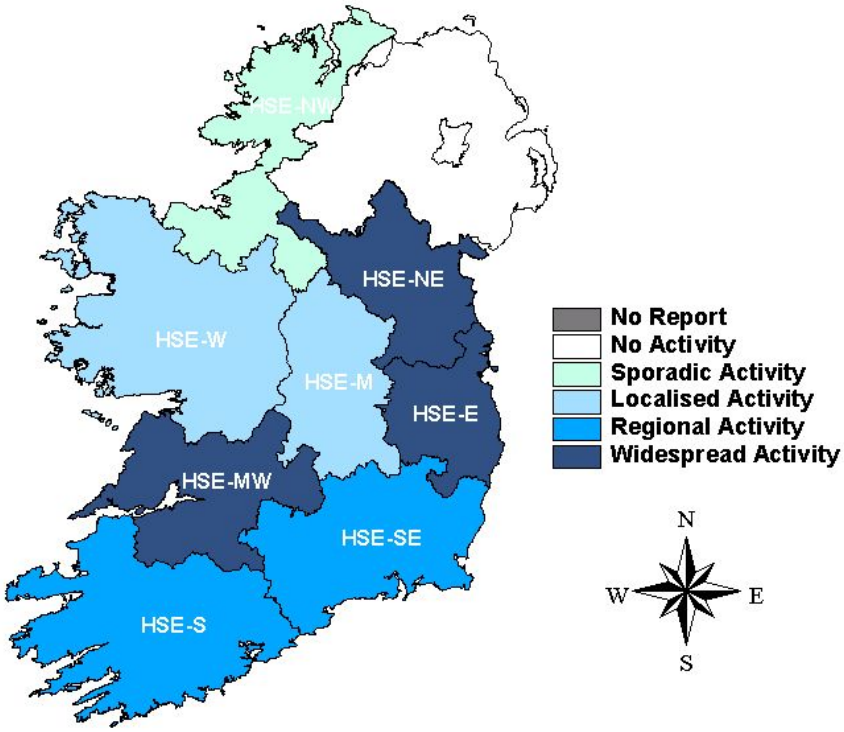

Figure 6: Map of provisional influenza activity by HSE-Area during influenza week 4 2011

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 HSE-Area, in close proximity to the sentinel GPs, to report absenteeism data on a weekly basis. Hospital admissions and school absenteeism data act as a crude indicator for influenza activity.

Three sentinel hospitals reported slight increases in the proportion of respiratory admissions in HSE-E and –W during week 4 2011. These increases were associated with paediatric cases in one sentinel hospital. The proportion of respiratory admissions from reporting sentinel hospitals in HSE-E, -S, -SE and -W peaked during weeks 51 and 52 2010. Five sentinel primary schools reported colds/ILI/gastrointestinal symptoms and increased absenteeism amongst pupils during weeks 3 and 4 2011, one school was in HSE-M (week 3 2011) and four schools were in HSE-NW (weeks 3 and 4 2011).

4. GP Out-Of-Hours services surveillance

The Department of Public Health in 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.

The proportion of influenza–related calls to GP Out-of-Hours services decreased slightly during week 4 2011, reaching 5.9%, compared to 6.3% in week 3 2011. Seven GP Out-of-Hours services reported during week 4 2011 (figure 7).

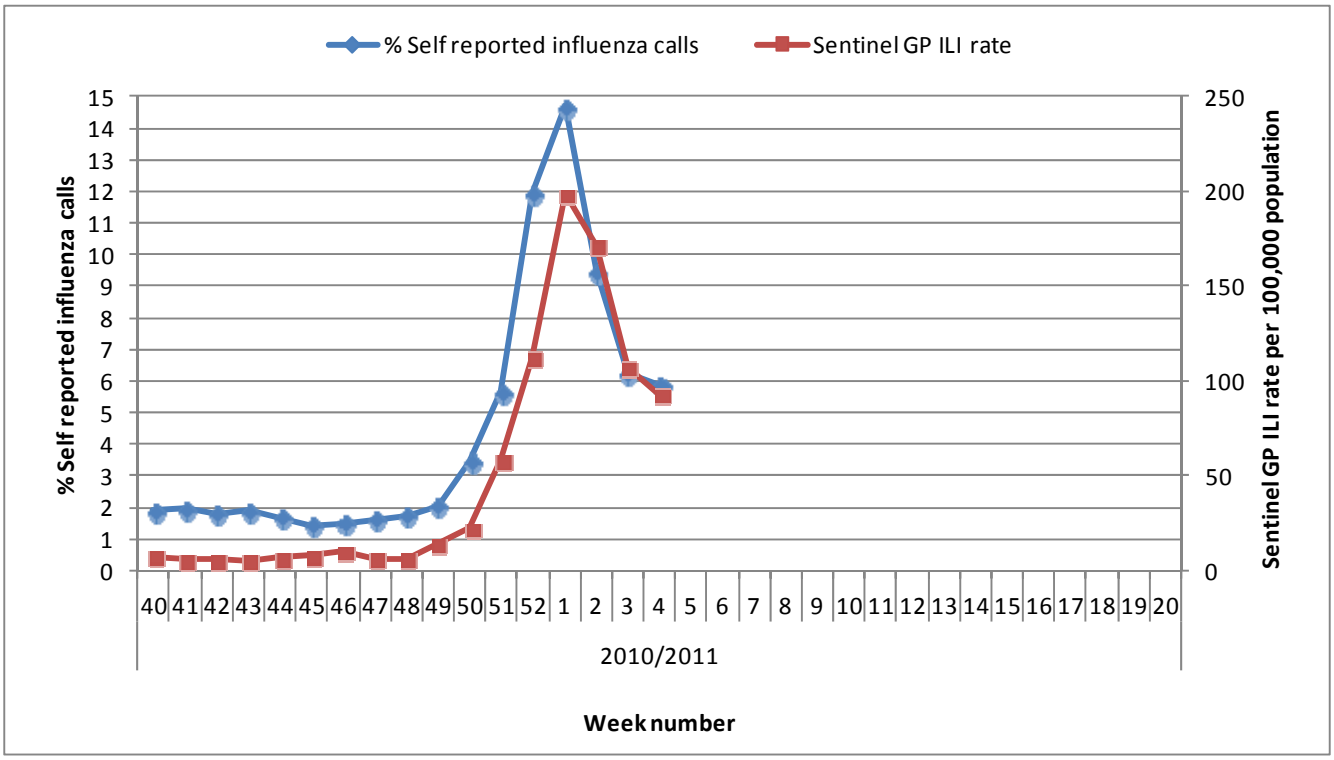

Figure 7: Self reported influenza-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and national sentinel GP ILI consultation rate per 100,000 population by week for the 2010/2011 season
Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.

5. Influenza notifications (CIDR)

As of 2nd February 2011 (09:00), 1843 confirmed influenza cases were notified on CIDR for the 2010/2011 influenza season. Laboratory confirmed influenza cases notified on CIDR include all positive influenza specimens reported from all laboratories testing for influenza and reporting to CIDR. Currently, the NVRL is the only laboratory subtyping positive influenza A specimens for *all* influenza A subtypes. Of the 1843 confirmed influenza cases, 1260 (68.4%) were confirmed influenza A (H1N1 2009), 17 (0.9%) were influenza A (H3), 184 (9.9%) were influenza A (unsubtyped), 381 (20.7%) were influenza B cases and one case was reported as influenza (type unknown). It should be noted that data for week 5 2011 are incomplete and only include notified cases as of Wednesday 2nd February 2011 (09:00).

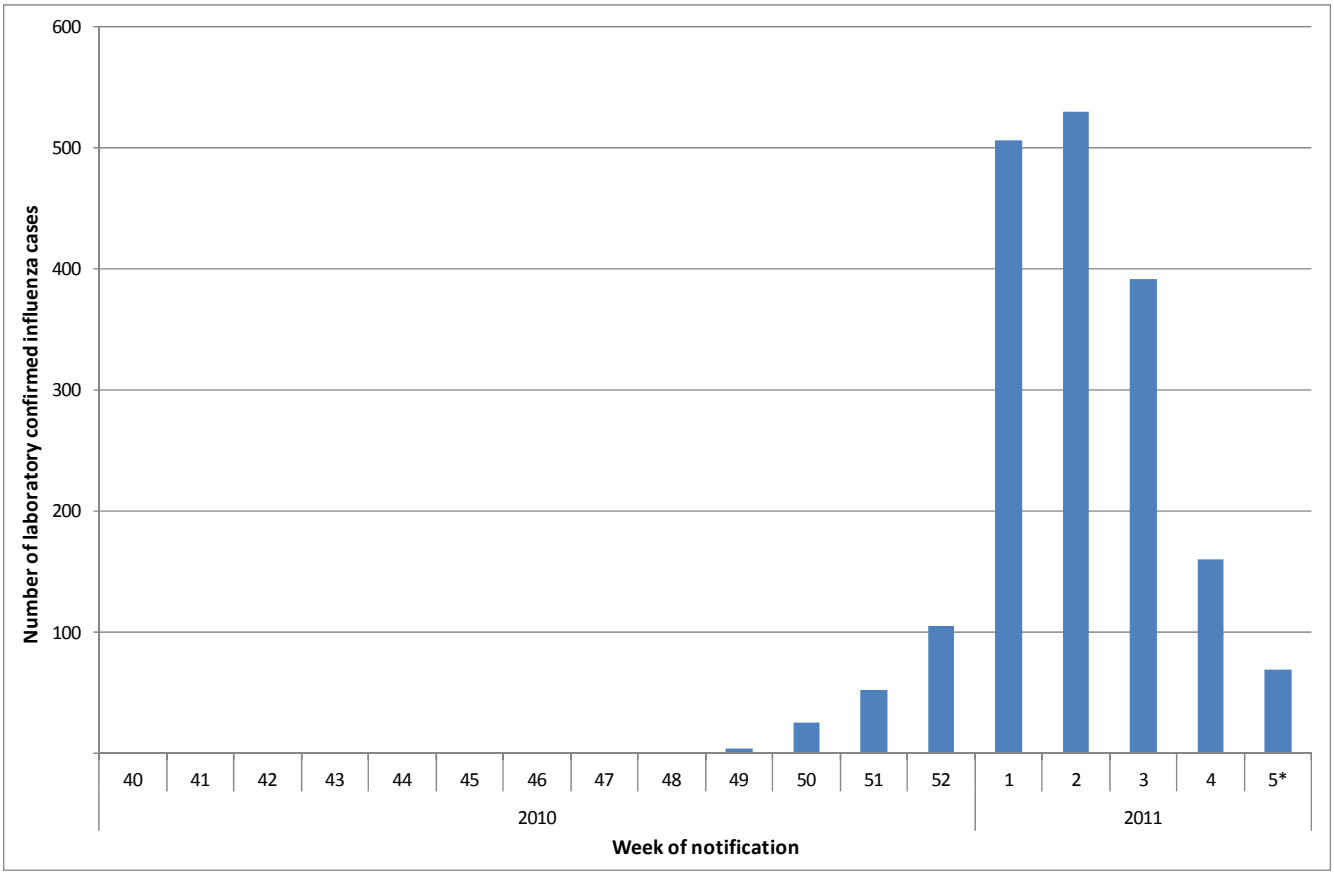

Figure 8: Number of laboratory confirmed influenza cases by week of notification on CIDR for the 2010/2011 influenza season. ***It should be noted that data for week 5 2011 are incomplete and only include notified cases as of 2nd February 2011 (09:00). Source: CIDR 02/02/2011 09:00***

Eight hundred and three (43.6%) of the 1843 confirmed influenza cases notified this influenza season were hospitalised (i.e. these cases were recorded on CIDR as hospital inpatients) (figure 9). Of the 803 hospitalised cases, 570 (71.0%) were influenza A (H1N1 2009) cases, 5 (0.6%) were influenza A (H3) cases, 103 (12.8%) were influenza A (unsubtyped) and 125 (15.6%) were influenza B cases. The proportion of hospitalised cases confirmed as influenza B cases increased to 40.7% during week 4 2011, compared to 16.7% during the previous week.

The highest cumulative age specific rate for influenza confirmed hospitalised cases for the 2010/2011 influenza season to date is currently in the 0-4 year age group (50.6 per 100,000 population), followed by the 55-64 year age group (22.6 per 100,000 population) (table 3). It should be noted that age was unknown for one hospitalised case.

To date this season, 74 (4.4%) of the 1677 laboratory confirmed influenza cases were reported as pregnant. Forty-six (62.1%) of these cases were reported as hospitalised: 40 influenza A (H1N1 2009), 2 influenza A (unsubtyped) cases and 4 influenza B cases.[§§]

	Hospitalised		Admitted to ICU	
Age (years)	Number	Age specific rate per 100,000 population	Number	Age specific rate per 100,000 population
0-4	153	50.6	9	3.0
5-14	67	11.9	2	0.4
15-24	79	12.5	2	0.3
25-34	149	20.6	18	2.5
35-44	92	14.8	16	2.6
45-54	83	15.9	20	3.8
55-64	92	22.6	21	5.2
65+	87	18.6	15	3.2

Table 3: Age specific rate per 100,000 population by age group (years) for all influenza confirmed hospitalised cases and cases admitted to ICU for the 2010/2011 influenza season to date. *Source: CIDR and ICU enhanced surveillance system 02/02/2011 09:00*

6. Intensive Care Society of Ireland (ICSI) enhanced surveillance of all critical care patients with confirmed influenza

The Intensive Care Society of Ireland (ICSI) are continuing with the enhanced surveillance system, set up during the 2009 pandemic, on all critical care patients with confirmed influenza, and notify any cases to HPSC, who process and report on this information on behalf of the regional Director of Public Health/Medical Officer of Health.

As of 2nd February 2011 (09:00), HPSC has been notified of 103 hospitalised patients admitted to critical care units with confirmed influenza. Enhanced surveillance information is available for all 103 cases, 92 of whom are adults and 11 are paediatric cases. Thirty-eight (36.9%) of the 103 cases are currently in ICU[***]. Seventy-six of the 103 (73.7%) cases have underlying medical conditions, 69 adults and seven paediatric cases. The underlying medical conditions include: chronic respiratory disease, chronic heart disease, immunosuppression, pregnancy, metabolic disorders and morbid obesity.

The age specific rates for all cases admitted to ICU are detailed in table 3 above. The number of confirmed influenza hospitalised cases by ICU status and by week of notification on CIDR for the 2010/2011 influenza season is detailed in figures 9. The number of adult and paediatric ICU admissions for confirmed influenza cases by date of ICU admission is detailed in figure 10.

[§§] It should be noted that information on pregnancy is not completed for all cases.
[***] This information is based on the enhanced surveillance data.

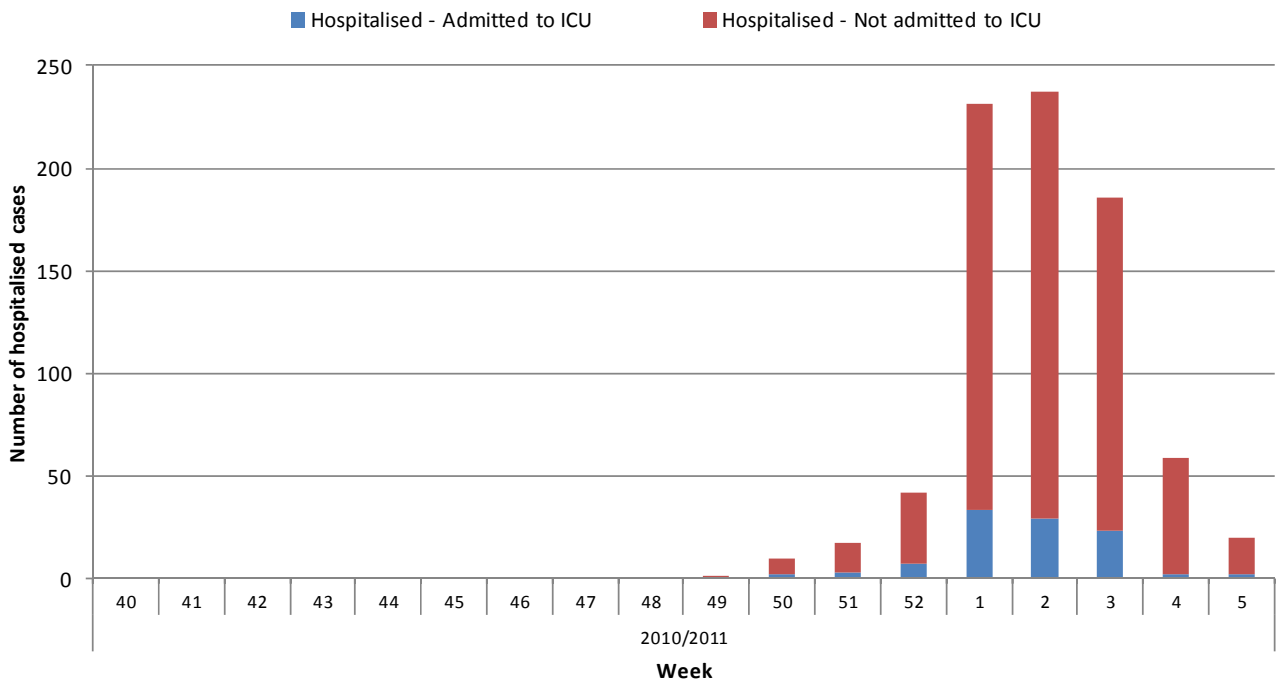

Figure 9: Number of confirmed influenza hospitalised cases by ICU status by week of notification on CIDR for the 2010/2011 influenza season. *It should be noted that data for week 5 2011 are incomplete and only include notified cases as of 2nd February 2011 (09:00). Source: CIDR and ICU enhanced surveillance system 02/02/2011 09:00*[†††]

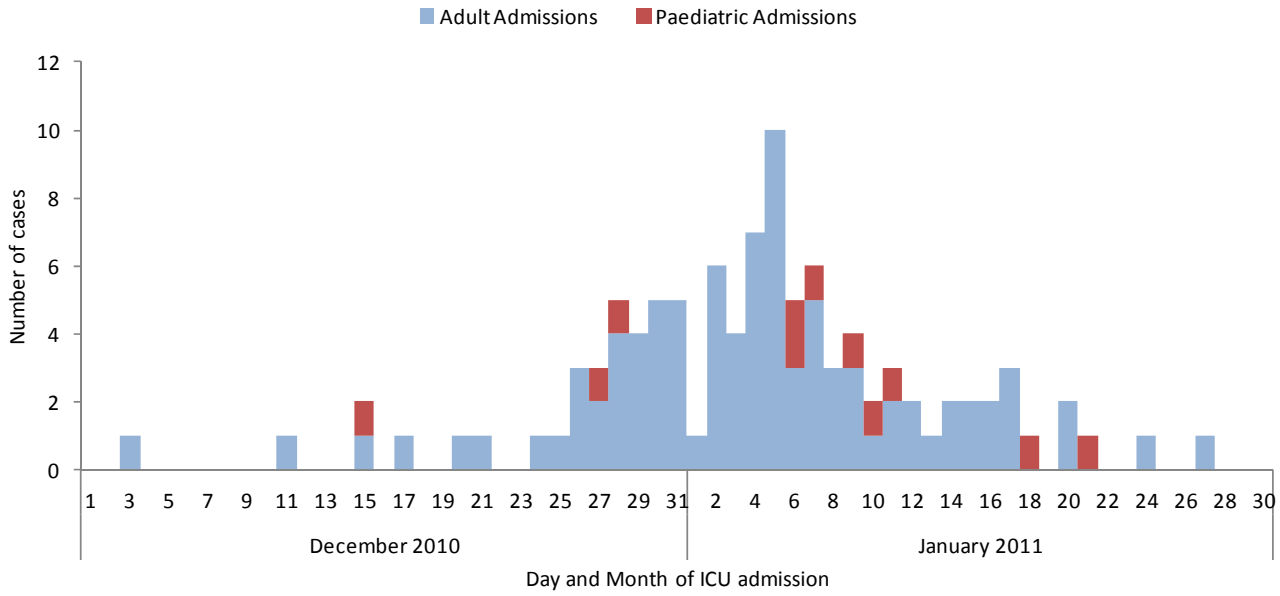

Figure 10: Number of confirmed influenza hospitalised adult and paediatric cases admitted to ICU by date of ICU admission, for December 2010 and January 2011 to date (n=98). *Source: ICU enhanced surveillance system 02/02/2011 09:00*

[†††] It should be noted that dates of hospitalisation/ICU admission have to be verified for 5 of 98 ICU cases on whom enhanced information is currently available. These five cases are not included in figure 9.

7. Mortality surveillance

HPSC has been informed of 15 influenza associated deaths to date this season (as of 02/02/2011), 11 influenza A (H1N1 2009), one influenza A (unsubtyped) and three influenza B. One death was in a patient in the 0-4 year age group, ten patients were in the 15-64 year age group and four patients were aged 65 years and older. Fourteen deaths occurred in patients with underlying medical conditions. One death occurred in week 52 2010, one in week 1 2011, four in week 2 2011, six in week 3 2011 and three in week 4 2011. Table 4 outlines the influenza associated deaths by HSE-Area for the 2010/2011 influenza season to date.

Table 4: Influenza associated deaths in laboratory confirmed influenza cases by HSE-Area for the 2010/2011 influenza season to date. *Source: Deaths reported to HPSC as of 02/02/2011 09:00*

HSE Area	Influenza Deaths
HSE-E	7
HSE-M	1
HSE-MW	0
HSE-NE	2
HSE-NW	2
HSE-SE	1
HSE-S	1
HSE-W	1
Total	**15**

8. Outbreak surveillance

To date this season, (as of 2nd February 2011 09:00), 14 general outbreaks of ILI/influenza/influenza A (H1N1 2009) were reported to CIDR: eight ILI outbreaks, five influenza A (H1N1 2009) outbreaks and one outbreak associated with both influenza A (H1N1 2009) and influenza B. One outbreak was reported in week 49 2010, two in week 50 2010, four in week 51 2010, three in week 2 2011, three in week 4 2011 and one in week 5 2011. Five outbreaks were reported from HSE-E, seven from HSE-S and two from HSE-W. Two outbreaks were in healthcare settings (one of which was a maternity hospital), seven in schools, one in a community setting, one in a residential institution, one in a prison, one travel related outbreak and one outbreak reported as 'Other' setting.

9. International summary

United Kingdom

Influenza activity is declining in the UK. GP consultation rates remain above baseline levels in England, Wales and Northern Ireland. The predominant influenza virus is now influenza B; influenza A (H1N1 2009) continues to be detected, with very few, sporadic influenza A (H3N2) virus detections. The A (H1N1 2009) virus strain is virologically and epidemiologically similar to that seen during the pandemic. The virus strains circulating are overall well matched to the current influenza vaccine. In week 3 2011, the weekly ILI consultation rate decreased - in England (40.7 per 100,000), Wales (26.9 per 100,000) and Northern Ireland (126.2 per 100,000), while a slight increase was observed in Scotland (47.9 per 100,000). The weekly national proportions of NHS Direct calls for cold/flu and fever have decreased. One hundred and sixty-five acute respiratory disease outbreaks have been reported in the UK to date this influenza season. Twenty-eight of 186 (15.1%) specimens from patients with ILI presenting to sentinel GPs in England in week 3, were reported as positive for influenza. The proportion of specimens reported to DataMart (England) as positive for influenza decreased to 13.5% (267 of 1,942). The proportion of samples positive for RSV and rhinovirus increased and was low for parainfluenza,

adenovirus and human metapneumovirus. Since week 36 2010, 338 UK deaths associated with influenza infection have been reported. Excess all-cause mortality continues to be observed in week 2 2011.
http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/

Europe

During week 3 2011, 27 countries reported medium influenza activity and widespread activity was reported by 15 countries. In addition, an increasing trend of consultations was reported by 18 countries but a decreasing trend was reported in Ireland and the UK. Levels were high but unchanging in countries that were affected early in the season, mainly in Belgium, France, Portugal and Spain. However, the percentage of positive specimens from sentinel practices has decreased for the third consecutive week from 55% in week 52 2010 to 44% in week 3 2011. The proportions of circulating influenza viruses were 68% for influenza A and 32% for influenza B. In week 3 2011, 74 hospitalised severe acute respiratory infection (SARI) cases from all causes were reported by three countries and 118 hospitalised influenza cases were reported by five countries. Reported hospitalisations and intensive care admissions with influenza have declined in week 3 2011 in Denmark, France, Ireland, Netherlands and the UK. Severe cases and deaths continue to be mostly in persons in the 15–64 year age group with underlying health conditions. Since week 40 2010, 730 influenza viruses from sentinel and non-sentinel specimens have been characterised antigenically, 401 as A/California/7/2009 (H1N1)-like; 66 as A/Perth/16/2009 (H3N2)-like; 248 as B/Brisbane/60/2008-like (Victoria lineage) and 15 as B/Florida/4/2006-like (Yamagata lineage). Antiviral resistance data have been reported from Italy, Norway and the UK. A total of 684 influenza A (H1N1 2009) and 61 influenza B viruses have been tested for susceptibility to oseltamivir, and 683 A (H1N1 2009) viruses and 62 B viruses for susceptibility to zanamivir. Twenty-six (3.8%) of influenza A (H1N1 2009) viruses were resistant to oseltamivir but remained sensitive for zanamivir. All the resistant viruses carried the H275Y mutation. Seven of the 26 resistant viruses were from patients for whom no exposure to oseltamivir was reported.
http://ecdc.europa.eu/en/healthtopics/influenza/epidemiological_data/Pages/Weekly_Influenza_Surveillance_Overview.aspx

USA

During week 3 2011, influenza activity in the United States increased. The proportion of ILI outpatient visits was 3.6%, which is above the national baseline of 2.5%. Of the 5823 specimens tested, 1754 (30.1%) were positive for influenza: 332 A (H1N1 2009), 584 A (H3), 476 A (unsubtyped) and 362 B. CDC has antigenically characterised 46 A (H1N1 2009) viruses as A/California/7/2009-like, 188 A (H3N2) viruses as A/Perth/16/2009-like, 123 as B/Victoria lineage viruses and 8 as B/Yamagata lineage viruses. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold during week 3 2011. Three influenza-associated paediatric deaths were reported. Two of these deaths were associated with influenza A (H3) virus infection and one was associated with an influenza B virus. http://www.cdc.gov/flu/weekly/

Canada

Overall influenza detections appear to have peaked, with most regions across Canada showing a decline in the percentage of positive influenza detections during week 3 2011. Paediatric and adult hospitalisations have decreased during this period; however, some indicators have increased including the number of regions reporting widespread and localised influenza/ILI activity, the number of outbreaks and the ILI consultation rate. Since the beginning of the season, 89.5% of the subtyped positive influenza A specimens were influenza A (H3N2). In week 3 2011, detections of influenza A (H1N1 2009) increased slightly to 16.9% of all subtyped influenza A specimens, compared to 15.5% in week 2. The overall proportion of positive tests for RSV has increased from 9.6% to 12.5% in week 3. http://www.phac-aspc.gc.ca/fluwatch/index-eng.php

Worldwide (WHO)

The WHO Global Influenza Programme monitors influenza activity worldwide and publishes an update every two weeks. As of January 28th 2011, influenza transmission in North America appears to be levelling off or decreasing according to several national influenza indicators, though not all regions have experienced a peak

yet. Influenza activity in North America has been related primarily to influenza A (H3N2) virus with some co-circulation of influenza B in the United States. Influenza transmission in the UK predominantly related to influenza A (H1N1 2009), is now decreasing. Influenza activity on the European continent is increasing, particularly in the west, and countries are increasingly reporting severe and fatal cases. Severe cases have been reported in association with all three influenza viruses, A (H1N1 2009), A (H3N2) and B. Influenza A (H1N1 2009) appears to be disproportionately over-represented among severe cases when compared to the distribution of viruses in the community. The large majority of viruses characterised from North America and Europe continue to be of the same lineages as those found in the current seasonal influenza vaccine. Transmission in Northern Africa and Northern Asia has peaked recently and is declining. In the tropics, several countries of southern Asia have reported increasing trends recently, mainly due to A (H1N1 2009). Other tropical areas of the world and the temperate countries of the Southern Hemisphere are currently reporting very little influenza circulation. http://www.who.int/csr/disease/influenza/en/

8. Northern hemisphere influenza vaccine for the 2010/2011 season:

For the 2010/2011 influenza season in the Northern Hemisphere, the members of the WHO Collaborating Centres on Influenza have recommended that seasonal influenza vaccines contain the following strains:

— an A/California/7/2009 (H1N1)-like virus
— an A/Perth/16/2009 (H3N2)-like virus[‡‡‡]
— a B/Brisbane/60/2008-like virus

http://www.who.int/csr/disease/influenza/recommendations2010_11north/en/index.html

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

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

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[‡‡‡] A/Wisconsin/15/2009 is an A/Perth/16/2009 (H3N2)-like virus and is a 2010 southern hemisphere vaccine virus.