

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 6 (4 - 10 February 2013)

### Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates increased from 48.4 per 100,000 population in week 5 to 61.4 per 100,000 population in week 6, 2013 (27% increase).
- OOH consultation rates for 'flu/FLI decreased slightly from 13.5 per 100,000 population in week 5 to 12.9 per 100,000 population in week 6, 2013 (4% decrease).
- Influenza positivity rate of respiratory specimens decreased this week. In week 6, 2013 there were 15 positive detections of influenza B, 4 influenza A(untyped) and 1 influenza A(H3). Influenza B remains the predominant type.
- RSV activity continues to decrease.
- There were 5 new admissions to ICU confirmed with influenza in week 6, 2013. This brings the total admitted to ICU that have been confirmed with influenza to 18.
- There were no deaths reported in patients with laboratory confirmed influenza admitted to ICU in week 6, 2013.
- There were no new confirmed influenza outbreaks reported to PHA in week 6, 2013.

### Introduction

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

Additional surveillance systems are:

- GP sentinel surveillance representing 11.7% of Northern Ireland population;
- GP Out-of-Hours surveillance system representing the entire population;
- Virological reports from the Regional Virus Laboratory (RVL);
- Mortality data from Northern Ireland Statistics and Research Agency (NISRA);
- Critical Care Network for Northern Ireland reports on critical care patients with confirmed influenza.

## Sentinel GP Consultation Data

Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2010/11 - 2012/13

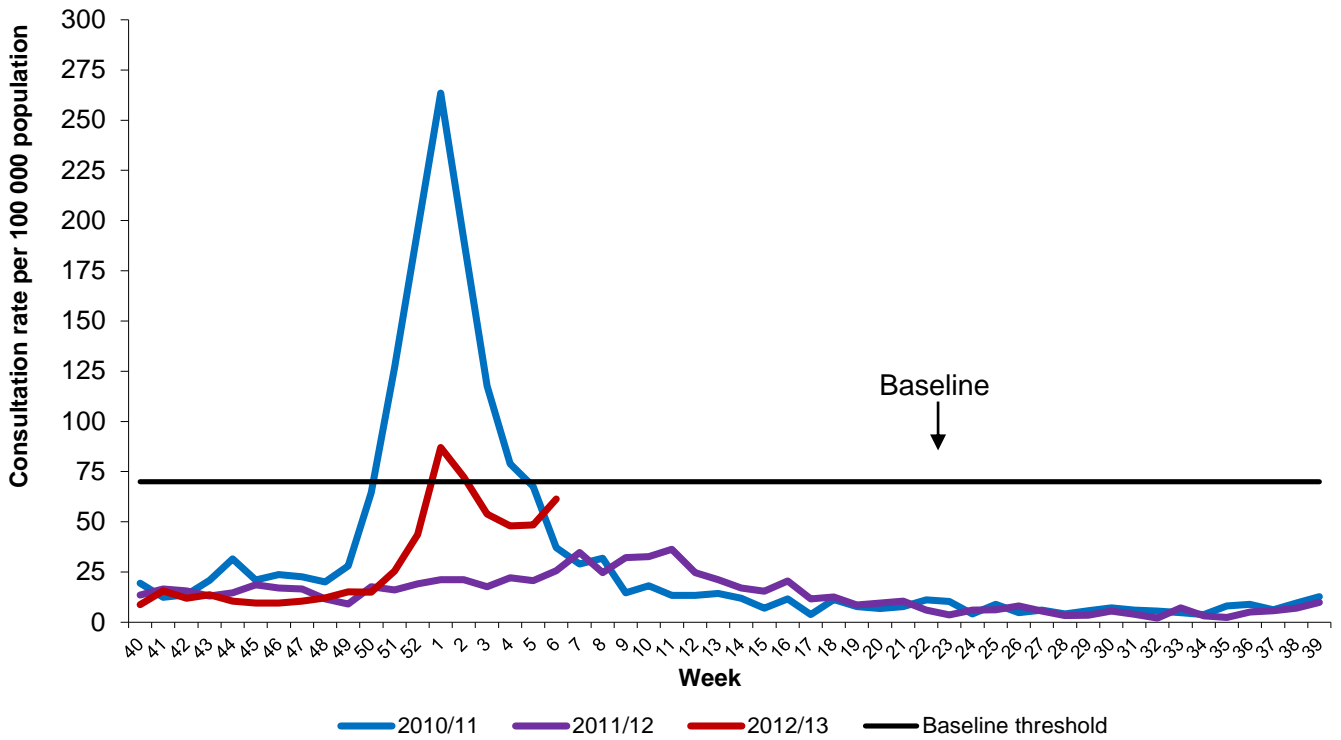
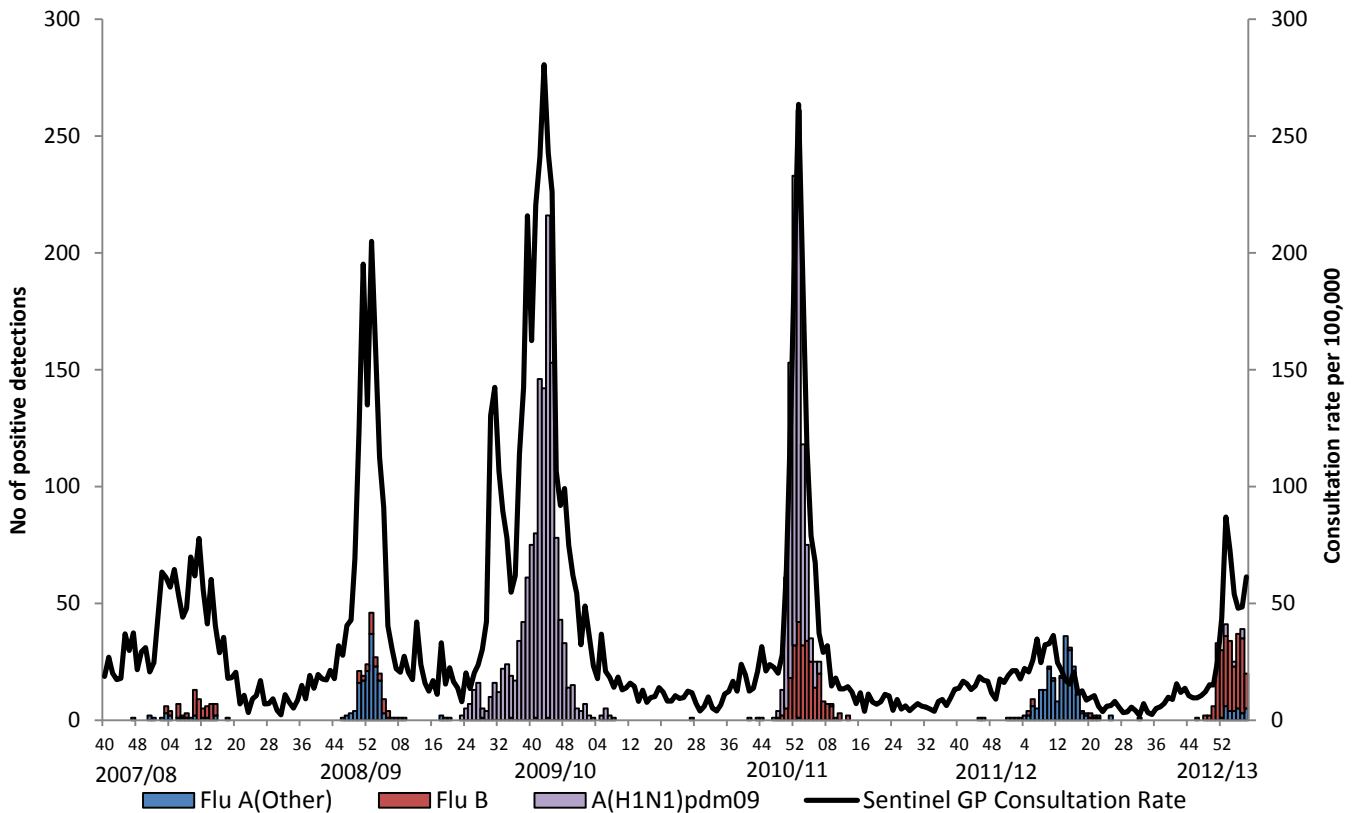
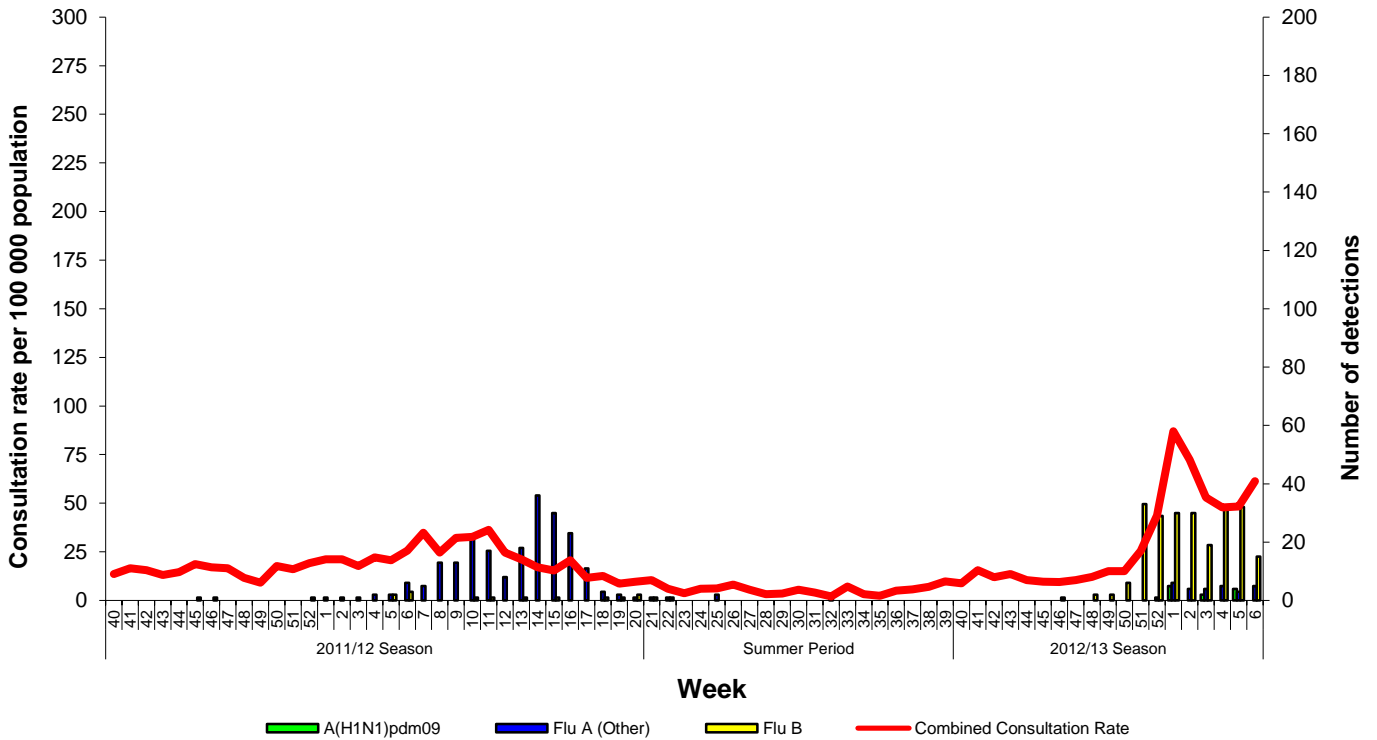


Figure 2. Sentinel GP combined consultation rate and number of influenza positive detections 2007/08 – 2012/13.



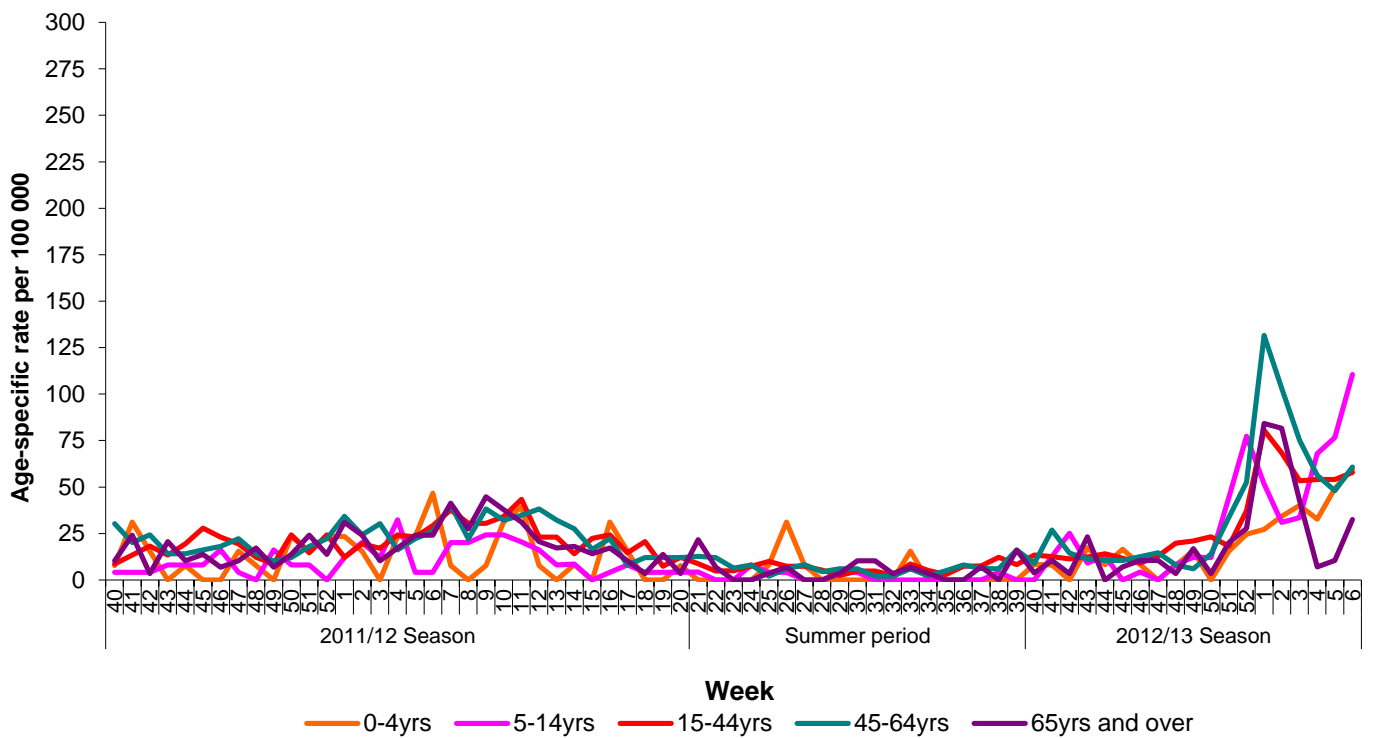
**Figure 3. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011**



**Comment**

GP consultation rates increased from 48.4 per 100,000 population in week 5 to 61.4 per 100,000 population in week 6 (27% increase). Rates continue to remain below the Northern Ireland threshold of 70 per 100,000 population. Consultation rates continue to be substantially higher than the same weeks in the previous year and are also higher than those for the same period in the 2010/11 season (Figures 1, 2 and 3).

**Figure 4. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40, 2011**

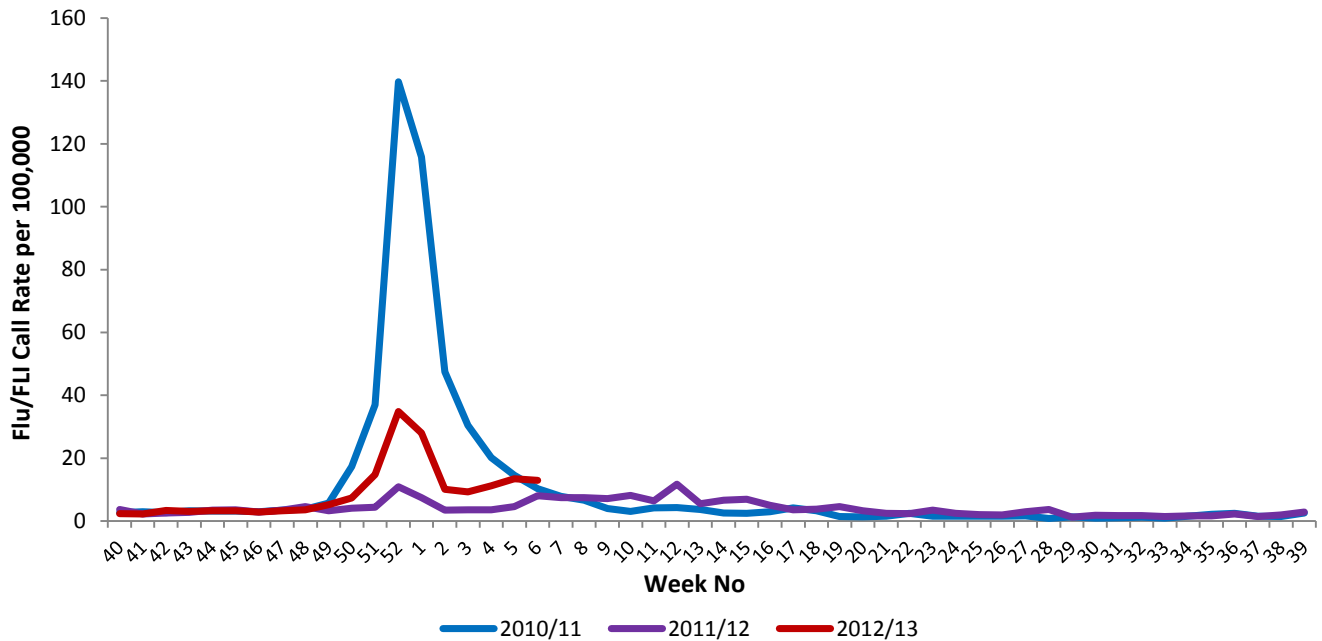


**Comment**

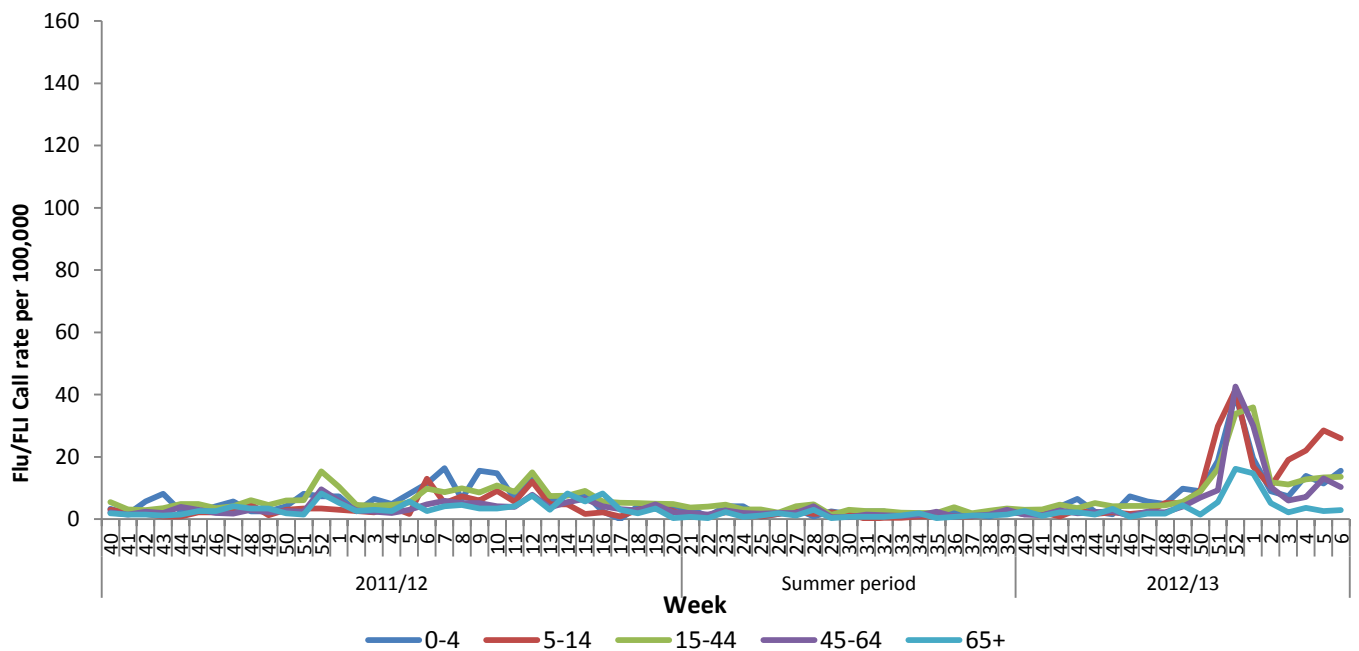
All age-specific consultation rates have increased this week compared to week 5, with the largest increases in the 5-14, 45-64 and over 65 year age groups. The highest age-specific rates continue to be in the 5-14 year age group. Small numbers in some of the age groups can contribute to fluctuations in rates (Figure 4).

## Out-of-Hours (OOH) Centres Call Data

**Figure 5. OOH call rate for flu and flu-like illness, 2010/11 – 2012/13**



**Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40 2011**



### Comment

In contrast to the in-hours GP consultation rates the OOH consultation rates for ‘flu/FLI decreased slightly from 13.5 per 100,000 population in week 5 to 12.9 per 100,000 population in week 6, 2013 (4% decrease). Call rates for ‘flu/FLI are higher than the same period in both 2010/11 and 2011/12. Most age-specific rates also decreased or remained stable with the exception of the 0-4 year age group which showed a small increase. Similar to the in-hours consultation rates the 5-14 year age group continues to display the highest age-specific OOH consultation rate in week 6, 2013. Small numbers in some of the age groups can contribute to fluctuations in rates (Figures 4 and 5).

## Virology Data

**Table 1. Virus activity in Northern Ireland Week 6, 2013**

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	4	0	0	0	4	0	4	100%
Non-sentinel	78	1	0	4	11	6	16	21%
<b>Total</b>	<b>82</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>15</b>	<b>6</b>	<b>20</b>	<b>24%</b>

**Table 2. Cumulative Total Week 40, 2012 - Week 6, 2013**

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
<b>0-4</b>	5	4	1	51	<b>61</b>	653
<b>5-14</b>	1	1	0	69	<b>71</b>	19
<b>15-64</b>	10	4	4	86	<b>104</b>	55
<b>65+</b>	6	2	1	25	<b>34</b>	54
<b>Unknown</b>	0	0	0	0	<b>0</b>	5
<b>All ages</b>	<b>22</b>	<b>11</b>	<b>6</b>	<b>231</b>	<b>270</b>	<b>786</b>

**Table 3. Cumulative Total Week 40, 2012 - Week 6, 2013**

	Sentinel						Non-sentinel					
	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
<b>0-4</b>	0	0	0	2	<b>2</b>	3	5	4	1	49	<b>59</b>	650
<b>5-14</b>	0	0	0	9	<b>9</b>	0	1	1	0	60	<b>62</b>	19
<b>15-64</b>	1	1	0	37	<b>39</b>	5	9	3	4	49	<b>65</b>	50
<b>65+</b>	1	1	0	2	<b>4</b>	0	5	1	1	23	<b>30</b>	54
<b>Unknown</b>	0	0	0	0	<b>0</b>	0	0	0	0	0	<b>0</b>	5
<b>All ages</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>50</b>	<b>54</b>	<b>8</b>	<b>20</b>	<b>9</b>	<b>6</b>	<b>181</b>	<b>216</b>	<b>778</b>

### Note

All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

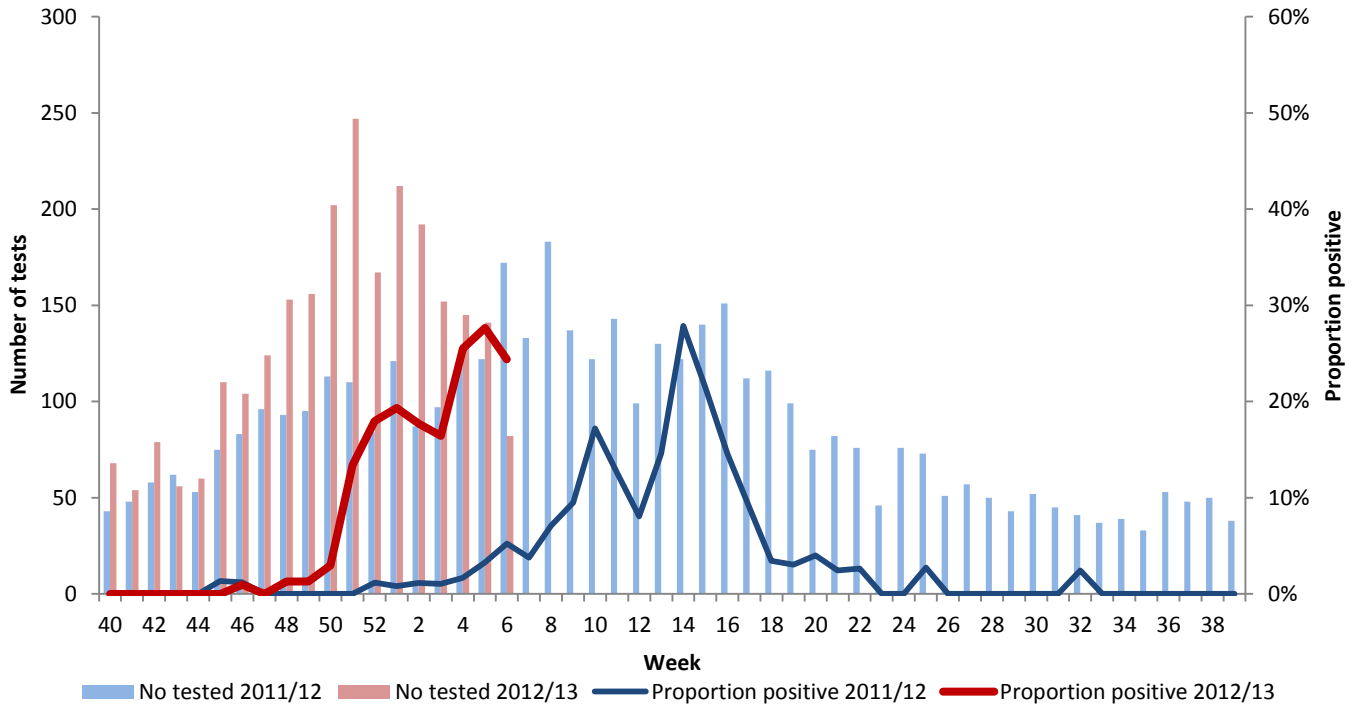
Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

**With effect from week 50 all samples submitted for pertussis testing are also now routinely tested for influenza. This will have an impact on specimen numbers and may affect positivity rates.**

### Comment

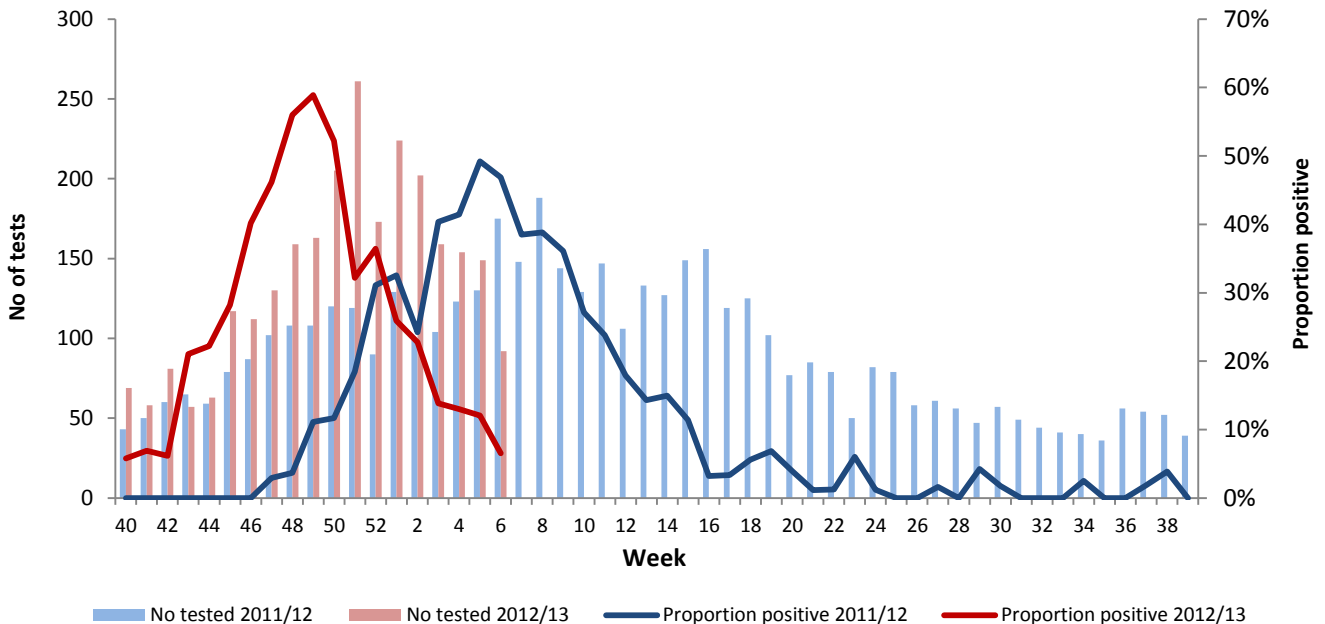
Numbers of specimens submitted for testing remain higher than the previous year but continue to decrease. Influenza positivity rates have decreased in week 6, 2013; however, this apparent decrease may be due to delayed reporting of test results. There were 82 specimens submitted for testing in week 6, 2013, of which there were 15 positive detections of influenza B, 4 influenza A(untyped) and 1 influenza A(H3). Influenza B remains the predominant type with a total of 231 detections so far this season (86% of all influenza detections), and a further 39 detections of influenza A (22 influenza A(H3), 11 A(H1N1)pdm09 and 6 A(untyped)). (Figure 7).

**Figure 7. Number of samples tested for influenza and proportion positive, 2011/12 and 2012/13, all sources**



### Respiratory Syncytial Virus

**Figure 8. Number of samples tested for RSV and proportion positive, 2011/12 and 2012/13, all sources**



### Comment

There were 6 RSV detections in week 6, 2013 with positivity rates decreasing compared to the previous week. From week 40 of the current season there have been a total of 786 RSV positive detections reported, of which 84% fall in the 0-4 year age group. RSV positivity trends are similar to 2011/12 but are approximately six weeks earlier. (Figure 8).

## Hospital Surveillance

Similar to last year data will be collected on numbers of laboratory confirmed influenza patients and laboratory confirmed influenza deaths in critical care (level 2 and level 3) in Northern Ireland for this coming season.

There were five new reports of admissions to ICU confirmed with influenza in week 6, 2013. To date there have been 18 cases (10 adults, 8 children) admitted to ICU that have been confirmed with influenza; twelve of which were confirmed with influenza B, four with influenza A(H3), one influenza A(H1N1)pdm09 and one influenza A (untyped).

## Mortality Surveillance

There were no deaths reported in patients with laboratory confirmed influenza admitted to ICU in week 6, 2013; with the total this season remaining at one.

## Outbreak Surveillance

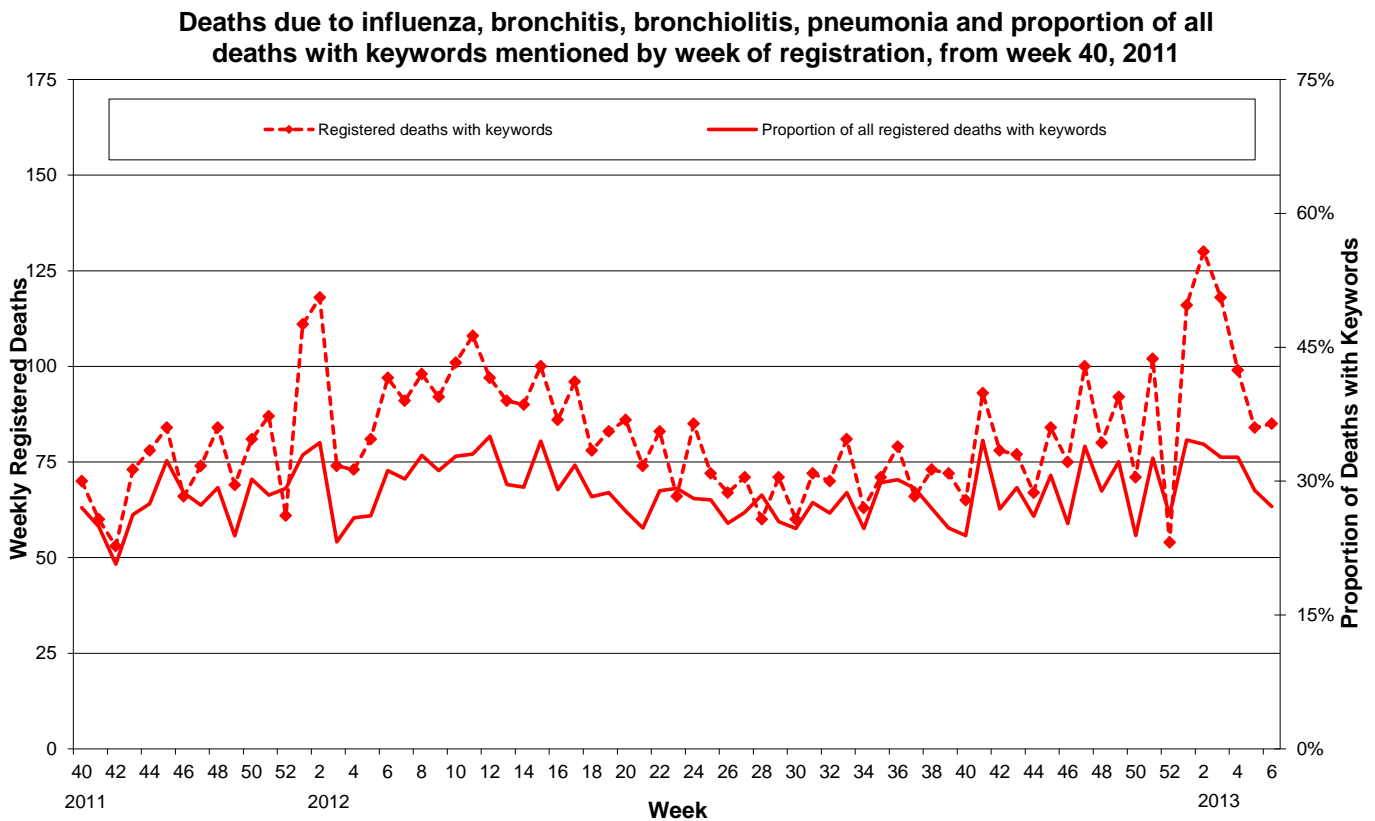
There were no new outbreaks of confirmed influenza in week 6, 2013 with only one confirmed influenza outbreak reported so far this season.



## Mortality Data

Weekly mortality data is provided from Northern Ireland Statistics and Research Agency. The data relates to the number of deaths from selected respiratory infections (some of which may be attributable to influenza, and other respiratory infections or complications thereof) registered each week in Northern Ireland. This is not necessarily the same as the number of deaths occurring in that period. Searches of the medical certificates of the cause of death are performed using a number of keywords that could be associated with influenza (bronchiolitis, bronchitis, influenza and pneumonia). Death registrations containing these keywords are presented as a proportion of all registered deaths.

**Figure 9. Weekly registered deaths**



### Comments:

The proportion of deaths related to respiratory keywords in week 5, 2012 decreased again from 29% in week 5 to 27% in week 6, 2013. In week 6, 2013 there were 313 registered deaths of which 85 related to these specific respiratory infections.

## Vaccine Uptake

As at the end of January 2013, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 74.6%, while the uptake in those aged under 65 in an at-risk group was 78.6% (provisional data). This compares with 76.6% uptake in the over 65 years, and 82.5% in the under 65 at-risk group for the same period last year.

## International Summary

### Europe

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012 and active influenza transmission began around week 49/2012, approximately six weeks earlier than in the 2011/2012 season.

- In week 5/2013, 19 countries reported concomitantly high/medium-intensity transmission and wide geographic spread. Twenty-two countries reported increasing trends in influenza activity.
- In week 5/2013, the proportion of influenza-positive sentinel specimens continued to increase, reaching 55%.
- Since week 40/2012, the proportions of influenza A and B viruses have remained similar (51% vs. 49%), but among type A viruses, the percentage of A(H1)pdm09 has continued to increase (64%), compared to 52% in week 2/2012.
- For week 5/2013, of 71 hospitalised laboratory-confirmed influenza cases reported by six countries, 33 (46%) tested positive for influenza A viruses and 38 (54%) for type B viruses.
- On 8 February, ECDC published its annual risk assessment for seasonal influenza 2012–2013, based on data up to week 3/2013.  
<http://ecdc.europa.eu/en/publications/Publications/influenza-season-risk-assessment-europe-2013.pdf>
- Influenza activity continued to rise across Europe in week 5/2013. In a few countries, the epidemics seemed to have passed their peaks, although some countries experienced a resurgence of ILI rates.

[http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL\\_INFLUENZA/EPIDEMIOLOGICAL\\_DATA/Pages/Weekly\\_Influenza\\_Surveillance\\_Overview.aspx](http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx)

### Worldwide (WHO)

- Influenza activity in North America remained high regionally, though nationally most indicators of transmission began to decrease. Influenza A(H3N2) was the most commonly detected virus subtype. The United States of America reported a sharp increase in the number of pneumonia and influenza-related deaths among adults aged 65+ years.
- Europe in general reported increasing influenza virus detections over the past weeks, though activity started to decrease in some countries in the northwest. The most commonly detected virus across the continent was A(H1N1)pdm09, while influenza B virus predominated in several countries of western Europe.
- In the temperate countries of Asia influenza virus detections increased in the last weeks, while it remained low in most of tropical Asia.

- Influenza activity in North Africa and the Middle East declined overall in the last several weeks, though a few countries reported increases. Influenza A(H1N1)pdm09 was the most commonly detected virus in the region.
- Low level activity was noted in most tropical countries, with slight increases observed in the Plurinational State of Bolivia and Paraguay.
- Influenza in countries of the southern hemisphere were currently at inter-seasonal levels.

[http://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html)

## USA

According to the latest FluView report, influenza activity remains elevated overall, but is decreasing nationally. Key indicators that track severity, such as hospitalizations and deaths, remain elevated, but seem to be leveling off or declining, though an additional 14 pediatric deaths were reported this week. Below is a summary of the key indicators for the week between January 27 and February 2, 2013:

- For the week ending February 2, the proportion of people seeing their health care provider for influenza-like illness (ILI) continued to decrease but remains above the national and regional baselines. Most regions are showing stable or declining levels of ILI activity.
- Nineteen states and New York City reported high ILI activity. Last week CDC reported 24 states and New York City with high ILI activity. Additionally, 12 states reported moderate levels of ILI activity. Thirty-eight states reported widespread geographic influenza activity for the week ending February 2, 2013; a decrease from 42 states in the previous week. Geographic spread data show how many areas within a state or territory are seeing flu activity.
- Since October 1, 2012, 8,293 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 1,069 hospitalizations from the previous week. This translates to a rate of 29.8 influenza-associated hospitalizations per 100,000 people in the United States. In general, hospitalization rates seem to be leveling off again this week, but remain high among people 65 and older, who account for more than half of all reported hospitalizations.
- Hospitalization data are collected from 15 states and represent approximately 9% of the total U.S. population. The number of hospitalizations reported does not reflect the actual total number of influenza-associated hospitalizations in the United States.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System decreased again this week, but is still above the epidemic threshold.
- Nationally, the percentage of respiratory specimens testing positive for influenza in the United States during the week ending February 2, 2013 continued to decrease.
- Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. During the week ending February 2, 1,740 of the 2,362 influenza-positive tests reported to CDC were influenza A and 622 were influenza B viruses. Of the 1,100 influenza A viruses that were subtyped, approximately 93% were H3 viruses and 7% were 2009 H1N1 viruses.

An overview of the US influenza can be viewed on <http://www.cdc.gov/flu/weekly/summary.htm>

## Canada

- In week 05, the percentage of laboratory detections positive for influenza was similar to the previous week; the percentage of tests positive for RSV increased sharply.
- Many regions across Canada continue to report widespread and localized influenza activity and 99 new influenza outbreaks were reported.
- The ILI consultation rate increased and remains above the expected range for this time of year.
- The number of paediatric influenza-associated hospitalizations reported by the IMPACT network increased whereas the number of hospitalizations reported by the provinces and territories decreased.

<http://www.phac-aspc.gc.ca/fluwatch/>

## Further information

Further information on influenza is available at the following websites:

<http://www.fluawareni.info> Now on Facebook (Flu Aware NI)

<http://www.hpa.org.uk>

<http://www.publichealth.hscni.net>

<http://www.who.int>

<http://ecdc.europa.eu>

<http://euroflu.org>

**Detailed influenza weekly reports can be found at the following websites:**

England, Scotland and Wales:

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/EpidemiologicalData/>

Republic of Ireland:

<http://www.hpsc.ie/hpsc/A-Z/Respiratory/Influenza/SeasonalInfluenza/Surveillance/InfluenzaSurveillanceReports/>

For further information on the Enhanced Surveillance of Influenza in Northern Ireland scheme or to be added to the circulation list for this bulletin please contact:

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**This report was compiled by Cathriona Kearns, Paul Cabrey, and Dr. Brian Smyth.**