

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 5 and 6 (30 January – 12 February 2012)

### Summary

- Influenza activity in Northern Ireland remains low though indices are starting to increase.
- GP consultation rates for combined flu/FLI increased from 16.9 in week 4 to 25.9/100,000 population in week 6. Rates in weeks 5 and 6 continue to be lower than the same weeks last year and remain well below the Northern Ireland threshold (70/100,000 population).
- Out of hours call rates for flu/FLI increased from 3.6 per 100,000 population in week 4 to 8.1 per 100,000 population in week 6.
- There were four influenza A(H3), one influenza A (untyped) and four influenza B detections in weeks 5 and 6, 2012.
- There were 100 RSV detections in weeks 5 and 6, 2012.
- There have been no reports of any patients admitted to critical care units with confirmed influenza for the 2011/2012 influenza season to date.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.

### Introduction

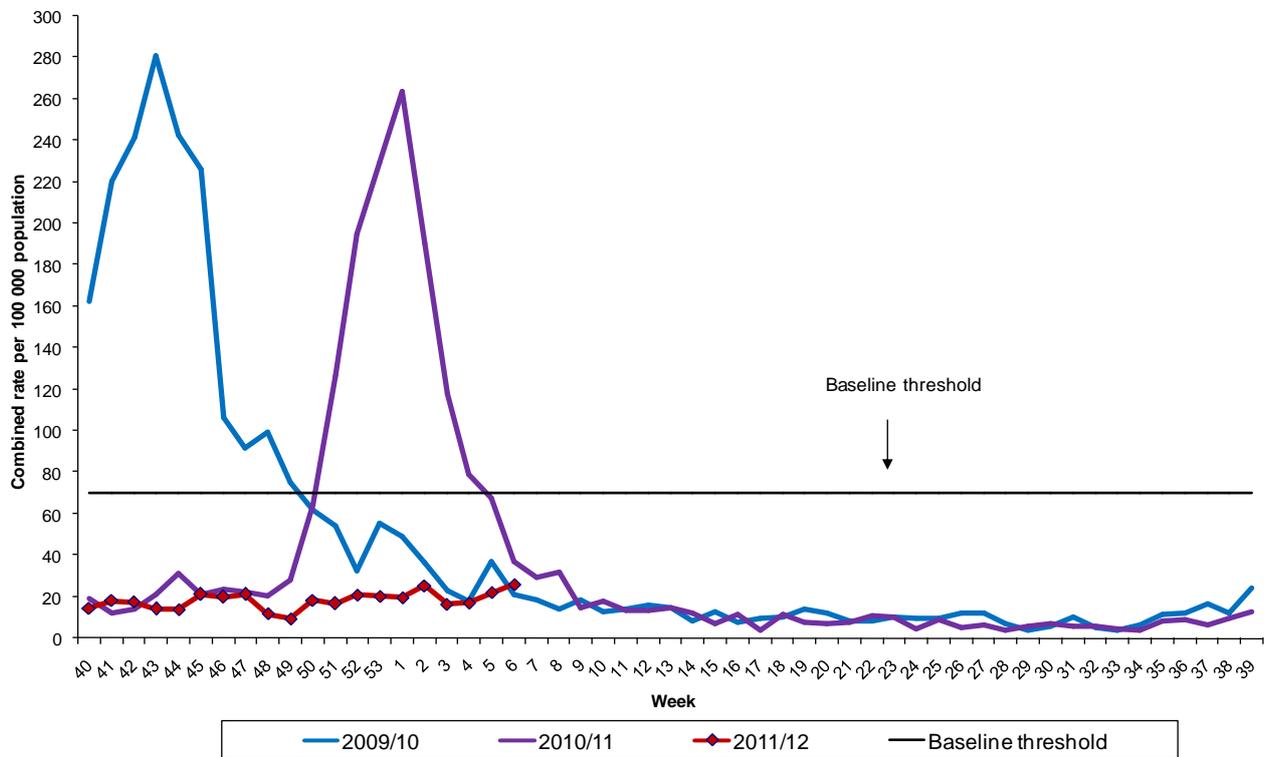
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for this winter will be surveillance of critical care patients in hospitals with confirmed influenza.

Additional surveillance systems are:

- GP sentinel surveillance representing 11.7% of Northern Ireland population;
- GP Out of hours surveillance system;
- Virological reports from the Regional Virus Laboratory (RVL);
- Mortality data from Northern Ireland Statistics and Research Agency (NISRA).

## Sentinel GP consultation data

**Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2009/10 – 2011/12**

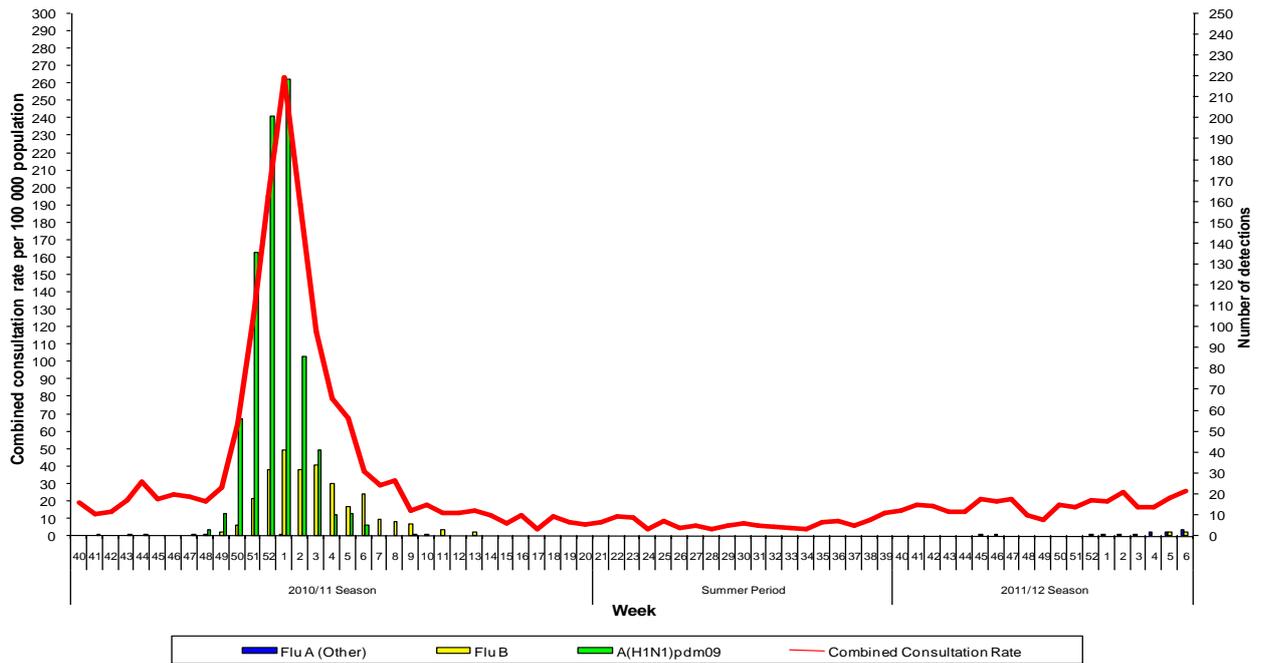


**Note:** 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

### Comment

The GP combined consultation rate increased from 16.9 per 100,000 population in week 4 to 25.9 per 100,000 population in week 6 (53% increase), this is the highest it has been so far this season. Rates for week 5 and 6 continue to remain lower than the same weeks last year (67.5 and 37.2 per 100,000 population, respectively) and remain well below the Northern Ireland threshold of 70 per 100,000 population (Figures 1 and 2).

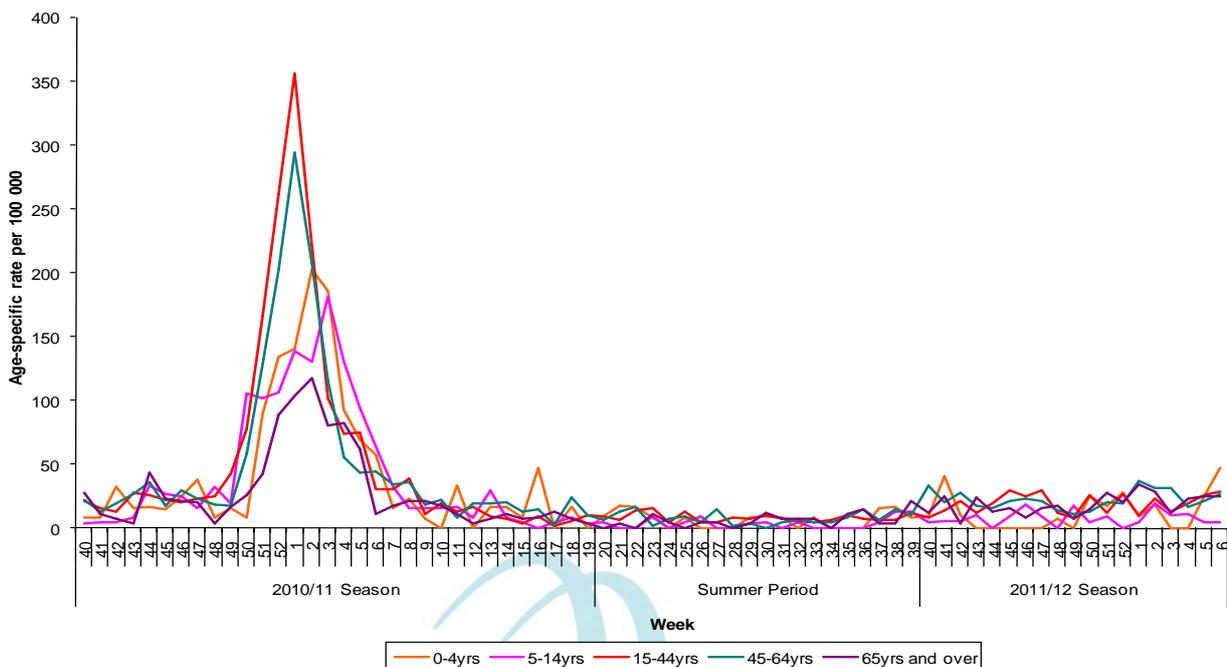
**Figure 2. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology flu detections from week 40 2010**



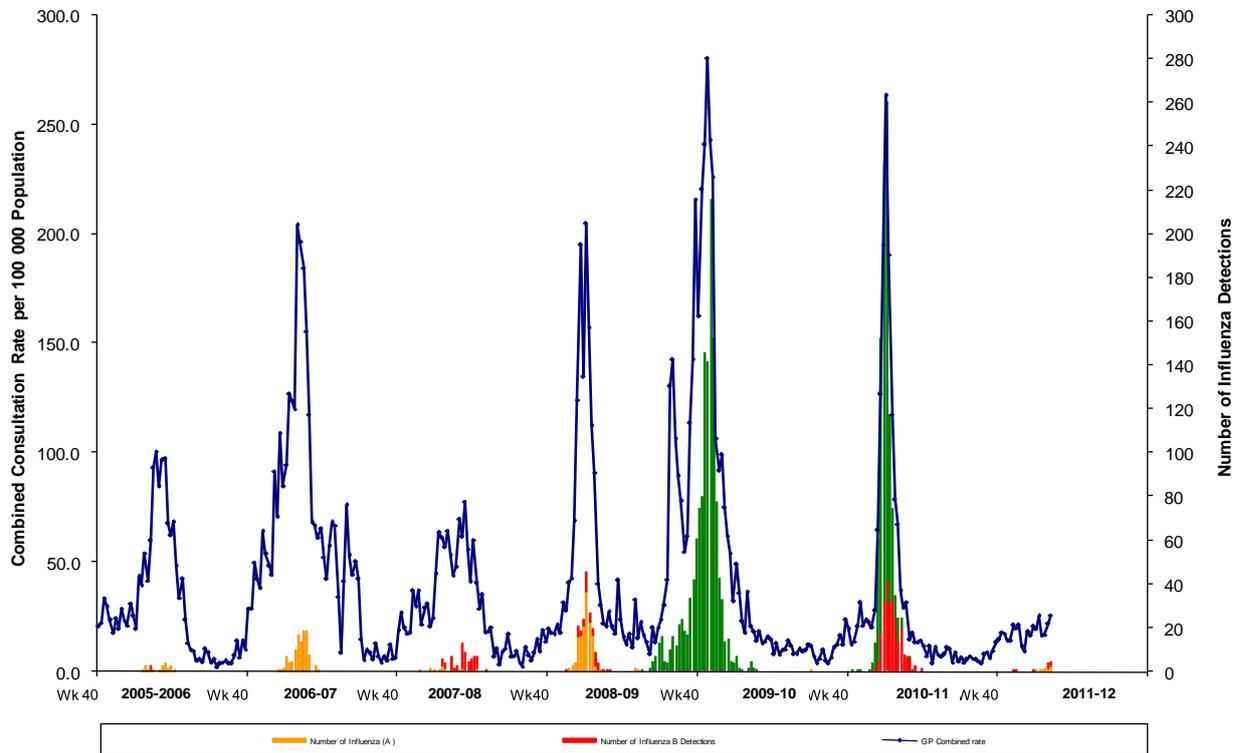
**Comment**

All age specific rates have increased compared to week 4 with the exception of the 5–14 year age group and continue to remain low. The highest age specific rates for week 5 were in the 15-44 year age group and in week 6 they were in the 0-4 year age group. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figure 3).

**Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2010**



**Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005/06 - present.**

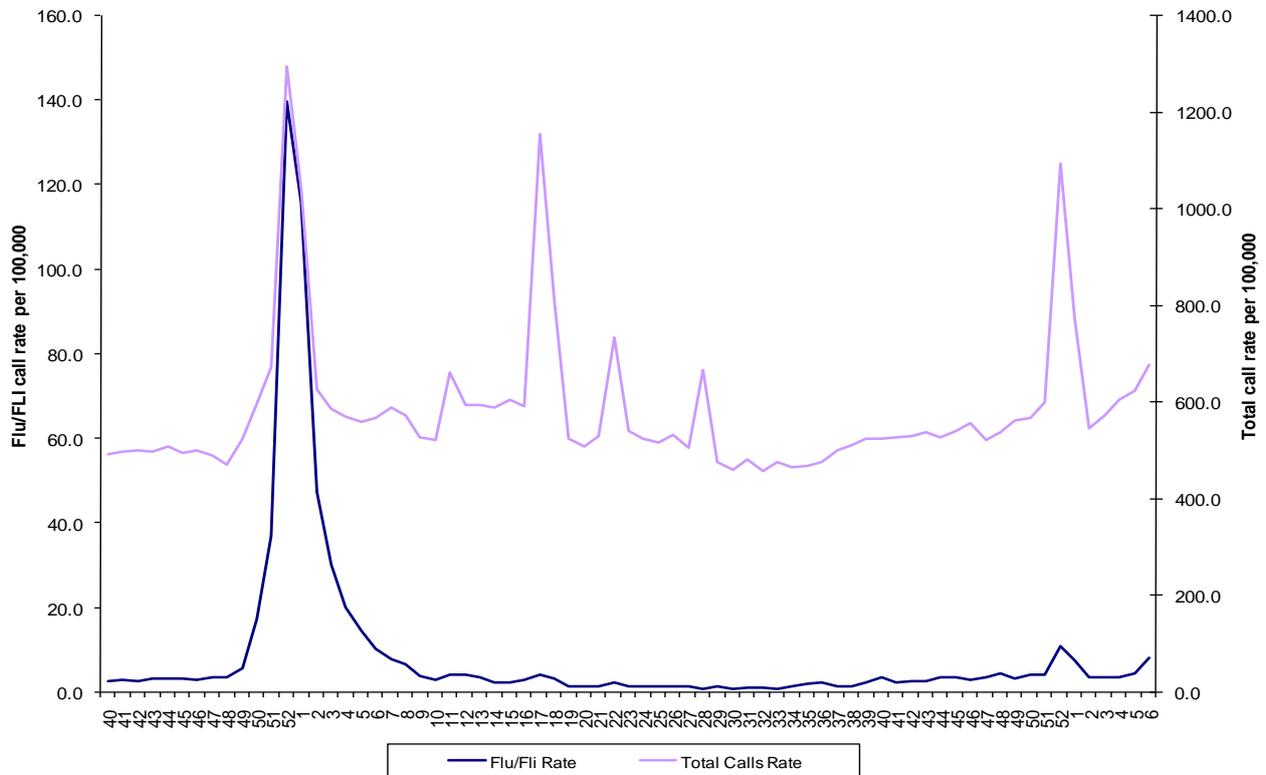


**Comment**

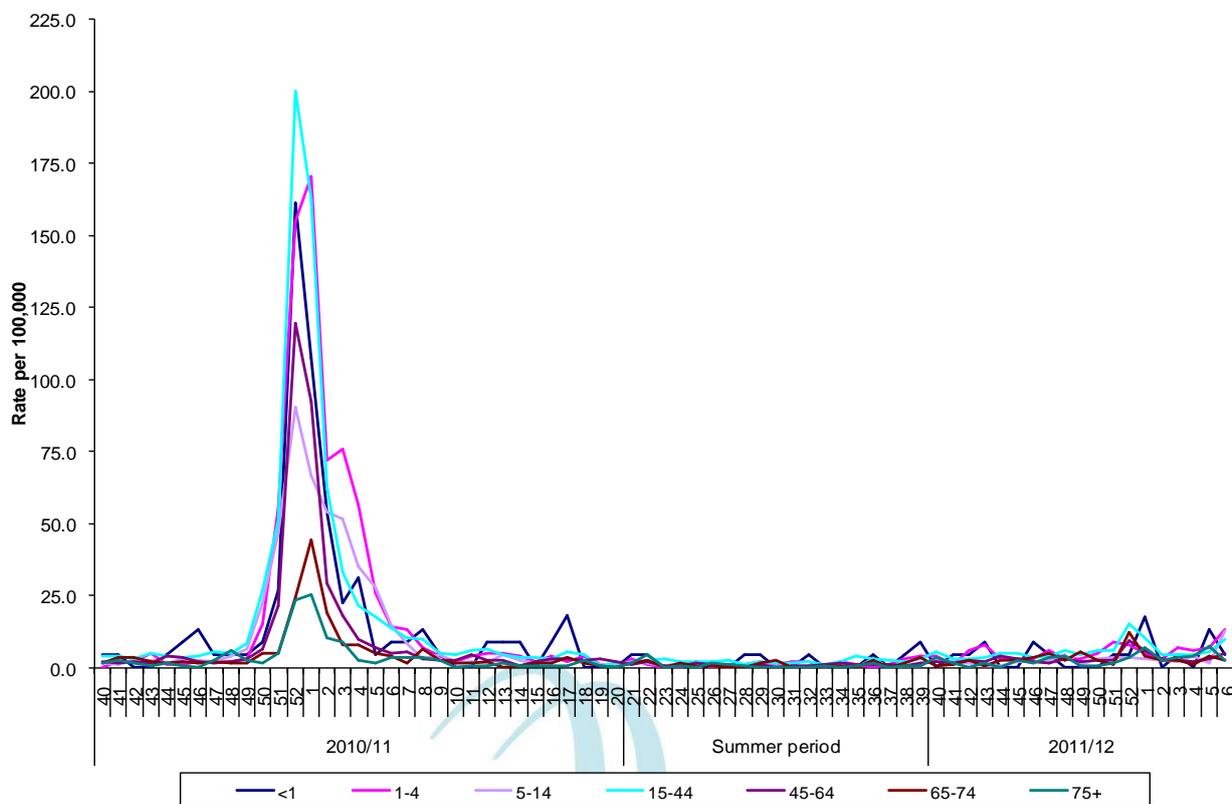
While there has been a delayed start to the circulation of influenza virus this winter there has been a slight increase in most flu indices in weeks 5 and 6. This is not entirely unusual, for example influenza activity peaked during the 2005/06 and 2006/07 winters in February (Figure 4).

## Out of hours (OOH) centres call data

**Figure 5. OOH total call rate (all diagnoses) and call rate for flu and flu-like illness from week 40 2010**



**Figure 6. OOH call rates of flu and flu-like illness by age-group from week 40 2010**



## Comment

Out of hours call rates for flu/FLI increased from 3.6 per 100,000 population in week 4 to 8.1 per 100,000 in week 6 (125% increase); however, rates remain lower than the same weeks last year (14.6 and 10.3 per 100,000 population, respectively). All age specific flu/FLI rates in week 6 have increased compared to week 4 with the exception of the over 75 age group. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figures 5 and 6).

## Virology data

**Table 1. Virus activity in Northern Ireland Weeks 5 & 6 2012**

Source	Specimens tested	A(H1N1) pdm09	AH3	A (untyped)	Influenza B	RSV	Total influenza positive	% Influenza positive
Sentinel	9	0	2	0	0	0	2	22%
Non-sentinel	193	0	2	1	4	100	7	4%
<b>Total</b>	<b>202</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>100</b>	<b>9</b>	<b>4%</b>

**Table 2. Cumulative total Week 40 2011 - Week 6 2012**

	(H1N1) 2009	AH3	A (untyped)	Flu B	Total influenza	RSV
<b>0-4</b>	0	4	0	3	7	320
<b>5-14</b>	0	1	0	1	2	9
<b>15-64</b>	0	3	1	2	6	7
<b>65+</b>	0	1	0	1	2	6
<b>Unknown</b>	0	0	0	0	0	0
<b>All ages</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>7</b>	<b>17</b>	<b>342</b>

**Table 3. Cumulative total Week 40 2011 - Week 6 2011**

	Sentinel					Non-sentinel					
	(H1N1) 2009	AH3	Flu B	Total influenza	RSV	(H1N1) 2009	AH3	A (untyped)	Flu B	Total influenza	RSV
<b>0-4</b>	0	0	0	0	1	0	4	0	3	7	319
<b>5-14</b>	0	0	0	0	0	0	1	0	1	2	9
<b>15-64</b>	0	2	1	3	1	0	1	1	1	3	6
<b>65+</b>	0	0	0	0	0	0	1	0	1	2	6
<b>Unknown</b>	0	0	0	0	0	0	0	0	0	0	0
<b>All ages</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>6</b>	<b>14</b>	<b>340</b>

### Note

All virology data is provisional. The virology figures for previous weeks included in this bulletin 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.

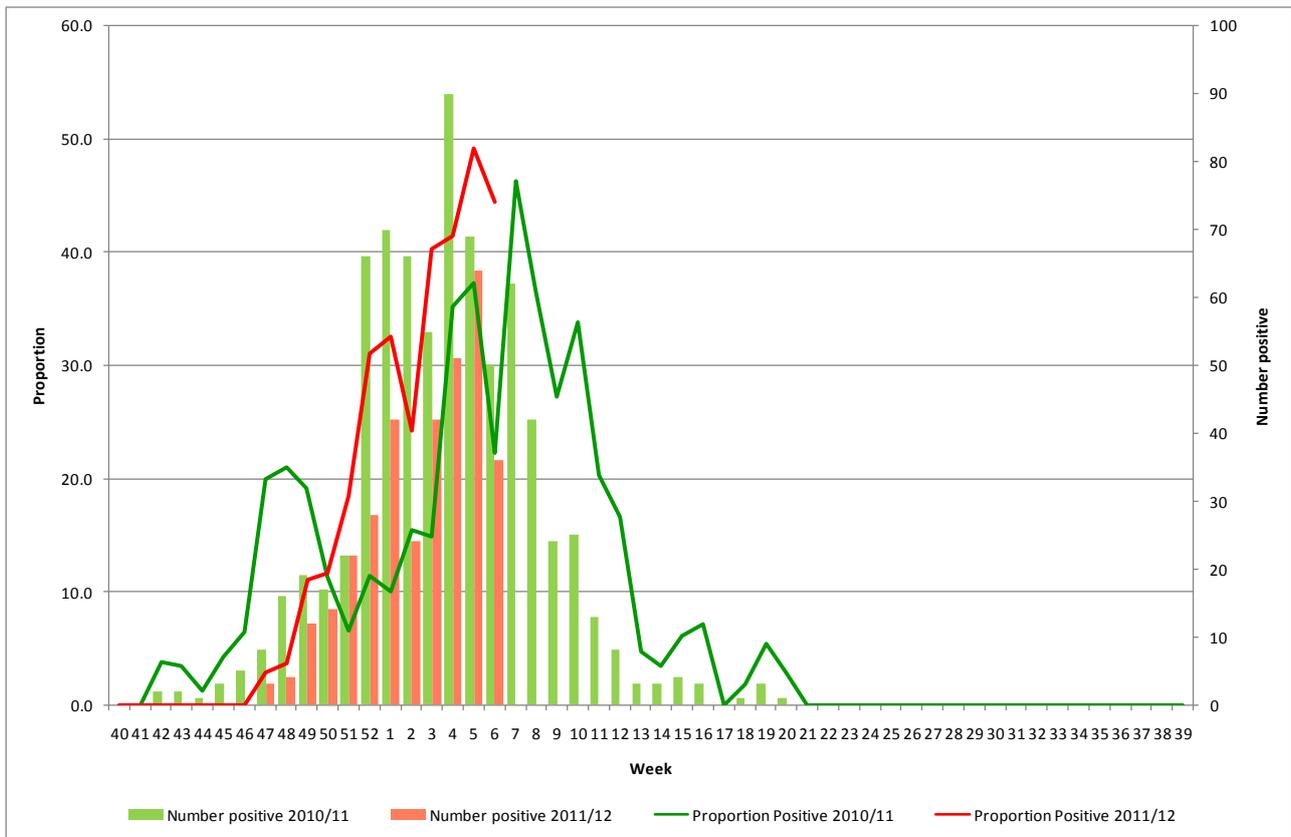
Sentinel and non-sentinel samples are tested for influenza and for RSV.

## Comment

There were 202 specimens (9 sentinel and 193 non-sentinel) tested by the Regional Virus Laboratory during weeks 5 and 6, 2012. Four influenza B, two influenza A(H3), and one influenza A (untyped) positive detections were reported from non-sentinel sources, with an additional two influenza A(H3) positive detections reported from sentinel sources. This brings the total laboratory confirmed influenza detections this season to 17 (9 influenza A(H3), 1 influenza A (untyped) and 7 influenza B), (Tables 1 – 3).

## Other respiratory viruses

**Figure 7. Number of samples tested for RSV and proportion positive 2010/11 and 2011/12**



## Comment

The proportion of specimens that tested positive for RSV increased from 40.4% (updated) in week 3 to 44.4% in weeks 6, peaking at 49.2% in week 5. The proportion of positive RSVs is higher than the same weeks last year. 94% of all RSV detections so far this season are in the 0-4 year age group. In weeks 5 and 6 there were 100 detections compared with 93 (updated) detections in weeks 3 and 4 (Figure 7).

## Hospital surveillance

There were no confirmed influenza patients or deaths in those with laboratory confirmed influenza in critical care (level 2 and 3) in Northern Ireland in weeks 5 and 6, with none recorded so far this season.

Additional information on confirmed influenza hospitalised patients will be available from the Health and Social Care Board (HSCB) once influenza starts to circulate.

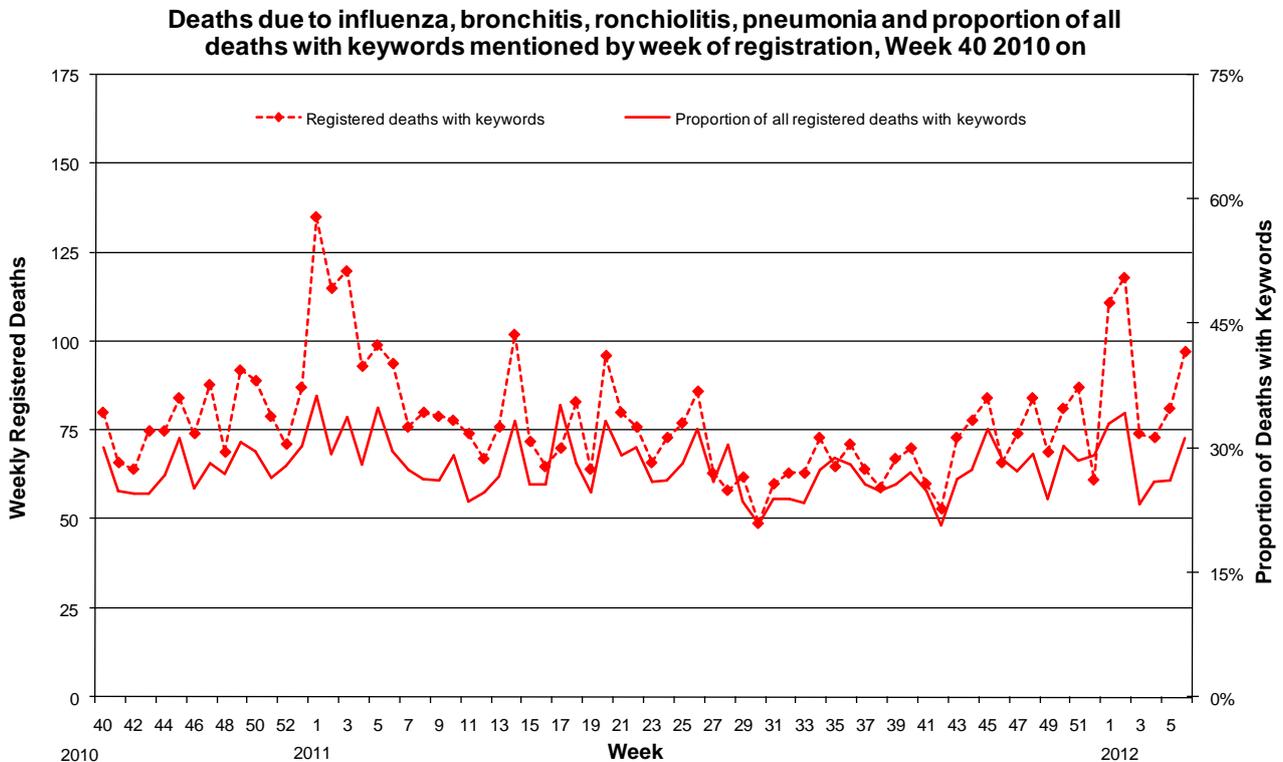
In the UK, since week 40 2011, there have been a total of 103 ICU/HDU influenza admissions across the USISS mandatory scheme with 21 (20.4%) resulting from influenza A(H1N1)pdm09, 13 (12.6%) from influenza A(H3N2), 60 from A unknown subtype and nine (8.7%) from influenza B.

## 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.

In addition this winter there will be reporting of deaths with confirmed influenza in patients in critical care (level 2 and level 3).

**Figure 8. Weekly registered deaths**



### Comments:

The proportion of deaths related to respiratory keywords over this period increased from 24% in weeks 3 and 4 to 29% in weeks 5 and 6. In weeks 5 and 6 there were 621 registered deaths of which 178 related to these specific respiratory infections.

## Vaccine uptake

As at the end of December 2011, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 75.6%, while the uptake in those aged under 65 in an at-risk group was 79.8% (provisional data). This compares with 69.8% uptake in the over 65 years, and 62.7% in the under 65 at-risk group for the same period last year.

## International summary

### Europe

Medium influenza activity was reported by 11 countries and increasing trends by 18 countries.

Among 1444 sentinel specimens, the percentage positive for influenza was 42% with a range of 3–85% across countries. Of 600 sentinel specimens that tested positive for influenza virus, 95.7% were type A and 4.3% were type B. Of the 782 sentinel and non sentinel influenza A viruses sub-typed, 97.7% were A(H3) and 2.3 % were A(H1)pdm09.

Since the start of the season, 394 SARI cases have been reported from six countries. Of the cases with confirmed influenza, 80% were associated with A(H3), 13% with A(H1)pdm09 and 7% with B viruses. To date, no resistance to neuraminidase inhibitors (oseltamivir and zanamivir) has been reported this season.

Influenza activity continued to increase in week 5, though with significant variation across Europe and no clear geographic progression. The dominant virus remains A(H3N2).

[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)

### USA

During week 5 (January 29-February 4, 2012), influenza activity in the United States increased.

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

### Canada

In week 5 influenza activity in Canada continues to increase gradually; activity remains low in the Territories and in a few other regions across the country. The national ILI consultation rate increased this week compared to the previous three weeks but remains within expected levels for this time of year.

[http://www.phac-aspc.gc.ca/fluwatch/11-12/w02\\_12/index-eng.php](http://www.phac-aspc.gc.ca/fluwatch/11-12/w02_12/index-eng.php)

## Worldwide (WHO)

As at 3 February 2012:

- Influenza activity in the temperate regions of the northern hemisphere remains low overall though notable local increases in activity have been reported in North America, the western part of Europe, and northern China.
- Countries in the tropical zone reported low levels of influenza activity with the exceptions of southern China, Colombia, and Ecuador.
- Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels. The low level inter-seasonal transmission of A(H3N2) previously noted in Chile and Australia appears to be diminishing and becoming more sporadic.
- The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone has been influenza A(H3N2) with the exception of China, which is reporting a predominance of influenza type B, and Mexico, where influenza A(H1N1)pdm09 is the predominant subtype circulating. In addition to Mexico, some southern states of the United States of America and Colombia in northern South America have also reported a predominance of A(H1N1)pdm09 in recent weeks.
- Nearly all influenza A viruses characterized are antigenically related to the viruses contained in the current northern hemisphere trivalent vaccine. About half of the small number of influenza type B viruses characterized are of the Yamagata lineage, which is not contained in the current vaccine.
- Oseltamivir resistance has been observed at very low levels and has not increased notably over levels reported in previous seasons.

[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)

## 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/20112012Season/>

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.**