

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 49 - 50 (3 - 16 December 2012)

### Summary

- Influenza activity in Northern Ireland remains at low levels but several indicators are increasing.
- The GP combined 'flu/FLI consultation rate increased from 12.1 per 100,000 population in week 48 to 15.1 per 100,000 population in week 49 and 15.0 per 100,000 population in week 50, 2012. Rates remain well below the Northern Ireland threshold (70 per 100,000 population).
- OOH 'flu/FLI call rates also remain low but are increasing.
- Influenza positivity rate of respiratory specimens is increasing. There were six detections of influenza B in weeks 49 and 50, 2012 bringing the total of influenza B detections to 8 this season so far.
- RSV activity remains high with 130 RSV positive detections in weeks 49 and 50, 2012.
- During week 49, 2012 there were thirty rhinovirus, twelve coronavirus, four parainfluenza, four respiratory adenovirus, three bocavirus, three metapneumovirus and three mycoplasma pneumoniae.
- There were no confirmed influenza cases admitted to critical care in Northern Ireland in weeks 49 and 50, 2012.
- There have been no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in weeks 49 and 50, 2012.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in weeks 49 and 50, 2012.
- The CMO has written to all doctors that the NICE guidance on the use of antivirals now applies (<http://www.dhsspsni.gov.uk/hss-md-53-2012.pdf>)
- The next bulletin will be published on Thursday 3 January

### Introduction

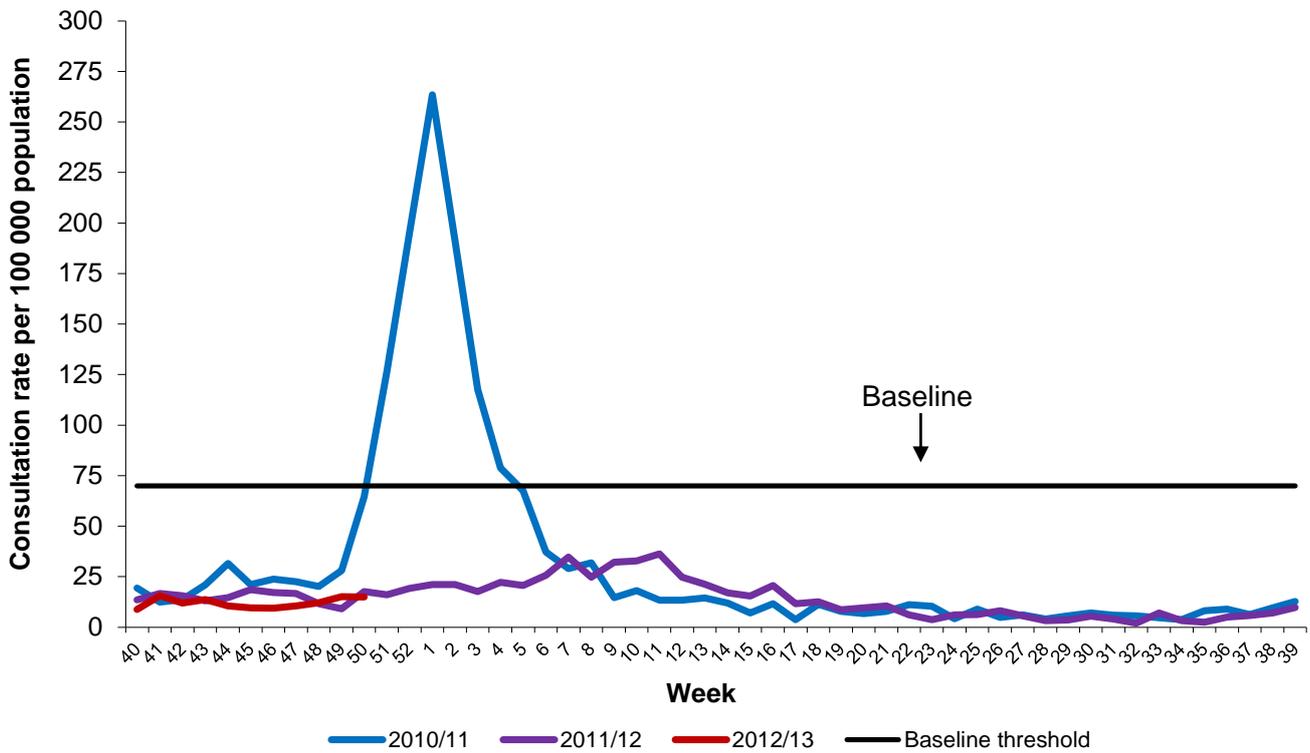
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place.

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

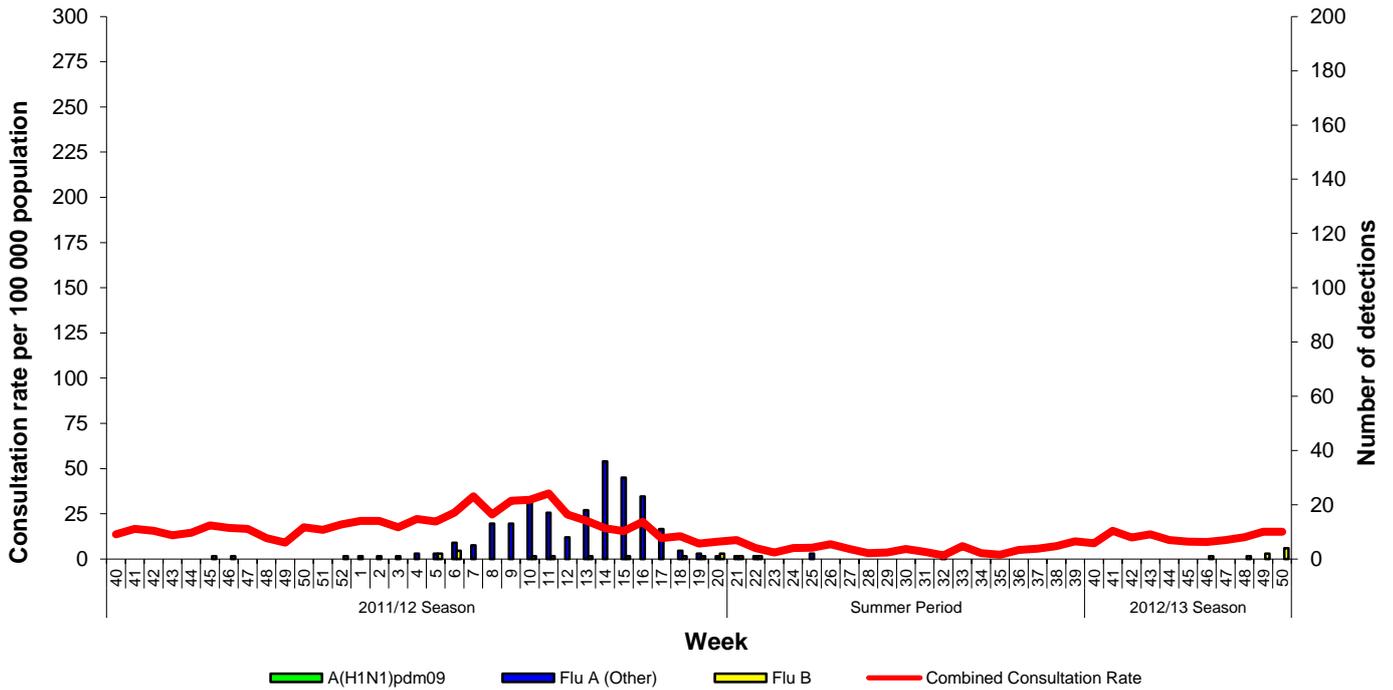
**Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2010/11 - 2012/13**



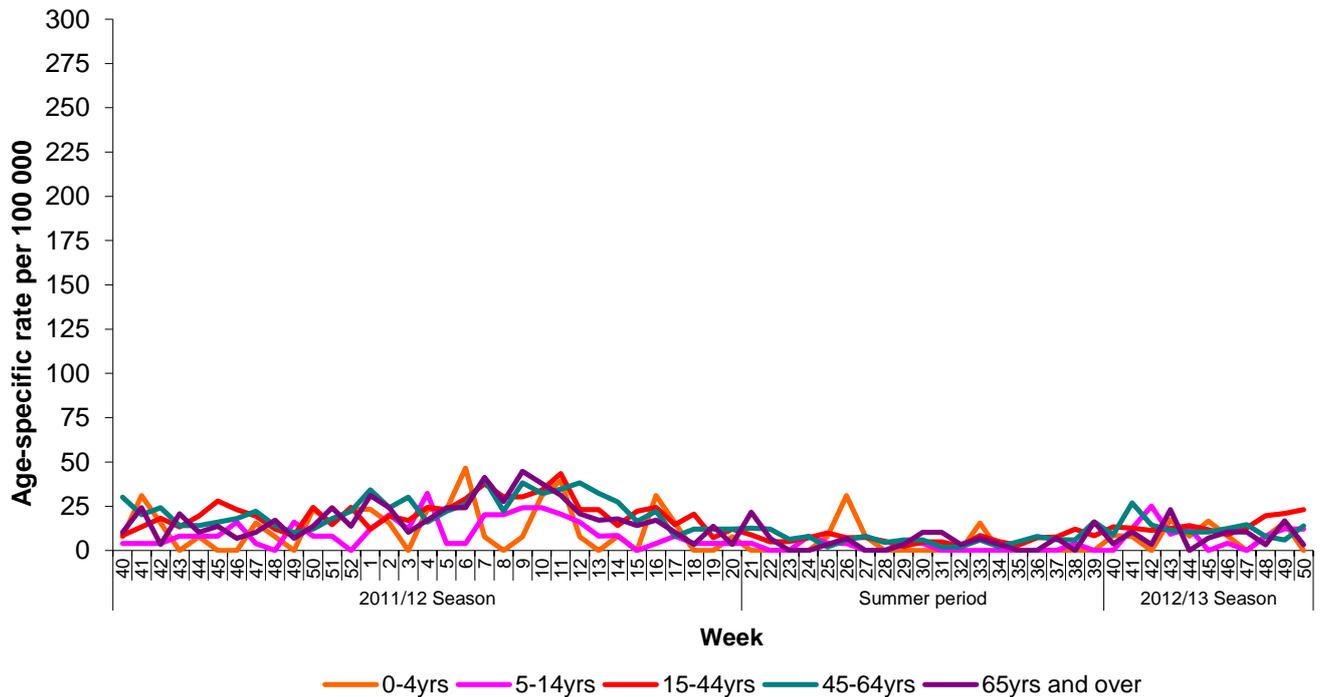
### Comment

GP consultation rates for combined 'flu/FLI remain low and stable. The GP combined 'flu/FLI consultation rate increased from 12.1 per 100,000 population in week 48 to 15.1 per 100,000 population in week 49 and 15.0 per 100,000 population in week 50, 2012. The rates for week 49 were higher than the same week in the previous year with those for week 50, 2012, slightly lower; however, rates are well below those for the same period in the years preceding the 2010/11 season. Rates 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 2011**



**Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2011**

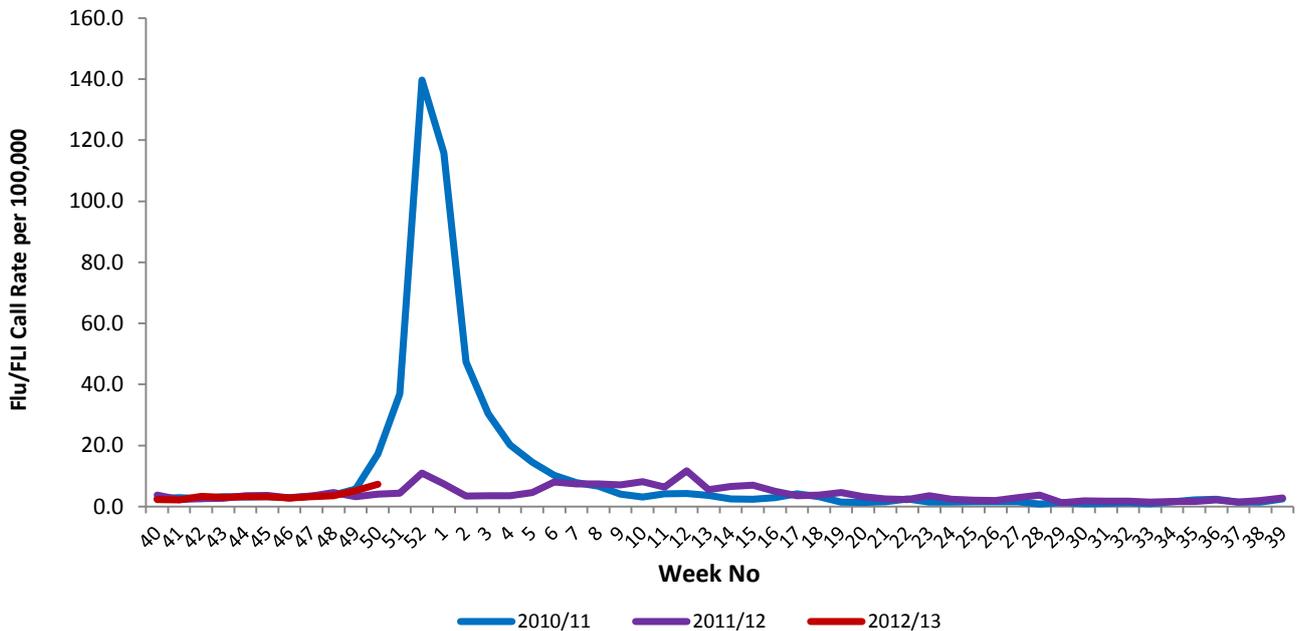


**Comment**

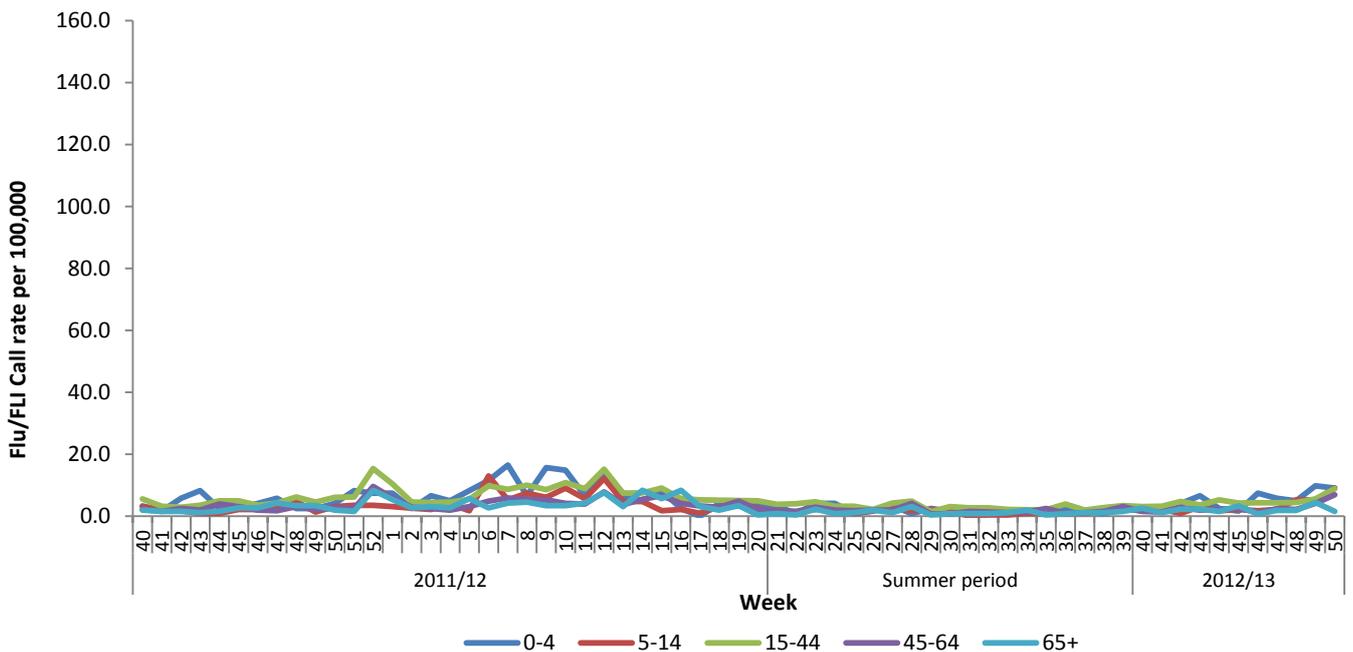
All age specific consultation rates remain low. Similar to the previous bulletin covering weeks 47 and 48 the highest age specific rate in both weeks 49 and 50 was in the 15-44 year age group. (Figure 3). Small numbers in some of the age groups may contribute to fluctuations in rates.

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

**Figure 4. OOH call rate for flu and flu-like illness, 2010/11 – 2012/13**



**Figure 5. OOH Call rates of flu and flu-like illness by age-group from week 40 2011**



### Comment

OOH 'flu/FLI call rates remain low but are showing a slight increase. Consultation rates for 'flu/FLI increased from 3.6 per 100,000 population in week 48 to 5.3 per 100,000 population in week 49 and 7.3 per 100,000 population in week 50, 2012. Call rates for 'flu/FLI for weeks 49 and 50 are higher than the same period in the previous year. Age specific rates remain at low levels. During week 49 the highest 'flu/FLI consultation rate was in the 0-4 year age group, and in week 50, 2012, in the 5-14 year age group. 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 49 and 50, 2012							
Source	Specimens Tested	AH3	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	7	0	0	1	1	1	14%
Non-sentinel	215	0	0	5	129	5	2%
<b>Total</b>	<b>222</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>130</b>	<b>6</b>	<b>3%</b>

Table 2. Cumulative Total Week 40 - Week 50 2012					
	AH3	A (untyped)	Flu B	Total Influenza	RSV
<b>0-4</b>	0	0	2	<b>2</b>	349
<b>5-14</b>	0	0	1	<b>1</b>	11
<b>15-64</b>	0	0	5	<b>5</b>	16
<b>65+</b>	0	0	0	<b>0</b>	16
<b>Unknown</b>	0	0	0	<b>0</b>	4
<b>All ages</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>396</b>

Table 3. Cumulative Total Week 40 - Week 48 2012										
	Sentinel					Non-sentinel				
	AH3	A (untyped)	Flu B	Total Influenza	RSV	AH3	A (untyped)	Flu B	Total Influenza	RSV
<b>0-4</b>	0	0	0	<b>0</b>	2	0	0	2	<b>2</b>	347
<b>5-14</b>	0	0	0	<b>0</b>	0	0	0	1	<b>1</b>	8
<b>15-64</b>	0	0	1	<b>1</b>	0	0	0	4	<b>4</b>	12
<b>65+</b>	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	7
<b>Unknown</b>	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	1
<b>All ages</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>394</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.

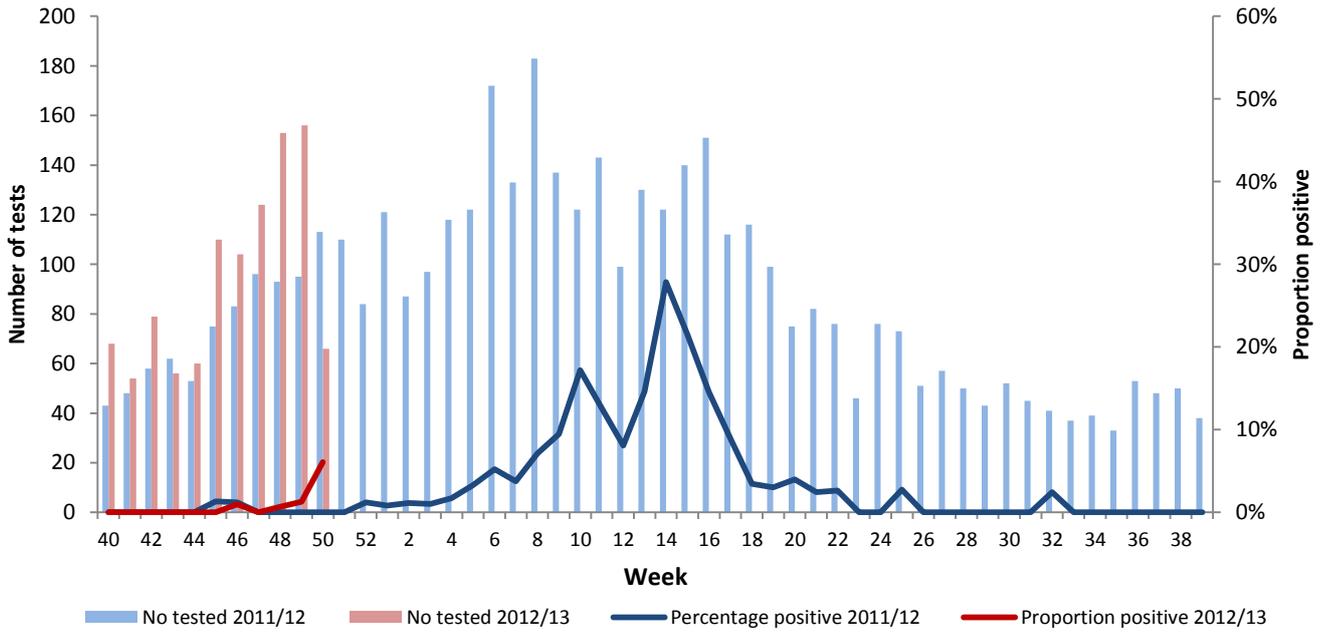
Sentinel and non-sentinel samples are tested for influenza and for RSV.

Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

### Comment

There were a total number of 222 specimens submitted for testing in weeks 49 and 50, 2012. There were six detections of influenza B reported in weeks 49 and 50, 2012 bringing the total to 8 influenza B detections this season, with no influenza A positive detections reported to date (Figure 6).

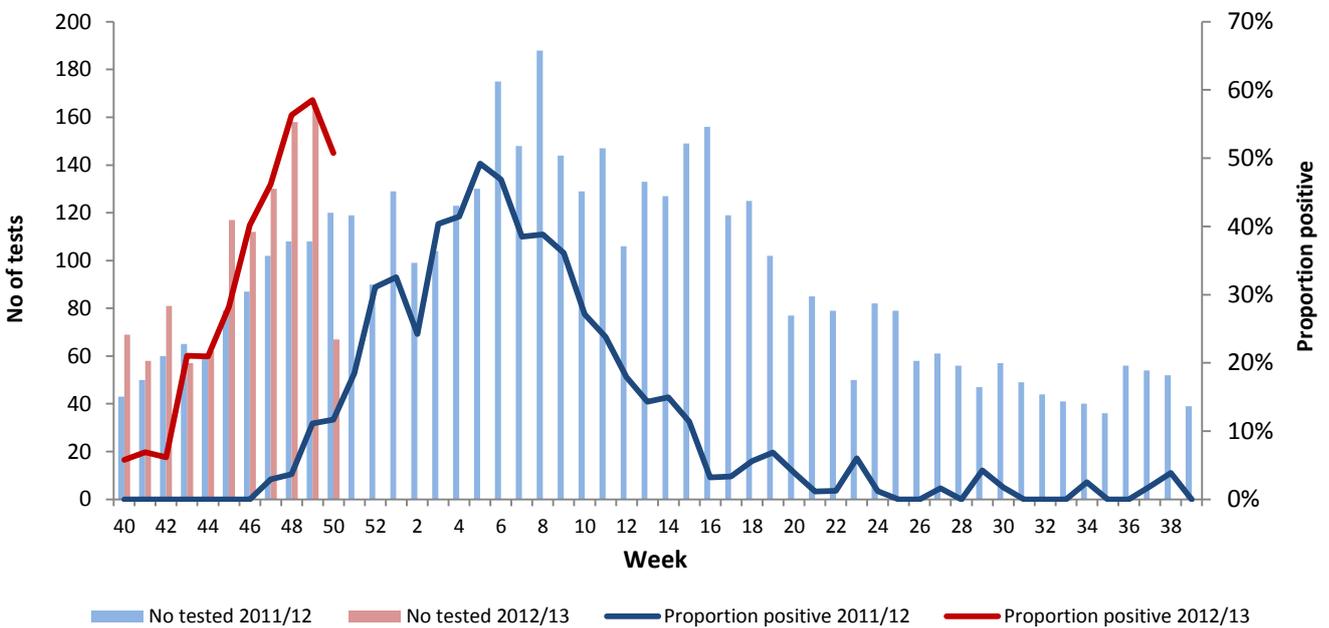
**Figure 6. Number of samples tested for influenza and proportion positive, 2011/12 and 2012/13, all sources**



\* The proportion positive in week 50 is provisional as full data for the week is still awaited

### Respiratory Syncytial Virus

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

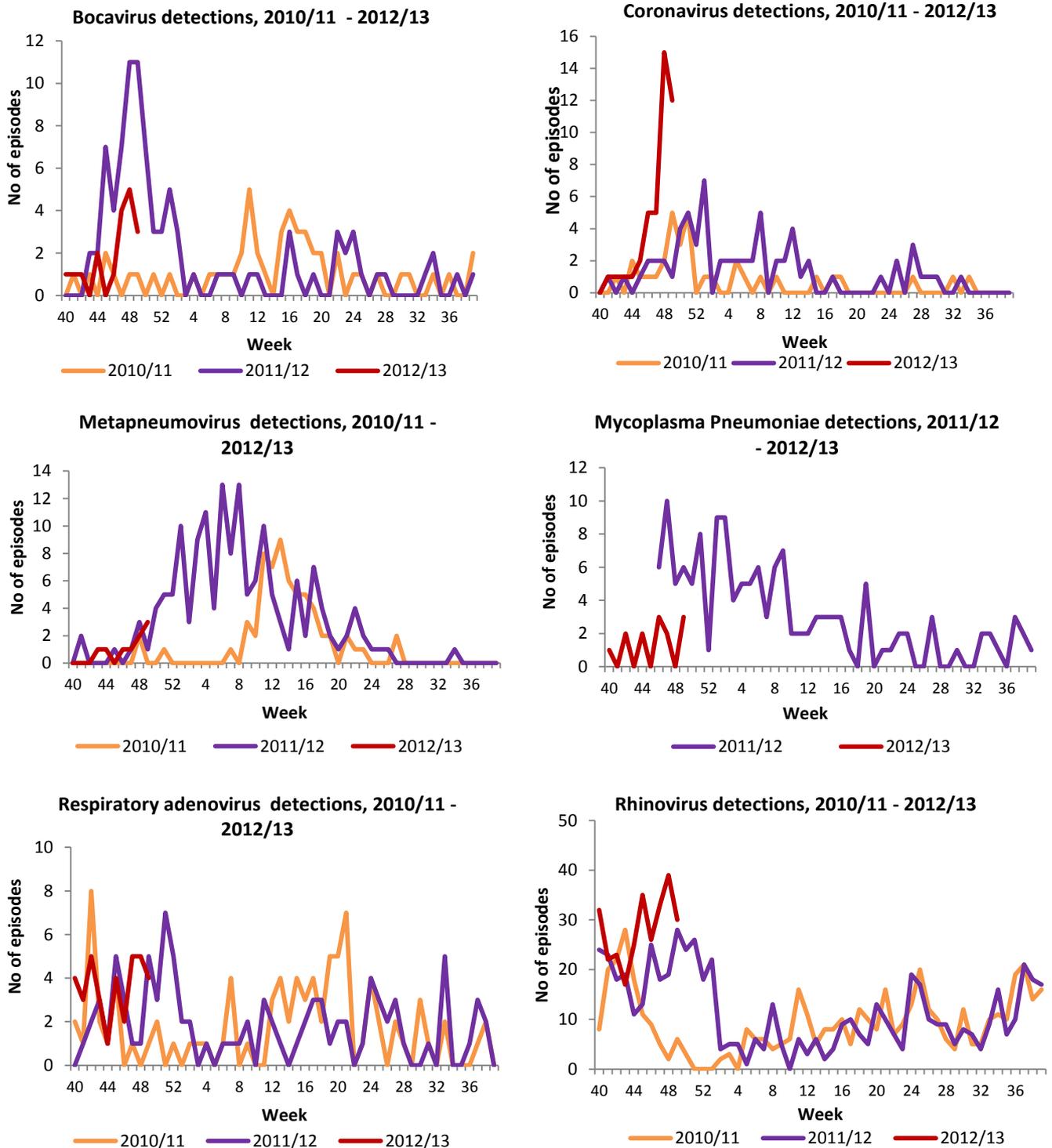


### Comment

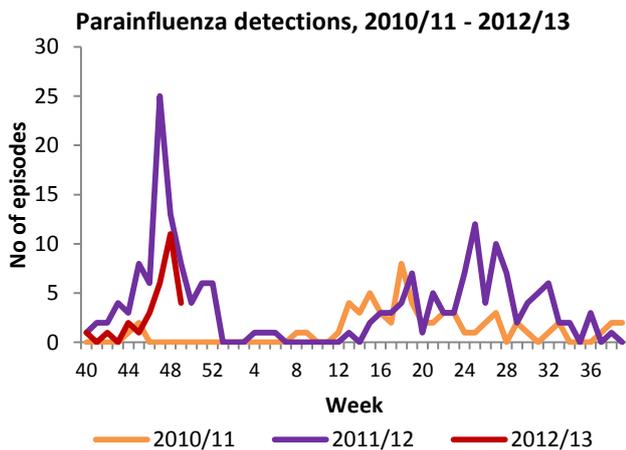
There were a total of 130 RSV detections in weeks 49 and 50. The RSV positivity rate increased from 56% in week 48 to 59% in week 49 and decreased to 51% in week 50; however this apparent reduction may change due to test results received after the production of the bulletin. From week 40 of the current season there have been a total of 396 RSV positive detections reported, of which 88% fall in the 0-4 year age group. (Figure 7). RSV positivity trends are similar to 2011/12 but are approximately four weeks earlier.

## Other respiratory viruses

Figure 8. Number of positive detections for other respiratory viruses, 2010/11 - 2012/13



\* Mycoplasma pneumoniae was only included in the standard respiratory test panel from 2011 onwards.



**Please note: with effect from week 50 most respiratory specimens will only be tested for influenza, RSV and mycoplasma pneumoniae. As there will be no comparison data available the above graphs will not be included in future issues of the bulletin.**

### Comment

During week 49, 2012 there were thirty rhinovirus, twelve coronavirus, four parainfluenza, four respiratory adenovirus, three bocavirus, three metapneumovirus and three mycoplasma pneumoniae. (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 no laboratory confirmed influenza cases admitted to critical care in Northern Ireland in weeks 49 and 50, 2012.

### Mortality Surveillance

There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 49 and 50, 2012.

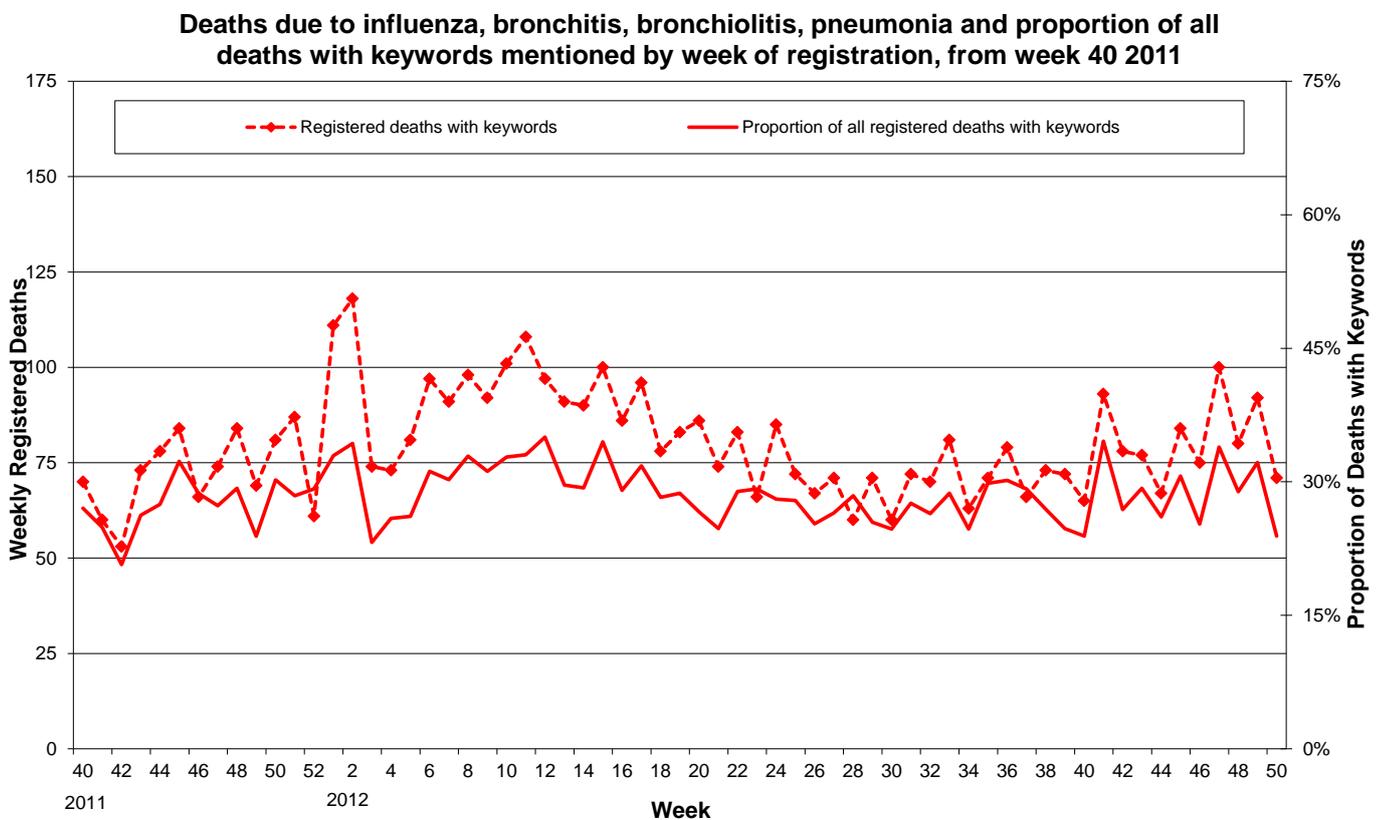
### Outbreak Surveillance

There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 49 and 50, 2012.

## 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 increased from 29% in week 48 to 32% in week 49, with a decrease in week 50 to 24%. In weeks 49 and 50 there were 583 registered deaths of which 163 related to these specific respiratory infections.

## Vaccine Uptake

As at the end of November 2012, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 71.2%, while the uptake in those aged under 65 in an at-risk group was 71.5% (provisional data). This compares with 72.6% uptake in the over 65 years, and 74.6% in the under 65 at-risk group for the same period last year.

## International Summary

### Europe

In week 49/2012, all 24 countries reporting experienced low-intensity levels of influenza-like illness or acute respiratory infection. For the first time this season, the majority of the countries reported sporadic geographic spread and eight countries experienced increasing trends. This is the second consecutive week with a notable increase in the proportion of influenza-positive samples since the start of the season. The number of respiratory syncytial virus (RSV) detections remained high and there was one report of a hospitalised laboratory-confirmed influenza case due to influenza B virus infection.

Based on reports of local or sporadic spread from the majority of countries and the increasing proportion of specimens testing positive for influenza virus, the season of influenza transmission appears to have started in EU/EEA countries.

[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)

- Many countries of the northern hemisphere temperate region, especially in North America, reported increasing influenza virus detections. Canada and the United States of America (USA) crossed their seasonal threshold but activity was highest in the southern part of the USA. Influenza activity remained low in Europe but has continued to increase slightly.
- Low levels of influenza activity were reported in countries in southern and southeast Asia, except Cambodia.
- In Sub-Saharan Africa, influenza activity remains at low levels.
- Influenza activity in the temperate countries of the southern hemisphere continued 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 this week's FluView report, influenza activity continues to increase in the United States across most key indicators. The United States is experiencing an early flu season with high levels of activity concentrated in the south central and southeastern regions of the nation at

this time. This FluView update corresponds to the week of December 2-8, 2012 of the 2012-2013 influenza season.

- The proportion of visits to doctors for influenza-like illness (ILI) increased and is once again above the national baseline. Eight states are now reporting high ILI activity (Alabama, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas), which is double the number of states that reported high ILI activity last week.
- Overall, influenza activity is being reported widely across much of the United States. Eighteen states reported widespread geographic influenza activity for the week of December 2-8, 2012. During the previous week, only 8 states reported widespread activity.
- Since October 1, 2012, 677 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 260 hospitalizations from the prior week. This translates to a rate of 2.4 influenza-associated hospitalizations per 100,000 people in the United States.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System was below the epidemic threshold.
- Nationally, the percentage of respiratory specimens testing positive for influenza viruses in the United States during the week of December 2-8 increased to 28.3%. This remains relatively elevated for this time of year. For the three weeks from November 18 to December 8, the regional percentage of respiratory specimens testing positive for influenza viruses ranged from 7.9% to 47.3%.
- Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. During the week of December 2-8, 1,655 of the 2,172 influenza positive tests reported to CDC were influenza A and 517 were influenza B viruses. Of the 1,655 influenza A viruses identified, approximately 48% were H3 viruses and fewer than 1% were 2009 H1N1 viruses; 51% were not subtyped.

An overview of the US influenza can be viewed on

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

## Canada

- Influenza activity in Canada continued to increase in week 49; one region reported widespread activity, and more regions reported sporadic or localized activity.
- A total of 816 laboratory detections of influenza were reported, of which 96.4% were for influenza A viruses, predominantly A(H3N2).
- Twenty-two influenza outbreaks were reported: 12 in long-term-care facilities, 5 in schools and 5 in other facilities.
- Twenty-five paediatric influenza-associated hospitalizations were reported through the IMPACT network, all but one with influenza A.
- Eighty-seven hospitalizations and 8 deaths in adults  $\geq 20$  years of age were reported through Aggregate surveillance, all but two with influenza A.
- The ILI consultation rate decreased compared to the previous week and is within the expected range for this time of year.

<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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## Acknowledgements

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