

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 47- 48 (19 November – 2 December 2012)

### Summary

- Influenza activity in Northern Ireland remains at low levels.
- The GP combined 'flu/FLI consultation rate increased from 9.5 per 100,000 population in week 46 to 10.5 per 100,000 population in week 47 and 12.1 per 100,000 population in week 48, 2012. Rates remain well below the Northern Ireland threshold (70 per 100,000 population).
- OOH 'flu/FLI call rates remain low and relatively stable.
- There were no detections of influenza in weeks 47 and 48, 2012. However, the first influenza B of the season was detected in week 46.
- RSV activity increased again with 114 RSV positive detections in weeks 47 and 48, 2012. The RSV positivity rate has also increased and is currently at 60%.
- During weeks 47 and 48, 2012 there was increasing activity in a number of respiratory viruses, particularly bocavirus, coronavirus and parainfluenza. In weeks 47 and 48, 2012 there were sixty rhinovirus, fourteen parainfluenza, thirteen coronavirus, nine bocavirus, eight respiratory adenovirus, three metapneumovirus and two mycoplasma pneumoniae.
- There were no confirmed influenza cases admitted to critical care in Northern Ireland in weeks 47 and 48, 2012.
- There have been no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in weeks 47 and 48, 2012.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in weeks 47 and 48, 2012.

### Introduction

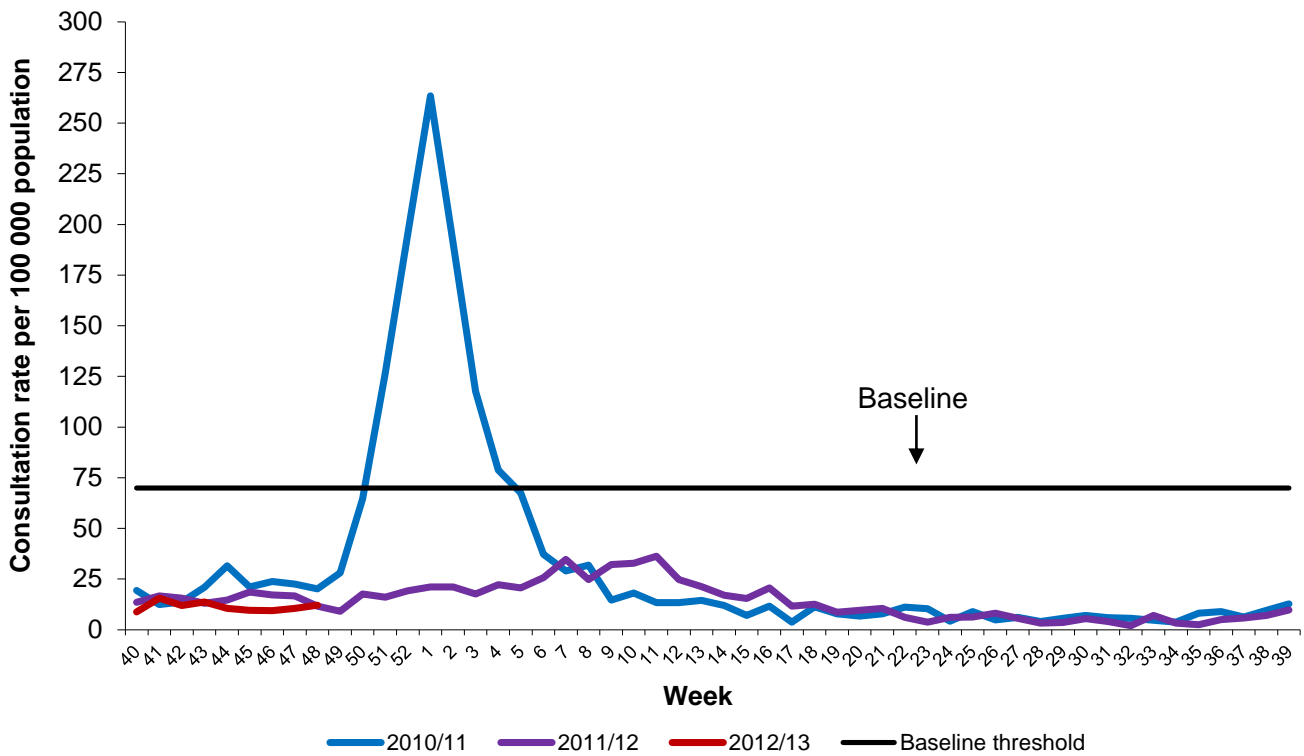
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place.

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

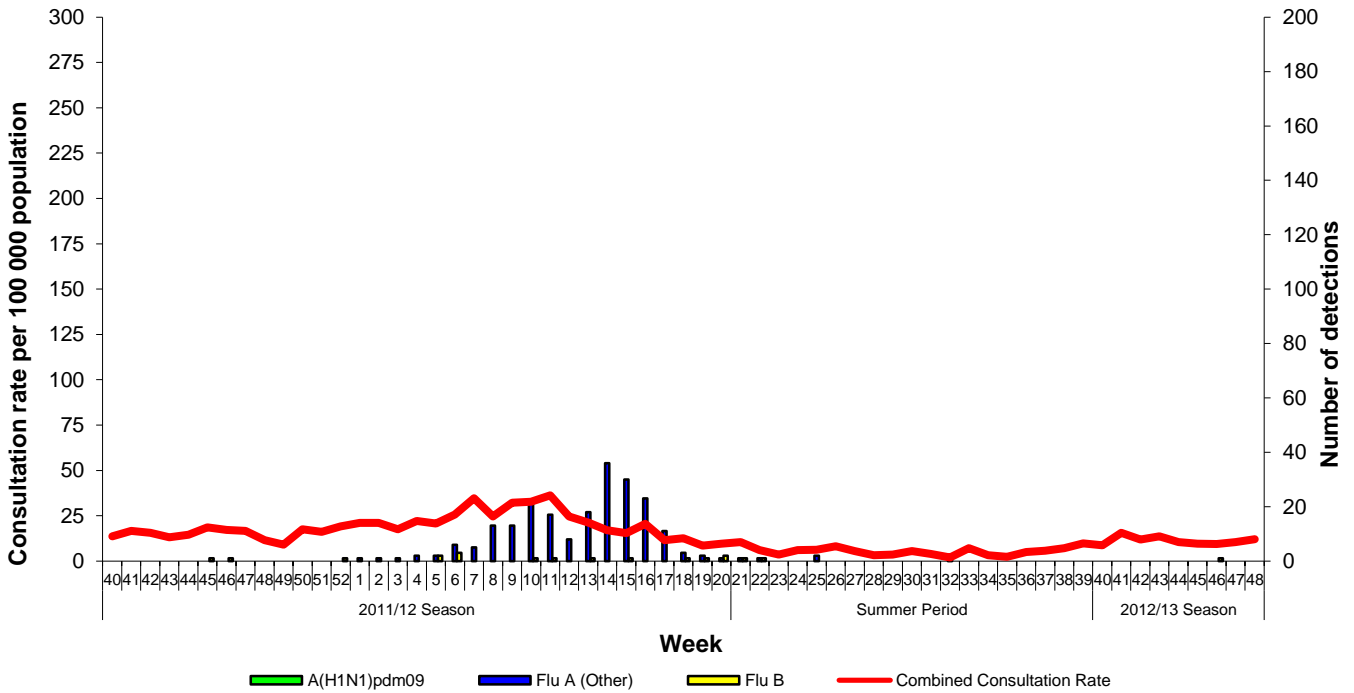
**Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2010/11 - 2012/13**



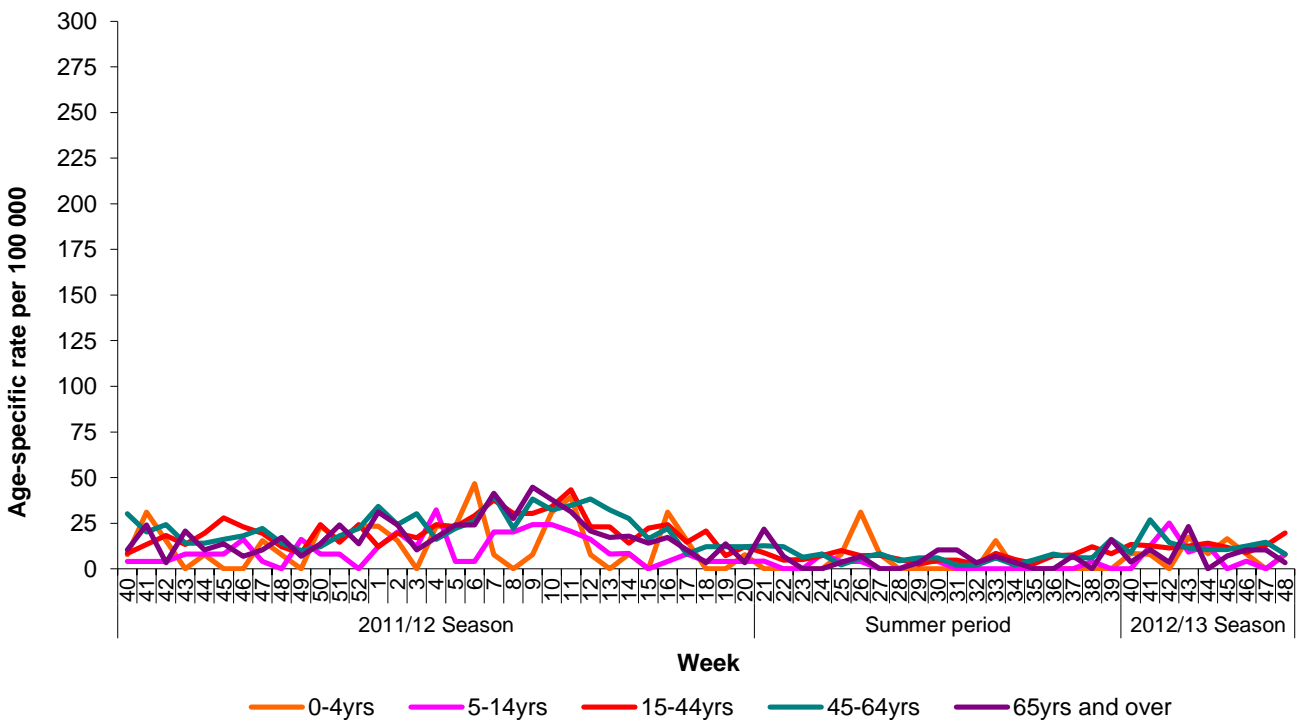
### Comment

GP consultation rates for combined ‘flu/FLI remain at low levels. The GP combined ‘flu/FLI consultation rate increased from 9.5 per 100,000 population in week 46 to 10.5 per 100,000 population in week 47 and 12.1 per 100,000 population in week 48, 2012. The rates for week 47 were lower than the same week in the previous year with those for week 48, 2012, slightly higher. 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**

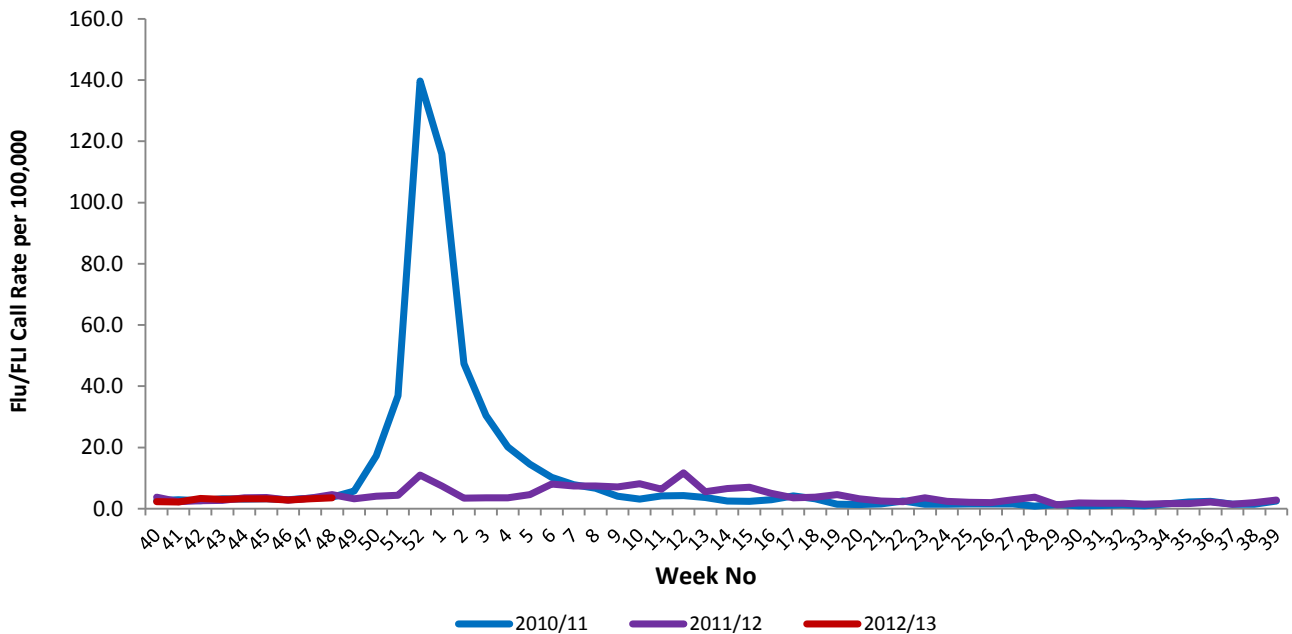


**Comment**

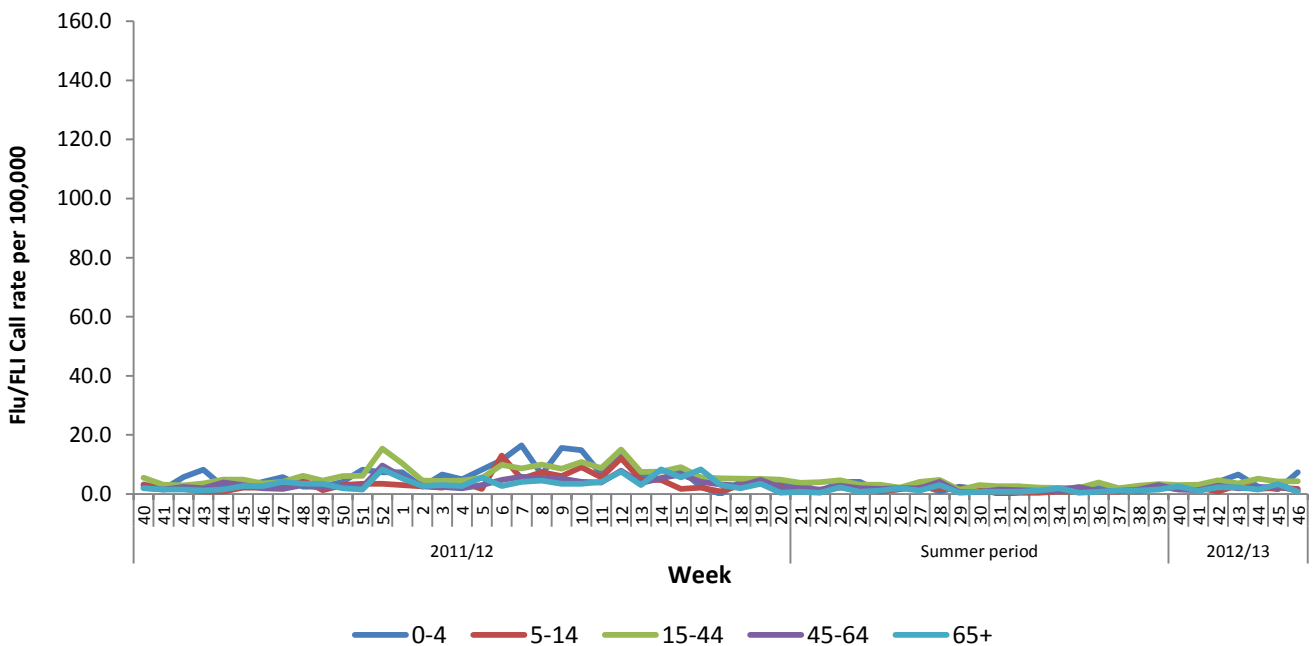
Age specific consultation rates remain at low levels. The highest age specific rate in week 47 was in the 45-64 year age group and in week 48, 2012, it was in the 15-44 year age group which has increased from 9.0 per 100,00 population in week 46 to 19.7 per 100,000 population in week 48. (Figure 3). 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 and relatively stable. Consultation rates for 'flu/FLI increased from 2.9 per 100,000 population in week 46 to 3.3 per 100,000 population in week 47 and 3.6 per 100,000 population in week 46, 2012. Call rates for 'flu/FLI for weeks 47 and 48 are slightly lower than the same period in previous years. Age specific rates also remain at low levels with the highest 'flu/FLI consultation rate in week 47 in the 0-4 year age group, and in week 48, 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 47 and 48, 2012							
Source	Specimens Tested	AH3	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	3	0	0	0	0	0	0%
Non-sentinel	206	0	0	0	114	0	0%
<b>Total</b>	<b>209</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>114</b>	<b>0</b>	<b>0%</b>

Table 2. Cumulative Total Week 40 - Week 48 2012					
	AH3	A (untyped)	Flu B	Total Influenza	RSV
<b>0-4</b>	0	0	1*	<b>1</b>	202
<b>5-14</b>	0	0	0	<b>0</b>	8
<b>15-64</b>	0	0	0	<b>0</b>	12
<b>65+</b>	0	0	0	<b>0</b>	7
<b>Unknown</b>	0	0	0	<b>0</b>	1
<b>All ages</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>230</b>

\* Note: this influenza specimen was in week 46 but reported after the last bulletin was issued

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>	1	0	0	1	<b>1</b>	201
<b>5-14</b>	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	8
<b>15-64</b>	0	0	0	<b>0</b>	0	0	0	0	<b>0</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>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>229</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.

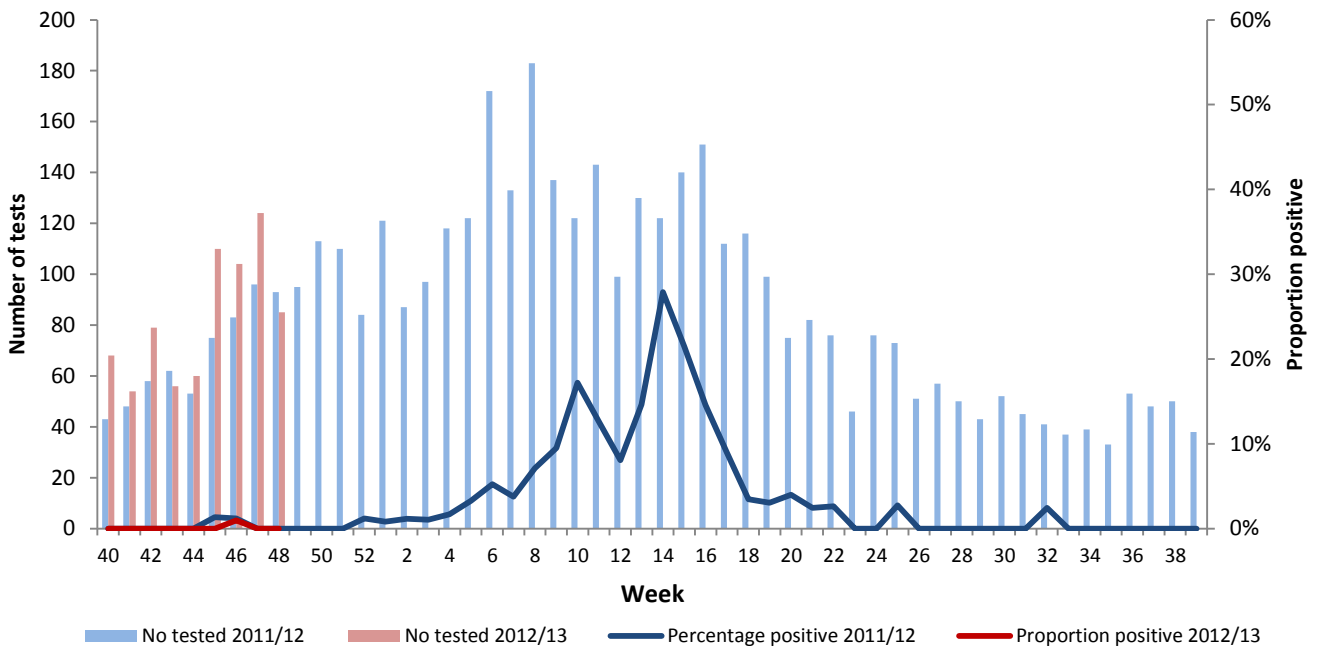
Sentinel and non-sentinel samples are tested for influenza and for RSV.

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

### Comment

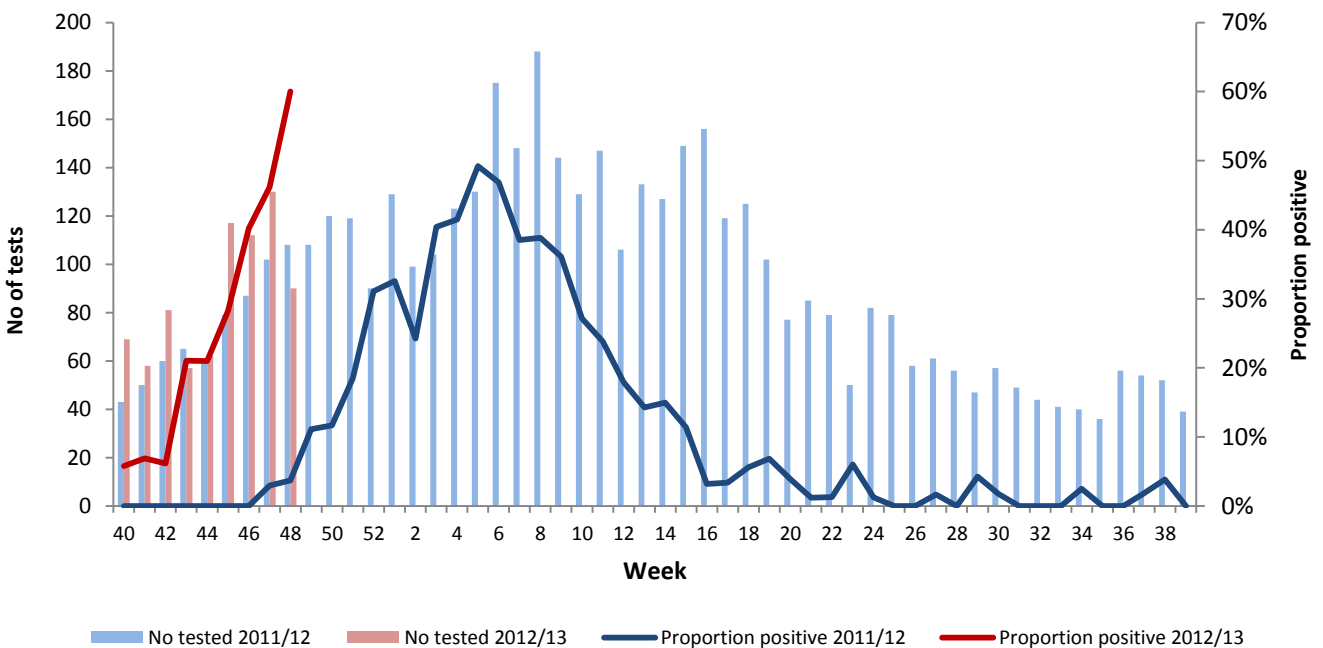
The total number of specimens submitted for testing in weeks 47 and 48, 2012, is similar to the previous two week period (209 in weeks 47 and 48 with 214 in weeks 45 and 46), however as there are normally additional tests reported after the production of this bulletin it is likely that there will be an overall increase in numbers of specimens being tested compared to the previous bulletin. There were no detections of influenza reported in weeks 47 and 48, 2012; however an influenza B (detected in week 46) was reported after the issue of the last bulletin (Figure 6). (Please see note above re caveat about reports received after publication of previous bulletin)

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



## Respiratory Syncytial Virus

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

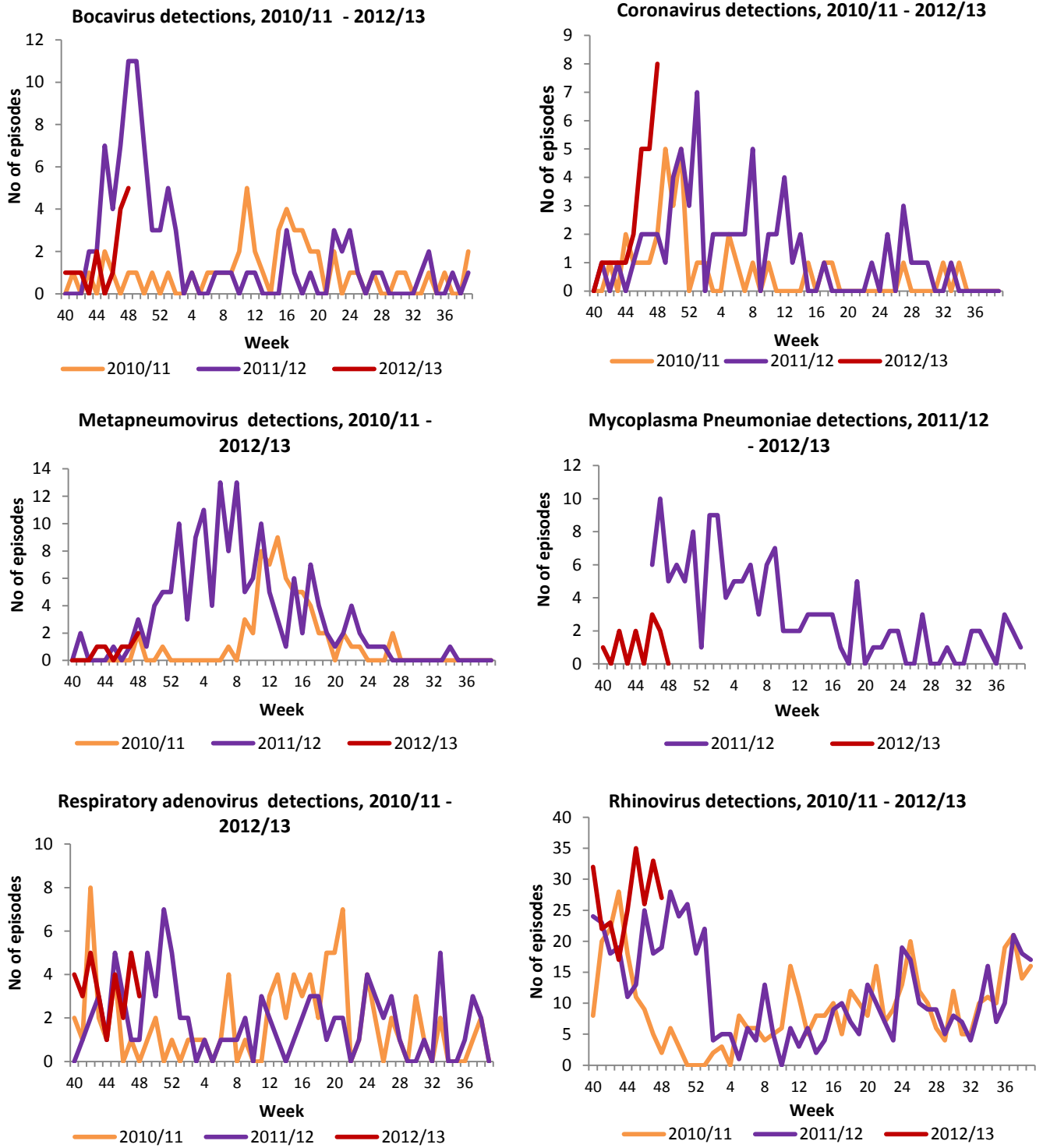


## Comment

The increasing RSV activity continued in weeks 47 and 48, 2012, with 114 RSV positive detections. The RSV positivity rate has continued to increase and is currently at 60%. From week 40 of the current season there have been a total of 230 RSV positive detections reported, of which 88% fall in the 0-4 year age group. (Figure 7).

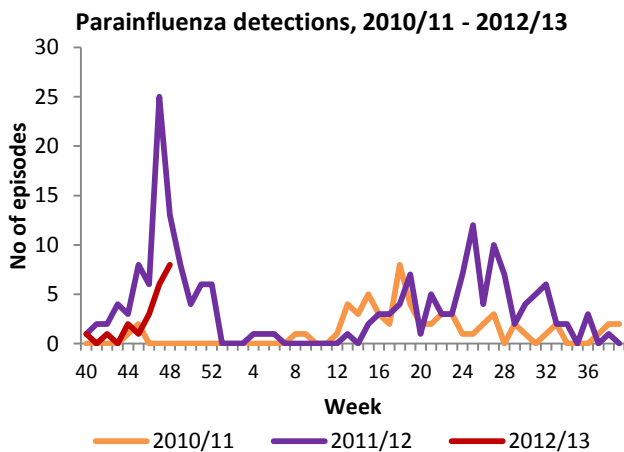
## Other respiratory viruses

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 the different scales on the Y axis for these charts.



### Comment

Please note that during periods of peak influenza activity routine testing of samples for other respiratory viruses may not be possible due to workload demands on the laboratory.

During week 47 and 48, 2012 there was increasing activity in a number of respiratory viruses, particularly bocavirus, coronavirus and parainfluenza. In weeks 47 and 48, 2012 there were sixty rhinovirus, fourteen parainfluenza, thirteen coronavirus, nine bocavirus, eight respiratory adenovirus, three metapneumovirus and two mycoplasma pneumoniae. (Figure 8) (Note: additional respiratory virus results reported after the last bulletin have increased the numbers for some of the other respiratory viruses above, particularly rhinovirus).

### 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 47 and 48, 2012.

### Mortality Surveillance

There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 47 and 48, 2012.

### Outbreak Surveillance

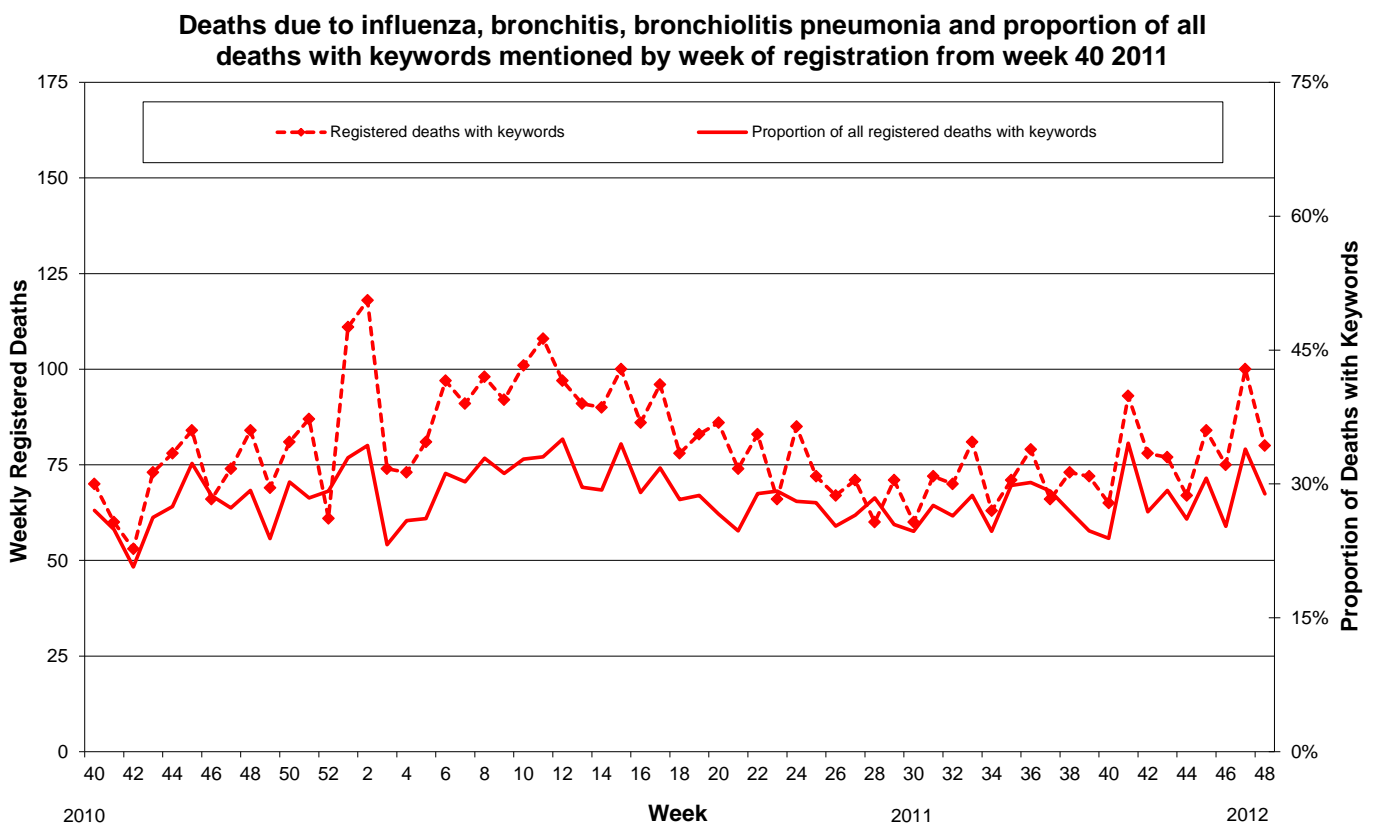
There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 47 and 48, 2012.



## 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 25% in week 46 to 34% in week 47, with a decrease in week 48 to 29%. In weeks 47 and 48 there were 572 registered deaths of which 180 related to these specific respiratory infections.

## International Summary

### Europe

- In week 47/2012, all 28 countries reporting experienced low-intensity activity of influenza-like illness or acute respiratory infection.
- Of 519 sentinel specimens tested across 23 countries, only 16 (3.1%) were positive for influenza virus.
- No hospitalised laboratory-confirmed influenza cases were reported.
- The number of reported detections of respiratory syncytial viruses (RSV) have risen substantially since week 42, as usually happens at this time of year.

Although the proportion of positive sentinel specimens has increased slightly since the early weeks of the season, there is currently little evidence of sustained influenza virus transmission in EU/EEA countries. Much of the clinical influenza activity is probably due to other respiratory pathogens including RSV.

[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)

- As of 23 November 2012 countries of the Northern Hemisphere temperate region report increasing influenza virus detections, however none have crossed their seasonal threshold or announced the beginning of their season.
- Countries in southern and south east Asia, except Cambodia, reported decreasing influenza virus detections. Cambodia has reported increased detections of influenza A(H3N2) for at least 6 weeks.
- In Sub-Saharan Africa, Cameroon has continued to experience circulation of influenza A(H3N2) but appears to have peaked and the rate of detections has decreased. Ethiopia and Ghana reported increases in influenza A(H1N1)pdm09 while Madagascar, Kenya and Togo reported low circulation of mainly influenza B.
- Influenza activity in the temperate countries of the Southern Hemisphere is now 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, flu activity in the United States has increased substantially throughout the nation, most notably in the south central and southeast regions of the country. People who have not already received a flu vaccine should do so now. This FluView update reports on influenza activity for November 18-24, 2012 of the 2012-2013 influenza season.

- The proportion of visits to doctors for influenza-like illness (ILI) was at the national baseline. This is the earliest in the regular season that influenza activity has reached the national baseline level since the 2003-2004 season. This week, 5 U.S. regions reported ILI activity above region-specific baseline levels and 5 states (Alabama, Louisiana, Mississippi, Tennessee and Texas), experienced high ILI activity.
- Four states reported widespread influenza activity (Alaska, Mississippi, New York, and South Carolina). Regional influenza activity was reported by 7 states (Alabama, Idaho, Iowa, Maine, Massachusetts, North Carolina, and Ohio). Nineteen states reported local influenza activity. This is an increase from the 8 states that reported local influenza activity last week.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System was below the epidemic threshold.
- Both influenza A (H3N2 and 2009 H1N1) and influenza B viruses have been identified this season. During the week of November 18-24, 571 of the 812 influenza positive tests reported to CDC were influenza A and 241 were influenza B viruses. Among the 571 influenza A viruses identified that week, approximately 35% were H3 viruses and less than 1% were 2009 H1N1 viruses; 65% were not subtyped.

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

## Canada

- The influenza season has started in Canada with increases in all influenza indicators observed this week (18-24 November).
- More regions reported sporadic or localized activity compared to the previous week.
- A total of 278 laboratory detections of influenza were reported, of which 97.8% were for influenza A viruses, predominantly A(H3N2).
- Eight influenza outbreaks were reported: one in a hospital, five in long-term care facilities and two in other settings.
- Seven paediatric influenza-associated hospitalizations were reported through the IMPACT network, and 27 cases in adults  $\geq 20$  years of age were reported through Aggregate surveillance.
- The ILI consultation rate increased compared to the previous week but 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.**