

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 45- 46 (5 – 18 November 2012)

Summary

- Influenza activity in Northern Ireland remains low and stable.
- The GP combined 'flu/FLI consultation rate decreased slightly from 10.5 per 100,000 population in week 44 to 9.6 per 100,000 population in week 45 and 9.5 per 100,000 population in week 46, 2012. Rates are similar to the same weeks last year and are well below the Northern Ireland threshold (70 per 100,000 population).
- OOH 'flu/FLI call rates also remain low and stable.
- There have been no influenza positive detections since week 32, 2012.
- There is increasing RSV activity with 69 RSV positive detections in weeks 45 and 46, 2012. The RSV positivity rate has been steadily increasing and is currently at 41%.
- During weeks 45 and 46, 2012 there were fifty four rhinovirus, six coronavirus, five respiratory adenovirus, three mycoplasma pneumoniae, three parainfluenza and one metapneumovirus reported.
- There were no confirmed influenza cases admitted to critical care in Northern Ireland in weeks 45 and 46, 2012.
- There have been no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in weeks 45 and 46, 2012.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in weeks 45 and 46, 2012.

Introduction

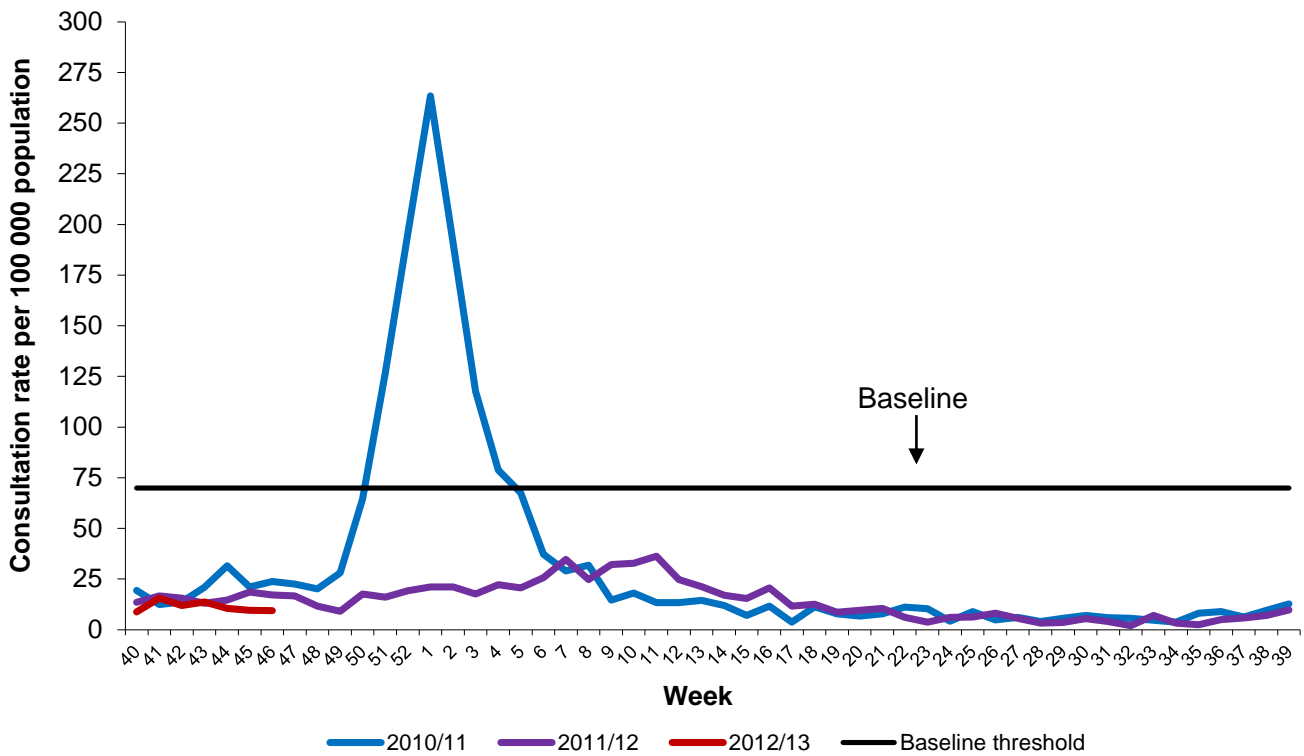
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place.

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 low and stable. The GP combined ‘flu/FLI consultation rate decreased slightly from 10.5 per 100,000 population in week 44 to 9.6 per 100,000 population in week 45 and 9.5 per 100,000 population in week 46, 2012. The rates for weeks 45 and 46, 2012, remain lower than the same weeks in the previous years. 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

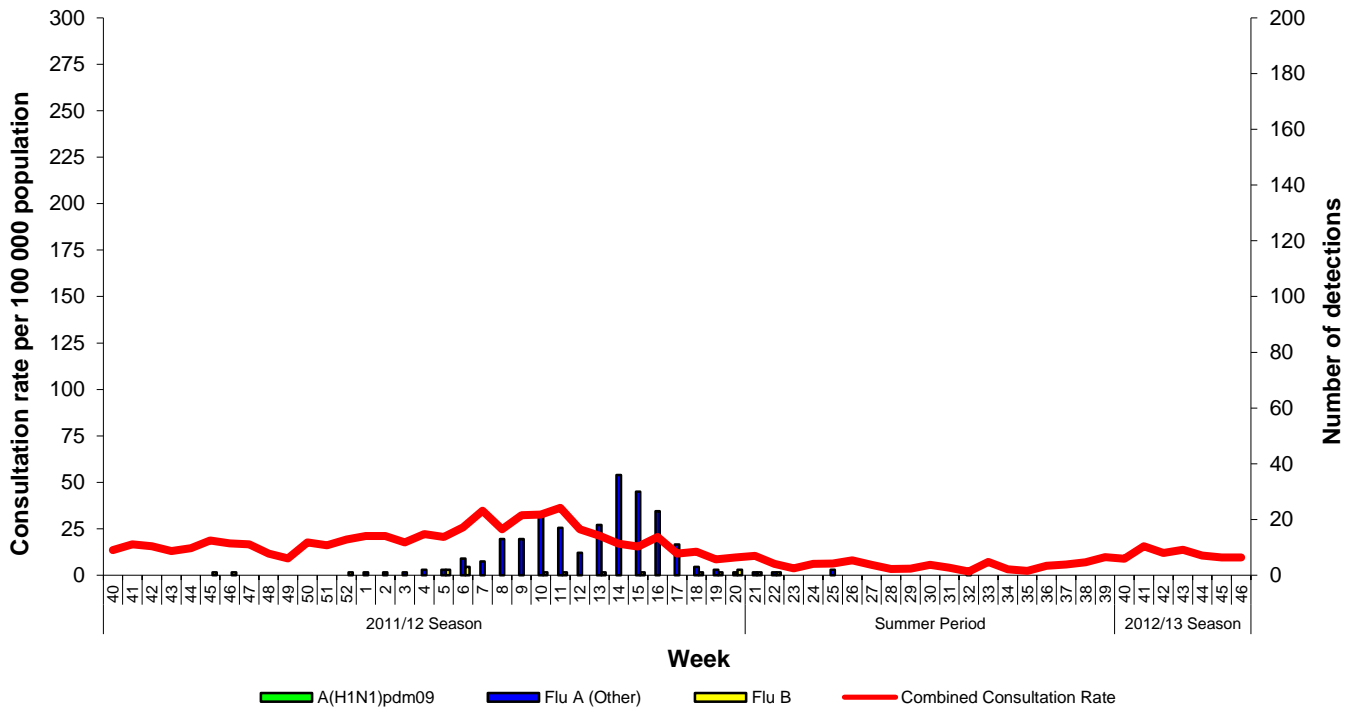
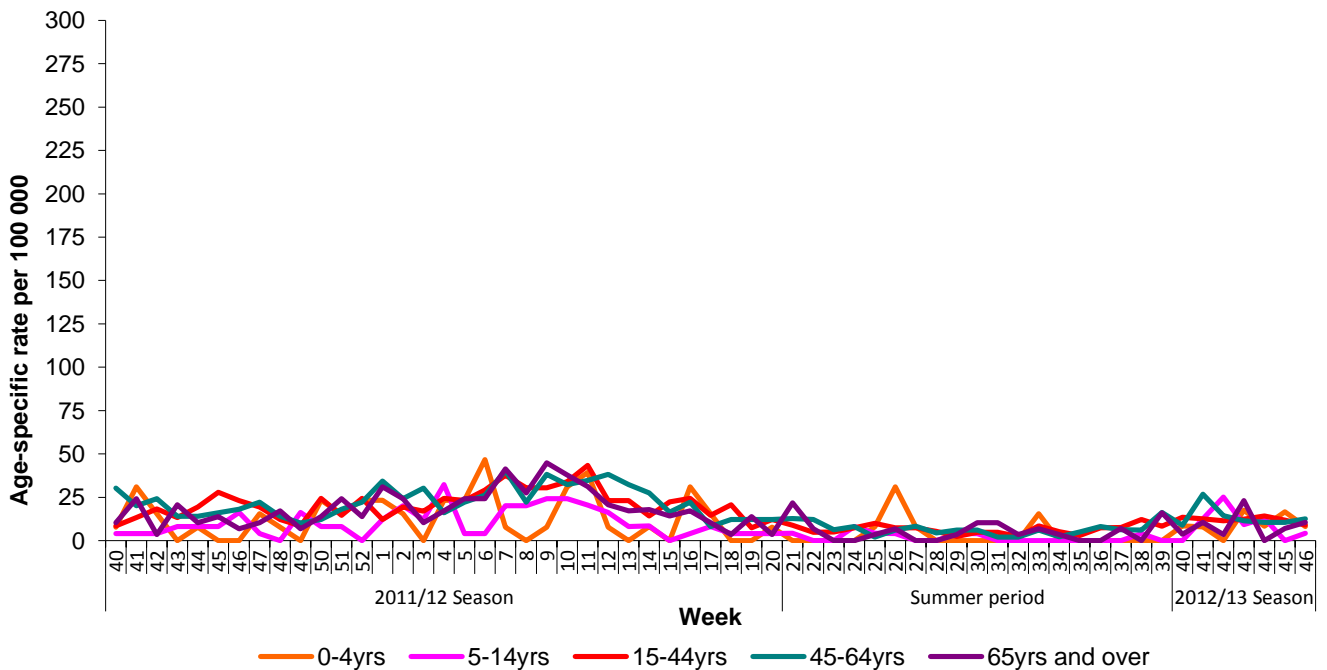


Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2011



Comment

All age specific consultation rates remain low. The highest age specific rate in week 45 was in the 0-4 year age group and in week 46, 2012, it was in the 45-64 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

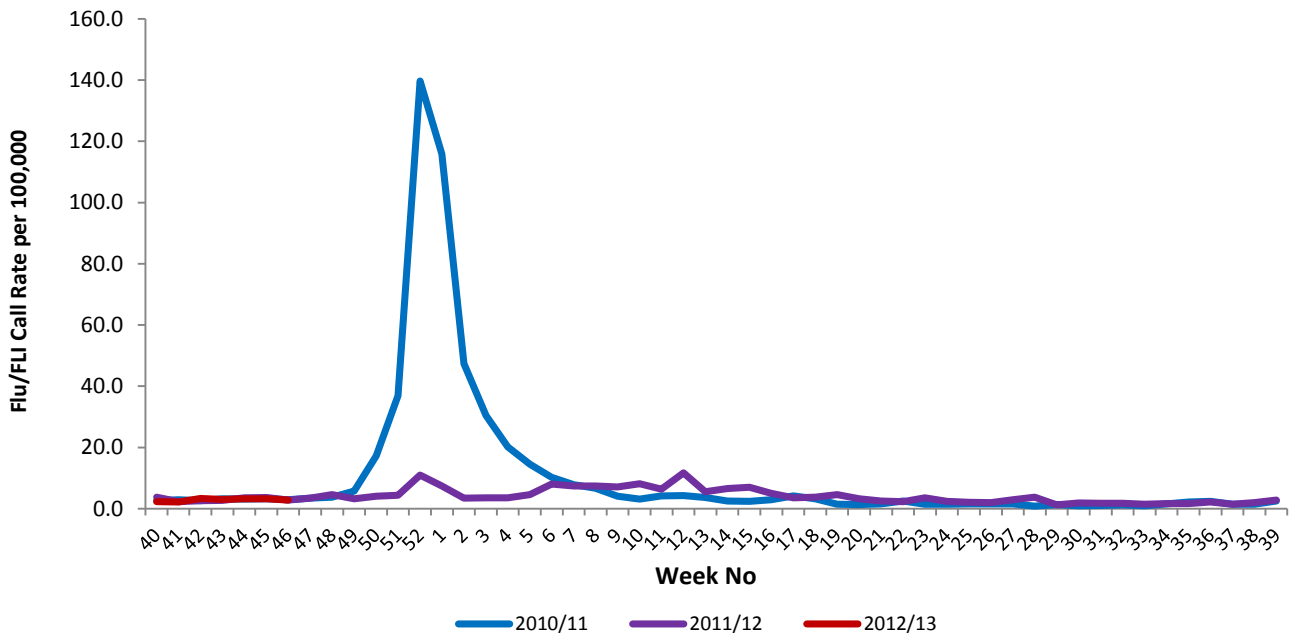
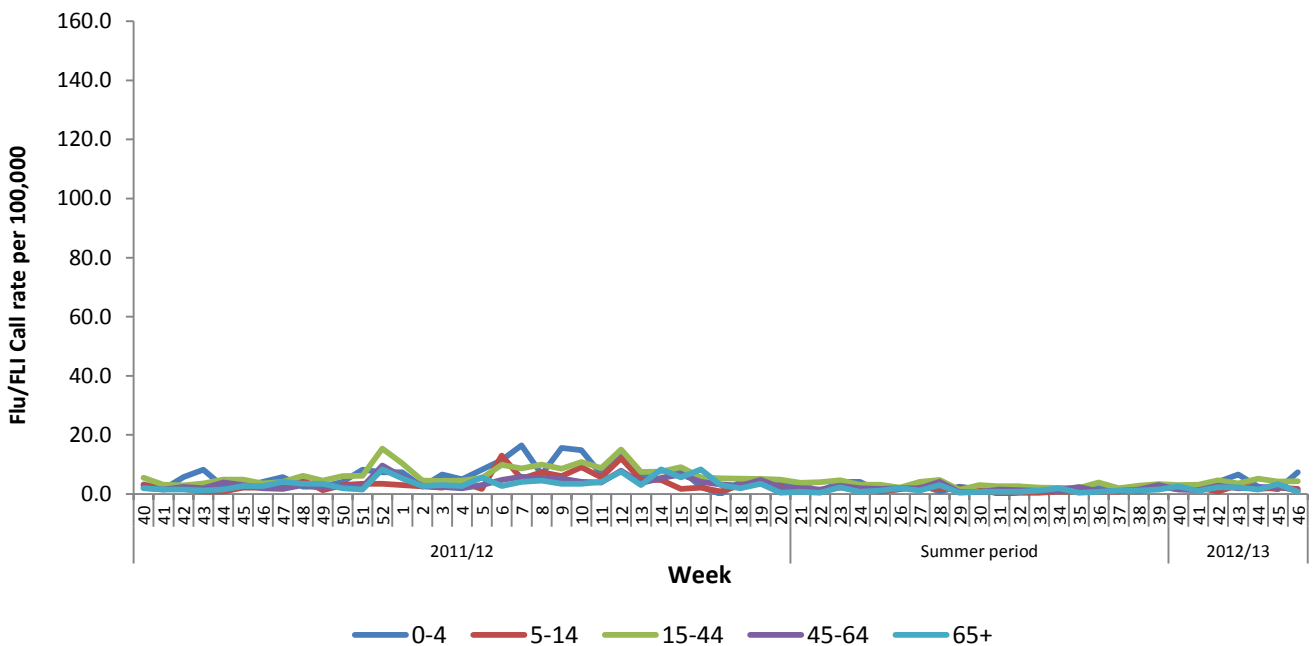


Figure 5. OOH Call rates of flu and flu-like illness by age-group from week 40 2011



Comment

OOH 'flu/FLI call rates also remain at low levels. Consultation rates for 'flu/FLI decreased slightly from 3.3 per 100,000 population in week 44 to 3.2 per 100,000 population in week 45 and 2.9 per 100,000 population in week 46, 2012. Call rates for 'flu/FLI for weeks 45 and 46 remain at similar levels to the same period in previous years. Age specific rates remain at low levels with the highest 'flu/FLI consultation rate in week 45 in the 15-44 year age group, and in week 46, 2012, in the 0-4 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 45 and 46, 2012							
Source	Specimens Tested	AH3	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	2	0	0	0	0	0	0%
Non-sentinel	188	0	0	0	69	0	0%
Total	190	0	0	0	69	0	0%

Table 2. Cumulative Total Week 40 - Week 46 2012					
	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	0	94
5-14	0	0	0	0	2
15-64	0	0	0	0	7
65+	0	0	0	0	4
Unknown	0	0	0	0	0
All ages	0	0	0	0	107

Table 3. Cumulative Total Week 40 - Week 46 2012										
	Sentinel					Non-sentinel				
	AH3	A (untyped)	Flu B	Total Influenza	RSV	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	0	1	0	0	0	0	93
5-14	0	0	0	0	0	0	0	0	0	2
15-64	0	0	0	0	0	0	0	0	0	7
65+	0	0	0	0	0	0	0	0	0	4
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	0	0	0	0	1	0	0	0	0	106

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.

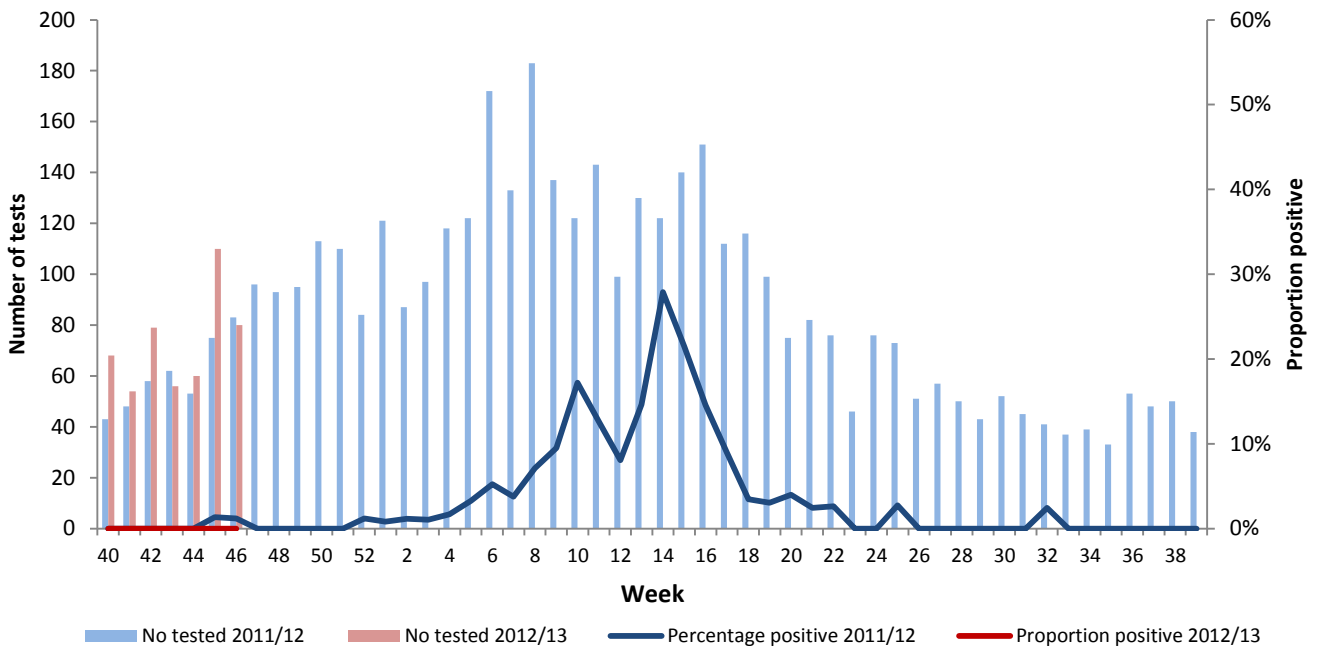
Sentinel and non-sentinel samples are tested for influenza and for RSV.

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

Comment

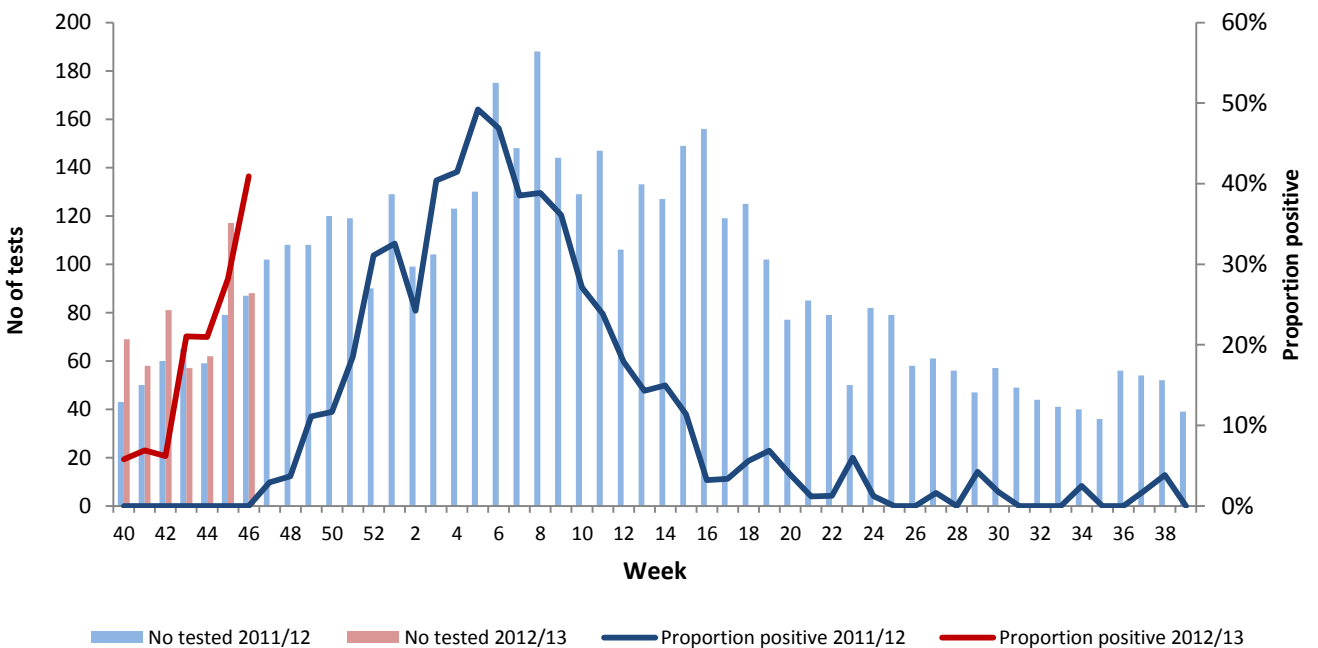
The number of specimens submitted for testing has increased with a total of 190 for weeks 45 and 46, 2012. There have been no positive detections of influenza reported this season to date with the last detection in week 32, 2012 (Figure 6). (Please see note above re caveat about reports received after 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

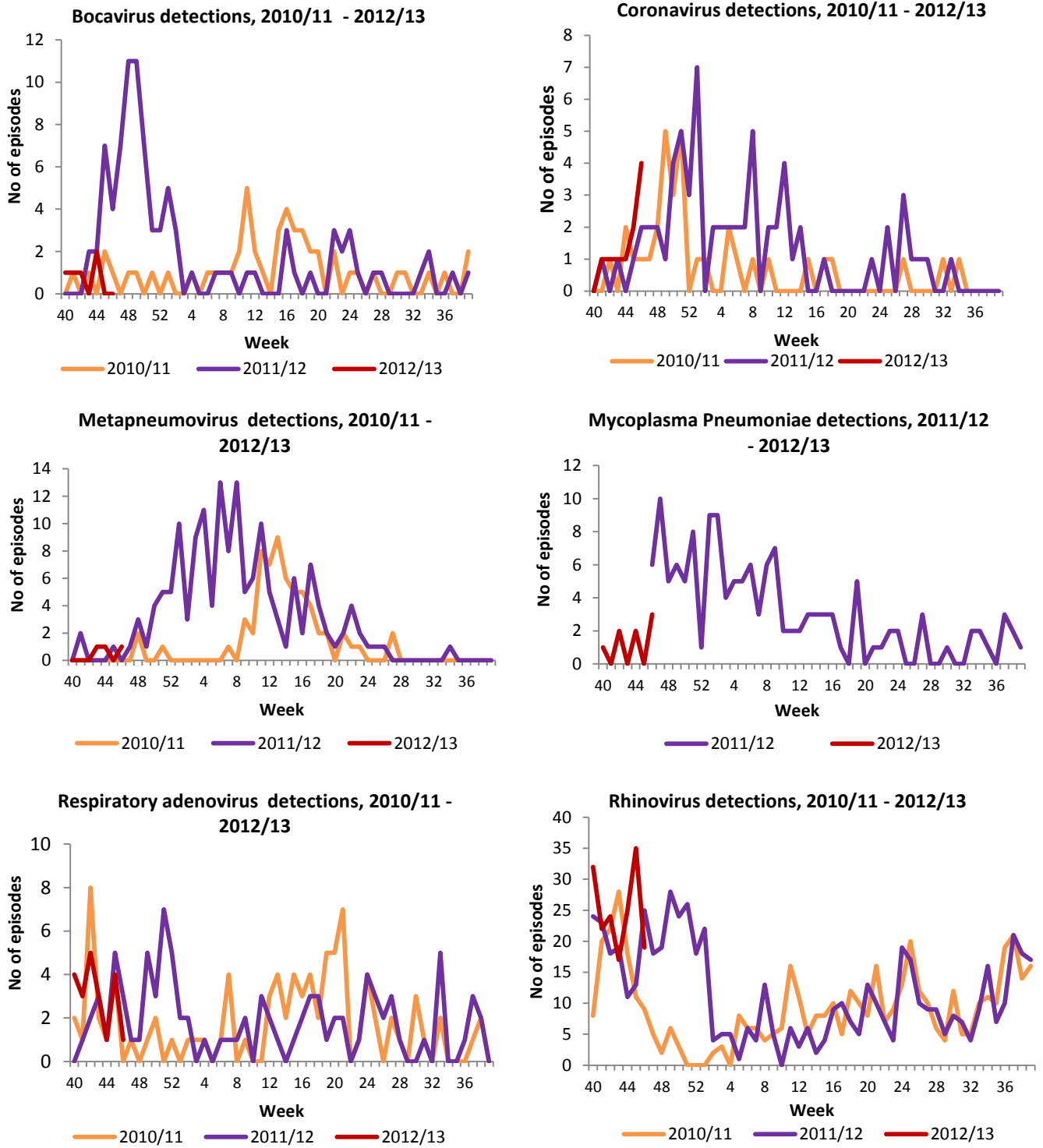


Comment

There is increasing RSV activity with 69 RSV positive detections in weeks 45 and 46, 2012. The RSV positivity rate has been steadily increasing and is currently at 41%. From week 40 of the current season there have been a total of 107 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 the above 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 45 and 46 there were fifty four rhinovirus, six coronavirus, five respiratory adenovirus, three mycoplasma pneumoniae, three parainfluenza and one metapneumovirus. (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 45 and 46, 2012.

Mortality Surveillance

There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 45 and 46, 2012.

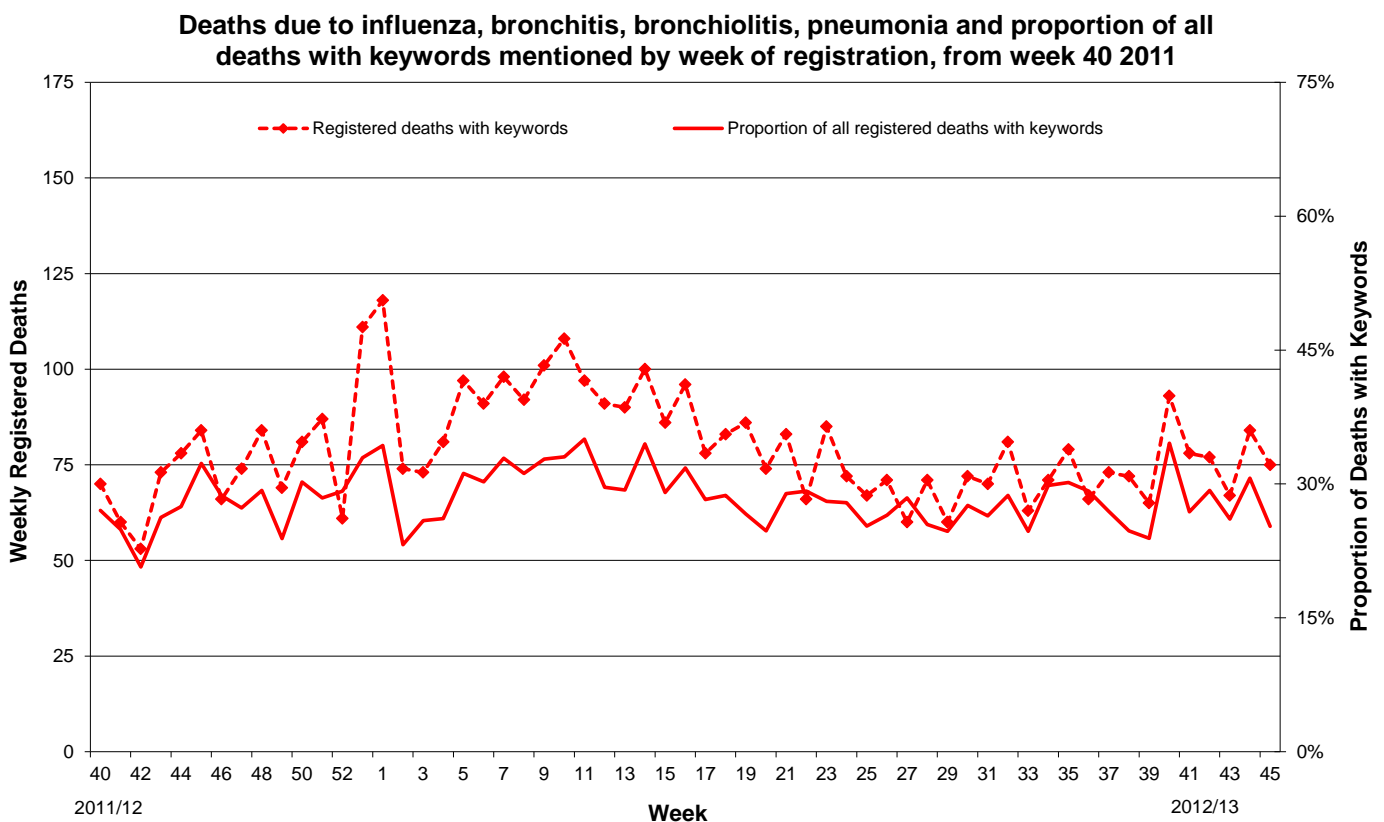
Outbreak Surveillance

There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 45 and 46, 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 26% in week 44 to 31% in week 45, but decreased to 25% in week 46. In weeks 45 and 46 there were 571 registered deaths of which 159 related to these specific respiratory infections.

International Summary

Europe

- During week 45/2012, all 27 countries reporting clinical data had low-intensity influenza activity, the lowest category
- Five countries reported increasing trends in respiratory illness, but not necessarily related to confirmed influenza
- Of 386 sentinel specimens, 13 (3.4%) were positive for influenza virus, nine type A and four type B.
- No hospitalised laboratory-confirmed influenza cases were reported.

Despite some indications of rising rates of influenza-like illness in five countries in week 45, there is no suggestion that substantial influenza transmission has begun in any European country as yet. The rising rates in five countries are likely to be explained by other respiratory viruses.

http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx

Worldwide (WHO)

- As of 9 November 2012 many countries of the Northern Hemisphere temperate region reported increasing detections of influenza viruses, particularly in North America and Western Europe, however none have crossed their seasonal threshold for ILI/ARI consultation rates.
- Several countries in the tropical areas experienced active transmission of influenza virus in recent weeks. In the Americas, Nicaragua and Costa Rica reported mainly influenza B virus detections. In Asia, India, Sri Lanka, Nepal, and Cambodia are all reporting a mixture of all three virus subtypes.
- In Sub-Saharan Africa, Cameroon and Ethiopia have reported an increase in influenza virus detections.
- Influenza activity in the temperate countries of the Southern Hemisphere is at inter-seasonal levels.

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 is increasing in parts of the country (especially in the south central and southeastern states). This FluView update reports on influenza activity for November 4 -10, 2012 of the 2012-2013 influenza season.

- The proportion of visits to doctors for influenza-like illness (ILI) was below the national baseline. All 10 U.S. regions reported ILI activity below region-specific baseline levels. Louisiana experienced moderate ILI activity. Alabama, Mississippi, and Texas experienced

low activity. New York City and 46 states experienced minimal ILI activity. The District of Columbia did not have sufficient data to calculate an activity level.

- Regional influenza activity was reported by Alaska, Alabama, Maine, and Texas. (Only one state reported regional activity last week.) Eight states including Georgia, Idaho, Iowa, Minnesota, Mississippi, New York, Wisconsin and Wyoming reported local influenza activity. Sporadic influenza activity was reported by the District of Columbia and 32 states. Guam and five states reported no influenza activity. Delaware, Puerto Rico and the U.S. Virgin Islands did not report.
- Nationally, the percentage of respiratory specimens testing positive for influenza viruses in the United States during the week of November 4-10 was 7.5%. This is an increase from last week and remains relatively elevated for this time of year. The regional percentage of respiratory specimens testing positive for influenza viruses ranged from 1.7% to 11.1%.
- Both influenza A and influenza B viruses have been identified this season. This includes both of the currently circulating subtypes of influenza A viruses, H3N2 and 2009 H1N1. During the week of November 4-10, 175 of the 311 influenza positive tests reported to CDC were influenza A and 136 were influenza B viruses. Among the 175 influenza A viruses identified that week, approximately 46% were H3 viruses and 1% were 2009 H1N1 viruses; 53% 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 increased compared to the previous week with more regions reporting increased activity, particularly in Ontario; however overall activity in Canada still remains relatively low, with the majority of regions of the country reporting no activity.
- In week 45, a total of 106 laboratory detections of influenza were reported, of which 92.5% were for influenza A viruses, predominantly A(H3N2).
- Eight influenza outbreaks were reported in week 45: 5 in long-term care facilities and 3 in other settings.
- One influenza-associated hospitalization was reported through the IMPACT network, with influenza A from BC, and 16 influenza-associated hospitalizations in adults ≥ 20 years of age were reported through Aggregate surveillance.
- The ILI consultation rate decreased slightly in week 45 but is within the expected level 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

Public Health Agency wish to thank NISRA, the sentinel GPs, Out-of-Hours Centres, Regional Virus Laboratory, Critical Care Network for Northern Ireland and all who have contributed to the surveillance system and who have contributed towards this report.

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