

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 10 (4 – 10 March 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates were relatively stable again in week 10 at 46.3 per 100,000 population compared to 44.8 per 100,000 population in week 9 (3.3% increase).
- OOH consultation rates for 'flu/FLI increased slightly from 10.9 per 100,000 population in week 9 to 12.3 per 100,000 population in week 10.
- Influenza positivity rate of respiratory specimens increased this week. In week 10, 2013 there were 30 positive detections of influenza A (H3), 14 influenza A (untyped), 6 influenza B and 1 influenza A (H1N1)pdm09. Influenza A was the predominant type during week 10; however, influenza B remains the predominant type overall this season.
- RSV activity remains low.
- There was one new admission to ICU confirmed with influenza reported in week 10, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 29.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in week 10, 2013.
- There were eight new confirmed influenza outbreaks reported to PHA in week 10, 2013 bringing the total to nine this season.

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 rates for combined flu and flu-like illness 2010/11 - 2012/13

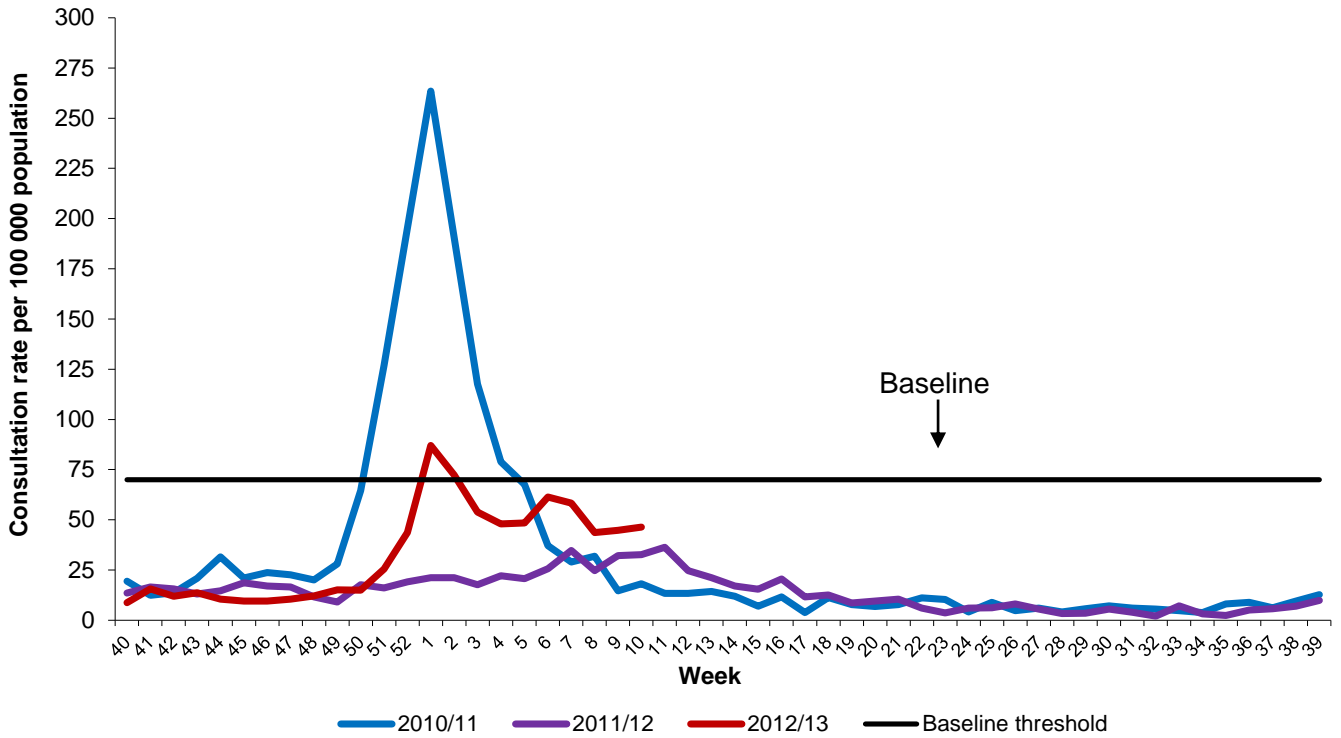


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

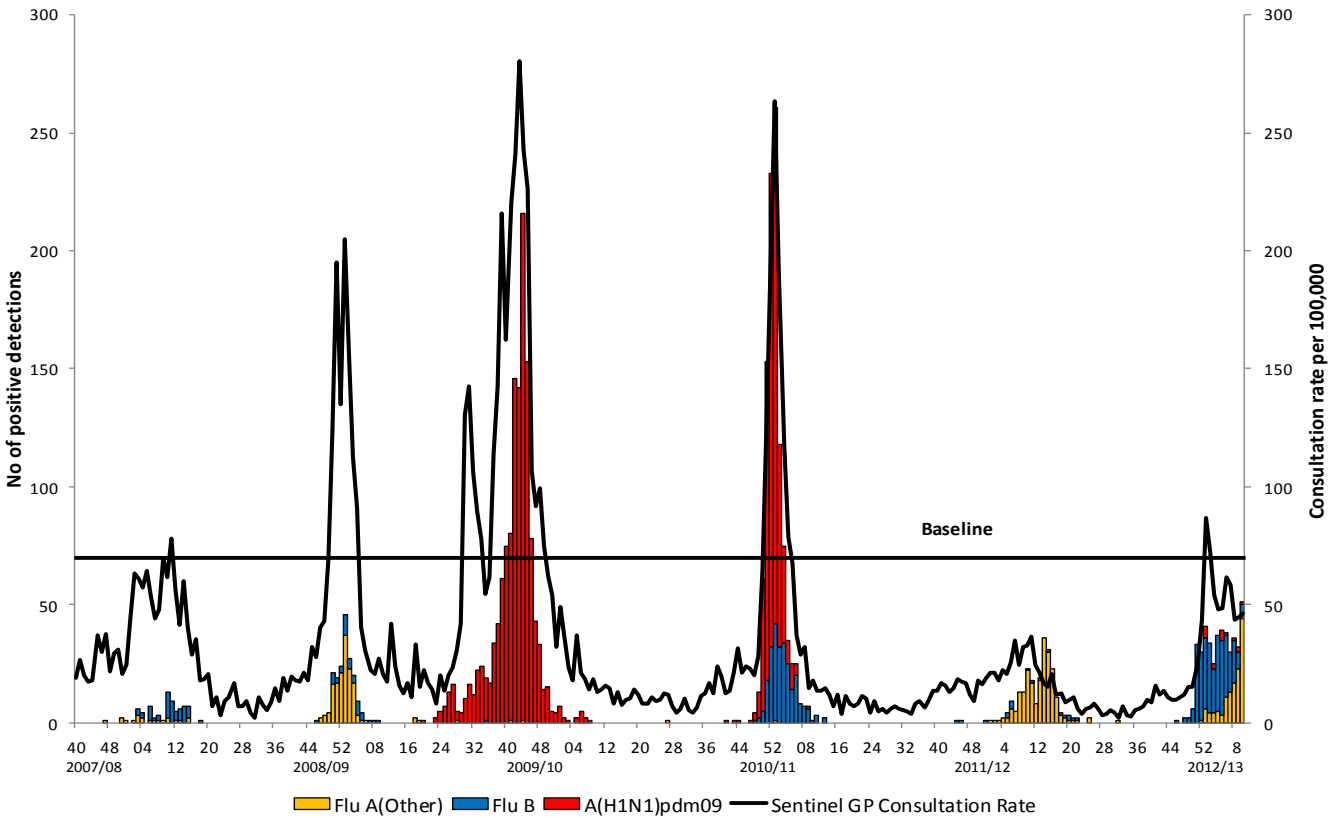
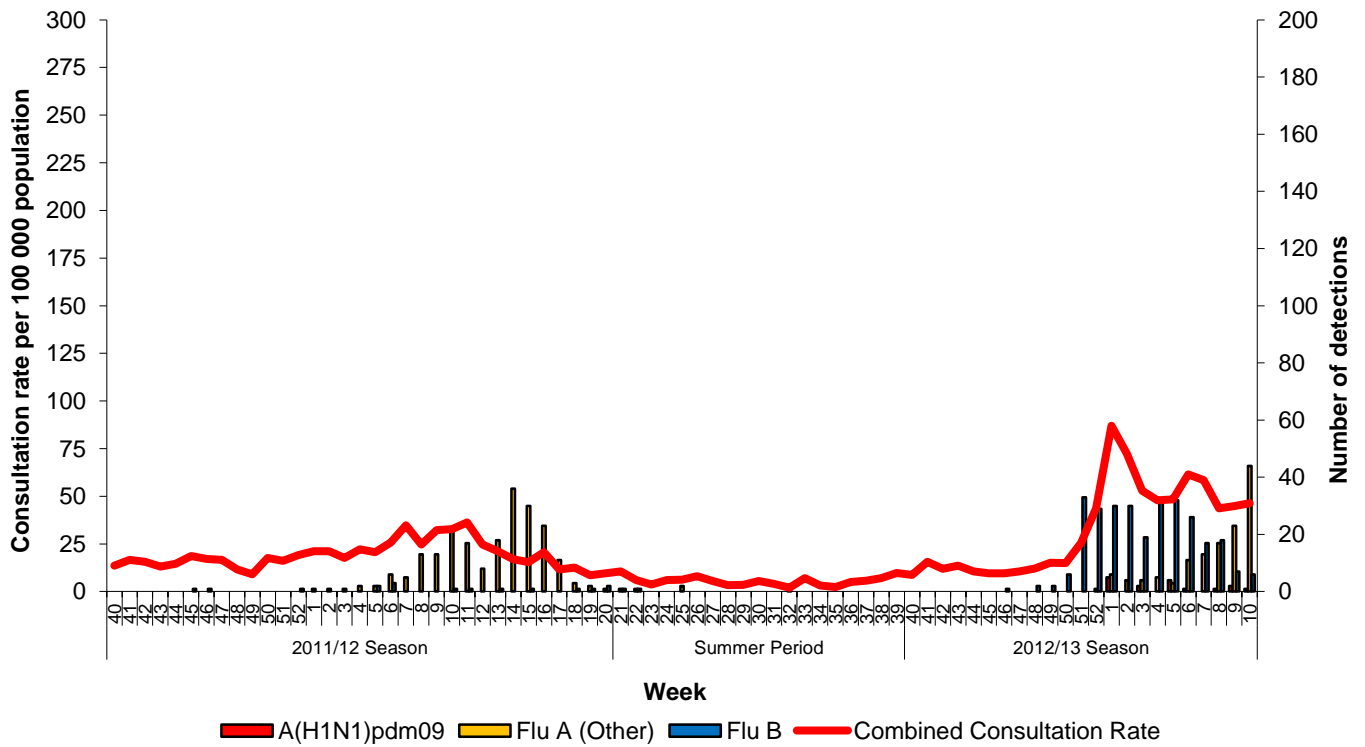


Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011

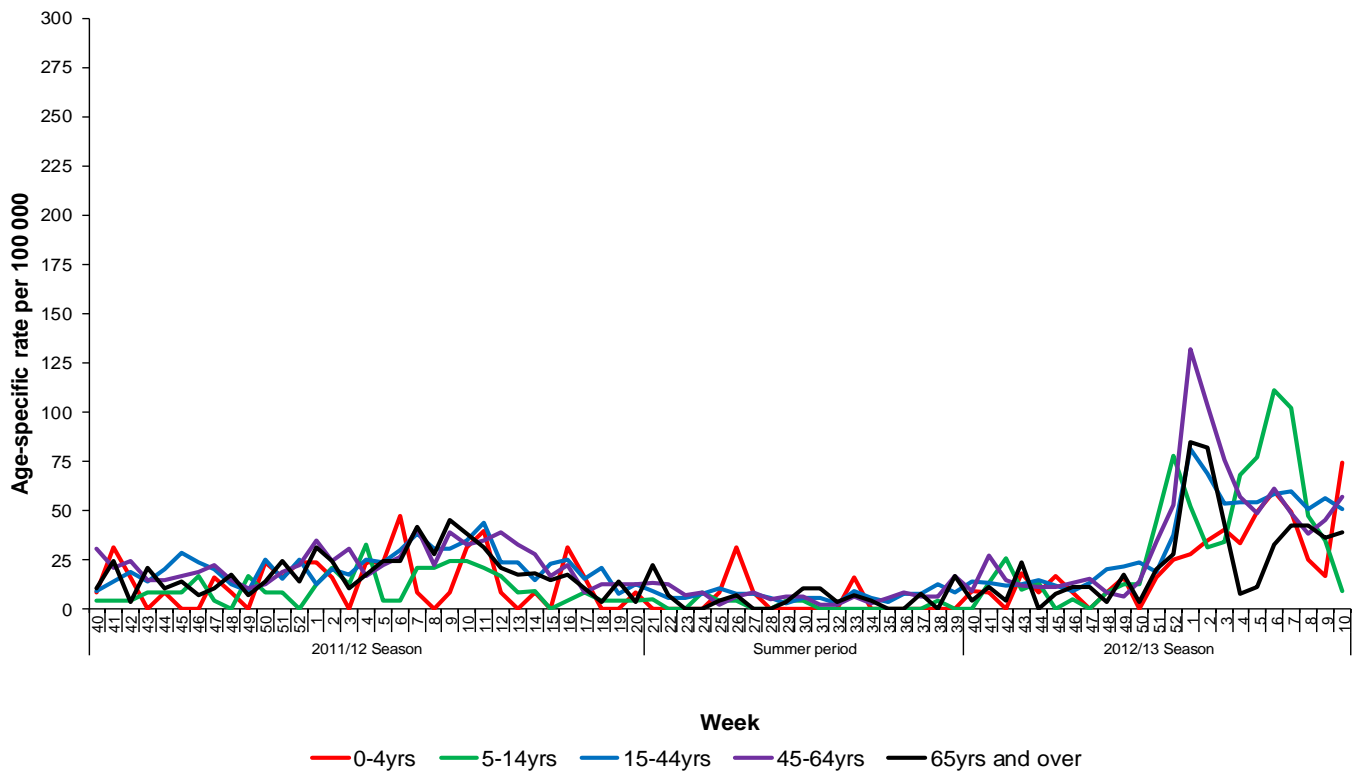


Comment

GP consultation rates were relatively stable again in week 10 at 46.3 per 100,000 population compared to 44.8 per 100,000 population in week 9 (3.3% increase). Rates remain below the Northern Ireland threshold of 70 per 100,000 population but are higher than the same period in the previous two influenza seasons (Figures 1, 2 and 3).

GP 'flu/FLI consultation rates in the Belfast, South-Eastern and Southern LCG areas decreased in week 10, with those in the Northern and Western increasing. The Western LCG continues to display the highest 'flu/FLI consultation rates.

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



Comment

There was a large increase in consultation rates for the 0-4 year age group and this group now displays the highest age-specific rate in week 10, 2013; however, this result should be interpreted with caution due to the small numbers involved in this age group. Conversely the 5-14 year age group showed a sharp decrease with the other groups showing only small changes 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

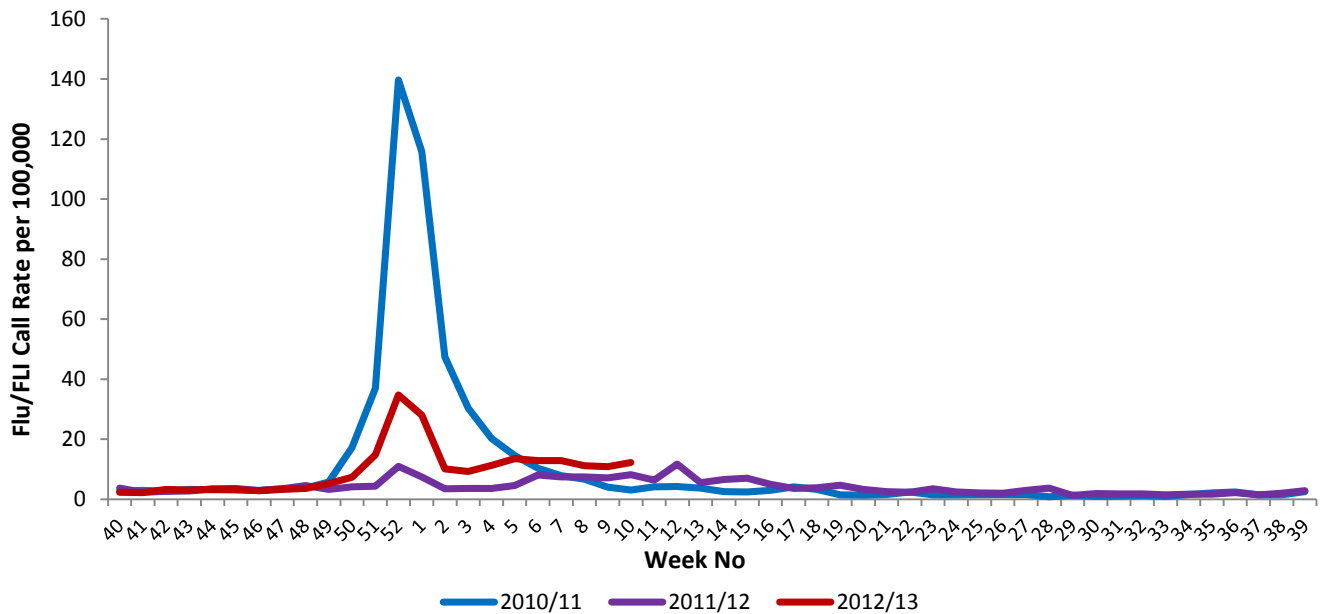
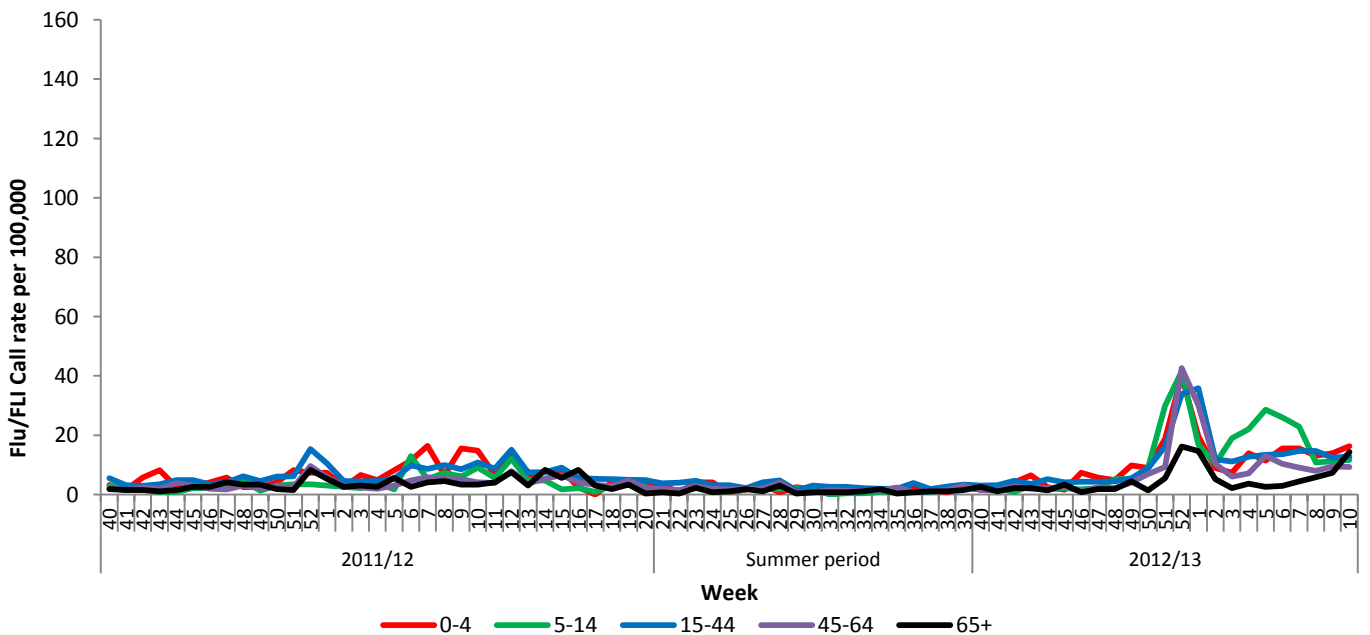


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for ‘flu/FLI increased slightly from 10.9 per 100,000 population in week 9 to 12.3 per 100,000 population in week 10 with rates remaining slightly higher than the same period in both 2010/11 and 2011/12. The proportion of total OOH calls due to ‘flu/FLI consultations remained below 2%. There were only minor fluctuations in the 5-14, 15-44 and 45-64 year age groups; however the 0-4 year age group displayed a small increase and the over 65 year age group displayed a greater increase. Similar to the in-hours GP consultation rates the highest age-specific OOH consultation rate in week 10, 2013 is 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 10, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	4	2	0	0	1	0	3	75%
Non-sentinel	107	28	1	14	5	1	48	45%
Total	111	30	1	14	6	1	51	46%

Table 2. Cumulative Total Week 40, 2012 - Week 10, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	14	6	1	62	83	669
5-14	3	1	0	80	84	20
15-64	46	6	5	118	175	58
65+	49	3	12	30	94	59
Unknown	1	0	0	0	1	5
All ages	113	16	18	290	437	811

Table 3. Cumulative Total Week 40, 2012 - Week 10, 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
0-4	0	0	0	2	2	3	14	6	1	60	81	666
5-14	0	0	0	13	13	0	3	1	0	67	71	20
15-64	9	1	0	50	60	5	37	5	5	68	115	53
65+	2	1	0	2	5	0	47	2	12	28	89	59
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	11	2	0	67	80	8	102	14	18	223	357	803

Note

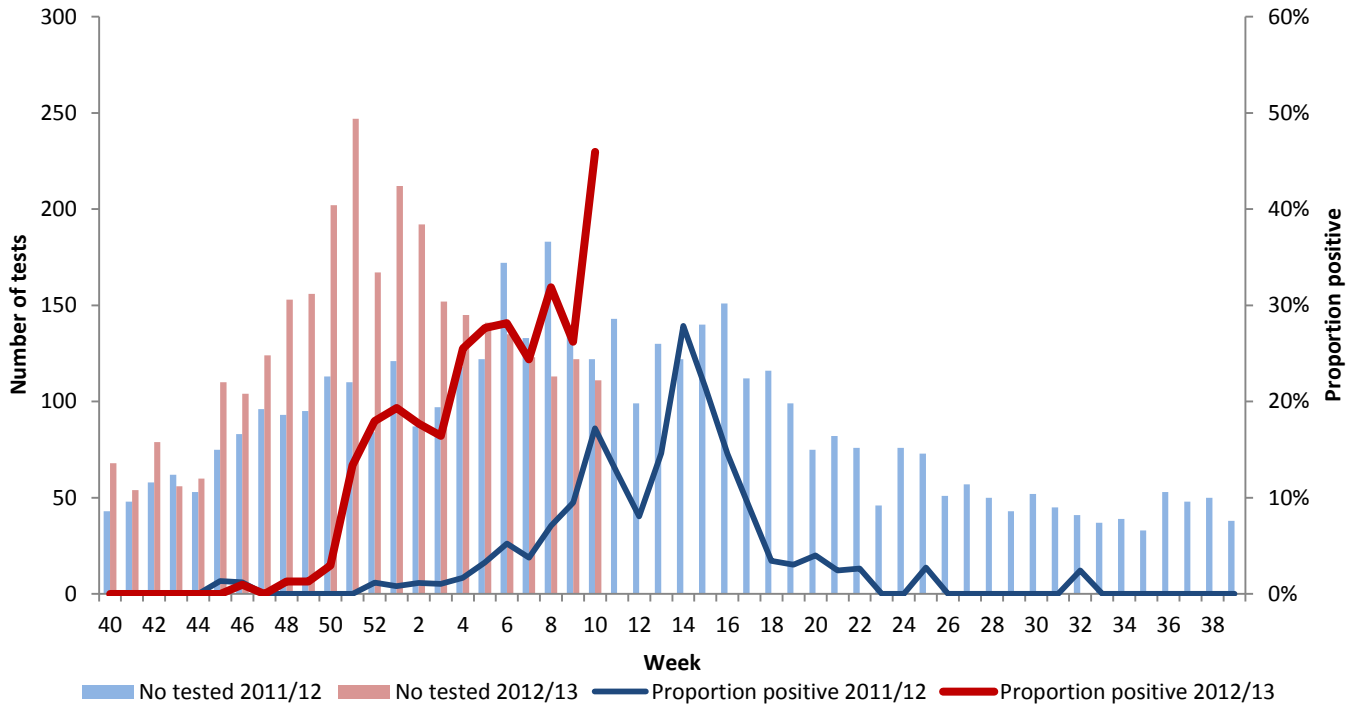
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

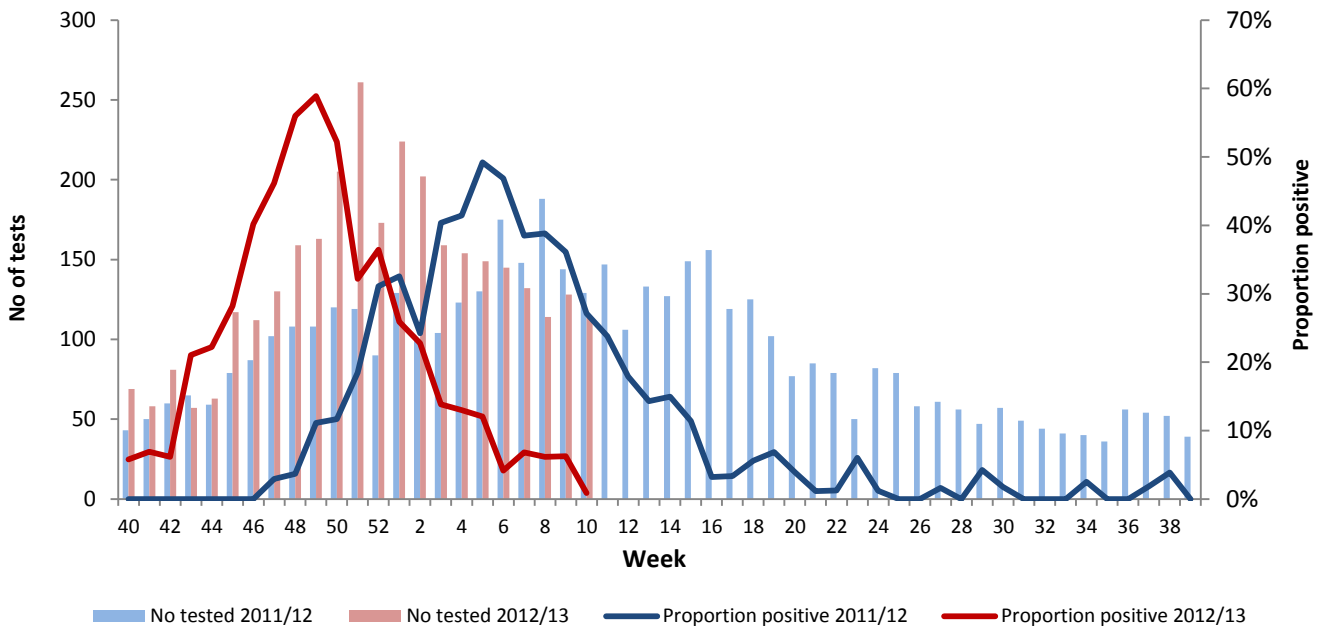
Numbers of specimens submitted for testing remain below the levels seen in the same period in the previous season. However, influenza positivity rates increased substantially in week 10, 2013 with the majority of new detections in the over 65 year age group. This increase is most likely due to the outbreaks currently occurring in a number of residential/care homes and hospital wards. There were 111 specimens submitted for testing in week 10, 2013, of which there were 30 positive detections of influenza A (H3), 14 influenza A (untyped), 6 influenza B and 1 influenza A (H1N1)pdm09. Influenza A remains the predominant type in week 10; however, whilst influenza B detections are falling it remains the predominant type overall this season with a total of 290 detections (66% of all influenza detections), and a further 147 detections of influenza A (113 influenza A(H3), 18 A (untyped) and 16 A (H1N1)pdm09 (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 was only one RSV detection in week 10, 2013 with positivity rates continuing to decrease. From week 40 of the current season there have been a total of 811 RSV positive detections reported, of which 83% 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 was one new admission to ICU confirmed with influenza reported in week 10, 2013. To date there have been 29 cases (20 adults, 9 children) admitted to ICU that have been confirmed with influenza; 20 of which were confirmed with influenza B, 7 with influenza A(H3) and 2 influenza A(H1N1)pdm09.

Mortality Surveillance

There were no deaths in ICU patients with laboratory confirmed influenza reported in week 10, 2013; with the total this season remaining at four.

Outbreak Surveillance

There were eight* new confirmed influenza outbreaks reported in week 10, 2013; four of these in residential/ nursing homes and four in hospital wards. This brings the total number of confirmed influenza outbreaks reported so far this season to nine.

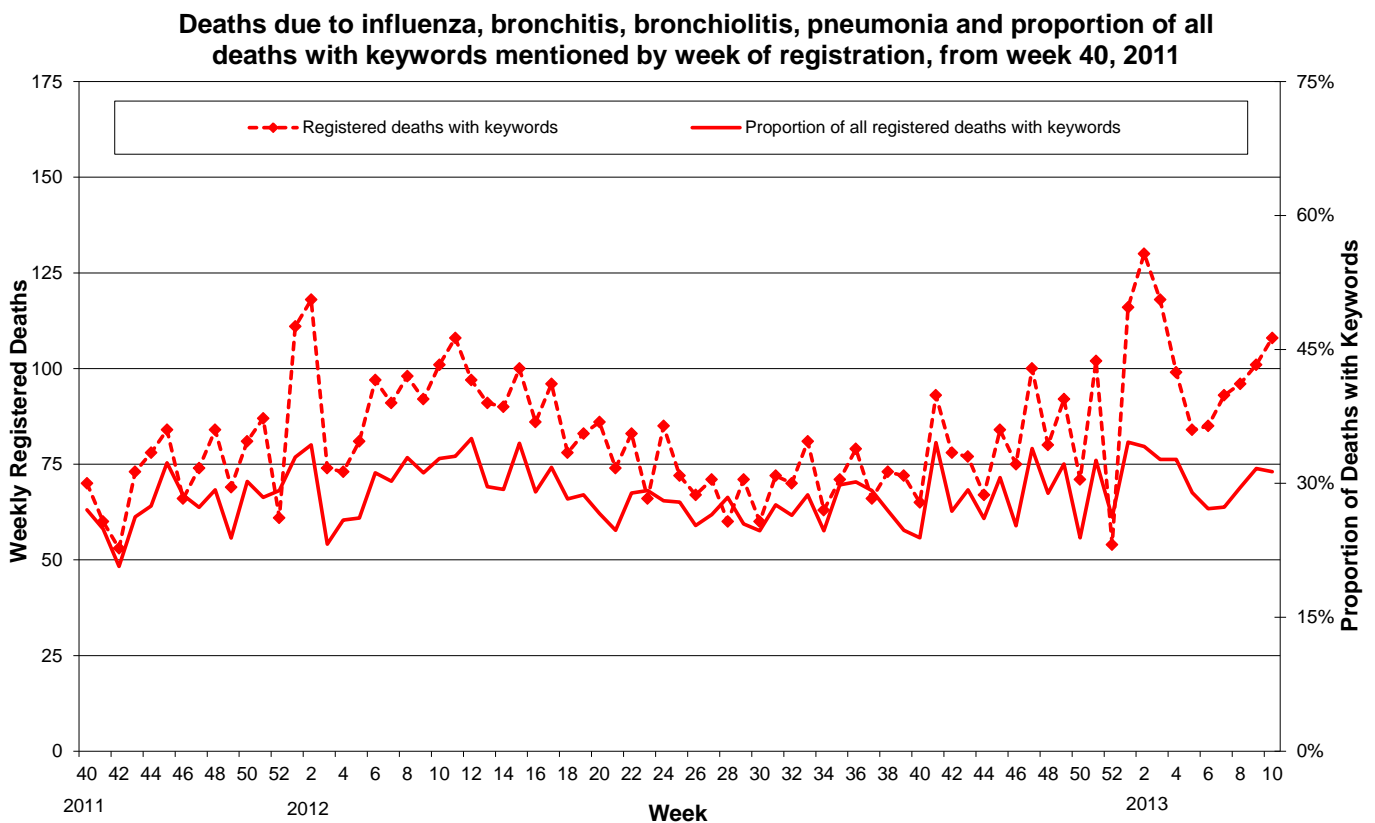
This appears to be a similar pattern to the previous season where all the confirmed influenza outbreaks that were reported occurred at the end of the influenza season in April 2012.

**One of these outbreaks was incorrectly noted as being reported in week 9 in the previous bulletin.*

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 10, 2013 decreased slightly from 32% in week 9 to 31% in week 10, 2013. In week 10, 2013 there were 345 registered deaths of which 108 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. This excludes those who may have received the seasonal influenza vaccine as part of a workplace occupational health programme.

International Summary

Europe

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

- For week 9/2013, 19 of 27 countries reporting indicated concomitantly high/medium-intensity transmission and wide geographic spread. Only two countries reported increasing trends in influenza-like illness compared to six in week 8 and 11 in week 7. Of the 18 countries that reported decreasing trends, five did so for the first time since the beginning of influenza transmission this season.
- The proportion of influenza-positive cases among sentinel specimens remained high (54%), but has continued to decrease since the peak observed in week 5/2013 (61%).
- Since week 40/2012, a broadly even distribution of influenza virus types has been observed among sentinel samples, with approximately 50% each for type A and type B viruses. After increasing from week 2/2013, the proportion of A(H1)pdm09 has remained unchanged since week 7/2013 at about 60% of subtyped type A viruses.
- A total of 154 hospitalised laboratory-confirmed influenza cases were reported by eight countries (Belgium, France, Ireland, Romania, Slovakia, and Spain).
- ECDC published its annual risk assessment for seasonal influenza 2012-13 in early February based on data up to week 3/2013.
- In week 9/2013, influenza activity remained substantial across Europe but an increasing number of countries reported indications of declining transmission.

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

Worldwide (WHO)

- Influenza activity in North America continued to decrease overall, though activity remained high in some areas. The proportion of influenza B increased slightly, but influenza A(H3N2) was still the most commonly detected virus subtype. The season has been more severe than average in the United States of America, with notably high number of pneumonia and influenza-related hospitalizations among adults aged 65 years and older.
- Influenza activity in Europe decreased in some northern and western countries but continued to increase in the eastern part of the region. While influenza A(H1N1)pdm09 was the most commonly detected virus overall, notable exceptions included Denmark, Ireland and the United Kingdom, which reporting much more influenza A(H3N2) and influenza B than the rest of Europe, and Bulgaria, Italy, and Spain which reported more influenza B than A. Excess

mortality for the 14 countries reporting to the European Mortality Monitoring project has been higher than average for individuals over the age of 65 years but not as high as the previous two seasons.

- Influenza activity throughout the temperate region of Asia decreased except in Mongolia where it appears to have reached a peak.
- Only low levels of influenza activity were reported across the tropical regions of the world and activity in countries of the southern hemisphere remained at inter-seasonal levels.
- The WHO Consultation on the Composition of Influenza Virus Vaccines for the Northern Hemisphere 2013–2014 took place during the third week of February, and updates to the A(H3N2) and B/Yamagata lineage components were recommended.

http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

For more information on specific areas see the links below:

USA

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

Canada

<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.