

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 9 (25 February – 3 March 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates remained relatively stable at 44.8 per 100,000 population in week 9 compared to 43.7 per 100,000 population in week 8 (2.5% increase).
- OOH consultation rates for 'flu/FLI also remained relatively stable at 10.9 per 100,000 in week 9, 2013 compared to 11.2 per 100,000 in week 8.
- Influenza positivity rate of respiratory specimens decreased this week. In week 9, 2013 there were 8 positive detections of influenza A (untyped), 6 influenza A(H3) and 4 influenza B. Influenza A was the predominant type during week 9; however, influenza B remains the predominant type overall this season.
- RSV activity remains low.
- There were three new admissions to ICU confirmed with influenza reported in week 9, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 28.
- There were two deaths in ICU patients with laboratory confirmed influenza reported in week 9, 2013.
- There was one new confirmed influenza outbreak reported to PHA in week 9, 2013 bringing the total to two 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 rate for combined flu and flu-like illness 2010/11 - 2012/13

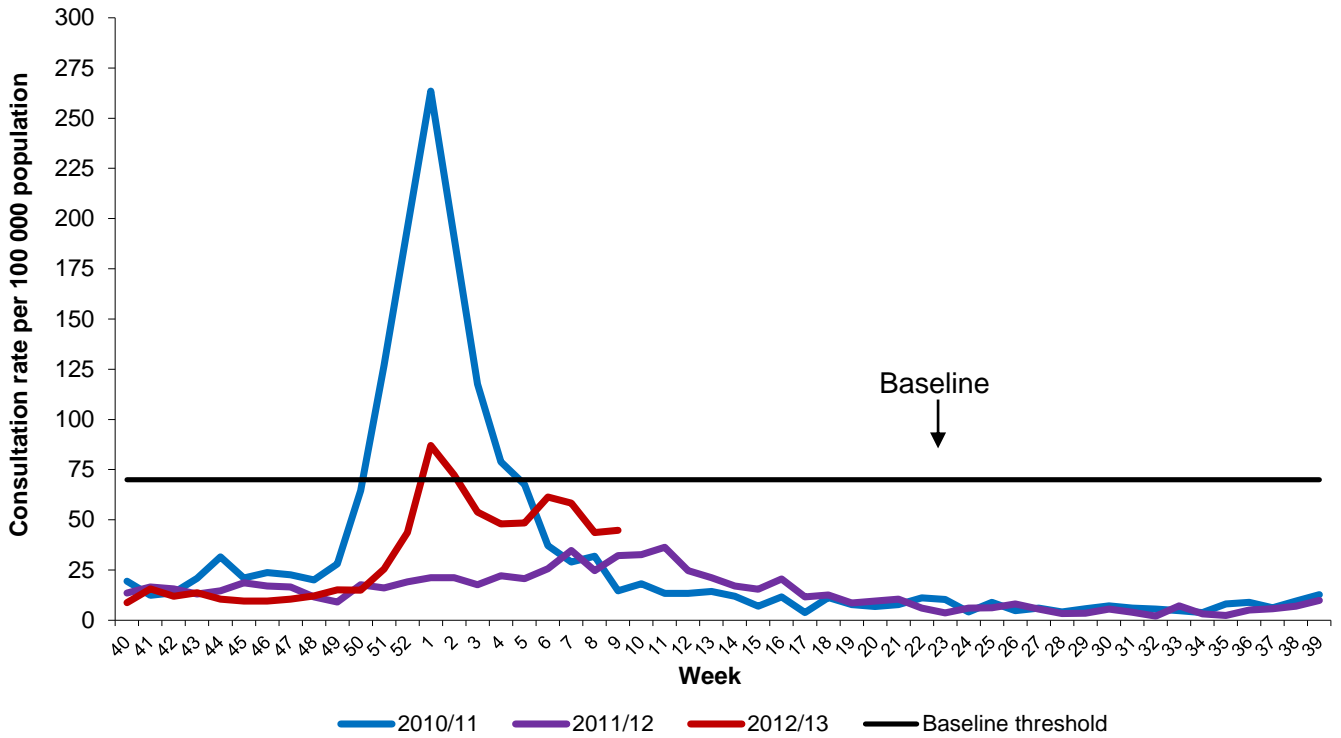


Figure 2. Sentinel GP combined consultation rate and number of influenza positive detections 2007/08 – 2012/13.

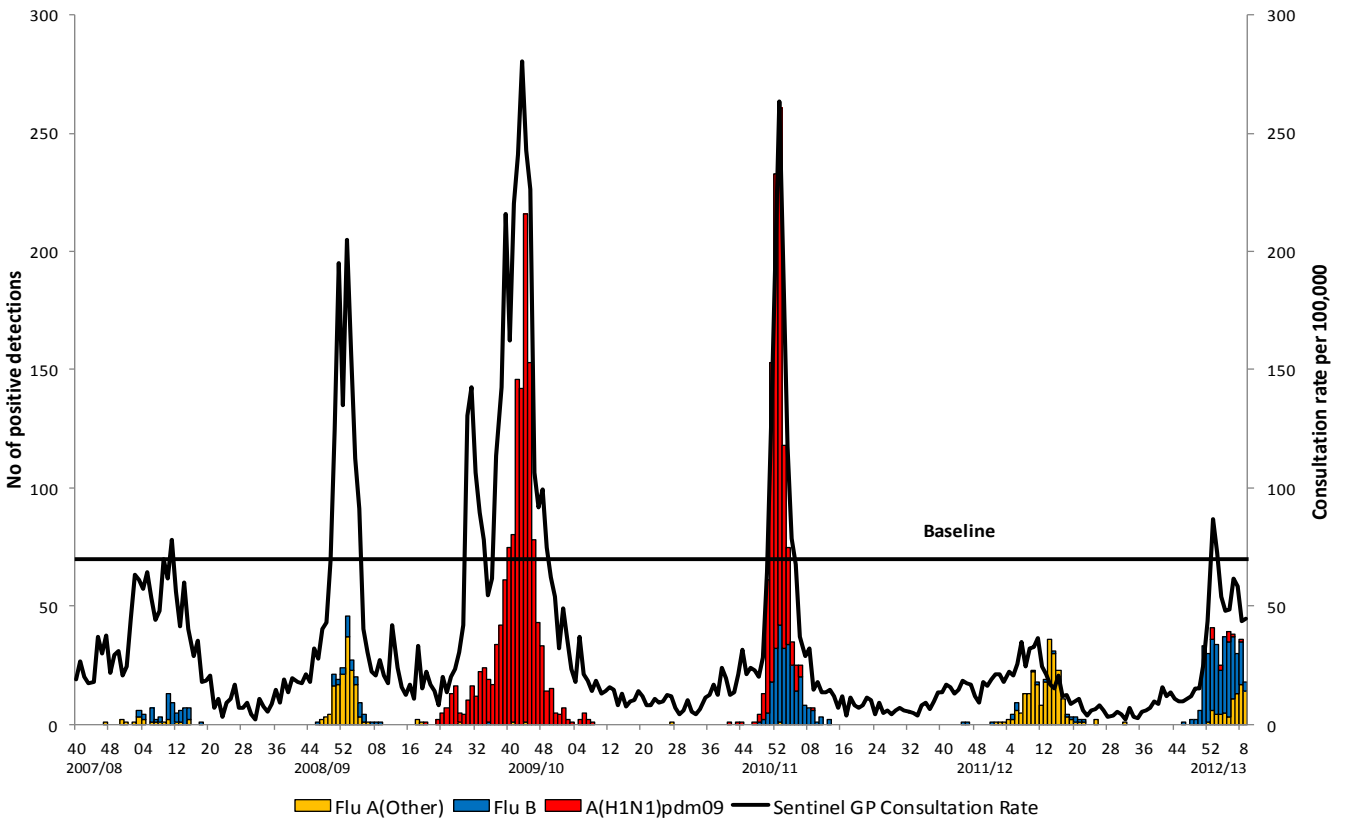
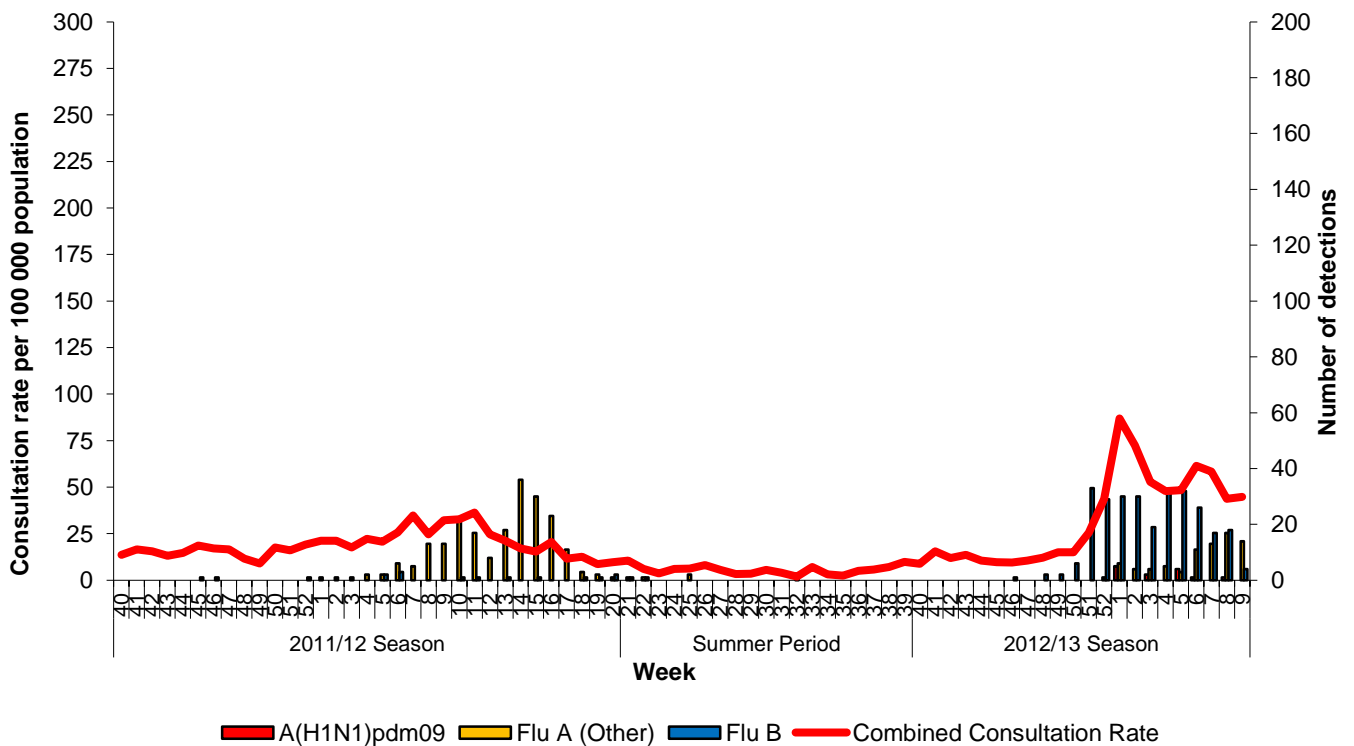


Figure 3. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011

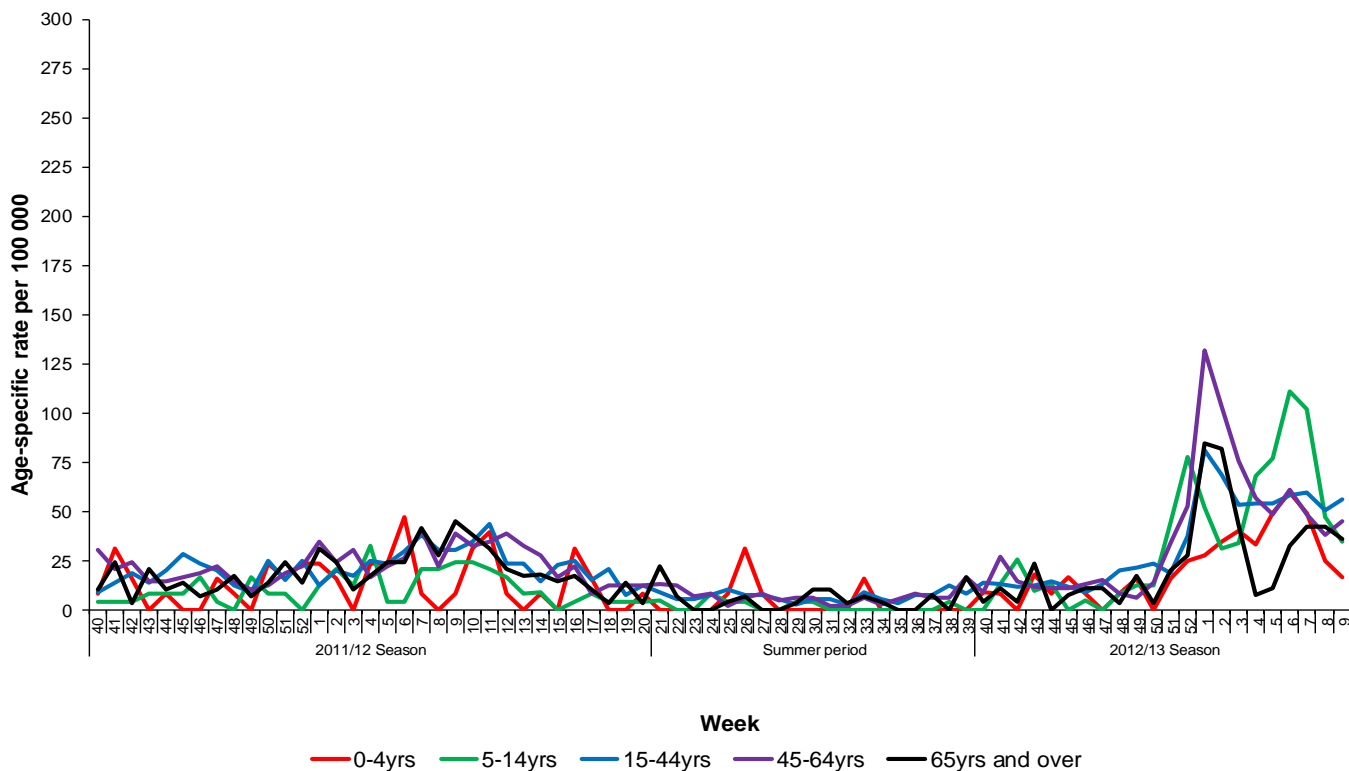


Comment

GP consultation rates remained relatively stable at 44.8 per 100,000 population in week 9 compared to 43.7 per 100,000 population in week 8 (2.5% 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).

Consultation rates in the LCG areas are generally following the same pattern as the overall rates; however, rates remain highest in the Western LCG.

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



Comment

There were small increases in the age-specific consultation rates for the 15-44 and 45-64 year age groups with all other age groups showing a decrease. The 15-44 year age group continues to display the highest age specific rate in week 9. Small numbers in some of the age groups can contribute to fluctuations 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

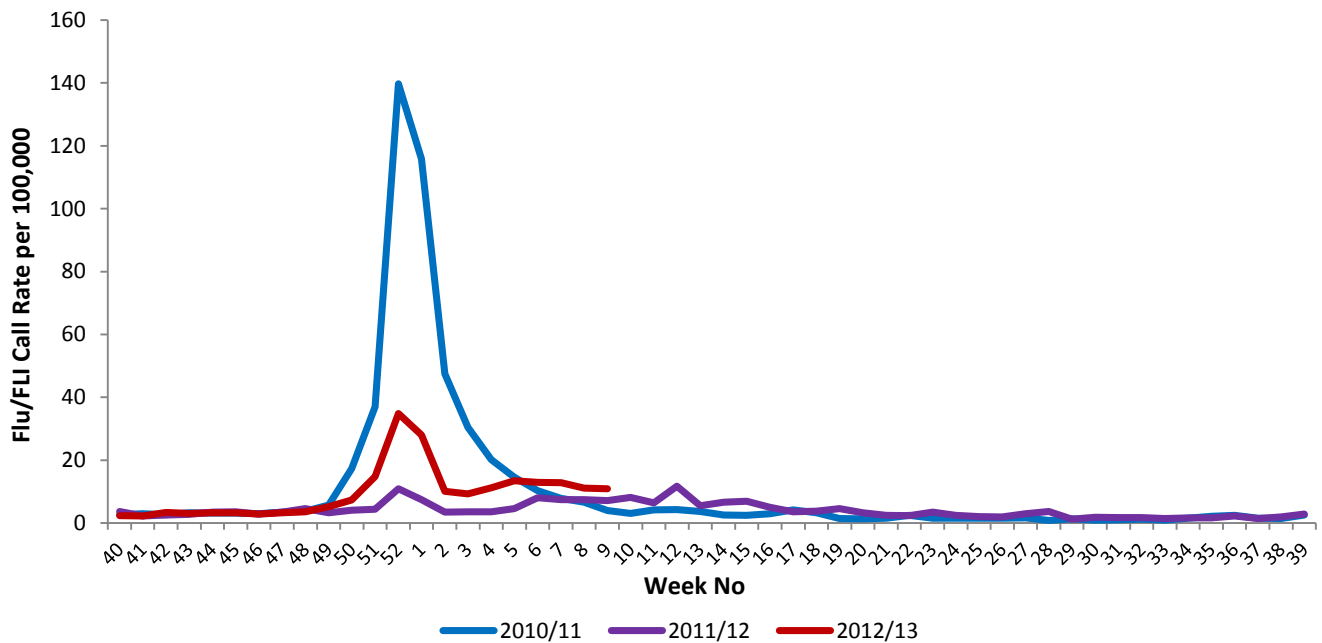
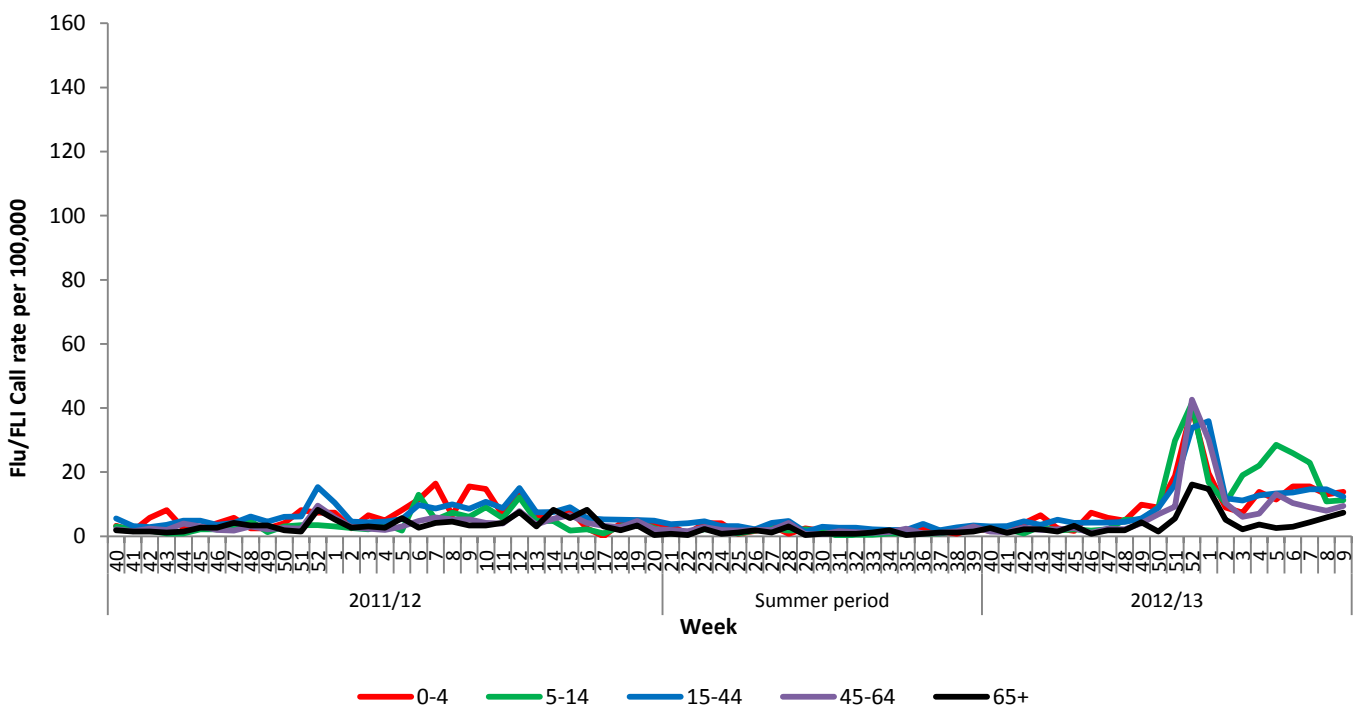


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for 'flu/FLI also remained relatively stable at 10.9 per 100,000 in week 9, 2013 compared to 11.2 per 100,000 in week 8 with rates remaining slightly higher than the same period in both 2010/11 and 2011/12. All age specific consultation rates also remained relatively stable with minor fluctuations. The highest age-specific OOH consultation rate in week 9, 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 9, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	5	1	0	3	0	0	4	80%
Non-sentinel	62	5	0	5	4	4	14	23%
Total	67	6	0	8	4	4	18	27%

Table 2. Cumulative Total Week 40, 2012 - Week 9, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	11	4	2	59	76	668
5-14	3	1	0	80	84	19
15-64	35	6	7	113	161	56
65+	16	2	3	29	50	58
Unknown	1	0	0	0	1	5
All ages	66	13	12	281	372	806

Table 3. Cumulative Total Week 40, 2012 - Week 9, 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	11	4	2	57	74	665
5-14	0	0	0	13	13	0	3	1	0	67	71	19
15-64	5	1	3	48	57	5	30	5	4	65	104	51
65+	1	1	0	2	4	0	15	1	3	27	46	58
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	6	2	3	65	76	8	60	11	9	216	296	798

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.

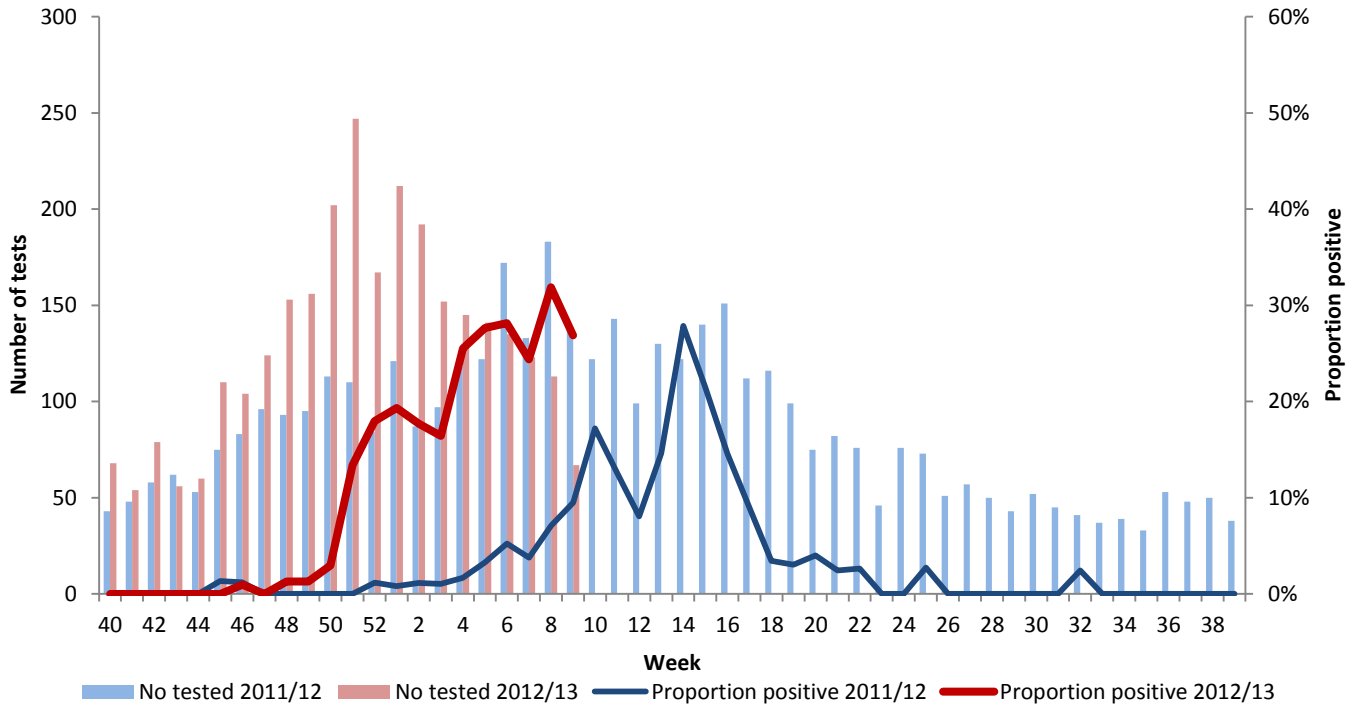
Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

With effect from week 50 all samples submitted for pertussis testing are also now routinely tested for influenza. This will have an impact on specimen numbers and may affect positivity rates.

Comment

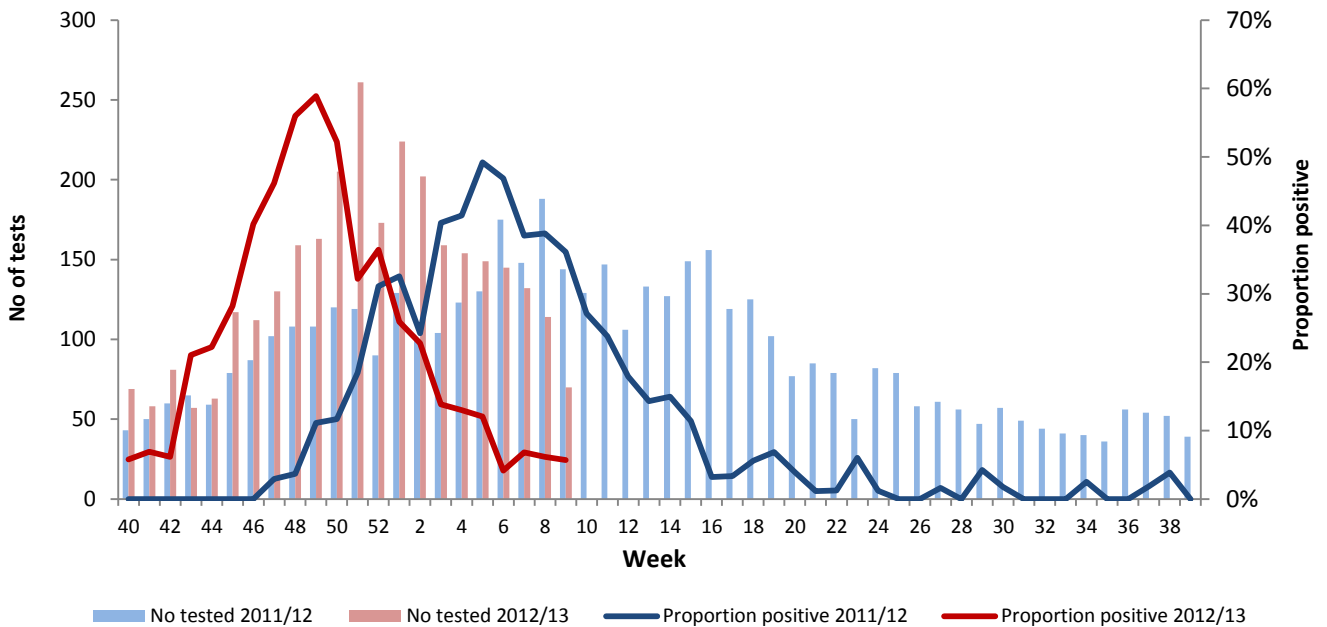
Numbers of specimens submitted for testing remain below the levels seen in the same period in the previous season and continue to decrease. However, whilst influenza positivity rates decreased in week 9, 2013 they still remain high. There were 67 specimens submitted for testing in week 9, 2013, of which there were 8 positive detections of influenza A (untyped), 6 influenza A(H3) and 4 influenza B. Influenza A is again the predominant type in week 9; however influenza B remains the predominant type overall this season with a total of 281 detections (76% of all influenza detections), and a further 91 detections of influenza A (66 influenza A(H3), 13 A(H1N1)pdm09 and 12 A(untyped)). (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 were 4 RSV detections in week 9, 2013 with positivity rates continuing to decrease. From week 40 of the current season there have been a total of 806 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 were three new admissions to ICU confirmed with influenza reported in week 9, 2013. To date there have been 28 cases (19 adults, 9 children) admitted to ICU that have been confirmed with influenza; 19 of which were confirmed with influenza B, 7 with influenza A(H3) and 2 influenza A(H1N1)pdm09.

Mortality Surveillance

There were two deaths in ICU patients with laboratory confirmed influenza reported in week 9, 2013; bringing the total this season to four.

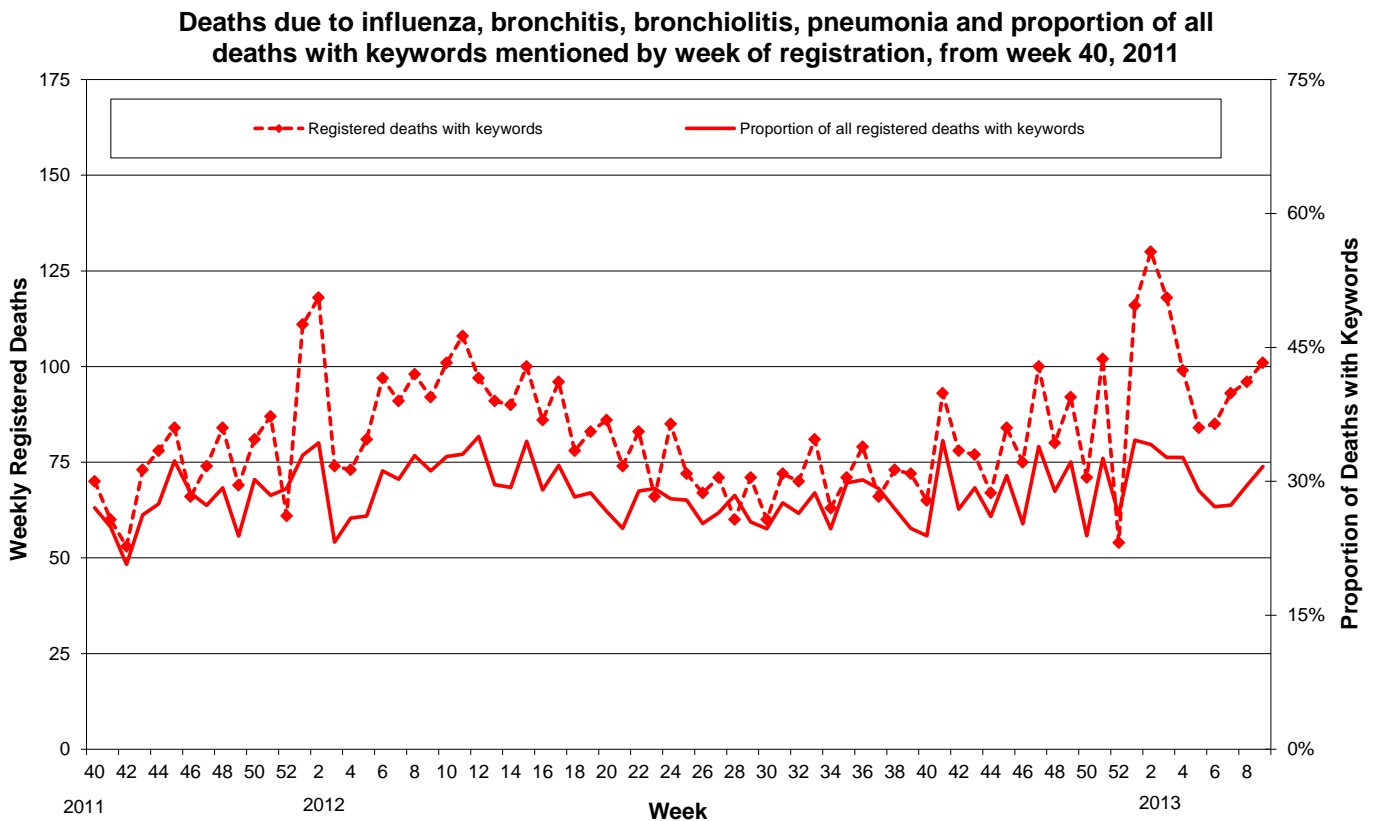
Outbreak Surveillance

There was one new confirmed influenza A outbreak (currently untyped) in a residential care home in week 9, 2013 bringing the total number of confirmed influenza outbreaks reported so far this season to two.

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 9, 2013 increased to 32% from 30% in week 8. In week 8, 2013 there were 319 registered deaths of which 101 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.

- 19 of 28 countries reporting indicated concomitantly high/medium-intensity transmission and wide geographic spread. Only six countries reported increasing trends compared to eleven in week 7. Fifteen countries have been reporting decreasing or stable trends for at least two consecutive weeks.
- The proportion of influenza virus-positive specimens from sentinel sites remained high (50%), but it has decreased from the peak (~60%) observed around weeks 5 to 7/2013.
- Since week 40/2012, an even distribution of influenza virus types has been observed, 50% each for type A and type B viruses. After a sustained increase between weeks 2 and 7/2013, the proportion of A(H1)pdm09 has remained at around 60% of A viruses with subtyping information.
- 111 hospitalised laboratory-confirmed influenza cases were reported by six countries (Belgium, France, Ireland, Romania, Slovakia, and Spain) with an even distribution of influenza type A and type B viruses.
- In February 2013, ECDC published its annual risk assessment for seasonal influenza 2012-13 based on data up to week 3/2013.
- Influenza activity remained substantial in week 8/2013 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:

Paul Cabrey
Information Officer
Public Health Agency
028 90263386

Cathriona Kearns
Epidemiological Scientist
Public Health Agency
028 90263386

Email: flusurveillance@hscni.net

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