

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 11 (11 – 17 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 11 at 44.7 per 100,000 population compared to 46.3 per 100,000 population in week 10 (3.5% decrease).
- OOH consultation rates for 'flu/FLI decreased slightly from 12.3 per 100,000 population in week 10 to 10.8 per 100,000 population in week 11.
- Influenza positivity rate of respiratory specimens decreased this week. In week 11, 2013 there were 28 positive detections of influenza A (untyped), 10 influenza B, 5 influenza A (H3), and 1 influenza A (H1N1)pdm09. Influenza A was the predominant type during week 11; 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 11, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 32.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in week 11, 2013.
- There were three new confirmed influenza outbreaks reported to PHA in week 11, 2013 bringing the total to twelve 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

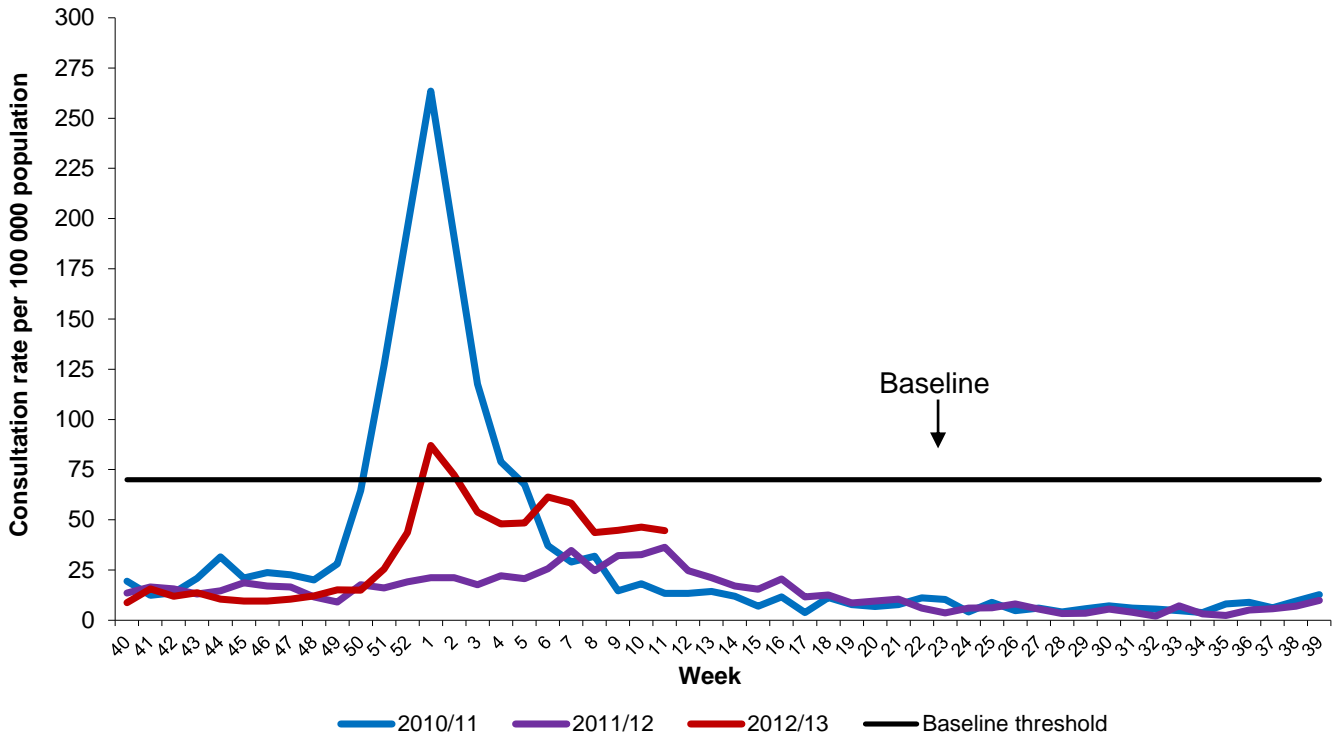


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

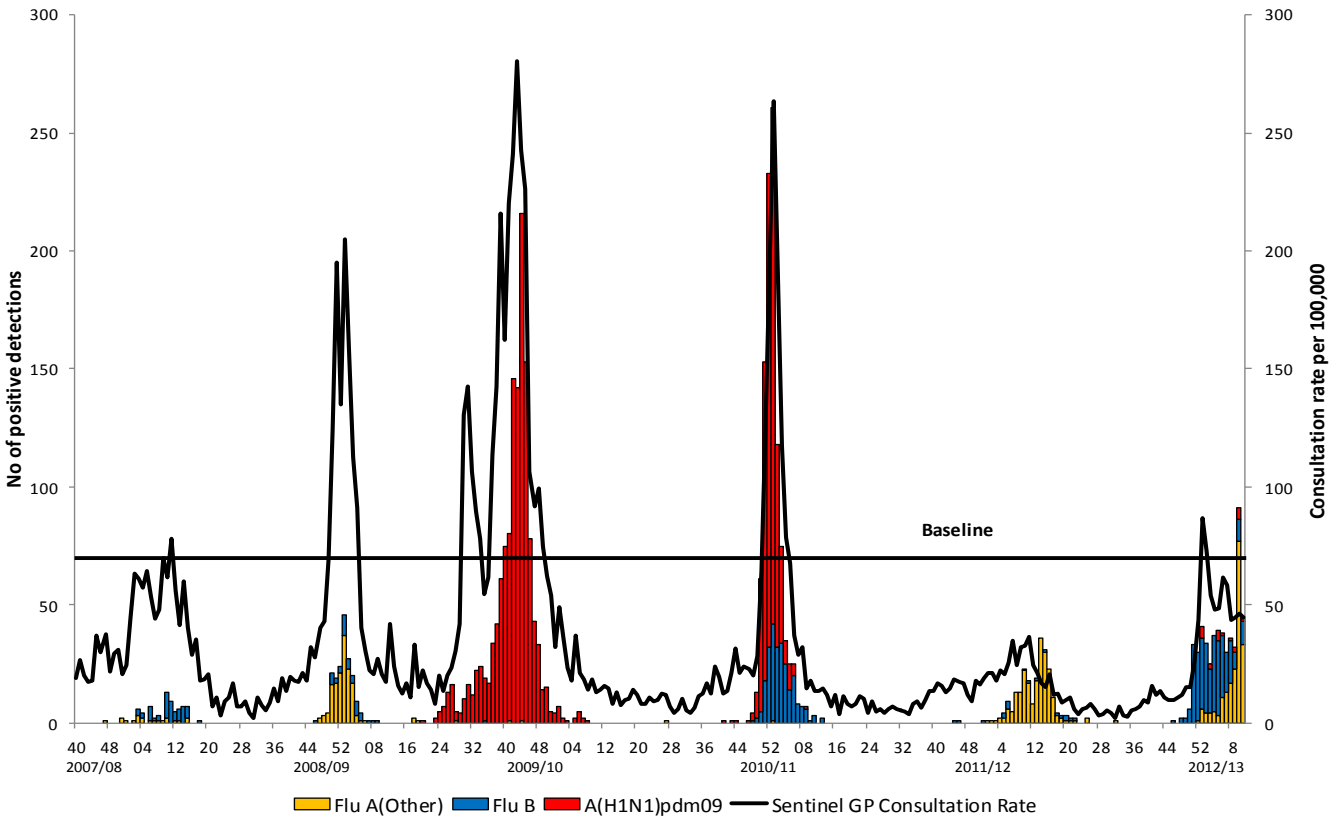
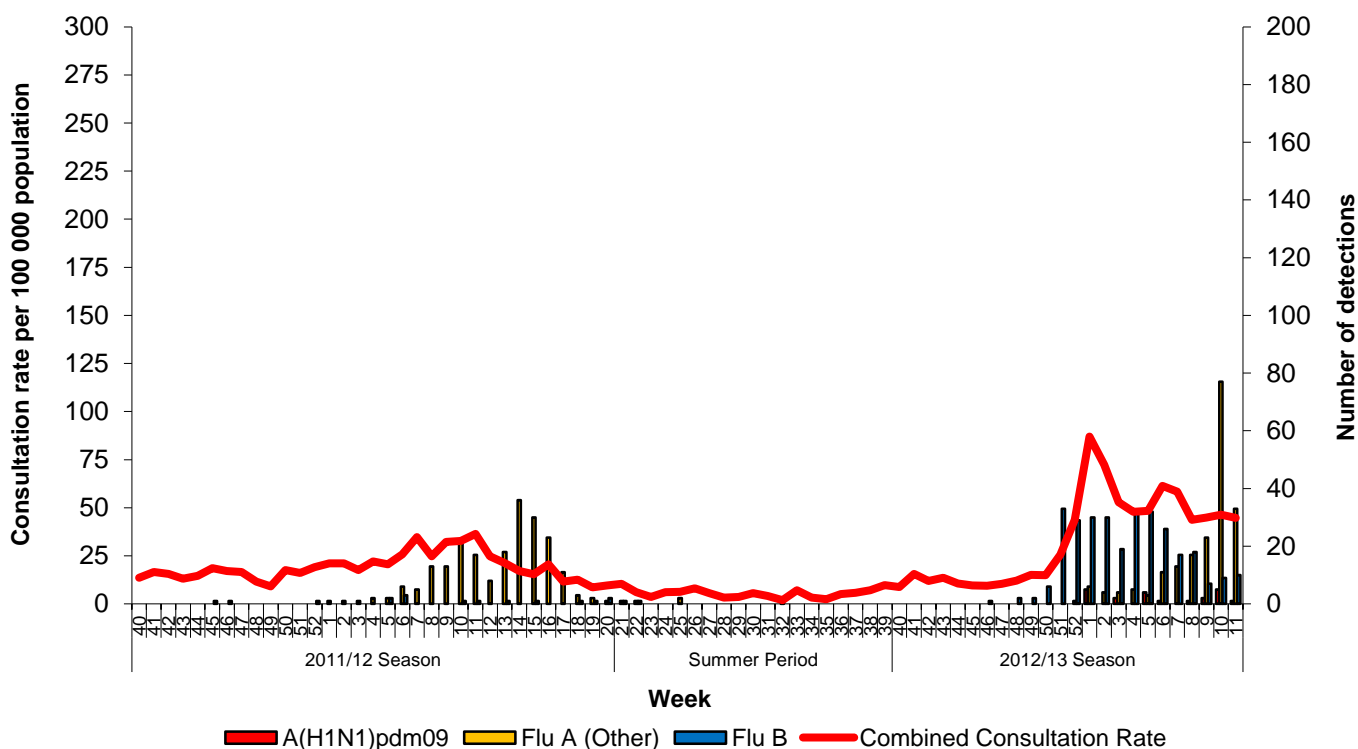


Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011

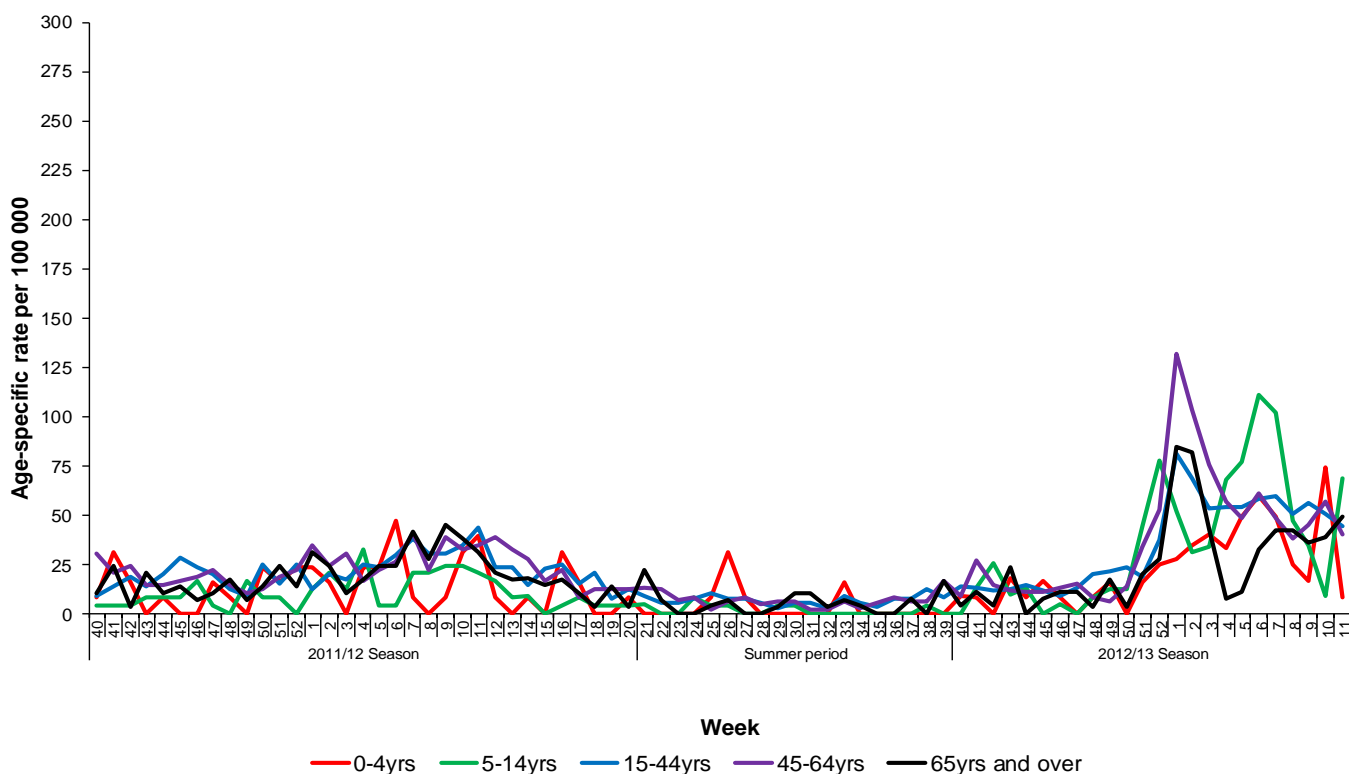


Comment

GP consultation rates were relatively stable again in week 11 at 44.7 per 100,000 population compared to 46.3 per 100,000 population in week 10, 2013 (3.5% decrease). 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 LCG areas also remained relatively stable with the Western LCG continuing 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

The age-specific rates for the 5-14 year age group showed a large increase in week 11, 2013, with the consultation rates for the 0-4 year age group displaying a large decrease in a reversal of the situation in week 10. The 5-14 year age group displays the highest age-specific rates in week 11, 2013. Consultation rates for the other age groups showed only small changes compared to the previous week. 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

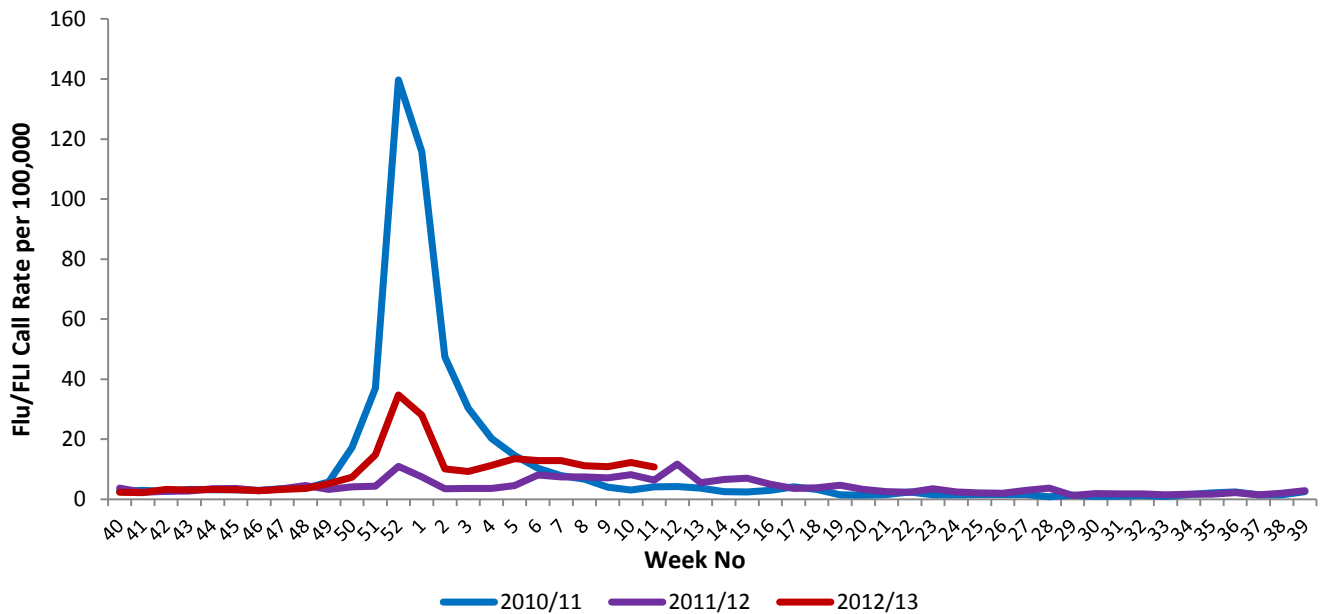
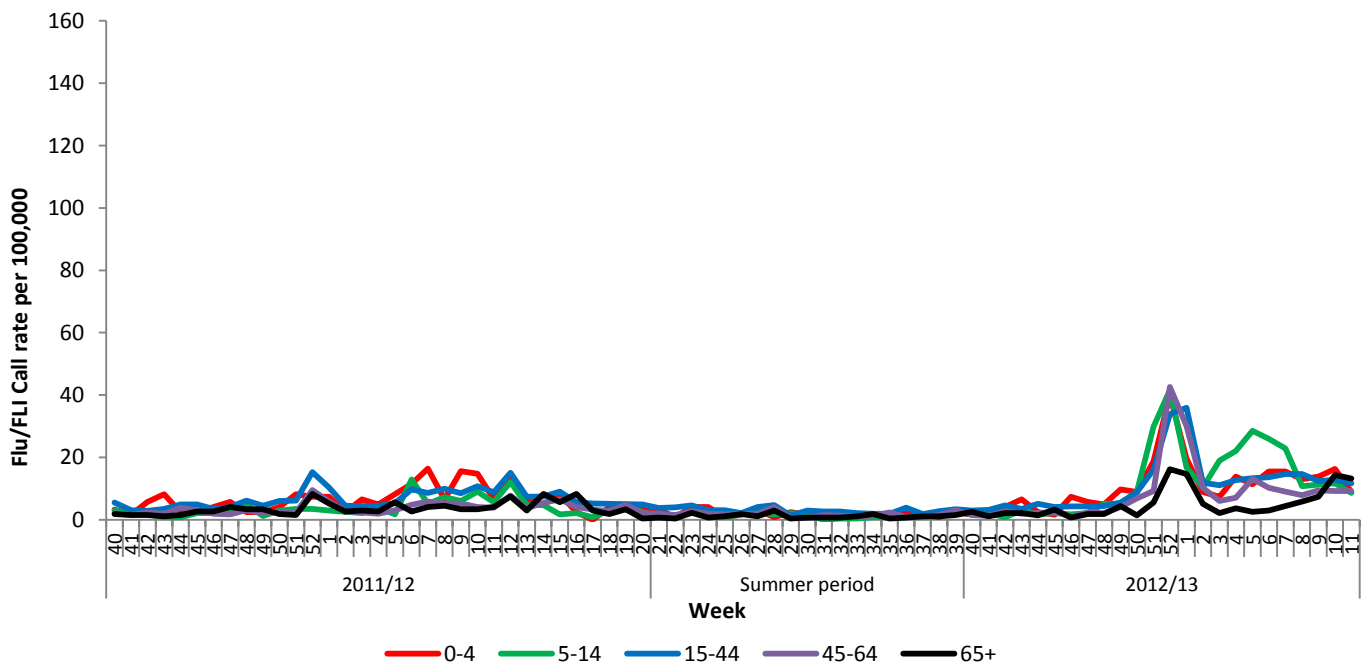


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for ‘flu/FLI decreased slightly from 12.3 per 100,000 population in week 10 to 10.8 per 100,000 population in week 11, 2013, 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 remains below 2%. The age-specific rates in week 11 for all age groups either remained stable or decreased compared to week 10. The highest age-specific OOH consultation rate in week 11, 2013 is in the 15-44 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 11, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	4	1	0	1	0	0	2	50%
Non-sentinel	164	4	1	27	10	2	42	26%
Total	168	5	1	28	10	2	44	26%

Table 2. Cumulative Total Week 40, 2012 - Week 11, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	20	8	3	64	95	672
5-14	4	1	0	81	86	20
15-64	58	8	9	121	196	59
65+	76	4	26	37	143	60
Unknown	1	0	0	0	1	5
All ages	159	21	38	303	521	816

Table 3. Cumulative Total Week 40, 2012 - Week 11, 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	20	8	3	62	93	669
5-14	0	0	0	13	13	0	4	1	0	68	73	20
15-64	11	1	0	50	62	5	47	7	9	71	134	54
65+	2	1	1	2	6	0	74	3	25	35	137	60
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	13	2	1	67	83	8	146	19	37	236	438	808

Note

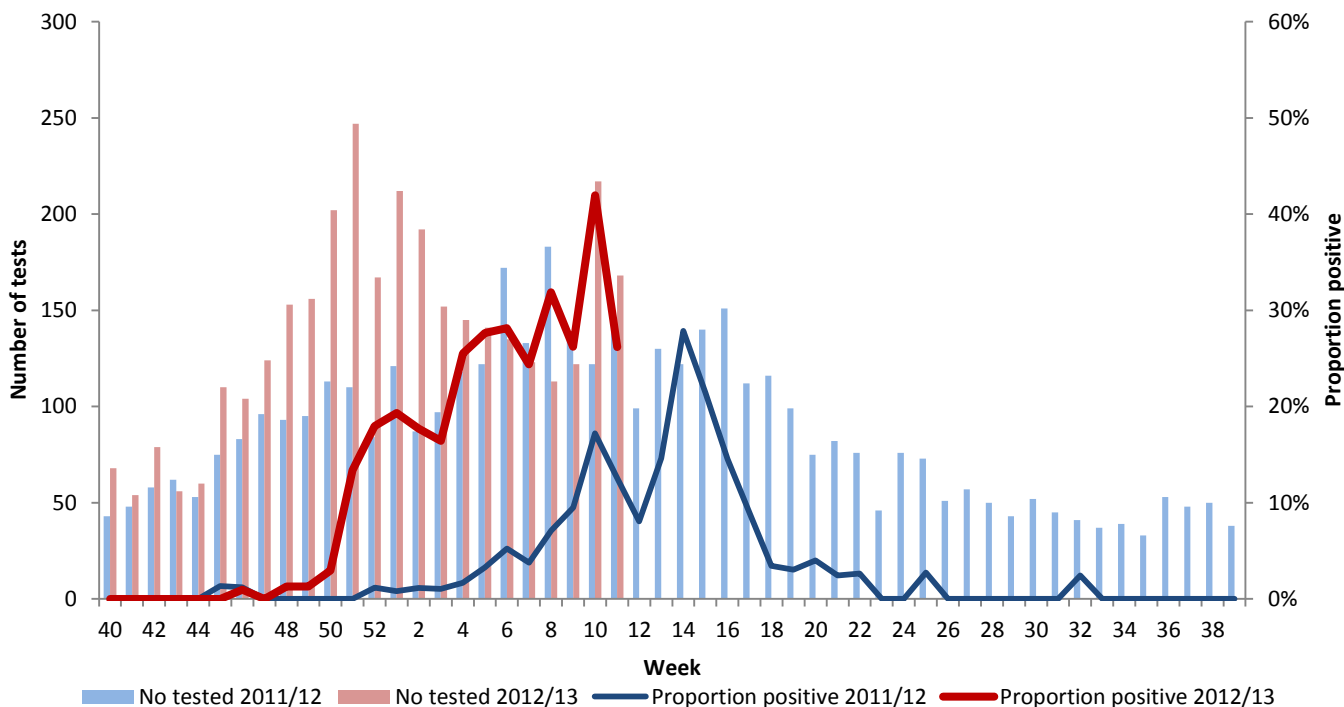
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

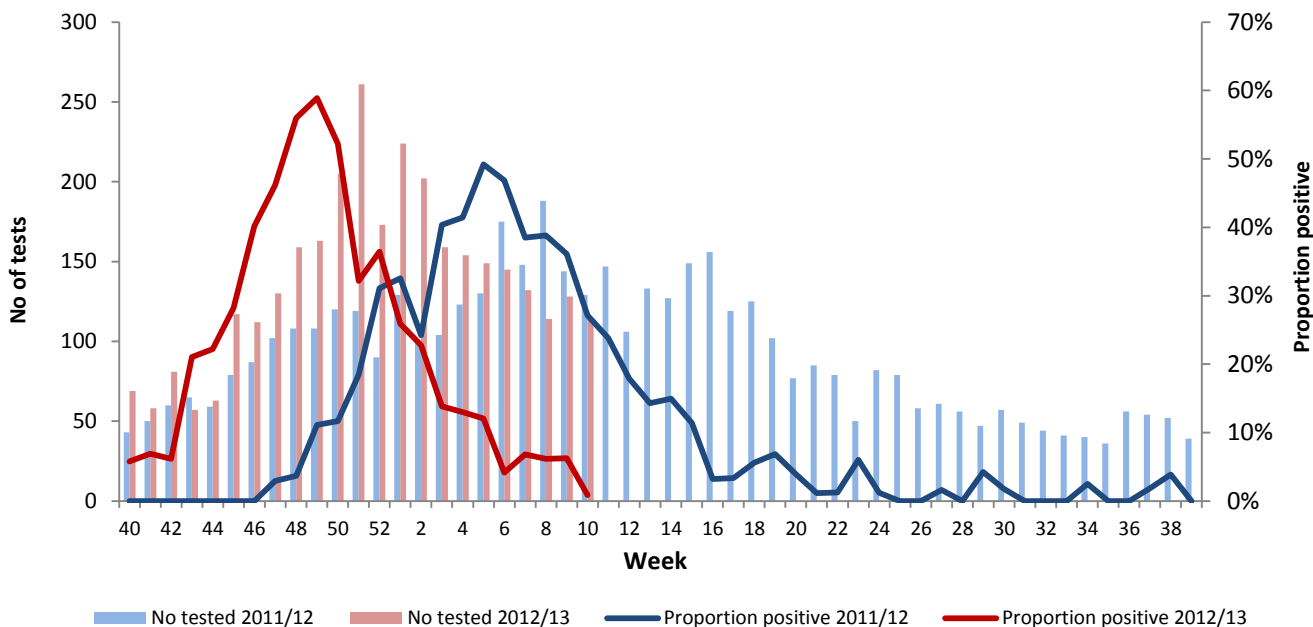
Numbers of specimens submitted for testing have increased above the levels seen in the same period in the previous season. Influenza positivity rates decreased in week 11, 2013; however, as data for this week is incomplete this result should be interpreted with caution. The increase in both numbers tested and positive detections of influenza over weeks 10 and 11 is due, at least in part, to the outbreaks currently occurring in a number of residential/care homes and hospital wards. There were 168 specimens submitted for testing in week 11, 2013, of which there were 28 positive detections of influenza A (untyped), 10 influenza B, 5 influenza A (H3), and 1 influenza A (H1N1)pdm09. Influenza A remains the predominant type in week 11; however, influenza B remains the predominant type overall this season with a total of 303 detections (58% of all influenza detections), and a further 218 detections of influenza A (159 influenza A(H3), 38 A (untyped) and 21 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 two RSV detections in week 11, 2013 with positivity rates continuing to decrease. From week 40 of the current season there have been a total of 816 RSV positive detections reported, of which 82% 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 season.

There were three new admissions to ICU confirmed with influenza reported in week 11, 2013. To date there have been 32 cases (22 adults, 10 children) admitted to ICU that have been confirmed with influenza; 21 of which were confirmed with influenza B, 7 with influenza A(H3), 2 influenza A(H1N1)pdm09 and 2 influenza A (untyped).

Mortality Surveillance

There were no deaths in ICU patients with laboratory confirmed influenza reported in week 11, 2013; with the total this season remaining at four.

Outbreak Surveillance

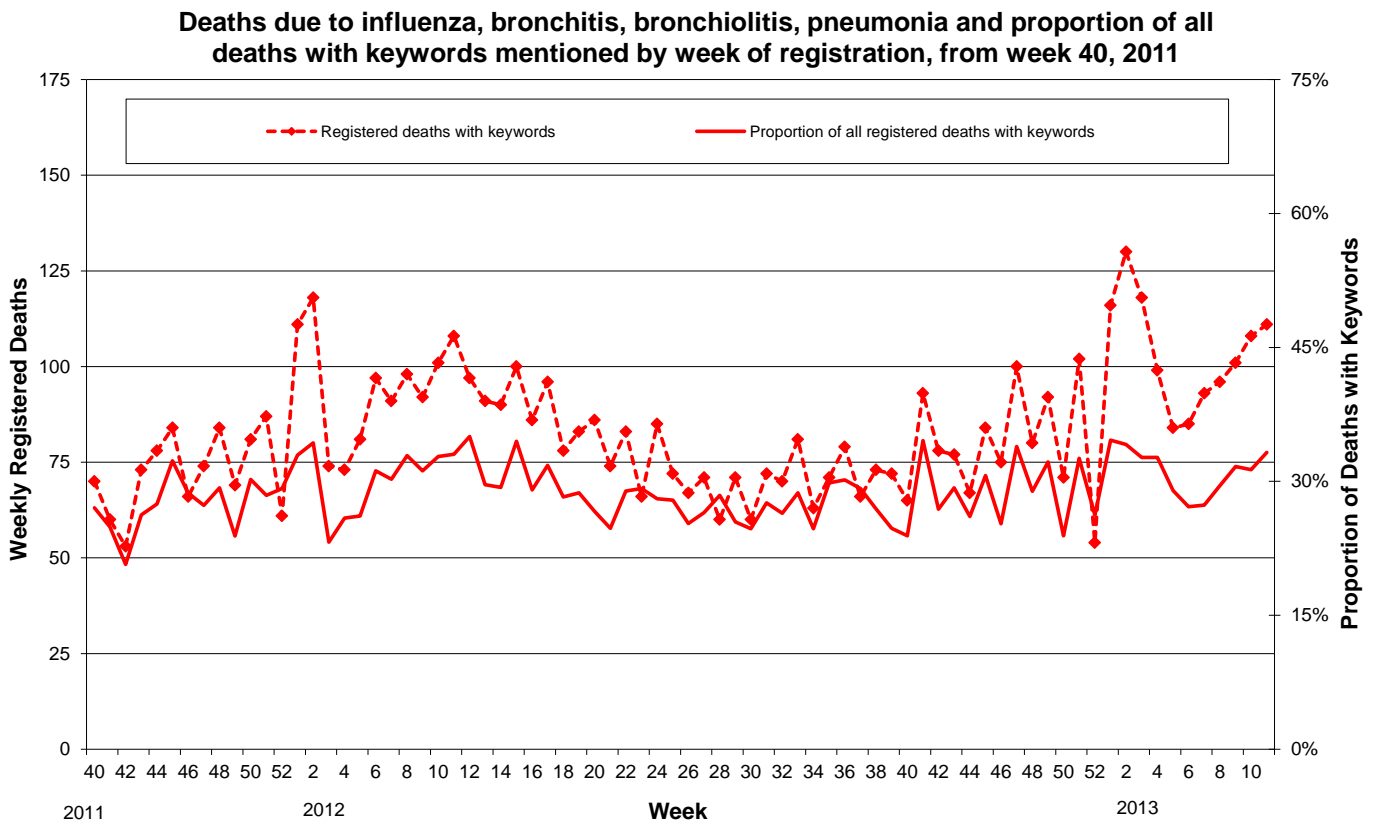
There were three new confirmed influenza outbreaks reported in week 11, 2013; all in residential/nursing homes. This brings the total number of confirmed influenza outbreaks reported so far this season to twelve compared to a total of ten outbreaks for the 2011/12 season.

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.

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 increased from 31% in week 10 to 33% in week 11, 2013. The number of deaths due to these specific respiratory infections continued to increase in week 11; however, this pattern is generally similar to that of the 2011/12 season although slightly higher. In week 11, 2013 there were 334 registered deaths of which 111 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. Active influenza transmission began around week 49/2012, approximately six weeks earlier than in the 2011/2012 season and still remains high.

- In week 10/2013, the geographic pattern of influenza activity was reported as widespread by 18 countries, 16 of which also reported high/medium intensity.
- Although the proportion of influenza virus-positive sentinel specimens has continued to decrease since the peak observed in week 5/2013 (61%), it remained high in week 10/2013 (54%), indicating substantial influenza activity.
- Since week 40/2012, 48% of sentinel specimens positive for influenza virus have been of type A and 52% of type B. The proportion of A(H1)pdm09 has remained at about 60% of subtyped type A viruses since week 7/2013.
- For week 10/2013, 78 hospitalised laboratory-confirmed influenza cases were reported by Belgium, France, Ireland, Romania, Slovakia and Spain. Since week 40/2012, 2 311 hospitalised laboratory-confirmed influenza cases have been reported by eight countries.
- ECDC published its annual risk assessment for seasonal influenza 2012-13 in early February based on data up to week 3/2013.

In week 10/2013, 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 has increased in the United States of America (USA), but influenza A(H3N2) still remained the most commonly detected virus. The season in the USA has been more severe than any since 2003-4 as reflected in numbers of pneumonia and influenza deaths but the impact has been greatest in individuals over the age of 65 years. Activity in Mexico has also decreased over the past several weeks since peaking in mid to late January.
- Influenza activity remained high across Europe but an increasing number of countries reported declining transmission. The proportion of types and subtypes of viruses circulating was not

uniform across the continent. Influenza B has been more commonly detected than A in some countries while, mainly in Eastern parts of Europe very little circulation of influenza B has been detected. Excess mortality in most countries has been moderate and most deaths occurred among people aged 65 and older.

- Influenza activity throughout the temperate region of Asia decreased overall except in Mongolia and the Republic of Korea where activity persists.
- 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.
- A couple of viruses with resistance to neuraminidase inhibitors have been detected in countries doing testing.

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