

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 13 (25 – 31 March 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates increased slightly from 32.1 per 100,000 population in week 12 to 37.4 per 100,000 population in week 13 (17% increase).
- OOH consultation rates for 'flu/FLI decreased from 16.2 per 100,000 population in week 12 to 10.1 per 100,000 population in week 13, 2013.
- Influenza positivity rate of respiratory specimens remains high. In week 13, 2013 there were 38 positive detections of influenza A (untyped), 29 influenza A (H3) and 6 influenza B. Influenza A remains the predominant type during week 13 and also for the season overall.
- RSV activity remains very low.
- There were six new admissions to ICU confirmed with influenza reported in week 13, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 40.
- There were two deaths in ICU patients with laboratory confirmed influenza reported in week 13, 2013.
- There were eight new confirmed influenza outbreaks reported to PHA in week 13, 2013 bringing the total to 26 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

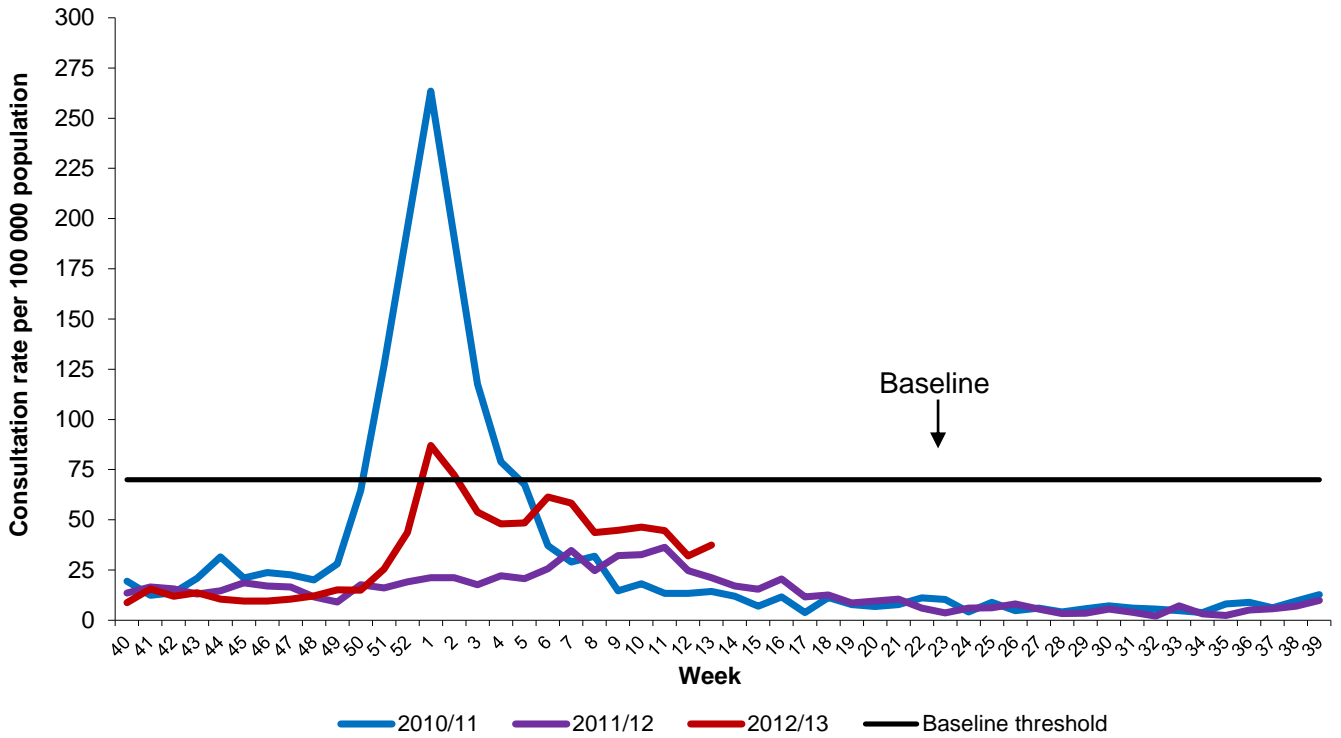


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

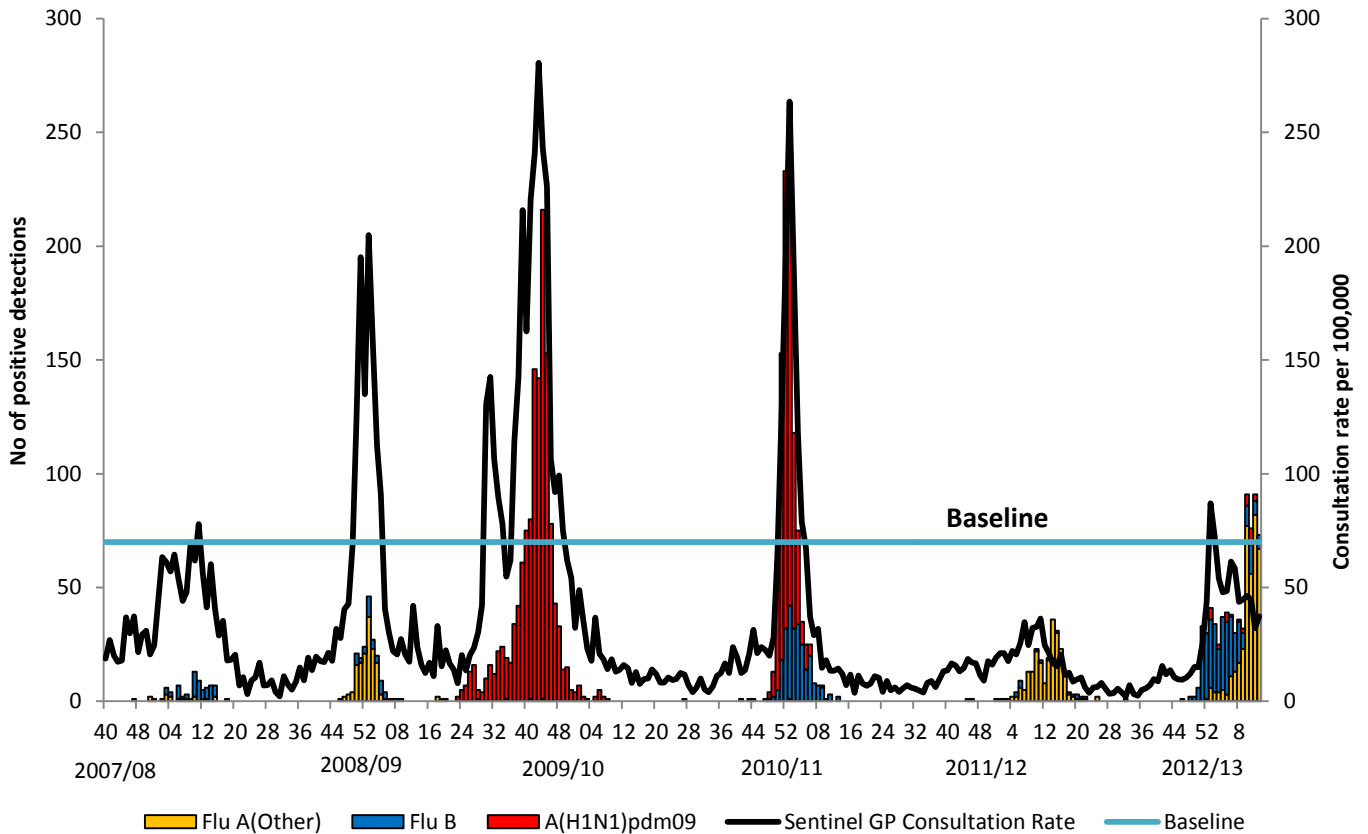
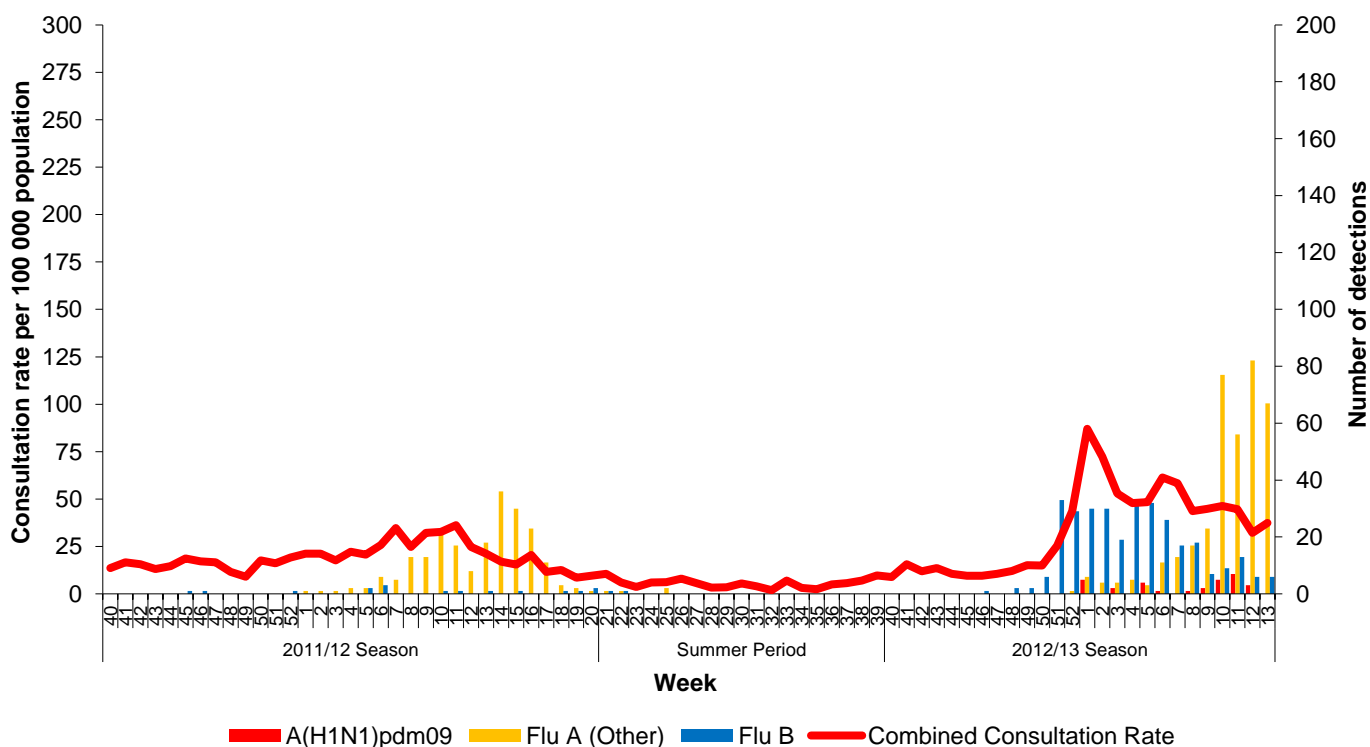


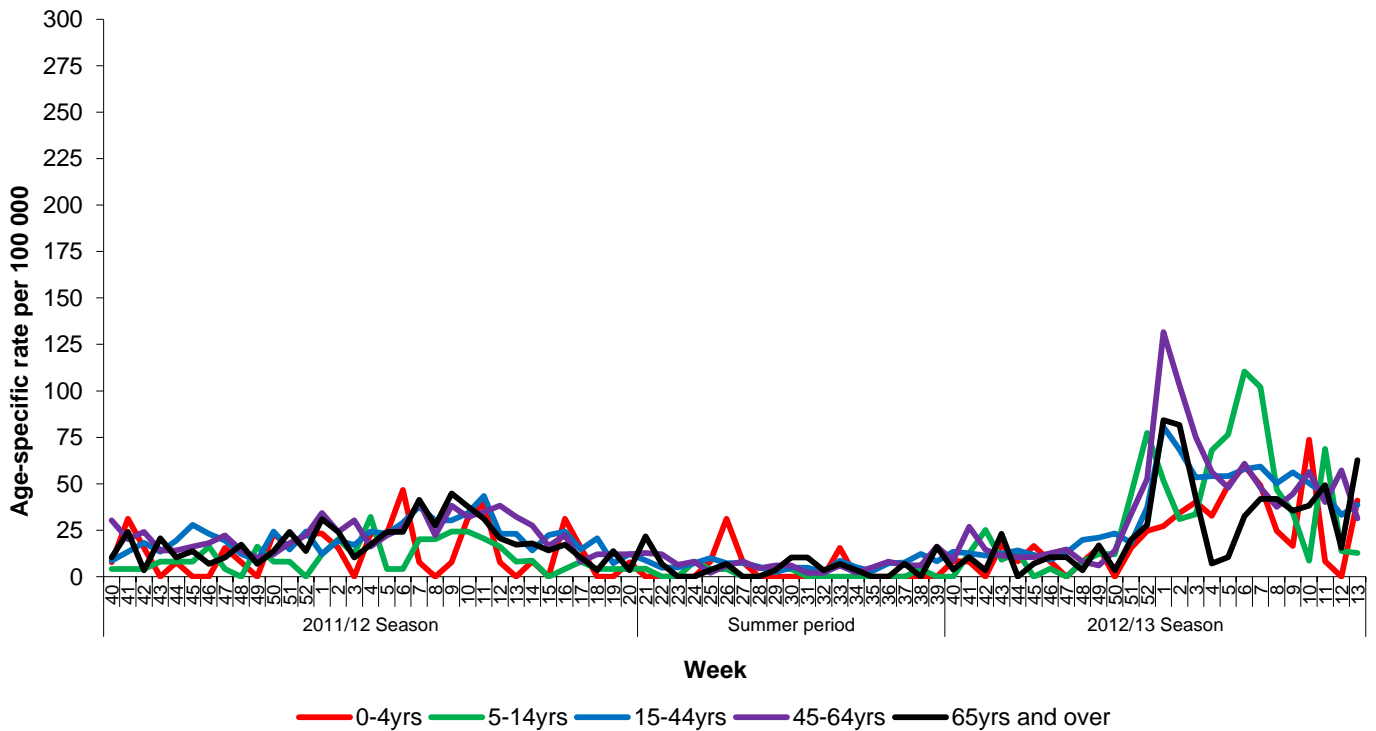
Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

GP consultation rates increased slightly from 32.1 per 100,000 population in week 12 to 37.4 per 100,000 population in week 13 (17% increase); however, this increase would be expected as the previous week's rates are likely to have been artificially reduced due to the bank holiday period in week 12. 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).

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



Comment

The consultation rates in the 5-14 and 15-44 year age groups remained relatively stable in week 13 with the rates for the 45-64 year age group showing a substantial decrease compared to the previous week. However, both the 0-4 and over 65 year age groups showed large increases in consultation rates. The increase in the over 65 year age group reflects the on-going outbreak activity in residential/nursing care homes and this age group now displays the highest age-specific rate in week 13, 2013. The change in the rates for the 0-4 year age group should be interpreted with caution due to the small numbers involved. (Figure 4).

Out-of-Hours (OOH) Centres Call Data

Figure 5. OOH call rate for flu and flu-like illness, 2010/11 – 2012/13

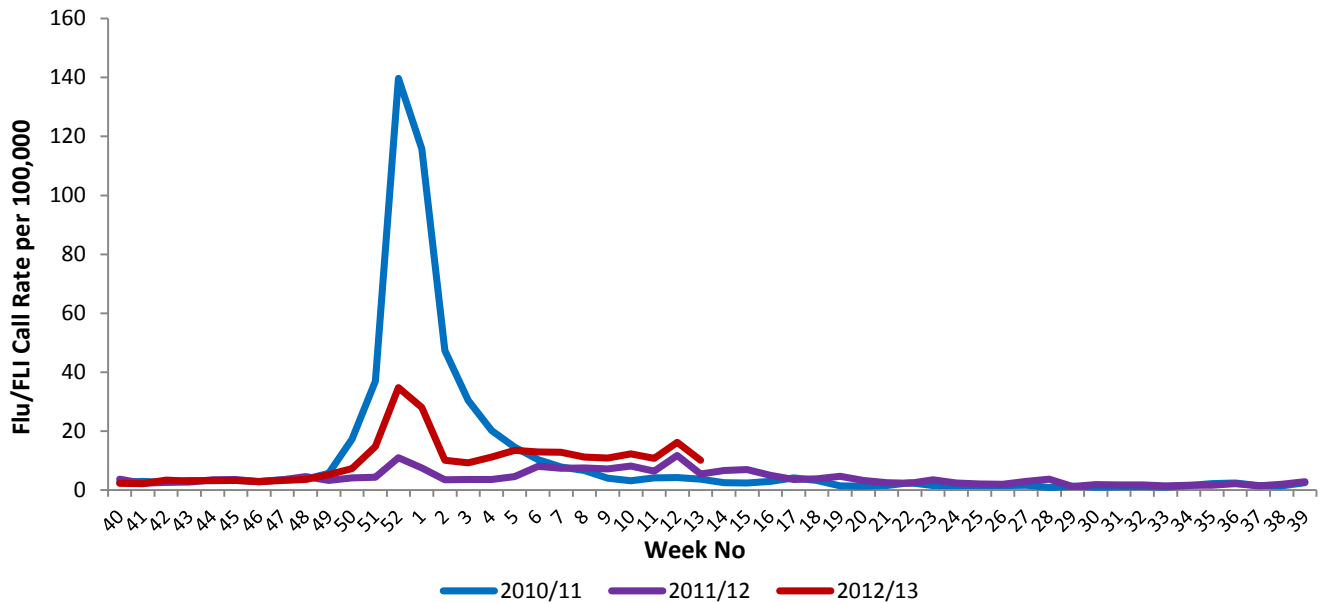
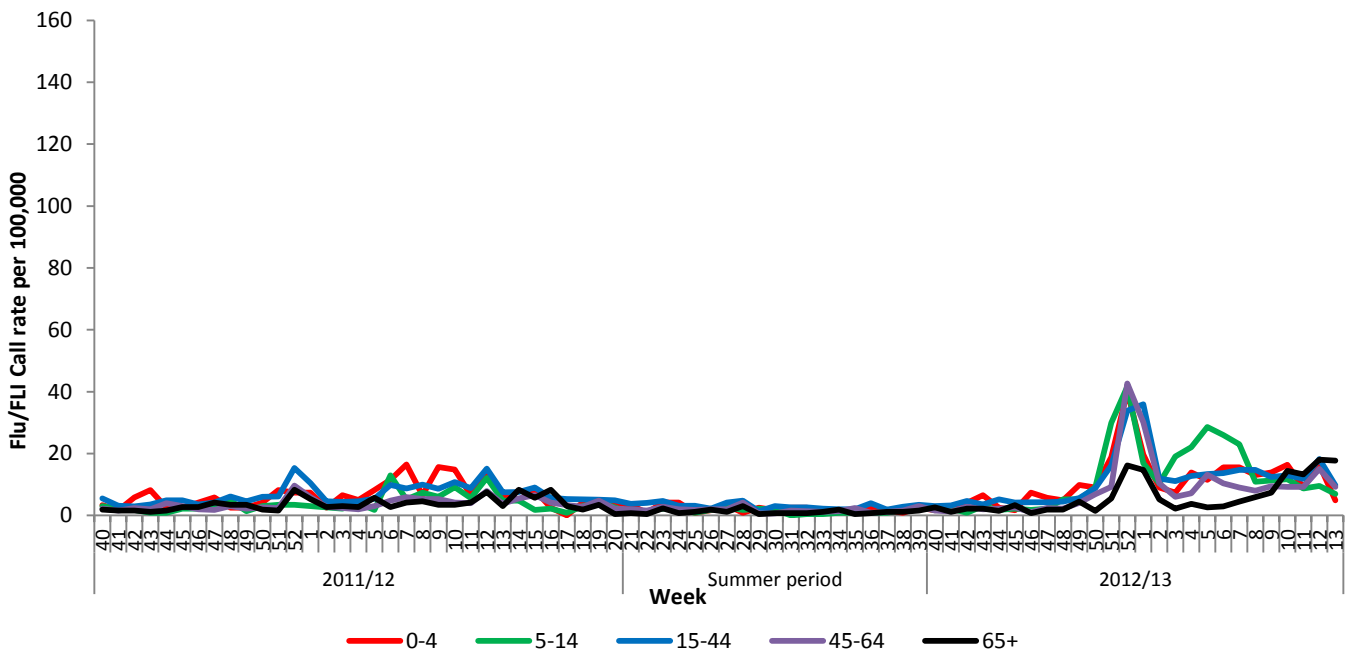


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for 'flu/FLI decreased from 16.2 per 100,000 population in week 12 to 10.1 per 100,000 population in week 13, 2013, with rates remaining slightly higher than the same period in both 2010/11 and 2011/12. Again, this decrease in rates would be expected following the bank-holiday period in week 12 where OOH consultation rates had increased. All the age-specific rates showed a similar decrease in week 13 with the exception of the over 65 year age group which remained relatively stable. The over 65 year age group has generally been increasing since week 5 and continues to display the highest age-specific consultation rate in week 13, 2013. This increase would be consistent with the recent outbreaks in care homes.

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 13, 2013								
Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	11	4	0	3	0	1	7	64%
Non-sentinel	160	25	0	35	6	5	66	41%
Total	171	29	0	38	6	6	73	43%

Table 2. Cumulative Total Week 40, 2012 - Week 13, 2013						
	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	27	9	4	65	105	674
5-14	6	1	0	81	88	21
15-64	92	14	15	128	249	60
65+	196	6	27	44	273	64
Unknown	1	0	0	0	1	5
All ages	322	30	46	318	716	824

Table 3. Cumulative Total Week 40, 2012 - Week 13, 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	27	9	4	63	103	671
5-14	1	0	0	13	14	0	5	1	0	68	74	21
15-64	14	3	0	52	69	5	78	11	15	76	180	55
65+	9	1	3	2	15	1	187	5	24	42	258	63
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	24	4	3	69	100	9	298	26	43	249	616	815

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.

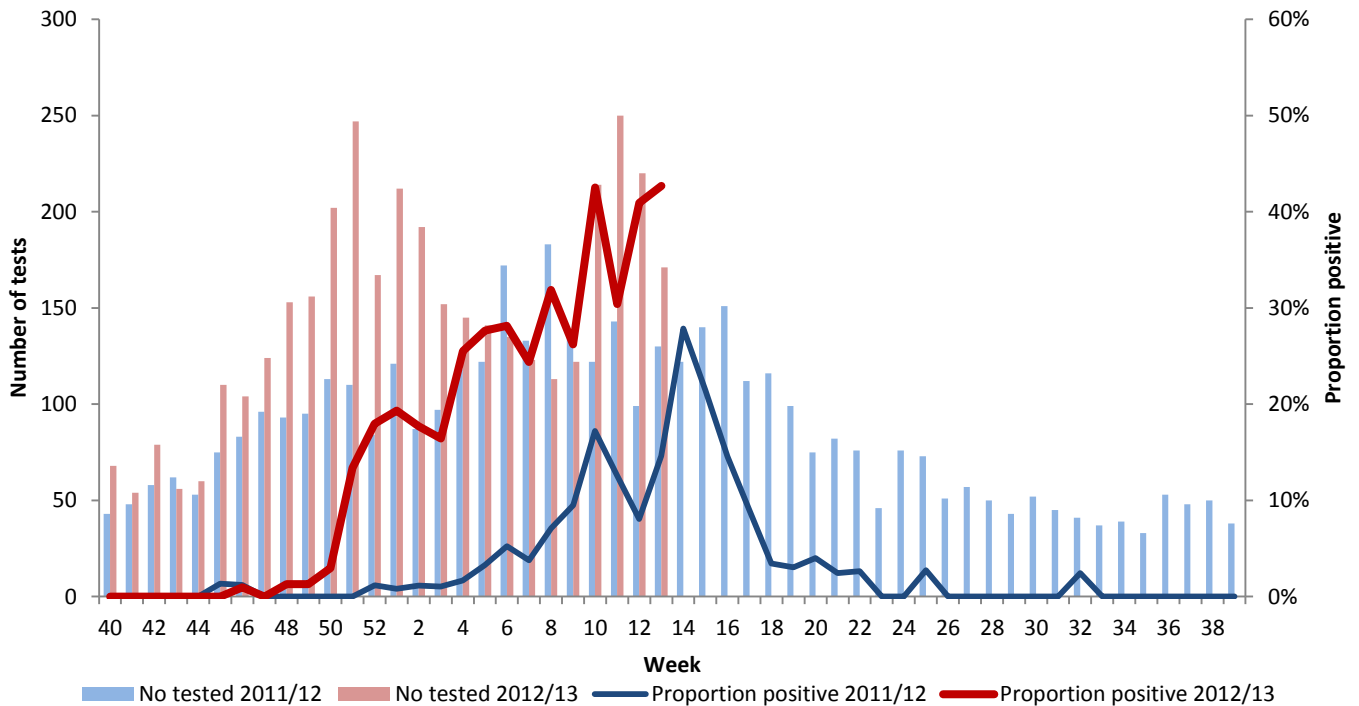
Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

Comment

Despite the relatively low consultation rates in both sentinel GP practices and OOH both the numbers of specimens submitted for testing and influenza positivity rates continue to remain at high levels. The current high levels are likely due, in part, to recent outbreaks in residential/nursing homes with approximately 70% of the influenza positives in week 13 in the over 65 year age group. There were 171 specimens submitted for testing in week 13, 2013, of which there were 38 positive detections of influenza A (untyped), 29 influenza A (H3) and 6 influenza B. Influenza A remains the predominant type for both week 13, 2013 and for the season as a whole (56% of all influenza detections). To date this season there have been 398

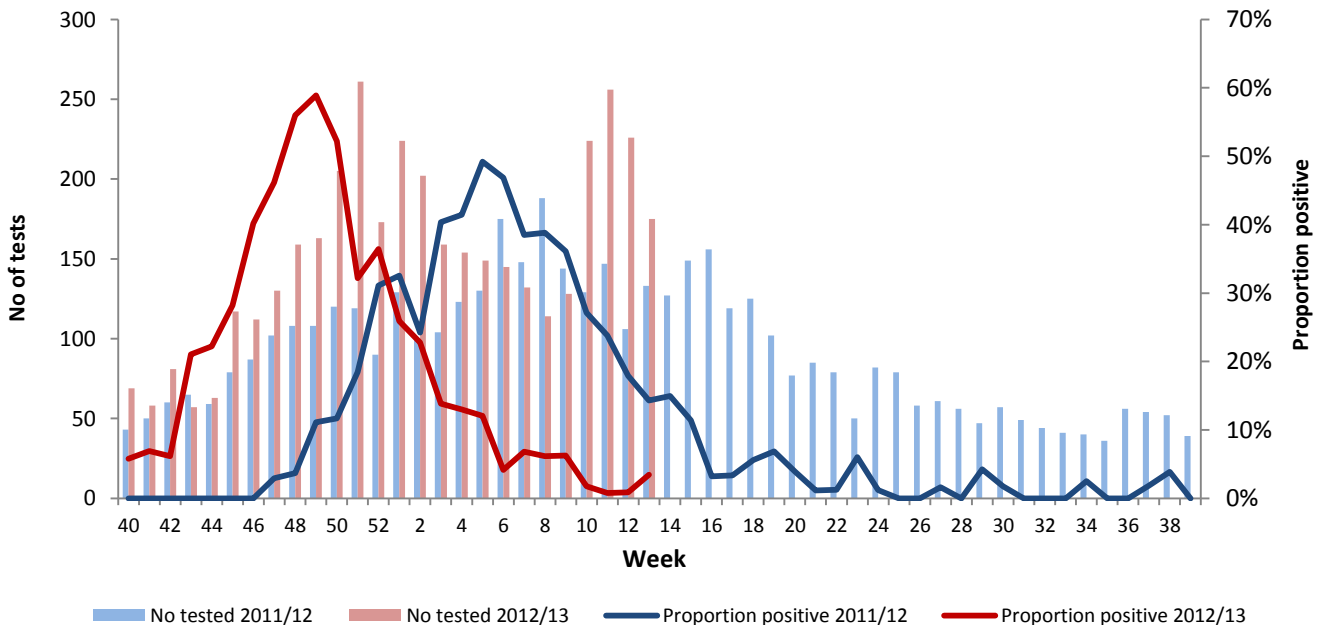
detections of influenza A (322 influenza A(H3), 46 A (untyped) and 297 A (H1N1)pdm09) and a further 318 influenza B (Figure 7).

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 six RSV detections in week 13, 2013 with positivity rates remaining very low. From week 40 of the current season there have been a total of 824 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 six new admissions to ICU confirmed with influenza reported in week 13, 2013. To date there have been 40 cases (30 adults, 10 children) admitted to ICU that have been confirmed with influenza; 21 of which were confirmed with influenza B, 10 with influenza A(H3), 3 influenza A(H1N1)pdm09 and 6 influenza A (untyped).

Table 4. 2012/13 ICU cases with confirmed influenza by age group and influenza type

Age Group	Influenza A	Influenza B	Total
0-14	2	8	10
15-44	4	3	7
45-64	6	5	11
65+	7	5	12
All age groups	19	21	40

Mortality Surveillance

There were two deaths in ICU patients with laboratory confirmed influenza reported in week 13, 2013; with the total this season now at six. All those who died had existing co-morbidities.

Outbreak Surveillance

There were eight new confirmed influenza outbreaks reported in week 13, 2013; all in residential/nursing homes. This brings the total number of confirmed influenza outbreaks reported so far this season to 26* compared to a total of ten outbreaks for the 2011/12 season. Of the 26 outbreaks 24 were confirmed for influenza A only, 1 influenza B only and 1 confirmed with both influenza A and influenza B.

The continuing outbreak activity has also led to an increase in numbers of specimens submitted for testing and influenza positivity rates.

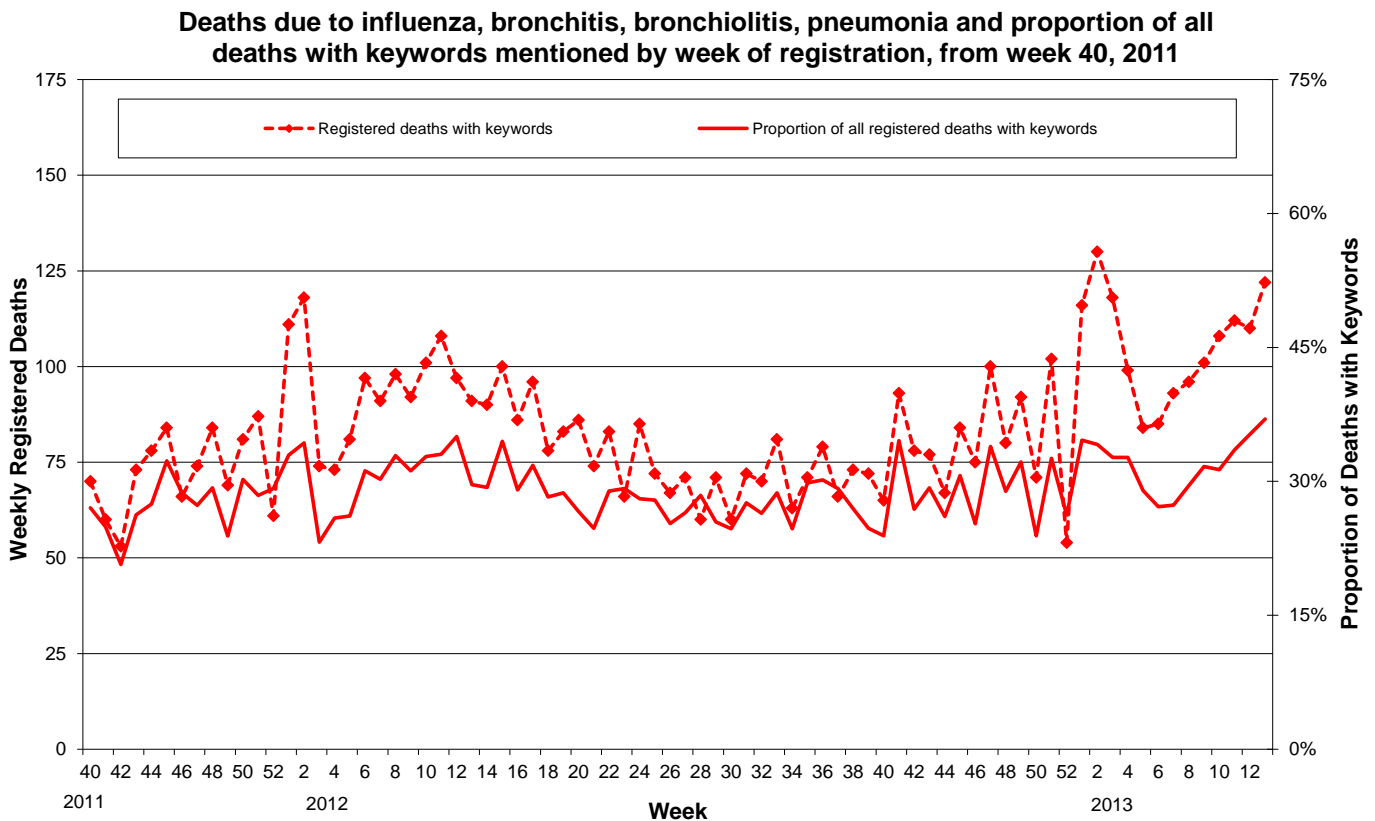
This appears to be a similar pattern to the previous season where all the confirmed influenza outbreaks that were reported occurred at the end of the influenza season in April 2012 despite the relatively low consultation rates in both the sentinel GP practices and OOH.

* an outbreak reported in week 12 was subsequently confirmed as influenza last week with the number reported in week 12 now being 6.

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 35% in week 12 to 37% in week 13, 2013. The proportion related to respiratory keywords has generally been increasing since week 5 and exceeds that of the same period last year (35% peak in week 12, 2012). Similarly the number of registered deaths due to respiratory keywords has also been increasing since week 5 and also exceeds that for the same period last year. In week 13, 2013 there were 330 registered deaths of which 122 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 2012–2013 season started in week 40/2012. Active influenza transmission began around week 49/2012 with ILI/ARI rates peaking in almost all countries between weeks 52/2012 and 8/2013.

- Nine countries reported wide geographic spread with seven of them reporting medium intensity activity.
- Decreasing or stable trends were reported by almost all reporting countries.
- 45% of tested sentinel specimens were positive for influenza virus. This proportion has declined since week 5/2013, but still remained at a high level, consistent with continuing significant influenza activity.
- Since week 40/2012, 47% of sentinel surveillance specimens testing positive for influenza virus have been type A, and 53% type B. Of the influenza A viruses subtyped, the proportion of A(H1N1)pdm09 viruses has been 63%.
- For week 12/2013, 24 hospitalised laboratory-confirmed influenza cases were reported by four reporting countries.
- In all reporting countries, influenza activity continued to decline or had already returned to baseline levels. After more than three months of active transmission, a long period compared to other years, the 2012–2013 influenza season is waning and slowly moving towards its close.

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. Proportionally influenza B increased although influenza A(H3N2) was the most commonly detected virus in North America overall for this season. In the United States of America this season has been more severe than any since 2003-4 as reflected in numbers of pneumonia and influenza deaths with the highest impact for individuals over the age of 65 years.
- Influenza activity continued to decline in the most part of Western Europe, while it remained elevated in the eastern part of the region. The proportion of subtypes of viruses circulating was not uniform across the continent and has changed through the season. It has been notably different from North America with a mix of A(H3N2) and A(H1N1)pdm09 and B viruses. Influenza B mainly reported in western and northern countries and influenza A in eastern and

central Europe. 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 with the exception of Mongolia where activity levels were sustained but still within seasonal tolerance levels.
- Low levels of influenza activity continued to be reported across the tropical regions of the world and activity in countries of the southern hemisphere remained at inter-seasonal levels.
- Since the start of the season a few viruses with reduced susceptibility to neuraminidase inhibitors have been detected in the countries performing antiviral resistance testing.
- The majority of characterized influenza viruses were antigenically similar to the 2012-13 northern hemisphere vaccine viruses.

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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