

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 15 (8 – 14 April 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates increased from 25.3 per 100,000 population in week 14 to 41.6 per 100,000 population in week 15 (64% increase). An increase would be expected following the 2 day bank holiday period in the previous week when GP practices were closed.
- OOH consultation rates for 'flu/FLI decreased from 17.2 per 100,000 population in week 14 to 6.5 per 100,000 population in week 15, 2013, with rates similar to the same period in 2011/12. A decrease in rates is expected following the bank holiday period in the previous week when GP practices would have been closed.
- Influenza positivity rate of respiratory specimens remains high though showing signs of decreasing. In week 15, 2013 there were 24 positive detections of influenza A(H3), 11 influenza A(untyped), and 2 influenza B. Influenza A remains the predominant type during week 15 and also for the season overall.
- RSV activity remains very low.
- There were four new admissions to ICU confirmed with influenza reported in week 15, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 50.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in week 15, 2013.
- There were no new confirmed influenza outbreaks reported to PHA in week 15, 2013 with the total being 28 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

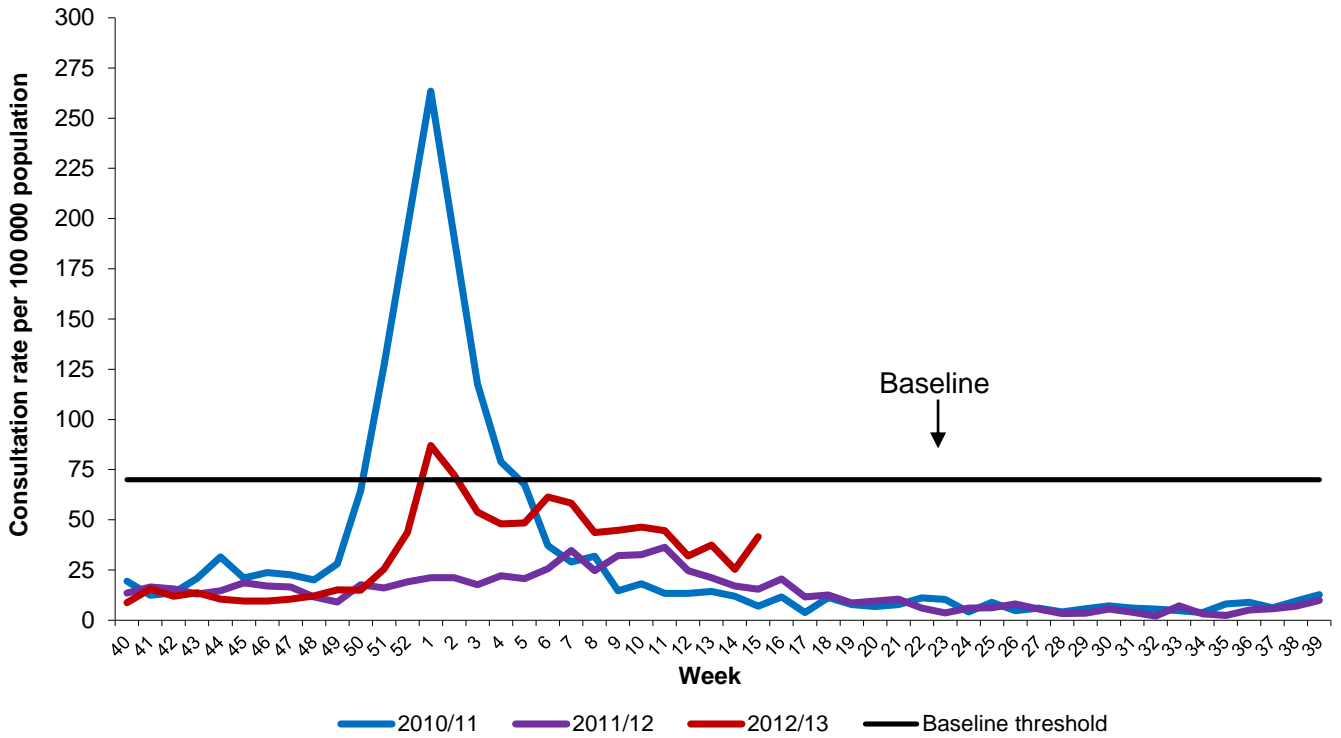


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

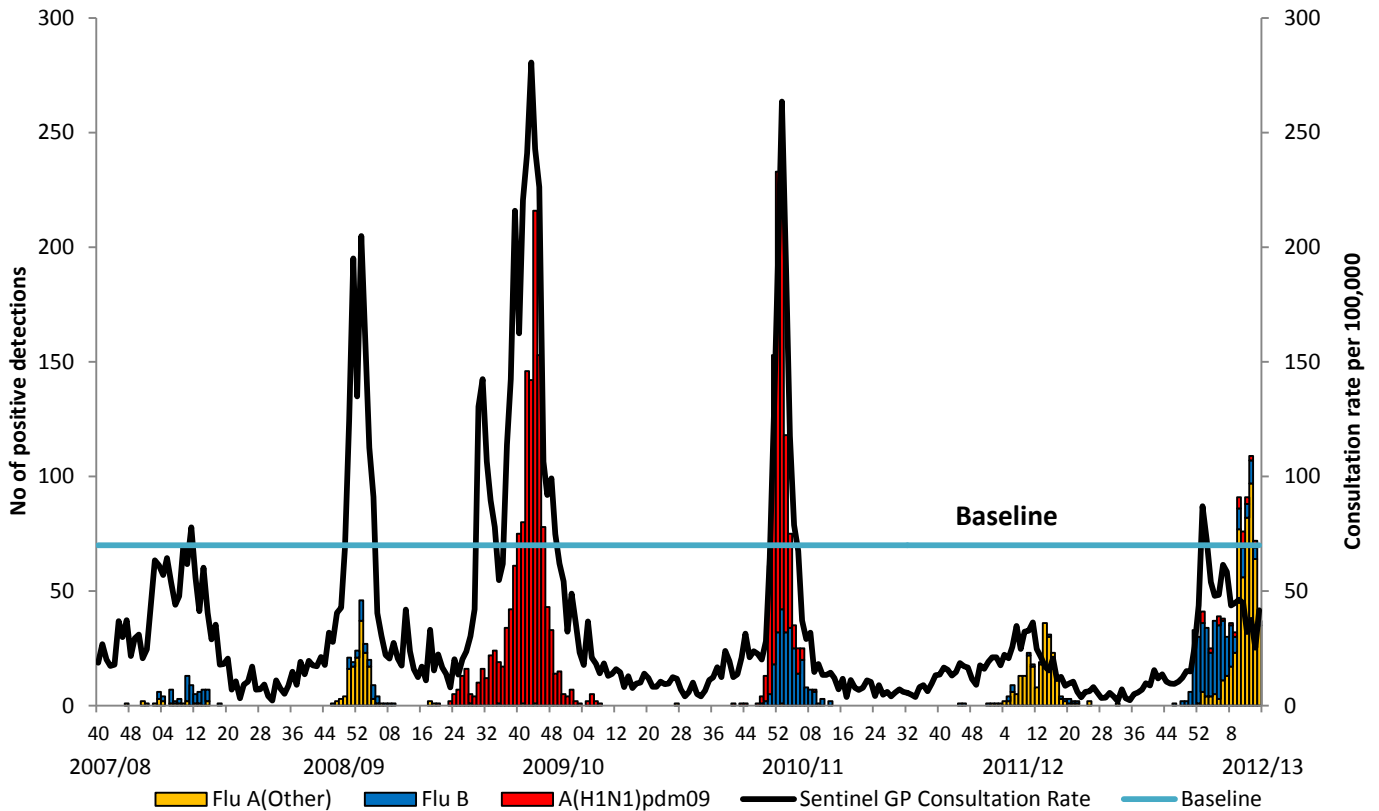
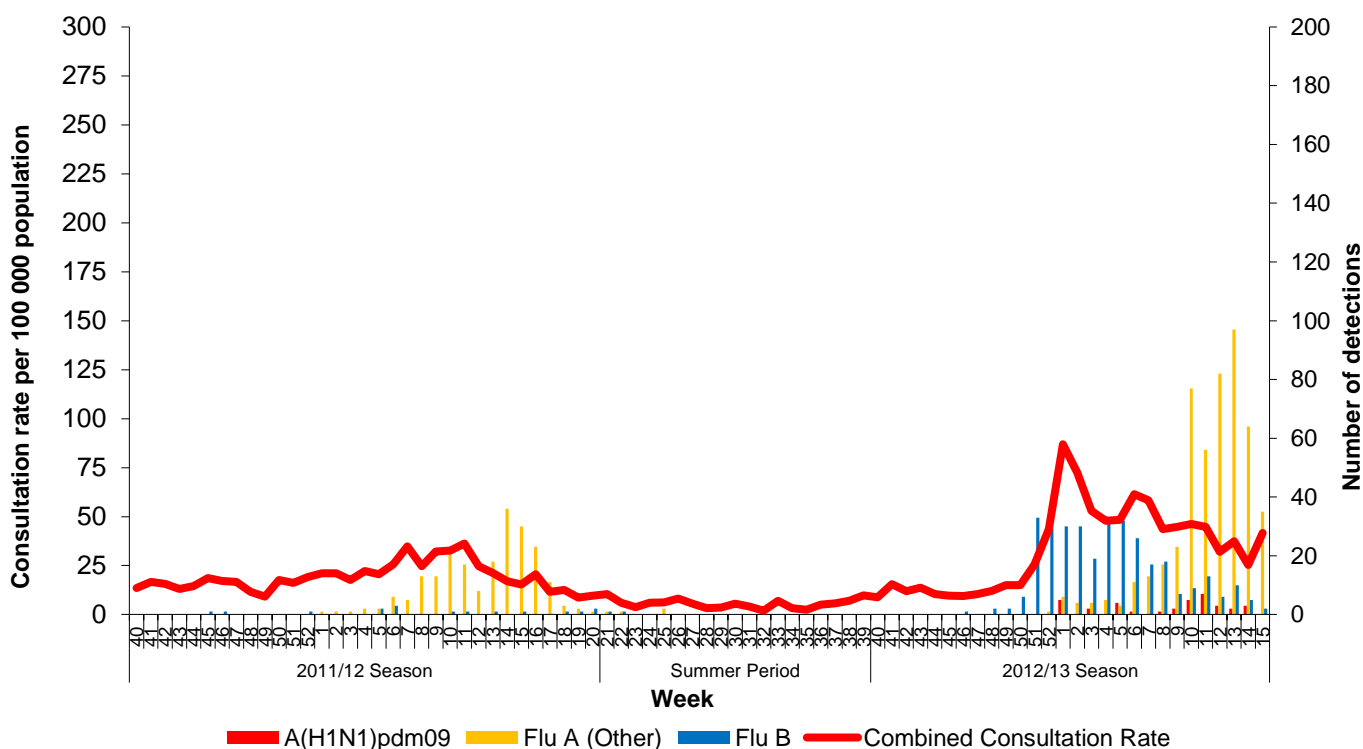


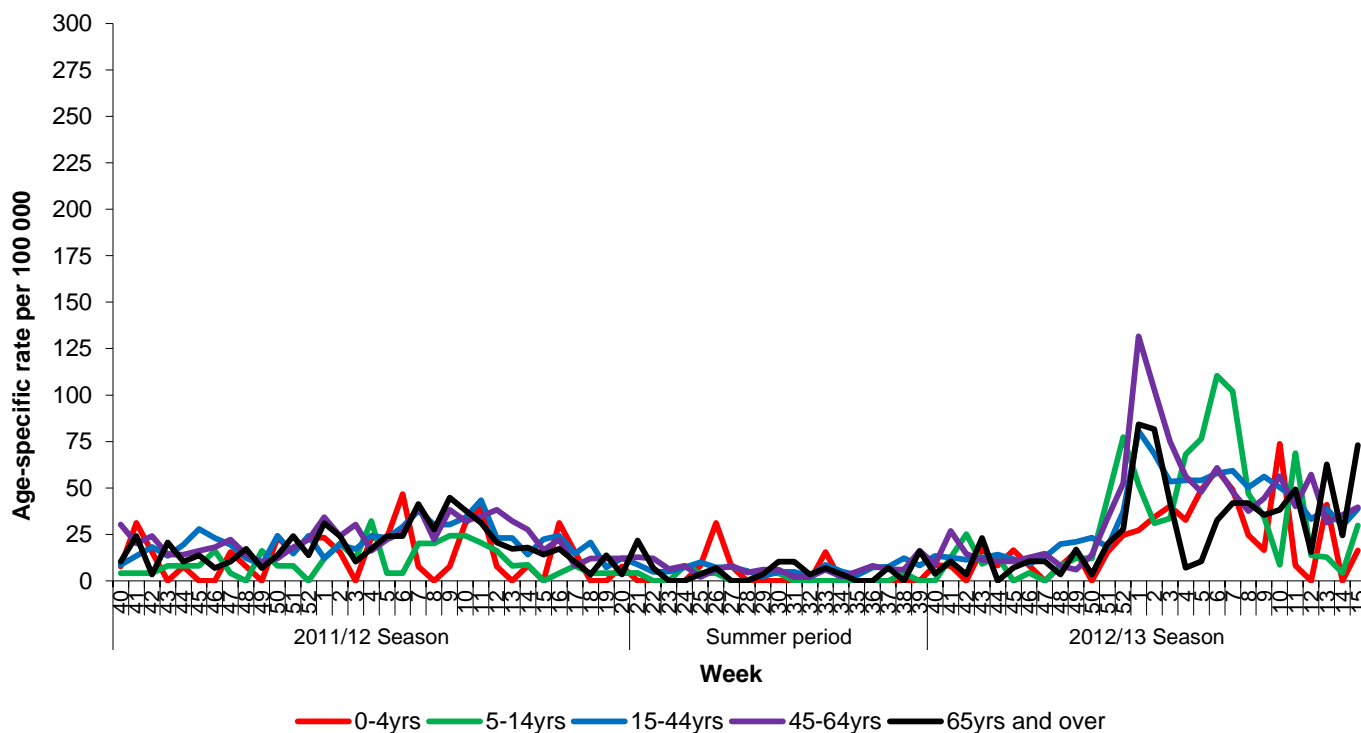
Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

GP consultation rates increased from 25.3 per 100,000 population in week 14 to 41.6 per 100,000 population in week 15 (64% increase). An increase would be expected following the bank holiday period in the previous week when GP practices were closed. 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. The period when influenza has been circulating this season is extended in comparison to the previous two 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

All of the age-specific consultation rates also increased in week 15 although the 15-44 and 45-64 year age groups increased only slightly compared to the other age groups. The over 65 year age group now displays the highest age-specific consultation rate in week 15. Whilst the number of outbreaks has decreased over the past two week period there are still some residential/nursing home outbreaks on-going which may be partly responsible for the continuing comparatively high rates in the over 65 year age group. Small numbers in some of the age groups can contribute to fluctuations in consultation 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

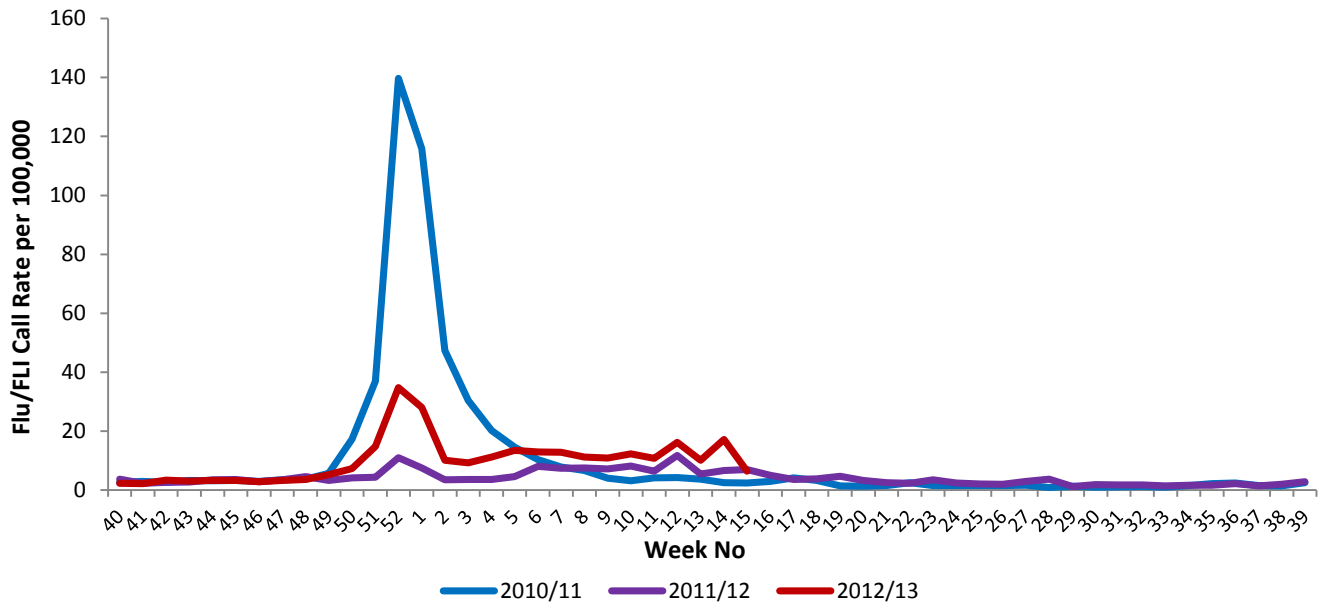
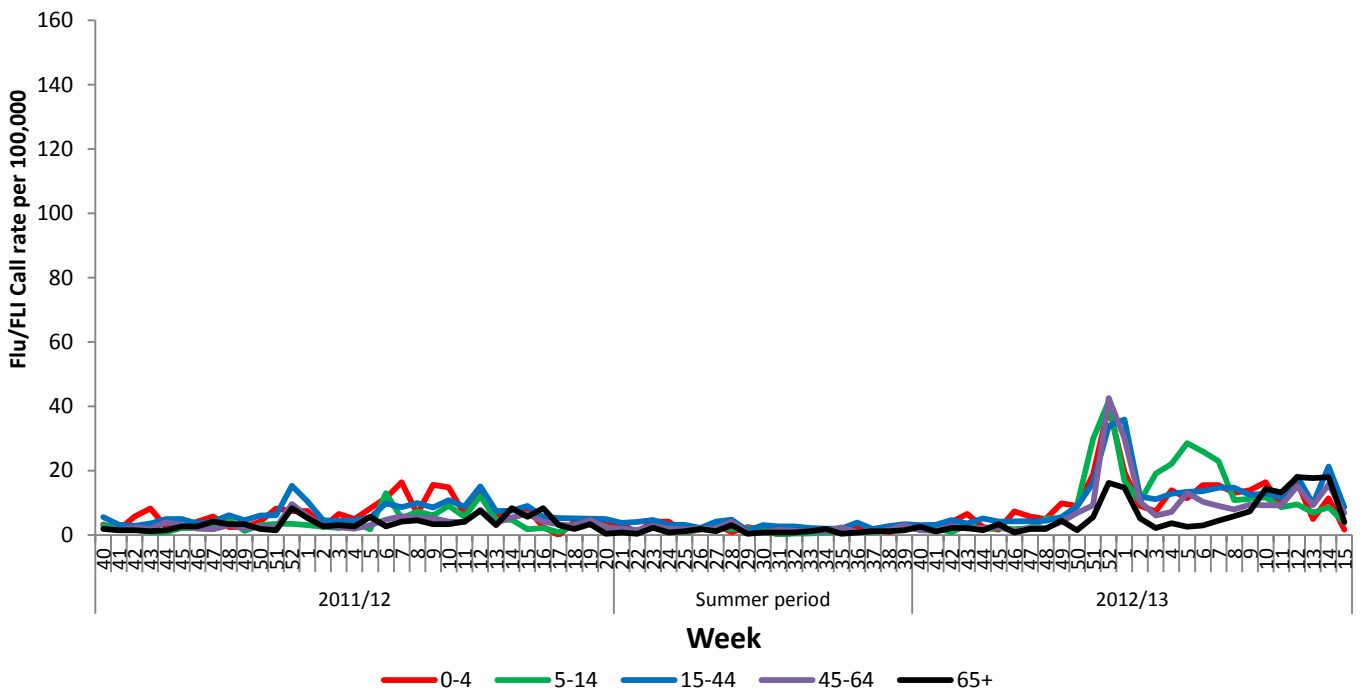


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for 'flu/FLI decreased from 17.2 per 100,000 population in week 14 to 6.5 per 100,000 population in week 15, 2013, with rates similar to the same period in 2011/12. A decrease in rates is expected following the bank holiday period in the previous week when GP practices would have been closed. All the age-specific rates showed a substantial decrease with the highest age-specific rate in in the 15-44 year age group in week 15, 2013. 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 15, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	6	4	0	0	0	0	4	67%
Non-sentinel	91	20	0	11	2	0	33	36%
Total	97	24	0	11	2	0	37	38%

Table 2. Cumulative Total Week 40, 2012 - Week 15, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	38	10	3	65	116	676
5-14	8	1	0	81	90	21
15-64	136	18	13	133	300	60
65+	284	6	17	50	357	64
Unknown	1	0	0	0	1	5
All ages	467	35	33	329	864	826

Table 3. Cumulative Total Week 40, 2012 - Week 15, 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	38	10	3	63	114	
5-14	1	0	0	13	14	0	7	1	0	68	76	
15-64	18	3	0	53	74	5	118	15	13	80	226	
65+	15	1	0	2	18	1	269	5	17	48	339	
Unknown	0	0	0	0	0	0	1	0	0	0	1	
All ages	34	4	0	70	108	9	433	31	33	259	756	

Note

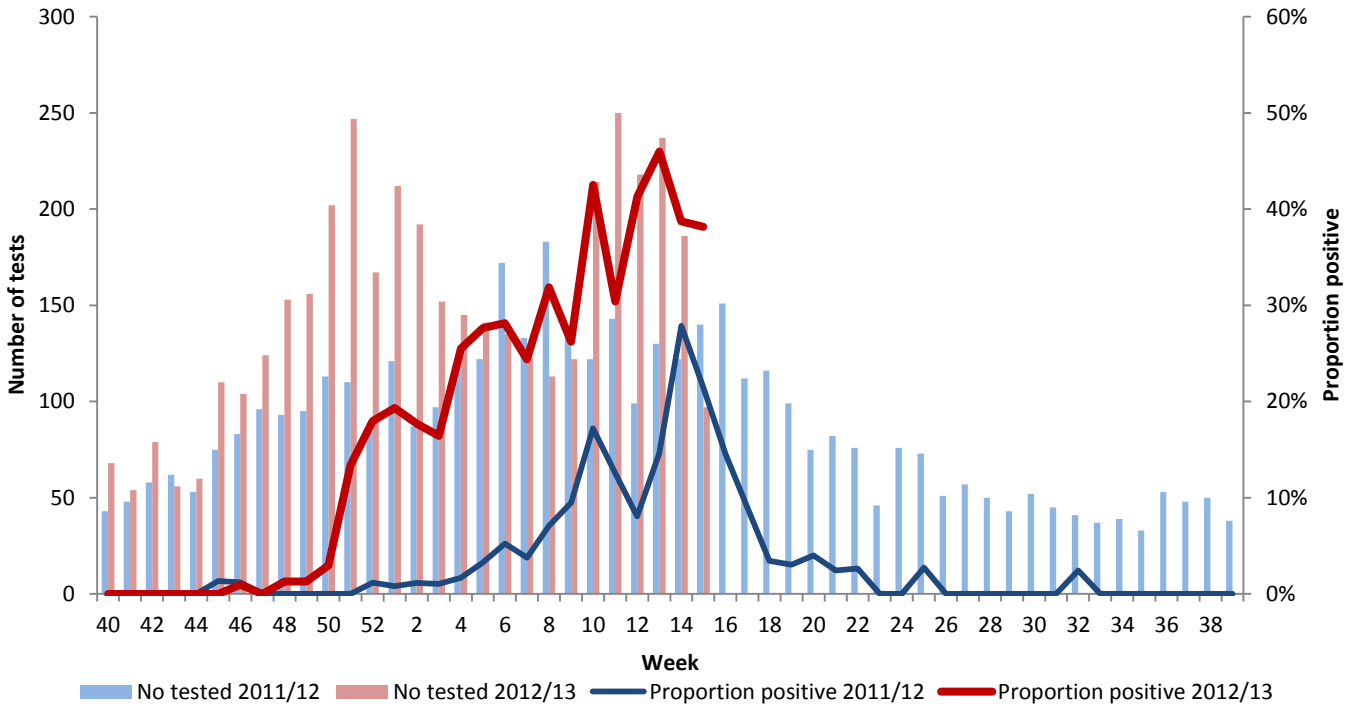
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

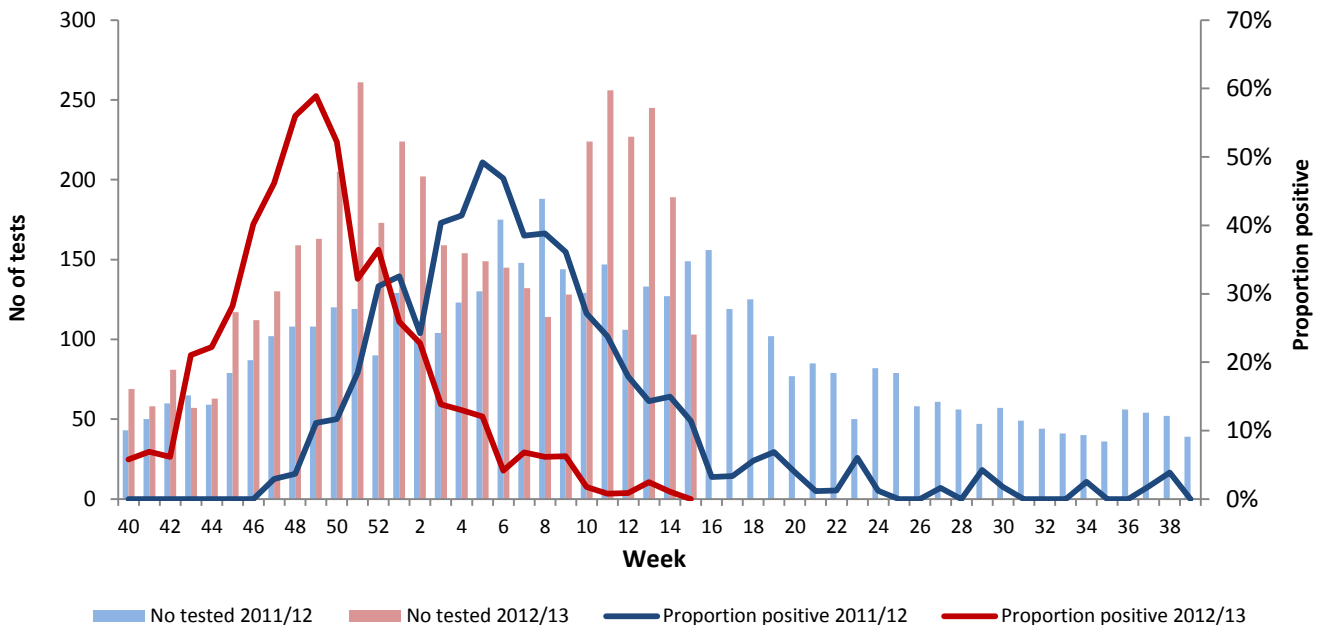
The numbers of specimens submitted for testing and influenza positivity rates continue to remain at high levels although both numbers tested and positivity rates are showing signs of a decrease. The current high levels are likely due, in part, to recent outbreaks in residential/nursing homes which are continuing with approximately 59% of the influenza positives in week 15 in the over 65 year age group. There were 97 specimens submitted for testing in week 15, 2013, of which there were 24 positive detections of influenza A(H3), 11 influenza A(untyped), and 2 influenza B. Influenza A remains the predominant type for both week 15, 2013 and for the season as a whole (62% of all influenza detections). To date this season there have been 535 detections of influenza A (467 influenza A(H3), 35 A(H1N1)pdm09, and 33 A(untyped)) and a further 329 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 no RSV detections in week 15, 2013 with positivity rates remaining very low. From week 40 of the current season there have been a total of 826 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 four new admissions to ICU confirmed with influenza reported in week 15, 2013. To date there have been 50 cases (38 adults, 12 children) admitted to ICU that have been confirmed with influenza; 24 of which were confirmed with influenza A(H3), 21 with influenza B, 3 influenza A(H1N1)pdm09 and 2 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	4	8	12
15-44	4	3	7
45-64	9	5	14
65+	12	5	17
All age groups	29	21	50

Mortality Surveillance

There were no deaths in ICU patients with laboratory confirmed influenza reported in week 15, 2013; with the total this season remaining at seven. All those who died had existing co-morbidities.

Outbreak Surveillance

There were no new confirmed influenza outbreaks reported in week 15, 2013; however, there is one suspected influenza outbreak that is currently awaiting laboratory results. The total number of confirmed influenza outbreaks reported so far this season is 28 compared to a total of ten outbreaks for the 2011/12 season. Of the 28 outbreaks 25 were confirmed for influenza A only, 2 influenza B only and 1 confirmed with both influenza A and influenza B.

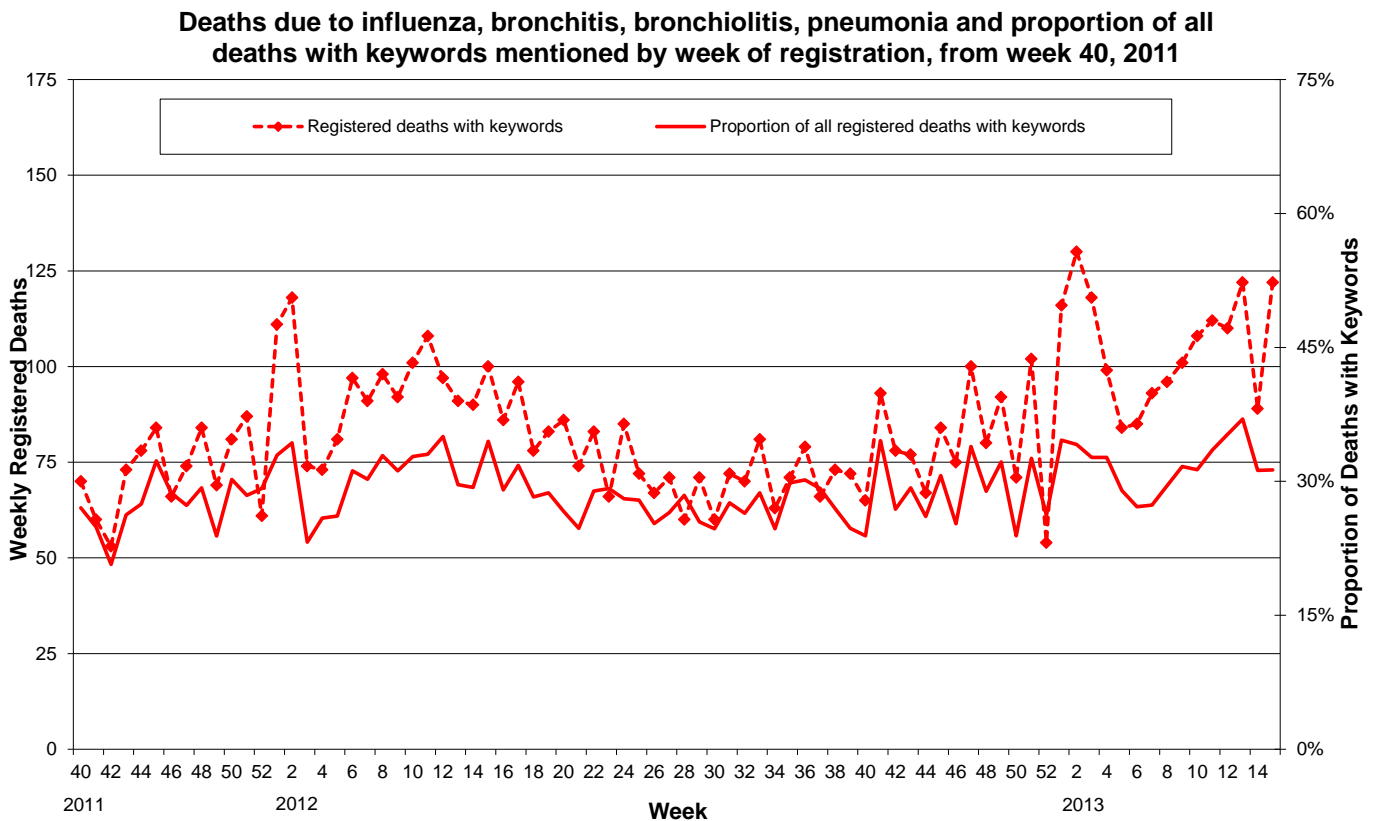
The continuing outbreak activity has also led to an increase in numbers of specimens submitted for testing and influenza positivity rates.

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.

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 remained stable at 31% in week 15, 2013. The number of registered deaths due to respiratory keywords increased sharply; however this would be expected following the bank holiday period in the previous week. In week 15, 2013 there were 390 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 2012–13 season started in week 40/2012 and will finish after week 20/2013. Active influenza transmission began around week 49/2012 with ILI/ARI rates peaking in almost all countries between weeks 52/2012 and 8/2013.

- Twenty-three of 29 reporting countries indicated low-intensity transmission.
- Decreasing or stable trends were reported by all reporting countries.
- The proportion of influenza-positive sentinel specimens (35%) has continued to decrease since the peak observed in week 5/2013 (61%), in line with the lower numbers of specimens being tested.
- 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(H1)pdm09 viruses has been 63%.
- Thirty-nine hospitalised, laboratory-confirmed influenza cases were reported by six countries, including one fatality.
- 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 2012–13 influenza season is waning and getting closer to its end.

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

Worldwide (WHO)

- Influenza activity in North America appears to have declined during the last week of March since peaking in early January in Canada and the United States of America and approximately two weeks later in Mexico. Proportionally influenza B increased although influenza A(H3N2) was the most commonly detected virus in North America overall for this season.
- Influenza activity continued to decline in Europe in general but in most parts of Eastern Europe where elevated levels of activity remained. The proportion of subtypes of viruses circulating was not uniform across the continent and has changed through the season. Influenza B mainly reported in western and northern countries and influenza A in eastern and central Europe. So far this season, excess mortality in most countries has been moderate and most deaths occurred among people aged 65 and older with no excess mortality in younger age groups.
- Influenza activity throughout the temperate region of Asia decreased overall with the exception of China and the Republic of Korea, which have reported sustained activity.
- 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.
- In China, as of April 12, 2013, 43 cases of influenza A(H7N9) have been identified, of which eleven have died:
http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html

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 Paul Cabrey, Dr. Naomh Gallagher and Dr. Brian Smyth.