

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 12 (18 – 24 March 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates decreased from 44.7 per 100,000 population in week 11 to 32.1 per 100,000 population in week 12, 2013 (28% decrease); however, this decrease is likely due to the bank holiday period.
- OOH consultation rates for 'flu/FLI increased from 10.8 per 100,000 population in week 11 to 16.2 per 100,000 population in week 12, 2013; again this is likely due to the bank holiday period.
- Influenza positivity rate of respiratory specimens increased this week. In week 12, 2013 there were 63 positive detections of influenza A (H 3), 11 influenza A (untyped) and 4 influenza B. Influenza A is the predominant type during week 12 and also for the season overall.
- RSV activity remains very low.
- There were two new admissions to ICU confirmed with influenza reported in week 12, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 34.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in week 12, 2013.
- There were five new confirmed influenza outbreaks reported to PHA in week 12, 2013 bringing the total to seventeen 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

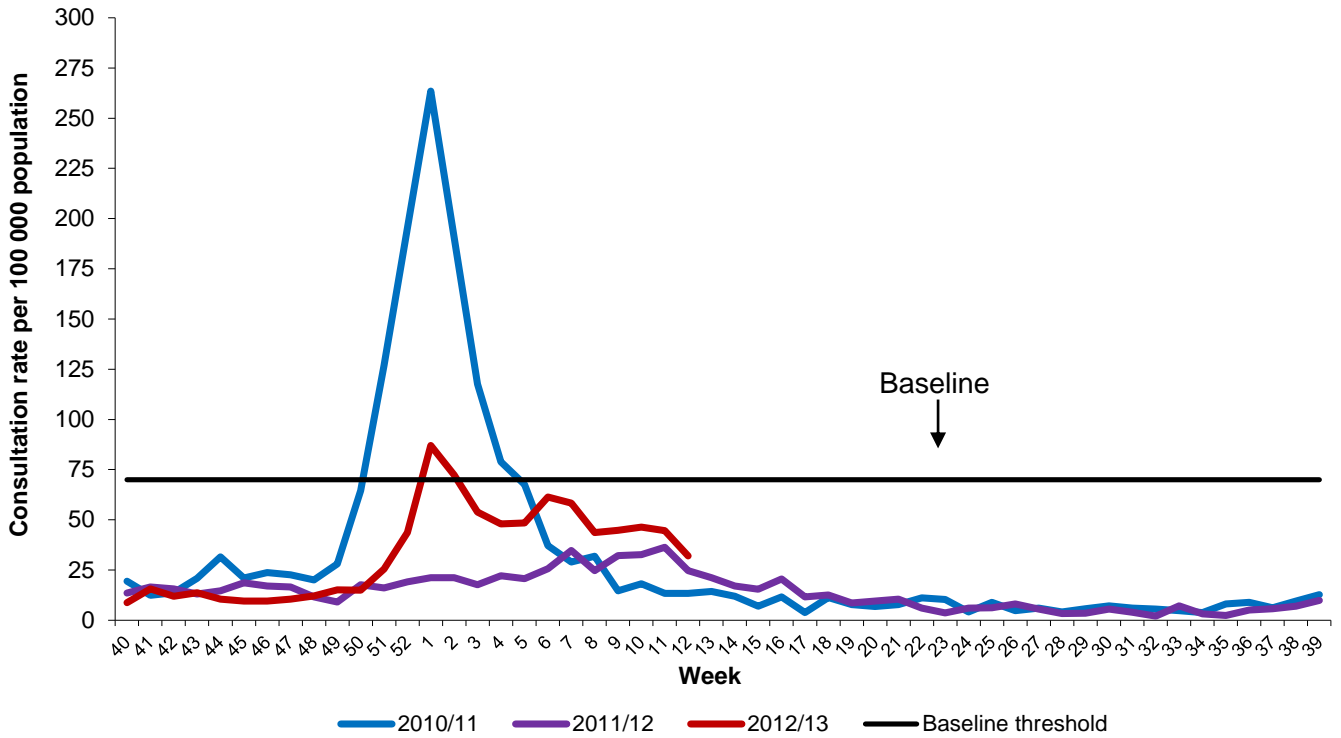


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

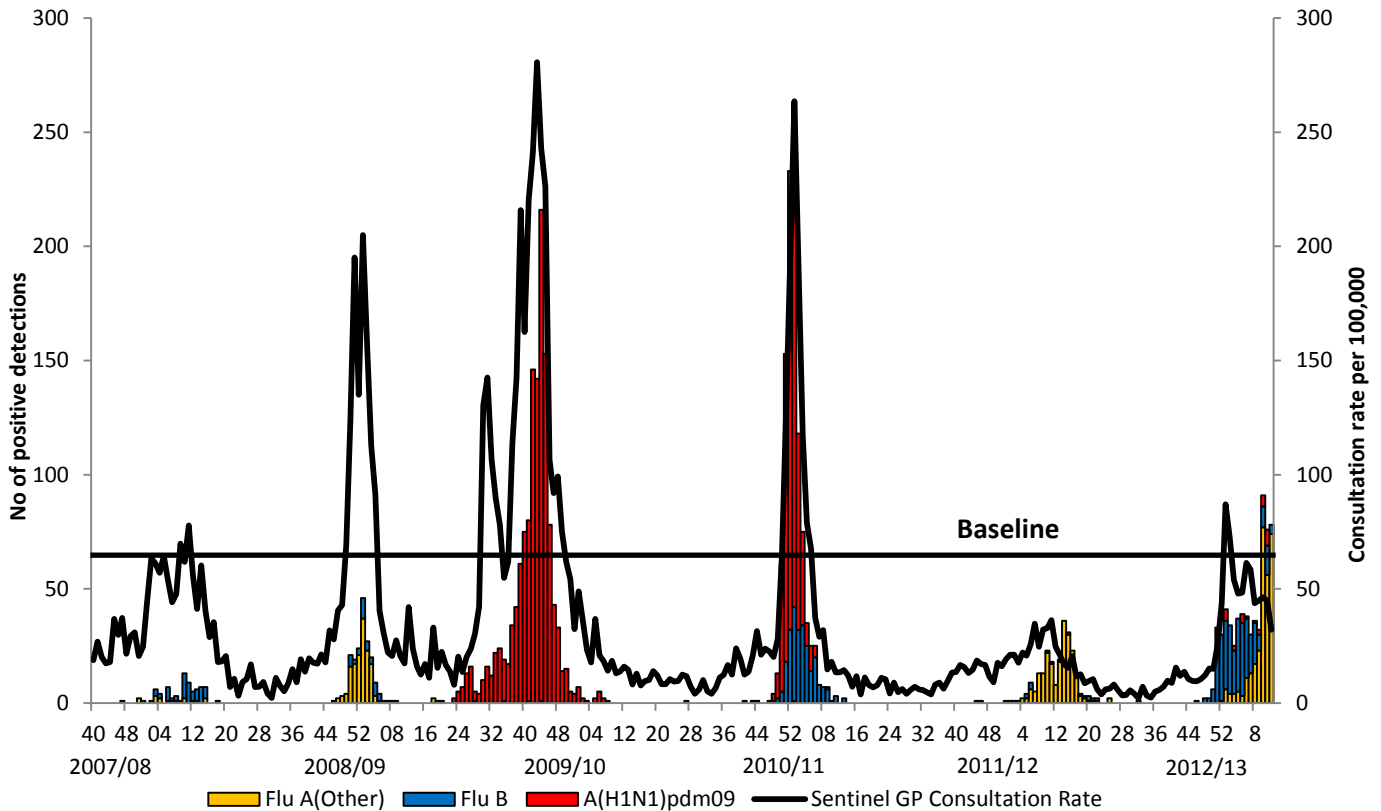
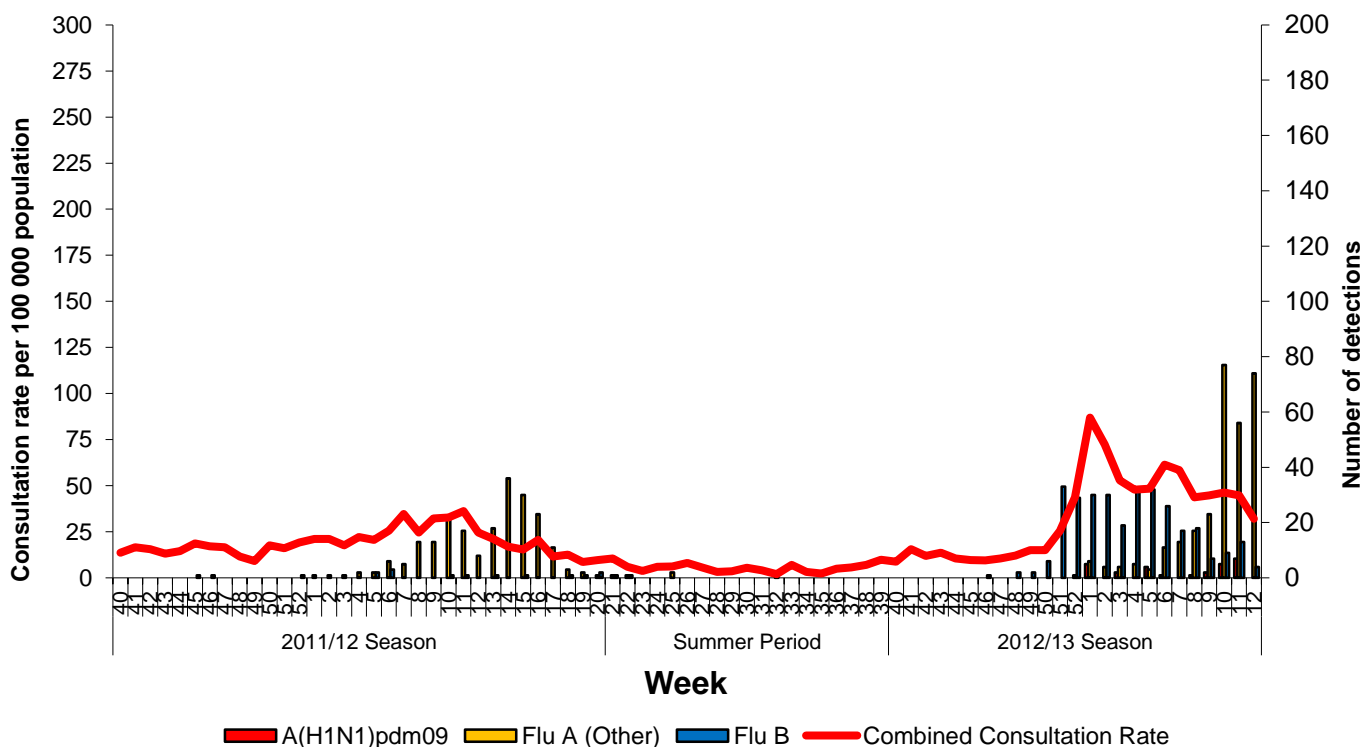


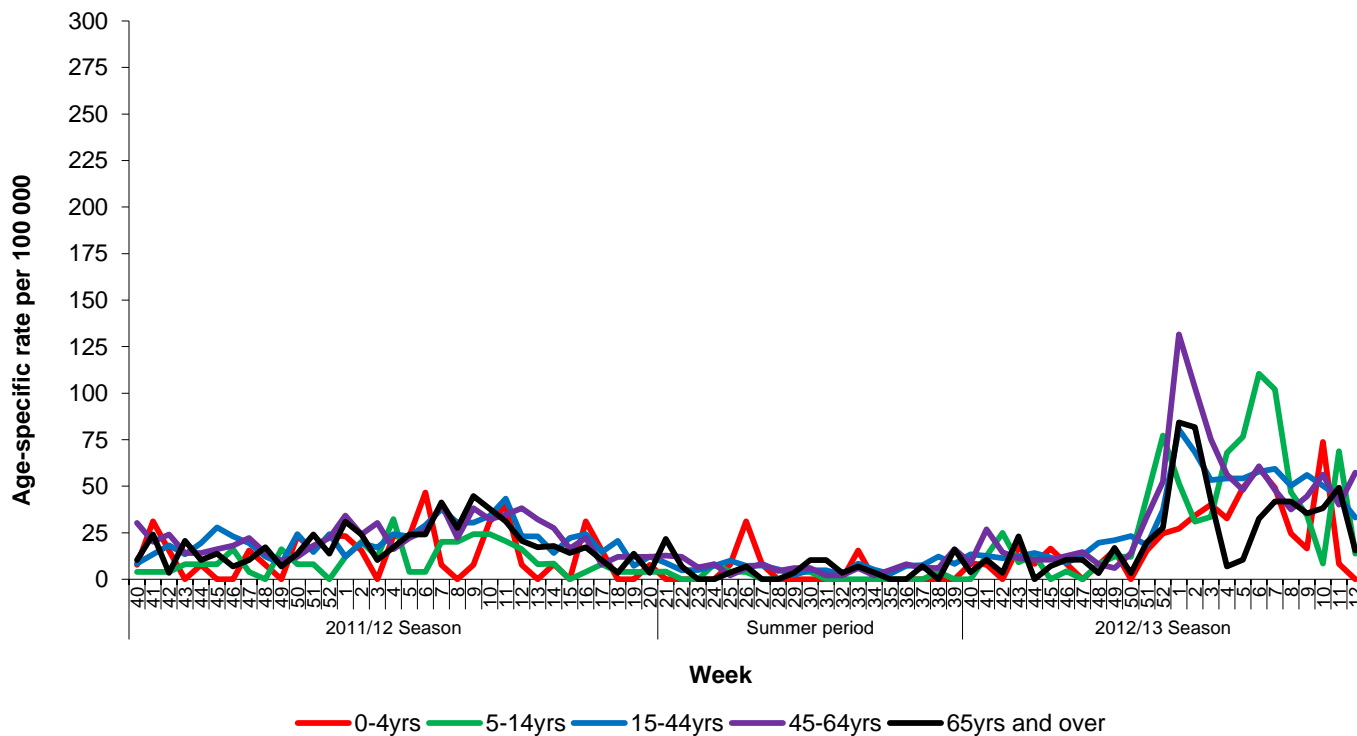
Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

GP consultation rates decreased from 44.7 per 100,000 population in week 11 to 32.1 per 100,000 population in week 12 (28% decrease); however, this decrease is expected due to the bank holiday period when GP practices are closed. Rates remain below the Northern Ireland threshold of 70 per 100,000 population but are slightly 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

All but one of the age groups showed a decrease in the age-specific consultation rates compared with the previous week which would be expected given the bank holiday period; however, the rates in the 45-64 year age group increased and this group now displays the highest age-specific rate in week 12, 2013. 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

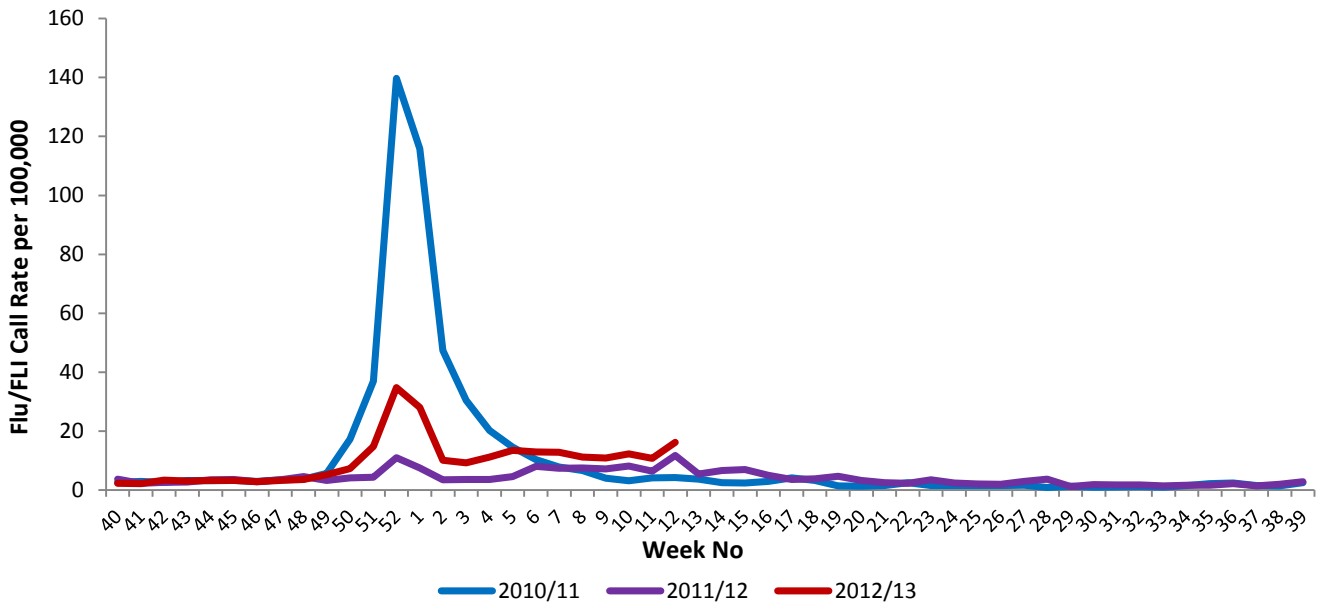
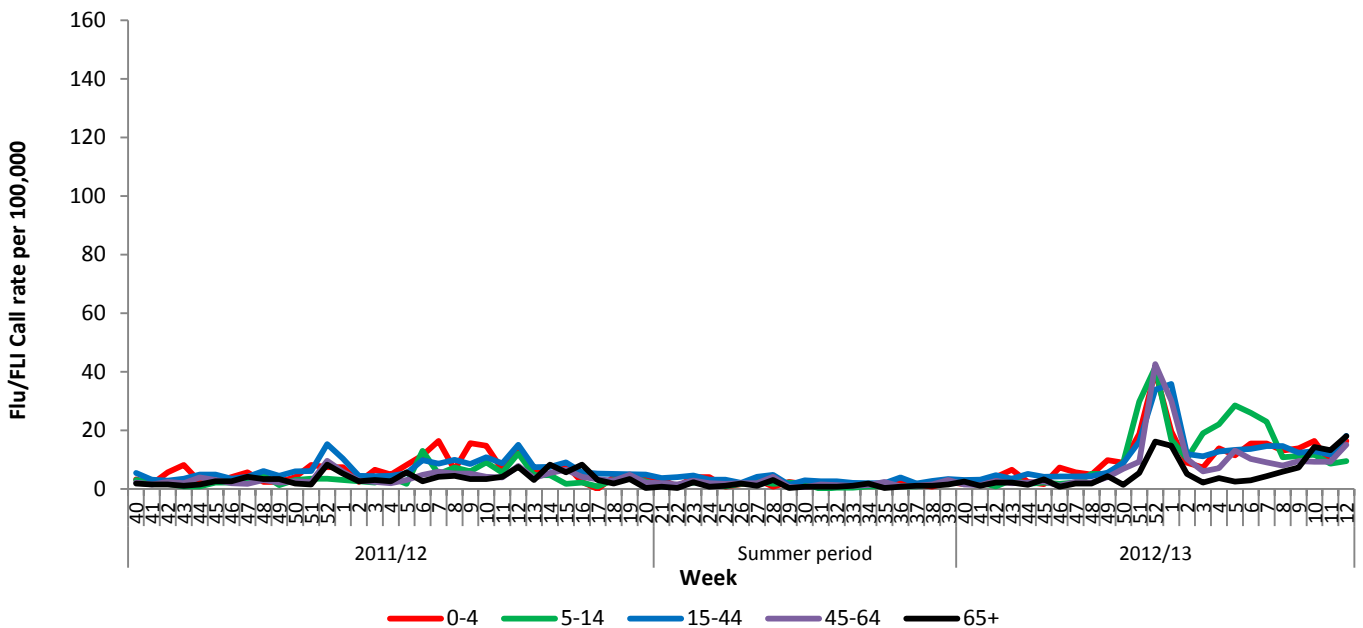


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for ‘flu/FLI increased from 10.8 per 100,000 population in week 11 to 16.2 per 100,000 population in week 12, 2013, with rates remaining slightly higher than the same period in both 2010/11 and 2011/12. This increase would be expected in light of the bank holiday period in week 12, 2013, and is similar to the increase shown in the same period in the previous season. The age-specific rates in week 12 for all age groups have all increased compared to week 11, 2013. The over 65 year age group has been increasing since week 5 and is now at the highest level it has been this season and displays the highest age-specific consultation rate in week 12, 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 12, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	12	5	0	0	1	0	6	50%
Non-sentinel	177	58	0	11	3	1	72	41%
Total	189	63	0	11	4	1	78	41%

Table 2. Cumulative Total Week 40, 2012 - Week 12, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	26	9	1	64	100	672
5-14	6	1	0	81	88	20
15-64	82	13	9	126	230	59
65+	159	4	10	39	212	61
Unknown	1	0	0	0	1	5
All ages	274	27	20	310	631	817

Table 3. Cumulative Total Week 40, 2012 - Week 12, 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	26	9	1	62	98	669
5-14	1	0	0	13	14	0	5	1	0	68	74	20
15-64	14	2	0	52	68	5	68	11	9	74	162	54
65+	7	1	0	2	10	0	157	3	10	37	207	61
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	22	3	0	69	94	8	257	24	20	241	542	809

Note

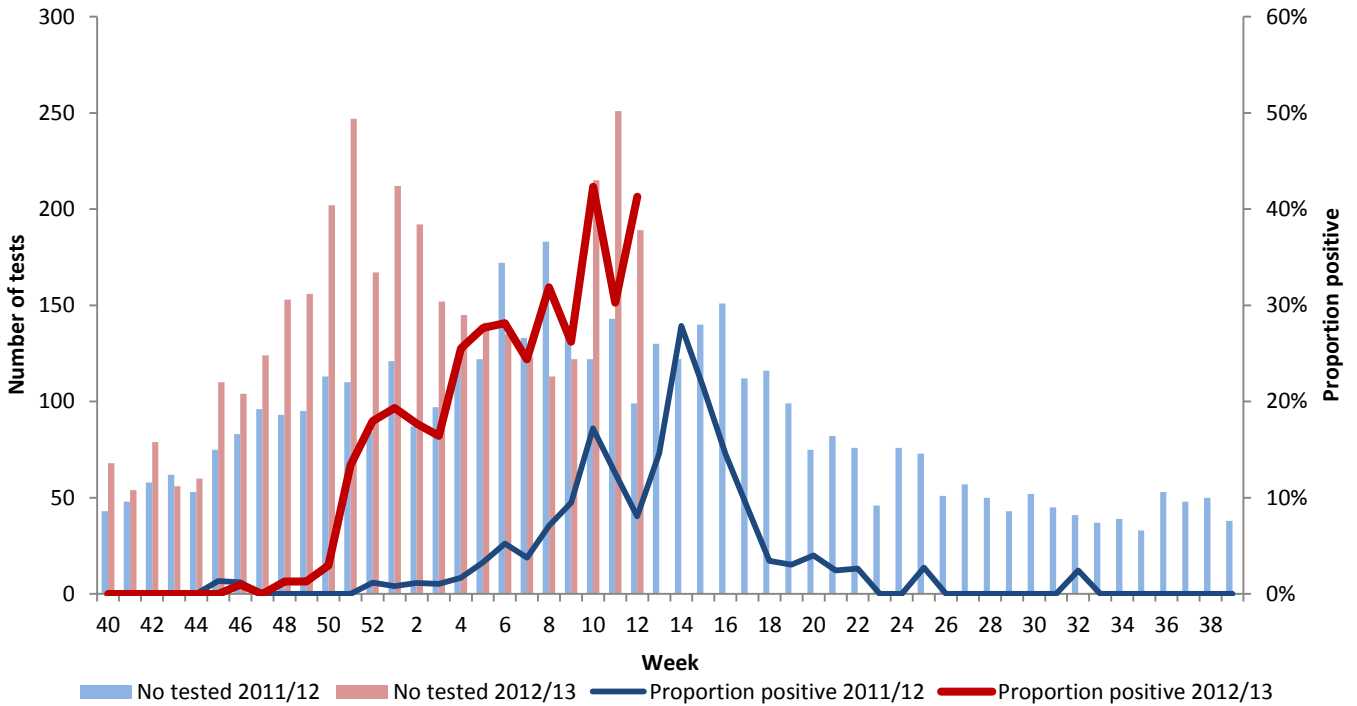
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

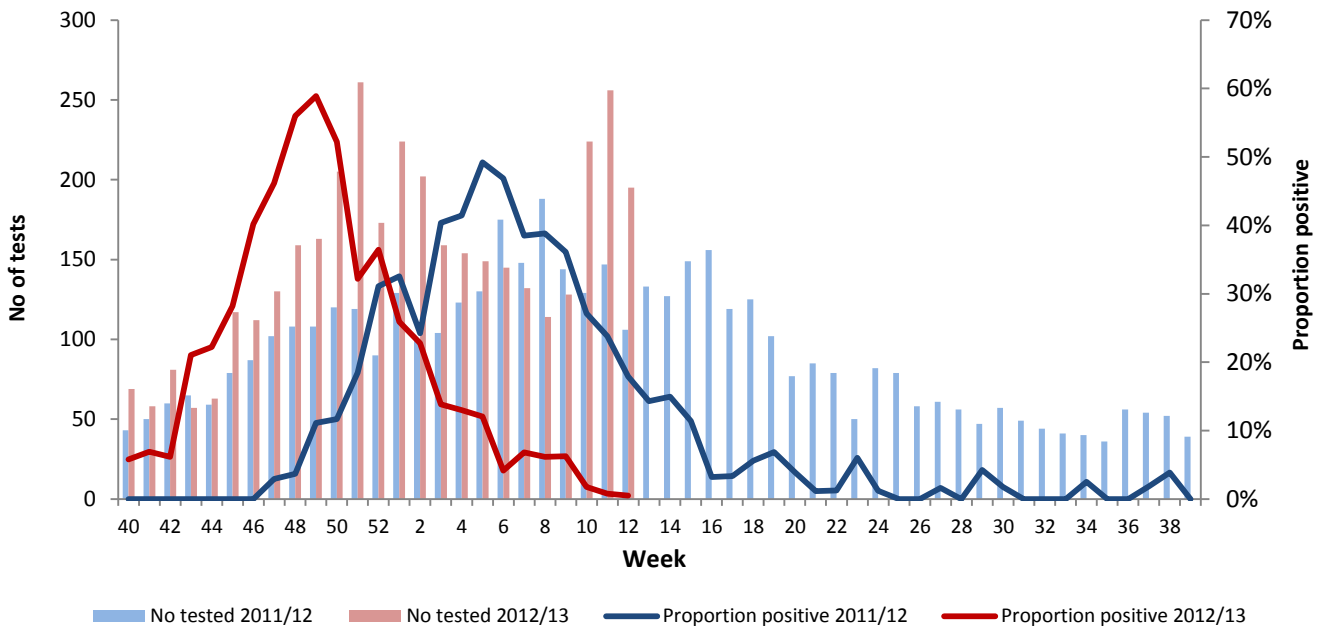
Despite the relatively low consultation rates in both sentinel GP practices and OOH both the numbers of specimens submitted for testing and influenza positivity rates remain at high levels. The current high levels are likely due, in part, to recent outbreaks in residential/nursing homes with approximately 65% of the influenza positives in week 12 in the over 65 year age group. There were 189 specimens submitted for testing in week 12, 2013, of which there were 63 positive detections of influenza A (H3), 11 influenza A (untyped) and 4 influenza B. Influenza A is the predominant type for both week 12, 2013 and for the season as a whole (51% of all influenza detections). To date this season there have been 321 detections of influenza A (274 influenza A(H3), 27 A (H1N1)pdm09 and 21 A (untyped)) and a further 310 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 was one RSV detection in week 12, 2013 with positivity rates remaining very low. From week 40 of the current season there have been a total of 817 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 two new admissions to ICU confirmed with influenza reported in week 12, 2013. To date there have been 34 cases (24 adults, 10 children) admitted to ICU that have been confirmed with influenza; 21 of which were confirmed with influenza B, 8 with influenza A(H3), 3 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 12, 2013; with the total this season remaining at four.

Outbreak Surveillance

There were five new confirmed influenza outbreaks reported in week 12, 2013; all in residential/nursing homes. This brings the total number of confirmed influenza outbreaks reported so far this season to seventeen compared to a total of ten outbreaks for the 2011/12 season. All confirmed influenza outbreaks to date this season have been confirmed with influenza A with one outbreak also being confirmed with influenza B as well.

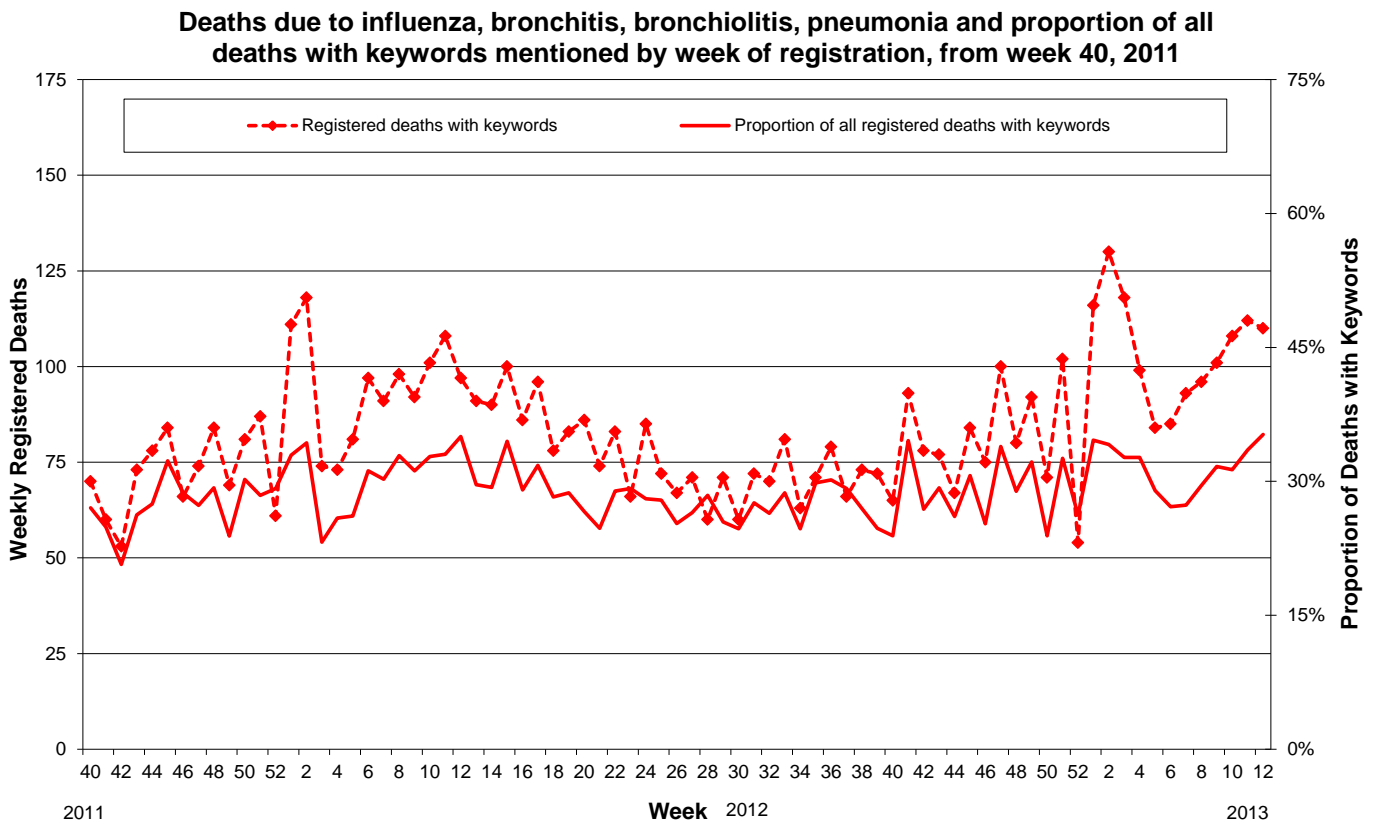
The continuing outbreak activity has also led to an increase in numbers submitted for testing and influenza positivity rates.

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 increased from 34% (updated) in week 11 to 35% in week 12, 2013. Although the proportion of all deaths due to these specific infections has been increasing since week 7 it is similar to that in the same period in the 2011/12 season. In week 12, 2013 there were 312 registered deaths of which 110 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 with ILI/ARI rates peaking in almost all countries between weeks 52/2012 and 8/2013.

- In week 11/2013, 19 countries reported medium intensity and 10 countries reported low intensity. No country reported high intensity, indicating declining activity in an increasing number of countries.
- Decreasing or stable trends were reported by 28 countries and an increasing trend was reported by Romania which was the only country where ILI rates have not yet peaked.
- In week 11/2013, 46% of tested specimens were positive for influenza virus. This proportion had remained above 50% since week 4/2013, with a peak of 61% in week 5/2013. However the percentage of positive specimens decreased more sharply between weeks 10 and 11/2013, consistent with declining influenza activity.
- Since week 40/2012, 48% of sentinel specimens testing positive for influenza have been type A, and 52% type B viruses. Of influenza A viruses subtyped, the proportion of A(H1N1)pdm09 viruses has been 63%.
- In week 11/2012, 116 hospitalised laboratory-confirmed influenza cases were reported by eight reporting countries. Since week 40/2012, 2 605 hospitalised laboratory-confirmed influenza cases and 154 related fatalities have been reported.
- In all reporting countries but one, influenza activity continued to decline or had already returned to baseline levels. After more than three months of active transmission, the 2012–2013 influenza season is on the wane.

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.