

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 11 and 12 (12–25 March 2012)

Summary

- Influenza activity in Northern Ireland remains low.
- The GP combined flu/FLI consultation rate decreased from 32.7 per 100,000 population in week 10 to 24.7 per 100,000 population in week 12 (24% decrease), peaking at 36.3 per 100,000 population in week 11.
- Out of hours call rates for flu/FLI decreased from 8.2 per 100,000 population in week 10 to 6.4 per 100,000 population in week 11, however, rates increased to 11.8 per 100,000 population in week 12 reflecting the bank holiday period.
- There were 18 influenza A(H3), four influenza A (untyped) and one influenza B detections in weeks 11 and 12, 2012.
- There were 46 RSV detections in weeks 11 and 12, 2012.
- There was one new confirmed influenza patient in critical care (level 2 and 3) in Northern Ireland in weeks 11 and 12. To date this season a total of two influenza A(H3) have been reported as admitted to critical care.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.
- In Europe, the influenza season started later than previous seasons and has had no clear geographic progression, with peaks of influenza epidemics for the 2011/12 influenza passed in most European countries.

Introduction

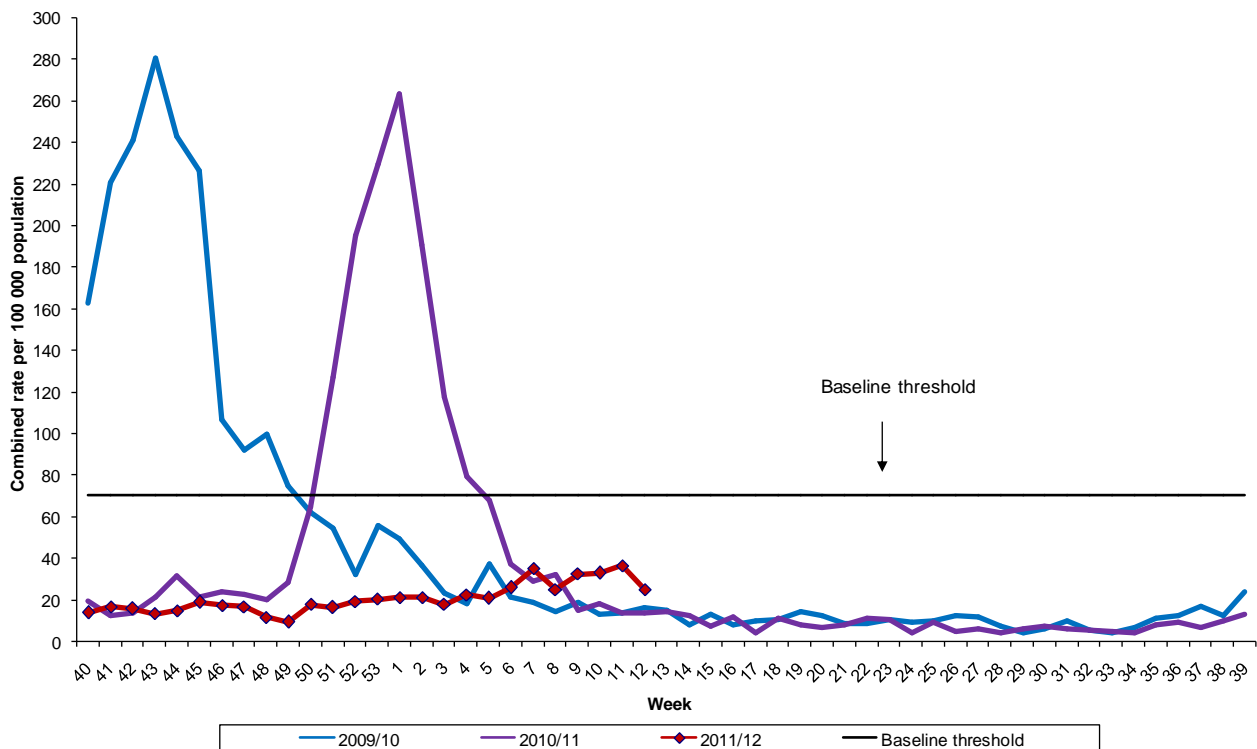
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for this winter will be surveillance of critical care patients in hospitals with confirmed influenza.

Additional surveillance systems are:

- GP sentinel surveillance representing 11.7% of Northern Ireland population;
- GP out of hours surveillance system;
- Virological reports from the Regional Virus Laboratory (RVL);
- Mortality data from Northern Ireland Statistics and Research Agency (NISRA).

Sentinel GP consultation data

Figure 1. Sentinel GP consultation rate for combined flu and flu-like illness 2009/10 – 2011/12

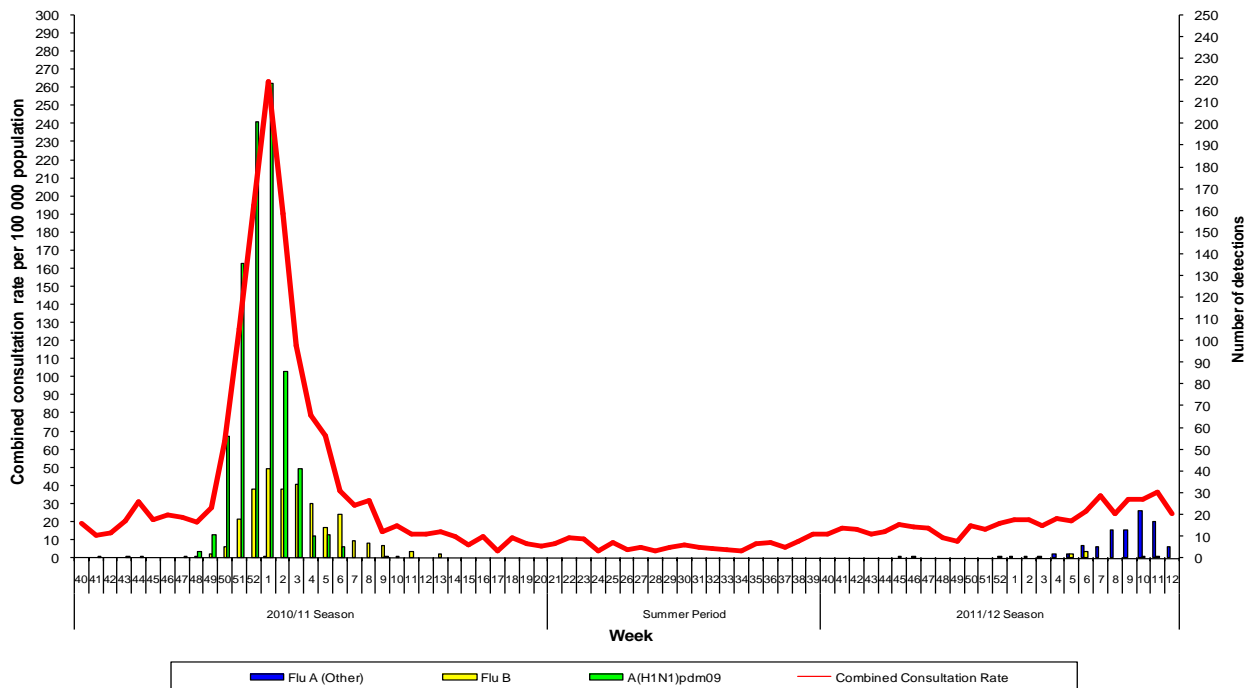


Note: 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

Comment

The GP combined flu/FLI consultation rate decreased from 32.7 per 100,000 population in week 10 to 24.7 per 100,000 population in week 12 (24% decrease), peaking at 36.3 per 100,000 population in week 11. It should be noted that the decrease in week 12 is probably due to the bank holiday when GP surgeries were closed. Rates continue to remain higher than the same weeks last year but remain well below the Northern Ireland threshold of 70 per 100,000 population (Figures 1 and 2).

Figure 2. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology flu detections from week 40 2010



Comment

Flu/FLI age-specific consultation rates continue to remain low. Age-specific rates in week 12 have all decreased compared to week 10 with the exception of the 45–64 year age group which has increased slightly. Small numbers in some of the age groups will contribute to weekly fluctuations in rates (Figure 3).

Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2010

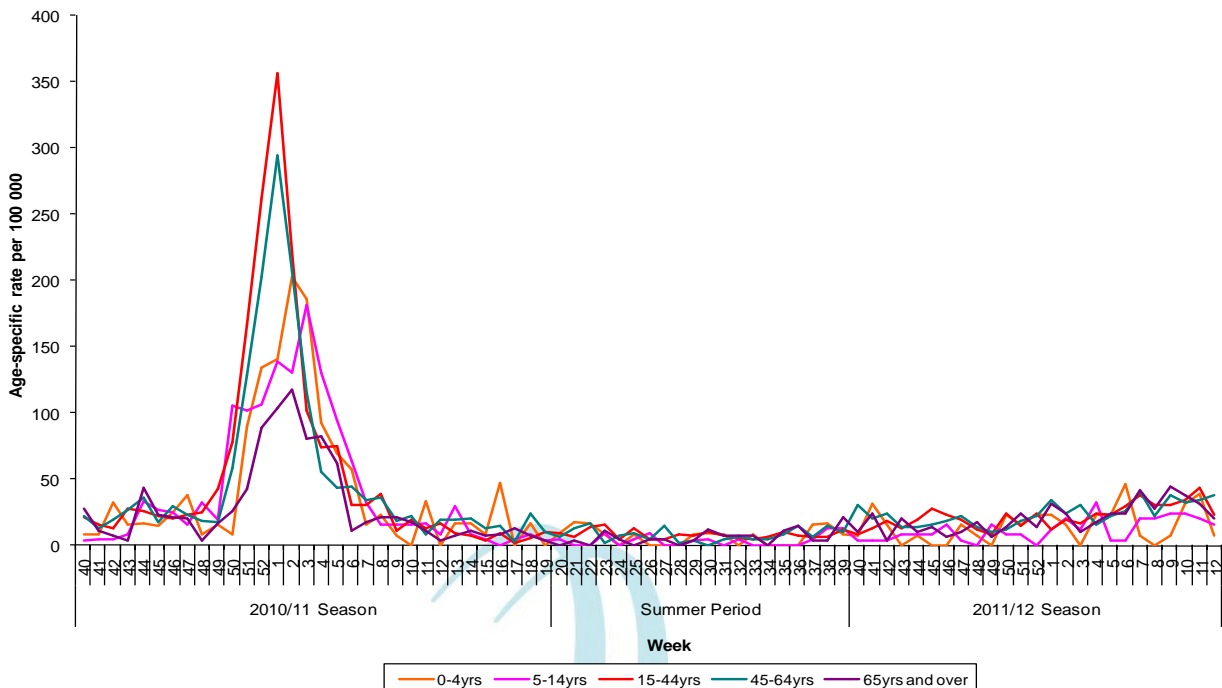
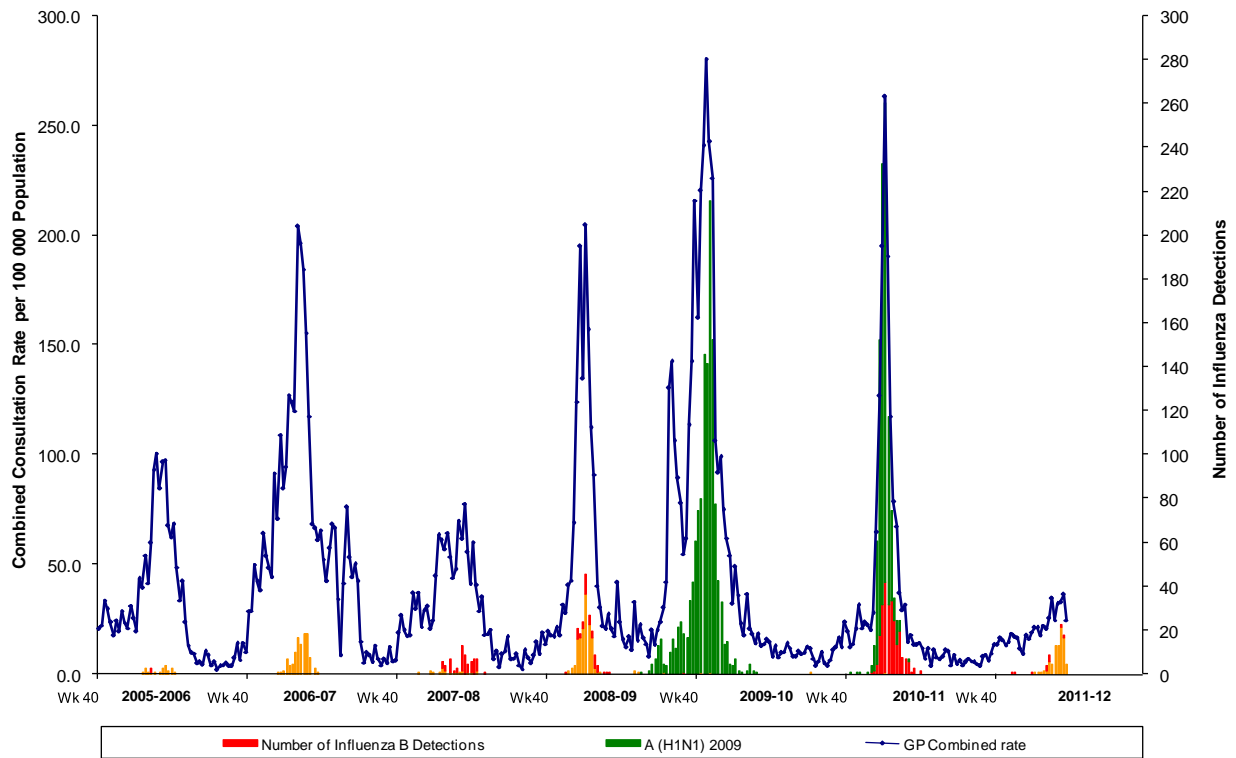


Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005/06 – present.



Comment

Sentinel GP flu/FLI combined consultation rates and numbers of positive influenza detections by type from 2005/2006 influenza season to present can be seen in Figure 4.

Out of hours (OOH) centres call data

Figure 5. OOH total call rate (all diagnoses) and call rate for flu and flu-like illness from week 40 2010

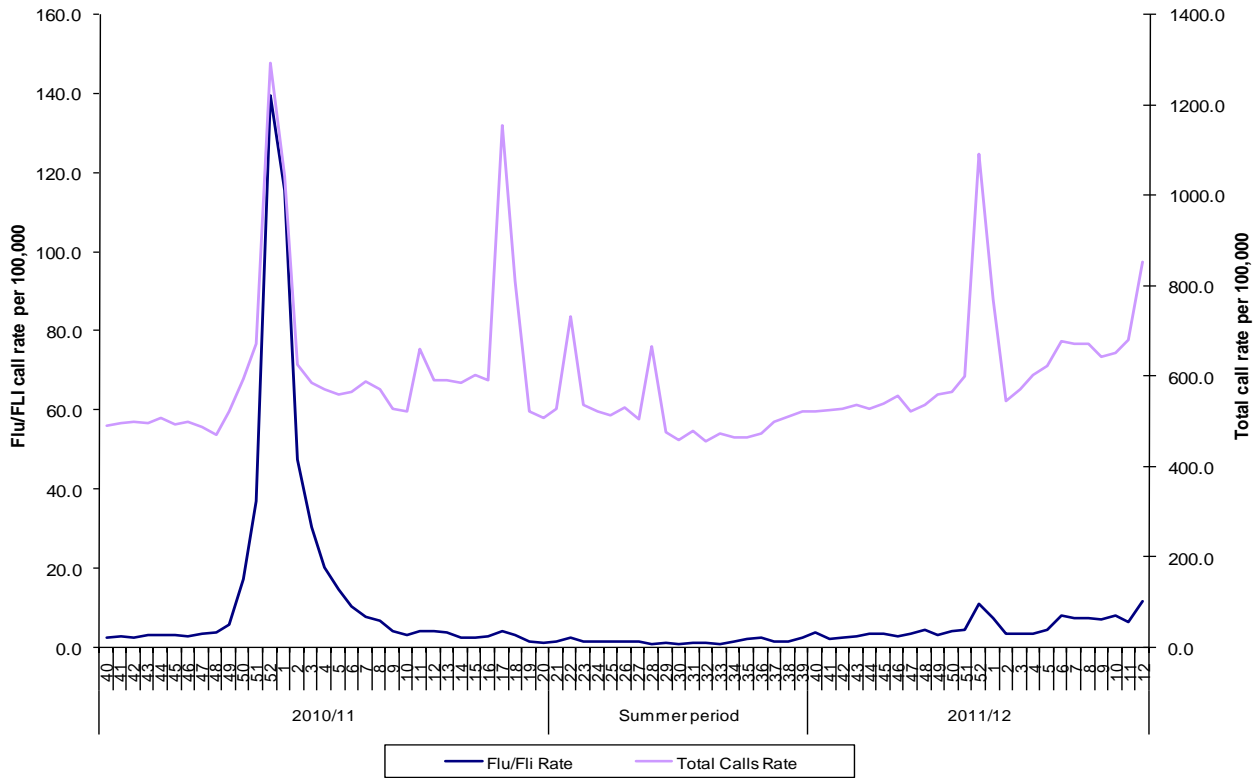
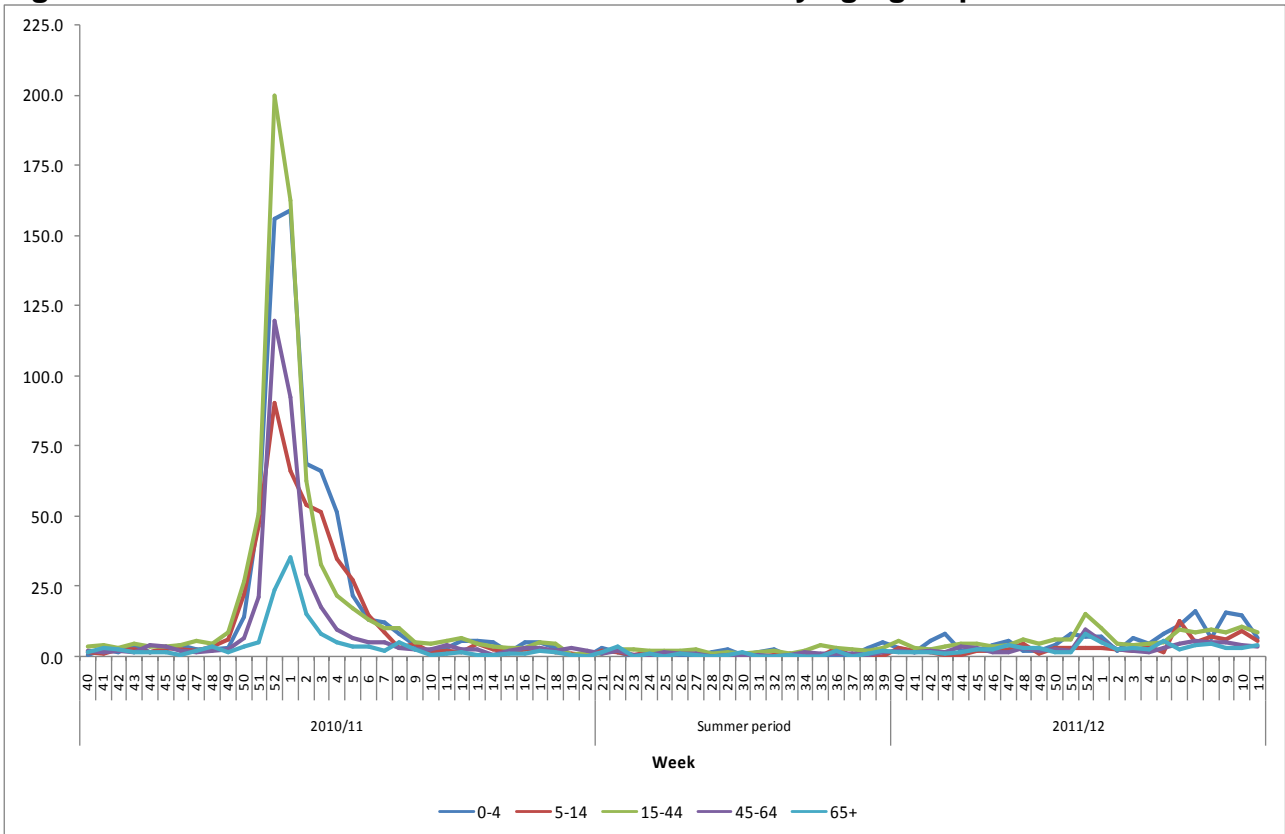


Figure 6. OOH call rates of flu and flu-like illness by age-group from week 40 2010



Comment

Out of hours call rates for flu/FI decreased from 8.2 per 100,000 population in week 10 to 6.4 per 100,000 population in week 11, however, rates increased to 11.8 per 100,000 population in week 12 reflecting the bank holiday period. Rates for weeks 11 and 12 are higher than the same weeks last year (4.2 and 3.3 per 100,000 population, respectively). Age-specific rates continue to remain low with small numbers in some of the age groups contributing to fluctuations in rates (Figures 5 and 6).

Virology data

Table 1. Virus activity in Northern Ireland Weeks 11 and 12 2012							
Source	Specimens tested	AH3	A (untyped)	Influenza B	RSV	Total influenza positive	% Influenza positive
Sentinel	6	0	1	0	0	1	17%
Non-sentinel	196	18	3	1	46	22	11%
Total	202	18	4	1	46	23	11%

Table 2. Cumulative total Week 40 2011 - Week 12 2012					
	AH3	A (untyped)	Flu B	Total influenza	RSV
0-4	38	1	3	42	602
5-14	10	0	2	12	16
15-64	18	4	3	25	20
65+	16	1	2	19	13
Unknown	0	0	0	0	0
All ages	82	6	10	98	651

Table 3. Cumulative Total Week 40 2011 - Week 12 2012										
	Sentinel					Non-sentinel				
	AH3	A (untyped)	Flu B	Total influenza	RSV	AH3	A (untyped)	Flu B	Total influenza	RSV
0-4	2	0	0	2	2	36	1	3	40	600
5-14	1	0	0	1	0	9	0	2	11	16
15-64	3	1	1	5	2	15	3	2	20	18
65+	1	0	0	1	0	15	1	2	18	13
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	7	1	1	9	4	75	5	9	89	647

Note

All virology data is provisional. The virology figures for previous weeks included in this bulletin 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.

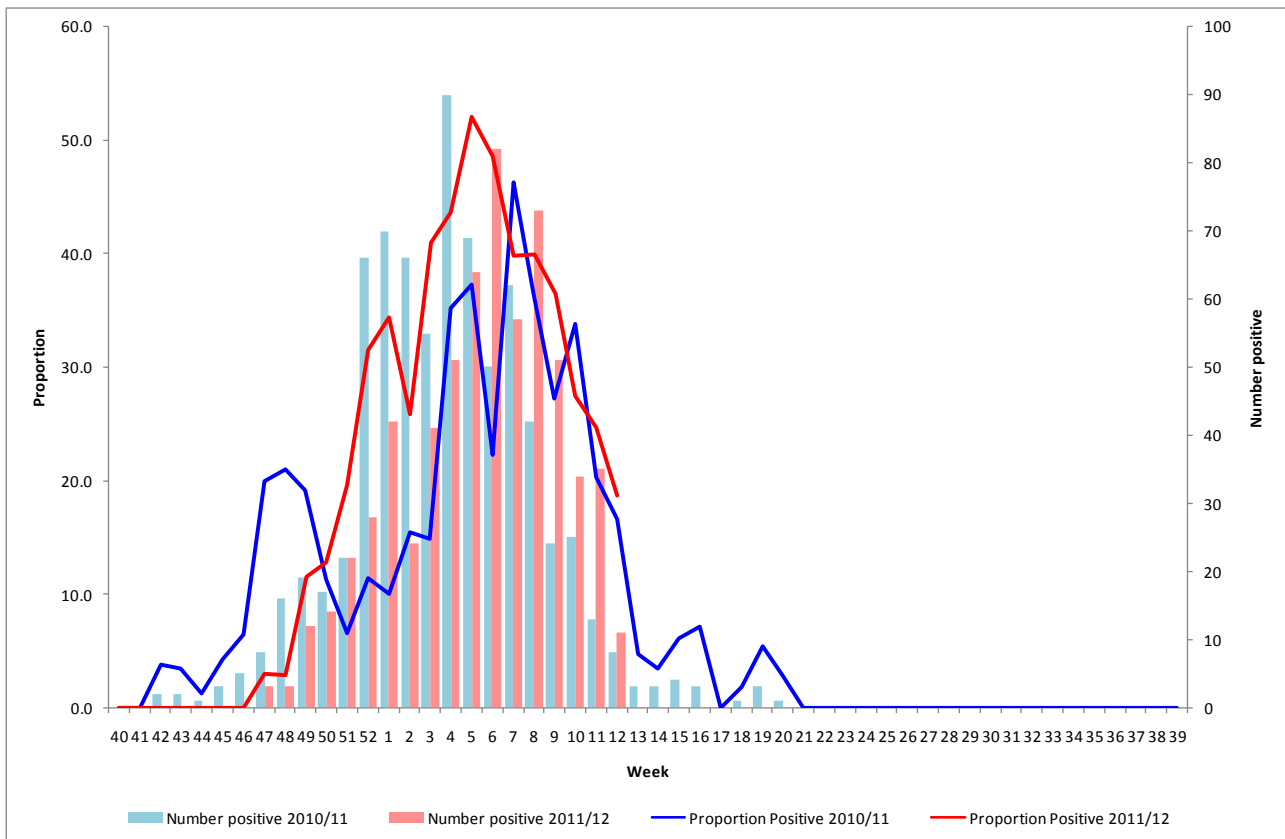
Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

Comment

There were 202 specimens (six sentinel and 196 non-sentinel) tested by the RVL during weeks 11 and 12, 2012. Eighteen influenza A(H3), three influenza A (untyped) and one influenza B positive detections were reported from non-sentinel sources, with an additional influenza A(untyped) positive detection reported from sentinel sources. This brings the total laboratory confirmed influenza detections this season to 98 (4%): 82 influenza A(H3), 6 influenza A(untyped) and 10 influenza B, (Tables 1 – 3).

Respiratory Syncytial Virus

Figure 7. Number of non-sentinel samples tested for RSV and proportion positive 2010/11 and 2011/12



Comment

The proportion of specimens that tested positive for RSV decreased from 32% (updated) in weeks 9 and 10 to 23% in weeks 11 and 12. However, the proportion of positive RSVs for weeks 11 and 12 is slightly higher than the same weeks last year (19%). The proportion of RSV positive specimens peaked at 52% in week 5 2012. Of 2536 non-sentinel specimens tested by the RVL this season to date, 26% (n=647) were positive for RSV. In weeks 11 and 12 there were 46 detections compared with 85 (updated) detections in weeks 9 and 10 (Figure 7).

Hospital surveillance

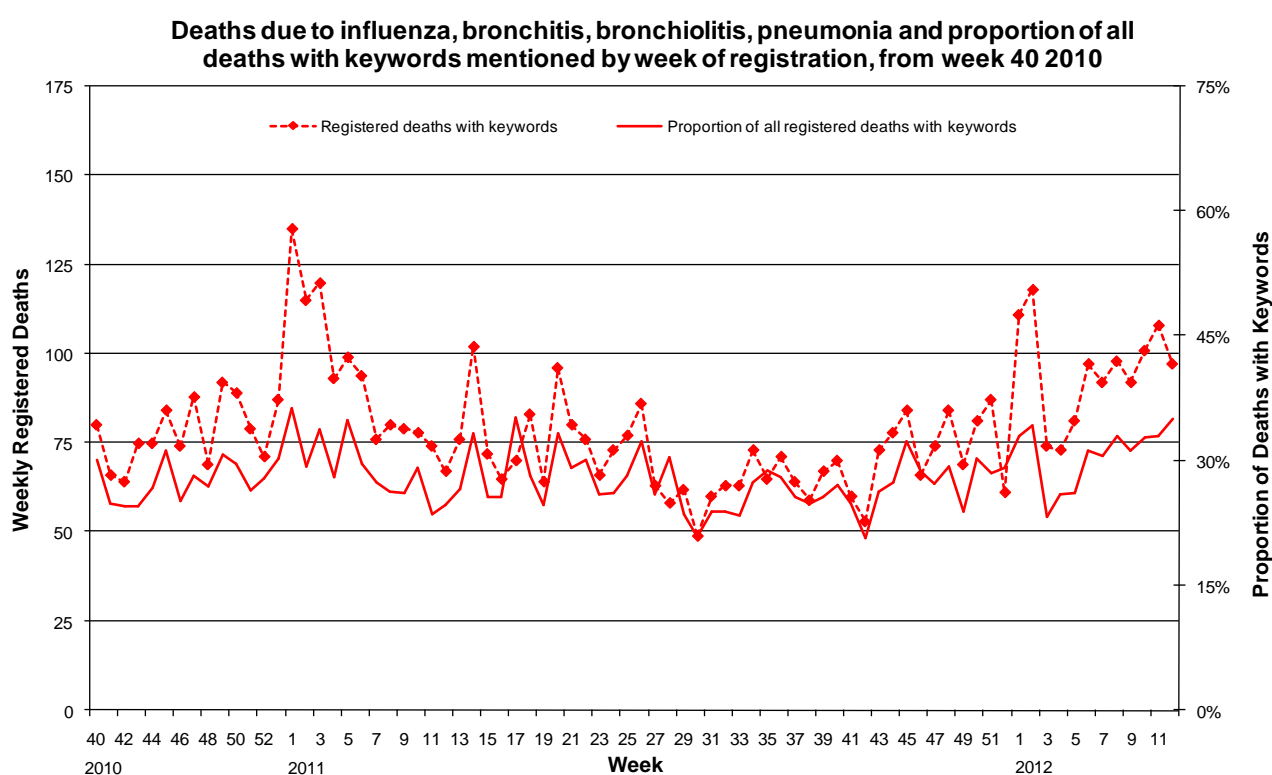
There was one new confirmed influenza patient in critical care (level 2 and 3) in Northern Ireland in weeks 11 and 12 bringing the total so far this season to two. There have been no deaths in those with laboratory confirmed influenza in critical care to date this season.

In the UK, since week 40 2011, there have been a total of 205 ICU/HDU influenza admissions reported through the USISS mandatory scheme, with 22 (10.7%) resulting from influenza A(H1N1)pdm09, 59 (28.8%) from influenza A(H3N2), 112 from A (subtype not known) and 12 (5.9%) from influenza B.

Mortality data

Weekly mortality data is provided from the 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 8. Weekly registered deaths



Comments:

The proportion of deaths related to respiratory keywords for increased slightly from 32% in weeks 9 and 10 to 34% in weeks 11 and 12. In weeks 11 and 12 there were 604 registered deaths of which 205 related to these specific respiratory infections. The proportion of deaths related to keywords has been gradually increasing since week 3, with week 12 representing the highest proportion this season (35%).

Vaccine uptake

As at the end of January 2012, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 76.6%, while the uptake in those aged under 65 in an at-risk group was 82.5% (provisional data). This compares with 72.7% uptake in the over 65 years, and 70.7% in the under 65 at-risk group for the same period last year.

International summary

Europe

The 2011–2012 influenza season started later than recent seasons and has been without any clear geographic progression. The following points are noteworthy in week 11:

- Decreasing trends were reported by 15 countries, eight of which have reported such trends for at least two consecutive weeks.
- Of 1203 sentinel specimens tested, 502 (41.7%) were positive for influenza virus. The proportion of sentinel specimens testing positive for influenza virus has decreased over three consecutive weeks.
- Of the sentinel specimens that tested positive for influenza virus 82.9% were type A and 17.1% type B. The proportion of influenza B viruses reported has doubled over the past two weeks.
- There has been a degree of heterogeneity in the antigenicity of the A(H3) viruses this season and an imperfect fit with the A(H3) component in the seasonal vaccine.
- Since week 40/2011, a total of 1378 SARI cases, including 69 fatalities, have been reported by seven countries. Of these cases, most were influenza-related.
- No resistance to neuraminidase inhibitors (oseltamivir and zanamivir) has been reported so far this season.

The decrease in the proportion of influenza-positive sentinel specimens together with the growing number of countries reporting continuously decreasing trends in the incidence of ILI or ARI indicate that the epidemic peak has passed in most European countries. As often observed late in the season, the proportion of influenza B viruses among the detected influenza viruses has been increasing over the past five weeks.

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

USA

During week 11 (March 11-17, 2012), influenza activity remained elevated in some areas of the United States, but influenza-like-illness continued to be relatively low nationally.

An overview of the US influenza can be viewed on <http://www.cdc.gov/flu/weekly/>

Canada

Influenza activity in Canada continued to increase overall compared to the previous week; most indicators (such as laboratory detections, outbreaks and hospitalizations) showed higher levels in week 11 compared to the previous week. Certain regions in the country are showing higher levels of activity compared to other regions. The ILI consultation rate declined compared to the previous week but remains within expected levels.

http://www.phac-aspc.gc.ca/fluwatch/11-12/w11_12/index-eng.php

Worldwide (WHO)

As at 16 March 2012:

- Active influenza transmission continued in the temperate regions of the Northern Hemisphere with increasing activity in North America, northern China and several countries in Europe. A few countries in southern Europe and North Africa have peaked as well as Japan and the Republic of Korea.
- Most countries of the tropical zone reported low levels of influenza activity.
- The most commonly detected virus type or subtype throughout most of the temperate areas of northern hemisphere temperate zone has been influenza A(H3N2). In Mexico and Central America influenza A(H1N1)pdm09 is the predominant subtype circulating; China and the surrounding countries are still reporting a predominance of influenza type B virus.
- Antiviral resistance continues to be observed at very low levels and has not increased notably over levels reported in previous seasons.

http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

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/20112012Season/>

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.