

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 9 and 10 (27 February – 11 March 2012)

Summary

- Influenza activity in Northern Ireland remains low, most indices increased slightly compared to the last report.
- The GP combined consultation rate increased from 24.7 per 100,000 population in week 8 to 32.7 per 100,000 population in week 10. Rates continue to remain well below the Northern Ireland threshold (70/100,000 population).
- Out of hours call rates for flu/FLI increased from 7.5 per 100,000 population in week 8 to 8.2 per 100,000 population in week 10, decreasing slightly in week 9 to 7.2 per 100,000 population.
- There were 20 influenza A(H3), five influenza A (untyped) and one influenza B detections in weeks 9 and 10, 2012.
- There were 73 RSV detections in weeks 9 and 10, 2012.
- There were no new confirmed influenza patients in critical care (level 2 and 3) in Northern Ireland in weeks 9 and 10.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.

Introduction

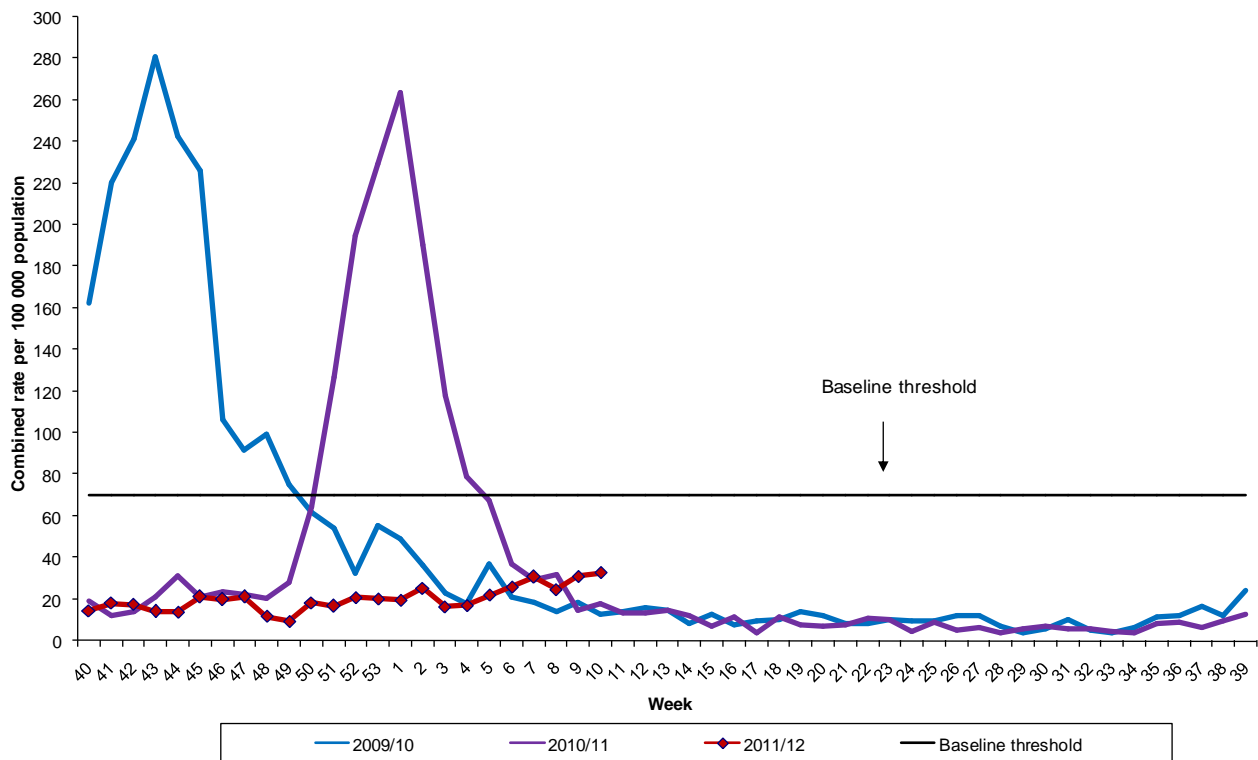
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for this winter will be surveillance of critical care patients in hospitals with confirmed influenza.

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

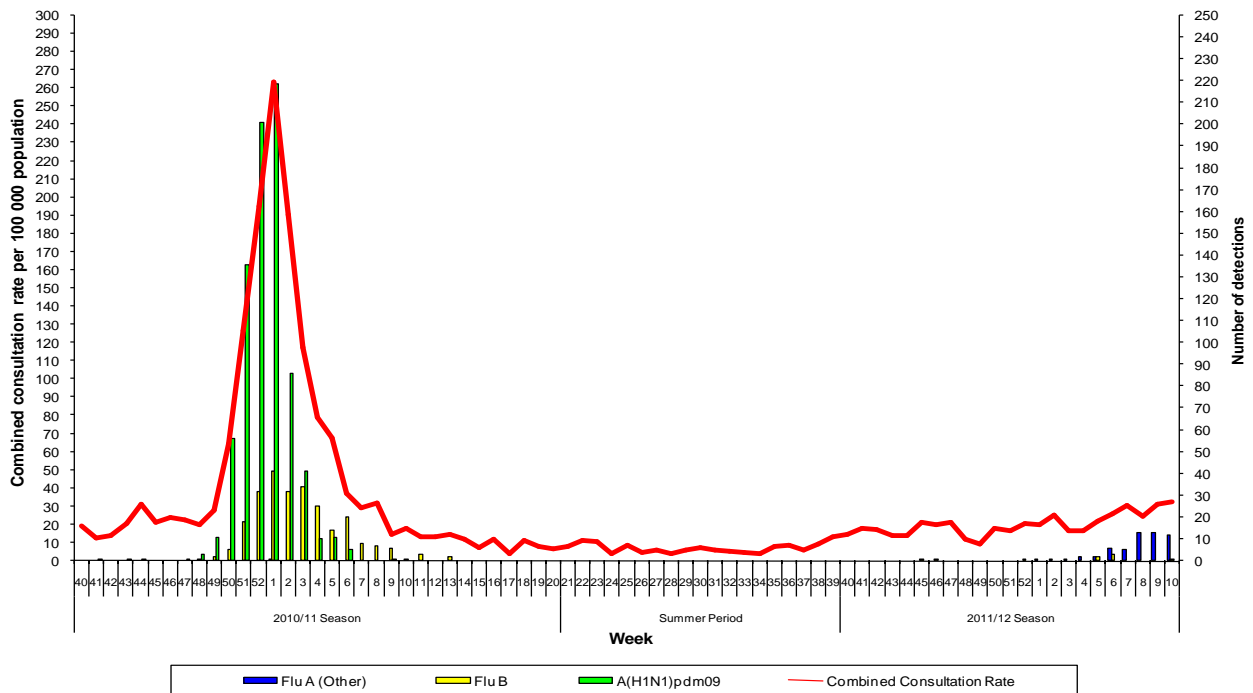


Note: 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

Comment

The GP combined consultation rate increased from 24.7 per 100,000 population in week 8 to 32.7 per 100,000 population in week 10 (32% increase). Rates are higher than the same weeks last year but continue to 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

Rates increased in most age groups in weeks 9 and 10 compared with weeks 7 and 8 but continue to remain low. 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

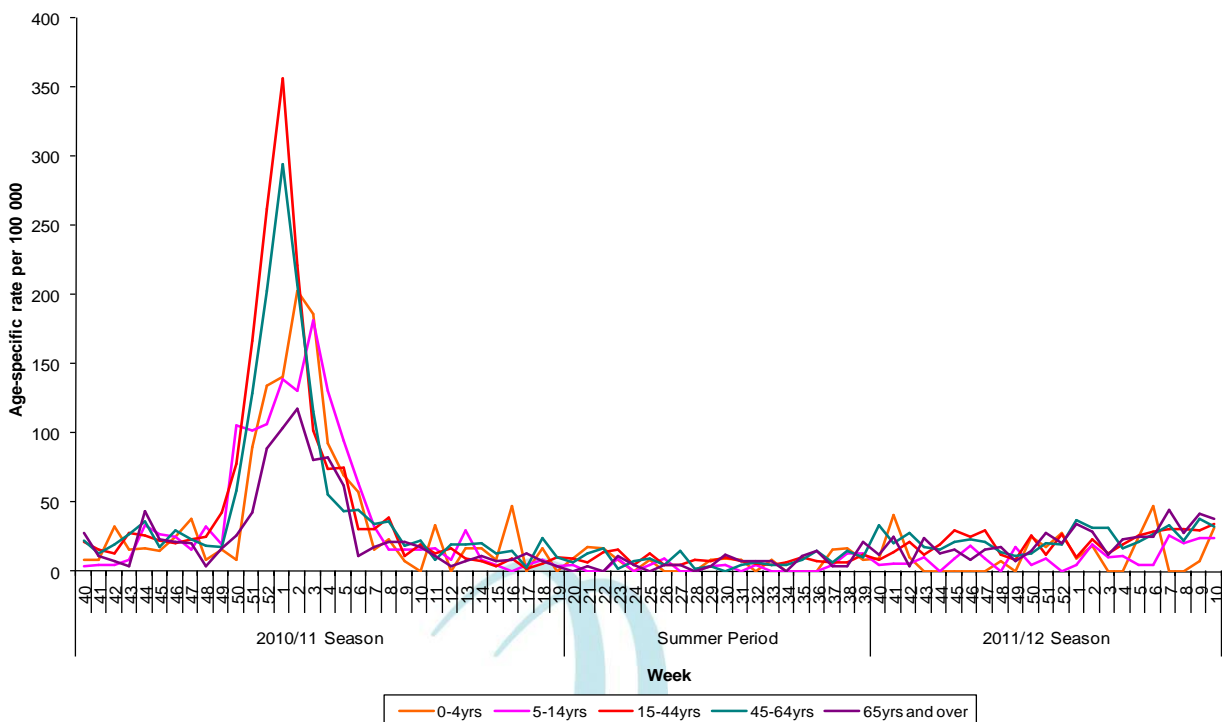
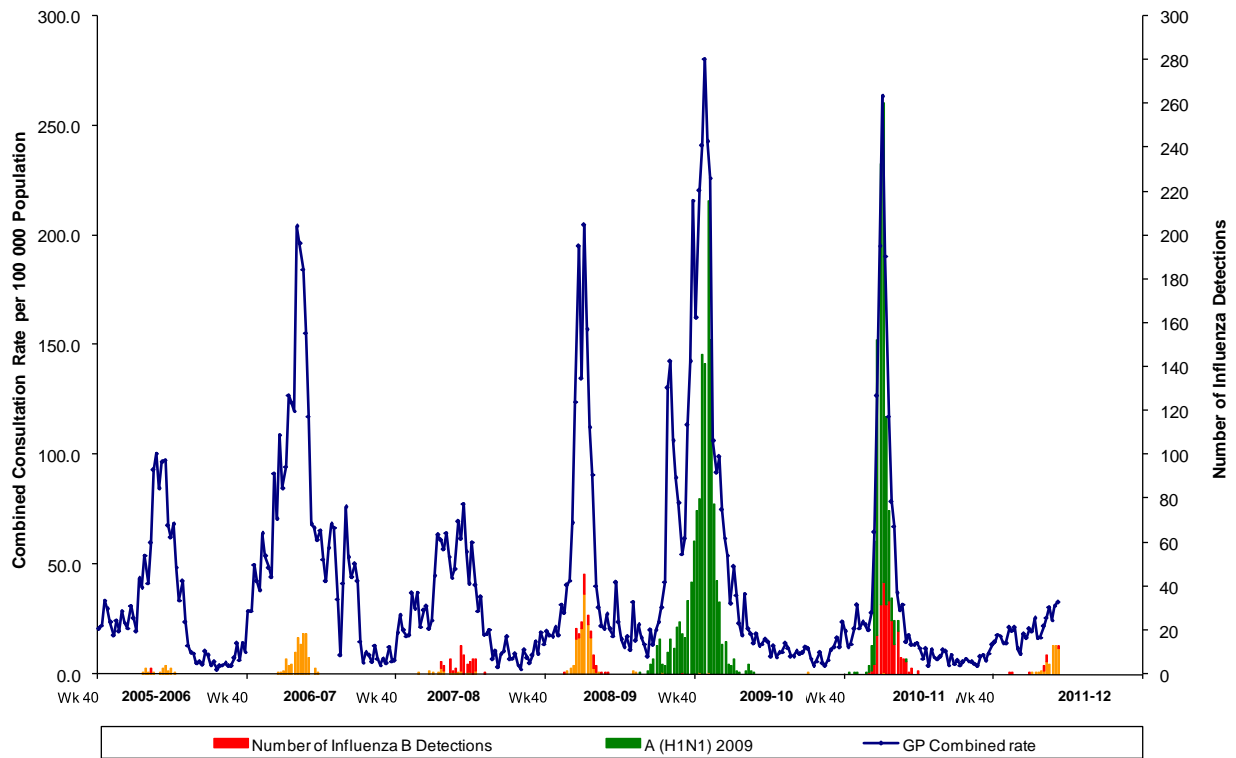


Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005-06 – present



Comment

The majority of flu indices have increased slightly each week from week 4 (Figure 4).

Out of hours centres call data

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

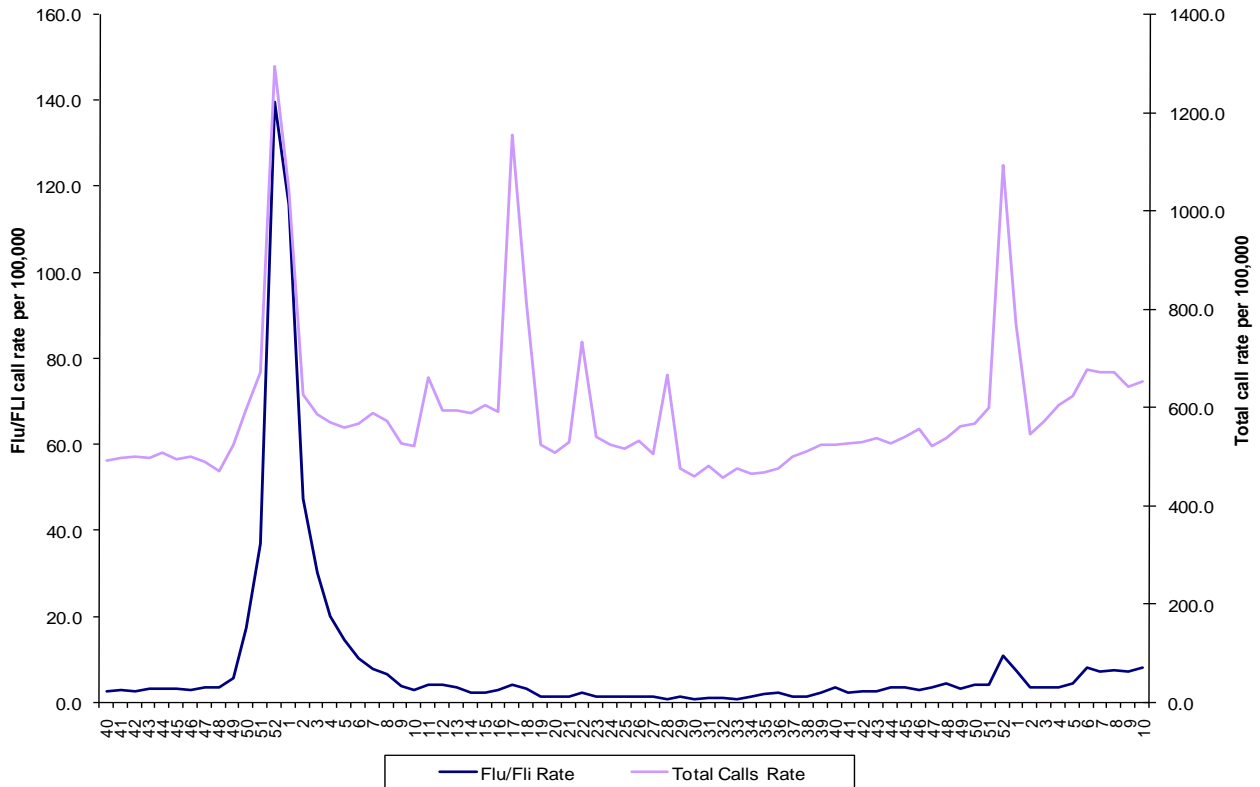
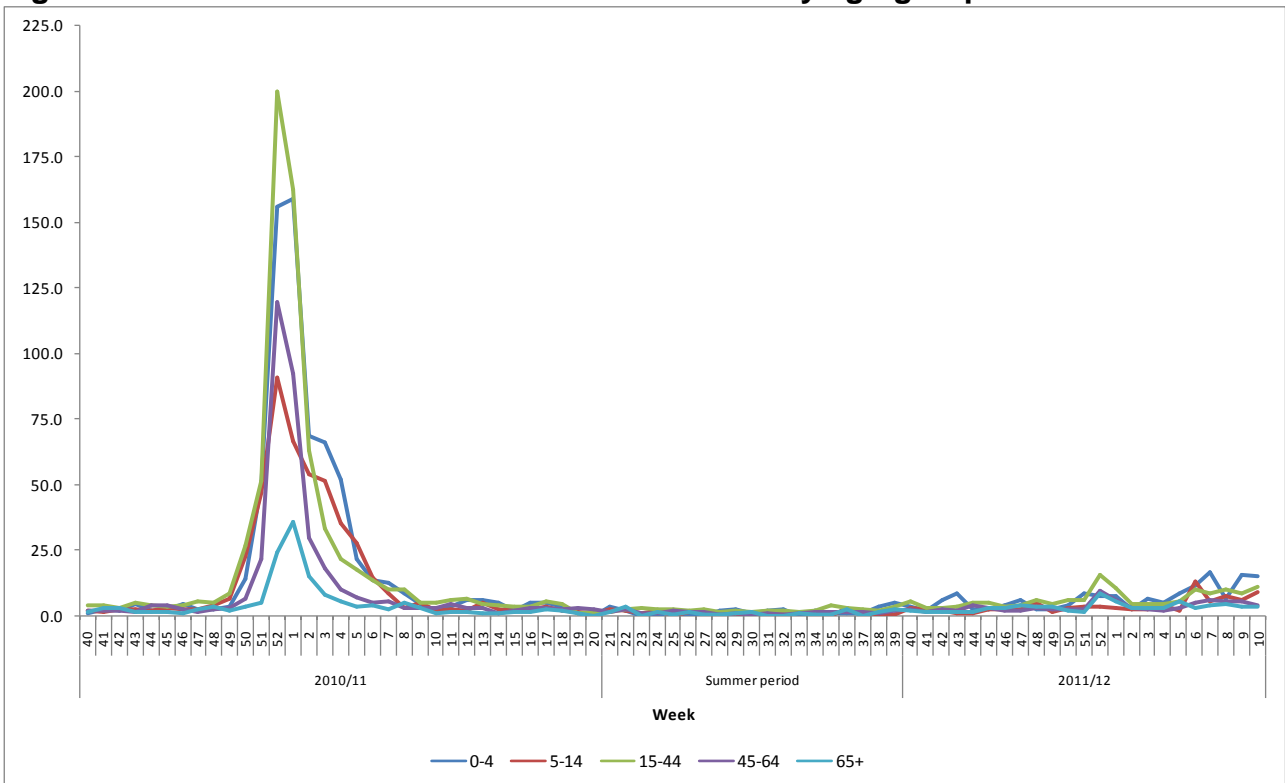


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40 2010



Comment

Out of hours call rates for flu/FLI decreased from 7.5 per 100,000 population in week 8 to 7.2 per 100,000 population in week 9 however, rates increased again to 8.2 per 100,000 population in week 10. Rates for weeks 9 and 10 are higher than the same weeks last year (4.0 and 3.1 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 9 and 10 2012

Source	Specimens tested	AH3	A (untyped)	Influenza B	RSV	Total influenza positive	% Influenza positive
Sentinel	8	0	1	0	1	1	13%
Non-sentinel	207	20	4	1	72	25	12%
Total	215	20	5	1	73	26	12%

Table 2. Cumulative total week 40 2011 – Week 10 2012

	AH3	A (untyped)	Flu B	Total influenza	RSV
0-4	24	2	3	29	548
5-14	6	1	2	9	12
15-64	12	2	3	17	18
65+	9	0	1	10	13
Unknown	0	0	0	0	0
All ages	51	5	9	65	591

Table 3. Cumulative Total Week 40 2011 - Week 8 2012

	Sentinel					Non-sentinel				
	AH3	A (untyped)	Flu B	Total Influenza	RSV	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	1	1	0	2	2	23	1	3	27	546
5-14	1	0	0	1	0	5	1	2	8	12
15-64	3	0	1	4	1	9	2	2	13	17
65+	1	0	0	1	0	8	0	1	9	13
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	6	1	1	8	3	45	4	8	57	588

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.

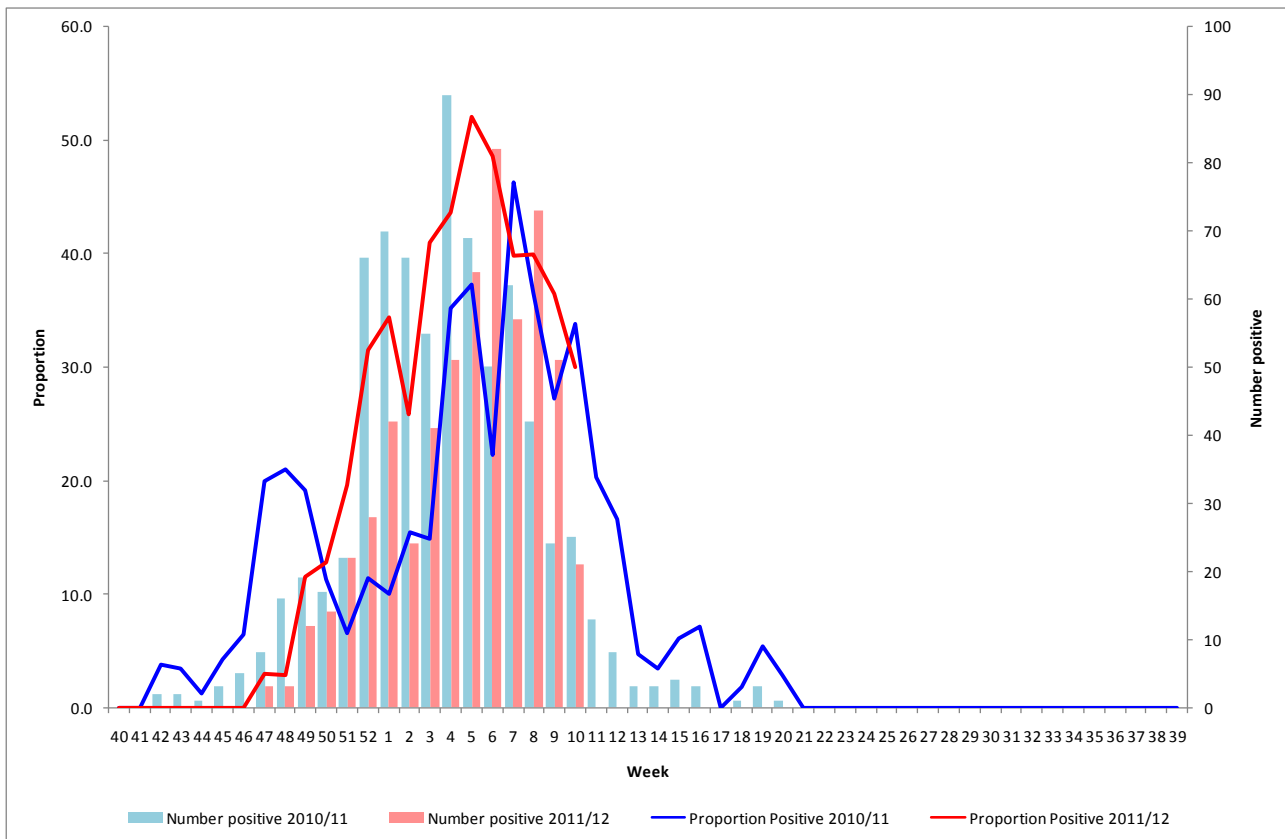
Sentinel and non-sentinel samples are tested for influenza and for RSV.

Comment

There were 215 specimens (8 sentinel and 207 non-sentinel) tested by the RVL during weeks 9 and 10, 2012. Twenty influenza A(H3), four 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 65 (51 influenza A(H3), 5 influenza A (untyped) and 9 influenza B), (Tables 1 – 3).

Respiratory syncytial virus (RSV)

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 40% (updated) in weeks 7 and 8 to 34% in weeks 9 and 10. However, the proportion of positive RSVs for weeks 9 and 10 is slightly higher than the same weeks last year (30%). The proportion of RSV positive specimens peaked at 52% in week 5 2012. Of 2281 non-sentinel specimens tested by the RVL this season to date, 26% (n=588) were positive for RSV. In weeks 9 and 10 there were 72 detections compared with 130 (updated) detections in weeks 7 and 8 (Figure 7).

Hospital surveillance

There were no new confirmed influenza patients in critical care (level 2 and 3) in Northern Ireland in weeks 9 and 10. To date there has been only one admission this season. There have been no deaths in those with laboratory confirmed influenza in critical care to date this season.

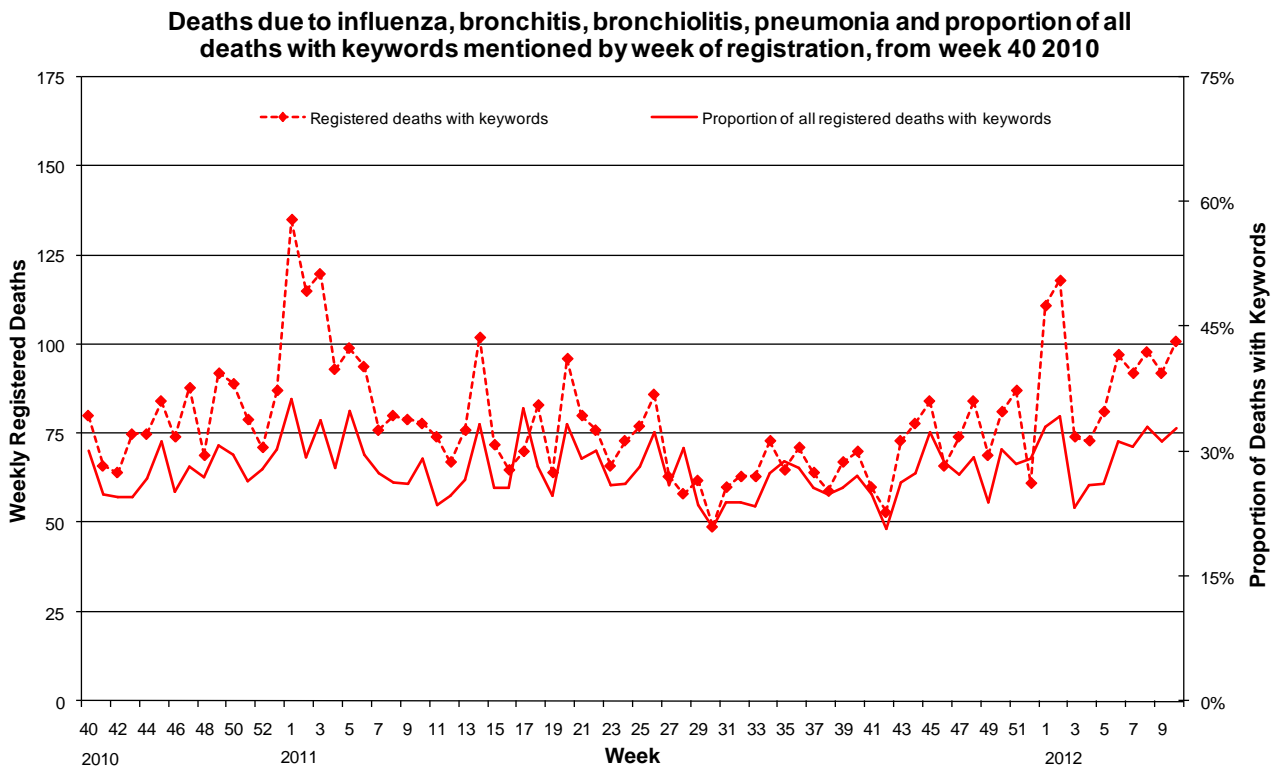
In the UK, since week 40 2011, there have been a total of 162 ICU/HDU influenza admissions across the UK reported through the USISS mandatory scheme with 24 (14.8%) resulting from influenza A(H1N1)pdm09, 41 (25.3%) from influenza A(H3N2), 98 from A (subtype not known) and nine (5.6%) from influenza B.

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.

In addition this winter there will be reporting of deaths with confirmed influenza in patients in critical care (level 2 and level 3).

Figure 8. Weekly registered deaths



Comments:

The proportion of deaths related to respiratory keywords for weeks 9 and 10 remained similar to weeks 7 and 8, at 32%. In weeks 9 and 10 there were 603 registered deaths of which 193 related to these specific respiratory infections.

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 9:

Medium or higher intensity has been reported by 18 countries and increasing trends by 11 countries. Bulgaria, Italy and Spain have reported decreasing trends for at least two weeks in a row and are therefore the first three European countries past their epidemic peak this season.

Of 1606 sentinel specimens tested, 48% were positive for influenza virus, the first proper decline this year. Of these sentinel viruses, 91.4% were type A and 8.6% were type B. Only six were A(H1)pdm09 (<1%). Since week 40/2011, 1024 SARI cases, including 40 fatalities, have been reported by seven countries. Of these cases, 690 were related to influenza infection – 90% with A(H3), 5% with A(H1)pdm09 and 5% with B viruses.

No resistance to neuraminidase inhibitors (oseltamivir and zanamivir) has been reported so far this season.

Three European countries have now seen a peak in their national influenza season epidemics but the trend is still upward in a number of others. The epidemics remain dominated by A(H3) viruses, but B viruses seem to be on the increase recently.

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

USA

During week 9 (February 26 – March 3, 2012), influenza activity is elevated in some areas in the United States, but influenza-like-illness remains 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 in week 9 compared to previous weeks; all provinces and most territories (except Nunavut) reported either sporadic or localized influenza activity in at least one region this week. The national ILI consultation rate slightly increased this week compared to the previous week and remains within expected levels for this time of year

http://www.phac-aspc.gc.ca/fluwatch/11-12/w09_12/index-eng.php

Worldwide (WHO)

As at 2 March 2012:

Influenza activity in the temperate regions of the northern hemisphere is low but increasing in North America and most of Europe. A few countries of southern Europe appear to have now peaked along with the countries of northern Africa and the Middle East.

- Countries in the tropical zone reported low levels of influenza activity.
- Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels.
- The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone has been influenza A(H3N2). Mexico is the exception, where influenza A(H1N1)pdm09 is the predominant subtype circulating and China and the surrounding countries where influenza type B is predominant. Influenza type B has been increasing in recent weeks in Canada as well.
- Oseltamivir resistance has not increased notably over levels reported in previous seasons.
- While most of the viruses characterized early this season were antigenically related viruses in the current trivalent vaccine, the vaccine strain selection committee in a meeting held on 20– 24 February noted that there is evidence of increasing antigenic and genetic drift in circulating influenza A(H3N2) recently and that the proportion of type B viruses that are from the Yamagata lineage of type B has been increasing relative to the Victoria lineage. The committee therefore recommended a change in the composition of the next northern hemisphere vaccine formulation to include an A/Victoria/361/2011 (H3N2)-like virus and a B/Wisconsin/1/2010-like virus of the Yamagata lineage, and continuing the inclusion of an A/California/7/2009 (H1N1)pdm09-like virus.

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.