

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 3 and 4 (16 – 29 January 2012)

Summary

- Influenza activity in Northern Ireland remains low and stable.
- GP consultation rates for combined flu/FLI decreased from 25.4 in week 2 to 16.9/100,000 population in week 4. Rates in weeks 3 and 4 are substantially lower than the same weeks last year and remain well below the Northern Ireland threshold (70/100,000 population).
- Out of hours call rates for flu/FLI remained stable over the two week period at 3.6 per 100,000 population.
- There were two influenza A(H3) detections in weeks 3 and 4, 2012.
- There were 81 RSV detections in weeks 3 and 4, 2012.
- There have been no reports of any patients admitted to critical care units with confirmed influenza for the 2011/2012 influenza season to date.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.

Introduction

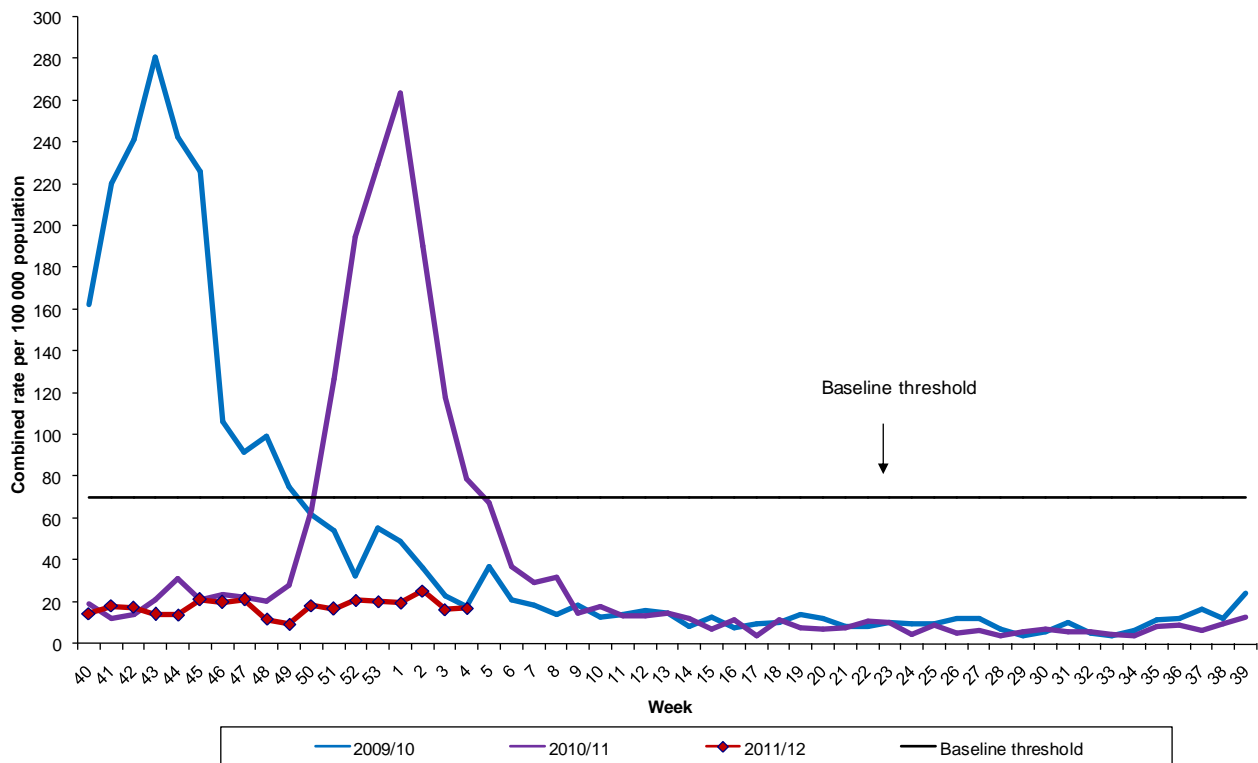
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for this winter will be surveillance of critical care patients in hospitals with confirmed influenza.

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

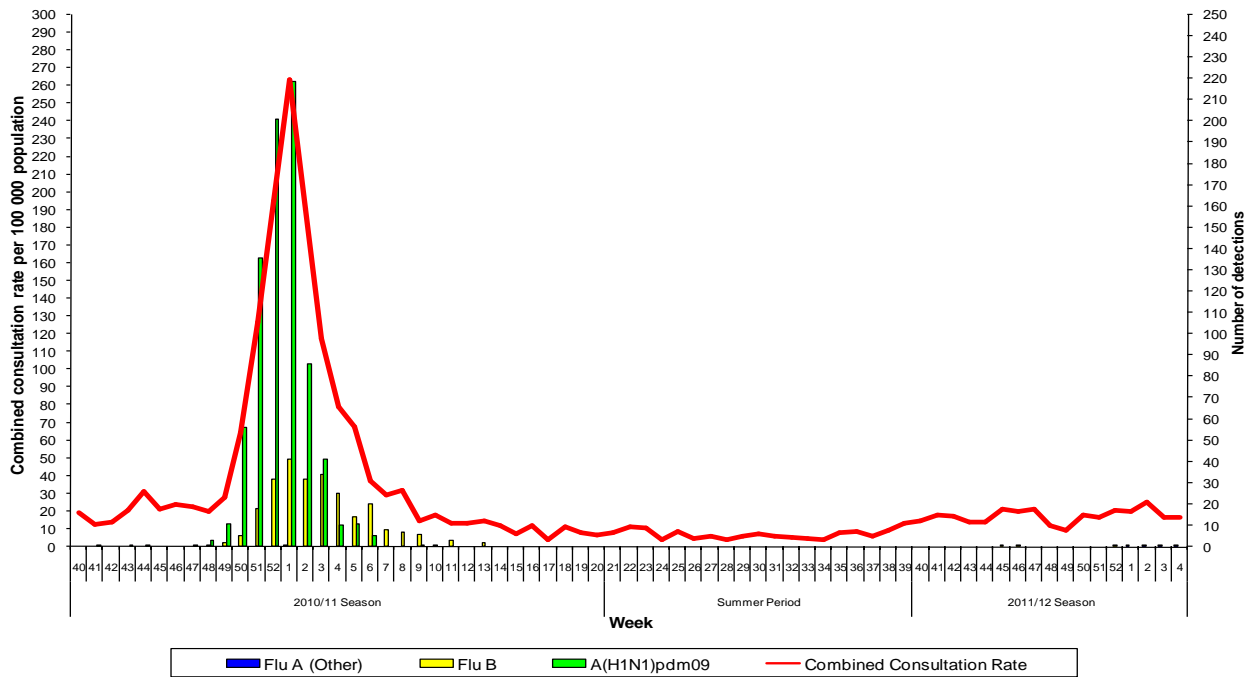


Note: 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

Comment

The GP combined consultation rate decreased from 25.4 per 100,000 population in week 2 to 16.9 per 100,000 population in week 4 (33% decrease). Rates for week 3 and 4 continue to remain substantially lower than the same weeks last year (117.6 and 78.8 per 100,000 population, respectively) and 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

Age specific rates for all age groups have decreased compared to week 2 and continue to remain low. The highest age specific rates for week 3 were in the 45–64 year age group and in week 4 they were in the over 65 year age group. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figure 3).

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

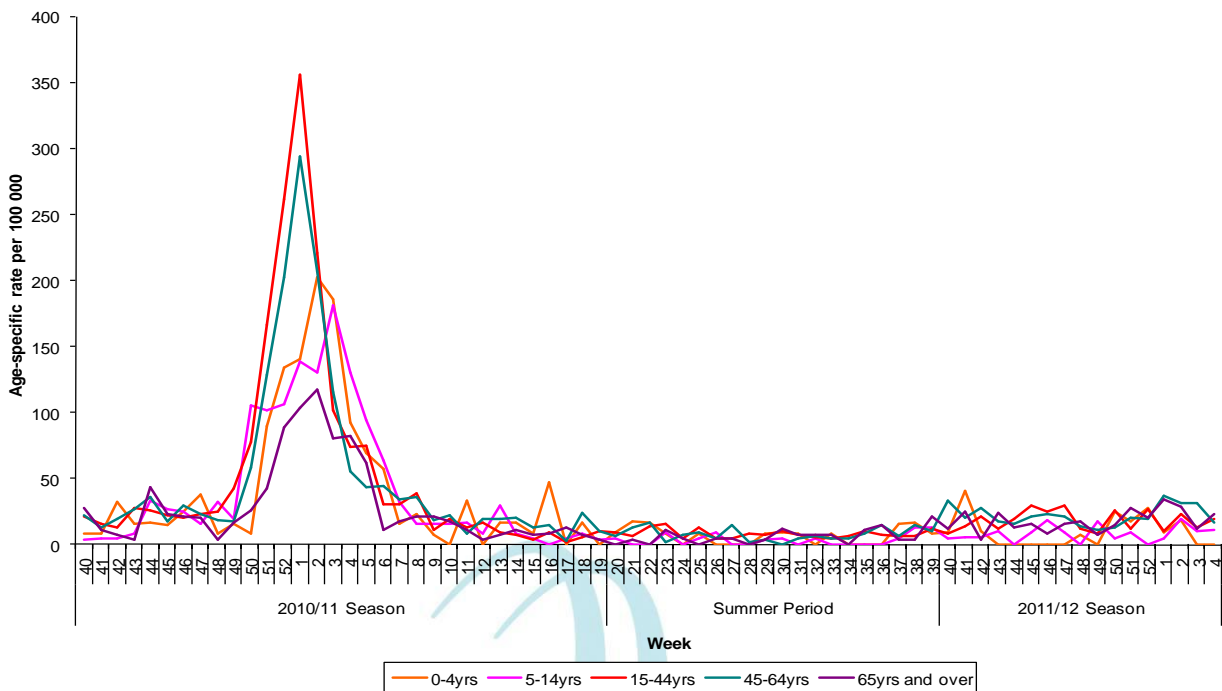
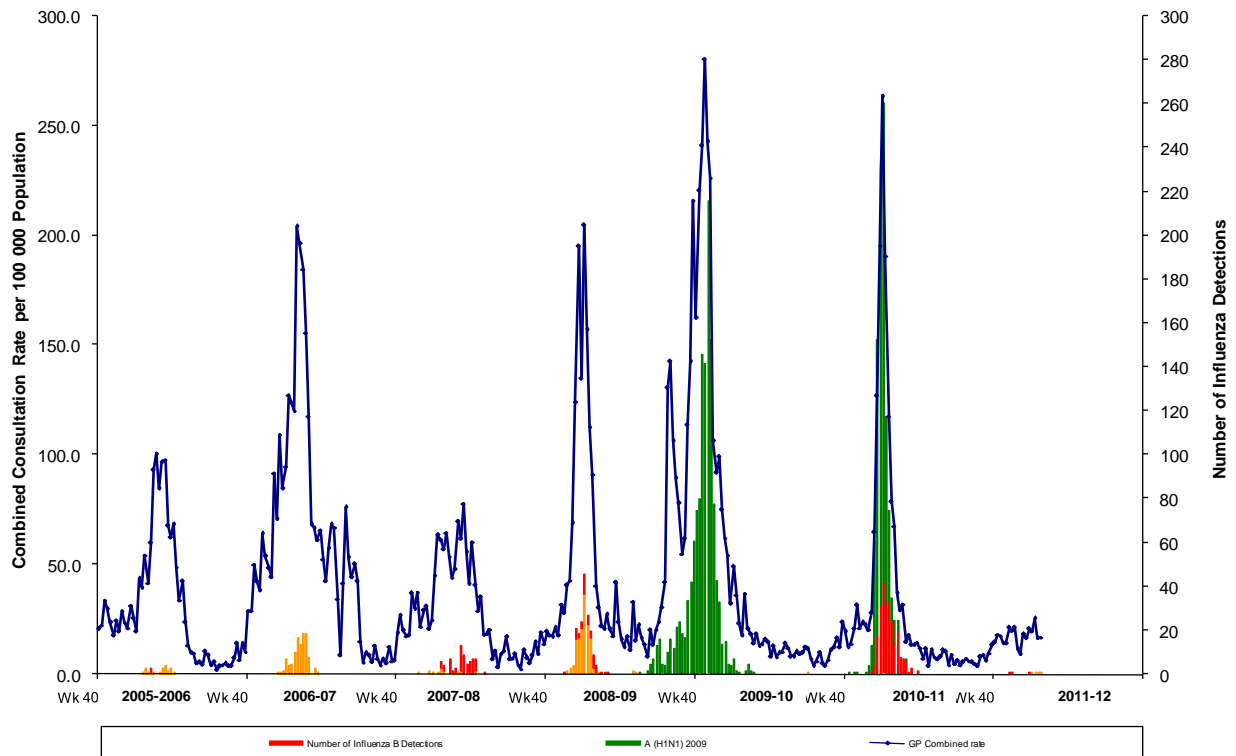


Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005/06 to present



Comment

There has been a delayed start to the circulation of influenza virus this winter. This is not entirely unusual, for example influenza activity peaked during the 2005/06 and 2006/07 winters in February (Figure 4).

Out of hours centres call data

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

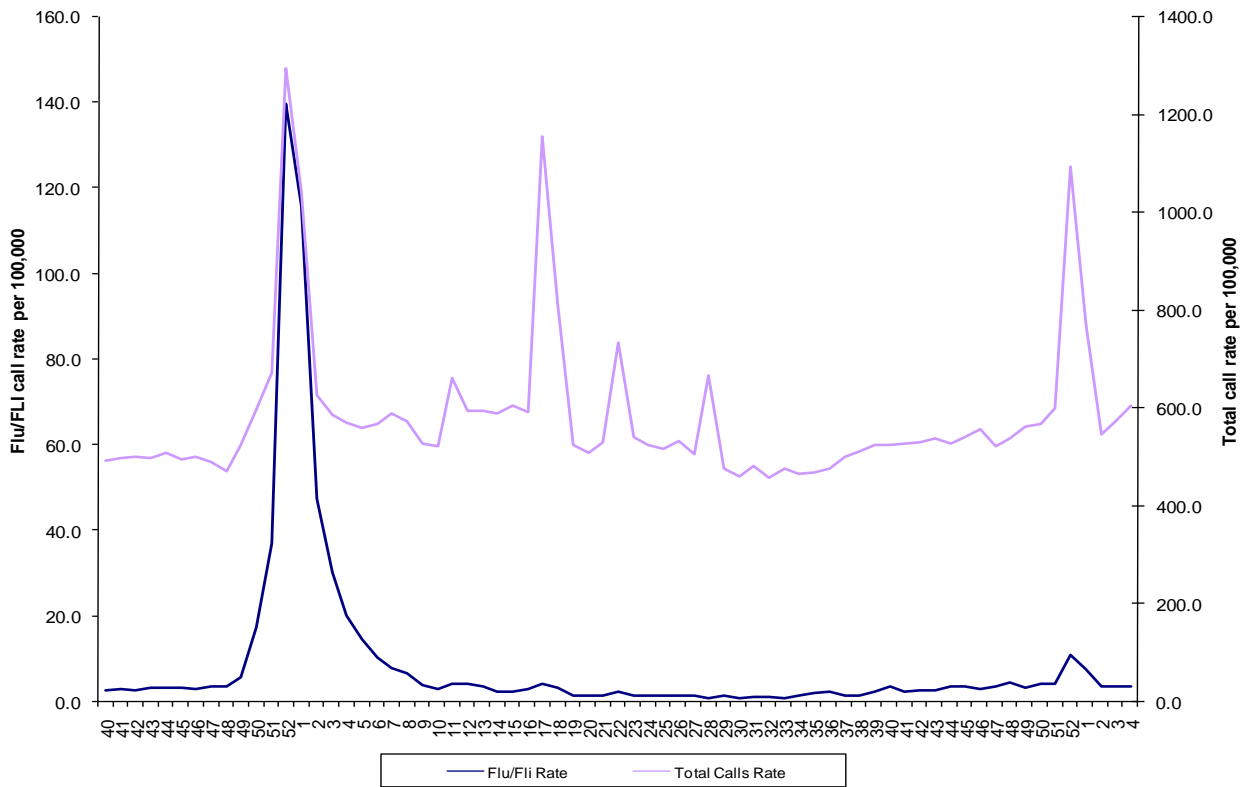
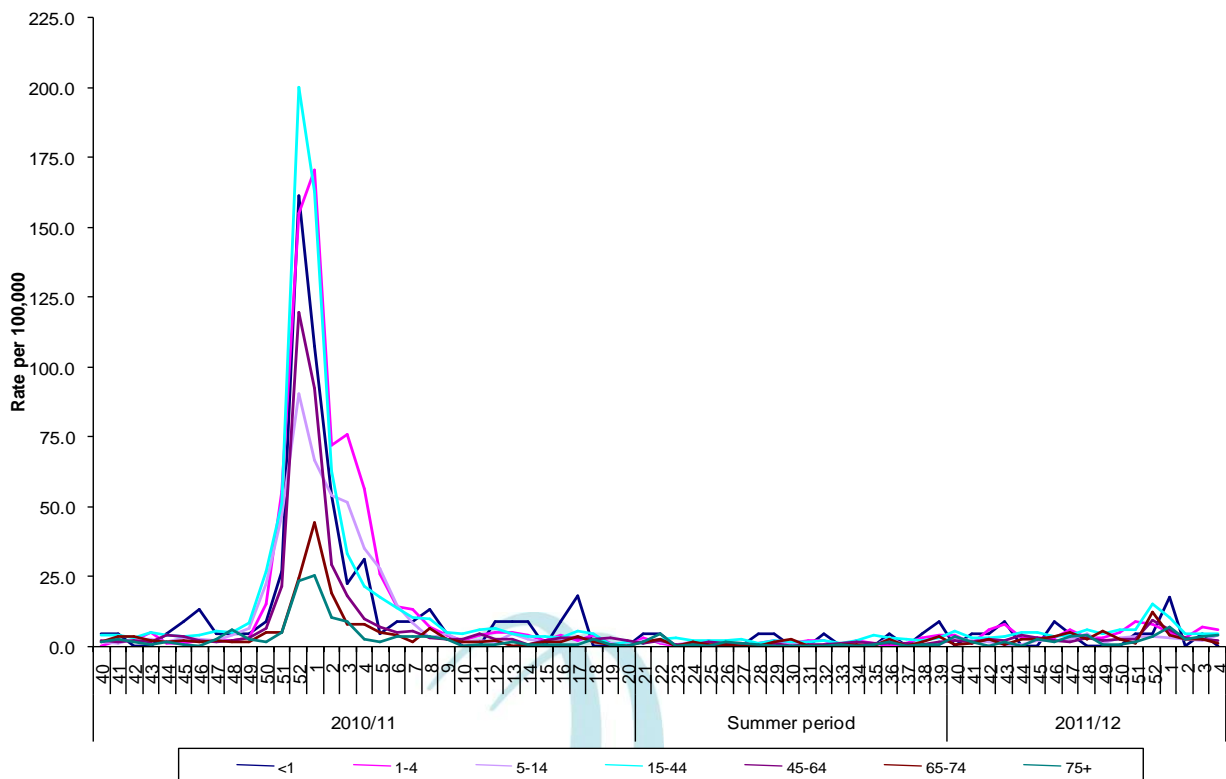


Figure 6. Out of hours call rates of flu and flu-like illness by age-group from week 40 2010



Comment

Out of hours call rates for flu/FLI remained stable over the two week period at 3.6 per 100,000 population (3.5 per 100,000 in week 2). Rates remain much lower than the same weeks last year at 30.4 and 30.2 per 100,000 population, respectively. Similarly, age specific flu/FLI rates continue to remain low with only small variations compared to week 2. Small numbers in some of the age groups will contribute to weekly fluctuation in rates (Figures 5 and 6).

Virology data

Table 1. Virus activity in Northern Ireland Weeks 3 and 4 2012

Source	Specimens tested	A(H1N1) pdm09	AH3	Influenza B	RSV	Total influenza positive	% Influenza positive
Sentinel	7	0	0	0	1	0	0%
Non-sentinel	166	0	1	0	80	1	<1%
Total	173	0	1	0	81	1	<1%

Table 2. Cumulative total Week 40 2011 - Week 4 2012

Age	(H1N1) 2009	AH3	Flu B	Total influenza	RSV
0-4	0	2	1	3	214
5-14	0	0	0	0	7
15-64	0	1	1	2	4
65+	0	1	1	2	5
Unknown	0	0	0	0	0
All ages	0	4	3	7	230

Table 3. Cumulative total Week 40 2011 - Week 4 2011

Age	Sentinel					Non-sentinel				
	(H1N1) 2009	AH3	Flu B	Total influenza	RSV	(H1N1) 2009	AH3	Flu B	Total influenza	RSV
0-4	0	0	0	0	1	0	2	1	3	213
5-14	0	0	0	0	0	0	0	0	0	7
15-64	0	0	1	1	1	0	1	0	1	3
65+	0	0	0	0	0	0	1	1	2	5
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	0	0	1	1	2	0	4	2	6	228

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.

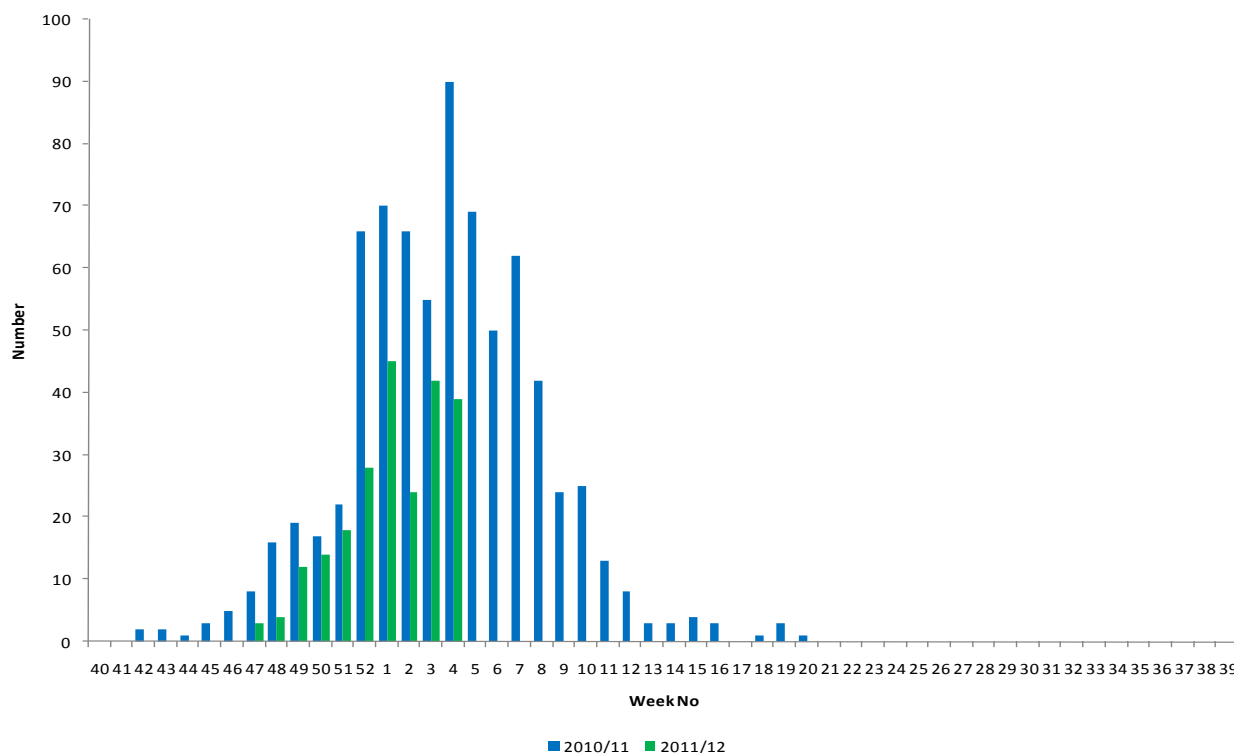
Sentinel and non-sentinel samples are tested for influenza and for RSV.

Comment

There were 173 specimens (7 sentinel and 166 non-sentinel) tested by the Regional Virus Laboratory during weeks 3 and 4, 2012. Two influenza A(H3) positive detections were reported from non-sentinel sources. This brings the total laboratory confirmed influenza detections this season to seven (four influenza A(H3) and 3 influenza B), (Tables 1 – 3).

Other respiratory viruses

Figure 7. Number of non-sentinel samples tested for RSV and proportion positive



Comment

The proportion of non-sentinel specimens that tested positive for RSV increased from 31% in weeks 1 and 2 to 45% in weeks 3 and 4, with 93% of all RSV detections so far this season in the 0–4 year age group. In weeks 3 and 4 there were 81 detections compared with 69 (updated) detections in weeks 1 and 2 (Figure 7).

Hospital Surveillance

There were no confirmed influenza patients or deaths in those with laboratory confirmed influenza in critical care (level 2 and 3) in Northern Ireland in weeks 3 and 4.

Additional information on confirmed influenza hospitalised patients will be available from the Health and Social Care Board (HSCB) once influenza starts to circulate.

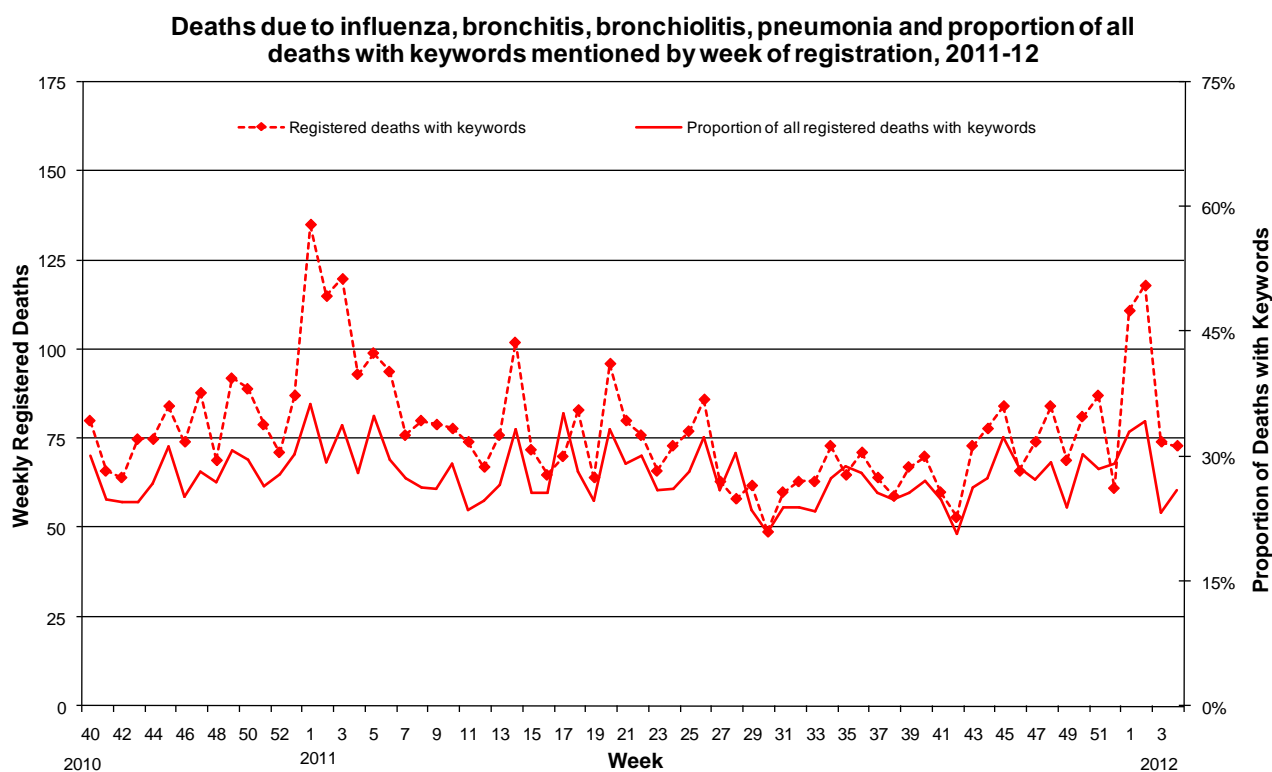
In the UK, since week 40 2011, there have been a total of 62 ICU/HDU influenza admissions across the USISS mandatory scheme with 17 (27.4%) resulting from influenza A(H1N1)pdm09, six (9.7%) from influenza A(H3N2), 32 (51.6%) from A unknown subtype and seven (11.3%) from influenza B.

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 over this period decreased from 34% in weeks 1 and 2 to 24% in weeks 3 and 4. In weeks 3 and 4 there were 601 registered deaths of which 147 related to these specific respiratory infections.

Vaccine uptake

As at the end of December 2011, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 75.6%, while the uptake in those aged under 65 in an at-risk group was 79.8% (provisional data). This compares with 69.8% uptake in the over 65 years, and 62.7% in the under 65 at-risk group for the same period last year.

International summary

Europe

For week 3 2012, low influenza activity was notified by 23 of the 27 countries reporting, while Bulgaria, Iceland, Italy and Spain reported medium activity. Eight countries reported local or regional spread and nine countries reported increasing clinical activity trends relative to the previous week.

Of 1092 sentinel specimens collected and tested during week 3 2012, 320 (29.3%) were positive for influenza virus. This percentage is higher than in week 2 2012 and continues an upward progression since December, the high percentage in week 52 2011 being an artefact of the Christmas/New Year holiday. Of 1468 influenza A viruses subtyped from sentinel and non-sentinel sources since week 40 2011, 1389 (94.6%) were of the H3 subtype. Since week 40 2011, no resistance to neuraminidase inhibitors has been reported.

Since week 40 2011, 237 severe acute respiratory infection (SARI) cases have been reported by six countries. One hundred and three were laboratory-confirmed influenza cases and of those viruses typed or subtyped, 15 were A(H1N1)pdm09, 48 were A(H3) and six were type B influenza viruses.

Influenza activity is slowly increasing in countries scattered across Europe and is currently dominated by A(H3N2) viruses with A(H1N1) also being important in some of the severe cases.

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

USA

During week 3 (January 15-21, 2012), influenza activity in the United States remained relatively low.

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

Canada

Influenza activity is increasing in more regions across the country; however, activity remains low in certain areas. The national ILI consultation rate declined this week compared to previous weeks but remains within expected levels for this time of year.

http://www.phac-aspc.gc.ca/fluwatch/11-12/w02_12/index-eng.php

Worldwide (WHO)

- Influenza activity in the temperate regions of the northern hemisphere remains low overall though notable local increases in activity have been reported in some areas of Canada, Europe (Turkey, Spain, Italy and Malta), northern Africa (Tunisia and Algeria), China and the middle East (the Islamic Republic of Iran).
- Countries in the tropical zone reported generally low or undetectable levels of influenza activity with the exception of southern China, where influenza type B detections are increasing, and Costa Rica, which continues to report influenza A(H3N2) but at declining levels.
- Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels though Chile, Paraguay and Australia all report persistent low level transmission of A(H3N2) during their summer season.
- The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone has been influenza A(H3N2) with the exception of Mexico, where influenza A(H1N1)pdm09 is the predominant subtype circulating, and China which is reporting a predominance of influenza type B. Other than Mexico, only very small numbers of influenza A(H1N1)pdm09 have been reported globally.
- Reports from countries that do antigenic characterisation indicate that nearly all influenza A viruses tested are antigenically related to those viruses included in the current trivalent influenza vaccine. While many of the influenza type B viruses are of the Yamagata lineage, which is not included in the current vaccine, overall numbers of influenza B virus detections are quite low compared to influenza type A (with the exception of China noted above).
- Oseltamivir 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.