

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 13 and 14 (26 March – 8 April 2012)

Summary

- Influenza activity in Northern Ireland remains low.
- The sentinel GP combined flu/FLI consultation rate decreased from 24.7 per 100,000 population in week 12 to 17.0 per 100,000 population in week 14 (31% decrease).
- OOH Call rates for flu/FLI decreased from 11.8 per 100,000 population in week 12 to 5.5 per 100,000 population in week 13, with rates increasing slightly to 6.6 per 100,000 population in week 14.
- There were 31 influenza A(H3), 10 influenza A (untyped) and one influenza B detections in weeks 13 and 14, 2012.
- There were 32 RSV detections in weeks 13 and 14, 2012.
- Three confirmed influenza A cases were admitted to critical care in Northern Ireland in weeks 13 and 14 bringing the total admitted to critical care with confirmed influenza so far this season to five.
- There have been no reports of any influenza-associated deaths in ICU patients with confirmed influenza this season.
- There were four respiratory outbreaks reported to PHA in weeks 13 and 14; three of these were confirmed as influenza A.
- In Europe, the influenza season started later than in previous seasons and has had no clear geographic progression, with peaks of activity for the 2011/12 influenza season now passed in most European countries.

Introduction

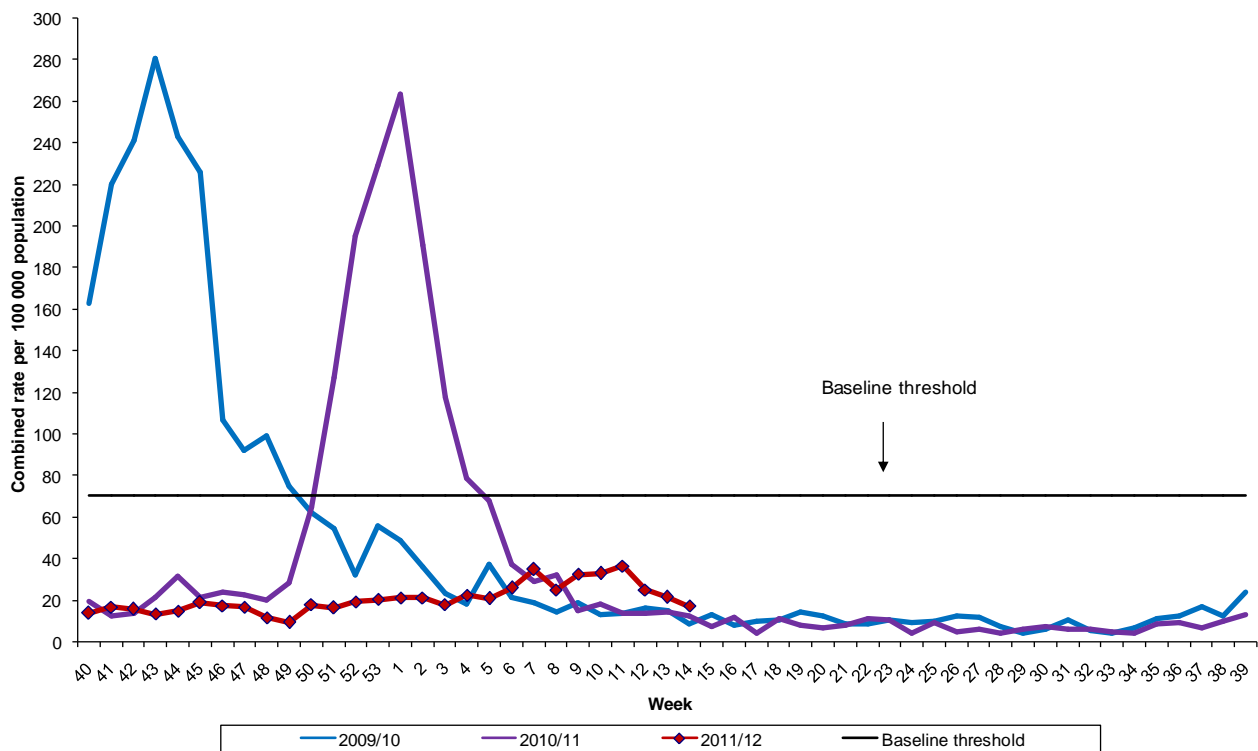
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place. A new development for the 2011/12 season is surveillance of critical care patients in hospitals with confirmed influenza.

Additional surveillance systems are:

- GP sentinel surveillance representing 11.7% of the 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

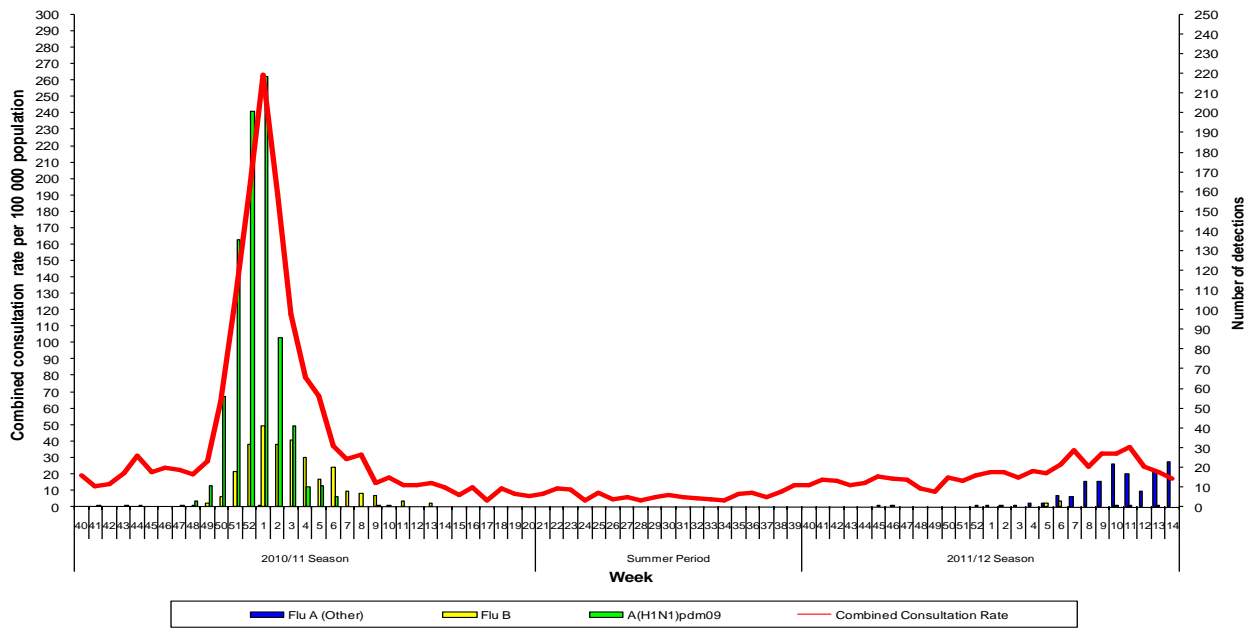


Note: 2009 had 53 weeks for surveillance purposes, therefore, an additional data point has been inserted in the graph for 2010/11 and 2011/12 at week 53 based on the average of weeks 52 and 1.

Comment

The GP combined flu/FLI consultation rate decreased from 24.7 per 100,000 population in week 12 to 17.0 per 100,000 population in week 14 (31% decrease). Rates remain slightly 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/FI age-specific consultation rates continue to remain low. All age-specific rates in week 14 have decreased compared to week 12 with the exception of the 0-4 year age group which has increased slightly possibly due to small numbers in this age group. The highest age specific rate in both weeks 13 and 14 was in the 45-64 year age group (Figure 3).

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

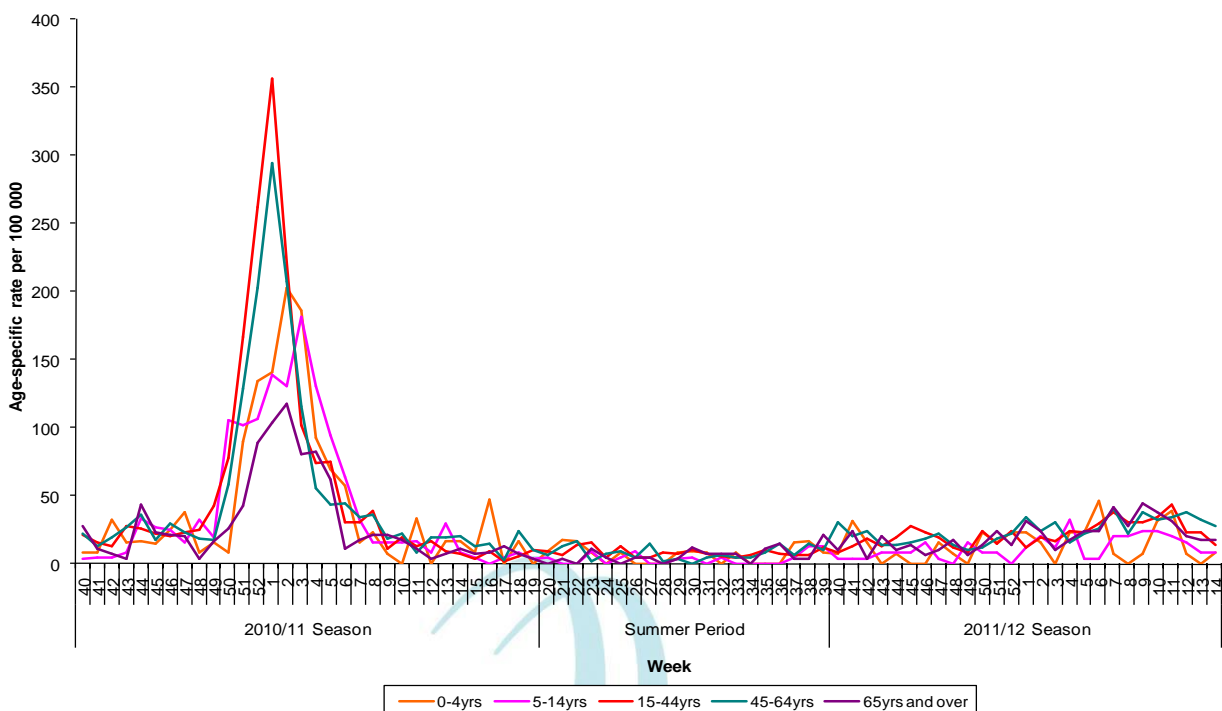
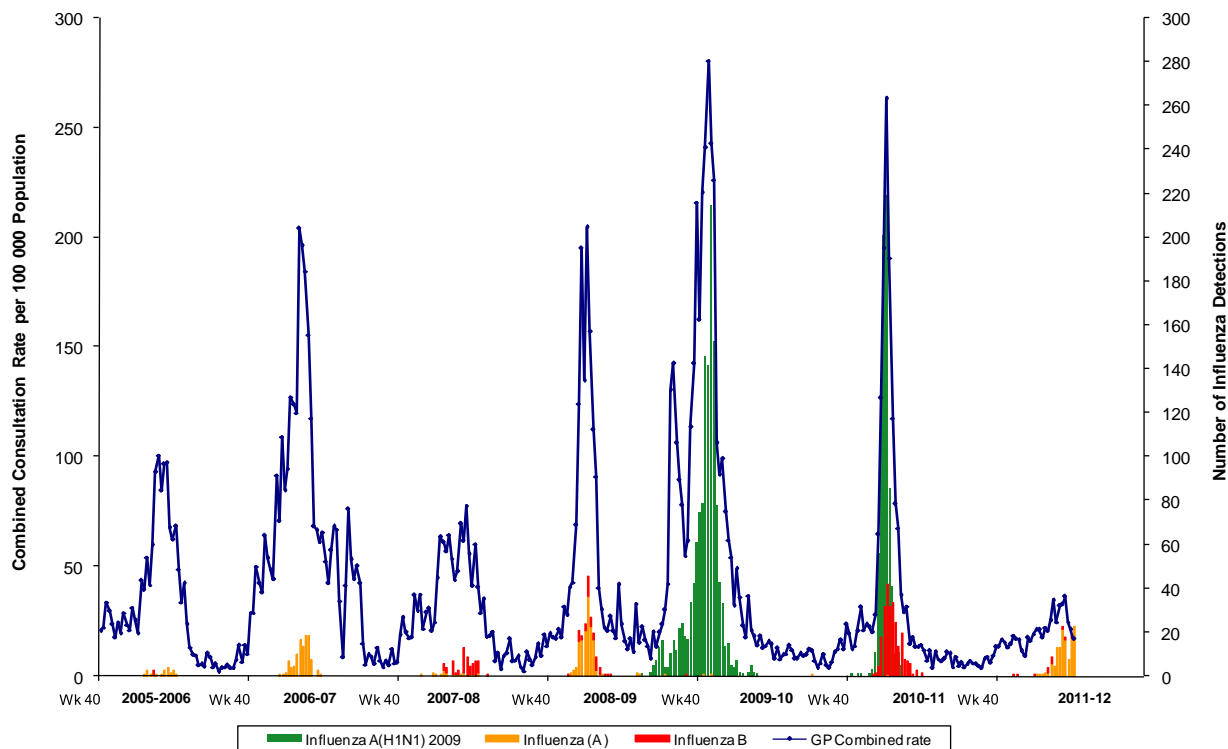


Figure 4. Sentinel GP combined consultation rate and number of influenza positive detections 2005-06 - present



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

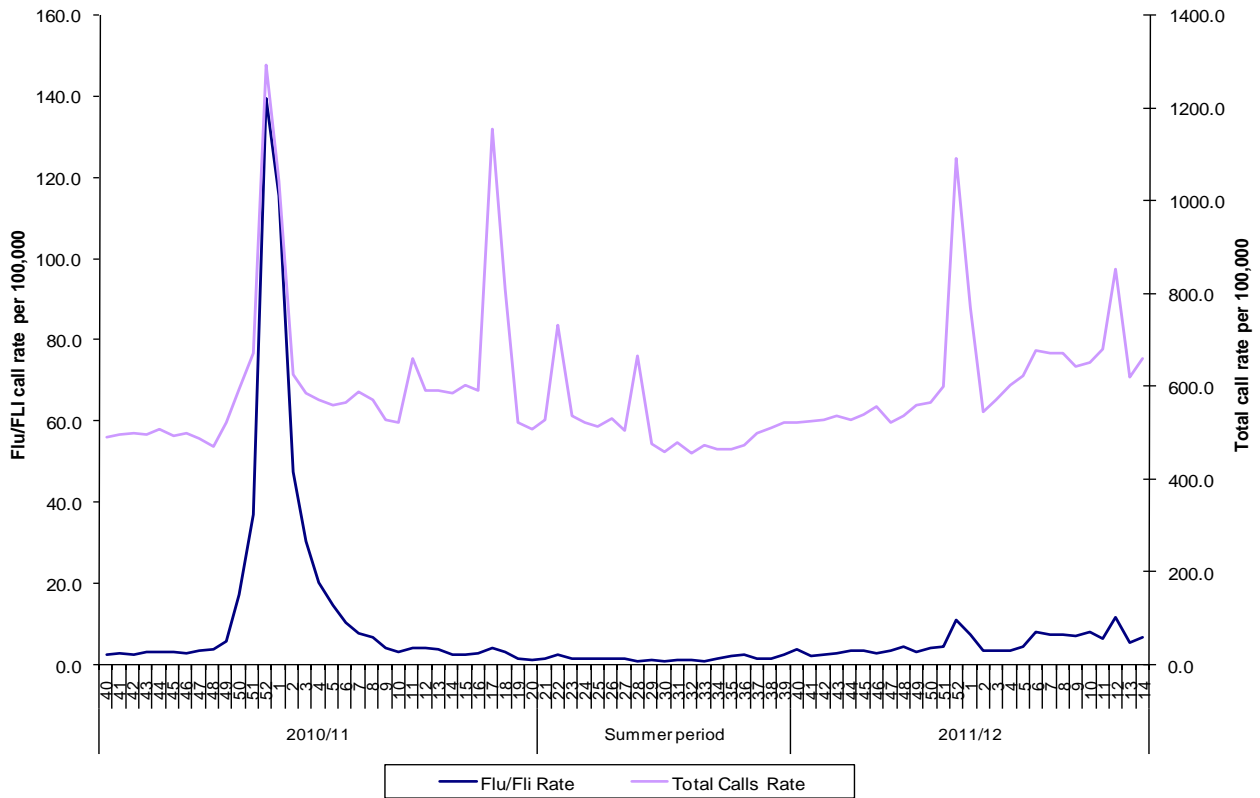
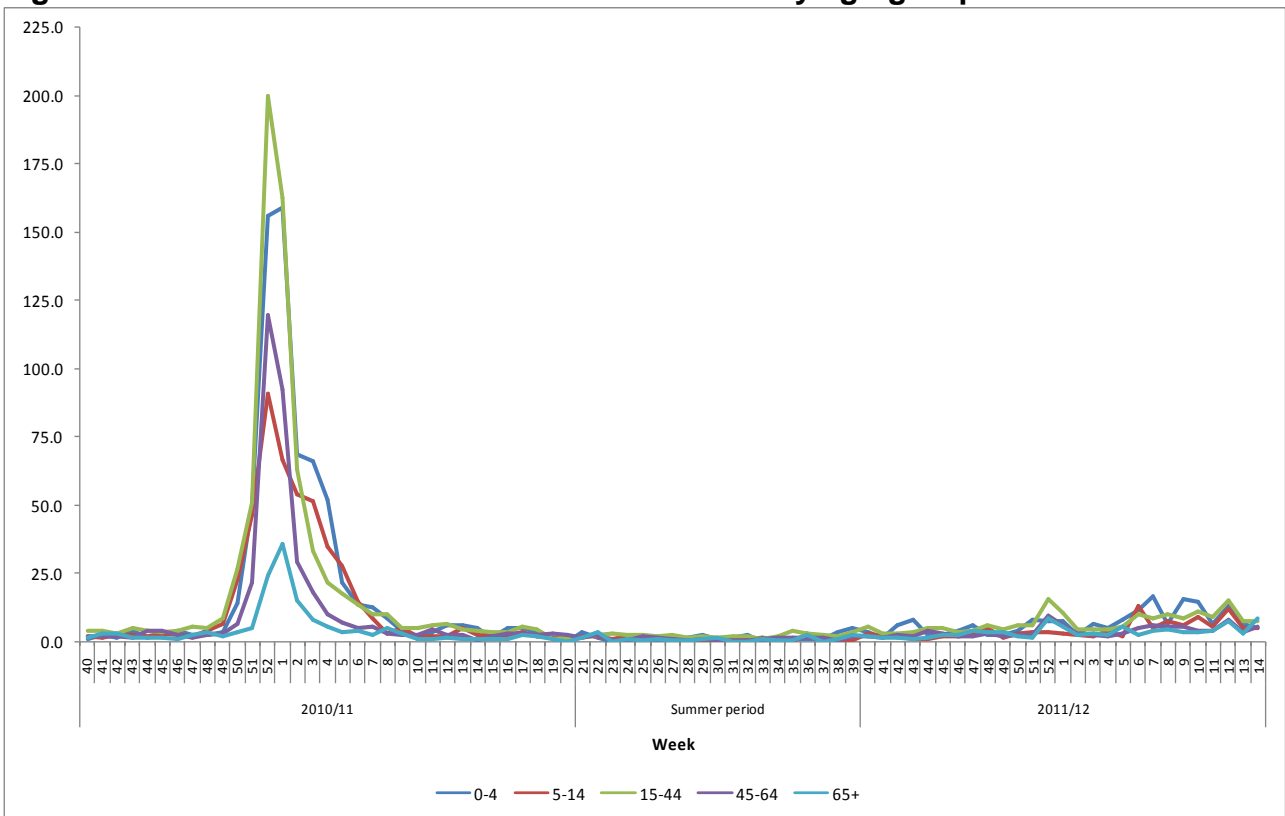


Figure 6. OOH call rates of flu and flu-like illness by age-group from week 40 2010



Comment

OOH call rates for 'flu/FLI decreased from 11.8 per 100,000 population in week 12 to 5.5 per 100,000 population in week 13 with rates increasing slightly to 6.6 per 100,000 population in week 14. Rates for weeks 13 and 14 continue to remain higher than the same weeks last year (3.7 and 2.5 per 100,000 population, respectively). The highest age-specific rate in week 13 was in the 15-44 year age group, and in week 14 rates were highest in the over 65 year age group. 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 13 & 14 2012

Source	Specimens Tested	AH3	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	8	1	0	0	0	1	13%
Non-sentinel	201	30	10	1	32	41	20%
Total	209	31	10	1	32	42	20%

Table 2. Cumulative Total Week 40 2011 - Week 14 2012

	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	49	1	3	53	639
5-14	13	0	2	15	17
15-64	28	4	4	36	21
65+	30	7	2	39	14
Unknown	0	0	0	0	0
All ages	120	12	11	143	691

Table 3. Cumulative Total Week 40 2011 - Week 14 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	47	1	3	51	637
5-14	1	0	0	1	0	12	0	2	14	17
15-64	4	0	1	5	2	24	4	3	31	19
65+	2	0	0	2	0	28	7	2	37	14
Unknown	0	0	0	0	0	0	0	0	0	0
All ages	9	0	1	10	4	111	12	10	133	687

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.

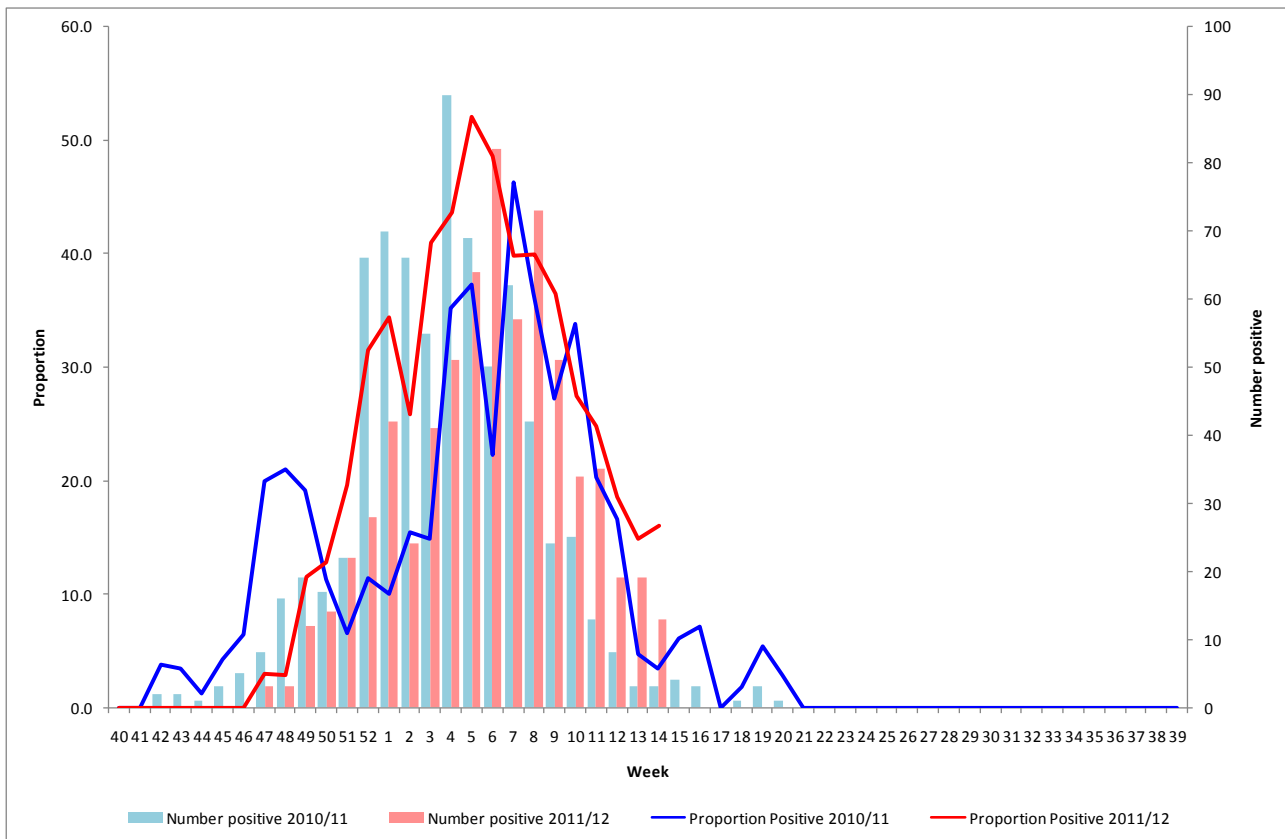
Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

Comment

There were 209 specimens (8 sentinel and 201 non-sentinel) tested by the RVL during weeks 13 and 14, 2012. Thirty influenza A(H3), ten influenza A (untyped) and one influenza B positive detections were reported from non-sentinel sources, with an additional influenza A(H3) positive detection reported from sentinel sources. This brings the total laboratory-confirmed influenza detections this season to 143 (5%): 120 influenza A(H3), 12 influenza A(untyped) and 11 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 19% (updated) in week 12 to 15% in week 13, increasing slightly in week 14 to 16%. However, the proportion of positive RSVs for weeks 13 and 14 remains higher than the same weeks last year (5% and 3% respectively). The proportion of RSV positive specimens peaked at 52% in week 5 2012. Of 2,787 non-sentinel specimens tested by the RVL this season to date, 25% (n=687) were positive for RSV. In weeks 13 and 14 there were 32 detections compared with 54 (updated) detections in weeks 11 and 12 (Figure 7).

Hospital Surveillance

Three confirmed influenza A (2 influenza A(H3) and 1 influenza A(untyped)) cases were admitted to critical care in Northern Ireland in weeks 13 and 14, bringing the total admitted to critical care with confirmed influenza so far this season to five. 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 230 ICU/HDU influenza admissions across the country reported through the USISS mandatory scheme with 24 (10.4%) resulting from influenza A(H1N1)pdm09, 68 (29.6%) from influenza A(H3N2), 125 from A (subtype not known) and 13 (5.7%) from influenza B.

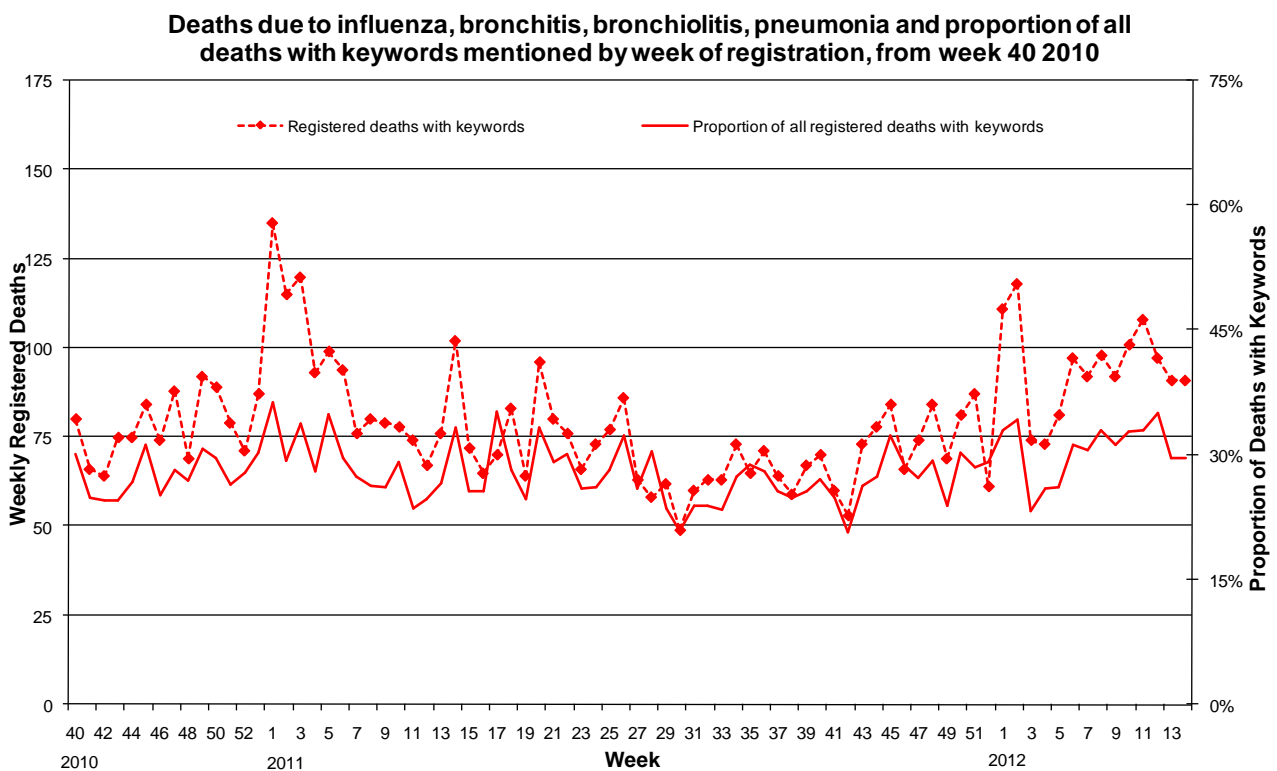
Outbreaks

There were four respiratory outbreaks (three confirmed influenza A) in residential care units reported to the Public Health Agency during weeks 13 and 14.

Mortality Data

Weekly mortality data are 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 8. Weekly registered deaths



Comments:

The proportion of deaths related to respiratory keywords decreased from 34% in weeks 11 and 12 to 30% in weeks 13 and 14. In weeks 13 and 14 there were 614 registered deaths of which 182 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 2011/12 influenza season started late and has been without any clear geographic progression across Europe. The following points are noteworthy in week 13:

- Decreasing trends were reported by 19 countries, 15 of which have reported such trends for at least two consecutive weeks while only Slovakia reported an increasing trend.
- Of 678 sentinel specimens tested, 244 (36.0%) were positive for influenza virus. The proportion of sentinel specimens testing positive for influenza virus has decreased over five consecutive weeks from a peak approaching 60%. Of the positive sentinel specimens, 77.9% were type A and 22.1% type B.
- 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 1,638 SARI cases, including 87 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 almost all 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 seven weeks.

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

USA

During week 13 (March 25-31, 2012), influenza activity was elevated in some areas of the United States, but declined nationally and in most regions.

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

Canada

Overall influenza activity in Canada has started to decline; however, activity remains elevated in some regions of the country (i.e. Atlantic Region, Ontario & Alberta). The ILI consultation rate declined compared to the previous week but remains within expected levels.

http://www.phac-aspc.gc.ca/fluwatch/11-12/w13_12/index-eng.php

Worldwide (WHO)

As at 30 March 2012:

- This influenza season started late, but seems to be reaching its peak or is decreasing in most countries of the northern hemisphere's temperate regions. Severe acute respiratory infections were mainly observed in the age group above 65 years.
- The most commonly detected virus type or subtype throughout most of the temperate areas of northern hemisphere's temperate zone has been influenza A(H3N2), although the proportion of influenza B detection is increasing. In Mexico influenza A(H1N1)pdm09 is the predominant subtype circulating. China and the surrounding countries are still reporting a predominance of influenza type B virus.
- Increasing genetic and antigenic diversity has been noted in H3N2 viruses in the later part of the influenza season.
- No significant change in antiviral resistance has been reported so far this season.

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.