

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 51 - 52 (17 - 30 December 2012)

Summary

- Influenza activity in Northern Ireland remains below the threshold level but all indicators have shown a marked increase over the past two weeks.
- The GP combined 'flu/FLI consultation rate increased from 15.0 per 100,000 population in week 50 to 25.5 per 100,000 population in week 51 and 43.7 per 100,000 population in week 52, 2012. Rates remain below the Northern Ireland threshold (70 per 100,000 population).
- OOH 'flu/FLI call rates have also increased substantially with rates increasing from 7.3 per 100,000 population in week 50 to 14.8 per 100,000 population in week 51 and 34.8 per 100,000 population in week 52, 2012. However, an increase would normally be expected at this time of year due to the bank holiday period.
- Influenza positivity rate of respiratory specimens is continuing to increase. There were 49 detections of influenza B in weeks 51 and 52, 2012 bringing the total of influenza B detections to 60 this season so far. There was also the first report of an influenza A(H3) this season in week 52.
- RSV activity remains high but would appear to be decreasing with 120 RSV positive detections in weeks 51 and 52, 2012.
- The first two laboratory confirmed influenza cases admitted to critical care in Northern Ireland were reported in weeks 51 and 52, 2012. Both cases were confirmed with influenza B.
- There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 51 and 52, 2012.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in weeks 51 and 52, 2012.
- The CMO has written to all doctors that the NICE guidance on the use of antivirals now applies (<http://www.dhsspsni.gov.uk/hss-md-53-2012.pdf>)
- As influenza is now circulating the bulletin will be published weekly.

Introduction

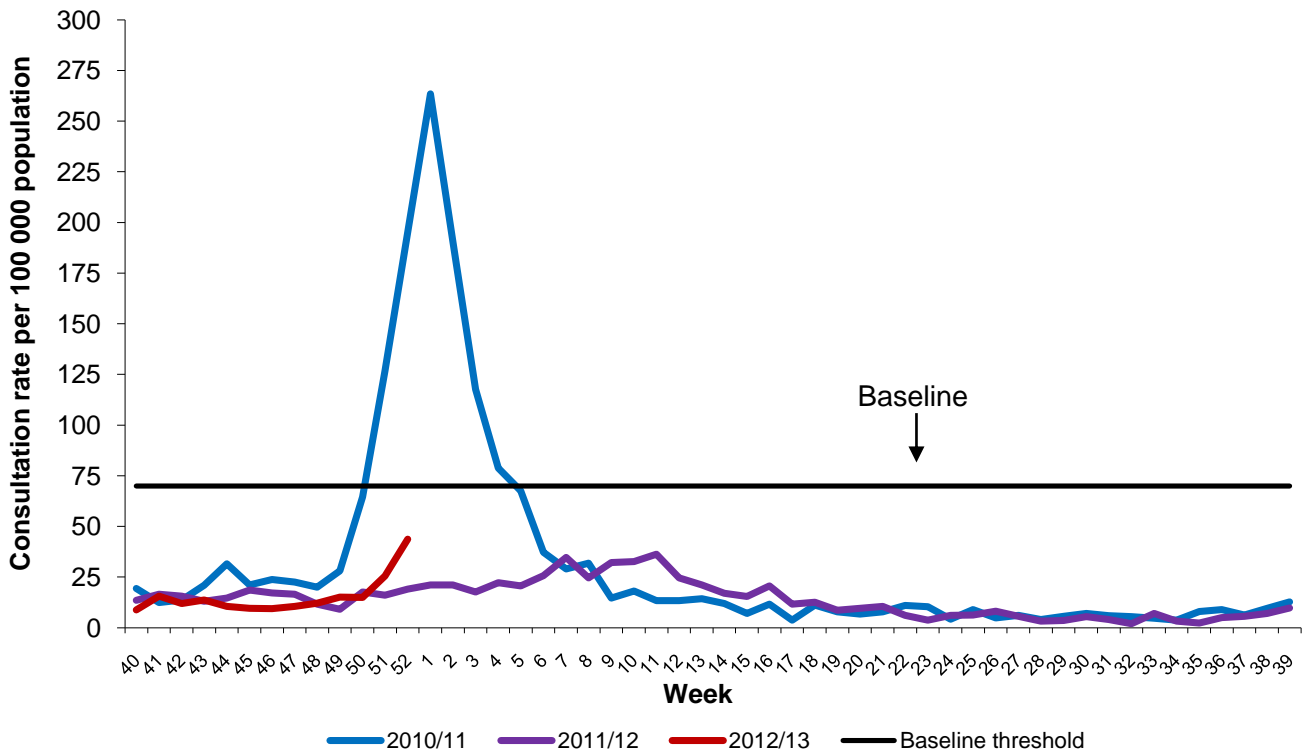
In order to monitor influenza activity in Northern Ireland a number of surveillance systems are in place.

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 rate for combined flu and flu-like illness 2010/11 - 2012/13



Comment

Whilst GP consultation rates for combined 'flu/FLI remain below the Northern Ireland threshold of 70 per 100,000 population they have shown a marked increase since week 50. The GP combined 'flu/FLI consultation rate increased from 15.0 per 100,000 population in week 50 to 25.5 per 100,000 population in week 51 and 43.7 per 100,000 population in week 52, 2012. Consultation rates for both weeks were substantially higher than the same weeks in the previous year but lower than those for the 2010/11 season (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 2011

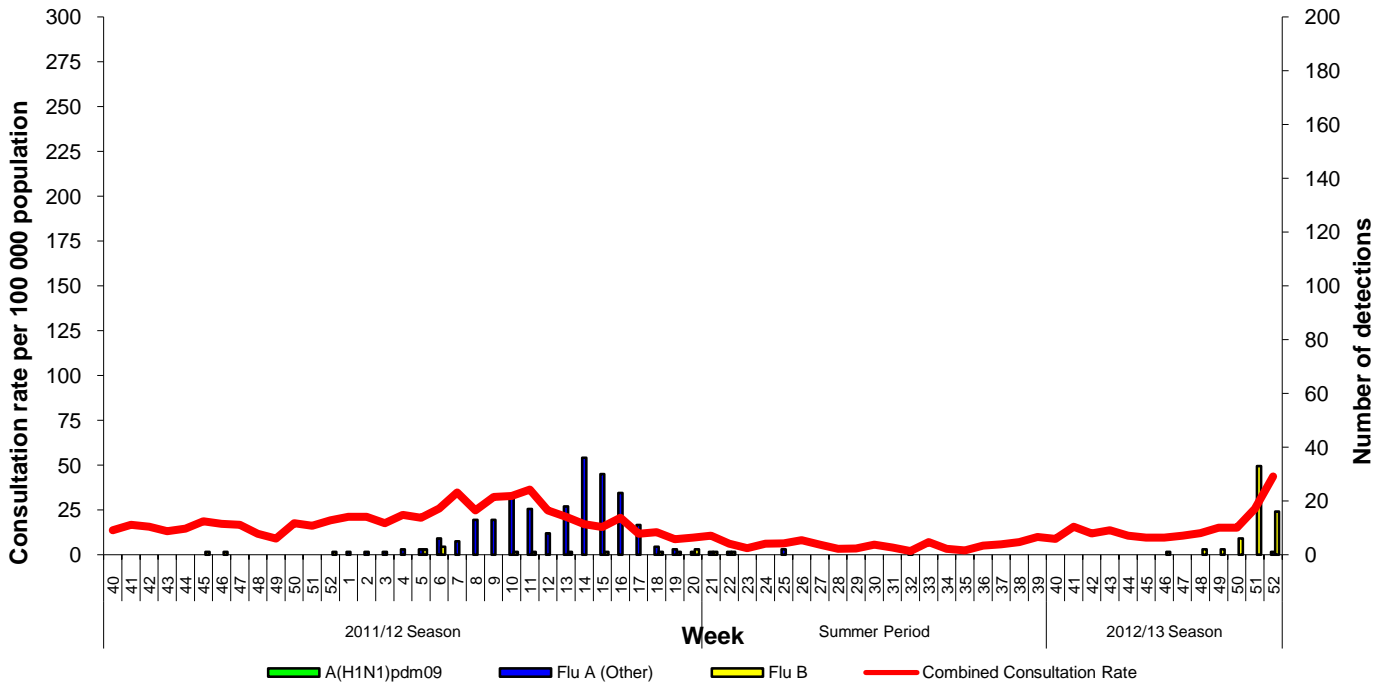
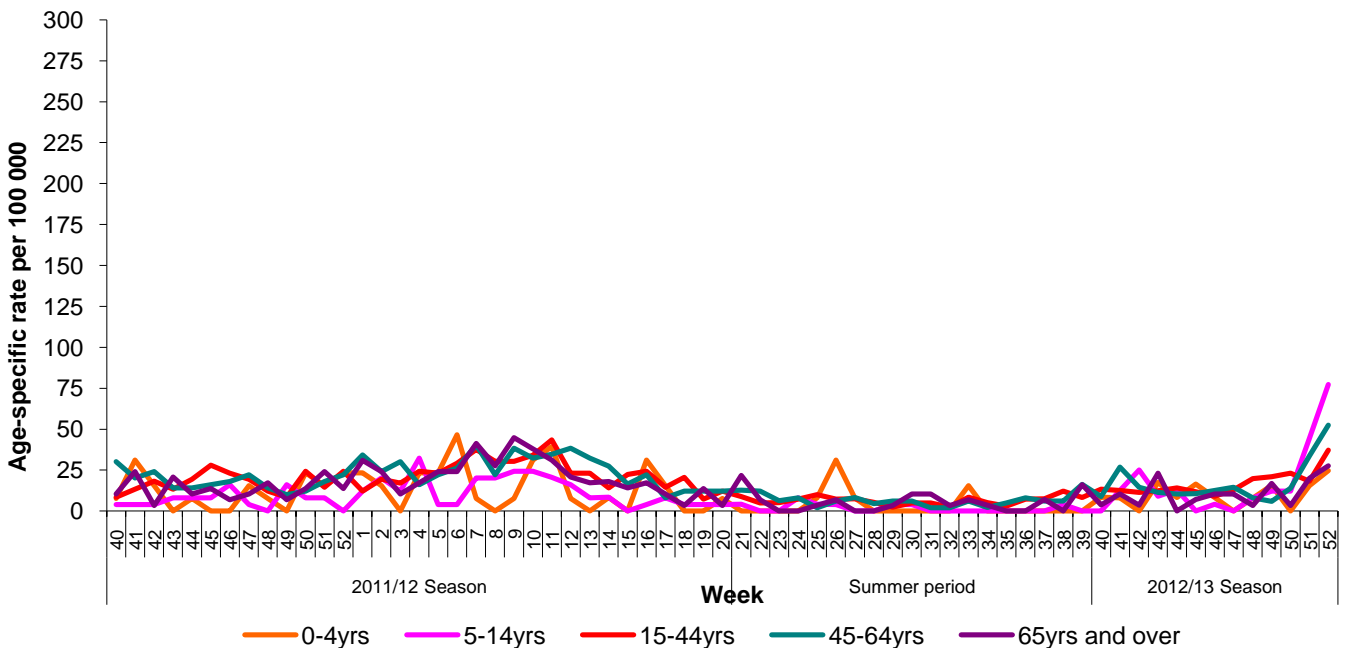


Figure 3. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2011



Comment

All age specific consultation rates have also increased substantially with the largest increase being seen in the 5-14 year age group which also had the highest rate in both weeks 51 and 52, followed by the 45-64 year age group. Over the two week period the lowest age specific consultation rates occurred in the youngest (0-4 years) and oldest (over 65) age groups (Figure 3). Small numbers in some of the age groups may contribute to fluctuations in rates.

Out-of-Hours (OOH) Centres Call Data

Figure 4. OOH call rate for flu and flu-like illness, 2010/11 – 2012/13

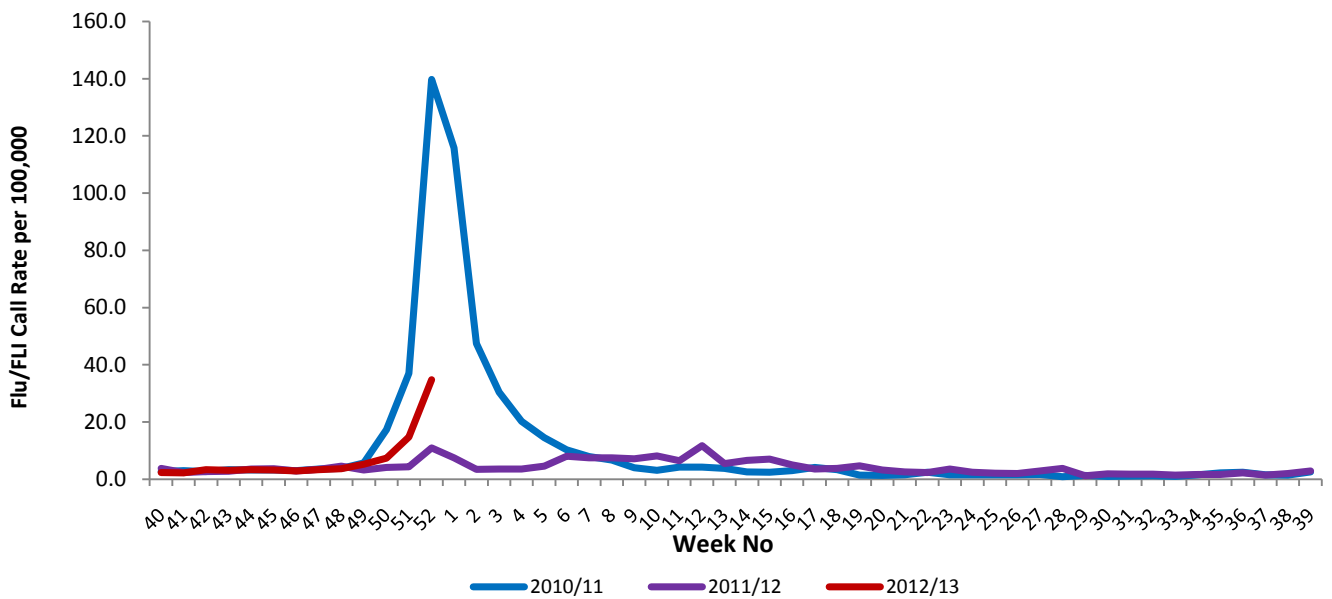
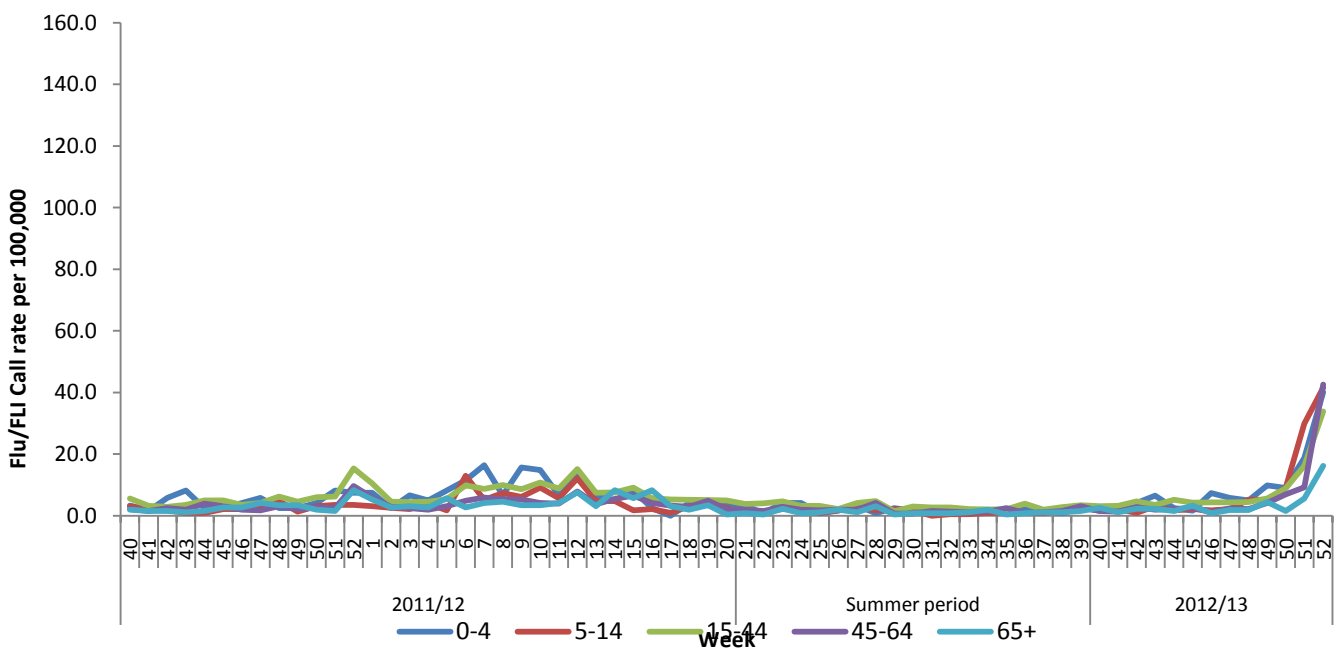


Figure 5. OOH Call rates of flu and flu-like illness by age-group from week 40 2011



Comment

OOH 'flu/FLI call rates have increased substantially; however, an increase would normally be expected at this time of year due to the bank holiday period. OOH consultation rates for 'flu/FLI increased from 7.3 per 100,000 population in week 50 to 14.8 per 100,000 population in week 51 and 34.8 per 100,000 population in week 52, 2012. Call rates for 'flu/FLI for weeks 51 and 52 are higher than the same period in the previous year. All age specific rates have also increased. Similar to the in-hours consultation rates the highest OOH 'flu/FLI consultation rate was in the 5-14 year age group in week 51; however in week 52 the highest rates were in the 0-4, 5-14 and 45-64 year age groups which displayed similar rates (40.1, 41.6 and 42.6 per 100,000 respectively). 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 51 and 52, 2012

Source	Specimens Tested	AH3	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	18	0	0	10	1	10	56%
Non-sentinel	309	1	0	39	119	40	13%
Total	327	1	0	49	120	50	15%

Table 2. Cumulative Total Week 40 - Week 52 2012

	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	1	0	13	14	510
5-14	0	0	19	19	15
15-64	0	0	25	25	30
65+	0	0	3	3	30
Unknown	0	0	0	0	4
All ages	1	0	60	61	589

Table 3. Cumulative Total Week 40 - Week 52 2012

	Sentinel					Non-sentinel				
	AH3	A (untyped)	Flu B	Total Influenza	RSV	AH3	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	1	1	2	1	0	12	13	508
5-14	0	0	2	2	0	0	0	17	17	15
15-64	0	0	7	7	1	0	0	18	18	29
65+	0	0	1	1	0	0	0	2	2	30
Unknown	0	0	0	0	0	0	0	0	0	4
All ages	0	0	11	11	3	1	0	49	50	586

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.

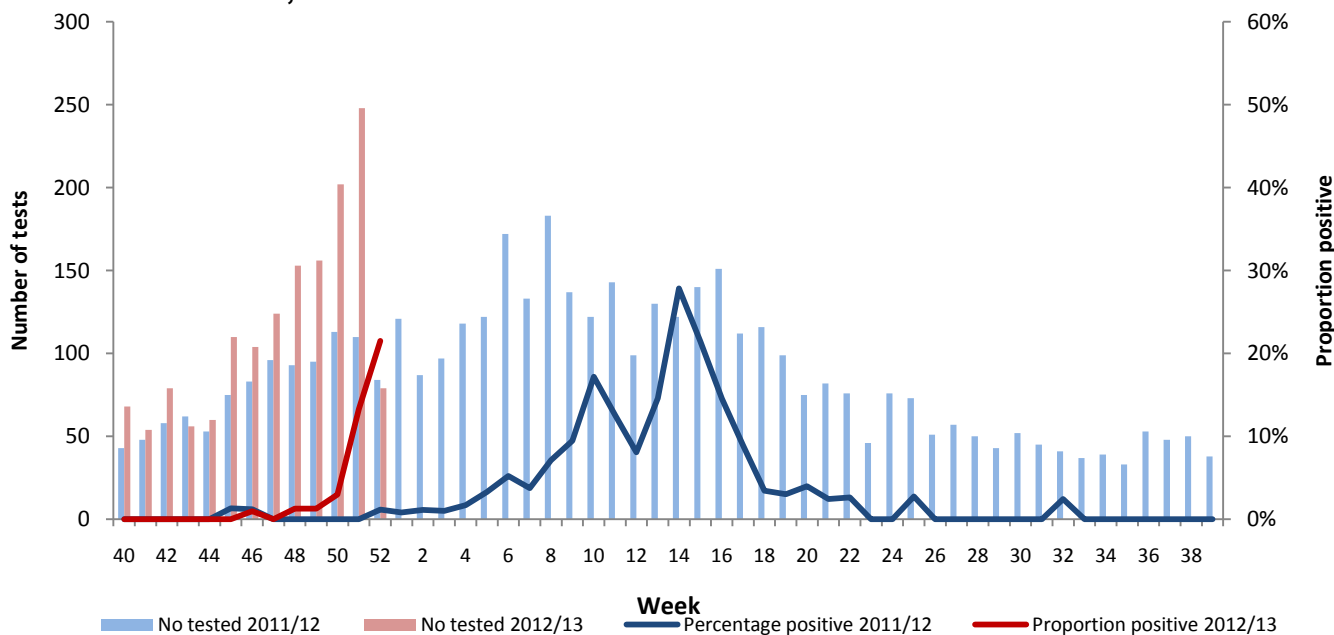
Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

With effect from week 50 all samples submitted for pertussis testing are also now routinely tested for influenza. This will have an impact on specimen numbers and may affect positivity rates.

Comment

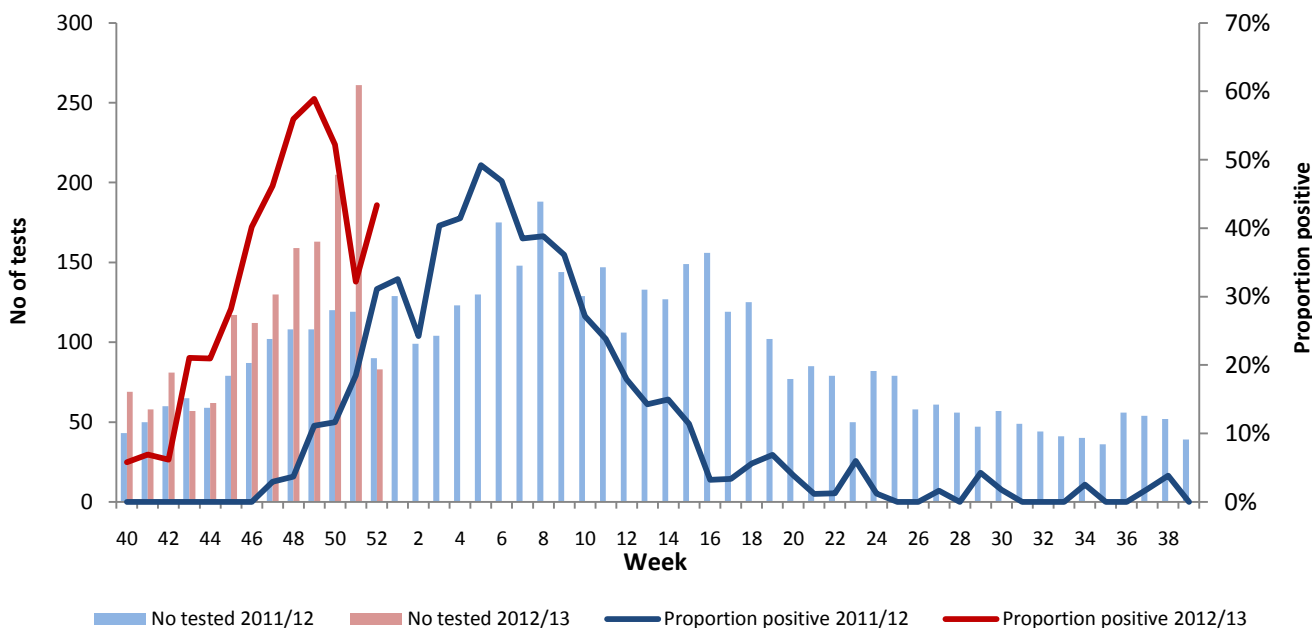
There were a total number of 327 specimens submitted for testing in weeks 51 and 52, 2012. During weeks 51 and 52 there were 49 detections of influenza B and the first report of an influenza A(H3) this season. This brings the total number of influenza B detections this season to 60. Influenza positivity rates for respiratory specimens continue to increase (Figure 6).

Figure 6. Number of samples tested for influenza and proportion positive, 2011/12 and 2012/13, all sources



Respiratory Syncytial Virus

Figure 7. Number of samples tested for RSV and proportion positive, 2011/12 and 2012/13, all sources



Comment

There were a total of 120 RSV detections in weeks 51 and 52. The RSV positivity rate decreased from 52% in week 50 to 32% in week 51 but subsequently increased to 43% in week 52; however the figure for week 52 should be interpreted with caution as full data is not yet available for that week. From week 40 of the current season there have been a total of 589 RSV positive detections reported, of which 87% fall in the 0-4 year age group. RSV positivity trends are similar to 2011/12 but are approximately four weeks earlier (Figure 7).

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 coming season.

The first two laboratory confirmed influenza cases admitted to critical care in Northern Ireland were reported during weeks 51 and 52, 2012. Both cases were confirmed with influenza B.

Mortality Surveillance

There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 51 and 52, 2012.

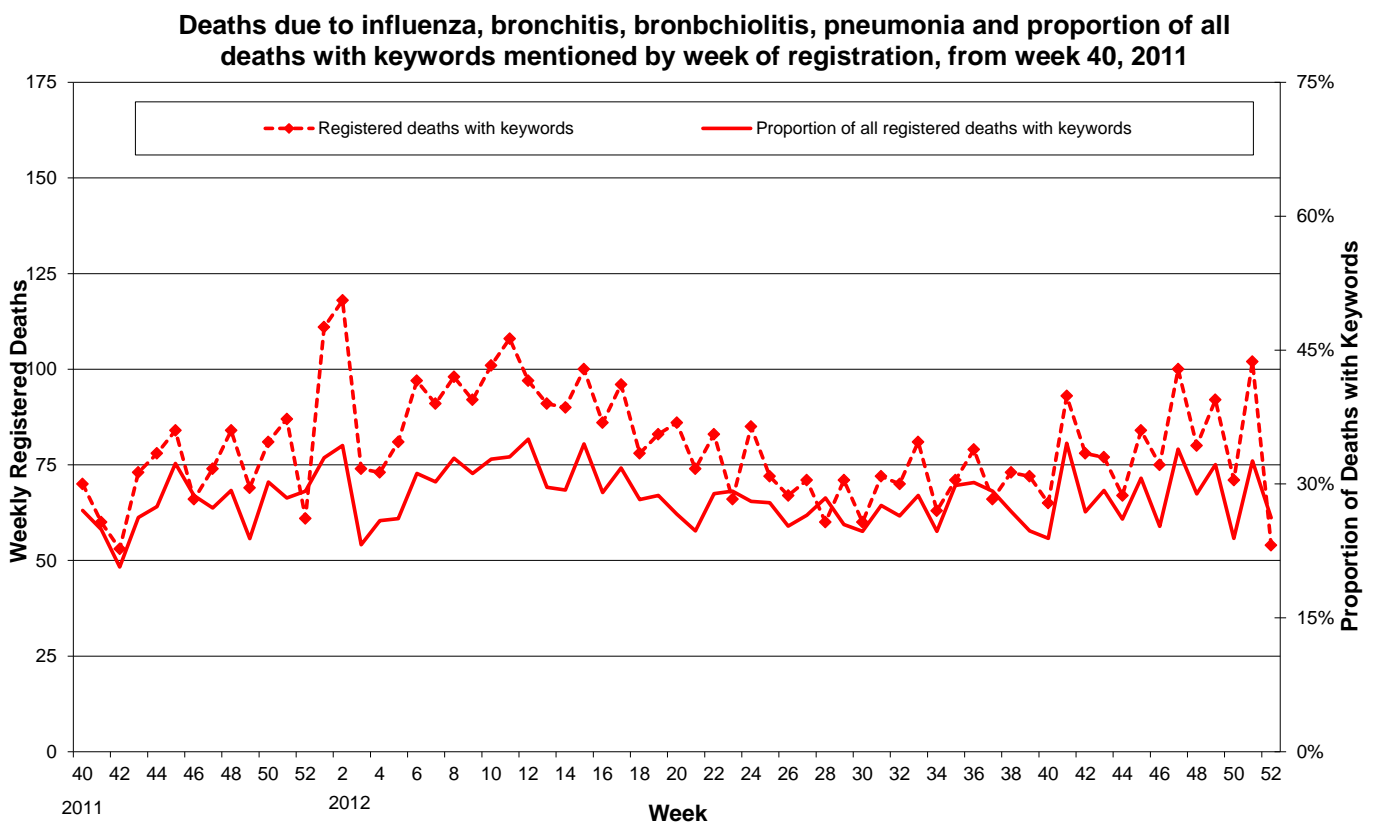
Outbreak Surveillance

There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 51 and 52, 2012.

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 24% in week 50 to 33% in week 51, with a decrease in week 52 to 26%. In weeks 51 and 52 there were 519 registered deaths of which 156 related to these specific respiratory infections. The decrease in the number of death registrations is expected due to the bank holiday period in week 52.

Vaccine Uptake

As at the end of November 2012, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 71.2%, while the uptake in those aged under 65 in an at-risk group was 71.5% (provisional data). This compares with 72.6% uptake in the over 65 years, and 74.6% in the under 65 at-risk group for the same period last year.

International Summary

Europe

During week 51/2012, two of 17 countries reporting clinical data experienced medium intensity influenza activity, three countries reported geographically widespread influenza activity, and five additional countries reported increasing trends.

The proportion of sentinel specimens positive for influenza continued to increase (27.3%), compared with 17.3% in week 50. Seventy per cent of influenza viruses were type A and 30% were type B. So far the detected viruses remain well-matched to the vaccine strain.

Since week 40/2012, 10 hospitalised severe influenza cases have been reported by five countries. Sixty per cent of these infections were due to influenza A viruses.

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

Worldwide (WHO)

- Up to 21 December 2012 many countries in the temperate regions of the northern hemisphere are now reporting elevated detections of influenza, particularly in north America.
- Influenza activity was still low in Europe, with co-circulating of both influenza A and B viruses. However, increased influenza-like illnesses were reported in more countries than previous weeks.
- There was low, but increasing influenza activity in northern Africa and the Eastern Mediterranean regions, and sporadic detections in eastern Asia.
- Influenza in central America, the Caribbean and tropical south America continued to decline, with low levels of circulation of mainly influenza A(H3N2) and some influenza B viruses, except for Cuba and Peru, where influenza A(H1N1)pdm09 was predominant.
- Influenza activity in Sub-Saharan Africa declined to low levels, with mainly influenza B, except in Ghana, where influenza A(H1N1)pdm09 was reported.
- Influenza in most South East Asian countries was declining, except in Sri Lanka and Viet Nam.
- Influenza activity in the temperate countries of the southern hemisphere continued at inter-seasonal levels.

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

USA

According to this week's FluView report, while activity levels vary across the country, nationally influenza activity is elevated and continues to increase across most key indicators. High influenza-like-illness (ILI) activity is still concentrated in the South Central and South-eastern regions of the nation. Other parts of the country are seeing increases in activity as well. This FluView update contains data for the week of December 16-22, 2012.

Below is a summary of the key indicators:

- The proportion of visits to doctors for influenza-like illness (ILI) increased once again and is above the national baseline for the third consecutive week. During the past 10 influenza seasons, ILI remained at or above baseline for an average of 12 consecutive weeks, with a range of 1 week (2011-2012 season) to 16 weeks during the 2005-2006 season. During the pandemic, the proportion of visits to doctors for ILI remained above the national baseline for 19 consecutive weeks.
- Sixteen states and New York City are now reporting high ILI activity. Last week 12 states reported high ILI activity.
- Thirty-one states are reporting widespread geographic influenza activity for the week of December 16-22, 2012; an increase from 29 states the previous week.
- Since October 1, 2012, 1,522 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 509 hospitalizations from the previous week. This translates to a rate of 5.5 influenza-associated hospitalizations per 100,000 people in the United States.
- Hospitalization rates are highest among people 65 and older, which is typical for seasonal influenza. Hospitalization rates this season are higher when compared to the same week of the two previous influenza seasons, but this may be a reflection of the early influenza activity that is occurring.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System was below the epidemic threshold.
- Nationally, the percentage of respiratory specimens testing positive for influenza viruses in the United States during the week of December 16-22 decreased slightly from 31.2% in the previous week to 29.6%.
- Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. During the week of December 16-22, 1,568 of the 1,846 influenza positive tests reported to CDC were influenza A and 278 were influenza B viruses. Of the 1,568 influenza A viruses identified, approximately 62% were H3 viruses and 1% were 2009 H1N1 viruses; 37% were not subtyped.

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

Canada

- Influenza activity in Canada continued to increase in week 50; four regions reported widespread activity, and the majority of regions reported influenza circulation.
- A total of 1502 laboratory detections of influenza were reported, of which 96.7% were for influenza A viruses, predominantly A(H3N2).
- Thirty-one influenza outbreaks were reported: 24 in long-term-care facilities, 4 in hospitals and 3 in other facilities.
- Thirty-three paediatric influenza-associated hospitalizations were reported through the IMPACT network, all but one with influenza A
- Seventy-three hospitalizations with three deaths in adults ≥ 20 years of age were reported through Aggregate surveillance, all with influenza A.
- The ILI consultation rate increased compared to the previous week and is within the expected range for this time of year.

<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.