

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 4 (21 - 27 January 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates for combined 'flu/FLI decreased from 53.9 per 100,000 population in week 3 to 47.9 per 100,000 population in week 4, 2013 (11% decrease).
- OOH consultation rates for 'flu/FLI increased slightly from 9.3 per 100,000 population in week 3 to 11.3 per 100,000 population in week 4 (22% increase)
- Influenza positivity rate of respiratory specimens have increased this week. In week 4, 2013 there were 13 positive detections of influenza B and 3 influenza A(H3). Influenza B remains the predominant type.
- RSV activity continues to decrease although there was slight increase in positivity rates.
- There was 1 new admission to ICU confirmed with influenza in week 4, 2013. This brings the total admitted to ICU that have been confirmed with influenza to 12.
- There were no deaths reported in patients with laboratory confirmed influenza admitted to in ICU week 4, 2013.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in week 4, 2013.

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

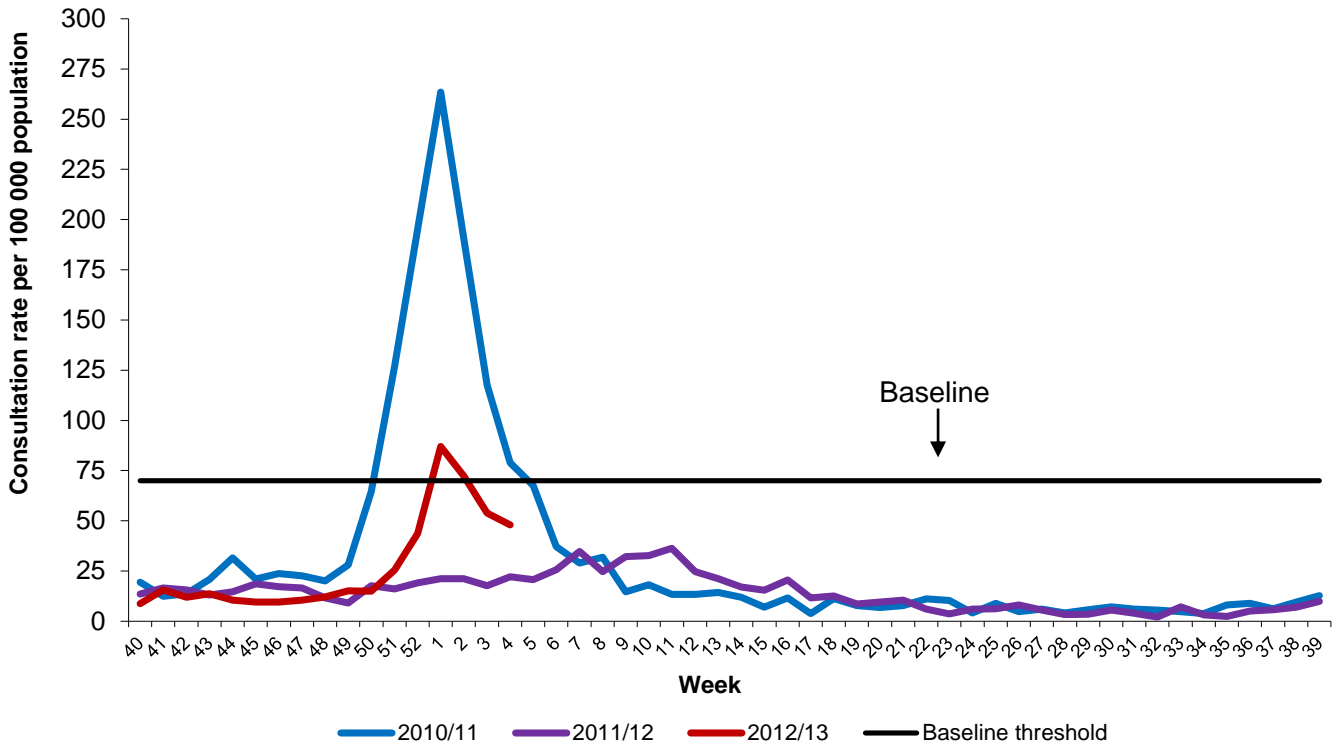


Figure 2. Sentinel GP combined consultation rate and number of influenza positive detections 2007/08 – 2012/13.

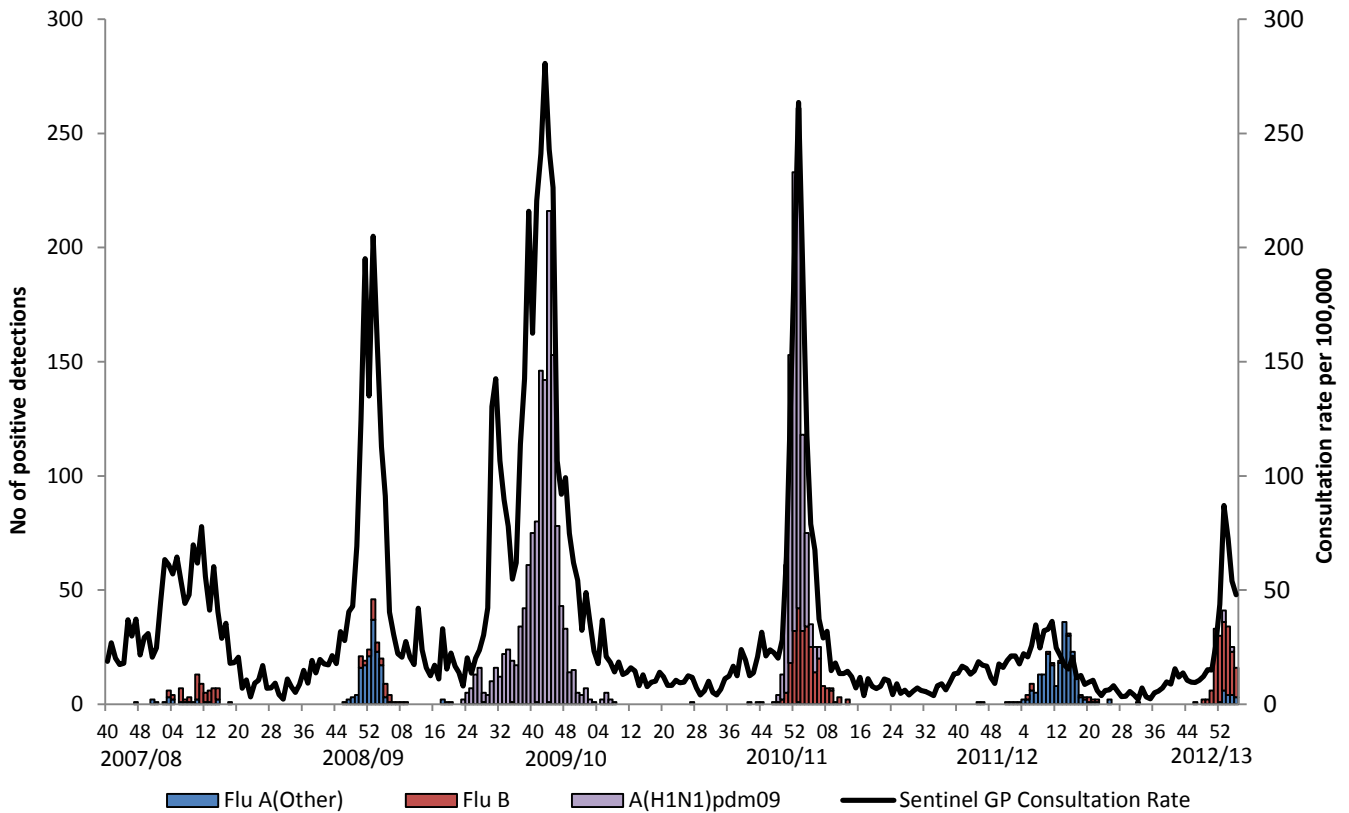
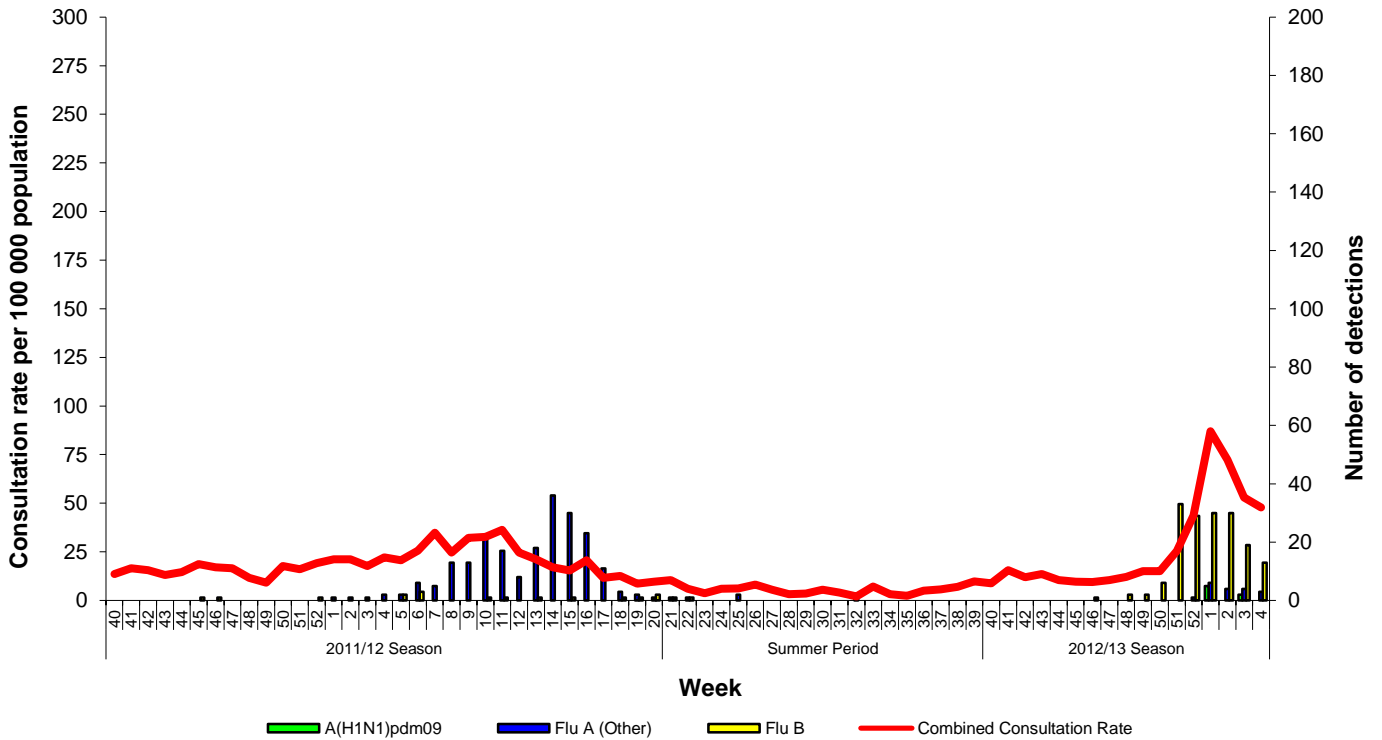


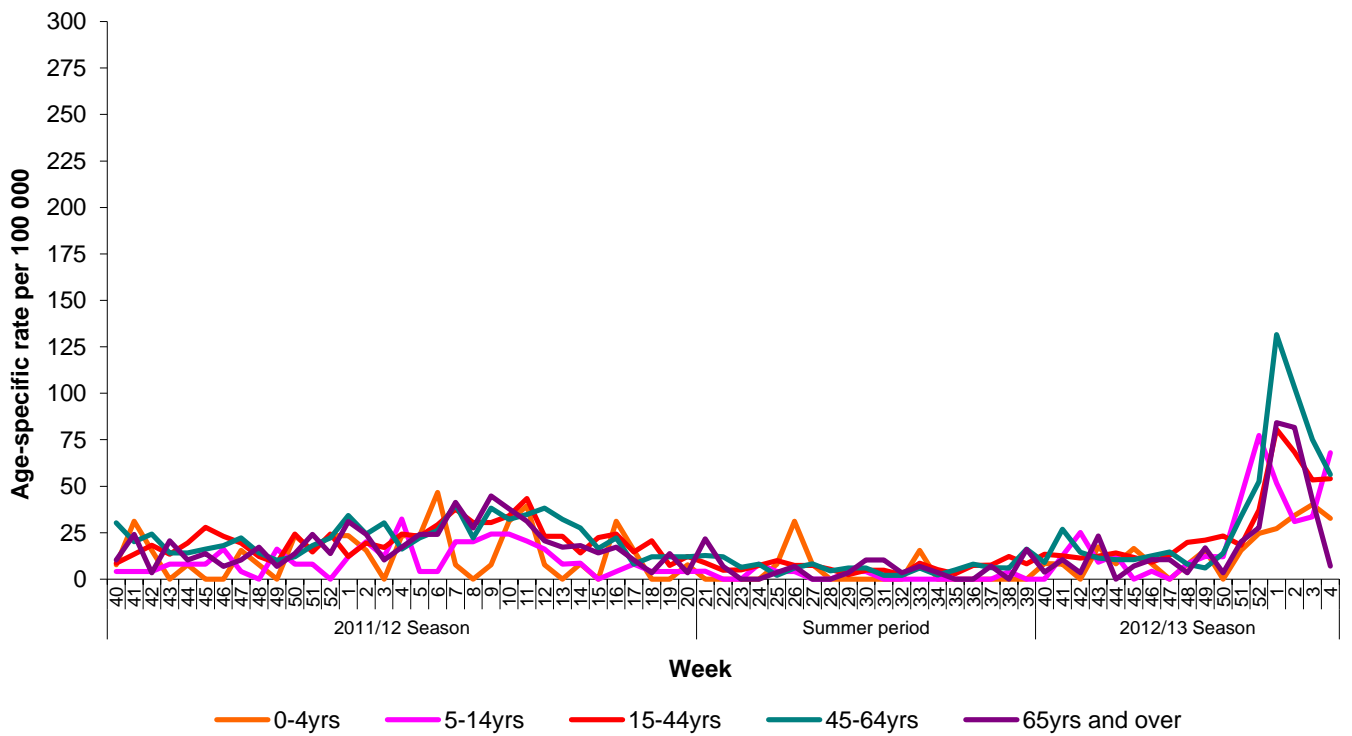
Figure 3. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

There was a small decrease in the GP consultation rates for combined 'flu/FLI again from 53.9 per 100,000 population in week 3 to 47.9 per 100,000 population in week 4, 2013 (11% decrease) and rates remain below the Northern Ireland threshold of 70 per 100,000 population. Consultation rates remain substantially higher than the same weeks in the previous year but lower than those for the 2010/11 season (Figures 1, 2 and 3).

Figure 4. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2011



Comment

Most age-specific consultations rates either decreased or remained relatively steady with the exception of the 5-14 year age group which increased sharply and is the highest age-specific rate in week 4, 2013. Small numbers in some of the age groups can contribute to fluctuations in rates (Figure 4).

Out-of-Hours (OOH) Centres Call Data

Figure 5. OOH call rate for flu and flu-like illness, 2010/11 – 2012/13

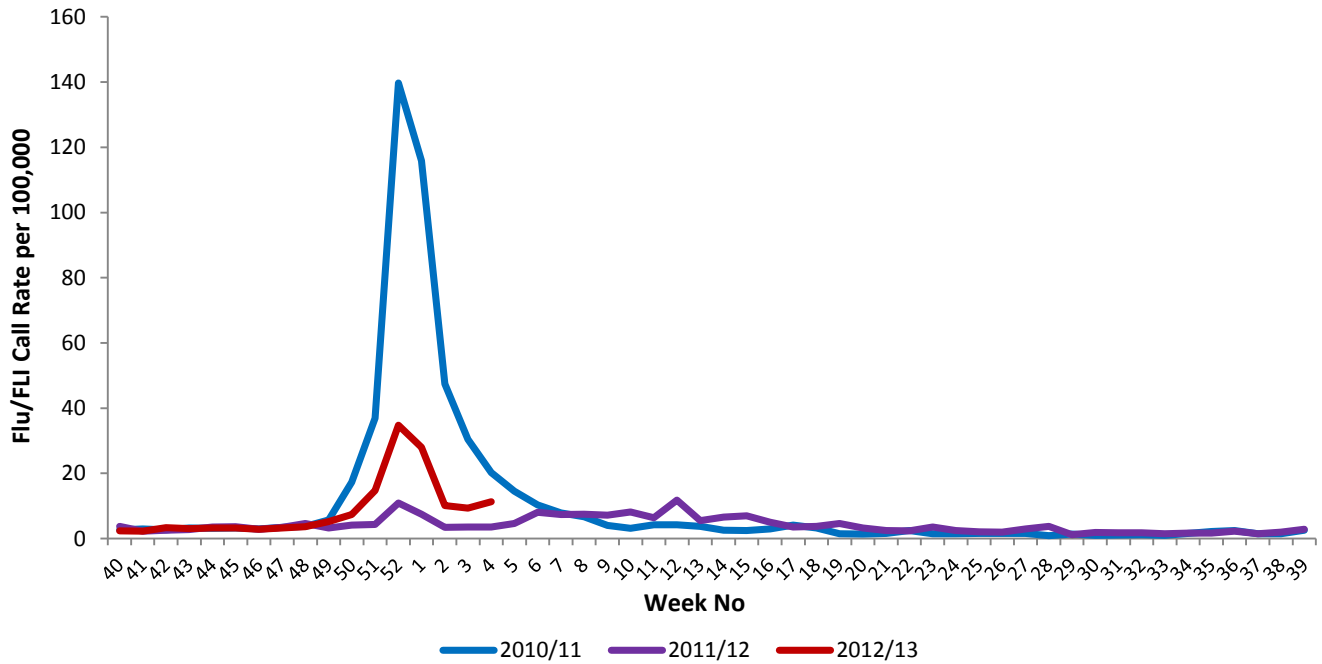
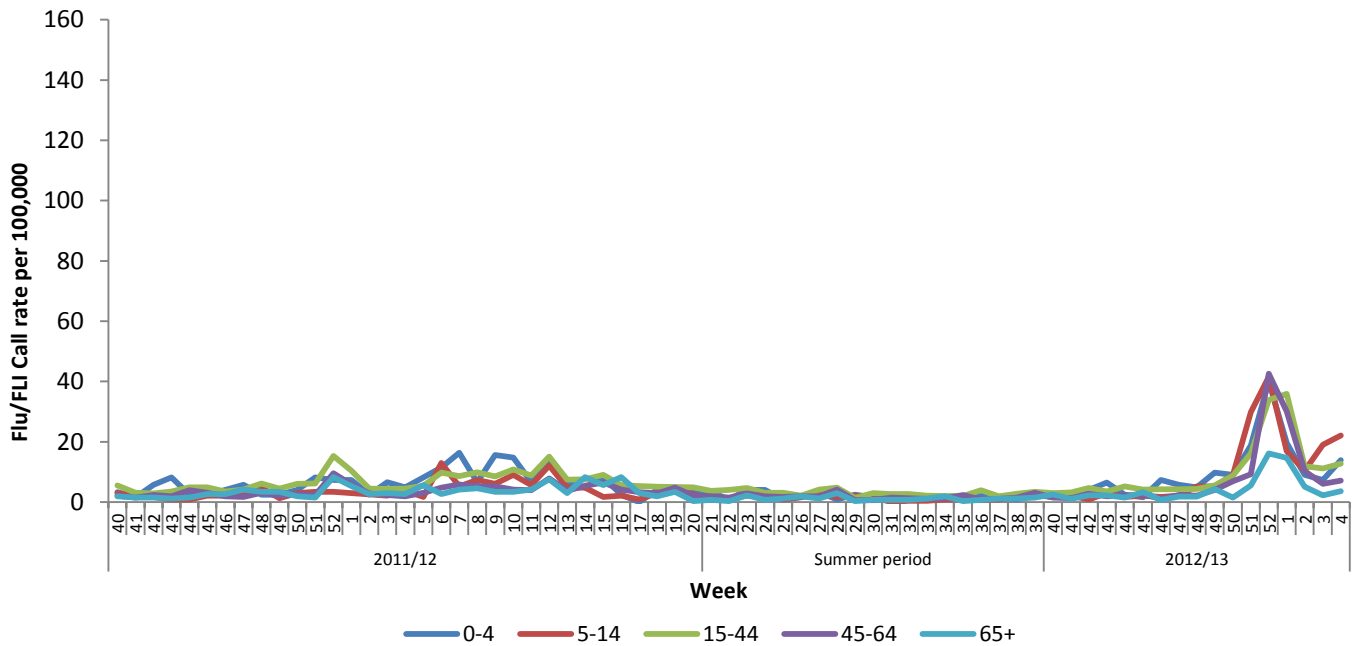


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40 2011



Comment

OOH consultation rates for ‘flu/FLI increased slightly from 9.3 per 100,000 population in week 3 to 11.3 per 100,000 population in week 4, 2013 (22% increase). Call rates for ‘flu/FLI continue to be higher than the same period in the previous year (3.6 per 100,000 population) but still much lower than the rate in week 4, 2010/11 (20.2 per 100,000 population). All age-specific rates have also increased and similar to in-hours GP consultation rates the highest out of hours ‘flu/FLI consultation rate was in the 5-14 year age group. 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 4, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	3	0	0	0	2	0	2	67%
Non-sentinel	67	3	0	0	11	12	14	21%
Total	70	3	0	0	13	12	16	23%

Table 2. Cumulative Total Week 40, 2012 - Week 4, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	4	3	1	32	40	636
5-14	1	1	0	47	49	16
15-64	6	3	1	66	76	49
65+	5	0	0	20	25	48
Unknown	0	0	0	0	0	5
All ages	16	7	2	165	190	754

Table 3. Cumulative Total Week 40, 2012 - Week 4, 2013

	Sentinel						Non-sentinel					
	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	1	1	3	4	3	1	31	39	633
5-14	0	0	0	5	5	0	1	1	0	42	44	16
15-64	1	0	0	29	30	5	5	3	1	37	46	44
65+	1	0	0	2	3	0	4	0	0	18	22	48
Unknown	0	0	0	0	0	0	0	0	0	0	0	5
All ages	2	0	0	37	39	8	14	7	2	128	151	746

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.

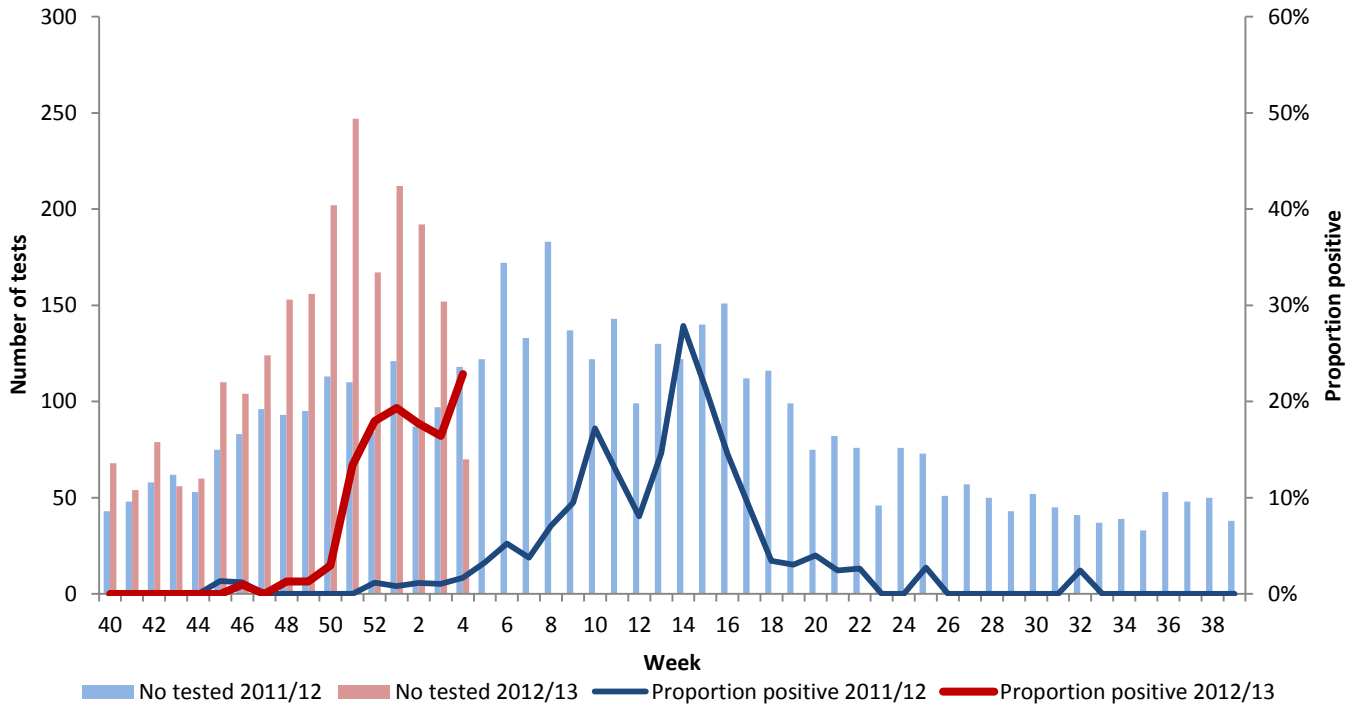
Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

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

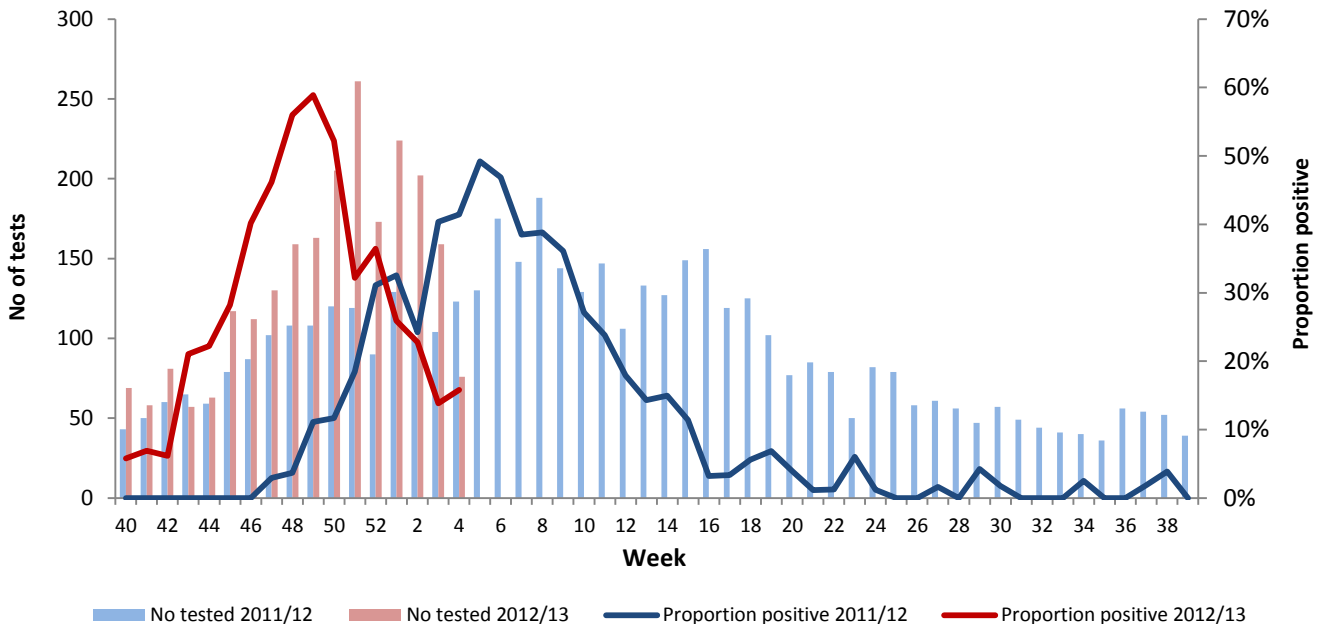
Numbers of specimens submitted for testing remain high in comparison with the previous year but appear to be decreasing. However, influenza positivity rates increased in week 4, 2013. There were 70 specimens submitted for testing in week 4, 2013, of which there were 13 positive detections of influenza B and 3 influenza A(H3). Influenza B continues to be the predominant type with a total of 165 detections so far this season (87% of all influenza detections), and a further 25 detections of influenza A (16 influenza A(H3), 7 A(H1N1)pdm09 and 2 A(untyped)). (Figure 7).

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



Respiratory Syncytial Virus

Figure 8. Number of samples tested for RSV and proportion positive, 2011/12 and 2012/13, all sources



Comment

There were 12 RSV detections in week 4, 2013 with positivity rates increasing slightly. Rates continue to be lower than the same period last year. From week 40 of the current season there have been a total of 754 RSV positive detections reported, of which 84% fall in the 0-4 year age group. RSV positivity trends are similar to 2011/12 but are approximately four weeks earlier. (Figure 8).

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.

There was one new admission to ICU confirmed with influenza in week 4, 2013. To date there have been 12 cases (7 adults, 5 children) admitted to ICU that have been confirmed with influenza; seven of which were confirmed with influenza B, three with influenza A(H3), one influenza A(H1N1)pdm09, one influenza A(untyped).

Mortality Surveillance

There were no deaths reported in patients with laboratory confirmed influenza admitted to in week 4, 2013; with the total this season remaining at one.

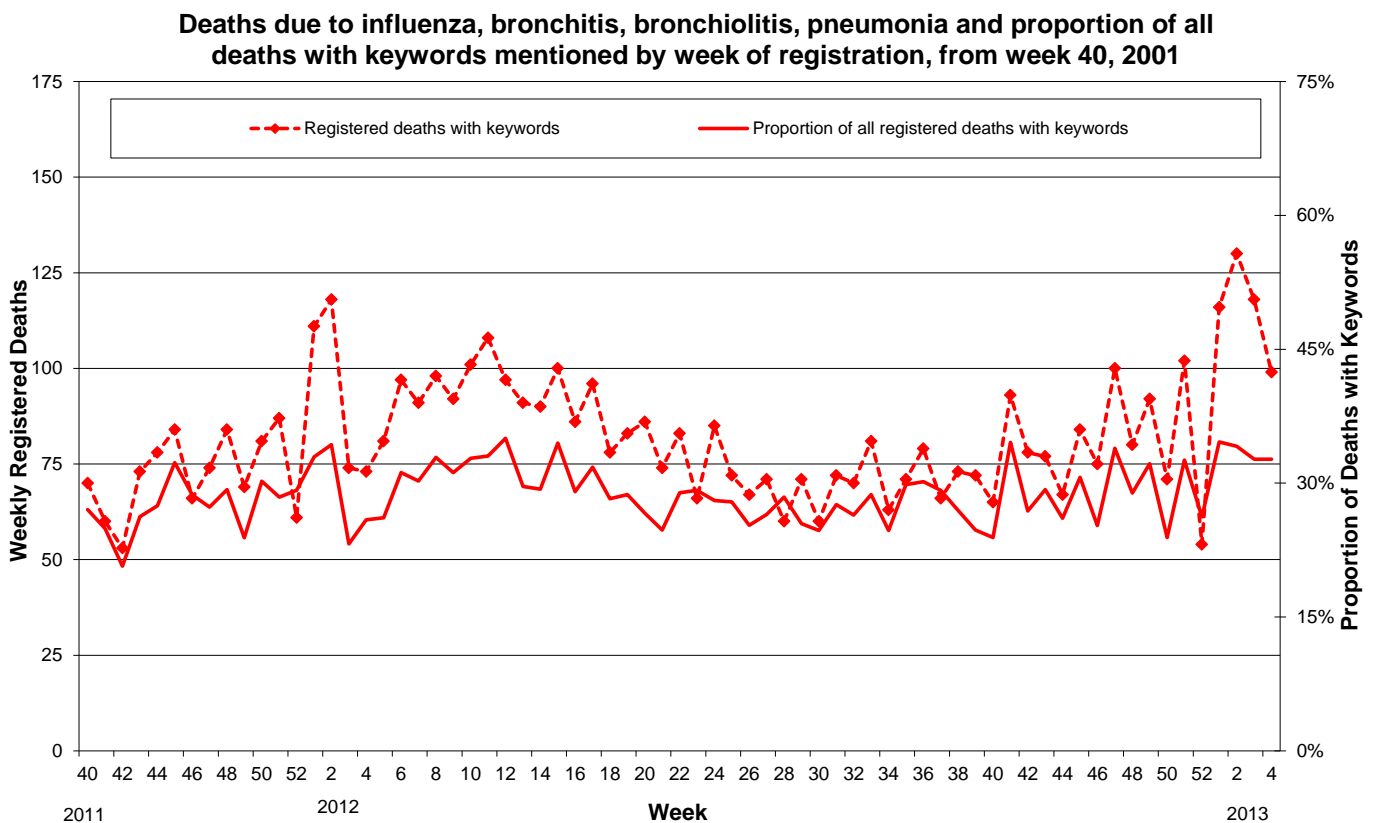
Outbreak Surveillance

There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 4, 2013.

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 in week 4, 2012 remained unchanged at 33%. In week 4, 2013 there were 303 registered deaths of which 99 related to these specific respiratory infections.

Vaccine Uptake

As at the end of December 2012, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 73.8%, while the uptake in those aged under 65 in an at-risk group was 76.2% (provisional data). This compares with 75.6% uptake in the over 65 years, and 79.8% in the under 65 at-risk group for the same period last year.

International Summary

Europe

Weekly reporting of influenza surveillance for the 2012–2013 in Europe started in week 40/2012 and notable transmission began in week 49/2012, about six weeks earlier than in 2011–2012.

- Thirteen countries reported medium intensity and Iceland reported high intensity. Geographic spread was reported as widespread or regional by 13 countries.
- Seventeen countries reported increasing transmission, compared to 19 countries in week 2/2013. Five countries, mostly in western Europe, reported decreasing trends, compared to only two countries in week 02/2013.
- Since week 40/2012, 48% of influenza-positive sentinel specimens were type A, and 52% were type B viruses. Of 1 253 influenza A viruses subtyped, 58% were A(H1)pdm09 and 42% were A(H3). Of 269 type B viruses with known lineage, 86% were Yamagata and 14% were Victoria. The latter lineage is not included in the 2012–2013 vaccine.
- For week 3/2013, all eight reporting countries described hospitalised severe influenza cases, 30 in total. Of seven sub-typed A viruses from these patients, six were A(H1N1)pdm09 and one A(H3).
- Based on the ILI/ARI intensity and the percentage of positive sentinel specimens at the EU/EEA level, influenza activity remains high and increasing in many European countries, although transmission may have peaked in some countries, mostly in western Europe.

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

Worldwide (WHO)

- Influenza activity in North America remained high with some indications that activity might have peaked in areas. Some but not all indicators of severity in the United States of America and Canada have been slightly higher than in previous recent seasons. The onset of the season was earlier than usual and coincided with circulation of other respiratory viruses. Influenza A(H3N2) predominates in North America with A(H1N1)pdm09 being uncommon.
- Many countries in Europe and temperate Asia are reporting increasing influenza activity with A(H1N1)pdm09 being relatively more prominent in Europe than in North America.
- Some countries in the Eastern Mediterranean and the North Africa have reported declining detections of influenza positive samples. Influenza A(H1N1)pdm09 is predominant in the region.
- In tropical Asia, the influenza activity is similar to previous weeks, with persistent low-level circulation.

- Influenza activity in sub-Saharan Africa has declined in most countries.
- In the Caribbean, central America and tropical south America, influenza activity decreased to low levels, except for Bolivia, where there is increasing circulation of influenza A(H3N2)
- Influenza in countries of the southern hemisphere are currently at inter-seasonal levels

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

USA

According to the latest FluView report, influenza activity remains elevated in most of the country. Similar to last week, some national indicators are declining while others are increasing. Key indicators reflecting severity, such as hospitalizations and deaths, increased significantly again this week, with the greatest impact among people 65 and older. Below is a summary of the key indicators for the week of January 13-19:

- For the week of January 13-19, the proportion of people seeing their health care provider for influenza-like illness (ILI) seems to be levelling off but remains elevated.
- Twenty-six states and New York City are reporting high ILI activity. Last week CDC reported 30 states with high ILI activity. Additionally, 14 states are now reporting moderate levels of ILI activity.
- Forty-seven states reported widespread geographic influenza activity for the week of January 13-19, 2013. This decreased from 48 states in the previous week. Geographic Spread data show how many areas within a state or territory are seeing flu activity.
- Since October 1, 2012, 6,191 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 942 hospitalizations from the previous week. This translates to a rate of 22.2 influenza-associated hospitalizations per 100,000 people in the United States.
- Influenza-associated hospitalization rates continue to be highest among people 65 and older. Of the 6,191 influenza-associated hospitalizations that have been reported this season, 50.1% have been among people 65 and older.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System increased sharply again this week; remaining above the epidemic threshold for the third consecutive week. Overall, P&I deaths are significantly elevated at this time with most of the deaths among people 65 and older.
- Of the 232 influenza B viruses characterized, 69% belonged to the B/Yamagata lineage of viruses, and were characterized as B/Wisconsin/1/2010-like, the influenza B component for the 2012-2013 Northern Hemisphere influenza vaccine. The remaining 31% of the tested influenza B viruses belonged to the B/Victoria lineage of viruses.

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

Canada

- The percentage of positive laboratory tests for influenza declined in week 3 for the third week in a row. Influenza A(H3N2) continues to be the predominant strain in Canada.
- Many regions across Canada continue to report widespread and localized influenza activity and 118 new influenza outbreaks were reported.
- The ILI consultation rate decreased but continues to be above the expected range for this time of year, possibly due in part to the circulation of both influenza and RSV in many regions.
- Similar to previous years, older adults (persons aged ≥ 65 years) are the most affected this season; with 49.4% of laboratory detections to date, 67.6% of adult hospitalizations reported through the PCIRN-SOS network, outbreaks in long-term care facilities, and a high proportion of antiviral prescriptions.

<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.