

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 41- 42 (5 October 2015 – 18 October 2015)

Summary

- Influenza activity in Northern Ireland remains at low levels.
- GP consultation rates for combined flu and flu-like illness (flu/FLI) remain below the 2015/16 pre-epidemic Northern Ireland threshold¹ at 8.2 per 100,000 population in week 42.
- The OOH consultation rate for flu/FLI remained low in week 42 at 2.2 per 100,000 population. The rate also remained low in all age groups with only the 0-4 and 5-14 years age groups showing a slight increase.
- RSV activity has remained low in weeks 41 and 42 but is higher than the same period during last season.
- There were no admissions to ICU with confirmed influenza reported in weeks 41 and 42, 2015.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in weeks 41 and 42, 2015.
- In weeks 41 and 42, 2015 EuroMOMO did not report an excess in mortality.
- There were no confirmed influenza outbreaks reported to PHA in weeks 41 and 42, 2015.

Introduction

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

Surveillance systems include:

- 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);
- Excess mortality estimations are also provided by Public Health England using the EuroMOMO (Mortality Monitoring in Europe) model based on raw death data supplied by NISRA;
- Critical Care Network for Northern Ireland reports on critical care patients with confirmed influenza;

¹ The pre-epidemic threshold for Northern Ireland is 49.4 per 100,000 population this year (2015/16)

Sentinel GP Consultation Data

Figure 1. Sentinel GP consultation rates for flu/FLI 2013/14 - 2015/16

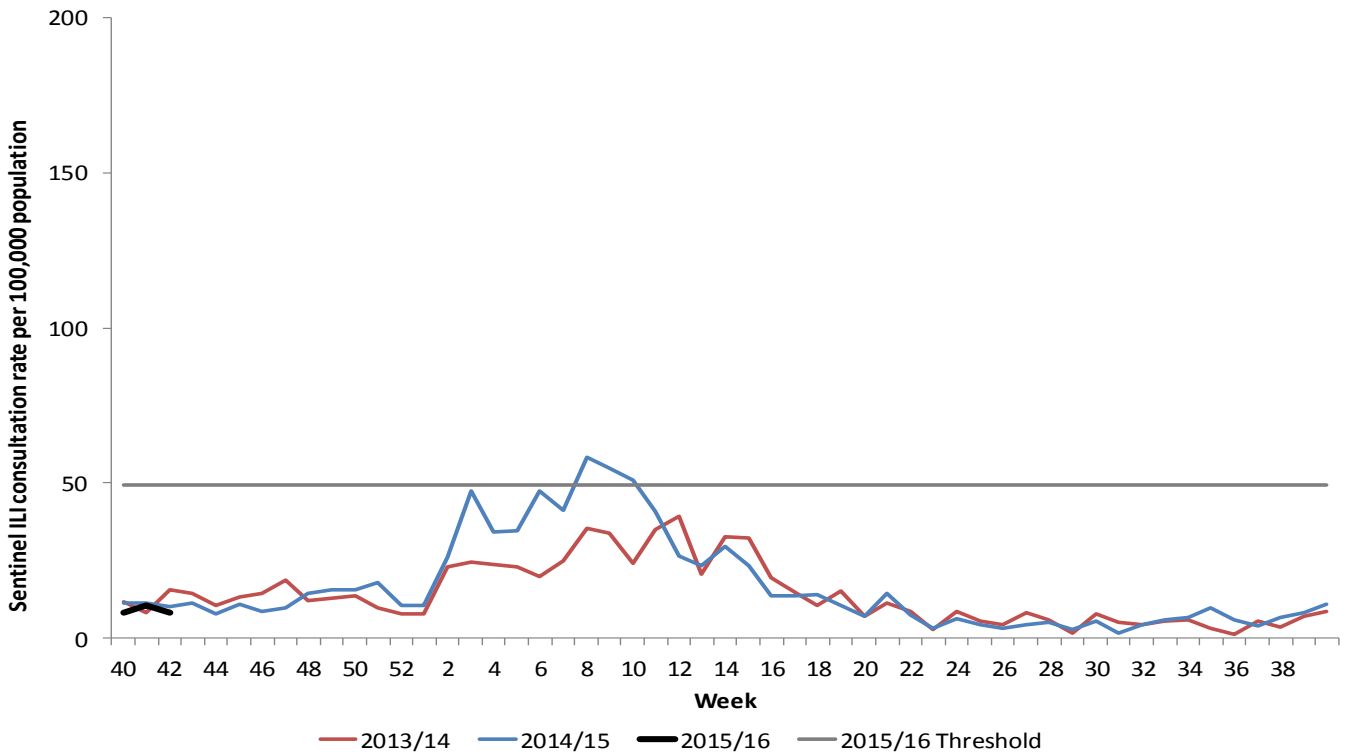


Figure 2. Sentinel GP combined consultation rates for flu/FLI and number of influenza positive detections 2010/11 – 2015/16

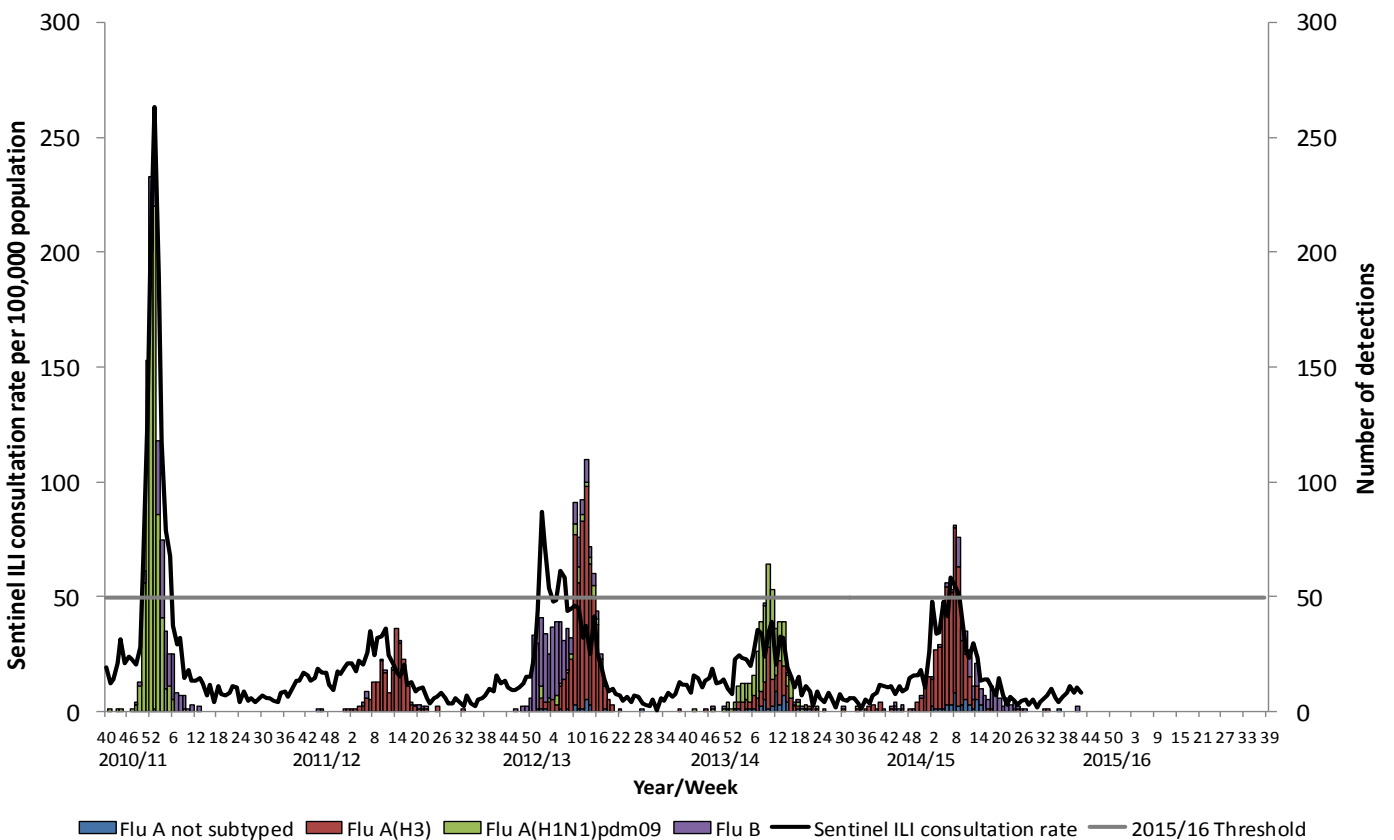
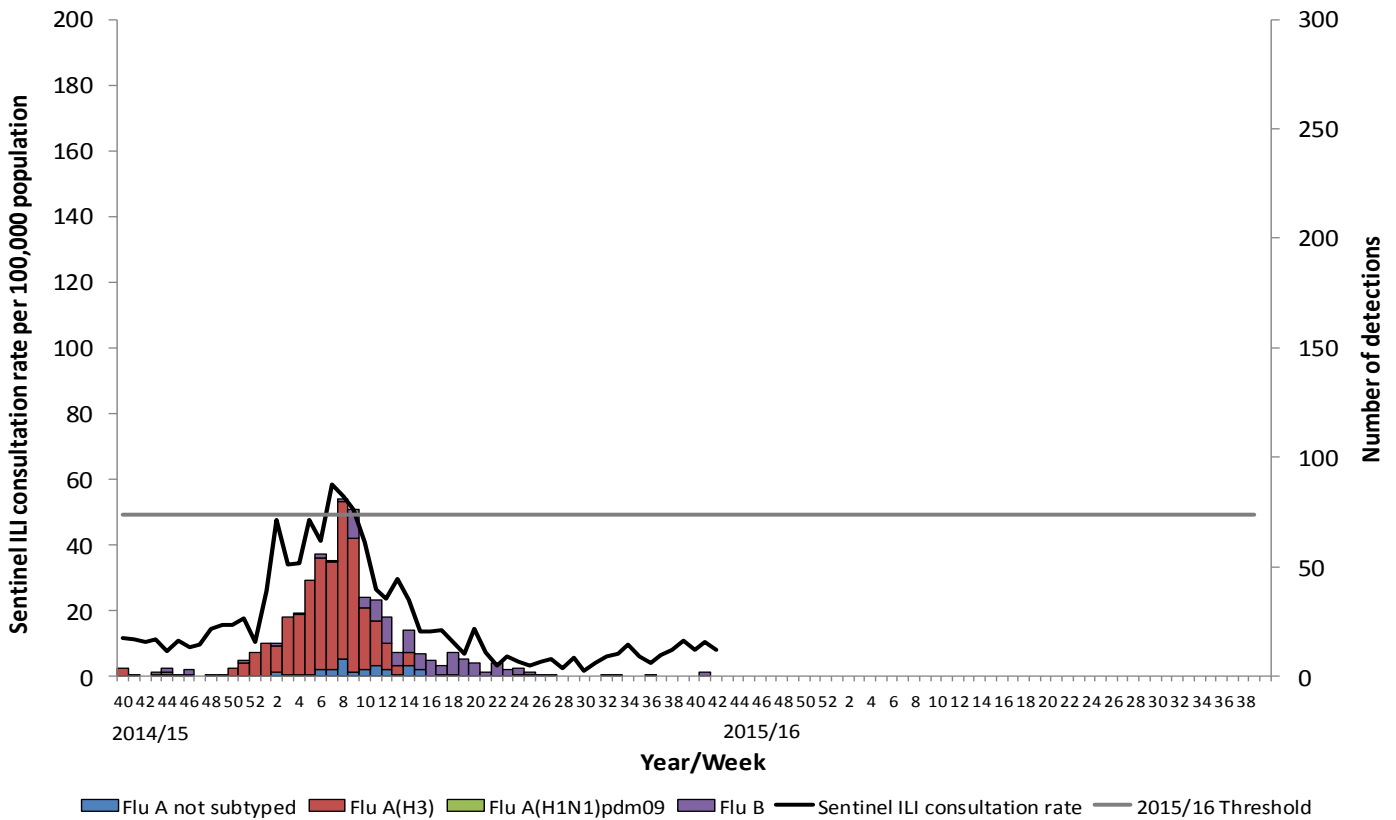


Figure 3. Sentinel GP consultation rates for flu/FLI and number of virology 'flu detections from week 40, 2014

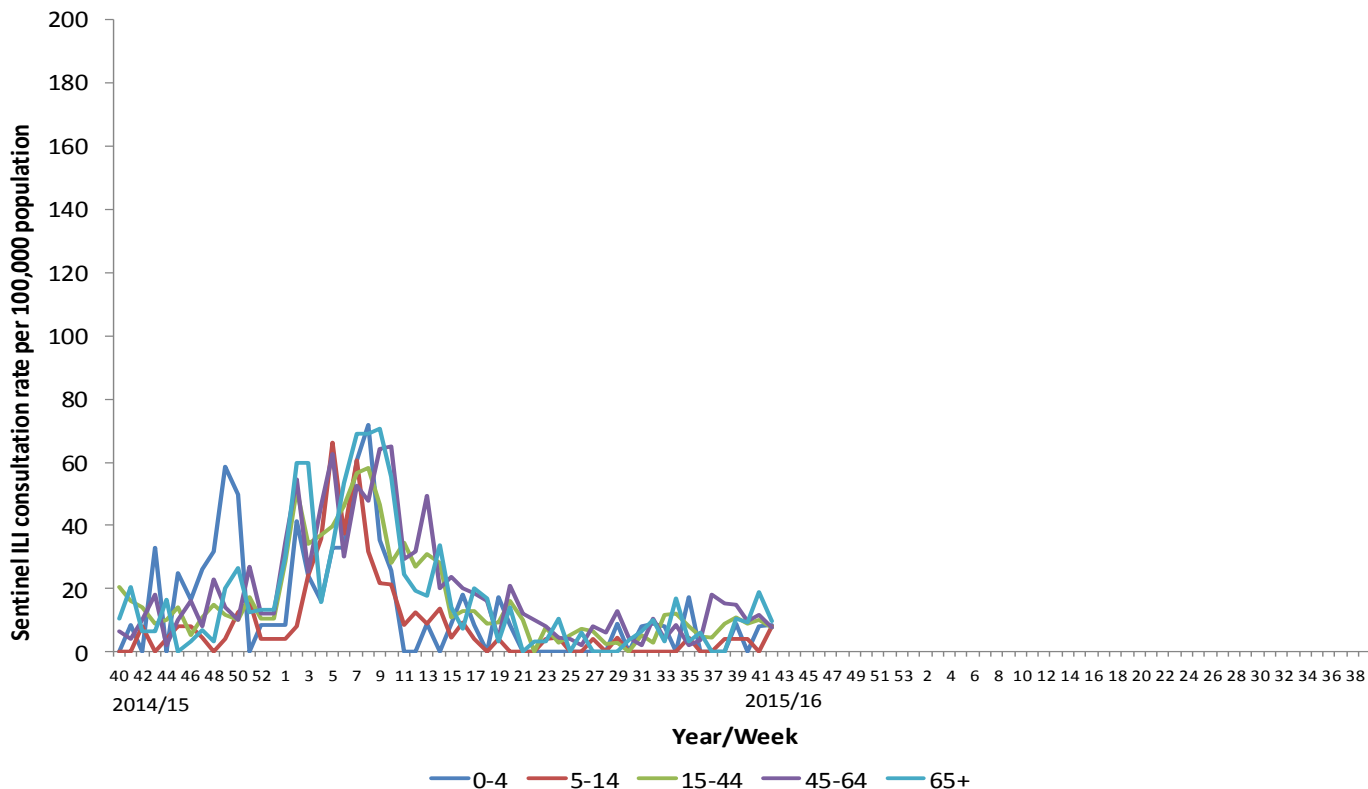


Comment

GP consultation rates fluctuated but remained low throughout weeks 41 to 42 (10.5 per 100,000 in week 41; 8.2 per 100,000 in week 42, compared to 8.0 per 100,000 in week 40). In week 42, the GP consultation rate is lower than the rate in the same period in the previous two years.

Rates remain below the pre-epidemic Northern Ireland 2015/16 threshold of 49.4 per 100,000 (Figures 1, 2 and 3).

Figure 4. Sentinel GP age-specific consultation rates for flu/FLI from week 40, 2014



Comment

During week 41-42, GP consultations remained low in all age groups. Small numbers contributed to fluctuations throughout the 2-week period.

In week 41, consultation rates increased in all age groups compared with the previous week, except in those aged 5-14 years which decreased.

In week 42, consultation rates decreased in those aged 15-44, 45-64 and 65 years and over, and increased in those aged 0-4 and 5-14 years, in comparison with the previous week. The highest consultation rate was in those 65 years and over at 9.6 per 100,000 population (Figure 4).

Out-of-Hours (OOH) Centres Call Data

Figure 5. OOH call rate for flu/FLI, 2013/14 – 2015/16

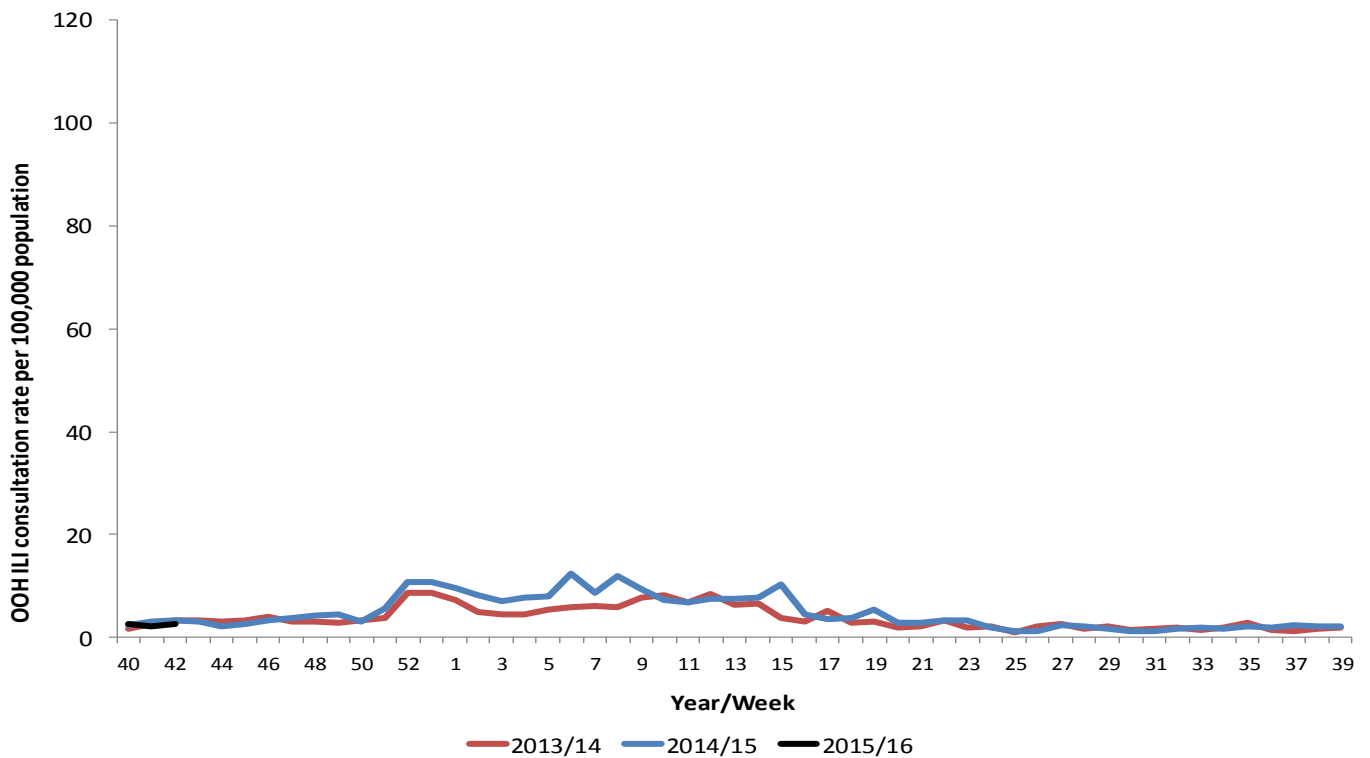
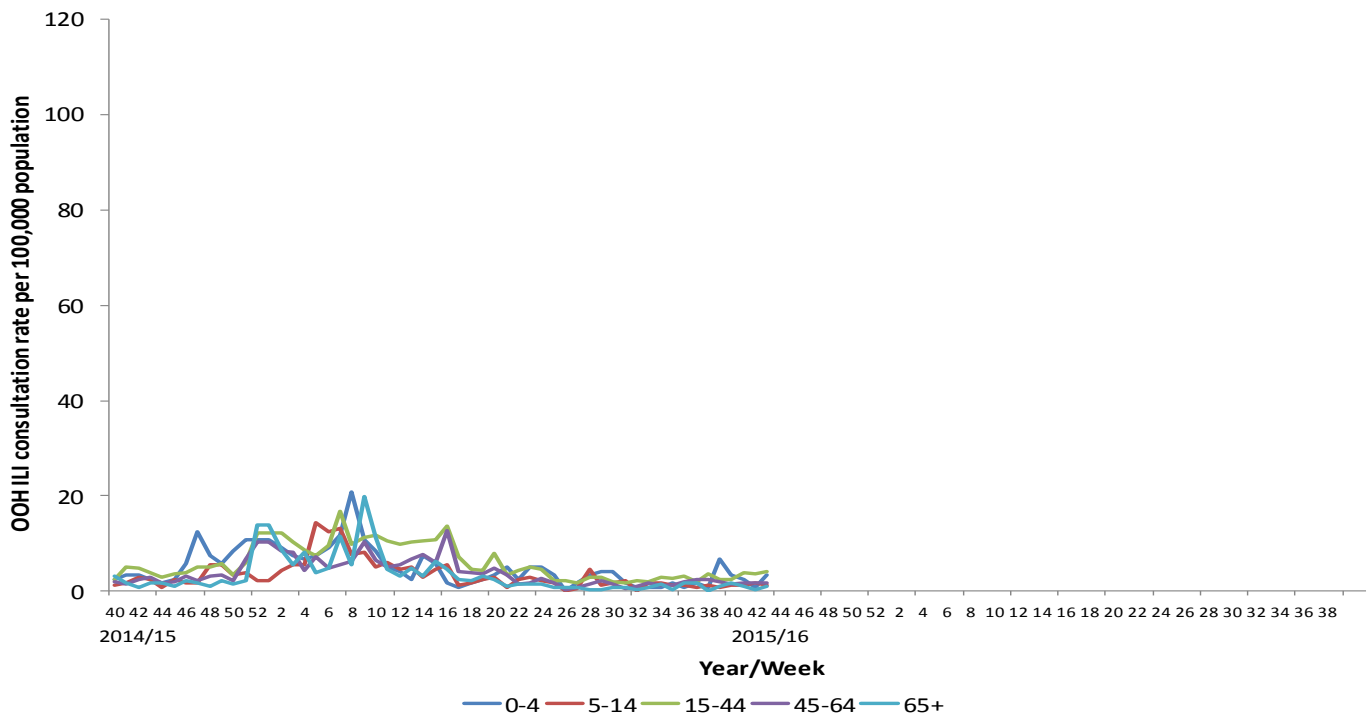


Figure 6. OOH Call rates of flu/FLI by age-group from week 40, 2014



Comment

During weeks 41-42, the OOH GP consultation rate for flu/FLI fluctuated but remained low (2.2 per 100,000 in week 41; 2.7 per 100,000 in week 42, compared to 2.5 per 100,000 in week 40). In week 42, the OOH GP consultation rate is lower than the same period in the previous two years.

The proportion of calls related to flu represent less than 1% of total calls to the OOH service.

OOH flu/FLI rates remained low in all age groups, similar to the same period in 2014/15. In week 41, rates increased in 5-14 years and 15-44 years age groups, remained stable in 45-64 years age groups and decreased in 0-4 years and 65 years and over. In week 42, rates increased in 0-4, 15-44, 45-64 and 65 years and over and decreased in those aged 5-14 years. The highest OOH flu/FLI rate was in those aged 15-44 years (Figures 5 and 6).

Virology Data

Table 1. Virus activity in Northern Ireland, Week 41 - 42, 2015/16

Source	Specimens Tested	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	2	0	0	0	0	0	0	0%
Non-sentinel	182	0	0	0	2	9	2	1%
Total	184	0	0	0	2	9	2	1%

Table 2. Cumulative virus activity in Northern Ireland, Week 40 - 42, 2015/16

	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	2	2	12
5-14	0	0	0	0	0	1
15-64	0	0	0	0	0	1
65+	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
All ages	0	0	0	2	2	14

Table 3. Cumulative virus activity, Week 40 - Week 42, 2015/16

	Sentinel						Non-sentinel					
	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	0	0	0	0	0	0	2	2	12
5-14	0	0	0	0	0	0	0	0	0	0	0	1
15-64	0	0	0	0	0	0	0	0	0	0	0	1
65+	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
All ages	0	0	0	0	0	0	0	0	0	2	2	14

Note

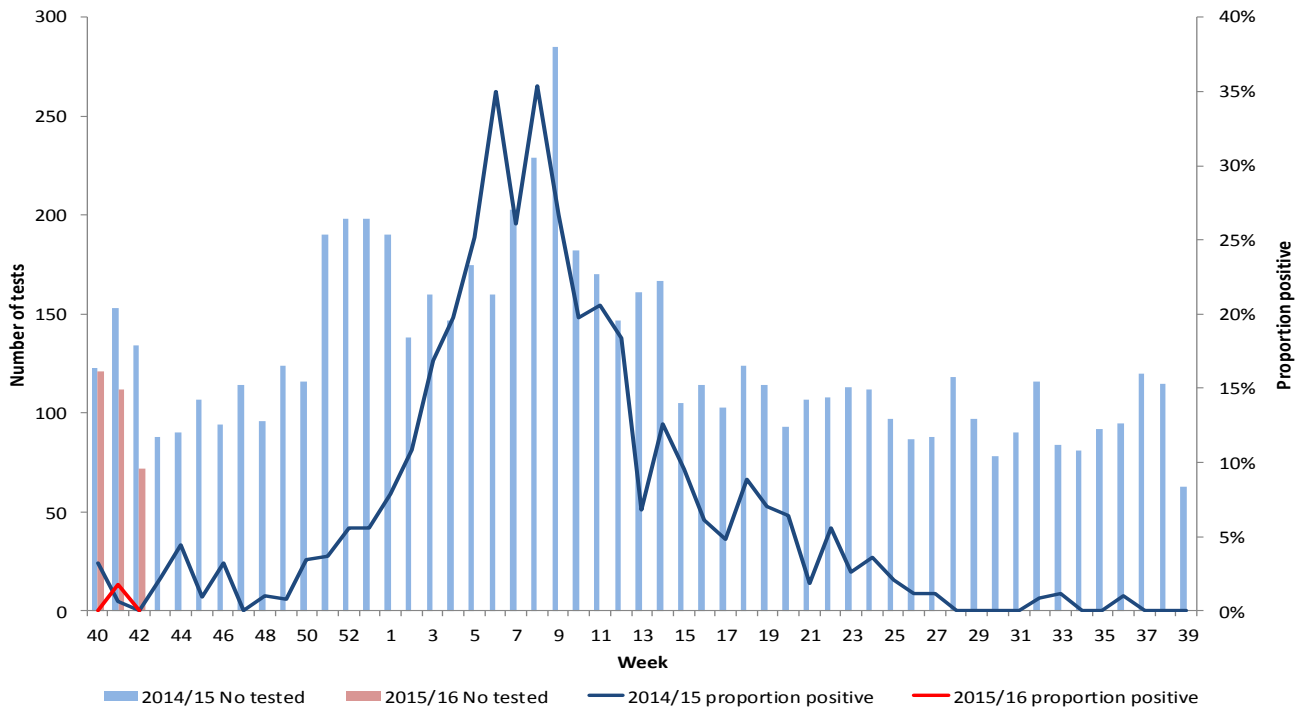
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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.

Comment

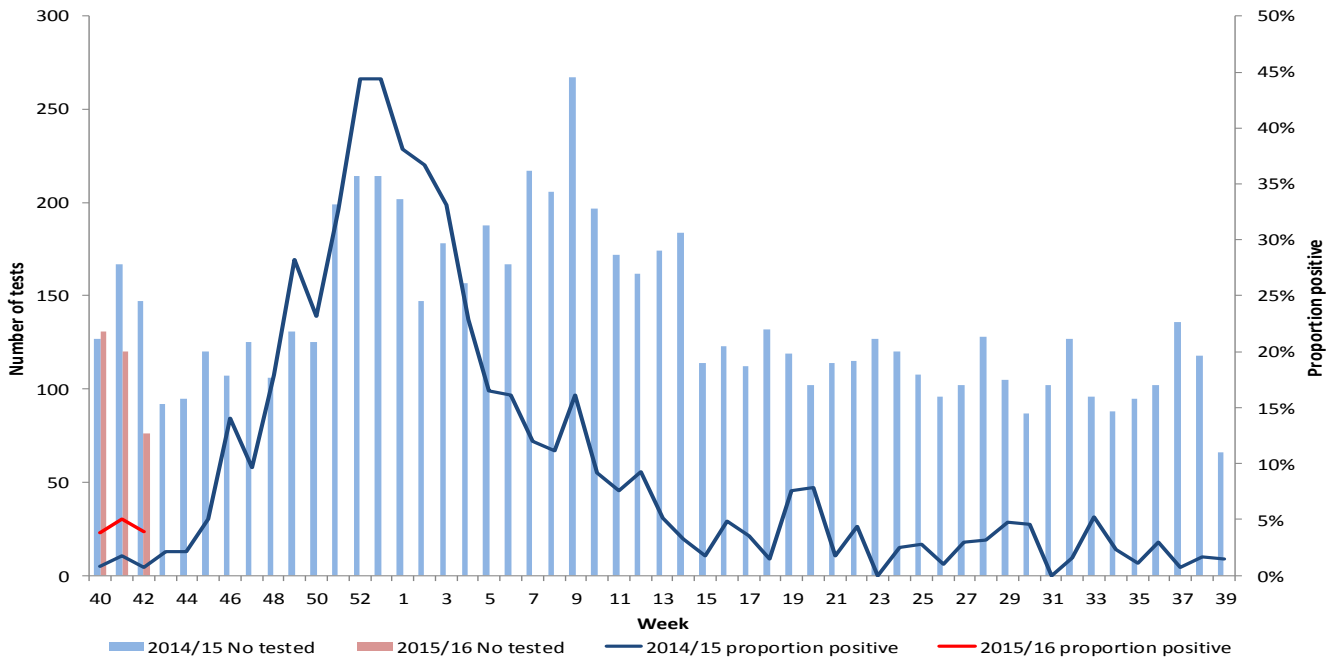
During weeks 41-42, 184 specimens were submitted for virological testing. Two were confirmed influenza B - the first positive specimens reported this season. Positivity rates for influenza (5% in week 41 and 4% in week 42) have been low during the two-week period (Figure 7).

Figure 7. Number of samples tested for influenza and proportion positive, 2014/15 and 2015/16, all sources



Respiratory Syncytial Virus

Figure 8. Number of samples tested for RSV and proportion positive, 2014/15 and 2015/16, all sources



Comment

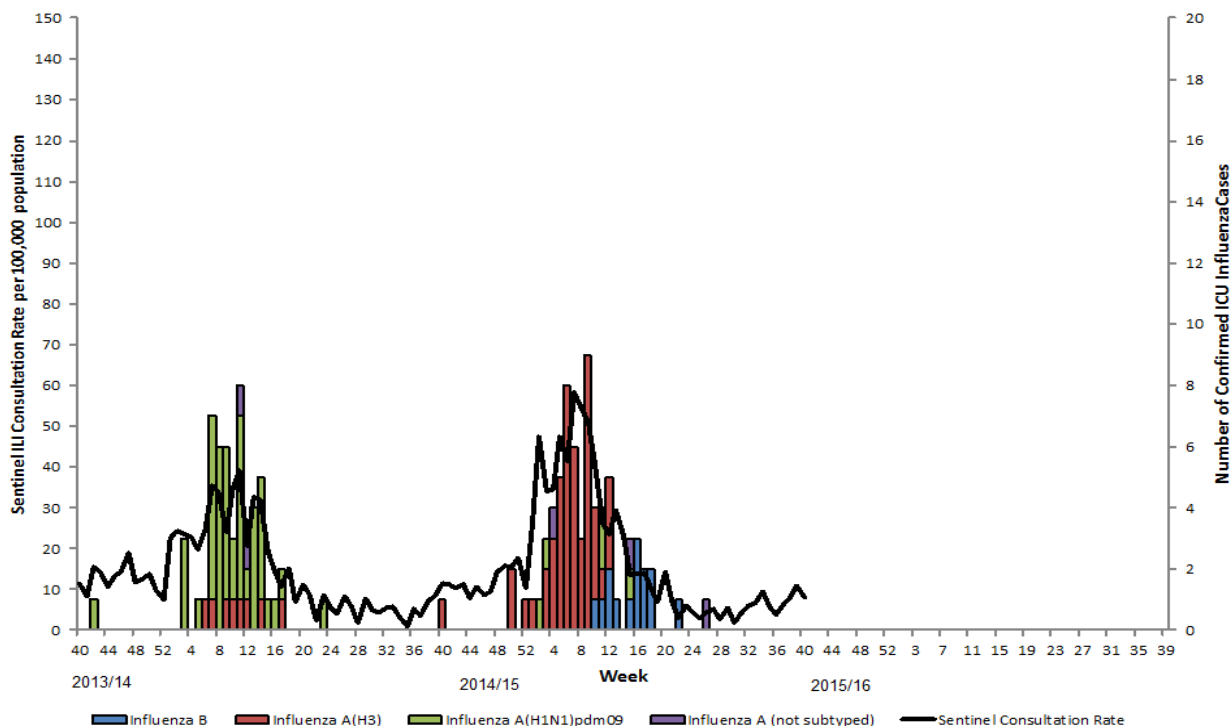
During weeks 41-42, there were nine RSV positive detections. While positivity rates remain (x%) low, they are higher than during the same period last year (Figure 8 and table 2).

Influenza Vaccine Uptake

Vaccine uptake figures for 2015/16 will be reported in the bulletin later in the season.

ICU/HDU Surveillance

Figure 9. Confirmed ICU influenza cases by week of specimen, with sentinel ILI consultation rate, 2015-16



Comment

Data is collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3).

During weeks 41-42, there were no admissions to ICU confirmed with influenza or deaths in ICU patients with laboratory confirmed influenza.

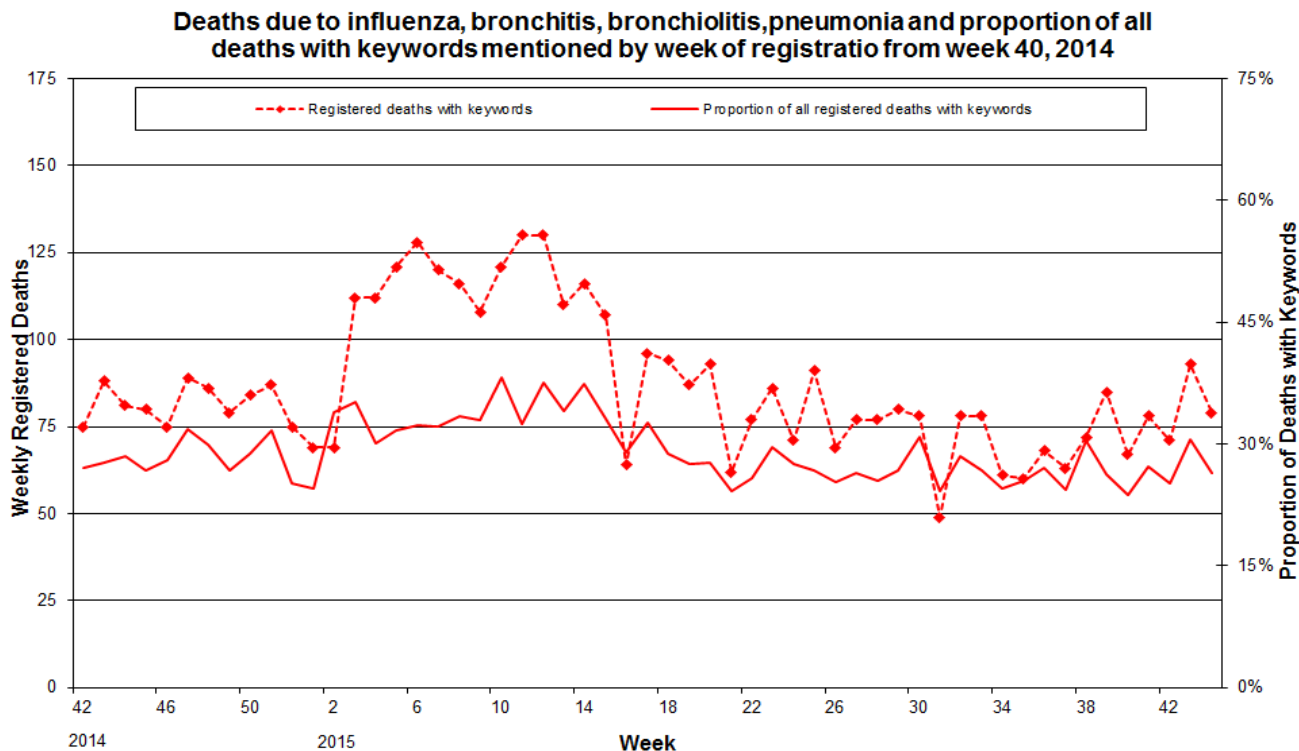
Outbreak Surveillance

During weeks 41-42, there were no reports of confirmed influenza outbreaks.

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



Comment

During weeks 41-42, the proportion of registered deaths fluctuated from 25% in week 40 to 31% in week 41, and then decreasing to 26% in week 42.

In week 42, there were 299 registered deaths, of which 79 (26%) related to specific respiratory infections. The proportion of deaths attributed to specific respiratory infections is lower than the same period in 2014/15, but higher than in 2013/14.

EuroMOMO

During weeks 41-42, no excess all-cause mortality was reported in Northern Ireland. This data will be presented in a chart later in the season.

International Summary

Europe

Week 41, 2015:

- Influenza activity in the WHO European Region is at low levels in the 38 countries which reported data this week.
- In line with the low influenza activity across the Region, one sentinel specimen tested positive for influenza B virus, 21 positive specimens from non-sentinel sources and four laboratory-confirmed hospitalized influenza cases.
- All three seasonal influenza viruses (A(H1N1)pdm09, A(H3N2) and B) were detected.
- <http://www.flunewseurope.org/>

Worldwide (WHO) and CDC

As at 19th October 2015:

Globally, influenza activity generally decreased or remained low in both hemispheres, with only a few countries reporting elevated respiratory illness levels.

- In the Northern Hemisphere, influenza activity continued at low, inter-seasonal levels with sporadic detections. Increased respiratory syncytial virus (RSV) activity was reported in the United States of America (USA).
- Few influenza detections were reported by countries in Africa. In countries with reported influenza activity in both Eastern and Western Africa, influenza type A viruses predominated.
- In tropical countries of the Americas, Central America and the Caribbean, influenza activity remained at low levels, with the exception of Cuba, where high numbers of severe acute respiratory infections (SARI) were still reported, associated with influenza A(H1N1)pdm09 virus and RSV. In Colombia, acute respiratory activity (ARI) has started to decrease in recent weeks but RSV activity remains high compared to previous years.
- In tropical Asia, countries in Southern and South East Asia reported low influenza activity overall except in India and Lao People's Democratic Republic where increased activity mainly due to A(H1N1)pdm09 virus in India and A(H3N2) virus in Lao PDR continued to be reported. Influenza activity declined in southern China.
- In temperate South America, respiratory virus activity continued to decrease in recent weeks after RSV activity peaked in early July and influenza virus activity peaked at the end of August. In Chile, after a later than usual increase and peak in influenza activity in August and early September, ILI activity decreased in recent weeks with decreased influenza A and RSV detections.
- In South Africa, the influenza season ended by mid-September with only sporadic detections of influenza B viruses in recent weeks. ILI and RSV activity also remain low.
- In Australia and New Zealand, influenza activity continued to decrease after peaks in mid-August. Recent influenza virus detections were predominantly influenza B viruses. In New Zealand, ILI activity was just above the seasonal threshold.
- National Influenza Centres (NICs) and other national influenza laboratories from 81 countries, areas or territories reported data to FluNet for the time period from 21 September 2015 to 04 October 2015* (data as of 2015-10-15 13:02:44 UTC). The WHO GISRS laboratories tested more than 49103 specimens during that time period. 2240 were positive for influenza viruses, of which 1495 (66.7%) were typed as influenza A and 745 (33.3%) as influenza B. Of the sub-typed influenza A viruses, 350 (29.8%) were influenza

A(H1N1)pdm09 and 824 (70.2%) were influenza A(H3N2). Of the characterized B viruses, 138 (66.7%) belonged to the B-Yamagata lineage and 69 (33.3%) to the B-Victoria lineage.

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

<http://www.cdc.gov/flu/weekly/>

Acknowledgments

We would like to extend our thanks to all those who assist us in the surveillance of influenza in particular the sentinel GPs, Out-of-Hours Centres, Regional Virus Laboratory, Critical Care Network for Northern Ireland, Public Health England and NISRA. Their work is greatly appreciated and their support vital in the production of this bulletin.

Further information

Further information on influenza is available at the following websites:

<http://www.fluawareni.info> Now on Facebook (Flu Aware NI)

<https://www.gov.uk/government/organisations/public-health-england>

<http://www.publichealth.hscni.net>

<http://www.who.int>

<http://ecdc.europa.eu>

<http://euroflu.org>

Flusurvey, an online flu surveillance system run by the PHE and London School of Hygiene and Tropical Medicine was launched in 2013/14 and will continue into 2014/15. For further information and please see the [Flusurvey website](#).

Detailed influenza weekly reports can be found at the following websites:

Northern Ireland:

<http://www.publichealth.hscni.net/directorate-public-health/health-protection/seasonal-influenza>

England, Scotland and Wales:

<https://www.gov.uk/government/collections/seasonal-influenza-guidance-data-and-analysis#epidemiology>

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:

Chris Nugent
Surveillance Officer
Public Health Agency
028 9536 3407

Dr Naomh Gallagher
Senior Epidemiological Scientist
Public Health Agency
028 9536 3498

Email: flusurveillance@hscni.net

This report was compiled by Chris Nugent, Dr Naomh Gallagher and Dr Jillian Johnston.