

Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 46 - 47 (10 November – 23 November 2014)

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 updated pre-epidemic Northern Ireland threshold of 52.0 per 100,000 population at 8.7 and 9.6 per 100,000 population in weeks 46 and 47 respectively, with all indicators remaining at low levels.
- The OOH consultation rate for flu/FLI remained low in weeks 46 and 47 at 3.3 and 3.9 per 100,000 population respectively. The rate remained low in almost all age groups with the highest rate noted among the 0-4 years age group.
- RSV activity has remained low but has increased in weeks 46 and 47.
- Influenza vaccine uptake to 31st October 2014 was 60.4% for those aged 65 and over, 50.6% for those aged under 65 and in an at risk group, 41.4% among 2-4 year old children and 80.0% among children in P1 to P7.
- There were no admissions to ICU with confirmed influenza reported in weeks 46 and 47, 2014.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in weeks 46 and 47, 2014.
- There were no confirmed influenza outbreaks reported to PHA in weeks 46 and 47, 2014.
- In weeks 46 and 47 2014 EuroMOMO did not report an excess in mortality.
- In weeks 46 and 47, 2014 there were fewer than five attendances for influenza like illness across the contributing emergency departments.

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);
- 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;
- Emergency department syndromic surveillance system (EDSSS) which includes attendance data from 4 emergency departments in Northern Ireland.

Sentinel GP Consultation Data

Figure 1. Sentinel GP consultation rates for flu/FLI 2012/13 - 2014/15

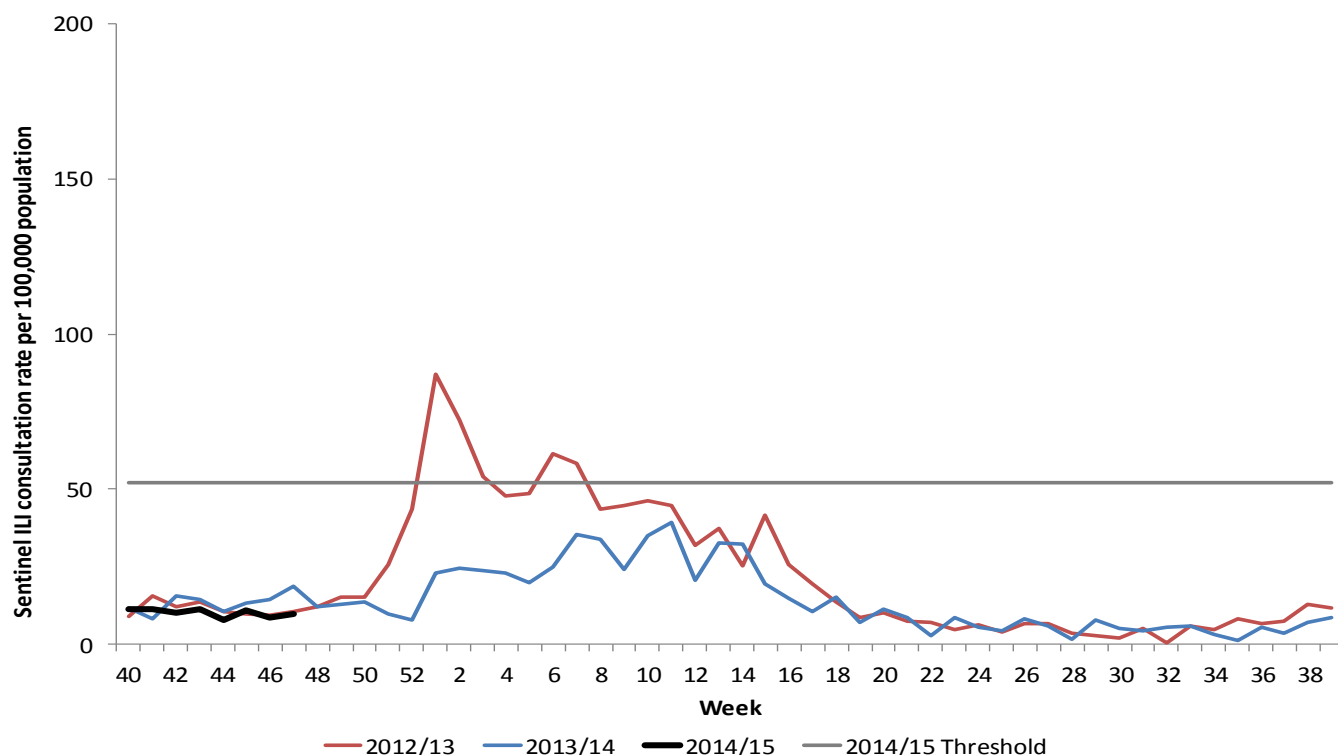


Figure 2. Sentinel GP combined consultation rates for flu/FLI and number of influenza positive detections 2009/10 – 2014/15

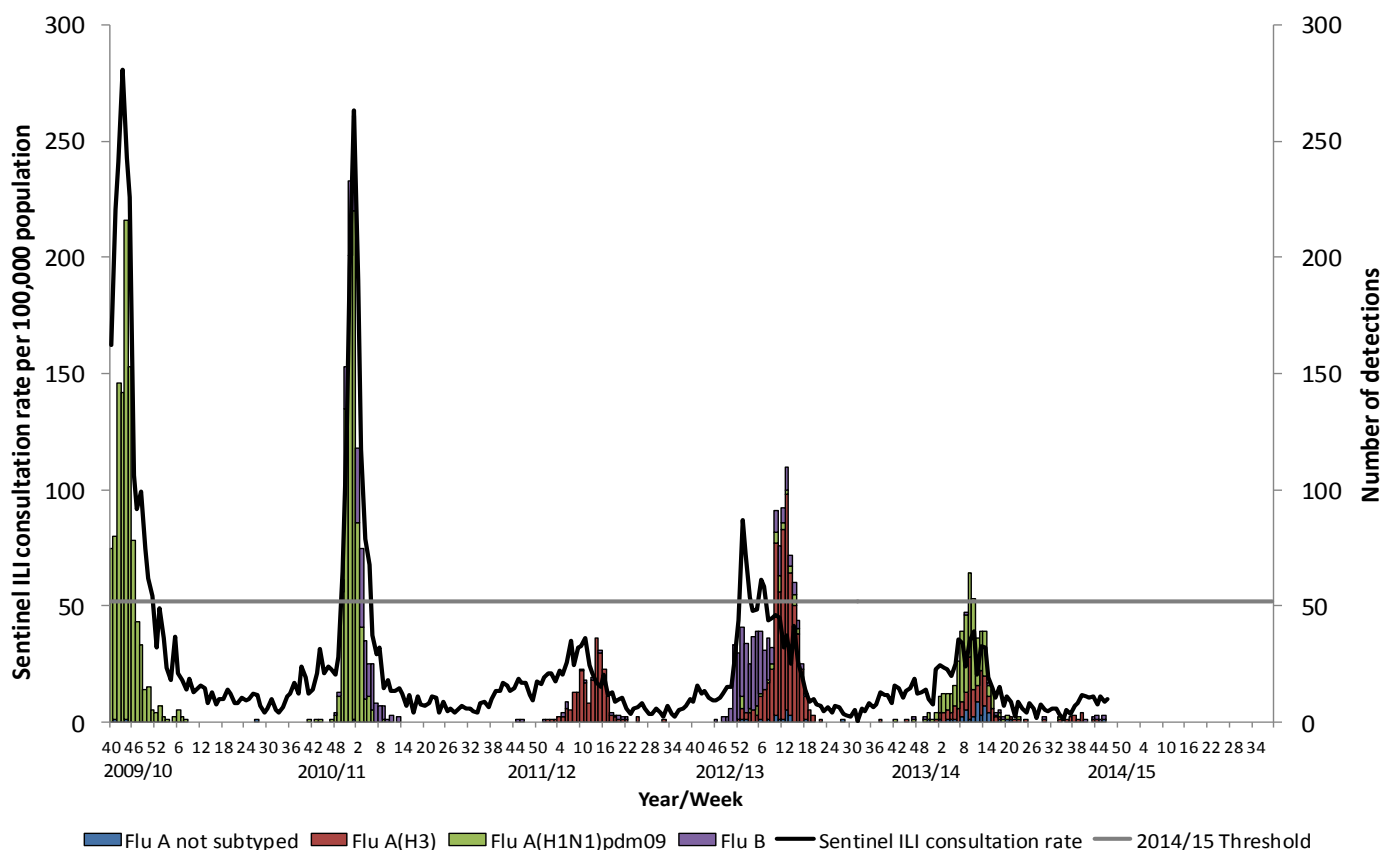
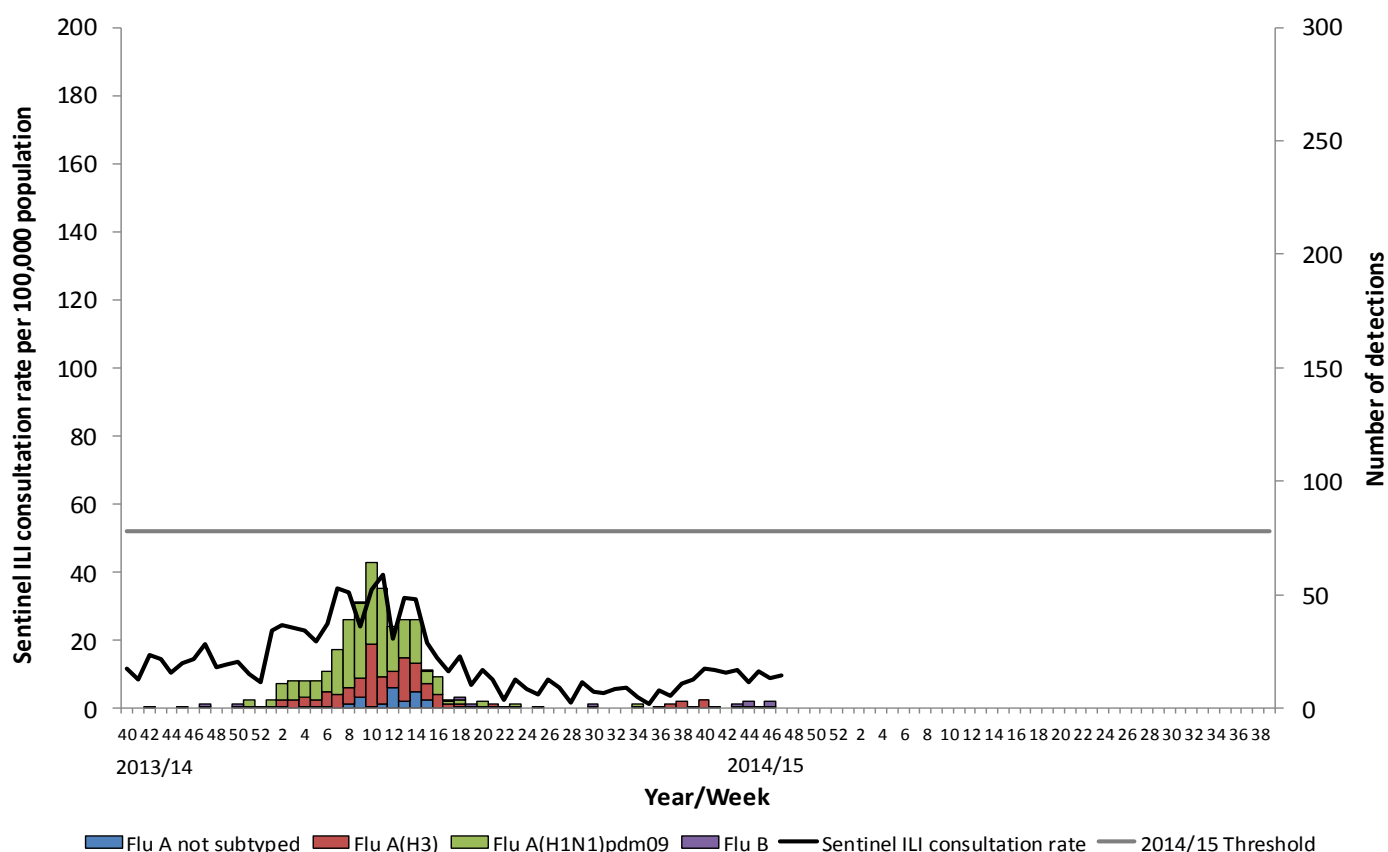


Figure 3. Sentinel GP consultation rates for flu/FLI and number of virology 'flu detections from week 40, 2013

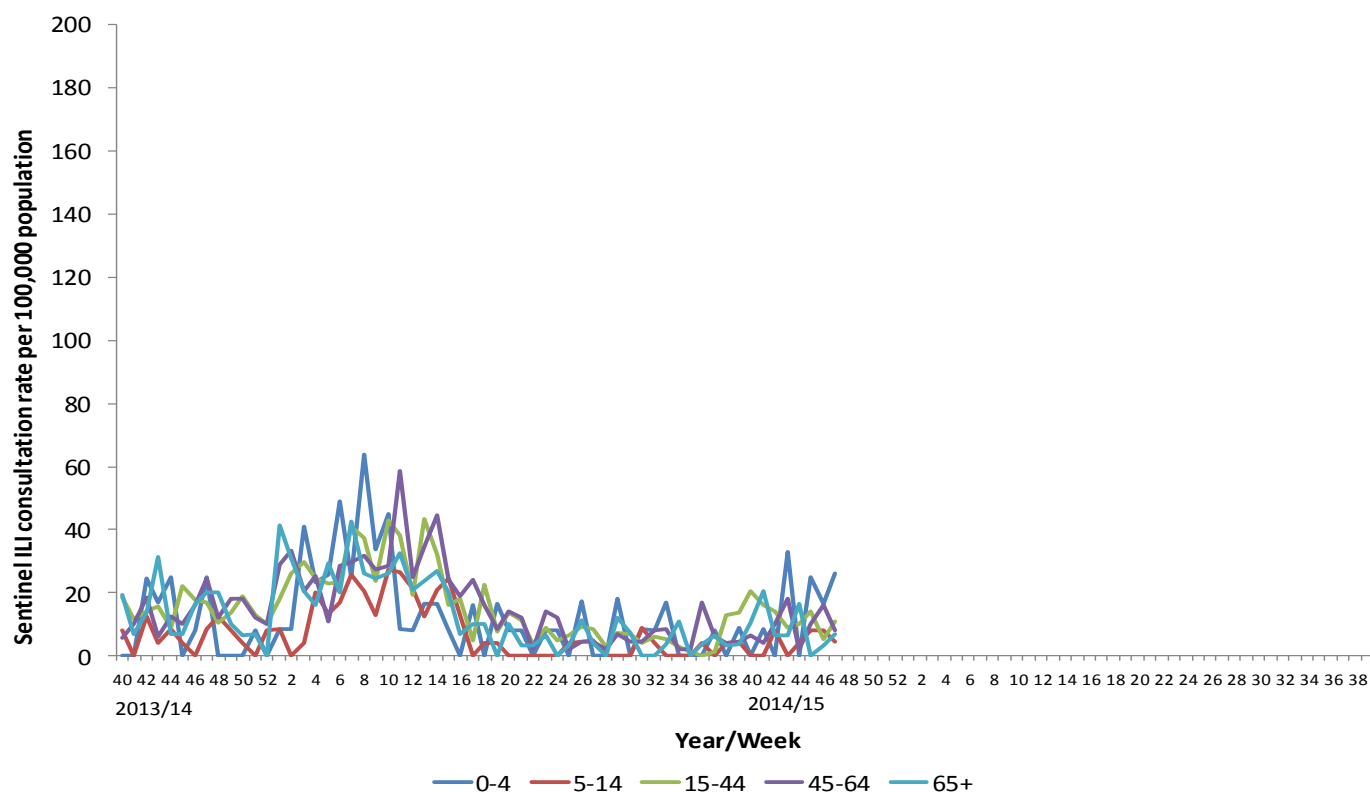


Comment

GP consultation rates remained low throughout weeks 46 to 47. In week 46 the GP consultation rate decreased from the previous week to 8.7 per 100,000 population, increasing in week 47 to 9.6 per 100,000 population. The rate for week 47, 2014 is lower than the same week in previous years.

Rates remain well below the pre-epidemic Northern Ireland 2014/15 threshold of 52.0 per 100,000 population (Figures 1, 2 and 3).

Figure 4. Sentinel GP age-specific consultation rates for flu/FLI from week 40, 2013



Comment

GP consultations remained low for all age groups in weeks 46 to 47, however small numbers may have contributed to some fluctuation in rates.

In week 46 the 45-64 years and 65 years and over age groups showed an increase in consultation rates when compared with the previous week, while rates among those aged 0-4 and 15-44 decreased. Rates among those aged 5-14 years remained stable. In week 47, GP consultation rates among those aged 0-4, 15-44 and 65 years and over showed an increase, while rates among those aged 5-14 and 45-64 years displayed a decrease.

In general, GP consultation rates for combined flu' and flu'-like-illness in all age groups have fluctuated in recent weeks while remaining low. The highest age-specific consultation rate in week 47 2014, was again noted in the 0-4 years age group (Figure 4).

Out-of-Hours (OOH) Centres Call Data

Figure 5. OOH call rate for flu/FLI, 2012/13 – 2014/15

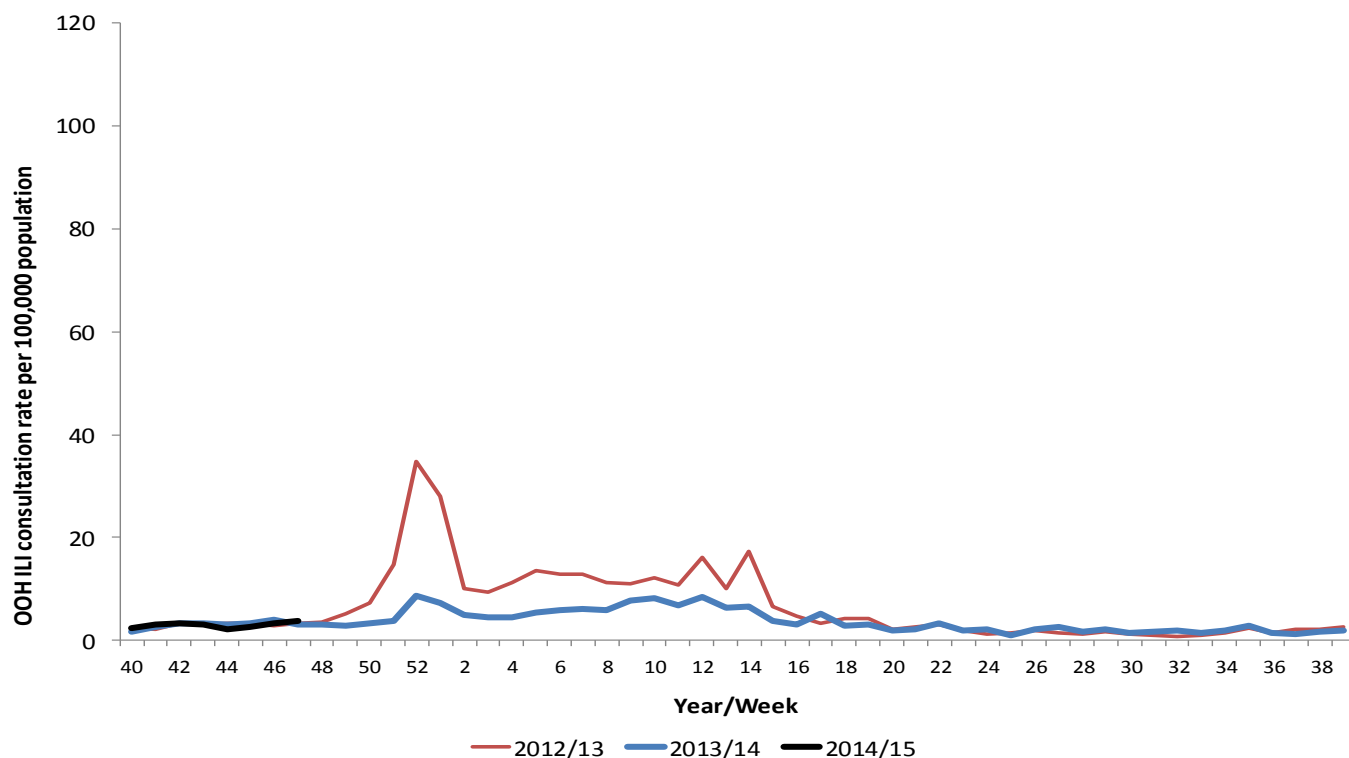
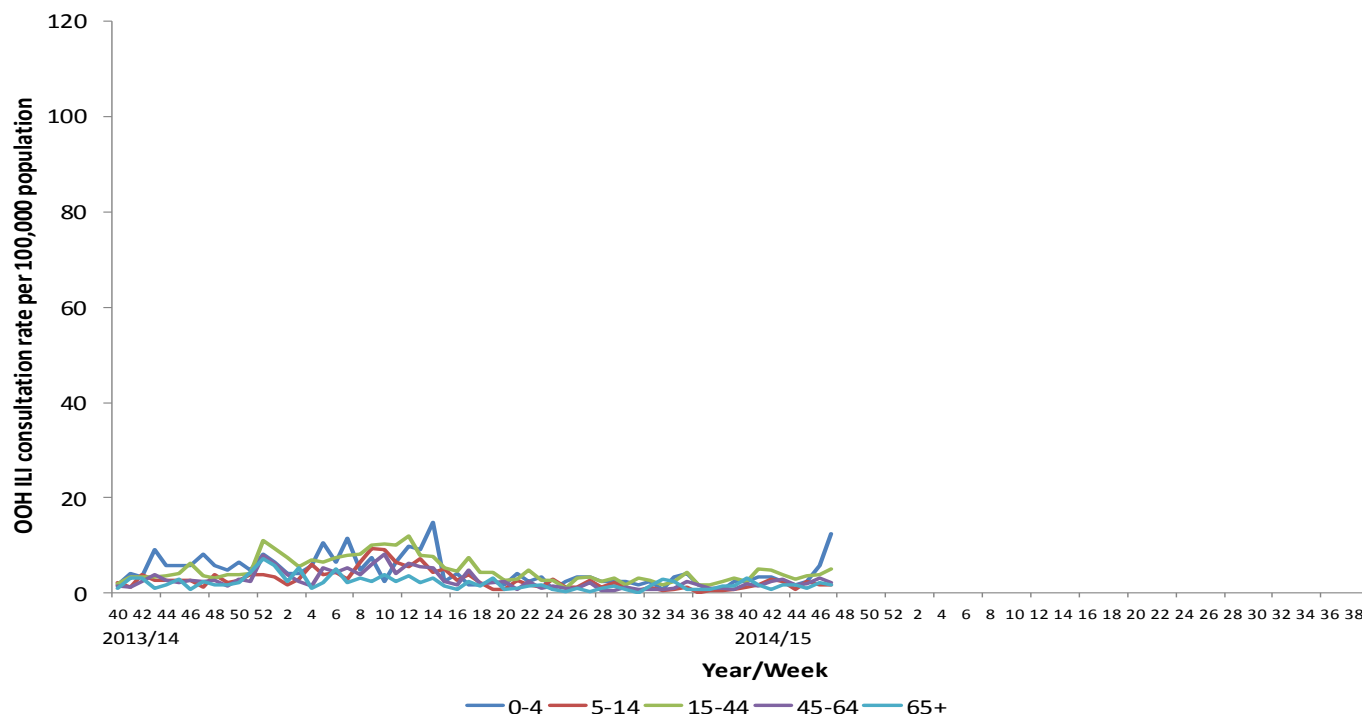


Figure 6. OOH Call rates of flu/FLI by age-group from week 40, 2013



Comment

The OOH consultation rate for flu/FLI has steadily increased but remained low throughout weeks 46-47, similar to previous years, at 3.3 and 3.9 per 100,000 population respectively. The OOH

flu/FLI rate remained low in almost all age groups, but has significantly increased in the youngest age group. In weeks 46 and 47, 2014 rates have steadily increased among those aged 15-44 years while a significant increase was noted among those aged 0-4 years, representing the highest age-specific rate in recent years noted for this period. Flu/FLI OOH consultation rates decreased among those aged 5-14 years in week 46 then remained stable in week 47, while rates among the aged 45-64 and 65 years and over age groups fluctuated slightly throughout the two-week period, increasing in week 46 and decreasing in week 47. This fluctuation however may be accounted for by small numbers (Figures 5 and 6).

Virology Data

Table 1. Virus activity in Northern Ireland, Week 46 - 47, 2014/15

Source	Specimens Tested	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	1	0	0	0	0	0	0	0%
Non-sentinel	161	0	0	1	2	19	3	2%
Total	162	0	0	1	2	19	3	2%

Table 2. Cumulative virus activity in Northern Ireland, Week 40 - 47, 2014/15

	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV
0-4	1	0	1	3	5	33
5-14	0	0	0	2	2	0
15-64	3	1	0	2	6	1
65+	2	0	0	0	2	0
Unknown	0	0	0	0	0	0
All ages	6	1	1	7	15	34

Table 3. Cumulative virus activity, Week 40 - Week 47, 2014/15

	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	1	0	0	0	1	0	0	0	1	3	4	33
5-14	0	0	0	0	0	0	0	0	0	2	2	0
15-64	0	1	0	1	2	0	3	0	0	1	4	1
65+	0	0	0	0	0	0	2	0	0	0	2	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
All ages	1	1	0	1	3	0	5	0	1	6	12	34

Note

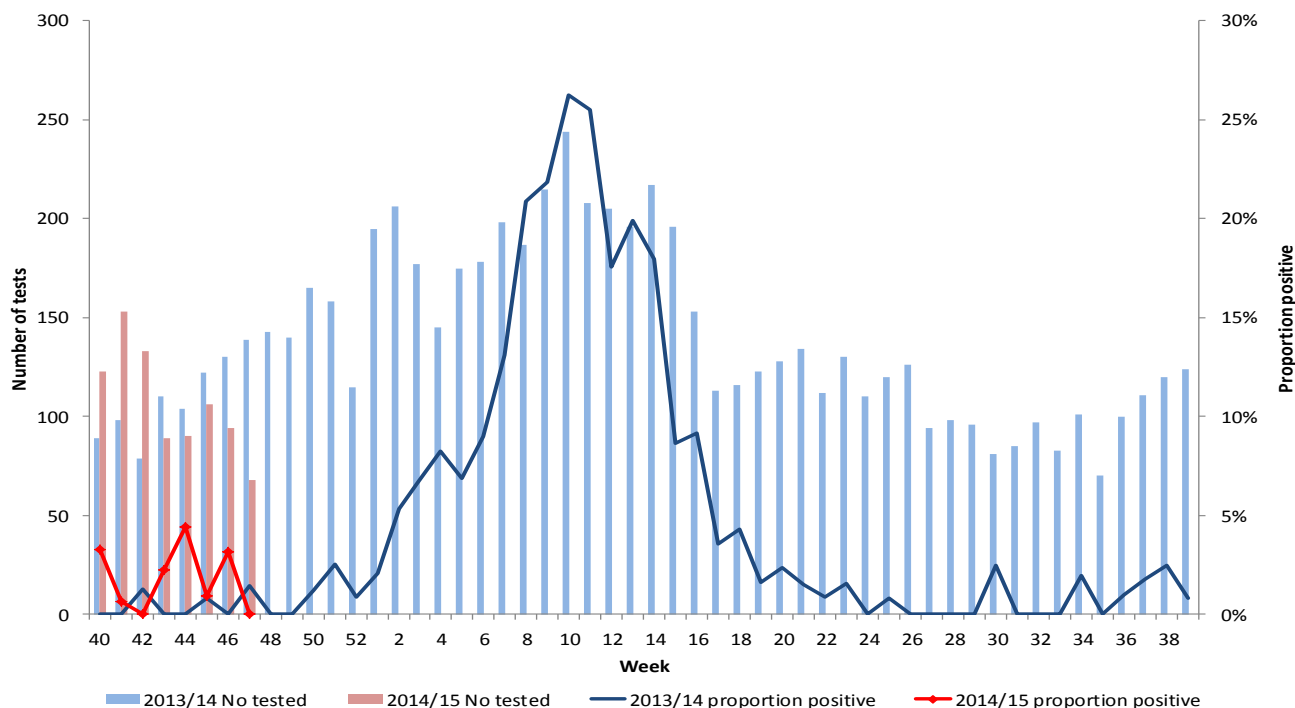
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

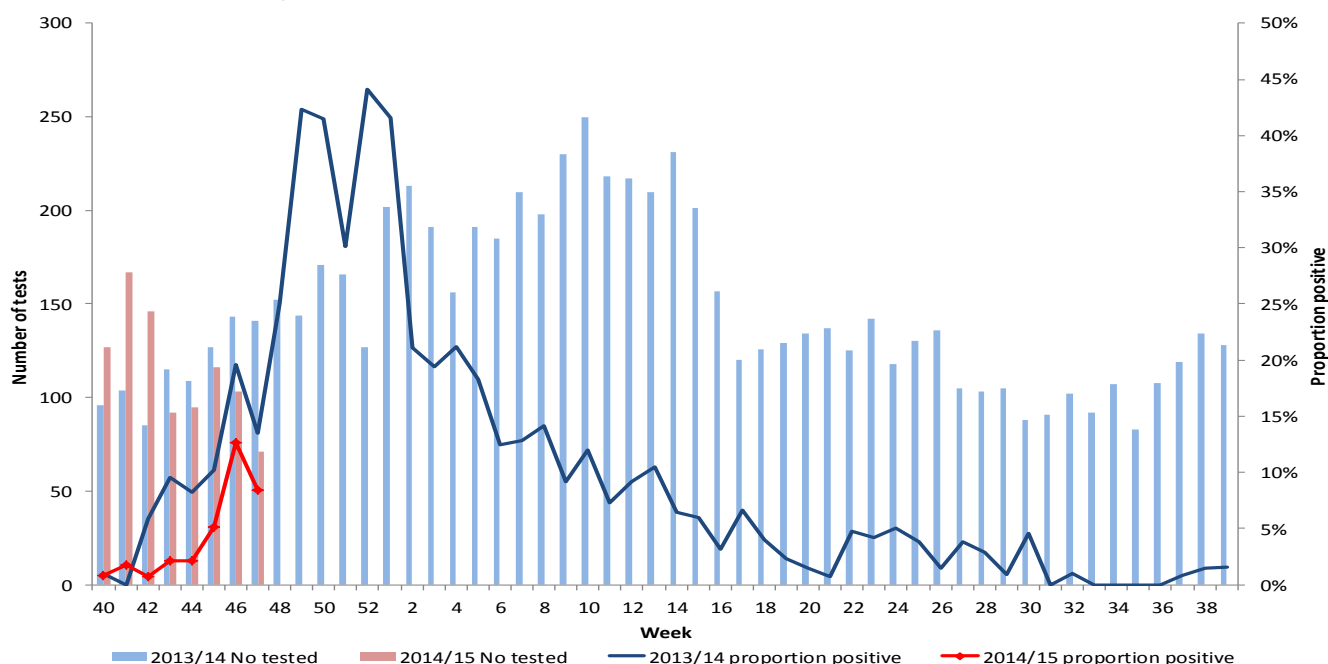
During weeks 46 to 47, there were 162 specimens submitted for testing, of which 1 was confirmed as influenza A (typing awaited) and 2 as influenza B, lower than the previous 2-week period but slightly higher than the same period last year. Positivity rates for influenza have remained relatively low throughout the 2-week period (Figure 7).

Figure 7. Number of samples tested for influenza and proportion positive, 2013/14 and 2014/15, all sources



Respiratory Syncytial Virus

Figure 8. Number of samples tested for RSV and proportion positive, 2013/14 and 2014/15, all sources



Comment

There were nineteen positive RSV detections during weeks 46 and 47 with positivity rates remaining low, although the highest recorded this season to date (Figure 8, Table 2).

Influenza Vaccine Uptake

To 31st October 2014, provisional data suggested that vaccine uptake for those aged 65 years and over was 60.4%, lower than the same period in the 2013 (61.2%); while 50.6% of those under 65 and in an at risk group had received the vaccine, lower than in 2013 when 55.3% had received the vaccine during the same period.

This season for the first time, all children aged between 2 and 4 years and all those in P1 – P7 have been offered the seasonal influenza vaccine. To 31st October 2014, provisional data suggested that vaccine uptake among 2-4 year old children was 41.4%, while provisional uptake among children in P1 – P7 was 80.0%.

Emergency Department Syndromic Surveillance System

In weeks 46 and 47 there were fewer than five influenza-like-illness (ILI) attendances reported in EDSSS. Later in the season the bulletin will include a graphical representation of ILI attendances if numbers increase.

ICU/HDU Surveillance

There were no admissions to ICU or deaths in ICU patients confirmed with influenza reported in weeks 46 and 47, 2014.

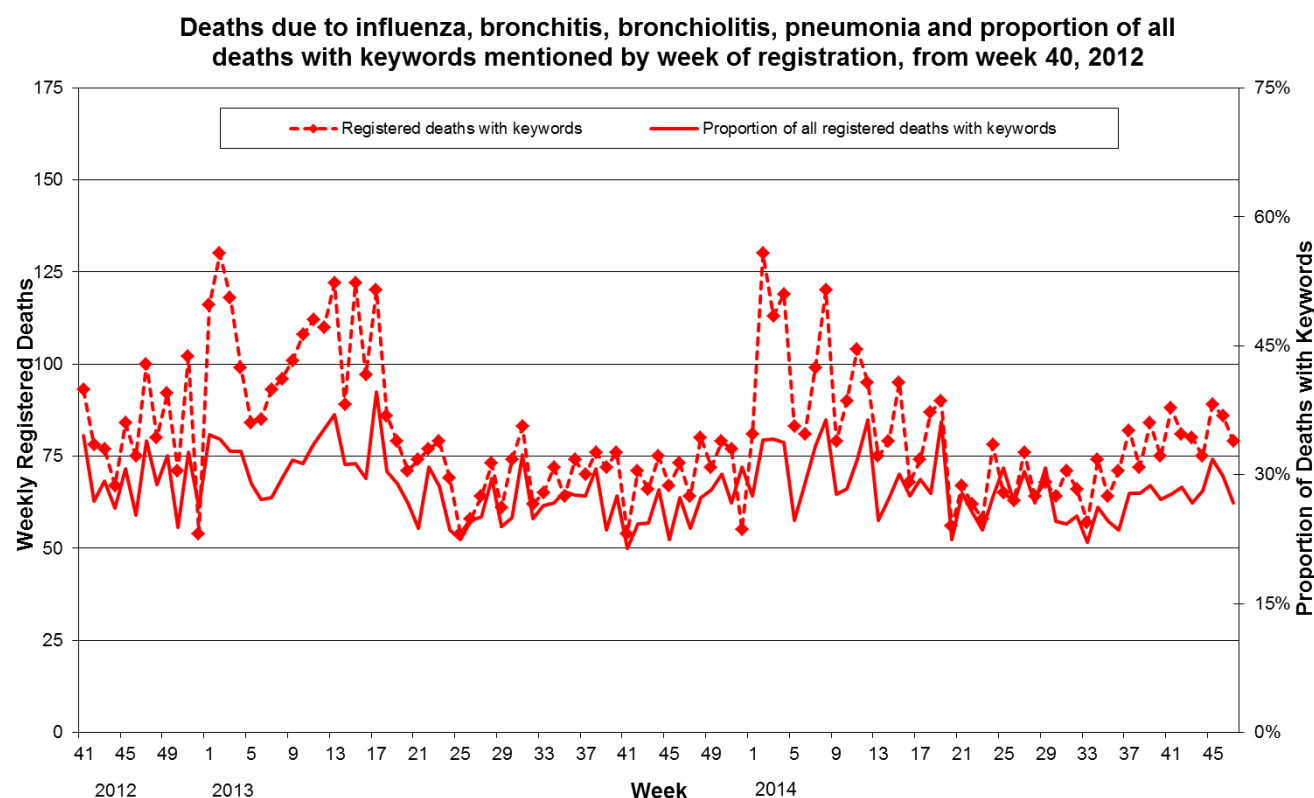
Outbreak Surveillance

There were no confirmed influenza outbreaks reported in weeks 46 and 47, 2014.

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

The proportion of deaths related to respiratory keywords has decreased across the 2-week period. During week 46, 2014 the proportion of registered deaths decreased slightly to 30%, from 32% the previous week, decreasing further to 27% in week 47, although remaining higher than the same period in 2013 (24%).

The number of registered deaths due to respiratory keywords decreased to 86 in week 46, compared with 89 in week 45. In week 47, 2014, there were 296 registered deaths of which 79 related to these specific respiratory infections.

EuroMOMO

In weeks 46 and 47, 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 46, 2014:

- In week 46/2014, influenza activity remained low across the WHO European Region.
- Fourteen countries reported sporadic influenza activity and eight reported increasing trends in consultations for influenza-like illness (ILI) and acute respiratory infection (ARI).
- Of the 634 sentinel ILI and ARI specimens tested across 35 countries, only 14 (2%) from eight countries tested positive for influenza virus. Currently circulating viruses include A(H1N1)pdm09, A(H3N2) and influenza B viruses.
- Hospitalized cases remain low and stable, with one country reporting four hospitalized laboratory-confirmed influenza cases for week 46/2014. All were admitted to intensive care units.

Season:

- Although sporadic influenza virus detections are being reported in an increasing number of countries, there is no indication that the influenza season has started in the Region, which is normal for this time of year.
- No indications of increased mortality due to influenza have been reported through the European monitoring of excess mortality for public health action project (EuroMOMO – <http://www.euromomo.eu>).

<http://www.flunewseurope.org/>

Worldwide (WHO)

As at 17th November 2014:

Globally, influenza activity was low, with the exception of some Pacific Islands.

- In North America, influenza activity continued to increase slightly but remained low.
- In Europe overall influenza activity remained at inter-seasonal levels.
- In tropical countries of the Americas, influenza detections remained low, with respiratory syncytial virus (RSV) causing most influenza-like illness (ILI) and severe acute respiratory infections (SARI) activity.
- In Africa and western and eastern Asia, influenza activity was low.
- In tropical Asia, influenza activity was low with influenza B predominant in Viet Nam.
- In the southern hemisphere, influenza activity remained low except in several Pacific Islands where ILI activity remained high.
- Based on FluNet reporting (as of 14 November 2014 13:40 UTC), during weeks 43 to 44 (19 October 2014 to 1 November 2014), National Influenza Centres (NICs) and other national influenza laboratories from 51 countries, areas or territories reported data. The

WHO GISRS laboratories tested more than 44 937 specimens. 1978 were positive for influenza viruses, of which 1434 (72.5%) were typed as influenza A and 544 (27.5%) as influenza B. Of the sub-typed influenza A viruses, 60 (6.9%) were influenza A(H1N1)pdm09 and 813 (93.1%) were influenza A(H3N2). Of the characterized B viruses, 87 (96.7%) belonged to the B-Yamagata lineage and 3 (3.3%) to the B-Victoria lineage.

- Due to changes in data collection platforms, data from the WHO Regional Office for Europe are temporarily not available at the global level. Those data will be uploaded to FluNet and FluID as soon as possible. Information on European influenza activity can be found at <http://www.flunewseurope.org/>.

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

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:

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