

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 45- 46 (02 November 2015 – 15 November 2015)

### Summary

- Influenza activity in Northern Ireland has decreased slightly and remains at relatively low levels.
- GP consultation rates for combined flu and flu-like illness (flu/FLI) remain below the 2015/16 pre-epidemic Northern Ireland threshold<sup>1</sup> at 15.1 per 100,000 population in week 46.
- The OOH consultation rate for flu/FLI remained low in week 46 at 3.3 per 100,000 population. The rate also remained low in most age groups with only the 0-4 years age group displaying a moderate rate.
- RSV activity has further increased in weeks 45 and 46 and is higher than the same period during last season.
- There were no admissions to ICU with confirmed influenza reported in weeks 45 and 46, 2015.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in weeks 45 and 46, 2015.
- In weeks 45 and 46, 2015 EuroMOMO did not report an excess in mortality.
- There were no confirmed influenza outbreaks reported to PHA in weeks 45 and 46, 2015.

### Introduction

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

Surveillance systems include:

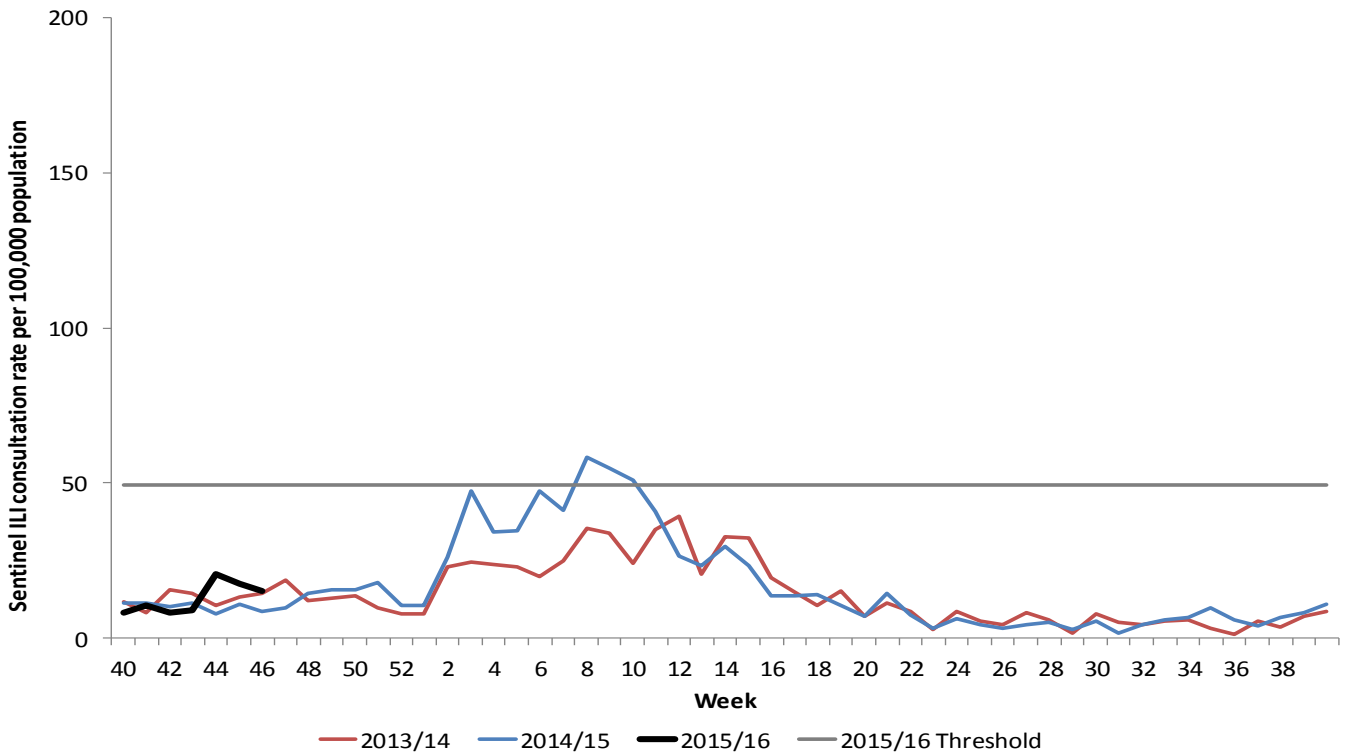
- GP sentinel surveillance representing 11.7% of Northern Ireland population;
- GP Out-of-Hours surveillance system representing the entire population;
- Virological reports from the Regional Virus Laboratory (RVL);
- Mortality data from Northern Ireland Statistics and Research Agency (NISRA);
- Excess 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;

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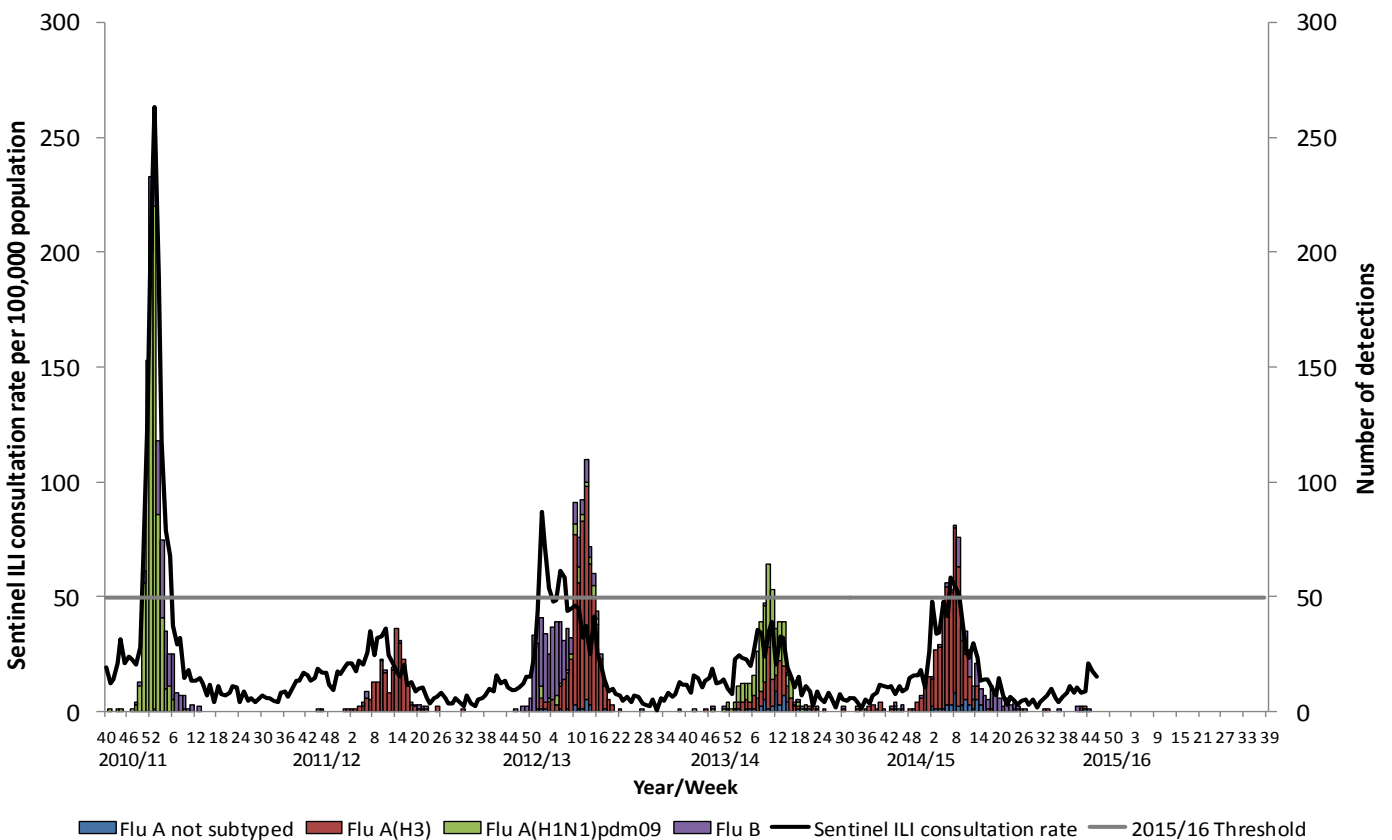
<sup>1</sup> The pre-epidemic threshold for Northern Ireland is 49.4 per 100,000 population this year (2015/16)

## Sentinel GP Consultation Data

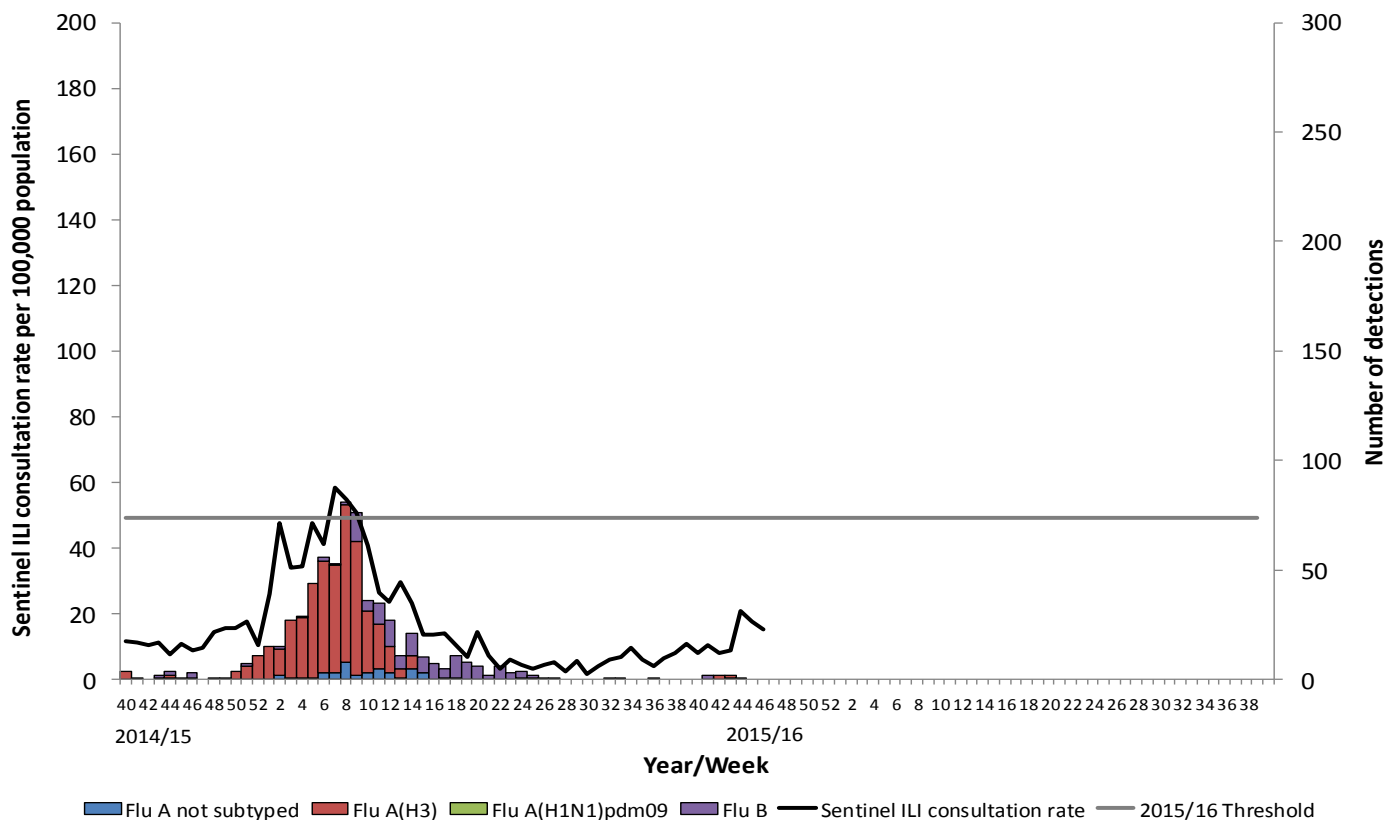
**Figure 1. Sentinel GP consultation rates for flu/FLI 2013/14 - 2015/16**



**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**

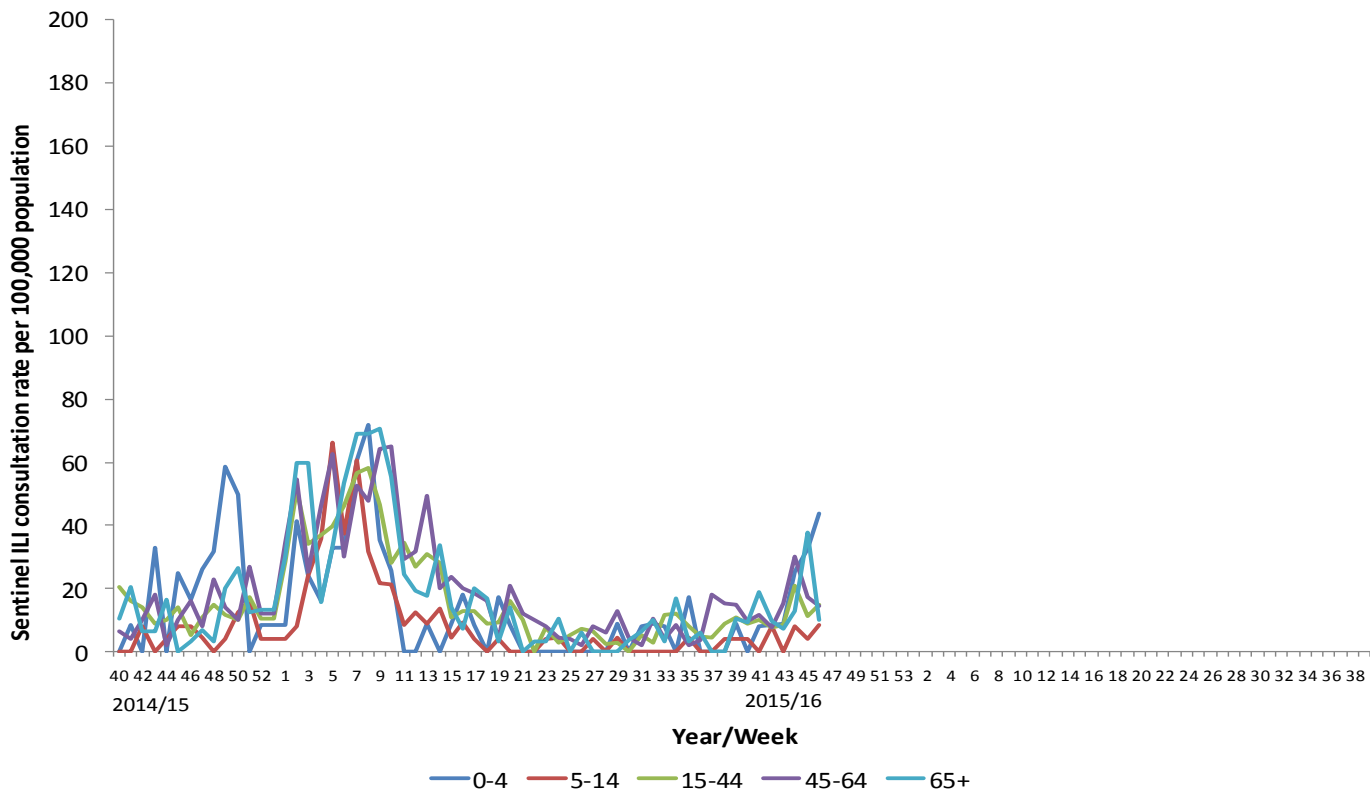


**Comment**

GP consultation rates have decreased in weeks 45 and 46 to 17.5 per 100,000 in week 45 and 15.1 per 100,000 in week 46, from 20.8 per 100,000 in week 44. In week 46, the GP consultation rate is higher than has been noted during the same period in the previous three 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**

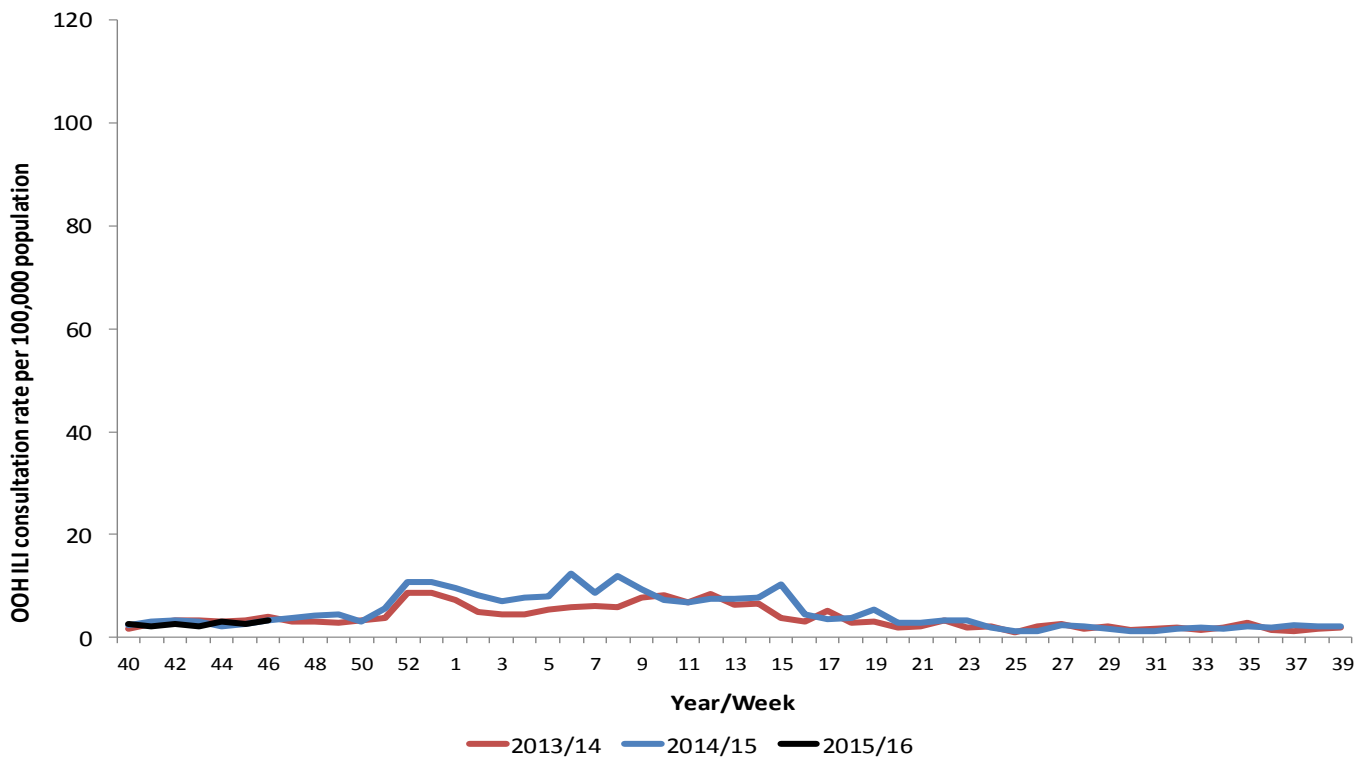
During weeks 45-46, GP consultations have fluctuated but remained low in most age groups. Small numbers contributed to fluctuations throughout the two week period.

In week 45, consultation rates increased in the 0-4 and 65 years and over age groups compared with the previous week, while rates in all other age groups decreased.

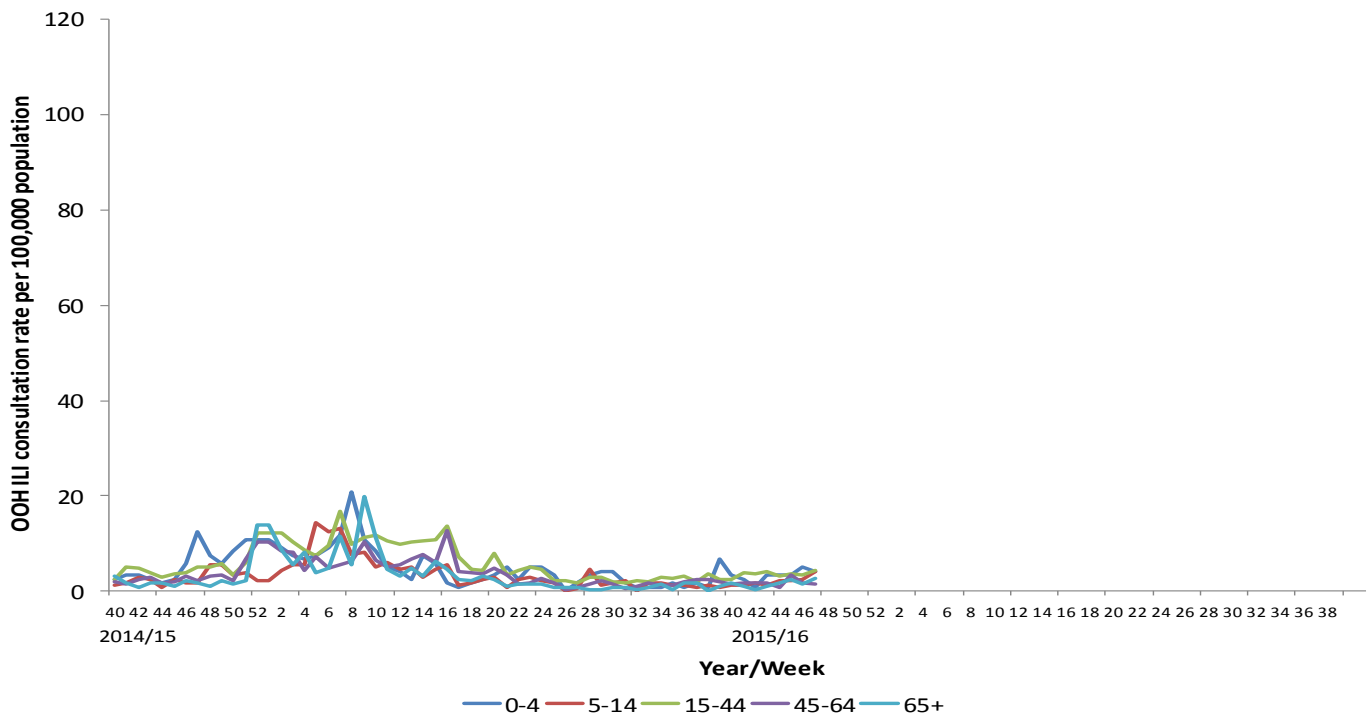
In week 46, consultation rates increased in the 0-4, 5-14 and 15-44 years age groups in comparison with the previous week, while rates among those aged 45-64 and 65 years and over decreased. The highest consultation rate was in those aged 0-4 years at 43.6 per 100,000 population, representing the highest age-specific consultation rate noted this season so far (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 45-46, the OOH GP consultation rate for flu/FLI fluctuated but remained low at 2.7 per 100,000 in week 45 and 3.3 per 100,000 in week 46, compared to 3.1 per 100,000 in week 44. In week 46, the OOH GP consultation rate is similar to the same period last year but lower than in 2013/14.

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 45, rates increased in 0-4 and 5-14 years age groups, remained stable in 15-44 years age group, and decreased in 45-64 years and 65 years and over. In week 46, rates increased in 5-14, 15-44 and 65 years and over age groups and decreased in those aged 0-4 and 45-64 years. The highest OOH flu/FLI rate was again in those aged 15-44 years at 4.4 per 100,000 population (Figures 5 and 6).

## Virology Data

Table 1. Virus activity in Northern Ireland, Week 45 - 46, 2015/16								
Source	Specimens Tested	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	11	0	0	0	0	1	0	0%
Non-sentinel	240	0	0	0	0	53	0	0%
<b>Total</b>	<b>251</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>0%</b>

Table 2. Cumulative virus activity in Northern Ireland, Week 40 - 46, 2015/16						
	Flu AH3	Flu A (H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	0	0	2	2	93
5-14	0	0	0	0	0	4
15-64	0	0	1	0	1	13
65+	3	0	1	0	4	8
Unknown	0	0	0	0	0	0
<b>All ages</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>118</b>

Table 3. Cumulative virus activity, Week 40 - Week 46, 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	93
5-14	0	0	0	0	0	0	0	0	0	0	0	4
15-64	0	0	1	0	1	2	0	0	0	0	0	11
65+	0	0	1	0	1	0	3	0	0	0	3	8
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>All ages</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>116</b>

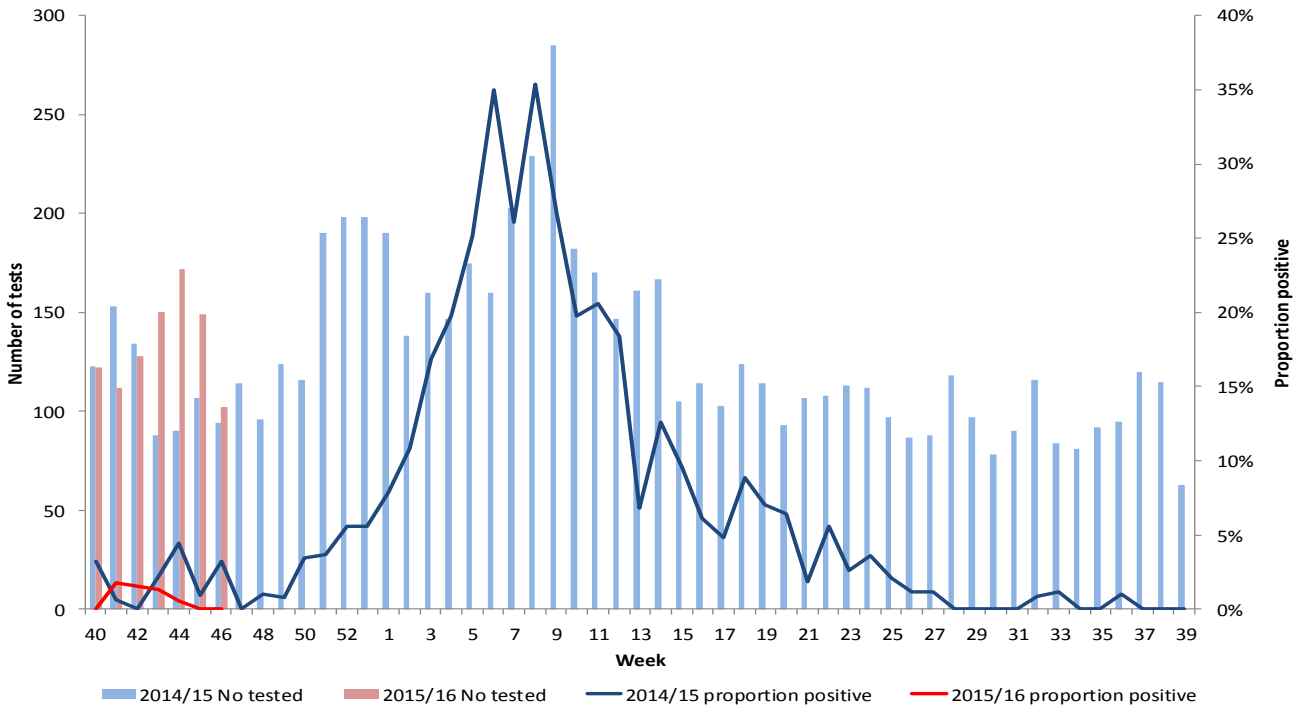
### Note

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

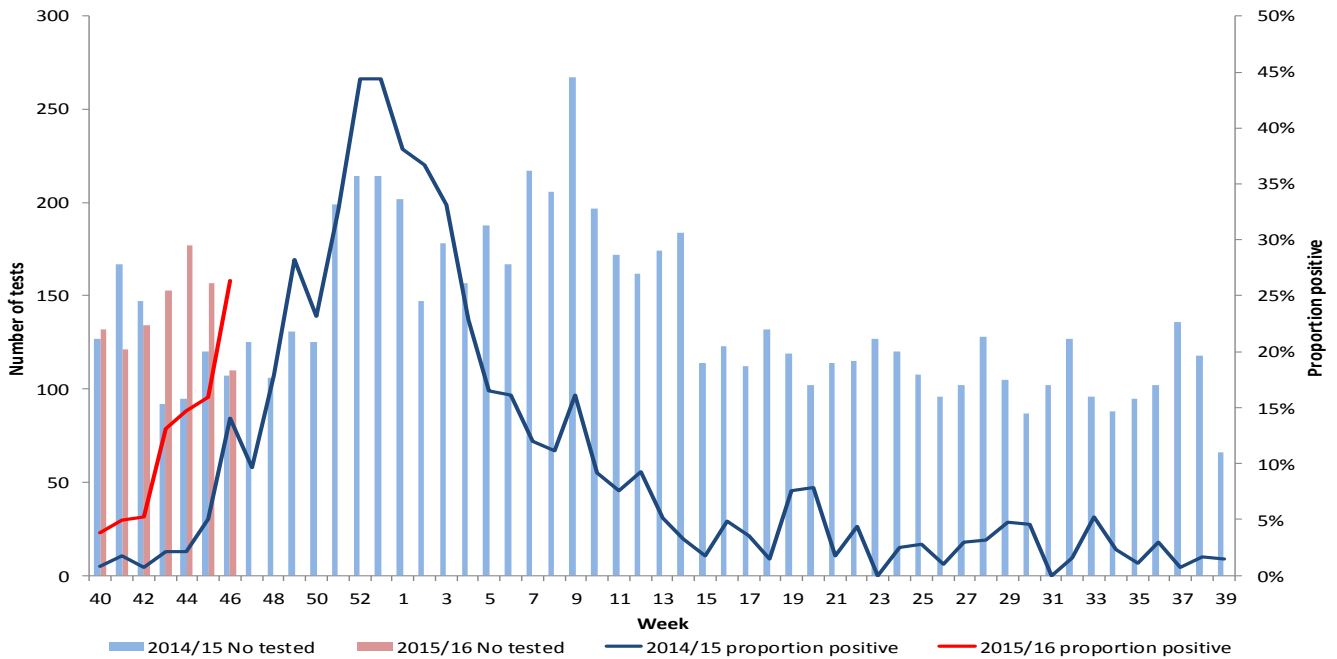
During weeks 45-46, 251 specimens were submitted for virological testing. There were no detections of influenza throughout the two-week period. There have been a total of seven detections of influenza reported this season. Positivity rates for influenza have been low during the two-week period (0% in both weeks 45 and 46) (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 45-46, there were fifty-four RSV positive detections. Positivity rates have increased from 15% in week 44, to 16% and 26% in weeks 45 and 46 respectively, and are higher than detected during the same period last year. There have now been a total of 118 positive detections of RSV this season to date, of which the majority (79%) were from those aged 0-4 years (Figure 8 and table 2).

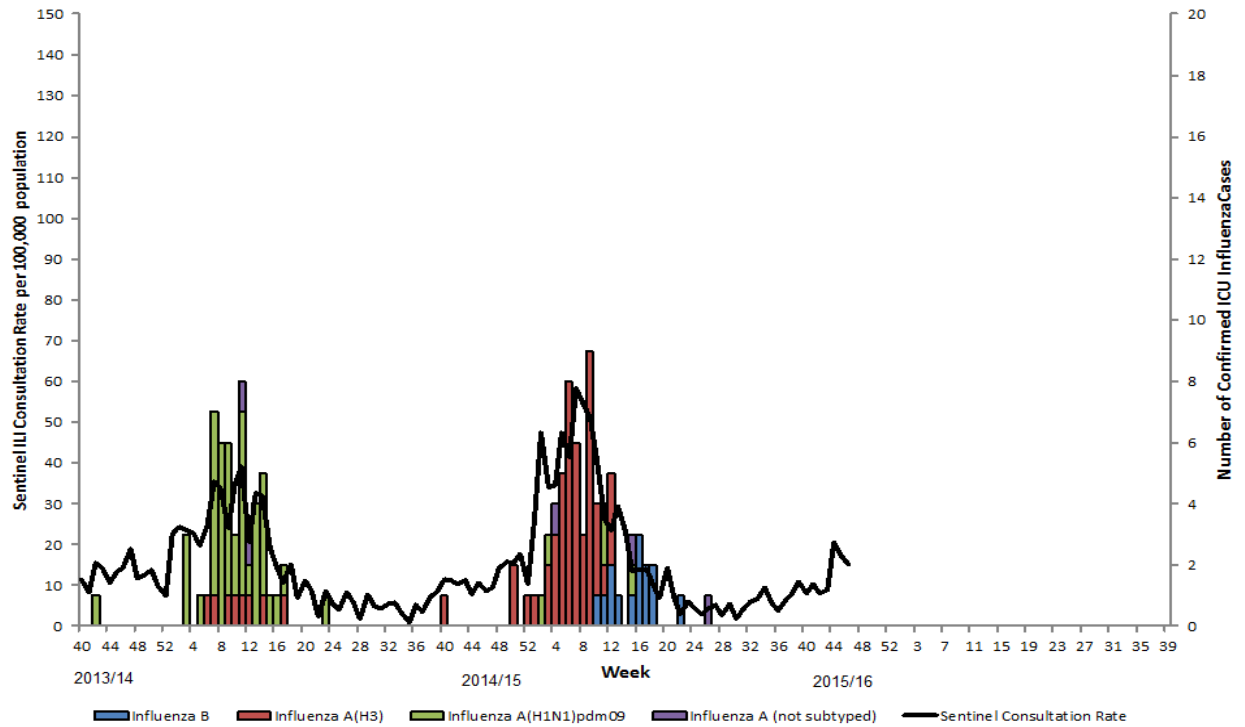
### Influenza Vaccine Uptake

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, 2013/14 - 2015/16**



### Comment

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

During weeks 45-46, there were no admissions to ICU confirmed with influenza or deaths in ICU patients with laboratory confirmed influenza.

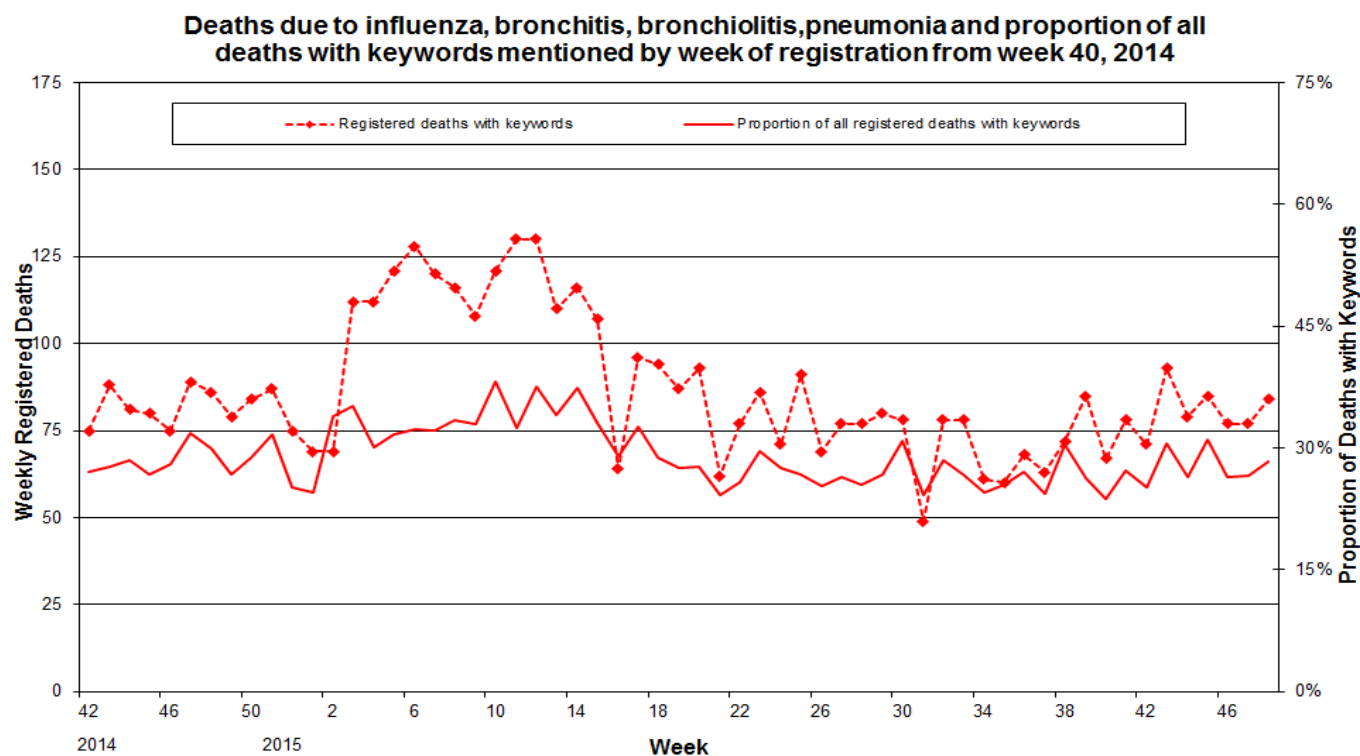
### Outbreak Surveillance

During weeks 45-46, 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 45-46, the proportion of registered deaths from specific respiratory infections increased from 26% in week 44 to 27% in week 45, and increasing further to 28% in week 46.

In week 46, there were 297 registered deaths, of which 84 (28%) related to specific respiratory infections. The proportion of deaths attributed to specific respiratory infections is lower than the same period in 2014/15 but slightly higher than in 2013/14.

## EuroMOMO

During weeks 45-46, 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 45, 2015:

- Influenza activity across the WHO European Region was at low levels in most of the 42 countries that reported data for week 45/2015.
- In line with this low activity, influenza viruses were detected in 45 patients only: seven from sentinel influenza-like illness (ILI) sources, 36 from non-sentinel sources and two laboratory-confirmed influenza cases in hospitalized patients.
- Representatives of all seasonal influenza viruses (A(H1N1)pdm09, A(H3N2) and B) were detected.

Season:

- As is usual for this time of year, influenza activity in the European Region is low, with few influenza viruses detected.
- No indication of increased mortality due to influenza has 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) and CDC

As at 16th November 2015:

Globally, influenza activity generally remained low in both hemispheres.

- In the Northern Hemisphere, influenza activity continued at low, inter-seasonal levels with sporadic detections.
- Few influenza virus detections were reported by countries in Africa.
- 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), associated with influenza A(H1N1)pdm09 virus and RSV, continued to be reported. In Colombia, acute respiratory activity (ARI) again remained slightly elevated with ongoing RSV and influenza A(H3N2) detections.
- In western Asia, Bahrain and Qatar reported increased influenza activity, predominantly due to influenza A (H1N1)pdm09.
- In tropical Asia, countries in Southern and South East Asia reported low influenza activity overall except India, Lao People's Democratic Republic and Thailand where activity mainly due to A(H1N1)pdm09 virus continued to be reported. Influenza activity declined in southern China. Iran reported increased influenza detections, mostly due to influenza A(H3N2).
- In temperate South America, respiratory virus activity continued to decrease in recent weeks. In Chile, ILI activity decreased but remained above expected levels in recent weeks with decreased detections of influenza viruses and RSV.
- In Australia, New Zealand, and South Africa, influenza activity continued to decrease to low levels of virus detections with the end of the influenza season in these countries.
- National Influenza Centres (NICs) and other national influenza laboratories from 87 countries, areas or territories reported data to FluNet for the time period from 19 October 2015 to 01 November 2015\* (data as of 2015-11-12 13:57:25 UTC). The WHO GISRS

laboratories tested more than 52883 specimens during that time period. 1343 were positive for influenza viruses, of which 1049 (78.1%) were typed as influenza A and 294 (21.9%) as influenza B. Of the sub-typed influenza A viruses, 517 (68.2%) were influenza A(H1N1)pdm09 and 241 (31.8%) were influenza A(H3N2). Of the characterized B viruses, 42 (53.2%) belonged to the B-Yamagata lineage and 37 (46.8%) to the B-Victoria lineage.

[http://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](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](mailto:flusurveillance@hscni.net)**

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