

## Influenza Weekly Surveillance Bulletin

Northern Ireland, Weeks 47- 48 (16 November 2015 – 29 November 2015)

### Summary

- Influenza activity in Northern Ireland has increased slightly but 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 18.0 per 100,000 population in week 48.
- The OOH consultation rate for flu/FLI remained low in week 48 at 2.7 per 100,000 population, both overall and in all age groups.
- RSV activity has further increased in weeks 47 and 48 and is higher than the same period during last season.
- Influenza vaccine uptake to 31<sup>st</sup> October 2015 was 55.7% for those aged 65 and over, 40.5% for those aged under 65 and in an at risk group, 26.0% among 2-4 year old children, 77.4% among primary school children.
- There was one admission to ICU with confirmed influenza reported in weeks 47 and 48, 2015.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in weeks 47 and 48, 2015.
- In weeks 47 and 48, 2015 EuroMOMO did not report an excess in mortality.
- There were no confirmed influenza outbreaks reported to PHA in weeks 47 and 48, 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

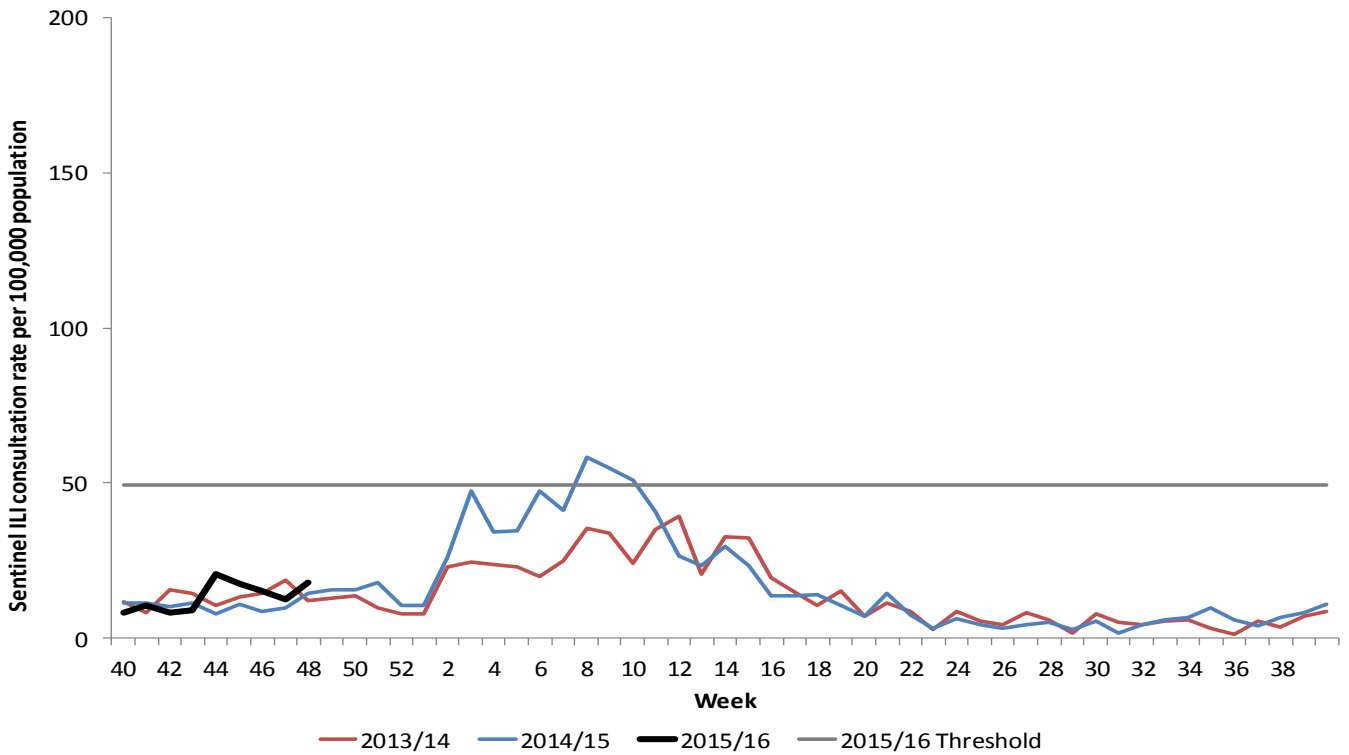
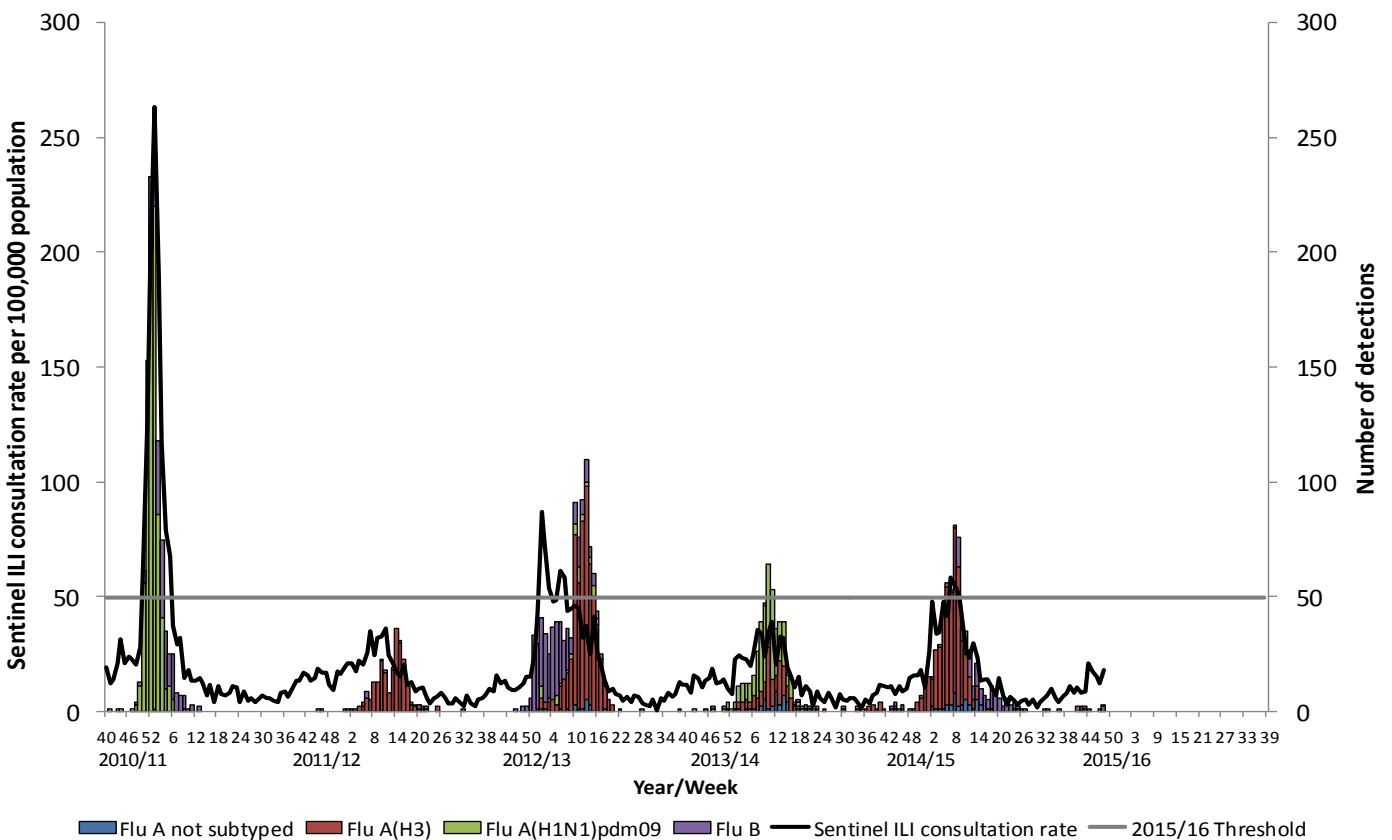
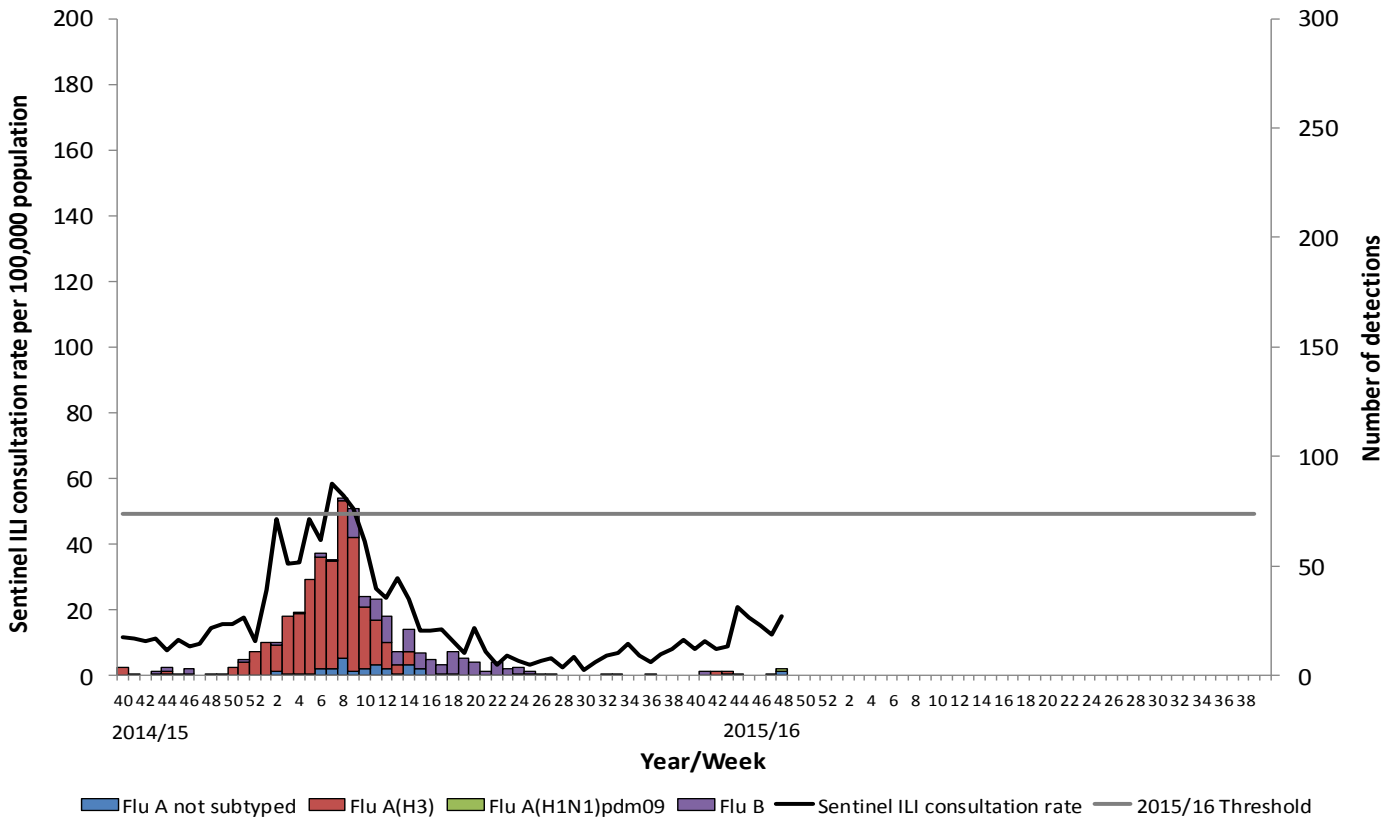


Figure 2. Sentinel GP combined consultation rates for flu/FLI and number of influenza positive detections 2010/11 – 2015/16



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

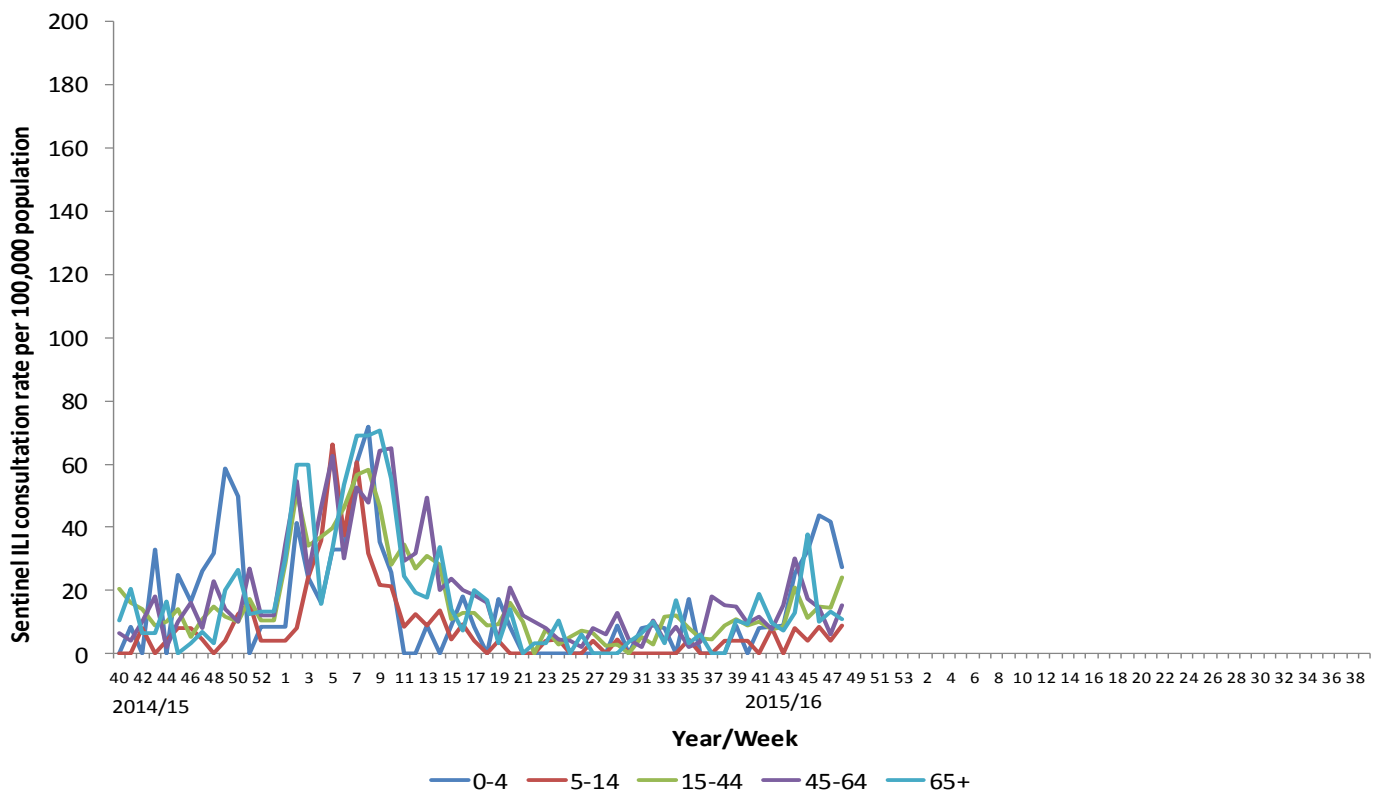


**Comment**

GP consultation rates have fluctuated across the two-week period, decreasing from 15.1 per 100,000 population in week 46 to 12.4 per 100,000 in week 47 then increasing to 18.0 per 100,000 population in week 48. In week 48, the GP consultation rate is the highest noted during the same period since 2010/11.

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 47-48, GP consultations have fluctuated but remained relatively low in most age groups. Small numbers contributed to fluctuations throughout the two week period.

In week 47, consultation rates decreased among almost all age groups with the exception of those aged 65 years and over among whom an increase was noted.

In week 48, consultation rates increased in the 5-14, 15-44 and 45-64 years age groups in comparison with the previous week, while rates among those aged 0-4 and 65 years and over decreased. The highest consultation rate was in those aged 0-4 years at 27.3 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

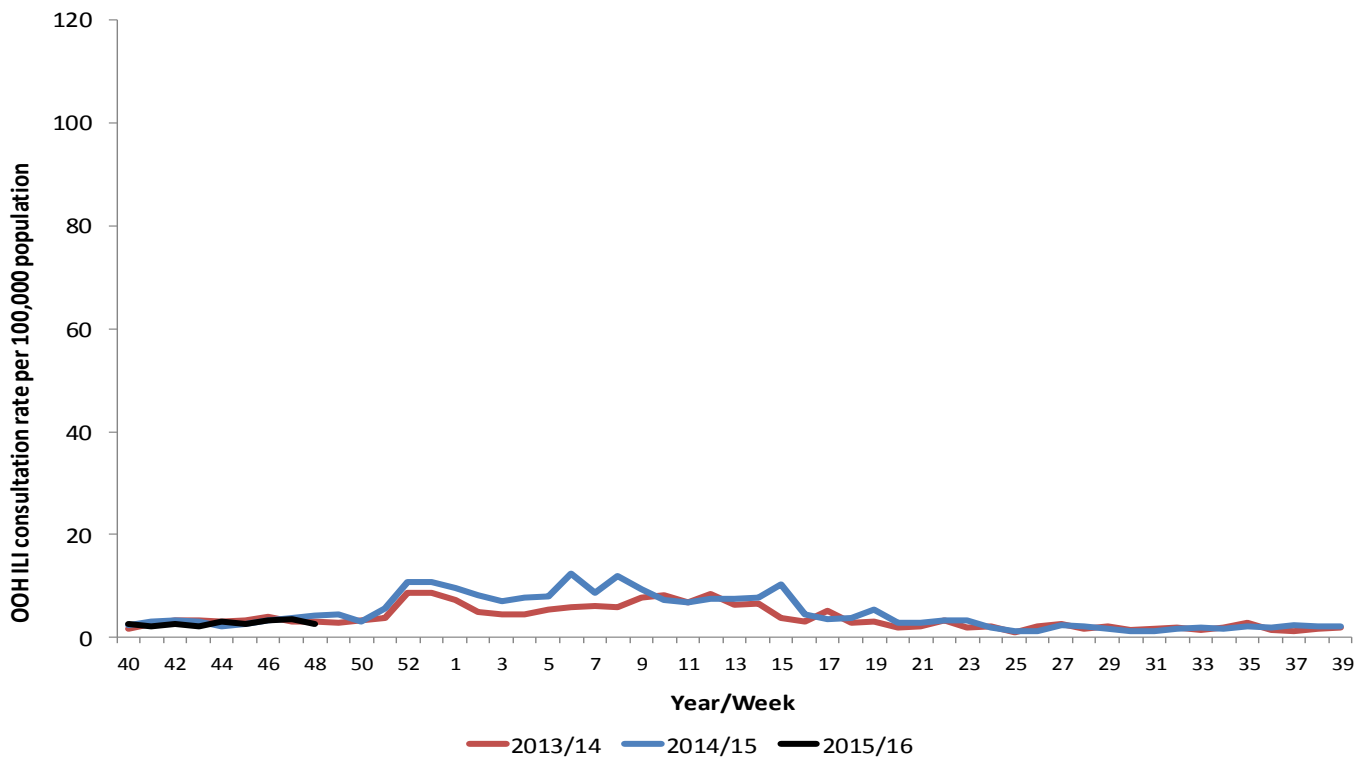
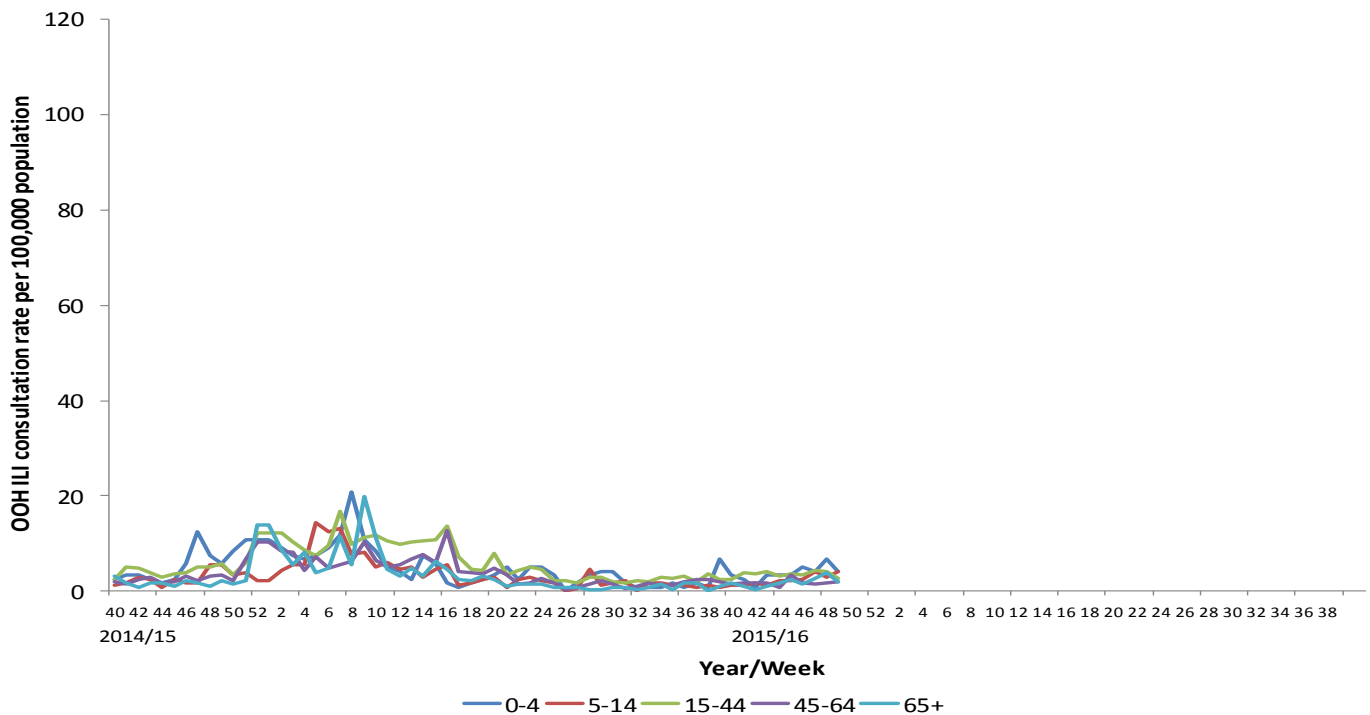


Figure 6. OOH Call rates of flu/FLI by age-group from week 40, 2014



### Comment

During weeks 47-48, the OOH GP consultation rate for flu/FLI fluctuated but remained low at 3.5 per 100,000 in week 47 and 2.7 per 100,000 in week 48, compared to 3.3 per 100,000 in week 46. In week 48, the OOH GP consultation rate is the lowest noted during the same period since 2010/11.

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 47, rates increased in 0-4, 45-64 and 65 years and over age groups, and decreased in the 5-14 and 15-44 years age groups. In week 48, rates increased in the 5-14 and 45-64 years age groups, and decreased in those aged 0-4 and 15-44 and 65 years and over. The highest OOH flu/FLI rate was noted jointly in those aged 0-4 and 5-14 years at 4.2 per 100,000 population (Figures 5 and 6).

## Virology Data

**Table 1. Virus activity in Northern Ireland, Week 47 - 48, 2015/16**

Source	Specimens Tested	Flu AH3	Flu A(H1N1) 2009	A (untyped)	Flu B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	3	0	0	0	0	2	0	0%
Non-sentinel	260	0	1	3	0	78	4	2%
<b>Total</b>	<b>263</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>80</b>	<b>4</b>	<b>2%</b>

**Table 2. Cumulative virus activity in Northern Ireland, Week 40 - 48, 2015/16**

	Flu AH3	Flu A(H1N1) 2009	A (untyped)	Flu B	Total Influenza	RSV
0-4	0	1	1	2	4	162
5-14	0	0	1	0	1	10
15-64	0	1	1	0	2	19
65+	3	0	1	0	4	14
Unknown	0	0	0	0	0	0
<b>All ages</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>11</b>	<b>205</b>

**Table 3. Cumulative virus activity, Week 40 - Week 48, 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	1	0	1	1	2	4	161
5-14	0	0	0	0	0	0	0	0	1	0	1	10
15-64	0	0	1	0	1	3	0	1	0	0	1	16
65+	0	0	1	0	1	0	3	0	0	0	3	14
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>4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>201</b>

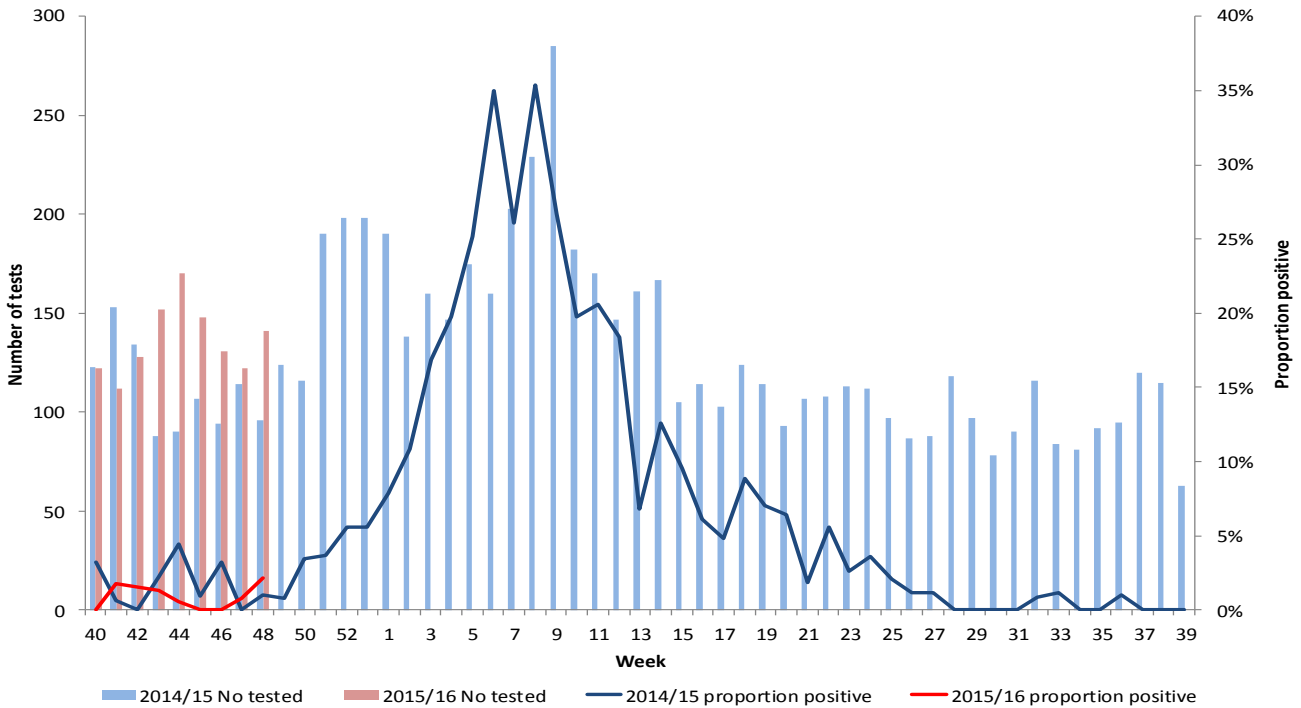
### Note

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

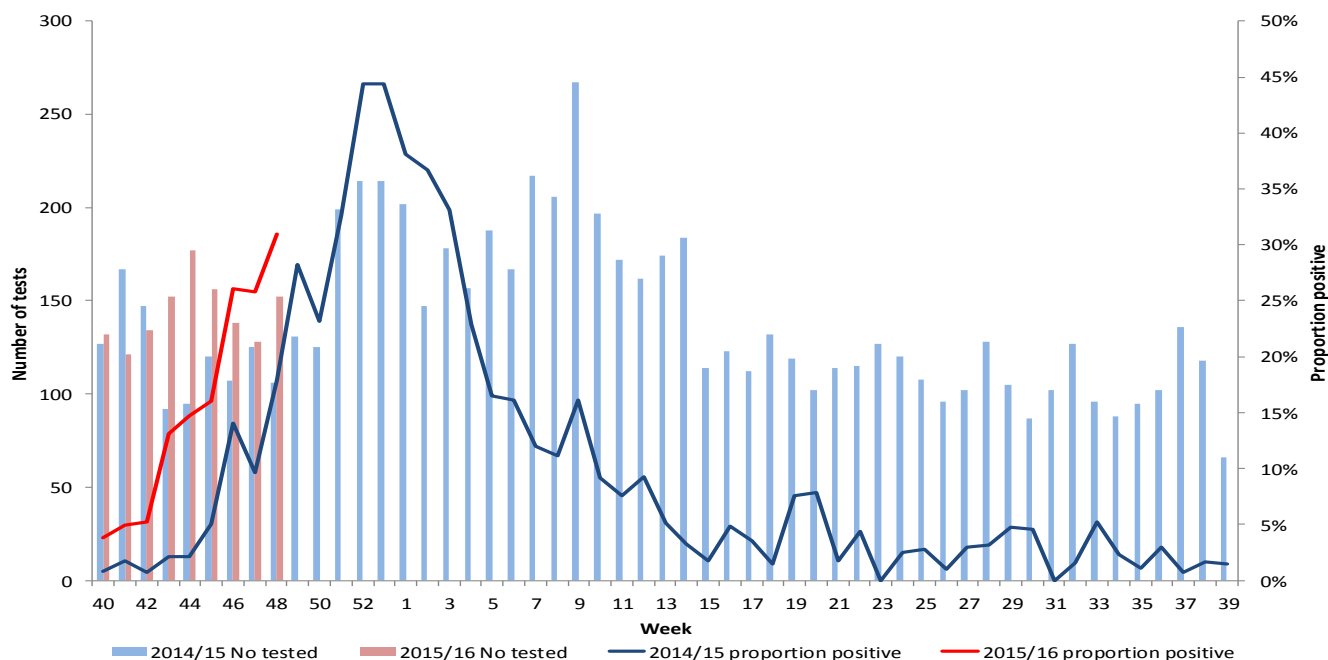
During weeks 47-48, 263 specimens were submitted for virological testing. There were four detections of influenza - one detection of influenza A (H1N1)pdm09 and three detections of influenza A (typing awaited). There have been a total of eleven detections of influenza reported this season. Positivity rates for influenza have been low during the two-week period (1% and 2% in weeks 47 and 48 respectively) (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 47-48, there were forty-seven RSV positive detections. Positivity rates have increased from 26% in week 46, to 31% in week 48 (remaining stable at 26% in week 47) and are higher than detected during the same period last year. There have now been a total of 205 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

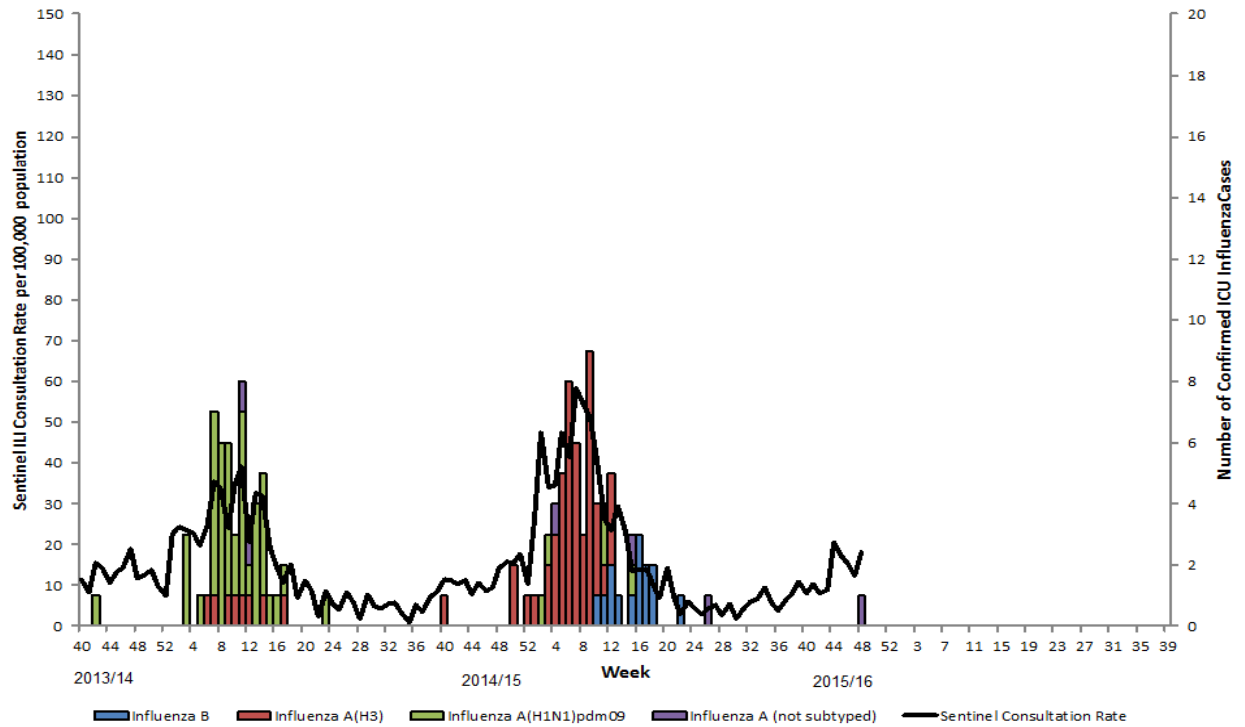
To 31<sup>st</sup> October 2015, provisional data suggested that vaccine uptake for those aged 65 years and over was 55.7%, lower than the same period in the 2014 (60.4%); while 40.5% of those under 65 and in an at risk group had received the vaccine, lower than in 2014 when 50.6% had received the vaccine during the same period.

Similar to last season, all children aged between 2 and 4 years and all primary school children in 2014/15 have been offered the seasonal influenza vaccine. To 31<sup>st</sup> October 2015, provisional data suggested that vaccine uptake among 2-4 year old children was 36.0%, lower than in 2014 when 41.4% had received the vaccine during the same period. Provisional data suggests uptake among children in primary school was 77.4%, also lower than in 2014 when 80.0% had received the vaccine during the same period.



## ICU/HDU Surveillance

**Figure 9. Confirmed ICU influenza cases by week of specimen, with sentinel ILI consultation rate, 2013/14 - 2015/16**



### Comment

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

During weeks 47-48, there was one admission to ICU confirmed with influenza A (typing awaited) and no deaths in ICU patients with laboratory confirmed influenza.

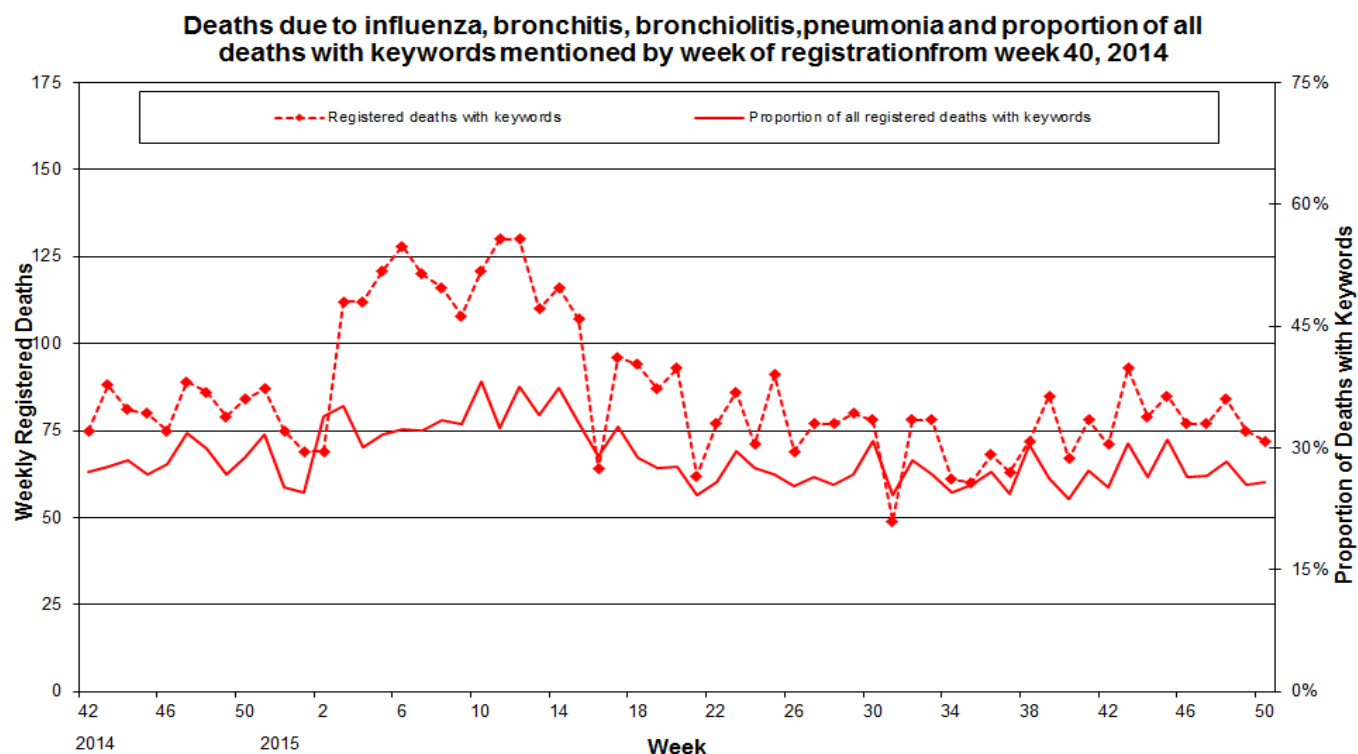
### Outbreak Surveillance

During weeks 47-48, 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 47-48, the proportion of registered deaths from specific respiratory infections decreased from 28% in week 46 to 26% in week 47, and remained stable at 26% in week 48.

In week 48, there were 279 registered deaths, of which 72 related to specific respiratory infections. The proportion of deaths attributed to specific respiratory infections is lower than the same period in both 2013/14 and 2014/15.

## EuroMOMO

During weeks 47-48, no excess all-cause mortality was reported in Northern Ireland.

## International Summary

### Europe

Week 47, 2015:

- Influenza activity across the WHO European Region was at low levels in most of the 44 countries that reported data for week 47/2015.
- Sporadic and local influenza activity was reported in Northern and central European countries.
- Representatives of all seasonal influenza viruses (A(H1N1)pdm09, A(H3N2), B Victoria and Yamagata lineage) were detected.

Season:

- As is usual for this time of year, influenza activity in the European Region remains low, with few influenza viruses detected.
- Although low numbers of viruses have been subtyped (type A) or ascribed to lineage (type B), A(H1N1)pdm09 viruses have been detected more often than A(H3N2) and B/Victoria lineage, more often than B/Yamagata in both sentinel and non-sentinel specimens than in the same period during the 2014–2015 season.

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

### Worldwide (WHO) and CDC

As at 30<sup>th</sup> November 2015:

Globally, influenza activity generally remained low in both hemispheres.

- In Central and Eastern Asia, Europe, North Africa and North America, influenza activity continued at low, inter-seasonal levels with sporadic detections.
- In western Asia, Bahrain, Oman and Qatar reported increased influenza activity, predominantly due to influenza A(H1N1)pdm09.
- 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.
- 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 viruses continued to be reported.
- In temperate South America, respiratory virus activity was generally low in recent weeks, with mostly influenza B viruses circulating. A few countries reported fluctuations in respiratory illness indicators.
- In Australia and South Africa, only sporadic influenza detections were reported.
- National Influenza Centres (NICs) and other national influenza laboratories from 84 countries, areas or territories reported data to FluNet for the time period from 02 November 2015 to 15 November 2015\* (data as of 2015-11-26 13:12:07 UTC). The WHO GISRS laboratories tested more than 75360 specimens during that time period. 1663 were positive for influenza viruses, of which 1125 (67.6%) were typed as influenza A and 538 (32.4%) as influenza B. Of the sub-typed influenza A viruses, 393 (48.5%) were influenza A(H1N1)pdm09 and 417 (51.5%) were influenza A(H3N2). Of the characterized B viruses, 168 (71.5%) belonged to the B-Yamagata lineage and 67 (28.5%) 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:

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