

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 17 (22 – 28 April 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population with most indicators decreasing this week.
- GP consultation rates decreased from 25.6 per 100,000 population in week 16 to 19.4 per 100,000 population in week 17 (24% decrease).
- The OOH consultation rate for 'flu/FLI decreased from 4.7 per 100,000 population in week 16 to 3.2 per 100,000 population in week 17, 2013 (32% decrease).
- Influenza positivity rate of respiratory specimens is decreasing. In week 17, 2013 there were 6 positive detections of influenza A(H3), 5 influenza A(untyped), and 2 influenza B. Influenza A remains the predominant type during week 17 and also for the season overall.
- RSV activity remains very low.
- There were three new admissions to ICU confirmed with influenza reported in week 17, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 57.
- There were no deaths in ICU patients with laboratory confirmed influenza reported in week 17, 2013.
- There were three new confirmed influenza outbreaks reported to PHA in week 17, 2013 with the total being 34 this season.

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 rates for combined flu and flu-like illness 2010/11 - 2012/13

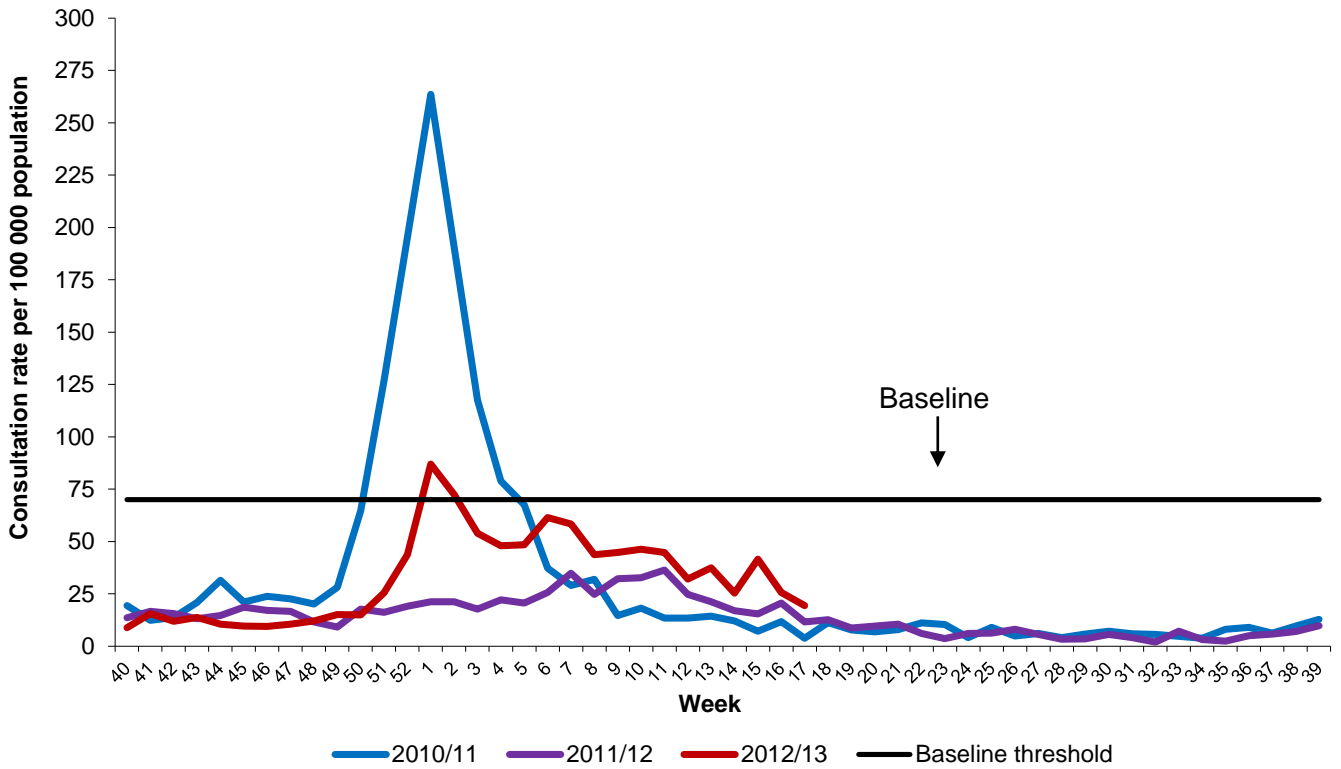


Figure 2. Sentinel GP combined consultation rates and number of influenza positive detections 2007/08 – 2012/13.

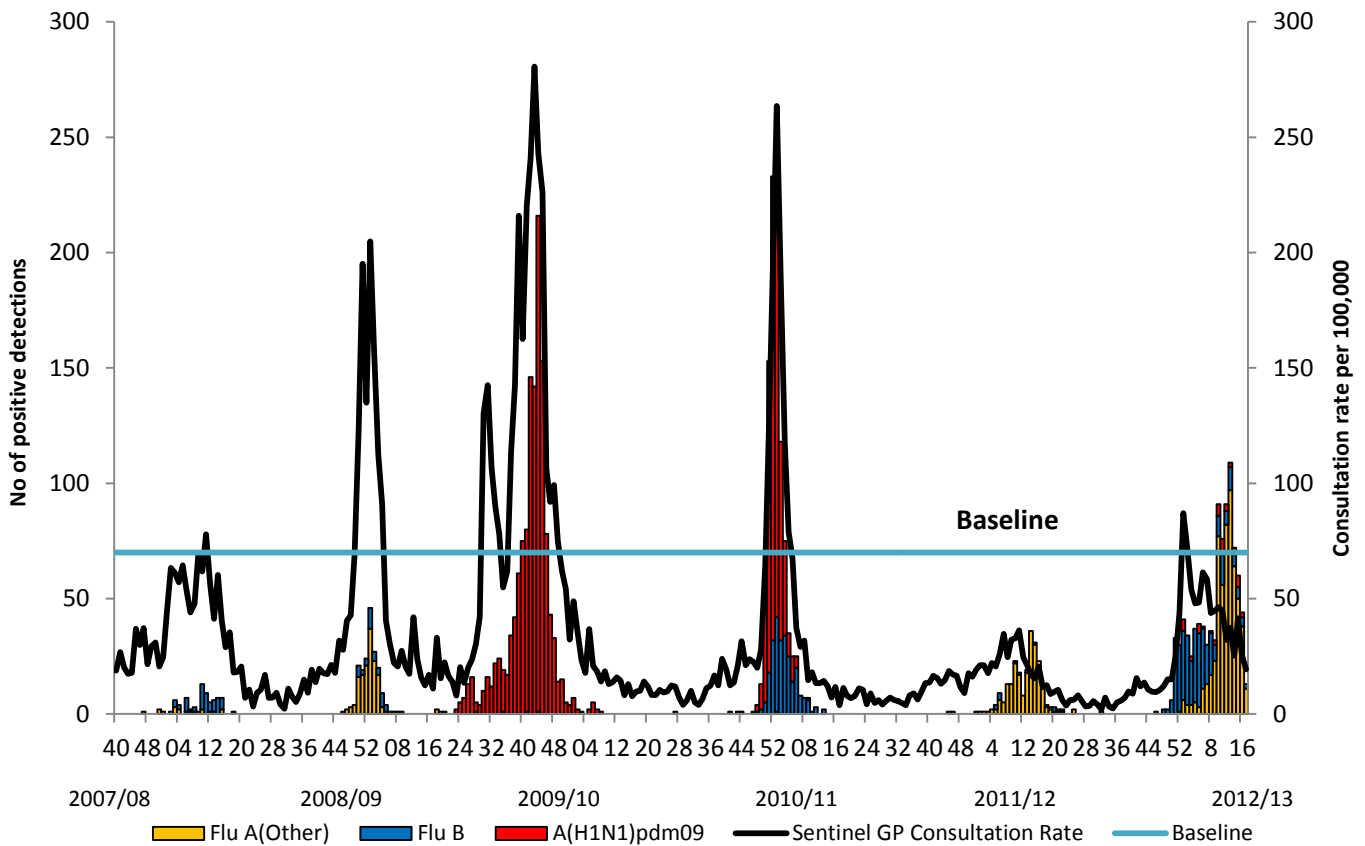
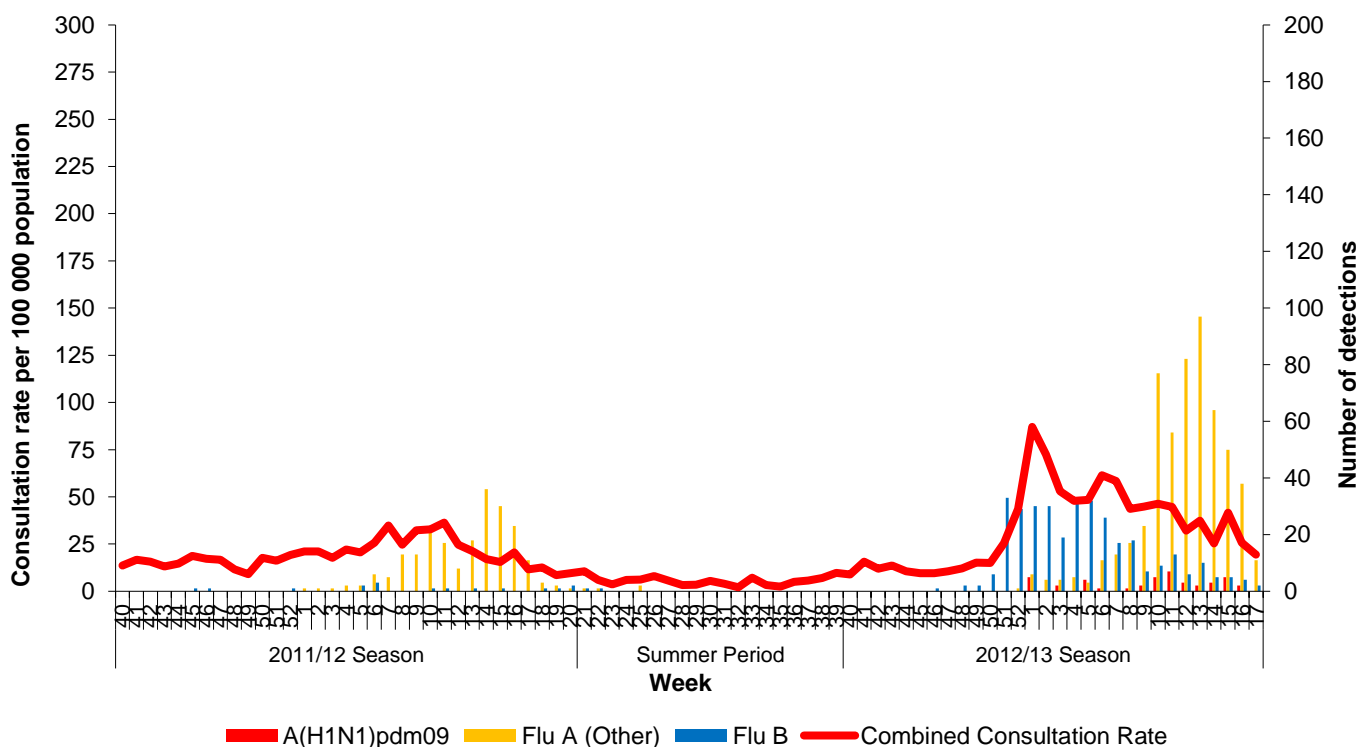


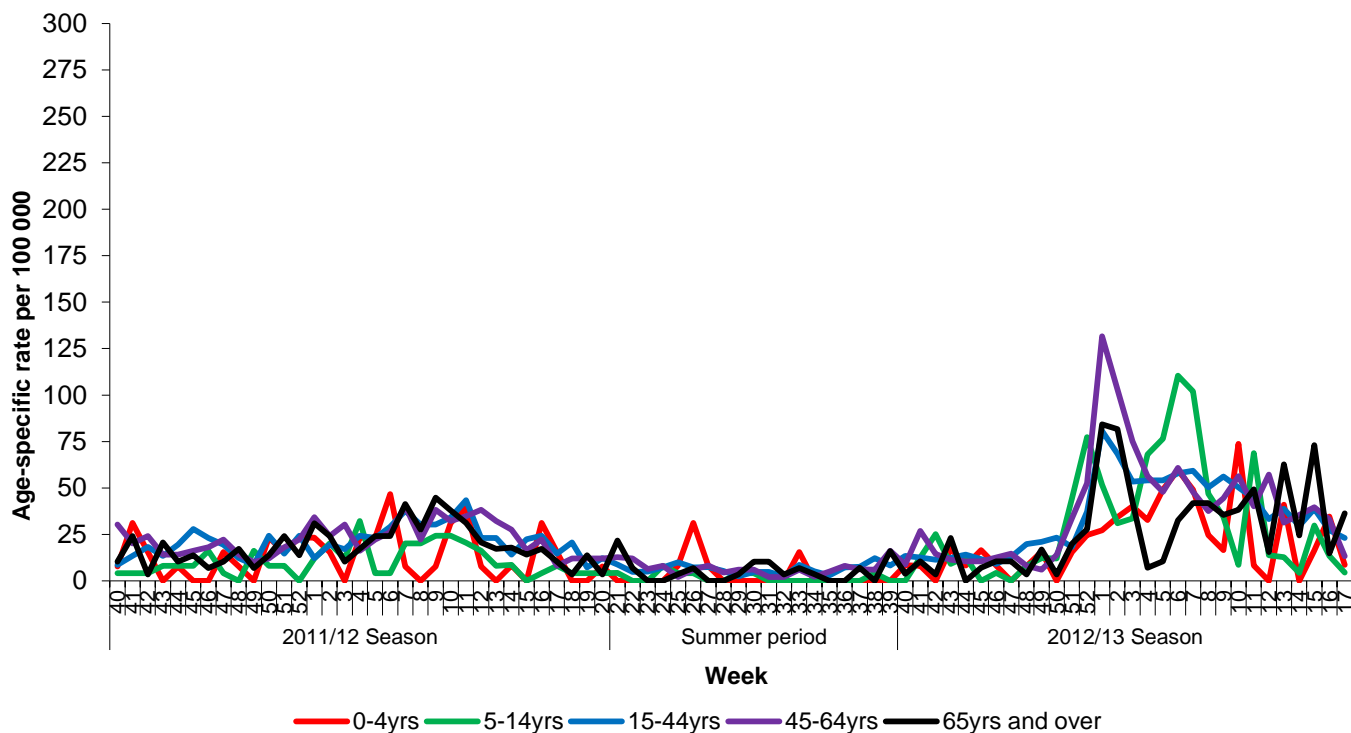
Figure 3. Sentinel GP consultation rates for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

GP consultation rates decreased from 25.6 per 100,000 population in week 16 to 19.4 per 100,000 population in week 17 (24% decrease). Rates remain below the Northern Ireland threshold of 70 per 100,000 population but remain slightly higher than the same period in the previous two influenza seasons. Flu/FLI consultation rates have been falling, albeit erratically, since week 6. The period when influenza has been circulating this season is extended in comparison to the previous two seasons (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

All of the age-specific consultation rates decreased in week 17 with the exception of the over 65 year age group which showed a substantial increase although this may be due, in part, to the small numbers involved in this age group. The over 65 year age group now displays the highest age-specific consultation rate in week 17, 2013. There are still on-going influenza outbreaks in nursing/residential homes which may have contributed to the rates in the over 65 year age group remaining relatively high (Figure 4).

Out-of-Hours (OOH) Centres Call Data

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

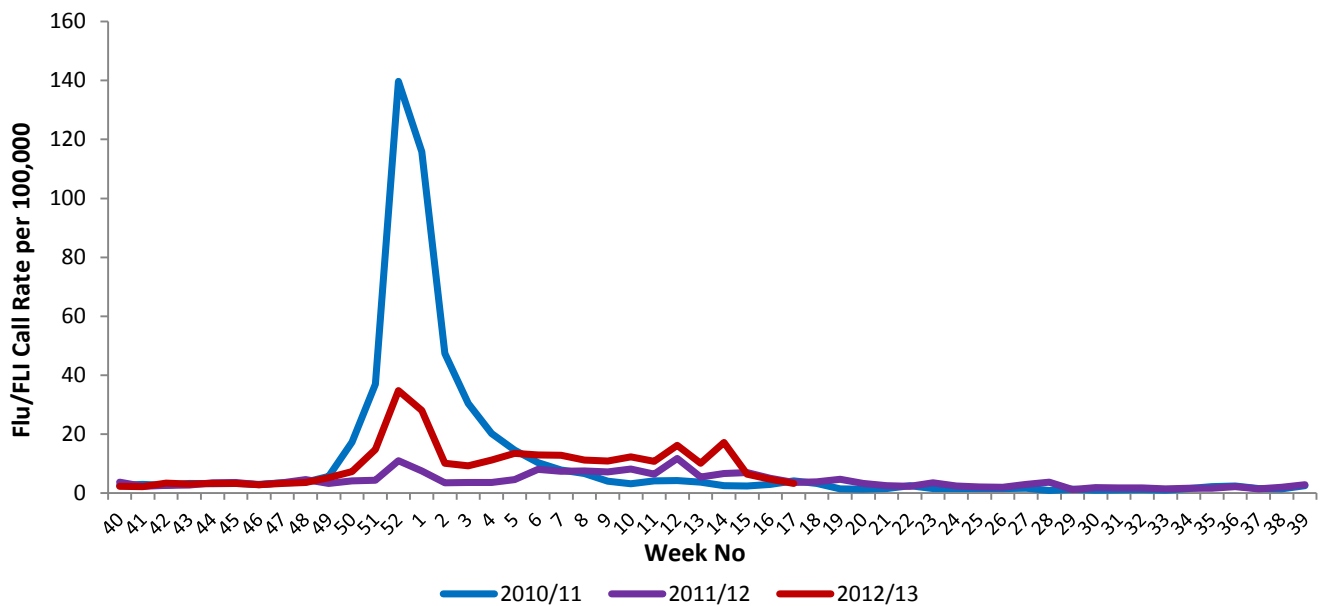
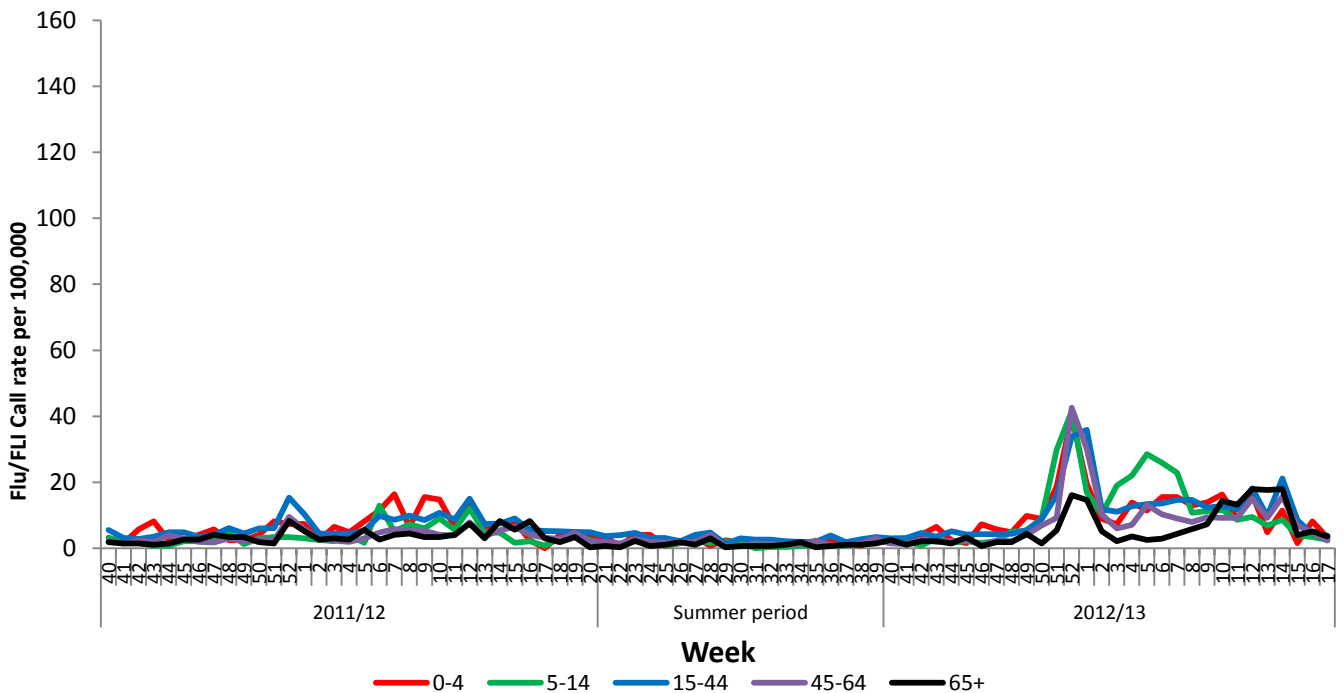


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

The OOH consultation rate for ‘flu/FLI decreased from 4.7 per 100,000 population in week 16 to 3.2 per 100,000 population in week 17, 2013 (32% decrease) with the rate slightly lower than the same period in both 2011/12 and 2010/11, and is approaching inter-seasonal levels. All age-specific consultation rates also decreased compared to the previous week. The highest age-specific rate was in the 15-44 year age group in week 17, 2013. 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 17, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	1	0	0	0	0	0	0	0%
Non-sentinel	69	6	0	5	2	1	13	19%
Total	70	6	0	5	2	1	13	19%

Table 2. Cumulative Total Week 40, 2012 - Week 17, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	39	13	1	65	118	681
5-14	8	1	0	81	90	21
15-64	160	22	12	139	333	61
65+	331	6	13	54	404	67
Unknown	1	0	0	0	1	5
All ages	539	42	26	339	946	835

Table 3. Cumulative Total Week 40, 2012 - Week 17, 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	2	2	3	39	13	1	63	116	678
5-14	1	0	0	13	14	0	7	1	0	68	76	21
15-64	20	3	0	53	76	5	140	19	12	86	257	56
65+	16	1	0	2	19	1	315	5	13	52	385	66
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	37	4	0	70	111	9	502	38	25	269	835	826

Note

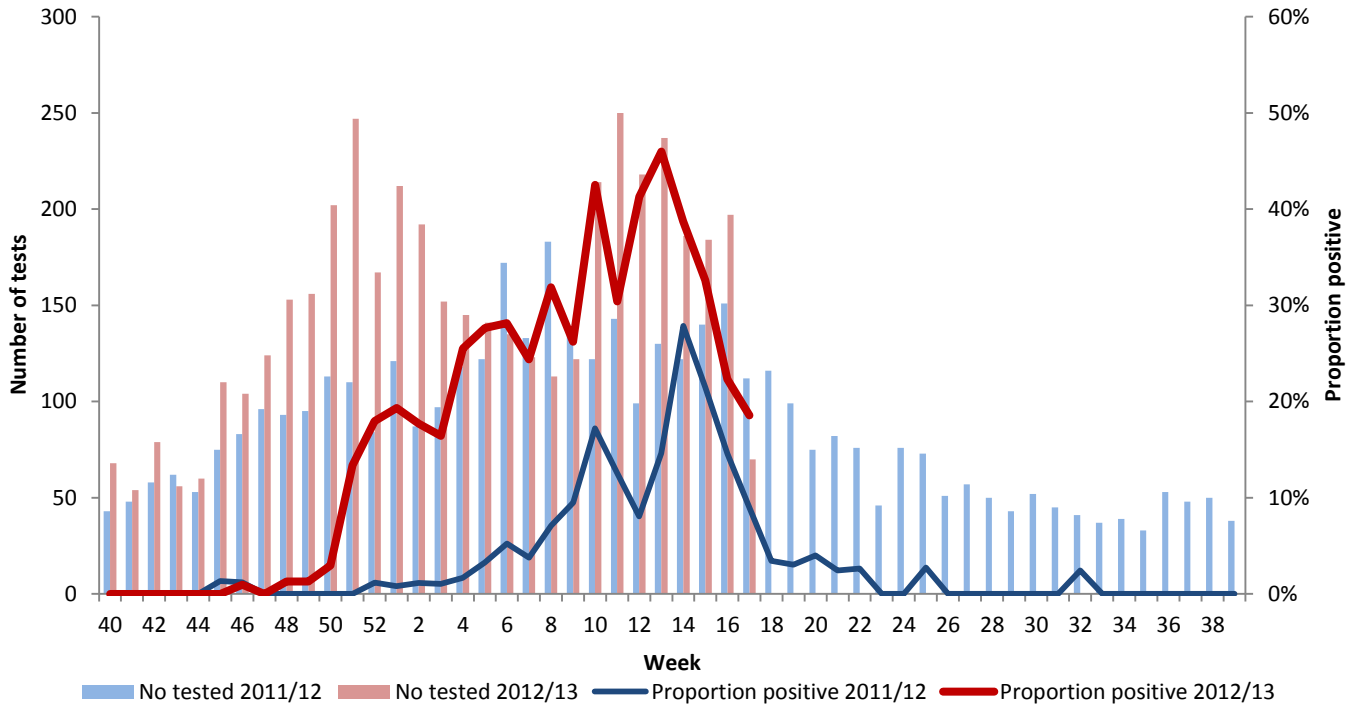
All virology data is provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available.

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

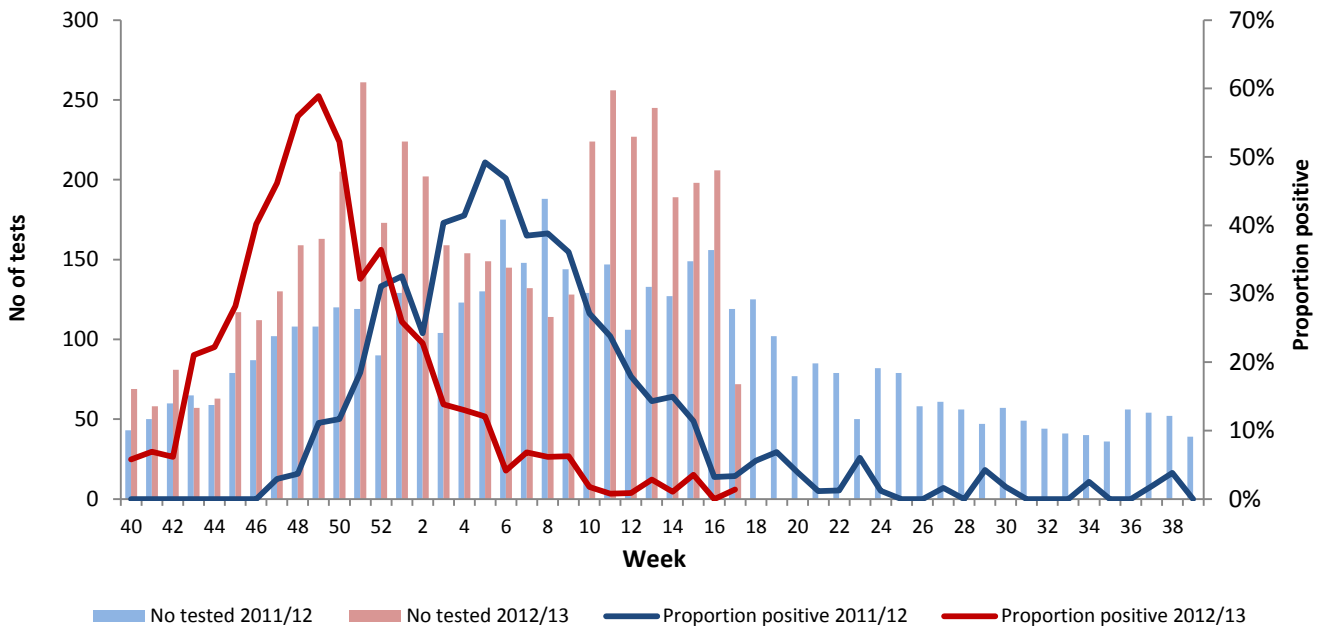
There are still significant numbers of specimens being submitted for testing despite other influenza activity indicators being at low levels. However, positivity rates have been decreasing since week 13 and is now at 19%. There were 70 specimens submitted for testing in week 17, 2013, of which there were 6 positive detections of influenza A(H3), 5 influenza A(untyped), and 2 influenza B. Influenza A remains the predominant type for both week 17, 2013 and for the season as a whole (64% of all influenza detections). To date this season there have been 606 detections of influenza A (539 influenza A(H3), 42 A(H1N1)pdm09, and 25 A(untyped)) and a further 339 influenza B (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 was one RSV detection in week 17, 2013 with positivity rates remaining very low. From week 40 of the current season there have been a total of 835 RSV positive detections reported, of which 82% fall in the 0-4 year age group. (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 season.

There were three new admissions to ICU confirmed with influenza reported in week 17, 2013. To date there have been 57 cases (44 adults, 13 children) admitted to ICU that have been confirmed with influenza; 27 of which were confirmed with influenza A(H3), 23 with influenza B, 3 influenza A(H1N1)pdm09 and 4 influenza A(untyped).

Table 4. 2012/13 ICU cases with confirmed influenza by age group and influenza type

Age Group	Influenza A	Influenza B	Total
0-14	4	8	12
15-44	6	5	11
45-64	11	5	16
65+	13	5	18
All age groups	34	23	57

Mortality Surveillance

There were no deaths in ICU patients with laboratory confirmed influenza reported in week 17, 2013; with the total this season remaining at seven. All those who died had existing co-morbidities.

Outbreak Surveillance

There were three confirmed influenza outbreaks reported in week 17, 2013, all of which were in residential/nursing homes. The total number of confirmed influenza outbreaks reported so far this season is 34 compared to a total of ten outbreaks for the 2011/12 season. Of the 34 outbreaks 31 were confirmed for influenza A only, 2 influenza B only and 1 confirmed with both influenza A and influenza B.

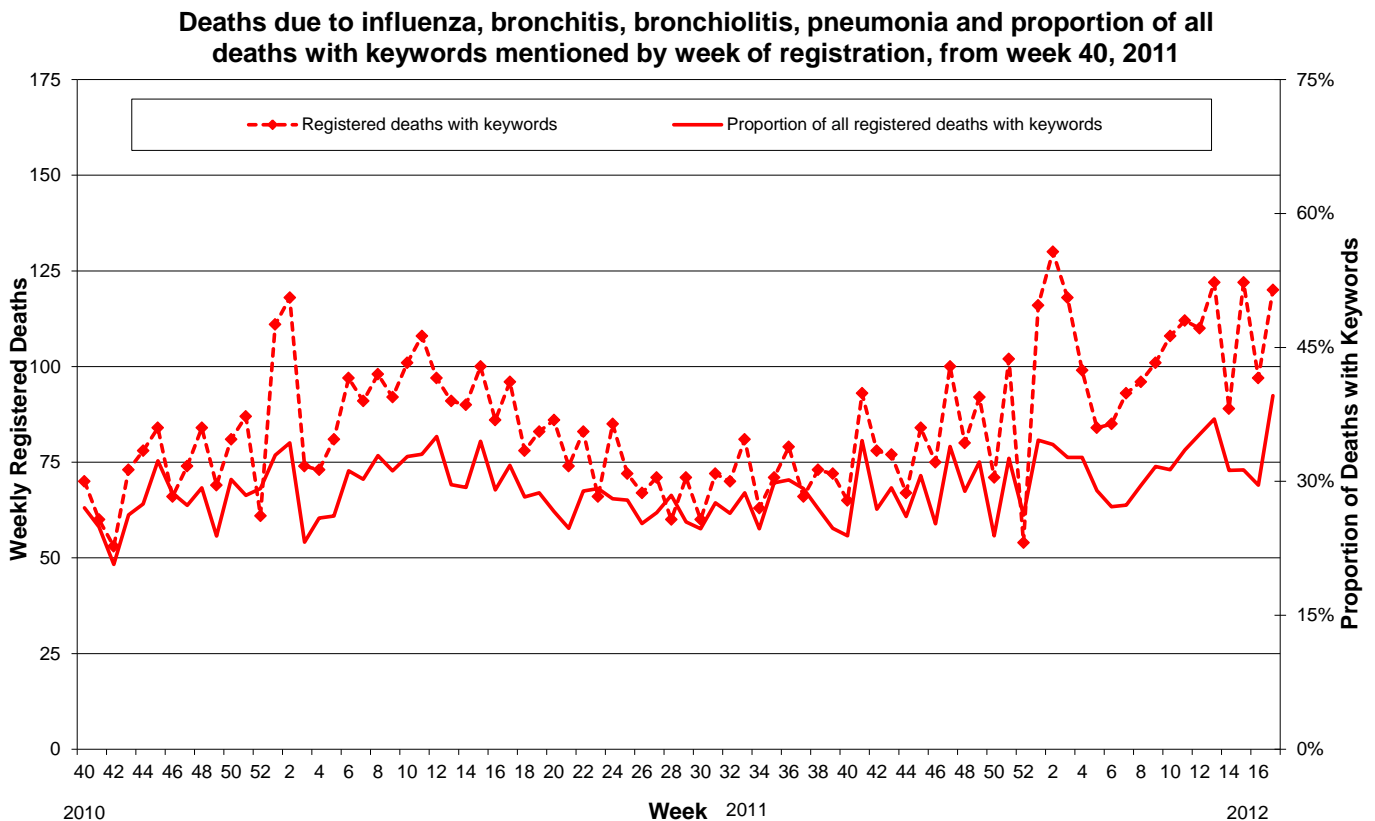
The continuing outbreak activity has also led to an increase in numbers of specimens submitted for testing and influenza positivity rates.

This appears to be a similar pattern to the previous season where all the confirmed influenza outbreaks that were reported occurred at the end of the influenza season in April 2012 despite the relatively low consultation rates in both the sentinel GP practices and OOH.

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 increased from 30% in week 16 to 40% in week 17, 2013, although this increase in proportion may be due, in part, to a decrease in the overall total number of deaths registered in week 17 (all causes, not shown). The number of registered deaths due to respiratory keywords also increased. In week 17, 2013 there were 303 registered deaths of which 120 related to these specific respiratory infections.

Vaccine Uptake

As at the end of March 2013, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 75.0%, while the uptake in those aged under 65 in an at-risk group was 80.2% (provisional data). This compares with 77.0% uptake in the over 65 years, and 81.7% in the under 65 at-risk group for the same period last year. This excludes those who may have received the seasonal influenza vaccine as part of a workplace occupational health programme.

International Summary

Europe

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012 and will revert to bi-weekly reporting after week 16/2013. Active influenza transmission began around week 49/2012 with ILI/ARI rates peaking in almost all countries between weeks 52/2012 and 8/2013.

- This week twenty-four countries reported low-intensity transmission while three countries (Latvia, the Netherlands and Sweden) still reported medium intensity. Decreasing or stable trends were reported by almost all reporting countries.
- The proportion of influenza-positive sentinel specimens (26%) has continued to decrease since the peak observed in week 5/2013 (61%).
- Since week 40/2012, 47% of sentinel surveillance specimens testing positive for influenza virus have been type A and 53% type B. Of the influenza A viruses subtyped, the proportion of A(H1)pdm09 viruses was 62%.
- Twenty-five hospitalised, laboratory-confirmed influenza cases were reported by three countries for week 16/2013.
- With influenza activity continuing to decline or having already returned to baseline levels in all reporting countries after more than three months of active transmission, the 2012–13 influenza season appears to be coming to an end.

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

Worldwide (WHO)

As of 26 April, 2013:

- Influenza activity across the northern temperate regions has continued to decline to near inter-seasonal levels in much of North America, Europe, and northern Asia though low level persistent transmission was still noted in many countries.
- The persistence of transmission in the northern hemisphere temperate regions has been associated with increasing numbers of influenza type B virus appearing late in the season in a number of countries of North America and Europe. Prior to this, influenza A(H3N2) was the most commonly detected virus in North America, A(H1N1)pdm09 in Europe, and both in varying proportions in different countries of northern Asia.
- Low levels of influenza activity continued to be reported across the tropical regions of the world and activity in countries of the southern hemisphere remained at inter-seasonal levels.

- Nearly all influenza A viruses characterized this season have been antigenically related to those contained in the current trivalent vaccine. Among the B viruses characterized, those that were of the Yamagata lineage were antigenically related to the viruses recommended for the trivalent vaccine but a sizable number of B viruses were also of the Victoria lineage. Only very low numbers of oseltamivir and zanamivir resistant viruses have been detected.
- A summary review of the Northern Hemisphere influenza season will be published in the World Epidemiological Report on 31 May 2013.

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

In China, as of April 29, 2013, 126 cases of influenza A(H7N9) have been identified, of which 24 have died: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html

For more information on specific areas see the links below:

USA

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

Canada

<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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