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Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 2 (7 - 13 January 2013)

Summary

- GP consultation rates continue to remain above the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates for combined 'flu/FLI decreased from 87.0 per 100,000 population in week 1 to 72.4 per 100,000 population in week 2, 2013 (17% decrease).
- OOH consultation rates for 'flu/FLI also decreased from 28.0 per 100,000 population in week 1 to 10.2 per 100,000 population in week 2, 2013 (64% decrease).
- Influenza positivity rate of respiratory specimens increased again this week. In week 2, 2013 there were 23 positive detections of influenza B, 3 influenza A(H3) and 1 influenza A (untyped). Influenza B remains the predominant type.
- RSV activity continues to decrease with levels lower than the same period last year.
- There were four new admissions to ICU confirmed with influenza in week 2, 2013. This brings the total admitted to ICU that have been confirmed with influenza to eight.
- There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 2, 2013 with no deaths reported so far this season.
- There were no confirmed influenza or other respiratory outbreaks reported to PHA in week 2, 2013.

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

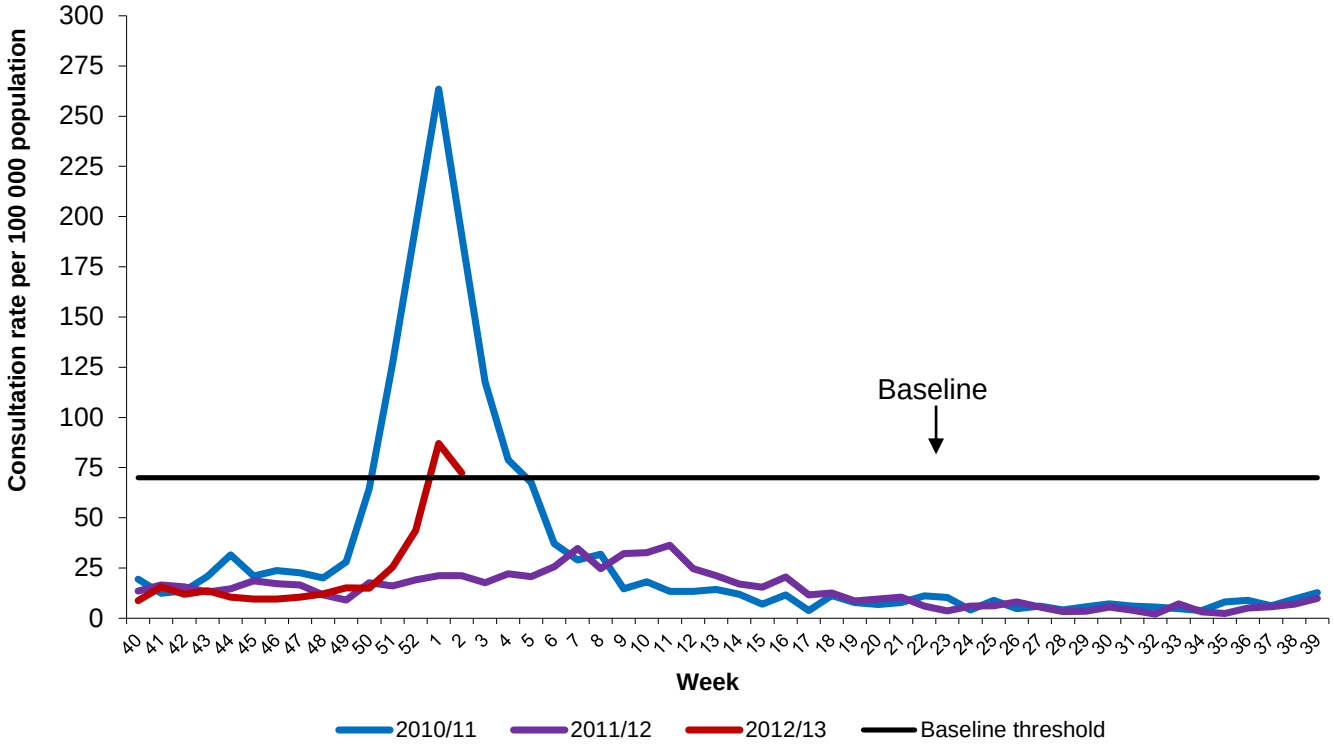


Figure 2. Sentinel GP combined consultation rate and number of influenza positive detections 2007/08 – 2012/13.

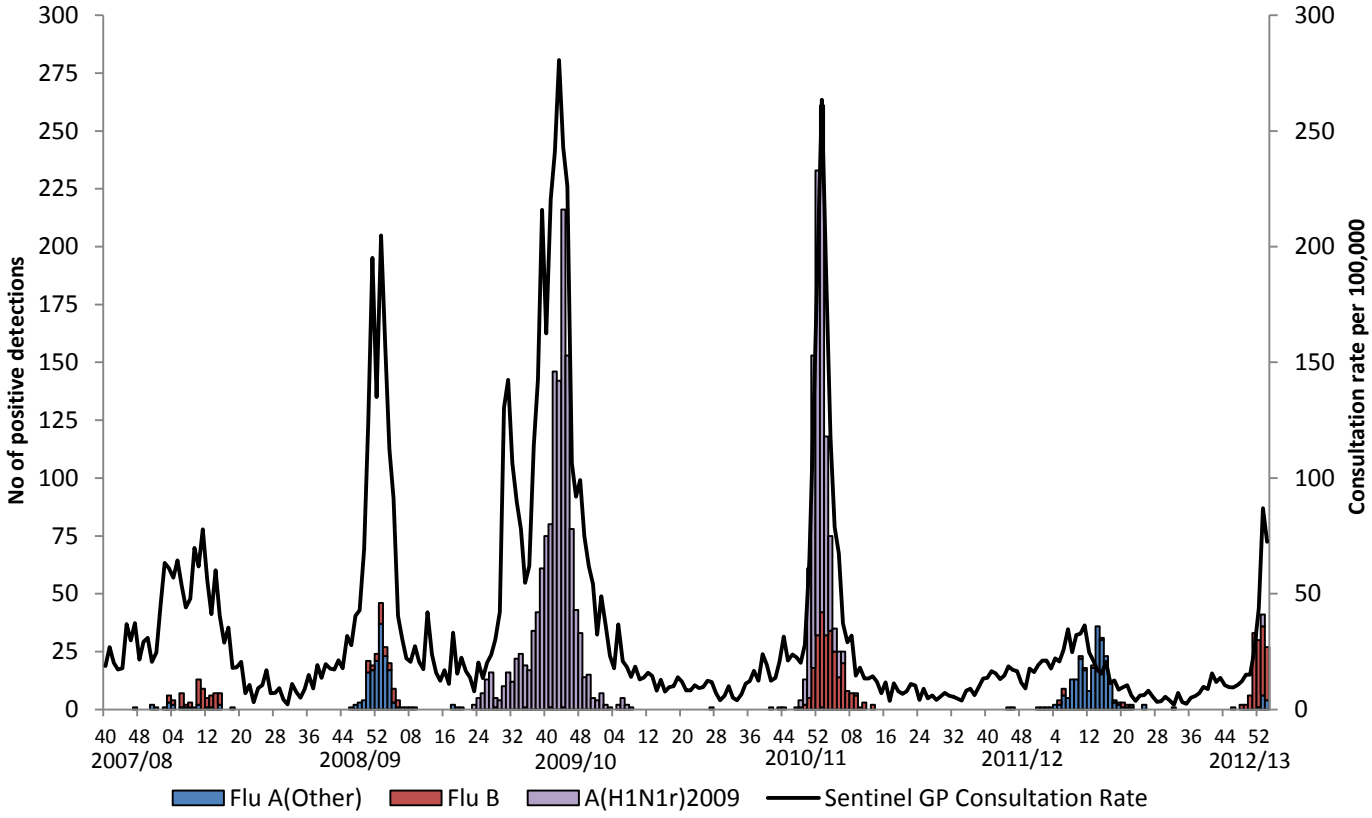
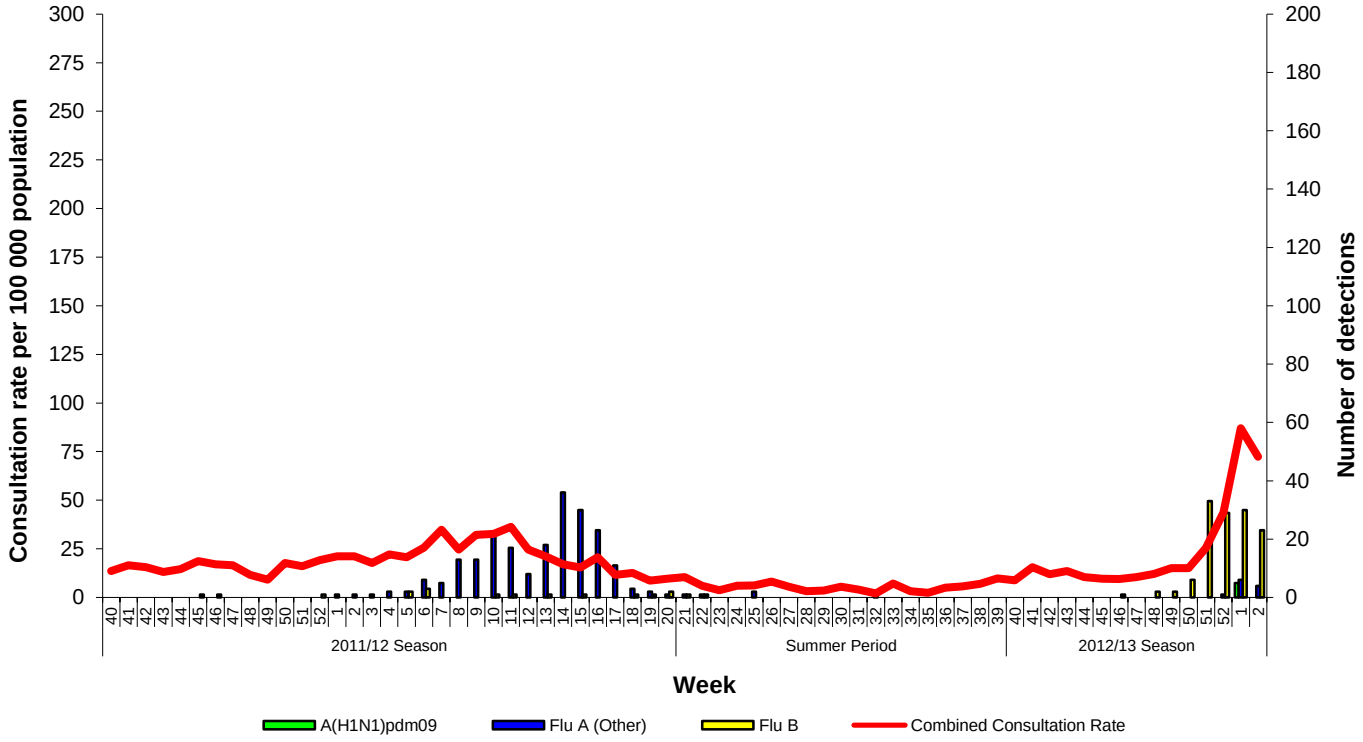


Figure 3. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology 'flu detections from week 40 2011

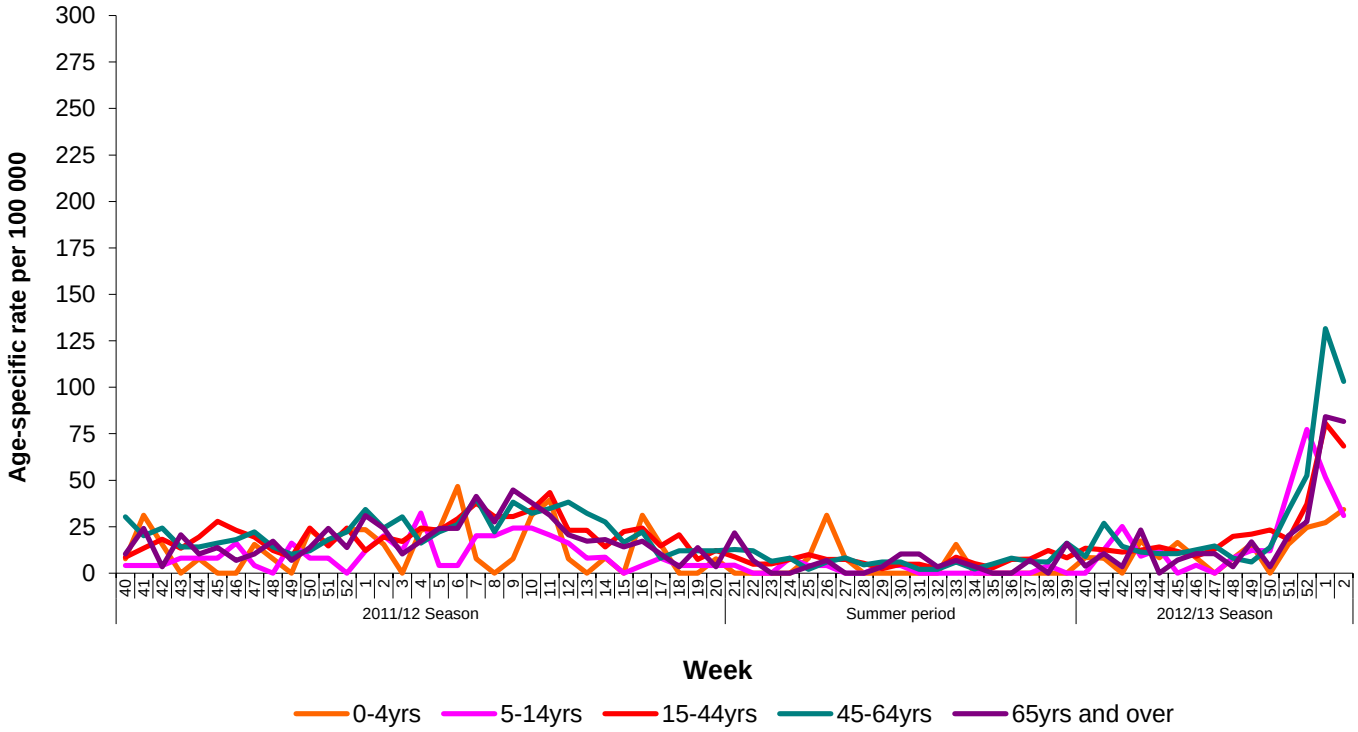


Comment

GP consultation rates for combined 'flu/FLI have decreased from 87.0 per 100,000 population in week 1 to 72.4 per 100,000 population in week 2, 2013 (17% decrease), remaining above the Northern Ireland threshold of 70 per 100,000 population. Consultation rates remain substantially higher than the same weeks in the previous year but lower than those for the 2010/11 season (Figures 1, 2 and 3).

Consultation rates based on the Apollo surveillance programme by LCG also show decreases in most areas.

Figure 4. Sentinel GP age-specific consultation rates for combined flu and flu-like illness from week 40 2011



Comment

All but one of the age-specific consultation rates have decreased in week 2, 2013 with the 0-4 year age group showing a small increase; however this increase may be due to small numbers. Similar to last week consultation rates remain highest in the 45-64 year age group in week 2, 2013. (Figure 4).

Out-of-Hours (OOH) Centres Call Data

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

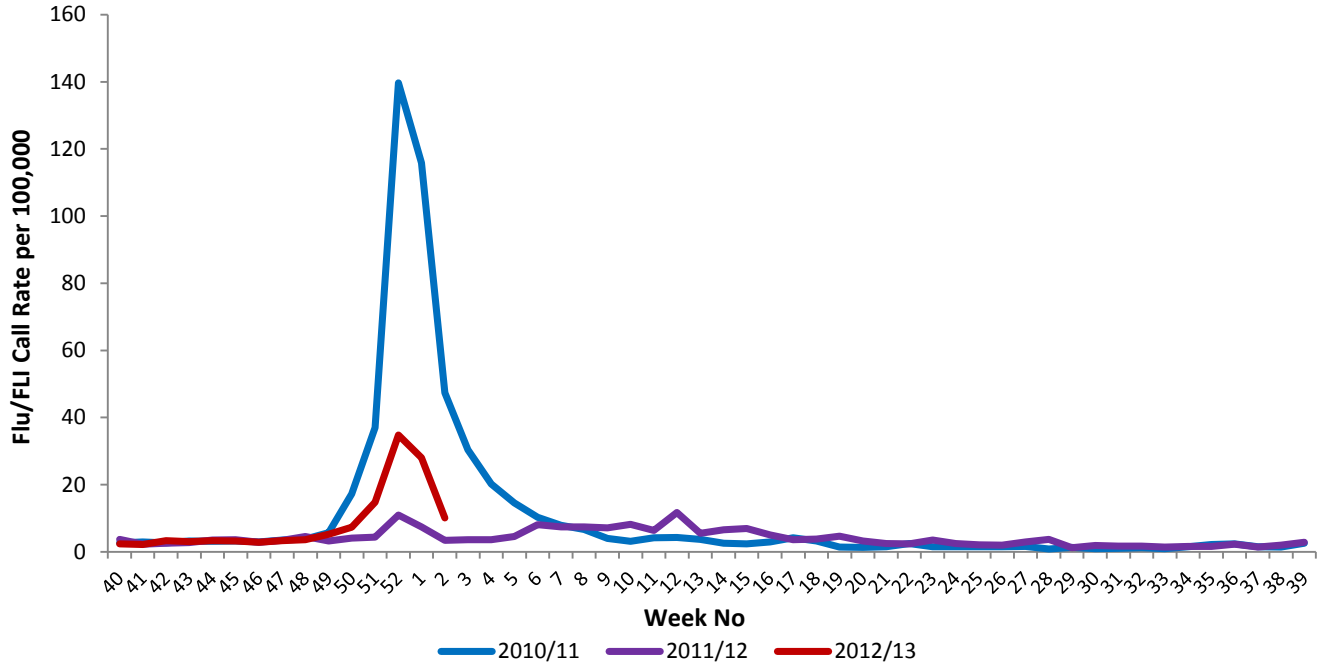
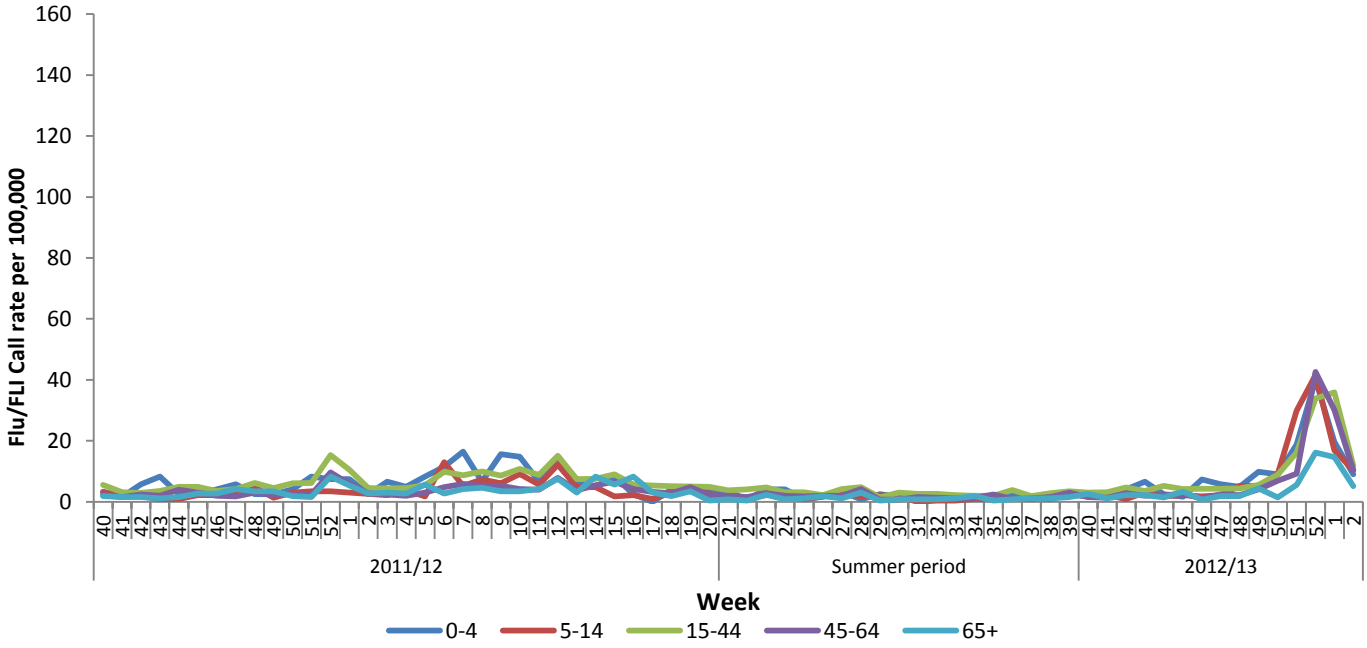


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40 2011



Comment

OOH consultation rates for 'flu/FLI continued to decline with a decrease from 28.0 per 100,000 population in week 1 to 10.2 per 100,000 population in week 2, 2013 (64% decrease). Call rates for 'flu/FLI continue to remain higher than the same period in the previous year (3.5 per 100,000 population) although much lower than the rate in week 2, 2010/11 (47.4 per 100,000 population). All age-specific rates have also decreased with the highest rate in week 2, 2013 in the 15-44 year age group similar to the previous week. 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 2, 2013								
Source	**Specimens Tested**	AH3	A(H1N1) pdm2009	A (untyped)	Influenza B	RSV	**Total influenza Positive**	**% Influenza Positive**
Sentinel	16	0	0	0	7	3	7	44%
Non-sentinel	99	3	0	1	16	19	20	20%
Total	**115**	**3**	**0**	**1**	**23**	**22**	27	**23%**

Table 2. Cumulative Total Week 40, 2012 - Week 2, 2013						
	AH3	**A(H1N1) pdm09**	**A (untyped)**	**Flu B**	**Total Influenza**	**RSV**
0-4	2	3	1	27	**33**	595
5-14	0	0	0	30	**30**	16
15-64	5	2	1	54	**62**	41
65+	2	0	0	15	**17**	39
Unknown	0	0	0	0	**0**	5
All ages	**9**	**5**	**2**	**126**	**142**	**696**

Table 3. Cumulative Total Week 40, 2012 - Week 2, 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	1	**1**	3	2	3	1	26	**32**	592
5-14	0	0	0	4	**4**	0	0	0	0	26	**30**	16
15-64	1	0	0	23	**24**	4	4	2	1	31	**38**	37
65+	0	0	0	1	**1**	0	2	0	0	14	**16**	39
Unknown	0	0	0	0	**0**	0	0	0	0	0	**0**	5
All ages	**1**	**0**	**0**	**29**	**30**	**7**	**8**	**5**	**2**	**97**	**116**	**689**

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.

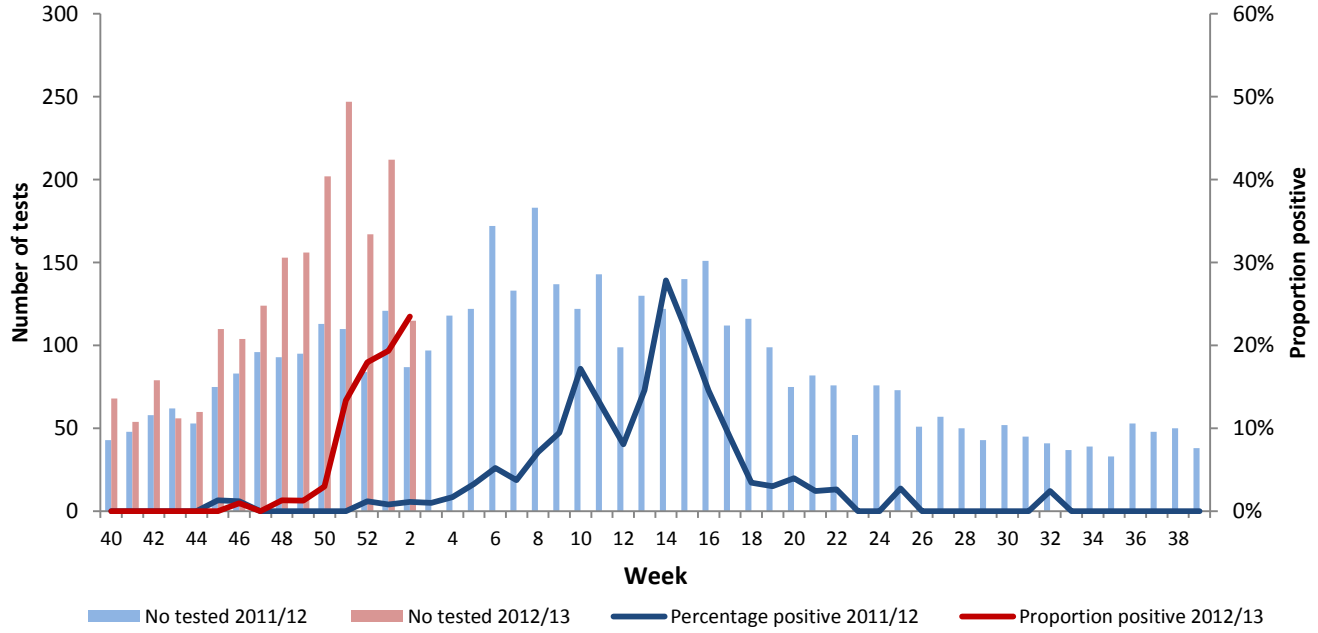
Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

With effect from week 50 all samples submitted for pertussis testing are also now routinely tested for influenza. This will have an impact on specimen numbers and may affect positivity rates.

Comment

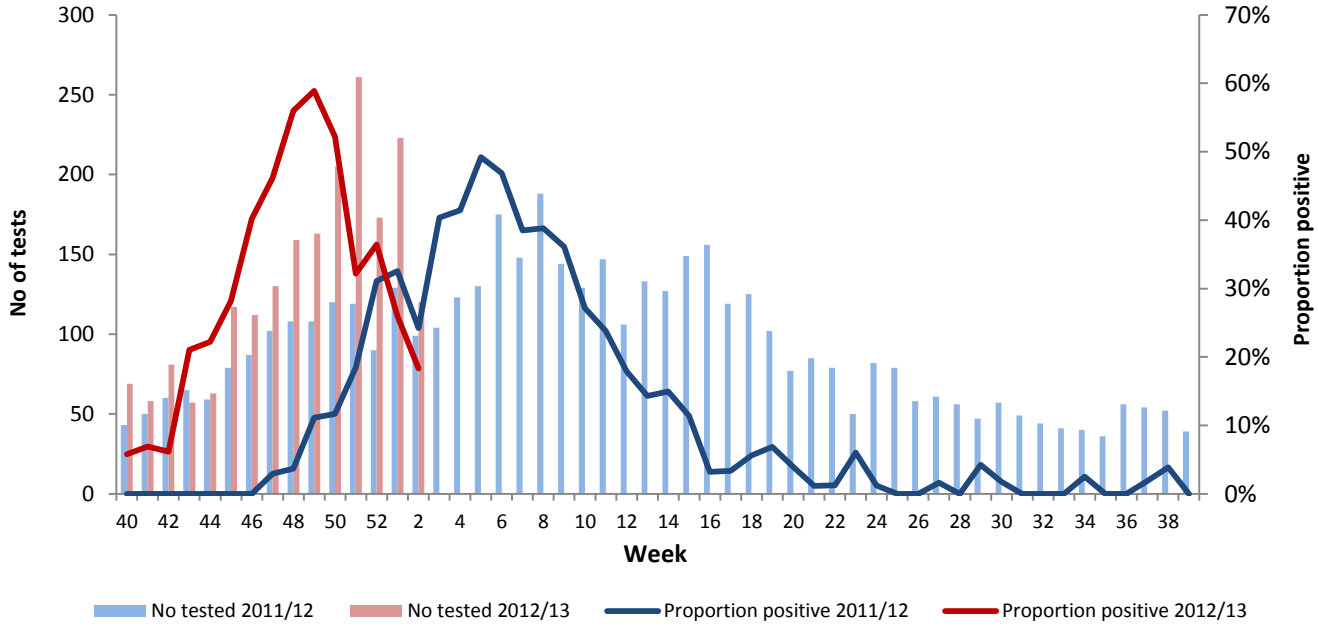
Numbers of specimens submitted for testing remain at high levels with influenza positivity rates increasing again this week. There were 115 specimens submitted for testing in week 2, 2013, of which there were 23 positive detections of influenza B, 3 influenza A(H3) and 1 influenza A (untyped). Influenza B remains the predominant type with a total of 126 detections so far this season, and a further 16 detections of influenza A (9 influenza A(H3), 5 A(H1N1)pdm09 and 2 A(untyped)). Influenza positivity rates for respiratory specimens continue to increase (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

RSV positivity rates continue to decline with a decrease from 26% in week 1 to 18% in week 2, 2013 with rates lower than the same period last year. There were 22 RSV detections in week 2, 2013. From week 40 of the current season there have been a total of 689 RSV positive detections reported, of which 85% fall in the 0-4 year age group. RSV positivity trends are similar to 2011/12 but are approximately four weeks earlier (Figure 7).

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 coming season.

There were four new admissions to ICU confirmed with influenza in week 2, 2013. To date there have been eight cases admitted to ICU that have been confirmed with influenza; five of which were confirmed with influenza B, two with influenza A(H3) and one influenza A(H1N1)pdm09.

Mortality Surveillance

There were no reports of any laboratory confirmed influenza deaths in patients admitted to critical care in week 2, 2013 with none reported so far this season.

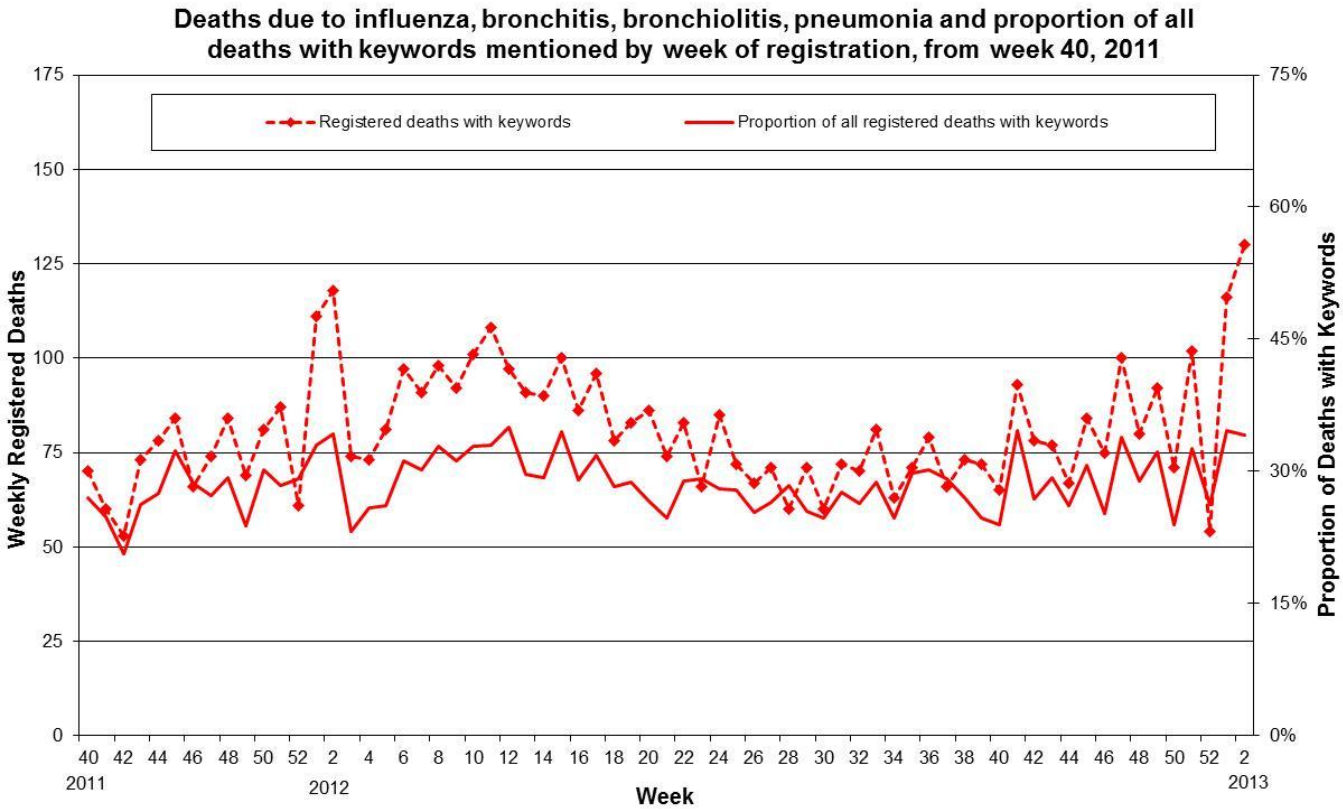
Outbreak Surveillance

There were no confirmed influenza or other respiratory outbreaks in residential care units reported to the Public Health Agency during week 2, 2013.

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 decreased slightly from 35% in week 1 to 34% in week 2, 2013. In week 2, 2013 there were 381 registered deaths of which 130 related to these specific respiratory infections; however this increase may be due to late reporting following the bank holiday period.

Vaccine Uptake

As at the end of November 2012, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 71.2%, while the uptake in those aged under 65 in an at-risk group was 71.5% (provisional data). This compares with 72.6% uptake in the over 65 years, and 74.6% in the under 65 at-risk group for the same period last year.

International Summary

Europe

Weekly reporting on influenza surveillance in Europe for the 2012–13 season started in week 40/2012 and the period of influenza transmission started around week 49/2012, considerably earlier than in 2011/2012.

In week 1/2013, 26 countries reported clinical information:

- Increasing trends were reported by 16 countries compared to only nine of 20 countries in week 52. Only Romania reported decreasing trends.
- Twelve countries reported medium- or high-intensity transmission. The geographic pattern of influenza activity was reported as widespread by ten countries, representing an increase in proportions over week 52. Countries in northern and western Europe were most affected.
- Of 734 sentinel specimens tested across 20 countries, 320 (44%) were positive for influenza virus – a high percentage but similar to that seen in week 52.
- A total of 167 hospitalised, laboratory-confirmed influenza cases reported by four countries.
- No overall excess of all-cause deaths has appeared as yet this season to date but individual deaths are being reported.

Since the official start of this season in week 40/2012:

- Of the influenza virus detections in sentinel specimens 44% were type A, and 56% were type B viruses. Of influenza A viruses subtyped, 51% were A(H3) and 49% were A(H1). Of the B viruses subtyped 84% were Yamagata and 16% Victoria.
- The virological match with the strains in the current seasonal influenza vaccine is considered good.
- Influenza activity and disease increased substantially in a number of EU/EEA countries in week 1/2012, especially in north-western Europe. The virological pattern being identified in the EU/EEA is different from that being reported so far from North America.

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

Worldwide (WHO)

Reporting of influenza activity has been irregular in the past two weeks due to the holiday season in many countries. As a result, overall virus detections reported have dropped off although in most countries in the northern temperate regions, influenza activity appears to have continued rising.

- Many countries of North America, Europe, north Africa, eastern Mediterranean and temperate Asia have reported increasing influenza activity over the past weeks. North China has started its influenza season.
- In tropical Asia, influenza activity was similar to previous weeks, with persistent low-level circulation.
- Influenza activity in sub-Saharan Africa has declined in most countries, with the exception of the Democratic Republic of Congo and Ghana.
- In the Caribbean, central America and tropical south America, influenza activity decreased to low levels, except for Bolivia, where there is increasing circulation of influenza A(H3N2).
- Influenza activity in countries of the southern hemisphere is currently at inter-seasonal levels.
- Several unconfirmed media stories have reported a number of deaths related to infection with influenza A(H1N1)pdm09 in different parts of the world. As with other seasonal influenza viruses, it is expected that some deaths would occur with infection, in particular now when influenza season starts in Northern Hemisphere. These reports at times refer to this A(H1N1)pdm09 virus as "swine flu", causing some confusion with other viruses that recently reported in the United States. A(H1N1)pdm09 virus has been circulating in humans for more than 3 years and now is a seasonal human influenza virus.

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

USA

The United States is having an early flu season with most of the country now experiencing high levels of influenza-like-illness (ILI). In this week's FluView report, some key flu activity indicators continued to rise, while others fell. It's too soon to say exactly what this means; but some regions may have peaked, while other parts of the country are still on the upswing. This FluView update contains data for the week between December 30, 2012 and January 5, 2013.

Below is a summary of the key indicators:

- The proportion of people seeing their health care provider for influenza-like illness (ILI) decreased from 6.0% to 4.3% for the week ending in January 5, but remains above the national baseline for the fifth consecutive week.
- Twenty-four states and New York City are now reporting high ILI activity. Last week 29 states reported high ILI activity. Additionally, 16 are reporting moderate levels of ILI activity; an increase from 9 states in the prior week.
- Forty-seven states reported widespread geographic influenza activity for the week between December 30, 2012 and January 5, 2013. This is an increase from 41 states in the previous week.
- Since October 1, 2012, 3,710 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 1,443 hospitalizations from the previous week. This translates to a rate of 13.3 influenza-associated hospitalizations per 100,000 people in the United States.

- Influenza-associated hospitalizations are highest among people 65 and older. Of the 3,710 influenza-associated hospitalizations that have been reported this season, 46% have been among people 65 and older.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System is now slightly above the epidemic threshold for the first time this season.
- Nationally, the percentage of respiratory specimens testing positive for influenza in the United States during the week ending January 5, 2012 decreased from 35.2% in the previous week to 32.8% (Last week CDC reported 31.6% positive. This number increased after additional reports were submitted.)
- Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. During the week ending January 5, 2013, 3,369 of the 4,222 influenza positive tests reported to CDC were influenza A and 853 were influenza B viruses. Of the 1,586 influenza A viruses that were subtyped, 98% were H3 viruses and 2% were 2009 H1N1 viruses.

  An overview of the US influenza can be viewed on
  http://www.cdc.gov/flu/weekly/summary.htm

Canada

- Although the percentage of positive laboratory tests for influenza declined slightly in week 01, more regions across Canada reported widespread and localized influenza activity and 107 new influenza outbreaks were reported.
- A total of 3864 laboratory detections of influenza were reported, of which 98.1% were for influenza A viruses, predominantly A(H3N2).
- 69 new paediatric influenza-associated hospitalizations were reported through the IMPACT network.
- 26 new adult influenza-associated hospitalizations were reported through the PCIRN-SOS network.
- The ILI consultation rate decreased, but is above the expected range for this time of year.

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:

Paul Cabrey
Information Officer
Public Health Agency
028 90263386

Cathriona Kearns
Epidemiological Scientist
Public Health Agency
028 90263386

Email: flusurveillance@hscni.net

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This report was compiled by Cathriona Kearns, Paul Cabrey, and Dr. Brian Smyth.