

Influenza Weekly Surveillance Bulletin

Northern Ireland, Week 8 (18 - 24 February 2013)

Summary

- GP consultation rates remain below the Northern Ireland threshold of 70 per 100,000 population.
- GP consultation rates decreased again in week 8 to 43.7 per 100,000 population from 58.4 per 100,000 population in week 7 (25% decrease).
- OOH consultation rates for 'flu/FLI decreased slightly from 12.9 per 100,000 in week 7 to 11.2 per 100,000 in week 8.
- Influenza positivity rate of respiratory specimens increased this week. In week 8, 2013 there were 10 positive detections of influenza B, 8 influenza A(H3) and 5 influenza A(untyped). Influenza A was the predominant type during week 8; however, influenza B remains the predominant type overall this season.
- RSV activity has decreased further and remains very low.
- There was one new admission to ICU confirmed with influenza reported in week 8, 2013. The total admitted to ICU that have been confirmed with influenza this season is now 25.
- There were no new deaths in patients with laboratory confirmed influenza admitted to ICU reported in week 8, 2013.
- There were no new confirmed influenza outbreaks reported to PHA in week 8, 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

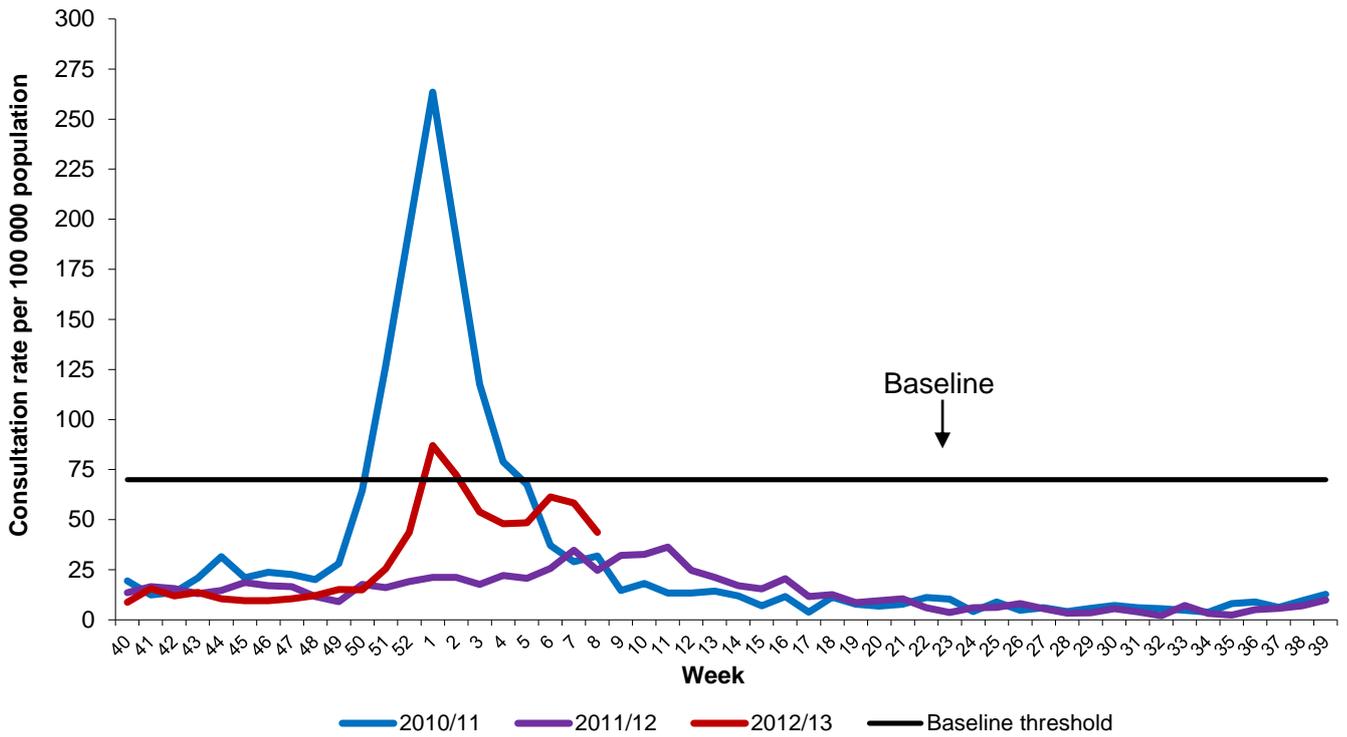


Figure 2. Sentinel GP combined consultation rate and number of influenza positive detections 2007/08 – 2012/13.

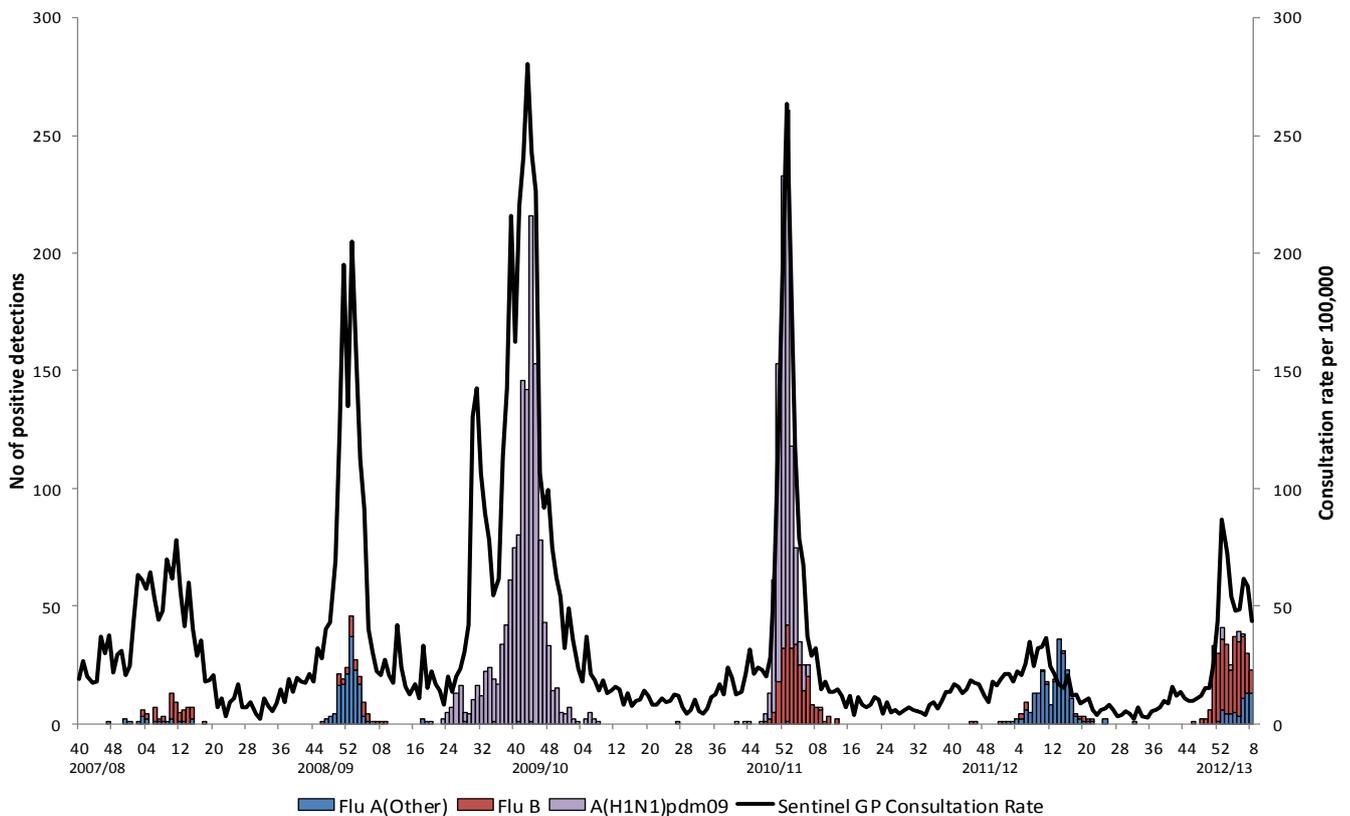
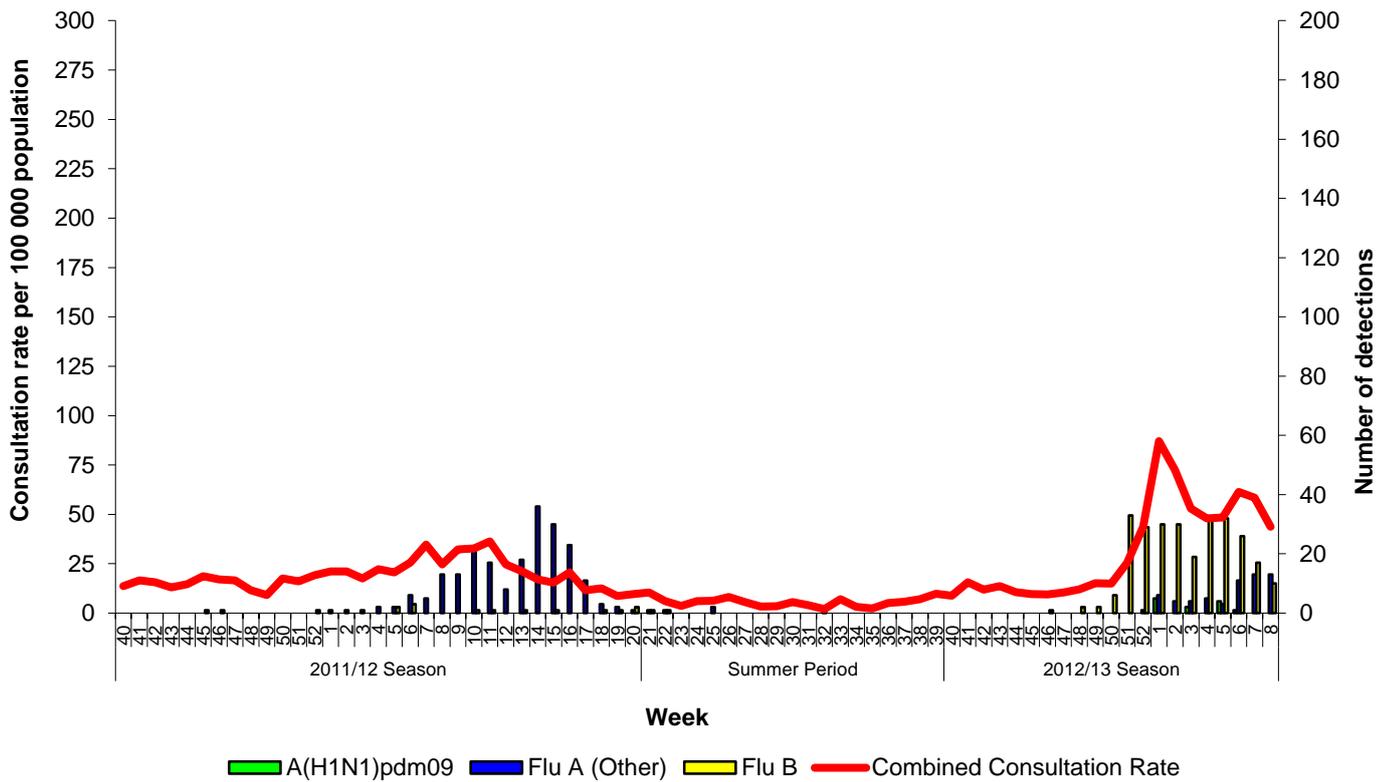


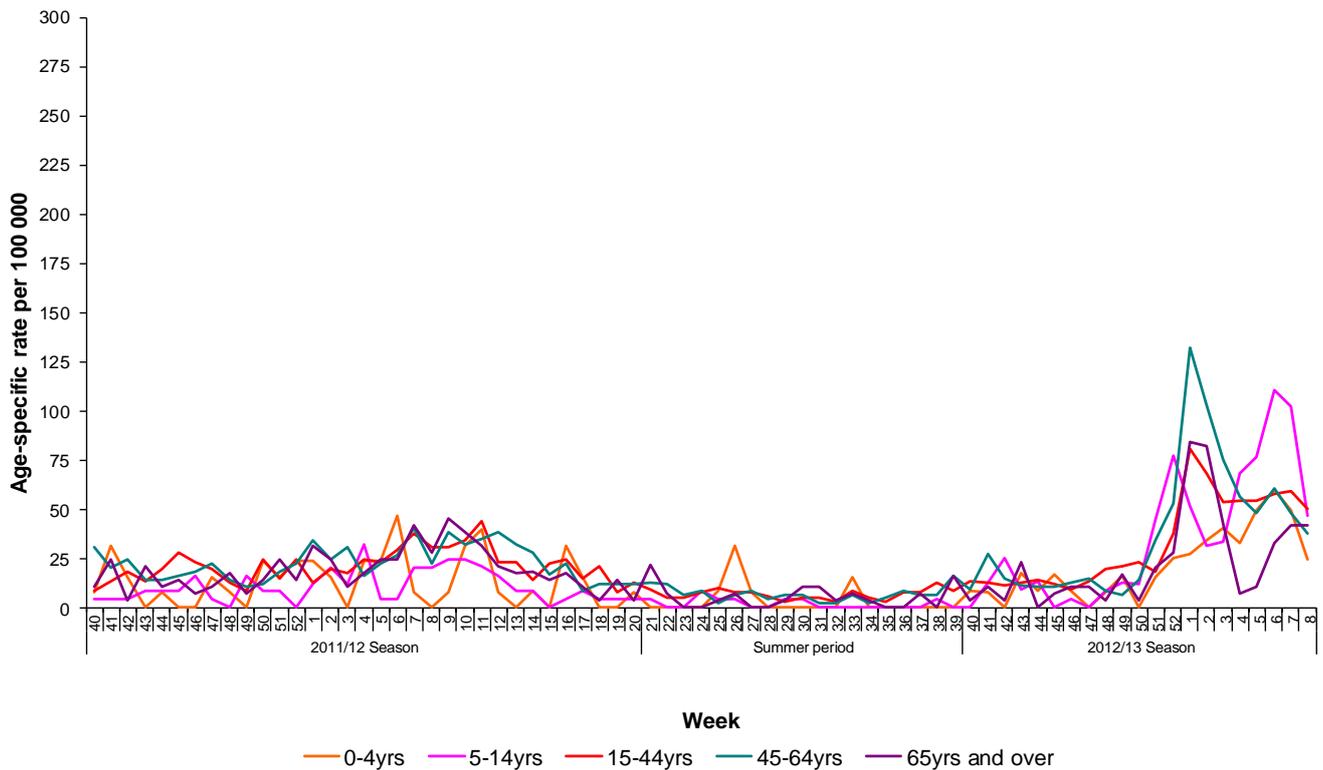
Figure 3. Sentinel GP consultation rate for combined flu and flu-like illness and number of virology 'flu detections from week 40, 2011



Comment

GP consultation rates decreased again in week 8 to 43.7 per 100,000 population from 58.4 per 100,000 population in week 7 (25% decrease). Rates remain below the Northern Ireland threshold of 70 per 100,000 population but are higher than the same weeks in both the previous year and in the 2010/11 season (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 age-specific ‘flu/FLI consultation rates have decreased in week 8 with the exception of the over 65 age group which has remained stable. The 5 -14 year age group which had displayed the highest age specific rate for the past 4 weeks decreased substantially with the highest age-specific rate in week 8 now in the 15–44 year age group. Small numbers in some of the age groups can contribute to fluctuations in rates (Figure 4).

Out-of-Hours (OOH) Centres Call Data

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

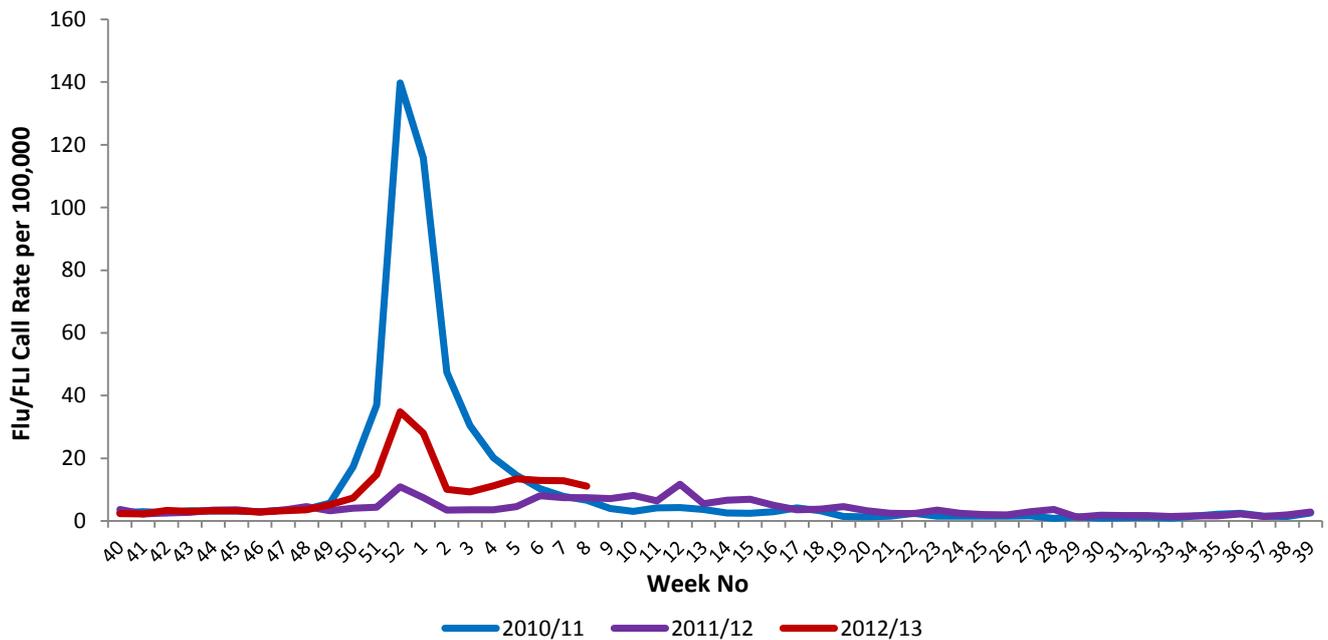
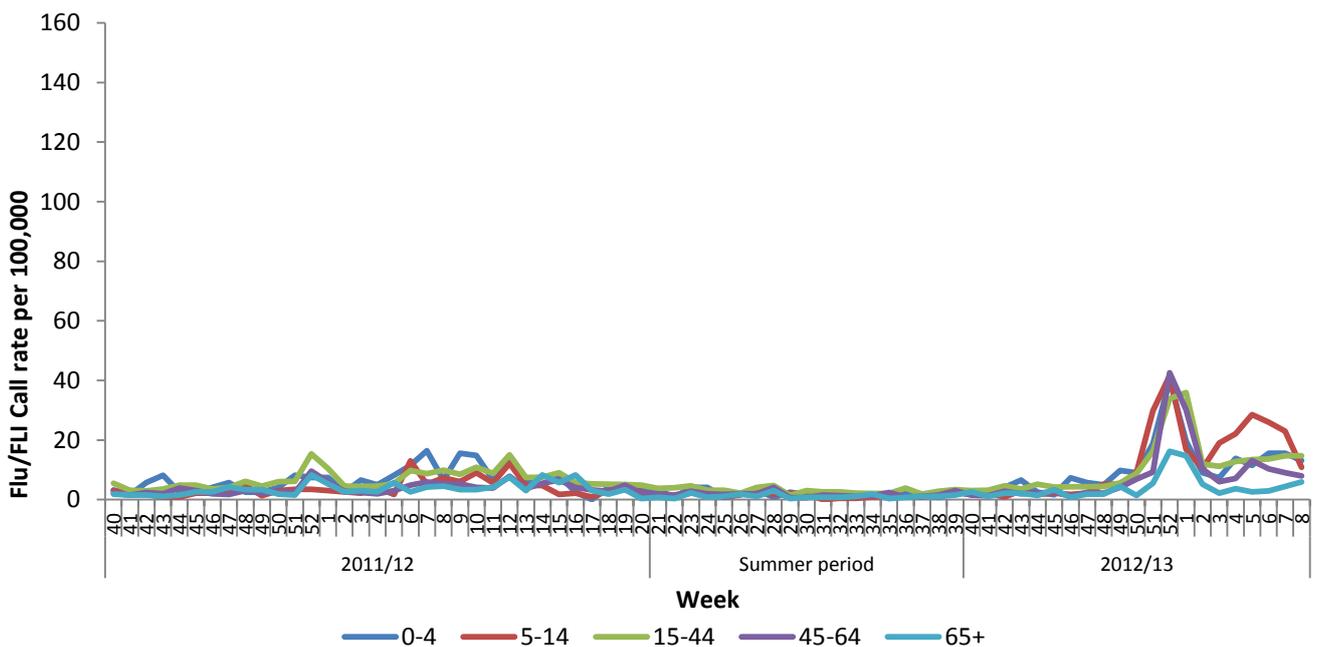


Figure 6. OOH Call rates of flu and flu-like illness by age-group from week 40, 2011



Comment

OOH consultation rates for ‘flu/FLI decreased slightly from 12.9 per 100,000 in week 7 to 11.2 per 100,000 in week 8 with rates remaining higher than the same period in both 2010/11 and 2011/12. All age specific consultation rates either decreased or remained stable, with the exception of the over 65 year age group which increased slightly. Similar to the in-hours consultation rates the 15-44 year age group is now the highest age-specific OOH consultation rate in week 8, 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 8, 2013

Source	Specimens Tested	AH3	A(H1N1) pdm09	A (untyped)	Influenza B	RSV	Total influenza Positive	% Influenza Positive
Sentinel	5	0	0	1	2	0	3	60%
Non-sentinel	57	8	0	4	8	2	20	35%
Total	62	8	0	5	10	2	23	37%

Table 2. Cumulative Total Week 40, 2012 - Week 8, 2013

	AH3	A(H1N1) pdm09	A (untyped)	Flu B	Total Influenza	RSV
0-4	10	4	1	59	74	662
5-14	3	1	0	76	80	19
15-64	26	5	6	107	144	55
65+	11	2	2	27	42	56
Unknown	1	0	0	0	1	5
All ages	51	12	9	269	341	797

Table 3. Cumulative Total Week 40, 2012 - Week 8, 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	10	4	1	57	72	659
5-14	0	0	0	13	13	0	3	1	0	63	67	19
15-64	2	1	1	46	50	5	24	4	5	61	94	50
65+	1	1	0	2	4	0	10	1	2	25	38	56
Unknown	0	0	0	0	0	0	1	0	0	0	1	5
All ages	3	2	1	63	69	8	48	10	8	206	272	789

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.

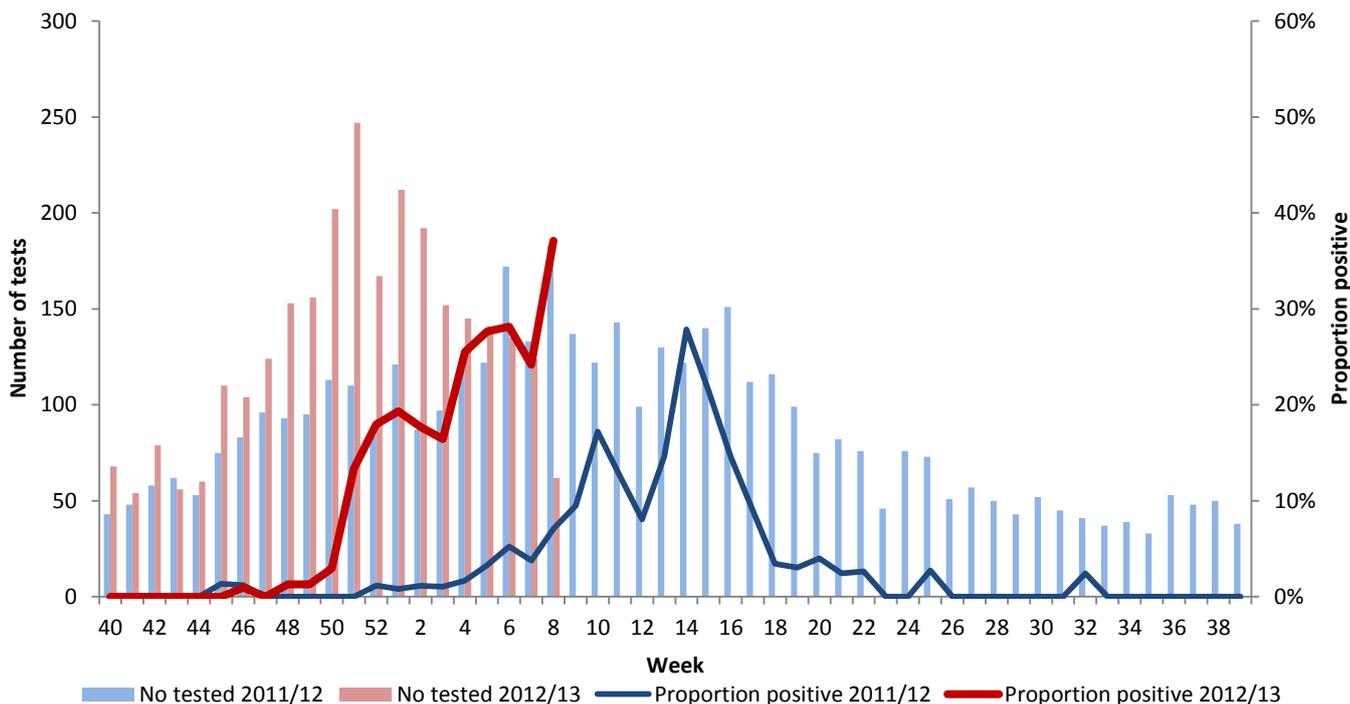
Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

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

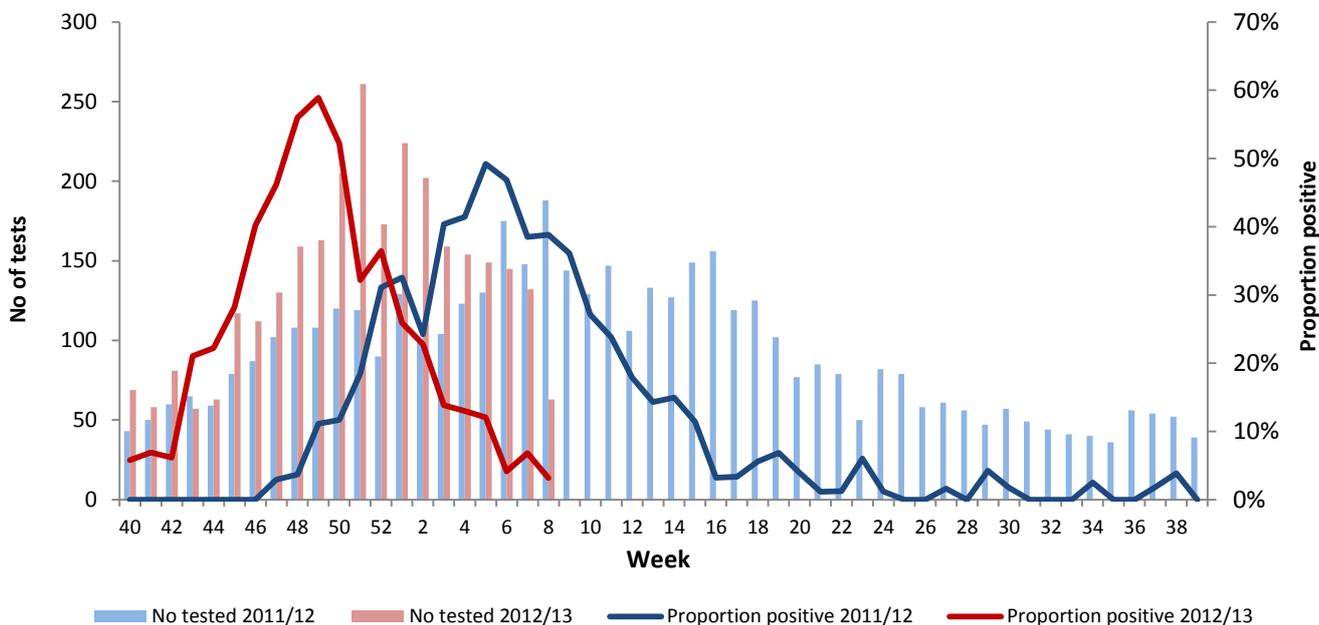
Numbers of specimens submitted for testing continue to decrease and remain below the levels seen in the same period in the previous season; however, influenza positivity rates increased in week 8, 2013. This apparent increase may be due to incomplete data for week 8. There were 62 specimens submitted for testing in week 8, 2013, of which there were 10 positive detections of influenza B, 8 influenza A(H3) and 5 influenza A(untyped). Influenza A was the predominant type in week 8; however influenza B remains the predominant type overall this season with a total of 269 detections (79% of all influenza detections), and a further 72 detections of influenza A (51 influenza A(H3), 12 A(H1N1)pdm09 and 9 A(untyped)). (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 were only 2 RSV detections in week 8, 2013 with positivity rates decreasing. From week 40 of the current season there have been a total of 797 RSV positive detections reported, of which 83% fall in the 0-4 year age group. RSV positivity trends are similar to 2011/12 but are approximately six weeks earlier. (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 coming season.

There was one new admission to ICU confirmed with influenza reported in week 8, 2013. To date there have been 25 cases (17 adults, 8 children) admitted to ICU that have been confirmed with influenza; 17 of which were confirmed with influenza B, 6 with influenza A(H3), 1 influenza A(H1N1)pdm09 and 1 influenza A (untyped).

Mortality Surveillance

There were no new deaths in patients with laboratory confirmed influenza admitted to ICU reported in week 8, 2013; with the total this season remaining at two.

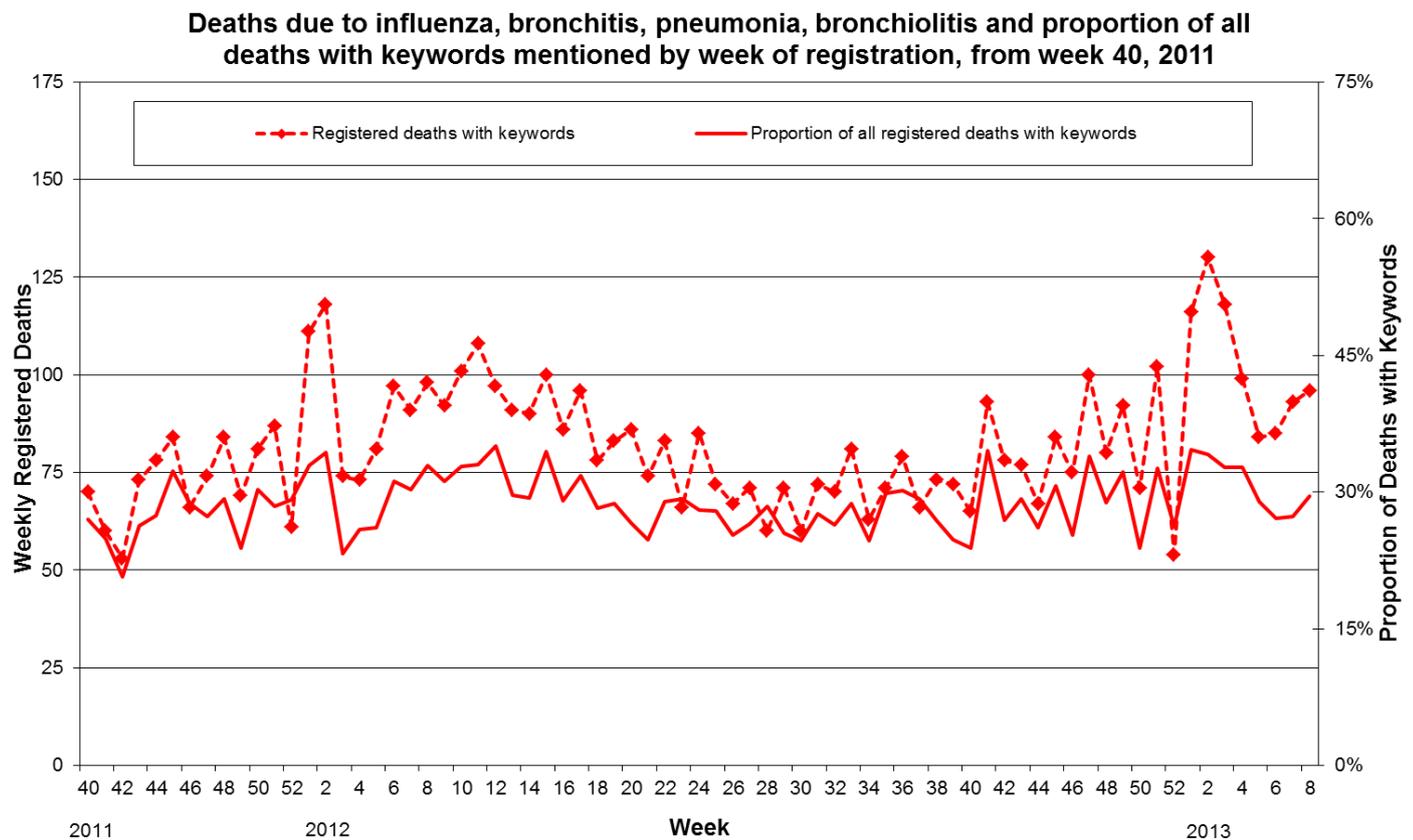
Outbreak Surveillance

There were no new outbreaks of confirmed influenza in week 8, 2013 with only one confirmed influenza outbreak reported so far this season.

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 in week 8, 2013 increased to 30%. In week 8, 2013 there were 325 registered deaths of which 96 related to these specific respiratory infections.

Vaccine Uptake

As at the end of January 2013, the proportion of people in Northern Ireland aged 65 years and over who had received the seasonal influenza vaccine was 74.6%, while the uptake in those aged under 65 in an at-risk group was 78.6% (provisional data). This compares with 76.6% uptake in the over 65 years, and 82.5% 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 but active influenza transmission began around week 49/2012, approximately six weeks earlier than in the 2011/2012 season.
- In week 7/2013, 19 of the 29 countries reporting indicated concomitantly high/medium-intensity transmission and wide geographic spread. Ten countries reported decreasing trends, the first time since the beginning of influenza transmission for five of them.
- In week 7/2013, the proportion of influenza-positive cases among sentinel specimens remained high (52%) but continued to decrease, as first observed in the previous week.
- Since week 40/2012, an even distribution of influenza virus types has been observed, 50% each for type A and type B viruses. Among influenza A viruses, an increasing proportion of A(H1)pdm09 over A(H3) has been reported since week 52/2012.
- For week 7/2013, 78 hospitalised laboratory-confirmed influenza cases were reported by five countries (Belgium, France, Romania, Slovakia, and Spain), 48 (62%) tested positive for influenza type A and 30 (38%) for type B.
- On 8 February 2013, ECDC published its annual risk assessment for seasonal influenza 2012-13 based on data up to week 3/2013.
- Influenza activity remained substantial in week 7/2013 across Europe but an increasing number of countries reported indications of declining transmission.

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

Worldwide (WHO)

- Influenza activity in North America, though high with A(H3N2) virus predominant, started decreasing. In the United States of America, the number of pneumonia and influenza-related hospitalizations among adults aged 65+ years continued to increase.
- In Europe influenza activity continued to increase in the majority of countries, with A(H1N1)pdm09 virus predominant. Most countries reported medium-intensity transmission, wide geographic spread and increasing trends.
- Influenza activity throughout the temperate region of Asia is ongoing.
- In the Caribbean, Central America and tropical South America, influenza activity remained at low levels.
- Most countries in Africa experienced decreasing influenza activity.

- Influenza in the southern hemisphere remained at inter-seasonal levels.

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

USA

According to the latest FluView report, while influenza activity persists in parts of the country, activity is decreasing nationally. Below is a summary of the key indicators for the week of February 10-16, 2013:

- For the week of February 10-16, the proportion of people seeing their health care provider for influenza-like illness (ILI) decreased for the fourth consecutive week. All regions reported declining levels of ILI activity.
- Thirty-four states reported low or minimal ILI activity. ILI activity data indicate the amount of flu-like illness that is occurring in each state. Twenty-two states reported widespread geographic influenza activity for the week of February 10-16, 2013; a decrease from 31 states in the previous week. Geographic spread data show how many areas within a state or territory are seeing flu activity.
- Since October 1, 2012, 9,531 laboratory-confirmed influenza-associated hospitalizations have been reported; an increase of 578 hospitalizations from the previous week. This translates to a rate of 34.2 influenza-associated hospitalizations per 100,000 people in the United States. Overall, hospitalization rates are levelling off for the season, but remain high among people 65 and older, who account for more than half of all reported hospitalizations.
- Hospitalization data are collected from 15 states and represent approximately 9% of the total U.S. population. The number of hospitalizations reported does not reflect the actual total number of influenza-associated hospitalizations in the United States.
- The proportion of deaths attributed to pneumonia and influenza (P&I) based on the 122 Cities Mortality Reporting System decreased this week, but remains above the epidemic threshold.
- Nationally, the percentage of respiratory specimens testing positive for influenza in the United States during the week of February 10-16, 2013 continued to decrease.
- Influenza A (H3N2), 2009 influenza A (H1N1), and influenza B viruses have all been identified in the U.S. this season. During the week of February 10-16, 752 of the 1,371 influenza-positive tests reported to CDC were influenza A and 619 were influenza B viruses. Of the 360 influenza A viruses that were subtyped, approximately 91% were H3 viruses and 9% were 2009 H1N1 viruses.
- Since October 1, 2012, CDC has tested 274 2009 influenza A (H1N1), 1,193 influenza A (H3N2), and 419 influenza B virus samples for resistance to neuraminidase inhibitors this season. While the majority of the tested virus samples showed susceptibility to the antiviral drugs oseltamivir and zanamivir, two 2009 H1N1 viruses (reported during week 3 and week 6) showed a mutation indicative of resistance to oseltamivir. High levels of resistance to the adamantanes (amantadine and rimantadine) persist among 2009 influenza A (H1N1) and A (H3N2) viruses. Adamantanes are not effective against influenza B viruses.

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

Canada

- In week 07, several indicators of influenza circulation continued to decrease, including: the percentage of laboratory detections positive for influenza, the number of regions reporting widespread and localized activity, the number of new influenza/ILI outbreaks, and influenza-associated hospitalizations reported by the IMPACT network and by participating provinces and territories.
- The percentage of tests positive for RSV was stable at 19.6% and the percentage of tests positive for rhinovirus increased slightly.
- The ILI consultation rate increased slightly but is within 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:

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Acknowledgements

Public Health Agency wish to thank NISRA, the sentinel GPs, Out-of-Hours Centres, Regional Virus Laboratory, Critical Care Network for Northern Ireland and all who have contributed to the surveillance system and who have contributed towards this report.

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