Influenza
Weekly Surveillance Bulletin
Weeks 9 - 10 (24 February – 8 March 2020)

Community Activity

<table>
<thead>
<tr>
<th>Week</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019/20</td>
<td>40</td>
<td>41</td>
<td>42</td>
<td>43</td>
<td>44</td>
<td>45</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>2018/19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Flu/FLI consultation rate per 100,000 population

Circulating strains this season to date

Respiratory Outbreaks (24 Feb – 8 Mar 2020)

To date there have been ten flu outbreaks; five in a Care Home setting, four in a Hospital setting and one other

Number of hospital cases with confirmed flu (24 Feb – 8 Mar 2020)

Respiratory Outbreaks

To date there have been 64 admissions to ICU with confirmed influenza

Vaccine Uptake (1 October – 31 January 2020)

* 2-4 year old programme started mid to late October 2019, primary school programme stopped for 2 weeks in November

<table>
<thead>
<tr>
<th>Vaccine Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 2 to 4 year olds*</td>
<td>47.1%</td>
</tr>
<tr>
<td>Primary school children offered and vaccinated so far*</td>
<td>75.1%</td>
</tr>
<tr>
<td>All pregnant women</td>
<td>50.4%</td>
</tr>
<tr>
<td>All individuals under 65 years with a chronic medical condition</td>
<td>56.7%</td>
</tr>
<tr>
<td>All individuals 65 years and over</td>
<td>73.3%</td>
</tr>
<tr>
<td>Frontline health care workers employed by a Trust</td>
<td>41.1%</td>
</tr>
<tr>
<td>Frontline social care workers employed by a Trust</td>
<td>22.3%</td>
</tr>
</tbody>
</table>
GP consultation rates for ‘flu/flu-like-illness’ (‘flu/FLI’)

Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison

The baseline MEM threshold for Northern Ireland is 14.7 per 100,000 population for 2019-20. Low activity is 14.7 to <23.9, moderate activity 23.9 to <73.9, high activity 73.9 to <121.7 and very high activity is >121.7

Comment

GP flu/FLI consultation rates were 6.0 per 100,000 population in week 9 and 6.9 per 100,000 in week 10. GP flu/FLI consultation rates for week 9 were lower than the same time last year (9.0 per 100,000) while rates were higher in week 10 compared to the same time last year (5.9 per 100,000). Activity remains just below the baseline threshold for Northern Ireland (<14.7 per 100,000) (Figure 1).

Flu/FLI consultation rates were highest in 15-44 year olds in weeks 9 and 10 (9.9 and 10.3 per 100,000 population, respectively). Rates are higher in all age groups, except 45-64 year olds, compared to the same period last year (week 10, 2018-19).
Flu/FLI consultation rates in Primary Care Out-of-Hours (OOH) Centres were 6.3 per 100,000 population in week 9 and 10.5 per 100,000 in week 10. This is higher than the same time last year (3.7 and 3.6 per 100,000, respectively) (Figure 2).

In weeks 9 and 10 the percentage of calls to an OOH Centre due to flu/FLI was 1.2% and 1.9%, respectively. This is an increase from the same period last year (0.7%).

Rates were highest in those aged 0-4 years in week 9 (10.5 per 100,000 population) and 15-44 years in week 10 (16.6 per 100,000 population). In comparison to week 10, 2018-19, consultation rates were higher in all age groups, with the exception of 0-4 year olds.
Virology

Figure 3. Weekly number of flu laboratory reports from week 40, 2018 with weekly GP consultation rates for ‘flu/FLI’
Note

Additional virology testing has been undertaken at local laboratories. This bulletin includes this data along with the data from the Regional Virology Laboratory.

All virology data are 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.
Figure 4. Number of samples tested for influenza and proportion positive, 2018/19 – 2019/20, all sources

Comment

In weeks 9 and 10, 87 samples were positive for flu (one Flu A(H3), 33 Flu A(H1N1), seven Flu A(untyped) and 46 Flu B) from 1004 submitted for testing in laboratories across Northern Ireland.

Positivity for weeks 9 and 10 combined (9%) is lower than this time last year (15%).

Two of the 13 samples submitted by the GP based sentinel scheme were positive for flu (two Flu A(H1N1)) (Figures 3 and 4; Tables 1, 2 and 3).
In weeks 9 and 10, five samples were positive for RSV, with positivity in week 10 (0%) lower than the same period last season (1%).

The majority (59%) of cases since week 40 have occurred in children aged 0-4 years (Table 2 and Figure 5).
Hospital Surveillance (Non-ICU/HDU)

Figure 6. Weekly number of hospitalisations testing positive for influenza by week of specimen, 2018/19 – 2019/20

Comment

In weeks 9 and 10, 81 hospitalisations tested positive for flu (one Flu A(H3), 31 Flu A(H1N1), six Flu A(untyped) and 43 Flu B). This is a decrease compared to the same time last year (Figure 6).

Of note, not all positive specimens may have been reported as this point.
ICU/HDU Surveillance

**Figure 7. Confirmed ICU/HDU influenza cases by week of specimen, 2018/19 – 2019/20**

**Comment**

Data are collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3). There were two new admissions to ICU with confirmed influenza reported to the Public Health Agency (PHA) during weeks 9 and 10. So far this season there has been 64 admissions to ICU with confirmed influenza (51 Flu A(H3), six Flu A(H1N1), four Flu A(untyped), two Flu B and one Flu A&B) reported to the PHA (Figure 7).

Of the 64 admissions to ICU, 52% (n=33) were male. The ages ranged from <1 year to 86 years, with a median age of 59 years and a mean age of 50 years old. 75% (n=48) were classed as being in a vaccine risk group. Vaccination status was known for 97% (n=62); 20 were vaccinated this season. To date there have been 10 deaths reported among ICU admissions; seven of whom were in a flu vaccine eligible group and <5 had been vaccinated this season.
**Outbreaks**

During weeks 9 and 10 there were no confirmed respiratory outbreaks reported to the PHA Health Protection acute response duty room. To date, there has been a total of ten confirmed respiratory outbreaks reported, five in a Care Home setting, four in a Hospital setting and one other (nine Flu A (untyped) and one Flu B).

**Mortality**

The Northern Ireland Statistics and Research Agency (NISRA) provide the weekly number of **respiratory associated deaths** and its proportion of all–cause registered deaths.

**Respiratory associated deaths** include those that are attributable to influenza, other respiratory infections or their complications. This includes “bronchiolitis, bronchitis, influenza or pneumonia” keywords recorded on the death certificate.

![Graph showing weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2018](image)

**Figure 8.** Weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2018
Comment

In week 10, 2020, 81 respiratory associated deaths out of 312 all-cause deaths were reported (26%), with 27% in week 9. These trends are broadly the same as the same period in 2018/19 (Figure 8).

EuroMOMO

There was no excess all-cause mortality reported in Northern Ireland in weeks 9 and 10. Excess all-cause mortality was reported for four weeks in Northern Ireland to date this season (weeks 50, 51, 2 and 3). This excess mortality was mostly reported in those aged 65+ years.

Please note this data is provisional due to the time delay in registration; numbers may vary from week to week.

Information on mortality from all causes is provided for management purpose from Public Health England. Excess mortality is defined as a statistically significant increase in the number of deaths reported over the expected number for a given point in time. This calculation allows for a weekly variation in the number of deaths registered and takes account of deaths registered retrospectively. Information is used to provide an early warning to the health service of any seasonal increases in mortality to allow further investigation of excess detections.

There is no single cause of ‘additional’ deaths in the winter months but they are often attributed in part to cold weather (e.g. directly from falls, fractures, road traffic accidents), through worsening of chronic medical conditions e.g. heart and respiratory complaints and through respiratory infections including influenza.

For more information on EuroMOMO and interactive maps of reporting across the season please see http://www.euromomo.eu/index.html
Influenza Vaccine Uptake

Every year the seasonal flu vaccine programme officially commences on 1st October and is delivered by primary care, the Trust school nursing service (in school) and the Trust health and social care worker (HSCW) flu campaign. This year, the children’s programme has been impacted on by temporary delays in the manufacturing of the flu vaccine given to children (see table 4 for details).

Uptake for primary school children is presented differently and is the proportion of children offered the vaccine between the start of the programme and 31st January and also received it.

| Table 4. Influenza vaccine uptake rates, 2019-20 and 2018-19 |
|----------------------------------|-------------|-----------------|-----------------|-----------------|
| Delivered by                     | Start date  | 2019/20 (to 31 Jan) | 2018/19 (to 31 Jan) |
| All 2 to 4 year olds             | GP          | Mid - late Oct 2019 | 47.1%           | 47.2%           |
| All pregnant women               | GP          | 1st Oct 2019        | 50.4%           | 47.0%           |
| All individuals under 65 years with a chronic medical condition | GP          | 1st Oct 2019        | 56.7%           | 50.7%           |
| All individuals 65 years and over | GP          | 1st Oct 2019        | 73.3%           | 68.7%           |
| % of primary school children offered the vaccine and vaccinated to date | Trust School Nurse Service* | 1st Oct 2019 2 week pause in Nov | 75.1%           | 75.7%           |
| % of all Frontline health care workers employed by a Trust | Trust HSCW Campaign | 1st Sept 2019 | 41.1%           | 38.8%           |
| % of all Frontline social care workers employed by a Trust | Trust HSCW Campaign | 1st Sept 2019 | 22.3%           | 22.0%           |

*This figure also includes a small number vaccinated by their GP.
Further Information and International/National Updates

Further information
Further information on influenza is available at the following websites:

- PHA Seasonal Influenza
- nidirect Flu Vaccination
- PHE Seasonal Influenza Guidance - Data and Analysis
- WHO Influenza
- ECDC Seasonal Influenza

National updates
Detailed influenza weekly reports can be found at the following websites:

- England PHE Weekly National Flu Report
- Scotland HPS Weekly National Seasonal Respiratory Report
- Wales Public Health Wales Influenza Surveillance Report
- Republic of Ireland HPSC Seasonal Influenza Surveillance Reports

International updates
Europe (ECDC and WHO) Flu News Europe
Worldwide (WHO) WHO Influenza Surveillance Monitoring
USA (CDC) Weekly U.S. Influenza Surveillance Report
Acknowledgements

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, Apollo Medical, Regional Virus Laboratory, Critical Care Network for Northern Ireland and Public Health England. Their work is greatly appreciated and their support vital in the production of this bulletin. The author also acknowledges the Northern Ireland Statistics and Research Agency (NISRA) and the General Register Office Northern Ireland (GRONI) for the supply of data used in this publication. NISRA and GRONI do not accept responsibility for any alteration or manipulation of data once it has been provided.

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:

Dr Mark O’Doherty  
Senior Epidemiological Scientist  
Public Health Agency

Ms Emma Dickson  
Epidemiological Scientist  
Public Health Agency

Mr Jeffrey Doogan  
Surveillance Information Officer  
Public Health Agency

Dr Jillian Johnston  
Consultant in Health Protection  
Public Health Agency

Email: flusurveillance@hscni.net