Key points – Wales

Surveillance indicators suggest that influenza is currently unlikely to be circulating in Wales.

Consultations with General Practices for Influenza-like illness (ILI) are at low levels. The numbers of Influenza viruses detected in samples from hospital patients and from outbreaks are also at low levels. Influenza A(H3) was the dominant type of influenza during the 2016/17 season.

- The Sentinel GP consultation rate for influenza-like illness (ILI) in Wales during week 35 (week ending 03/09/2017) was 0.8 consultations per 100,000 practice population. The consultation rate was highest in patients aged 25-34 years (4.3 per 100,000 practice population) (Table 1).

- The ILI consultation rate decreased compared to the previous week (1.4 consultations per 100,000) and remains below the Moving Epidemic Method (MEM) pre-epidemic threshold for seasonal activity (10.3 consultations per 100,000) (Figure 1).

- The total number of consultations with Out of Hours (OOH) doctors in Wales, reported to Public Health Wales during week 35 was 12,740. The proportion of respiratory-related consultations with OOH doctors increased to 12.4% compared to 12.0% in the previous week (Figure 5).

- During week 35, no surveillance samples from patients with ILI were submitted by sentinel GPs (Figure 3).

- During week 34 (latest data available), 100 specimens were received and tested by Public Health Wales Microbiology from hospitalised and non-sentinel GP patients with respiratory symptoms. The following numbers of patients tested positive: two influenza A(H3N2), 26 for rhinovirus, 11 for parainfluenza, four for RSV, human metapneumovirus and mycoplasma, three for enterovirus, and two for adenovirus (Figure 4).

- No outbreaks of acute respiratory illness were reported to the Public Health Wales Health Protection Team during week 35.
Influenza activity in Wales

Figure 1. Clinical consultation rate per 100,000 practice population in Welsh sentinel practices (as of 03/09/2017).

* The Moving Epidemic Method has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for seasonally expected influenza activity in a standardised approach across Europe. The threshold calculated for Wales ILI consultation rates is 10.3 per 100,000. MEM thresholds used in this chart are based on influenza from 2010-11 to 2015-16 seasons.

**2015-16 season contained a week 53 not shown in the graph, the consultation rate for 2015W53 was 7.13 per 100,000 practice population.

Figure 2. Historical clinical consultation rate per 100,000 practice population in Welsh sentinel practices (week 47 1996 – week 35 2017).

* Reporting changed to Audit+ surveillance system
Table 1. Age-specific consultations (per 100,000) for influenza in Welsh sentinel practices, week 30 - week 35 2017 (as of 03/09/2017).

<table>
<thead>
<tr>
<th>Age group</th>
<th>30</th>
<th>31</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1 - 4</td>
<td>0.0</td>
<td>0.0</td>
<td>6.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>5 - 14</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>15 - 24</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.3</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>25 - 34</td>
<td>2.1</td>
<td>4.3</td>
<td>0.0</td>
<td>2.2</td>
<td>2.2</td>
<td>4.3</td>
</tr>
<tr>
<td>35 - 44</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>45 - 64</td>
<td>2.0</td>
<td>2.0</td>
<td>4.2</td>
<td>2.0</td>
<td>2.1</td>
<td>0.0</td>
</tr>
<tr>
<td>65 - 74</td>
<td>0.0</td>
<td>0.0</td>
<td>4.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>75+</td>
<td>5.4</td>
<td>0.0</td>
<td>0.0</td>
<td>2.8</td>
<td>2.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>1.3</td>
<td>1.1</td>
<td>2.0</td>
<td>1.4</td>
<td>1.4</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Figure 3. Specimens submitted for virological testing by sentinel GPs as of 03/09/2017, by week of sample collection, week 35 2016 - week 35 2017.

* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus, enterovirus, bocavirus and coronaviruses.
Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre.

* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus and enterovirus (negative includes negative for enterovirus from week 29 2016 onwards)

** Enterovirus testing of hospital and non-sentinel GP samples began in week 29 of 2016

Out of Hours consultations and calls to NHS Direct Wales

Combined data for tests carried out in Public Health Wales Microbiology: Cardiff laboratory, provided by Public Health Wales Microbiology Cardiff Specialist Virology Centre.

* Tested negative for influenza, adenovirus, rhinovirus, RSV, parainfluenza, mycoplasma, human metapneumovirus and enterovirus (negative includes negative for enterovirus from week 29 2016 onwards)

** Enterovirus testing of hospital and non-sentinel GP samples began in week 29 of 2016

Out of Hours consultations and calls to NHS Direct Wales

Figure 4. Specimens submitted for virological testing for hospital patients and non-sentinel GPs as of 27/08/2017, by week of sample collection, week 34 2016 – week 34 2017.

Figure 5. Weekly total consultations to Out of Hours services in Wales and numbers of respiratory-related diagnoses (as of 03/09/2017).
During week 34 the percentage of total calls to NHS Direct Wales which were influenza-related decreased to 10.1% (Figure 6).

1 Data supplied by Health Statistics and Analysis Unit, Welsh Government.

Flu related calls are the sum of calls recorded as 'cold/flu', 'cough', 'headache', 'fever' and 'sore throat'.

Influenza Vaccine Uptake in Wales

<table>
<thead>
<tr>
<th>Influenza immunisation uptake in the current season</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>People aged 65y and older</td>
<td>66.7%</td>
</tr>
<tr>
<td>People younger than 65y in a clinical risk group</td>
<td>46.9%</td>
</tr>
<tr>
<td>Children aged two &amp; three years</td>
<td>45.3%</td>
</tr>
<tr>
<td>Children aged four to seven years</td>
<td>66.9%</td>
</tr>
<tr>
<td>NHS staff</td>
<td>49.2%</td>
</tr>
<tr>
<td>NHS staff who have direct patient contact</td>
<td>51.5%</td>
</tr>
</tbody>
</table>

The full 2016/17 end of season report can be downloaded from: http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=55714
Key points – Influenza activity in the UK and Europe

- In week 34 (latest data available), overall influenza GP consultations increased in Scotland (2.5 per 100,000) and decreased in Northern Ireland (1.1 per 100,000) compared to the previous week, and both remained below baseline thresholds. In week 34, the weekly ILI GP consultation rate in England reported through the RCGP system decreased to 1.7 per 100,000 from 1.9 per 100,000 in the previous week but remains below the baseline threshold (14.3 per 100,000). Syndromic surveillance indicators for influenza were low in weeks 33 and 34 2017.
- During week 34, no samples tested positive for influenza through the GP-based sentinel schemes across the UK. Of the 547 respiratory test results reported through Public Health England’s DataMart scheme, there were four influenza positives (three influenza A (not subtyped) and one influenza B). UK summary data are available from the Public Health England National Influenza Report.
- During weeks 30-34, the WHO and the European Centre for Disease Prevention and Control (ECDC) reported that influenza activity was at out-of-season levels in all countries in the WHO European Region. Between weeks 30-34, a total of 225 sentinel specimens were tested for influenza, two of which were positive (one influenza A(H3N2) and one influenza A not subtyped). For more information on European level influenza surveillance see Flu News Europe: http://www.flunewseurope.org/

World update

- The WHO reported that, as of 04/09/2017, high levels of influenza activity continued to be reported in the temperate zone of the southern hemisphere and in some counties of South and South East Asia. In Central America and the Caribbean influenza activity continued to be reported in a few countries. Influenza activity remained at low levels in the temperate zone of the northern hemisphere. Worldwide, influenza A(H3N2) viruses are predominating.
- In temperate South America, respiratory illness indicators and influenza activity decreased in most of the sub-region, with influenza A(H3N2) viruses predominating.
- In Southern Africa, influenza activity appeared to have plateaued in South Africa, with influenza A(H3N2) viruses predominantly detected.
- In Oceania, seasonal influenza activity continued to increase, with influenza A(H3N2) and influenza B present in the region.
- In tropical South America, influenza activity remained low.
- In the Caribbean and Central American countries, respiratory illness indicators and influenza activity remained low in general.
- In Southern Asia, increased influenza A(H1N1)pdm09 virus detections were reported in India. Severe acute respiratory infection (SARI) and influenza like illness (ILI) indicators remained high in Bhutan.
- In South-East Asia, increased influenza activity was reported in recent weeks, with all seasonal influenza subtypes are present in the region.
- In East and Western Asia, influenza activity remained low in general.
- In Western Africa, influenza activity continued to be reported, with all seasonal subtypes present in the region.
- Few influenza detections were reported in Eastern Africa.
- In Northern Africa, no influenza virus detections were reported.
- In Europe and North America, little or no influenza activity was reported.
- Based on FluNet reporting (as of 01/09/2017), during the time period from 07/08/17 - 20/08/17, National Influenza Centres and other national influenza laboratories from 64 countries, areas or territories reported influenza surveillance data. The WHO Global Influenza Surveillance and Response System laboratories tested more than 48,522 specimens, of which 7,438 were positive for influenza viruses. Of these, 6,637 were typed as influenza A (746 influenza A(H1N1)pdm09, 4,586 influenza A(H3N2) and 1,305 influenza A (not subtyped)) and 801 influenza B (of the characterised influenza B viruses 99 belonged to the B-Yamagata lineage and 85 to the B-Victoria lineage).

Australia and New Zealand update

- In New Zealand, the weekly ILI incidence during week 35 was 31.6 consultations per 100,000, and is now below the seasonal threshold. Since 1 May 2017, 1,967 ILI specimens were tested, of these 887 tested positive for influenza (517 influenza A(H3N2), 67 influenza A(H1N1)pdm09, 12 influenza A (not sub-typed) and 370 influenza B).
  **Source:** Institute of Environmental Science & Research, New Zealand

- In Australia, according to the latest available update (05/08/2017 to 18/08/2017), influenza activity continued to increase with many surveillance systems at levels comparable to or exceeding the peak of the 2016 season.
  **Source:** Australian Influenza Surveillance Report and Activity Updates.

Middle East respiratory syndrome coronavirus (MERS-CoV) – latest update from WHO and ECDC

- On 28/08/17 WHO reported an additional case of Middle East Respiratory Syndrome coronavirus (MERS-CoV). Globally, 2,067 laboratory confirmed cases of human infection with MERS-CoV, including at least 720 related deaths, have officially been reported to WHO since September 2012.
  **Source:** WHO Global Alert and Response website:


Human infection with avian influenza A(H7N9), China – latest update from WHO

- The latest WHO Influenza at Human-Animal Interface summary (25/07/2017) reports a total of 1,557 laboratory-confirmed cases of human infection with avian influenza A(H7N9), including at least 605 deaths:

- The risk of international spread of avian influenza A(H7N9) is considered to be low at present. However, it is important that clinicians are aware of the possibility of human infection with animal influenza, in persons presenting with severe acute respiratory disease, while travelling or soon after returning from an area where avian influenza is a concern. Updates are available from the WHO Global Alert and Response website:
Public Health Wales influenza surveillance webpage:
http://www.publichealthwales.org/flu-activity
GP Sentinel Surveillance of Infections Scheme:
NICE influenza antiviral usage guidance:
http://www.nice.org.uk/Guidance/TA158
Wales influenza information:
http://www.wales.nhs.uk/sitesplus/888/page/43745
England influenza surveillance:
Scotland influenza surveillance:
http://www.hps.scot.nhs.uk/resp/seasonalinfluenza.aspx#report
Northern Ireland influenza surveillance:
http://www.fluawareni.info/
European Centre for Communicable Disease:
http://ecdc.europa.eu/
European influenza information:
http://flunewseurope.org/
Advice on influenza immunisation (for NHS Wales users)
http://nww.immunisation.wales.nhs.uk/home

For further information on this report, please email Public Health Wales using:
surveillance.requests@wales.nhs.uk