This report is published online. A summary report is being published once a fortnight while influenza activity is low. For further information on the surveillance schemes mentioned in this report, please see information available online.

Indicators for influenza are below baseline across all indicators.

**Primary care surveillance**

- GP consultation rates for influenza-like illness (ILI) have remained stable in England, Wales and Scotland and increased in Northern Ireland in week 17. ILI consultation rates remain below baseline intensity threshold in all UK schemes (Table 1 & Figure 1).

Table 1: GP ILI consultations for all ages – week 16-17 2020, UK

<table>
<thead>
<tr>
<th>GP ILI consultation rates (all ages)</th>
<th>Week number</th>
<th>Trend</th>
<th>Peak age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>England (RCGP)</td>
<td>3.8</td>
<td>⇣</td>
<td>75+</td>
</tr>
<tr>
<td></td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wales</td>
<td>1.0</td>
<td>⇣</td>
<td>75+</td>
</tr>
<tr>
<td></td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scotland</td>
<td>0.9</td>
<td>⇣</td>
<td>45-64</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2.7</td>
<td>⇣</td>
<td>45-64, 75+</td>
</tr>
<tr>
<td></td>
<td>5.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for the start of influenza activity (based on 10 seasons excluding 2009/10) in a standardised approach across Europe. For MEM intensity threshold values for this season, please visit: https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#clinical-surveillance-through-primary-care

- Syndromic surveillance (data up to 29 April 2020)
  - GP in Hours (GPIH) consultation rates for all respiratory indicators decreased or remained stable.
  - GP Out of Hours (GPOOH) contacts for ILI and acute respiratory infection decreased further.
  - Emergency Department attendances acute respiratory infections continued to decrease, however pneumonia attendances remained stable. Attendances for both ARI and pneumonia remained highest in the 65+ years age group.
  - For further information, please see the Syndromic surveillance webpage.
Outbreak Reporting

- 1006 acute respiratory outbreaks have been reported in week 17 (Figure 2).
  - 971 outbreaks were from care homes where 458 tested positive for SARS-CoV-2.
  - 7 outbreaks were from hospitals where 6 tested positive for SARS-CoV-2.
  - 4 outbreaks were from prisons with no test results available.
  - 2 outbreaks were from schools with both of them tested positive for SARS-CoV-2.
  - 22 outbreaks were from the Other Settings category where 6 tested positive for SARS-CoV-2.

- Outbreaks should be reported to the local Health Protection Teams and Respсидsc@phe.gov.uk.

Virological surveillance

- UK GP sentinel swabbing schemes
  In week 17 2020, 2 samples were tested for influenza with no samples testing positive through the UK GP sentinel swabbing schemes (Figure 3).
  Since week 40, a total of 1,196 samples (147 influenza A(H1N1)pdm09, 874 influenza A(H3N2), 37 influenza A(not subtyped), 138 influenza B, five co-infection of influenza A(H3) and B, three co-infections of influenza A(H1N1)pdm09 and B, three co-infections of influenza A(H1N1)pdm09, influenza A(H3) and influenza B and one co-infection of influenza A(H1N1)pdm09 and influenza A(H3)) tested positive for influenza through this scheme.

- Respiratory DataMart system (England)
  In week 17 2020, out of the 511 respiratory specimens reported through the Respiratory DataMart System, no samples tested positive for influenza.
  RSV positivity remained low at 0.2% in week 17. Rhinovirus positivity remained low at 6.7% in week 17. Parainfluenza and adenovirus positivity was 0% and 0% respectively in week 17. Human metapneumovirus (hMPV) positivity remained low at 0.6% in week 17 2020.
Secondary care surveillance

- USISS mandatory scheme – new ICU/HCU admissions and fatal confirmed cases, UK (provisional)

In week 17, there were 2 new admissions to ICU/HDU with confirmed influenza (1 influenza A(H3N2) and 1 influenza B) reported across the UK (136/143 Trusts in England) through the USISS mandatory ICU scheme, with a rate of 0.0 per 100,000 (Figures 5 and 6) compared to 0.01 per 100,000 in week 16. This is below the baseline threshold of 0.10 per 100,000. No influenza laboratory confirmed deaths were reported to have occurred in ICU/HDU week 17 in the UK.

A total of 1,810 new admissions (162 influenza A(H1N1pdm09), 361 influenza A(H3N2), 1,167 influenza A(not subtyped) and 120 influenza B) and 103 confirmed deaths have been reported in the UK since week 40 2019.

The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for ICU/HDU admission rates for the start of influenza activity (based on 7 seasons) in a standardised approach across Europe. For MEM threshold values, please visit: https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#disease-severity-and-mortality-data

- USISS Severe Respiratory Failure Centre (SRF) confirmed influenza admissions, UK

No new admissions for laboratory confirmed influenza were reported in week 17 2020 among the six reporting Severe Respiratory Failure centres in the UK.

Since week 40 2019 a total of 37 confirmed influenza admissions (13 influenza A(H1N1)pdm09, 7 influenza A(H3N2), 14 influenza A(unknown subtype) and 3 influenza B) were reported among ECMO centres.

All-cause mortality surveillance

- In week 17 2020 in England, statistically significant excess mortality by week of death above the upper 2 z-score threshold was seen overall, by age group in the 15-64 and 65+ year olds and sub nationally (all ages) in all regions (North East, North West, Yorkshire & Humber, East & West Midlands, East of England, London and South East & West regions after correcting GRO disaggregate data for reporting delay with the standardised EuroMOMO algorithm (Figure 7). This data is provisional due to the time delay in registration; numbers may vary from week to week.

Table 2: Excess mortality by UK country, for all ages*  
<table>
<thead>
<tr>
<th>Country</th>
<th>Excess detected in week</th>
<th>Weeks with excess in 2019/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>✓</td>
<td>44:47:49:02:12:17</td>
</tr>
<tr>
<td>Wales</td>
<td>✓</td>
<td>51:01:13:16</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>✓</td>
<td>50:61:03:14:16</td>
</tr>
</tbody>
</table>

*Excess mortality is calculated as the observed minus the expected number of deaths in weeks above threshold

*All infants to no excess seen

*Note: Delays in receiving all registered deaths from April 2018, following changes in IT systems at ONS, may result in some delays in the model to adjust for most recent deaths.
International Surveillance

- **Influenza** updated on 29 April 2020 (based on data up to 12 April 2020)
  - In the temperate zone of the northern hemisphere, influenza activity was low overall. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels overall. Worldwide, seasonal influenza A and B viruses were detected in similar proportion.
  - In North America, influenza activity indicators have all decreased to very low levels, except for ILI activity in the United States of America, which remained slightly above the seasonal baseline.
  - In Europe, influenza activity continued to decrease overall.
  - In Central Asia, no influenza detections were reported.
  - In Western Asia, influenza activity was low across reporting countries.
  - In East Asia, influenza illness indicators and influenza activity remained at inter-seasonal levels across all countries.
  - In the Caribbean and Central American countries, elevated severe acute respiratory infection (SARI) activity was reported by several countries in the sub-region, while influenza and other respiratory virus detections were low.
  - In tropical South American countries, influenza detections were low.
  - In tropical Africa, influenza detections were low overall, except for Mozambique.
  - In Southern Asia, ILI and SARI activity appeared to decrease in Afghanistan and Bhutan.
  - In South East Asia, there were no or low influenza detections across reporting countries.
  - The WHO GISRS laboratories tested more than 122,242 specimens during between 30 March 2020 and 12 April 2020. 1,249 were positive for influenza viruses, of which 686 (54.9%) were typed as influenza A and 563 (45.1%) as influenza B. Of the sub-typed influenza A viruses, 298 (77.8%) were influenza A(H1N1)pdm09 and 85 (22.2%) were influenza A(H3N2). Of the characterized B viruses, 3 (6.5%) belonged to the B-Yamagata lineage and 43 (93.5%) to the B-Victoria lineage.

- **MERS-CoV** latest update on 15 April 2020
  - Up to 15 April 2020, a total of five cases of Middle East respiratory syndrome coronavirus, MERS-CoV, (three imported and two linked cases) have been confirmed in the UK. On-going surveillance has identified 1,815 suspected cases in the UK since September 2012 that have been investigated for MERS-CoV and tested negative.
  - Globally, since September 2012, WHO has been notified of 2,519 laboratory-confirmed cases of infection with MERS-CoV, including 866 associated deaths. Further guidance on the management of possible cases in the UK is available online. The latest ECDC MERS-CoV risk assessment can be found here, where it is highlighted that risk of widespread transmission of MERS-CoV remains very low.

- **Avian/Zoonotic influenza** latest update on 28 February 2020
  - Between 21 January to 28 February 2019, two new human infections with avian A(H9N2) viruses (reported in China and Senegal respectively) and one new laboratory-confirmed human case of influenza A(H1N1) variant virus infection (swine variant) (reported in China) have been reported.
  - For further updates please see the WHO website and for advice on clinical management in the UK please see information available online.

- **Coronavirus Disease 2019 (COVID-19)** latest update 28 April 2020
  - Up to 28 April 2020, a total of 161,145 cases of COVID-19, have been confirmed in the UK.
  - Globally, up to 28 April 2020, WHO has been notified of 2,954,222 confirmed cases of COVID-19 infection, including 202,597 related deaths.