PHE Influenza Surveillance graphs

• Influenza activity in the United Kingdom is monitored using a variety of surveillance systems. The National Influenza Report which interprets the data is published weekly.

• National and subnational outputs from the various surveillance systems are grouped according to the following categories:
  – Community influenza surveillance
  – Influenza-like illness GP consultation rates
  – Influenza-confirmed hospitalisations
  – All-cause mortality
  – Microbiological surveillance
  – Influenza vaccination

Influenza Section
Immunisations and Countermeasures Division
Centre for Infectious Disease Surveillance and Control
Public Health England
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Community influenza surveillance
Number of acute respiratory outbreaks by institution, UK

Week of report

Number

Care home
Hospital
School
Other

2017/18 - total no. of outbreaks
## Number of acute respiratory outbreaks by PHE Centre

<table>
<thead>
<tr>
<th>Centre</th>
<th>Outbreaks reported in week 19</th>
<th>Cumulative number of outbreaks since week 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHE North East</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>PHE North West</td>
<td>2</td>
<td>186</td>
</tr>
<tr>
<td>PHE Yorkshire and Humber</td>
<td>0</td>
<td>96</td>
</tr>
<tr>
<td>PHE East Midlands</td>
<td>6</td>
<td>161</td>
</tr>
<tr>
<td>PHE West Midlands</td>
<td>3</td>
<td>157</td>
</tr>
<tr>
<td>PHE East of England</td>
<td>0</td>
<td>182</td>
</tr>
<tr>
<td>PHE London</td>
<td>0</td>
<td>59</td>
</tr>
<tr>
<td>PHE South East</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>PHE South West</td>
<td>3</td>
<td>208</td>
</tr>
</tbody>
</table>
Influenza-like illness GP consultation rates
RCGP ILI consultation rate, England

ILI rate per 100,000

Week number

<13.1 Baseline threshold  13.1 to <24.7 Low  24.7 to <72.1 Medium  72.1 to <115.6 High  115.6+ Very high
GP ILI consultations in the UK for all ages with MEM thresholds applied

<table>
<thead>
<tr>
<th>GP ILI consultation rates (all ages)</th>
<th>Week number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19</td>
</tr>
<tr>
<td>England (RCGP)</td>
<td>4.2 3.9 4.5 3.6 3.6 5.3 5.2 6.4 6.2 7.6 8.1 9.4 8.4 14.8 19.2 19.6 17.5 19.7 23.1 21.1 15.7 12.1 9.1 6.2 7.2 6.0 4.7 4.2 3.4 2.4 2.7 2.5</td>
</tr>
<tr>
<td>Wales</td>
<td>7.0 3.6 4.2 6.6 6.3 6.4 4.5 4.7 6.5 3.2 4.5 9.0 9.5 14.7 20.4 22.9 15.7 20.4 21.4 17.2 17.4 8.2 8.7 7.5 4.5 6.7 6.2 5.5 4.0 4.0 5.7 3.0</td>
</tr>
<tr>
<td>Scotland</td>
<td>7.1 5.8 4.0 3.8 2.8 7.6 4.0 4.7 5.6 4.0 6.5 10.1 6.9 17.7 26.7 18.0 28.4 32.7 32.3 27.2 20.8 10.2 10.2 6.6 7.9 4.6 10.9 3.7 2.9 1.9 2.8 1.2</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>3.8 3.5 3.8 3.6 3.8 5.0 6.3 4.5 5.6 6.0 8.4 8.9 9.0 13.5 18.9 14.4 12.4 14.5 16.2 14.5 11.1 9.0 5.9 5.6 4.1 5.7 4.3 4.4 3.6 2.5 2.8 2.2</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 threshold values for each country, please visit: https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#clinical-surveillance-through-primary-care.*
Influenza-confirmed hospitalisations
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population, England, since week 40 2018

*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 6 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*
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population by PHE Centre, North East, North West and Yorkshire and Humber, since week 40 2018
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population by PHE Centre, East Midlands, West Midlands and East of England since week 40 2018
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population by PHE Centre, South East, South West and London, since week 40 2018
Influenza confirmed ICU admissions (USISS mandatory) by age and influenza subtype, since week 40 2018

Age group (years)

- <1
- 1-4
- 5-14
- 15-44
- 45-64
- 65-74
- 75+

Influenza subtype

- A(H1N1)pdm09
- A(H3N2)
- A unknown subtype
- A not subtyped
- B
Weekly hospitalised influenza case rate per 100,000 trust catchment population, England, since week 40 2018

*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 6 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
Weekly hospitalised influenza admission rate per 100,000 trust catchment population by PHE region, since week 40 2018

Rate of hospitalisation/100,000

2018/19 - North
2018/19 - Midlands + East
2018/19 - London
2018/19 - South East
2018/19 - South West
Influenza confirmed hospital admissions (USISS sentinel) by age and influenza subtype, since week 40 2018

Returns to main menu
All-cause mortality
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in 65+ year olds, England
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE North of England

- 2014/15 A(H3N2)
- 2015/16 A(H1N1)pdm09
- 2016/17 A(H3N2)
- 2017/18 B and A(H3N2)
- 2018/19 A(H1N1)pdm09/A(H3N2)
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE Midlands and East of England

- 2014/15: A(H3N2)
- 2015/16: A(H1N1)pdm09
- 2016/17: A(H3N2)
- 2017/18: B and A(H3N2)  
- 2018/19: A(H1N1)pdm09/A(H3N2)

Number of deaths:

- Deaths (corrected)
- Baseline
- Upper 2 z-score limit
- Upper 6 z-score limit
- Upper 8 z-score limit
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE London
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE South of England

Number of deaths

Year week

2014/15
A(H3N2)

2015/16
A(H1N1)pdm09

2016/17
A(H3N2)

2017/18
B and A(H3N2)

2018/19
A(H1N1)pdm09/A(H3N2)

Deaths (corrected)
Baseline
Upper 2 z-score limit
Upper 6 z-score limit
Upper 8 z-score limit
Microbiological surveillance
DataMart: Number and proportion of samples positive for influenza, by type, England

- Influenza A (n)
- Influenza B (n)
- Total influenza (%)
- 2017/18 total influenza (%)
DataMart: Number and proportion of samples positive for influenza, by type, PHE North East of England
DataMart: Number and proportion of samples positive for influenza, by type, PHE North West of England

Week number (of sample)
DataMart: Number and proportion of samples positive for influenza, by type, PHE Yorkshire and Humber
DataMart: Number and proportion of samples positive for influenza, by type, PHE East Midlands of England

- FluA (n)
- FluB (n)
- Influenza A (%)
- Influenza B(%)
DataMart: Number and proportion of samples positive for influenza, by type, PHE West Midlands of England

Week number (of sample)

Proportion positive (%)

FluA (n)  Influenza A (%)  FluB (n)  Influenza B (%)

Return to main menu
DataMart: Number and proportion of samples positive for influenza, by type, PHE East of England
DataMart: Number and proportion of samples positive for influenza, by type, PHE London

Week number (of sample) vs. Proportion positive (%) vs. Number of positive samples

- **FluA (n)**
- **Influenza A (%)**
- **FluB (n)**
- **Influenza B (%)**
DataMart: Number and proportion of samples positive for influenza, by type, PHE South East of England
DataMart: Number and proportion of samples positive for influenza, by type, PHE South West of England

Week number (of sample) vs Proportion positive (%)

- FluA (n)
- Influenza A (%)
- FluB (n)
- Influenza B (%)

Number of positive samples
DataMart: Proportion of samples positive for influenza, by age group

Proportion positive

Week number

65+yrs  45-64yrs  15-44yrs  5-14yrs  <5yrs
DataMart: Proportion of samples positive for other viruses

Week number vs. Proportion positive for Rhinovirus, Parainfluenza, hMPV, and Adenovirus.
Influenza vaccination
Seasonal influenza vaccine uptake in targeted groups, 2018/19, England

Vaccine uptake (%)

Week number

- 65+yrs
- <65yrs at risk
- All pregnant women

2018/19 season indicated by bold lines, 2017/18 season indicated by fainter dashed lines
Seasonal influenza vaccine uptake in targeted groups, 2018/19, England

Vaccine uptake (%) vs Week number

- 2 years
- 3 years

2018/19 season indicated by bold lines, 2017/18 season indicated by fainter dashed lines
Links

• Sources of UK flu surveillance data:

• Weekly flu report