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

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9 January 2020
Community influenza surveillance
Number of acute respiratory outbreaks by institution, UK

- Week of report
- Number
- Care home
- Hospital
- School
- Other
- 2018/19 - total no. of outbreaks

9 January 2020
## Number of acute respiratory outbreaks by PHE Centre

<table>
<thead>
<tr>
<th>Centre</th>
<th>Outbreaks reported in week 01</th>
<th>Cumulative number of outbreaks since week 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHE North East</td>
<td>5</td>
<td>177</td>
</tr>
<tr>
<td>PHE North West</td>
<td>24</td>
<td>228</td>
</tr>
<tr>
<td>PHE Yorkshire and Humber</td>
<td>21</td>
<td>176</td>
</tr>
<tr>
<td>PHE East Midlands</td>
<td>19</td>
<td>114</td>
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<tr>
<td>PHE West Midlands</td>
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<td>117</td>
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<tr>
<td>PHE East of England</td>
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<td>133</td>
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<tr>
<td>PHE London</td>
<td>0</td>
<td>23</td>
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<tr>
<td>PHE South East</td>
<td>15</td>
<td>118</td>
</tr>
<tr>
<td>PHE South West</td>
<td>20</td>
<td>203</td>
</tr>
</tbody>
</table>
Influenza-like illness GP consultation rates
RCGP ILI consultation rate, England

ILI rate per 100,000

Week number

2010-11
2018-19
2019-20

IL rate per 100,000

Baseline threshold
Low
Medium
High
Very high

9 January 2020
GP ILI consultations in the UK for all ages with MEM thresholds applied

Influenza-confirmed hospitalisations
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population, England, 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 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 2019
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 2019

Rate of ICU/HDU admissions per 100,000 trust catchment population

- 2019/20 - East Midlands
- 2019/20 - West Midlands
- 2019/20 - East of England

Week number

9 January 2020
Weekly ICU/HDU influenza admission rate per 100,000 trust catchment population by PHE Centre, South East, South West and London, since week 40 2019

- 2019/20 - South East
- 2019/20 - South West
- 2019/20 - London
Influenza confirmed ICU admissions (USISS mandatory) by age and influenza subtype, since week 40 2019
Weekly hospitalised influenza case rate per 100,000 trust catchment population, England, 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 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 2019
Influenza confirmed hospital admissions (USI SS sentinel) by age and influenza subtype, since week 40 2019

- A(H1N1)pdm09
- A(H3N2)
- A unknown subtype
- B
All-cause mortality
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, England
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE North of England
Excess mortality (all causes) by week of death through the EuroMOMO algorithm in all ages, PHE Midlands and East of England
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
Microbiological surveillance
DataMart: Number and proportion of samples positive for influenza, by type, England

Number of positive specimens
Proportion positive
Week number (of sample)

- Influenza A (n)
- Influenza B (n)
- Total influenza (%)
- 2018/19 total influenza (%)
DataMart: Number and proportion of samples positive for influenza, by type, PHE North East of England

Week number (of sample) vs Proportion positive (%) for Influenza A and B.
DataMart: Number and proportion of samples positive for influenza, by type, PHE North West of England

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

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

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

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

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

- **Week number (of sample)**
- **Proportion positive (%)**
- **Number of positive samples**

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

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

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

Number of positive samples

9 January 2020
DataMart: Number and proportion of samples positive for influenza, by type, PHE South East of England

Week number (of sample)

Number of positive samples

Proportion positive (%)

FluB (n)  FluA (n)

Influenza A (%)  Influenza B(%)
DataMart: Number and proportion of samples positive for influenza, by type, PHE South West of England

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

FluB (n) vs FluA (n)

Influenza A (%) vs Influenza B(%)

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

Proportion positive

Week number

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

Proportion positive

Week number

- RSV
- Rhinovirus
- Parainfluenza
- hMPV
- Adenovirus
Influenza vaccination
Seasonal influenza vaccine uptake in targeted groups, 2019/20, England

Vaccine uptake (%) vs Week number

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

2019/20 season indicated by bold lines, 2018/19 season indicated by fainter dashed lines
Seasonal influenza vaccine uptake in targeted groups, 2019/20, England

Vaccine uptake (%)

Week number

2 years

3 years

2019/20 season indicated by bold lines, 2018/19 season indicated by fainter dashed lines

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Sources of UK flu surveillance data:

Weekly flu report