Remote Health Advice
Syndromic Surveillance System: England

11 January 2017

Key messages

There were further increases in NHS 111 cold/flu calls during week 1; calls were highest in the 45-64 years age group (figures 2 and 2a). There were small decreases in calls for cough and difficulty breathing, with both remaining at seasonally expected levels (figures 4 & 5).

Syndromic indicators at a glance:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Trend</th>
<th>Level *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold/flu</td>
<td>increasing</td>
<td>above baseline levels</td>
</tr>
<tr>
<td>Fever</td>
<td>no trend</td>
<td>below baseline levels</td>
</tr>
<tr>
<td>Cough</td>
<td>decreasing</td>
<td>similar to baseline levels</td>
</tr>
<tr>
<td>Difficulty breathing</td>
<td>decreasing</td>
<td>similar to baseline levels</td>
</tr>
<tr>
<td>Sore throat</td>
<td>no trend</td>
<td>below baseline levels</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>decreasing</td>
<td>below baseline levels</td>
</tr>
<tr>
<td>Vomiting</td>
<td>decreasing</td>
<td>below baseline levels</td>
</tr>
<tr>
<td>Eye problems</td>
<td>no trend</td>
<td>below baseline levels</td>
</tr>
</tbody>
</table>

*Since week 47 2014 new baselines have been introduced for comparison with previous years. Baselines use historical data from the NHS Direct surveillance system to estimate seasonal trend but with levels adjusted to reflect changes since the switch to using NHS 111 data in September 2013.

Data summary:

<table>
<thead>
<tr>
<th>Year</th>
<th>Week</th>
<th>Total calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1</td>
<td>287,914</td>
</tr>
</tbody>
</table>

A Cold Watch System operates in England from 1 November to 31 March each year. As part of the Public Health England Cold Weather Plan for England the PHE Real-time Syndromic Surveillance Team will be monitoring the impact of cold weather on syndromic surveillance data during this period.

Cold weather alert level (current reporting week): Level 1 Winter Preparedness - 3 Severe weather action
http://www.metoffice.gov.uk/weather/uk/coldweatheralert/
1: Total calls.
The total number of syndromic calls recorded each day by NHS 111.

2: Cold/flu
Daily ‘cold/flu’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.

2a: Cold/flu calls by age group
Cold/flu calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays. Age groups below 5 years old, not shown.
3: Fever

Daily ‘fever’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.

3a: Fever calls by age group

Fever calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.

4: Cough

Daily ‘cough’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.
4a: Cough calls by age group

Cough calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.

5: Difficulty breathing

Daily ‘difficulty breathing’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.

5a: Difficulty breathing calls by age group

Difficulty breathing calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.
6: Sore throat

Daily 'sore throat' calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.

6a: Sore throat by age group

Sore throat calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.

7. Diarrhoea

Daily ‘diarrhoea’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.
7a: Diarrhoea by age group

Diarrhoea calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.

8: Vomiting

Daily ‘vomiting’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.

8a: Vomiting by age group

Vomiting calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.
9: Eye problems

Daily ‘eye problems’ calls as a percentage of total calls. Baselines are constructed from historical data since 2010, including data from NHS 111 and NHS Direct.
Introduction to charts:

- Weekends and bank holidays are marked by vertical grey lines (bank holidays darker grey).
- A 7-day moving average (adjusted for bank holidays) is overlaid on the daily data reported in each chart, unless specified.
- Baselines represent seasonally expected levels of activity and are constructed from historical data. Furthermore, they take into account any known substantial changes in data collection, population coverage or reporting practices. Baselines are refreshed using the latest data on a regular basis.
- This new syndromic surveillance system is still under development and further analyses at PHE Centre level will be included in future bulletins.
- NHS 111 call data are analysed on a daily basis to identify national and regional trends. A statistical algorithm underpins each system, routinely identifying activity that has increased significantly or is statistically significantly high for the time of year. Results from these daily analyses are assessed by the ReSST, along with analysis by age group, and anything deemed of public health importance is alerted by the team.

Notes and further information:

Further information about NHS 111 can be found at:

http://www.nhs.uk/NHSEngland/AboutNHSservices/Emergencyandurgentcareservices/Pages/NHS-111.aspx

The Remote Health Advice Syndromic Surveillance bulletin can also be downloaded from the PHE Real-time Syndromic Surveillance website which also contains more information about syndromic surveillance:


Acknowledgements:

We are grateful to NHS 111 and to NHS Digital for their assistance and support in providing the anonymised call data that underpin the Remote Health Advice Syndromic Surveillance System.