

Syndromic Surveillance System: England

Data to: 15 March 2020

18 March 2020 Year: 2020 Week: 11

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# Key messages

NHS 111 calls for cold/flu, cough, difficulty breathing and sore throat continued to increase during week 11 (figures 2, 4, 5 & 6), however cold/flu and cough calls decreased over the weekend 14/15 March.

Please note that these data should currently be interpreted with caution due to the national COVID-19 incident. Following the move to the delay phase, people with certain symptoms are being asked not to call NHS 111, in line with national advice, which may impact on the number of calls in individual indicators presented in this report.

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

http://www.metoffice.gov.uk/weather/uk/coldweatheralert/

## Syndromic indicators at a glance:

Indicator	Trend*	Level
Cold/flu	increasing	above baseline levels
Fever	increasing	below baseline levels
Cough	increasing	above baseline levels
Difficulty breathing	increasing	above baseline levels
Sore throat	increasing	above baseline levels
Diarrhoea	decreasing	below baseline levels
Vomiting	decreasing	below baseline levels
Eye problems	decreasing	below baseline levels

## **Data summary:**

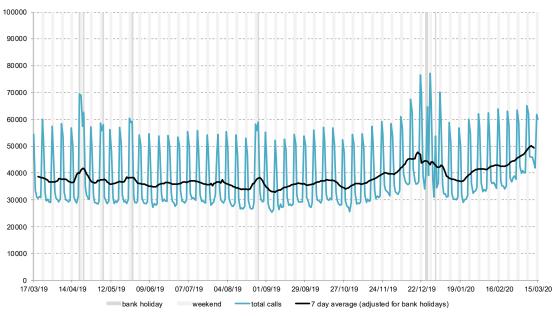
Year	Week	Total calls
2020	11	345,664

<sup>\*</sup> Due to changes in data processing since 13th March, trends for week 11 are based on data up to 12th March.

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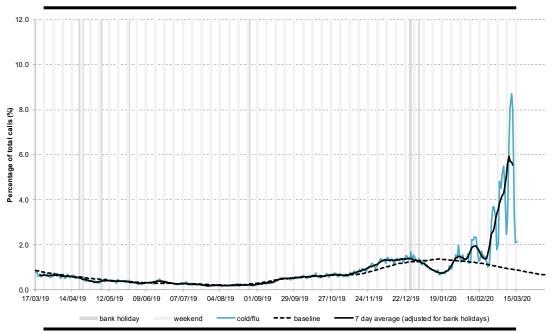
### 1: Total calls.

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 2013.



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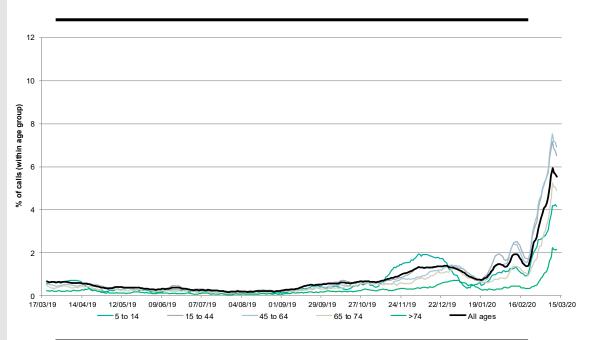
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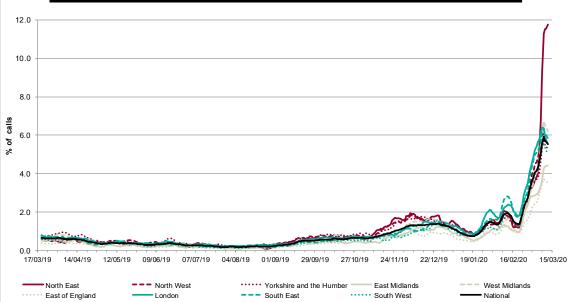
# 2c: Cold/flu by age group

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.

# 2d: Cold/flu by PHE Centre

Cold/flu calls by PHE Centre as a percentage of total calls shown as a 7 day moving average adjusted for bank holidays.

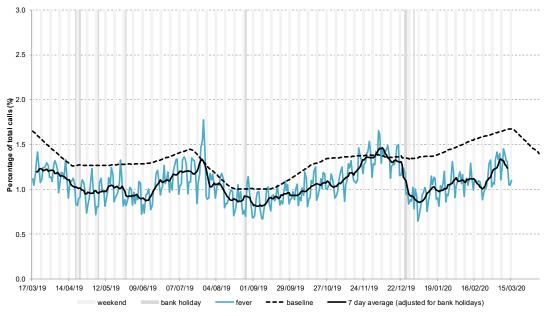




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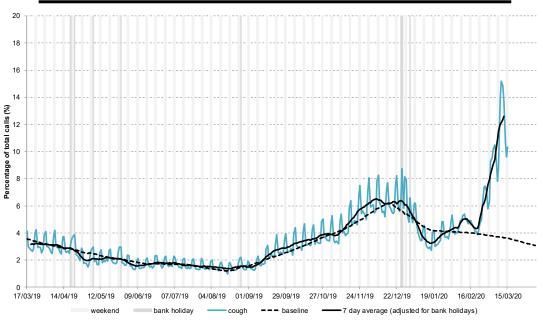
#### 3: Fever

Daily 'fever' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



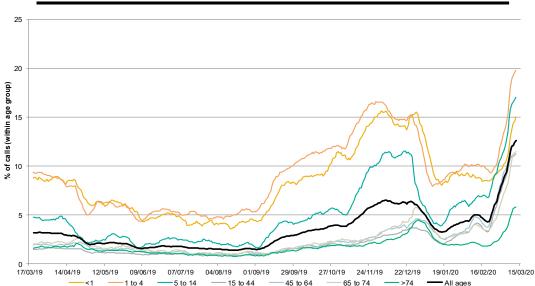
### 4: Cough

Daily 'cough' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



# 4a: Cough calls by age group

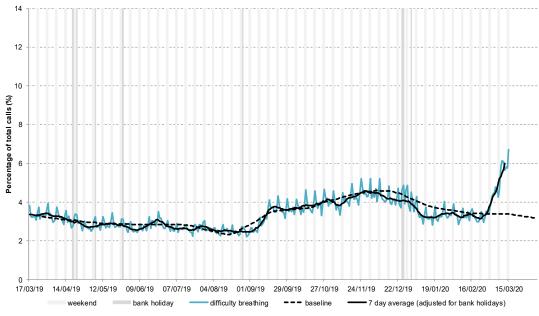
Cough calls as a percentage of total calls within each age group, shown as a 7 day moving average adjusted for bank holidays.



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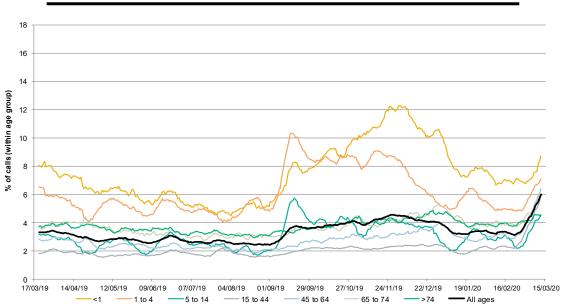
### 5: Difficulty breathing

Daily 'difficulty breathing' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



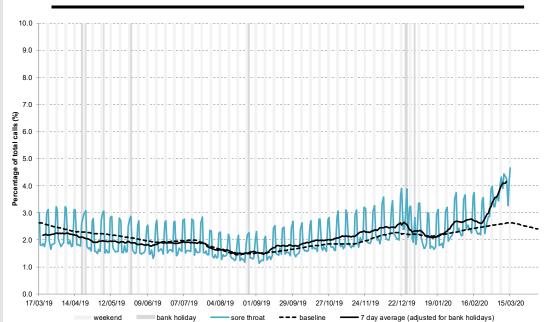
# 5a: Difficulty breathing calls by age group

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

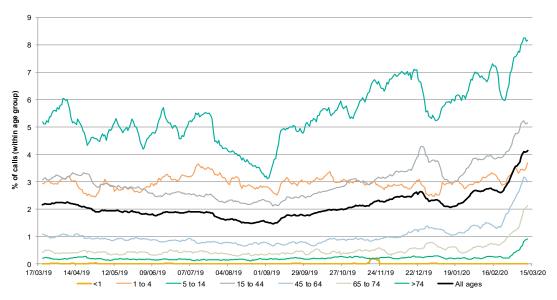
Daily 'sore throat' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



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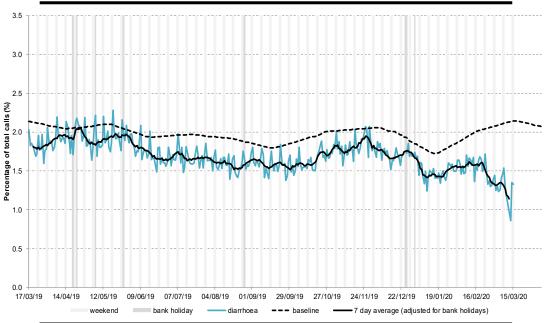
# 6a: Sore throat calls by age group

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



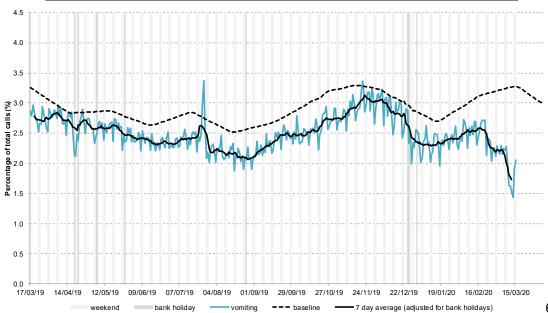
#### 7. Diarrhoea

Daily 'diarrhoea' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



### 8: Vomiting calls

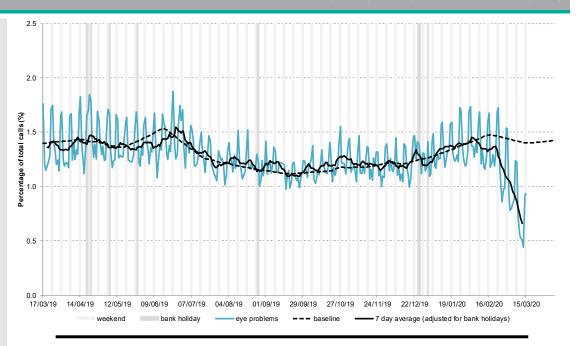
Daily 'vomiting' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



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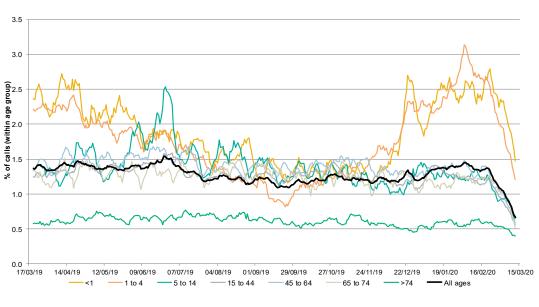
### 9: Eye problems

Daily 'eye problems' calls as a percentage of total calls. Baselines are constructed from historical data since 2013.



# 9a: Eye problems calls by age group

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



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#### 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 since September 2013. 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.
- 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.

### Moving Epidemic Method (MEM):

- During each winter we present Moving Epidemic Method (MEM) influenza thresholds on selected indicators.
- The moving epidemic method or MEM is a standard methodology used for setting influenza thresholds across many European nations.<sup>1</sup>
- MEM is used for NHS 111 cold/flu thresholds at a national level.
- MEM thresholds should be interpreted using 7 day moving averages rather than daily data.
- MEM thresholds currently use six years of historic data (2013-2019). The thresholds are re-calculated every year.
- Baseline ('pre-epidemic') thresholds are used alongside other surveillance systems to identify the start of influenza circulating in the community.
- 40%, 95% and 97.5% intensity thresholds are used to identify when influenza activity moves from low to medium, high or very high.

<sup>1</sup>Vega T et al. Influenza Other Respir Viruses. 2013;7(4):546-58.

# Notes and further information:

- Further information about NHS 111 can be found at: <a href="https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/nhs-111/">https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/nhs-111/</a>
- 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: <a href="https://www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses">https://www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses</a>

#### **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.

Remote Health Advice Syndromic Surveillance System Bulletin.

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