Public Health England

Remote Health Advice

Syndromic Surveillance System: England

12 February 2019 Year: 2019 Week: 6

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Key messages

Data to: 10 February 2019

NHS 111 cold/flu calls remained stable during week 6 remained (figure 2).

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	no trend	medium intensity*
Fever	no trend	similar to baseline levels
Cough	no trend	above baseline levels
Difficulty breathing	decreasing	above baseline levels
Sore throat	increasing	below baseline levels
Diarrhoea	no trend	below baseline levels
Vomiting	no trend	below baseline levels
Eye problems	no trend	below baseline levels

* Moving Epidemic Method (MEM) influenza activity threshold (see notes)

Data summary:

Year	Week	Total calls
2019	6	291,262

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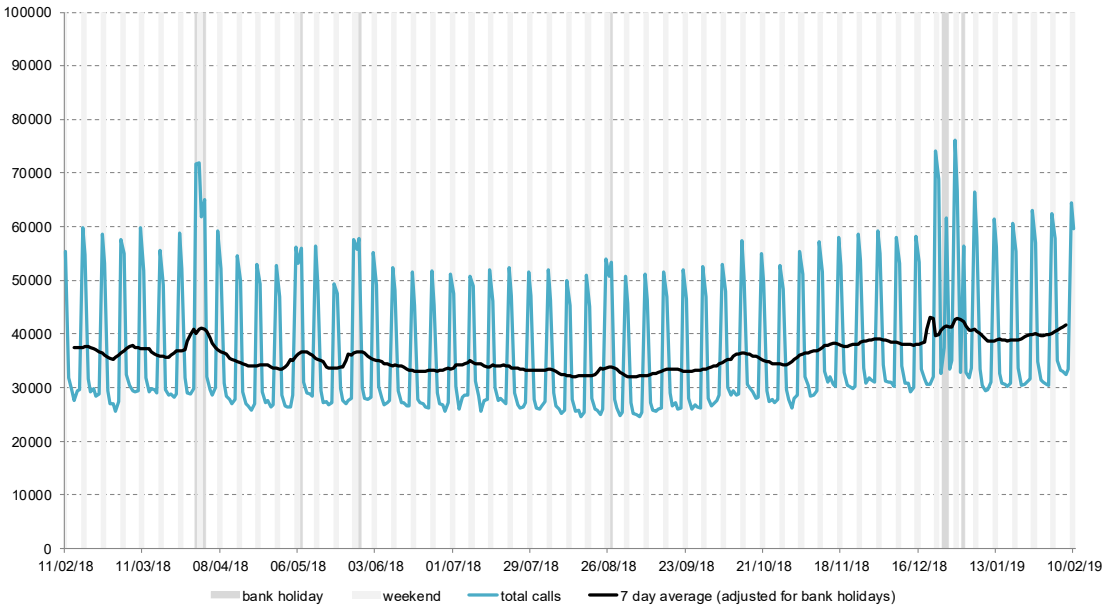
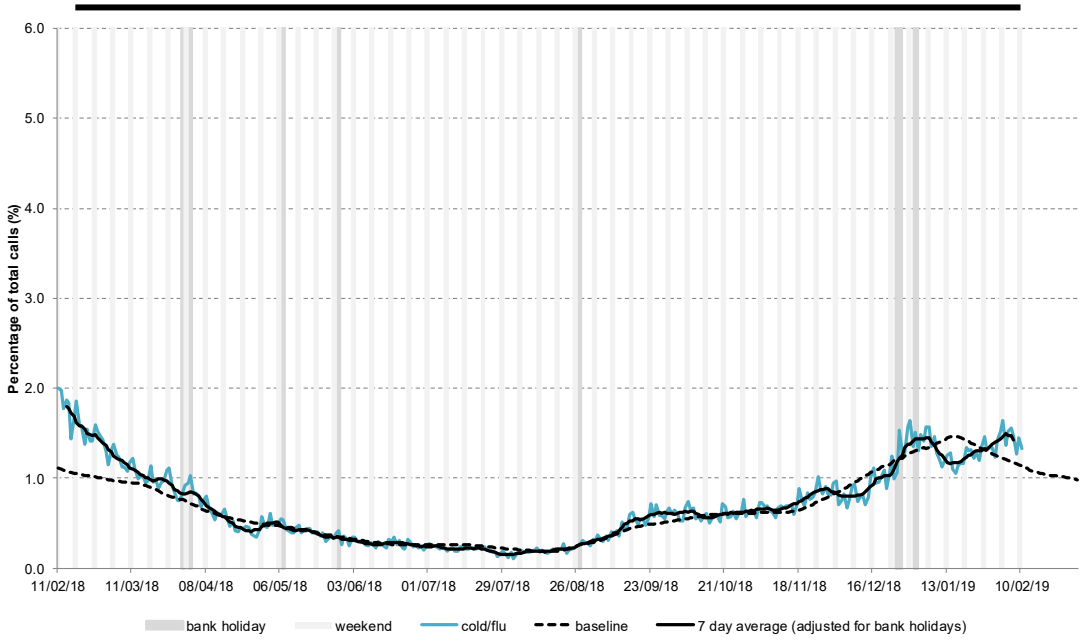
1: Total calls.

The total number of syndromic calls recorded each day by NHS 111.



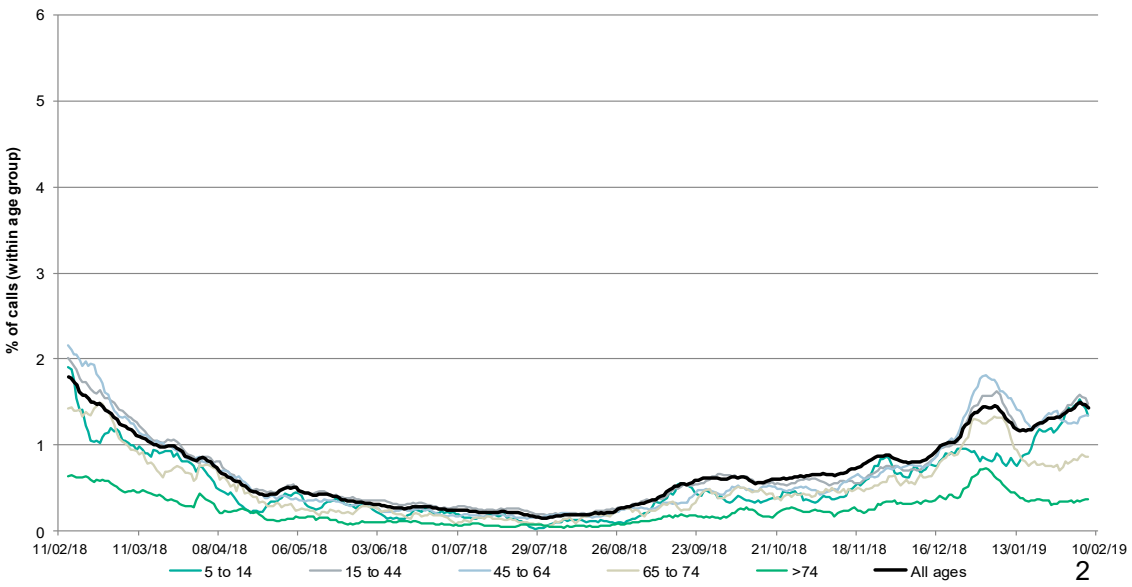
2: Cold/flu

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



2a: 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.



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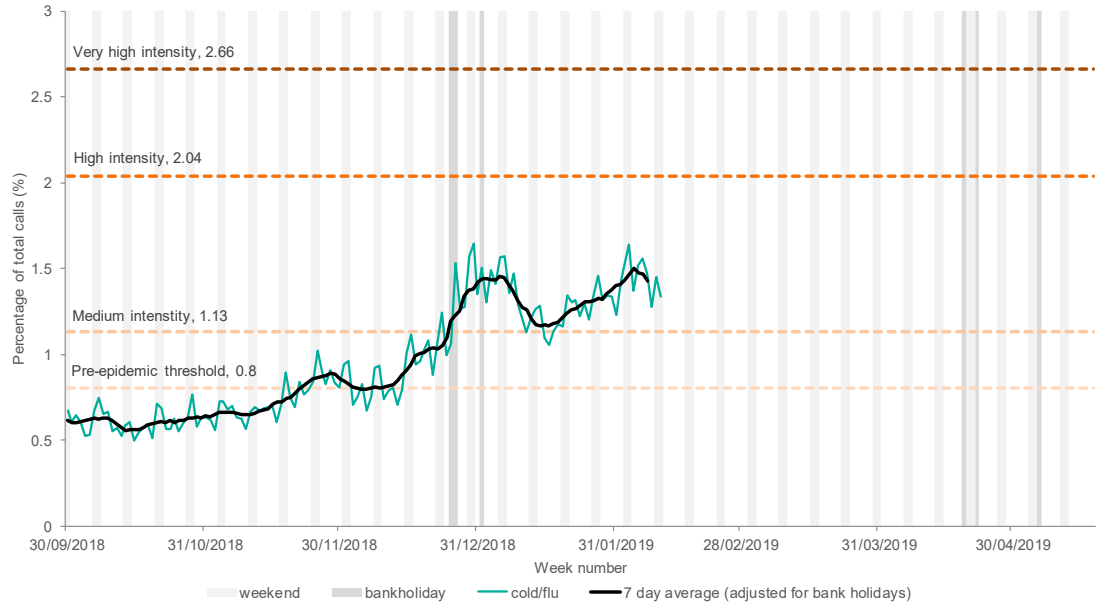
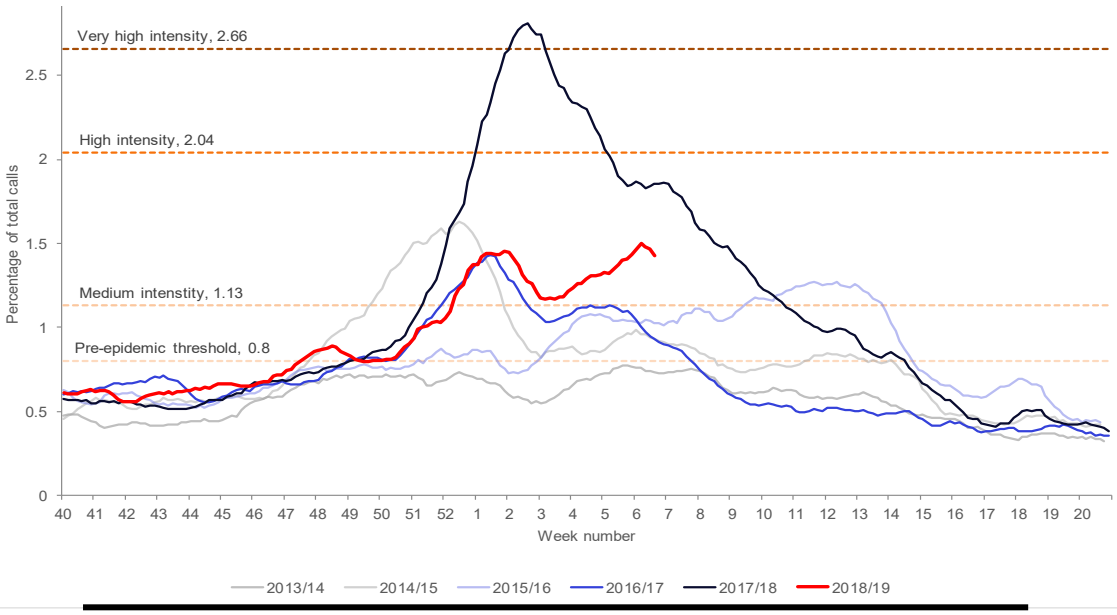
2b: Daily cold/flu calls (winter 2018/19) with MEM influenza activity thresholds (see notes)

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



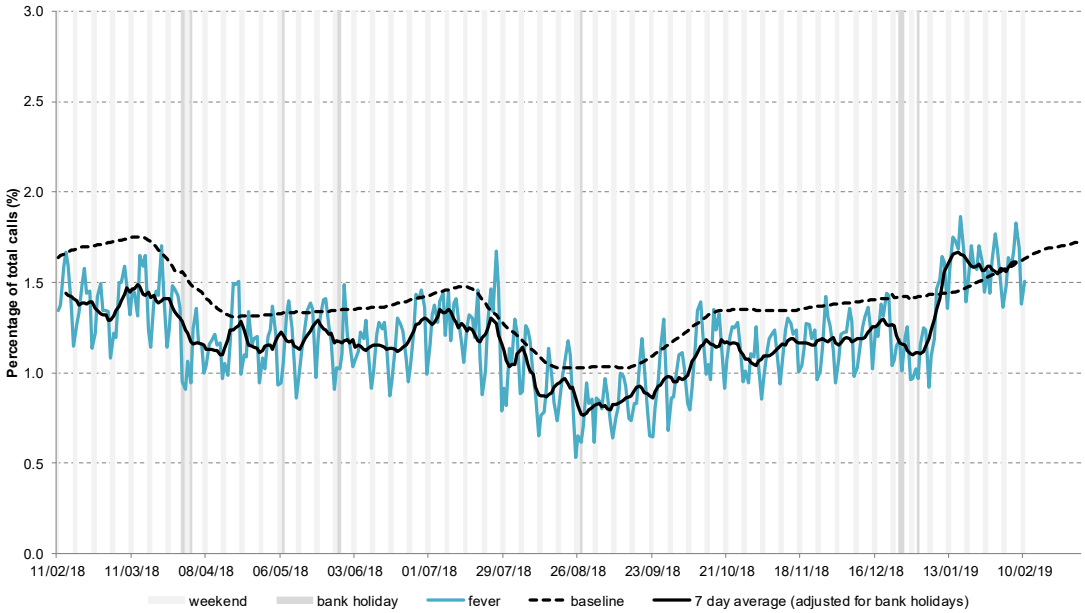
2c: Daily cold/flu calls by week with MEM influenza activity thresholds and comparison to previous seasons (see notes)

Average daily calls as percentage of total calls by week (7 day moving average, all England, all ages).



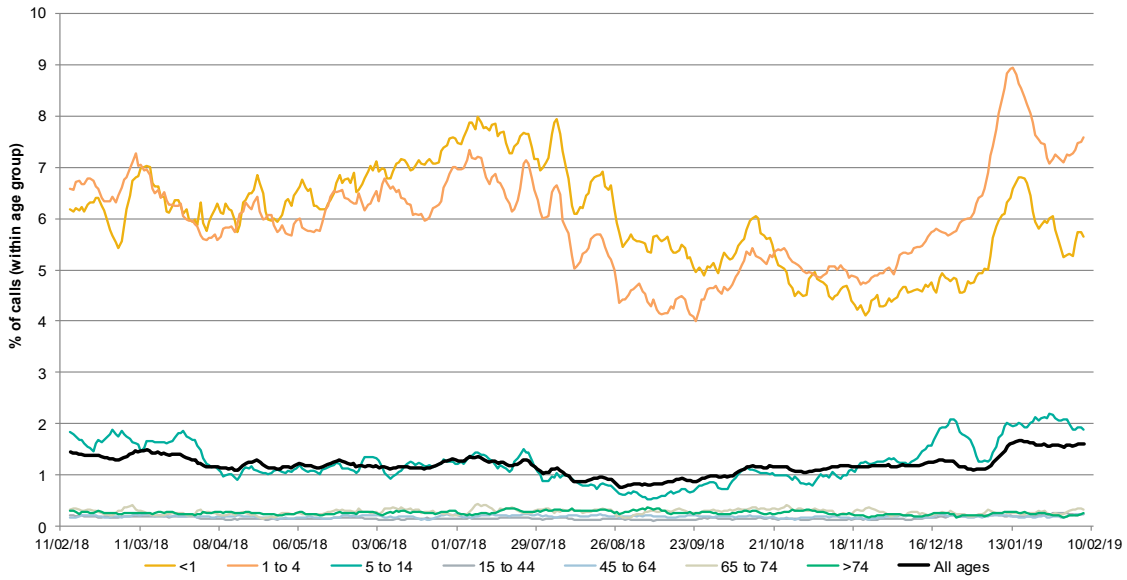
3: Fever

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



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.



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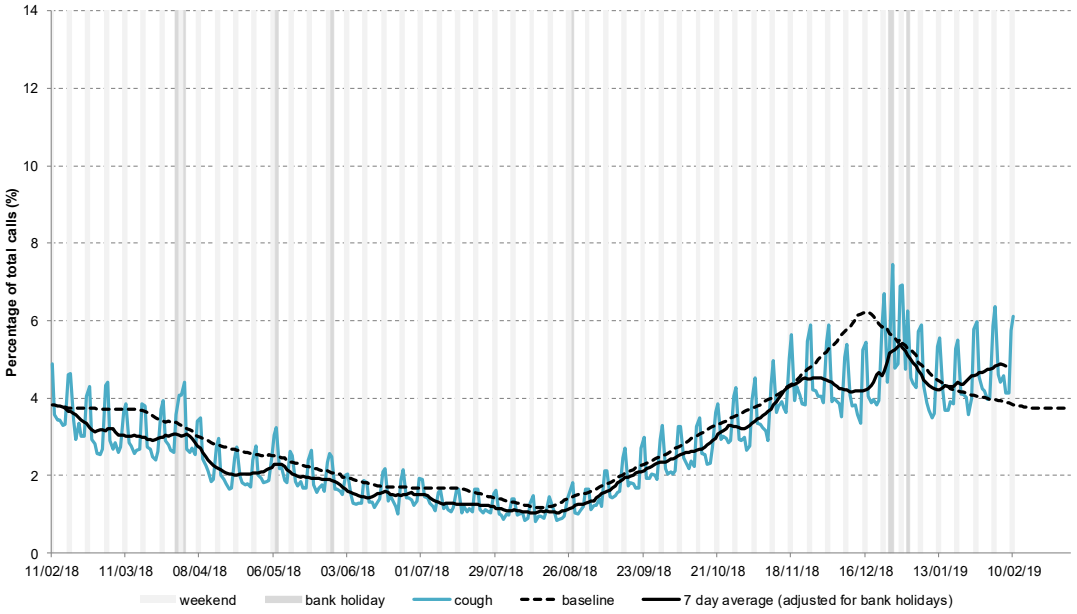
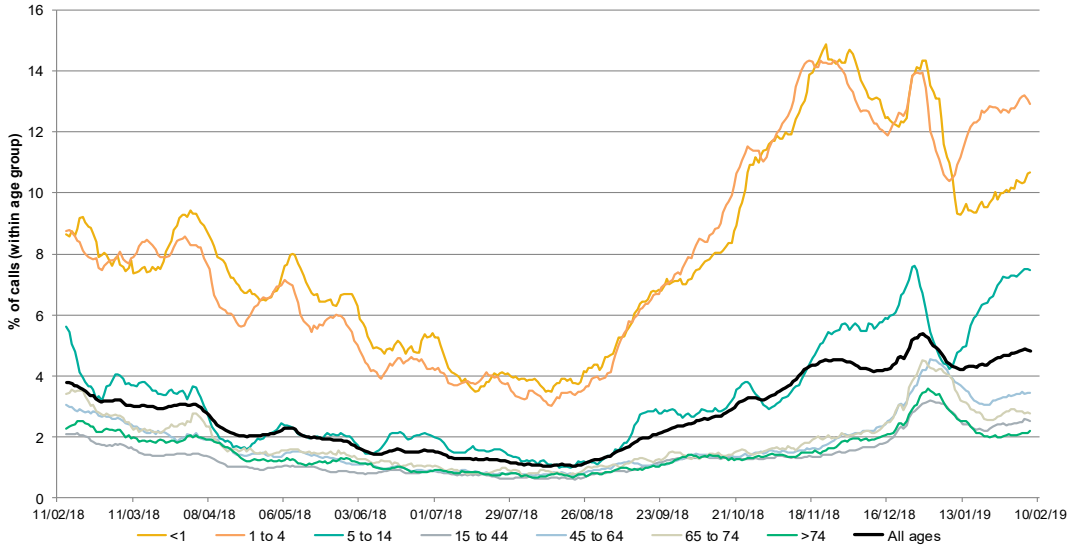
4: Cough

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



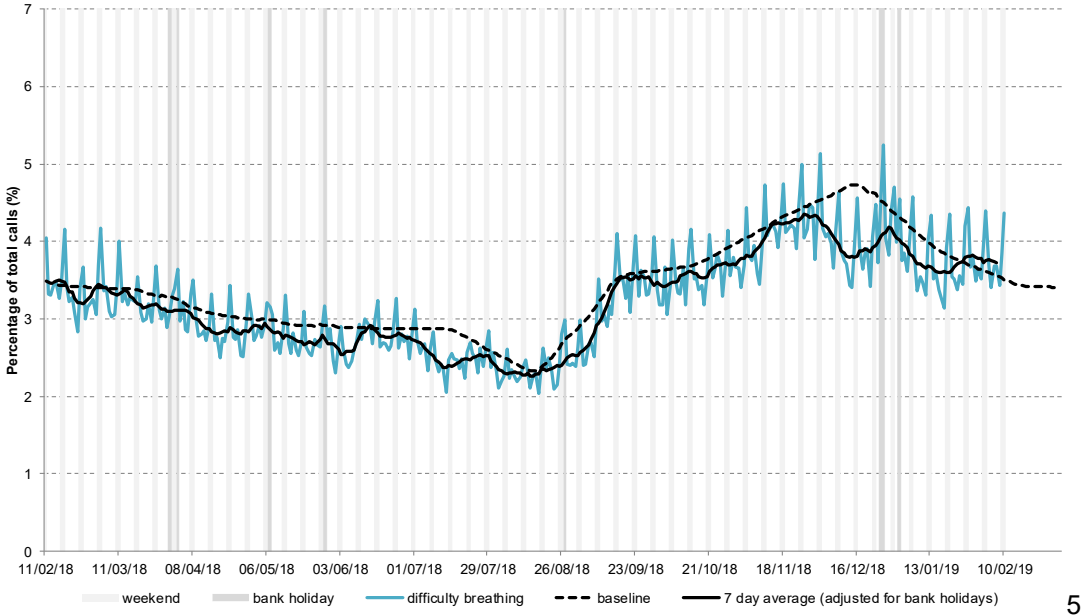
4a: Cough calls by age group

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



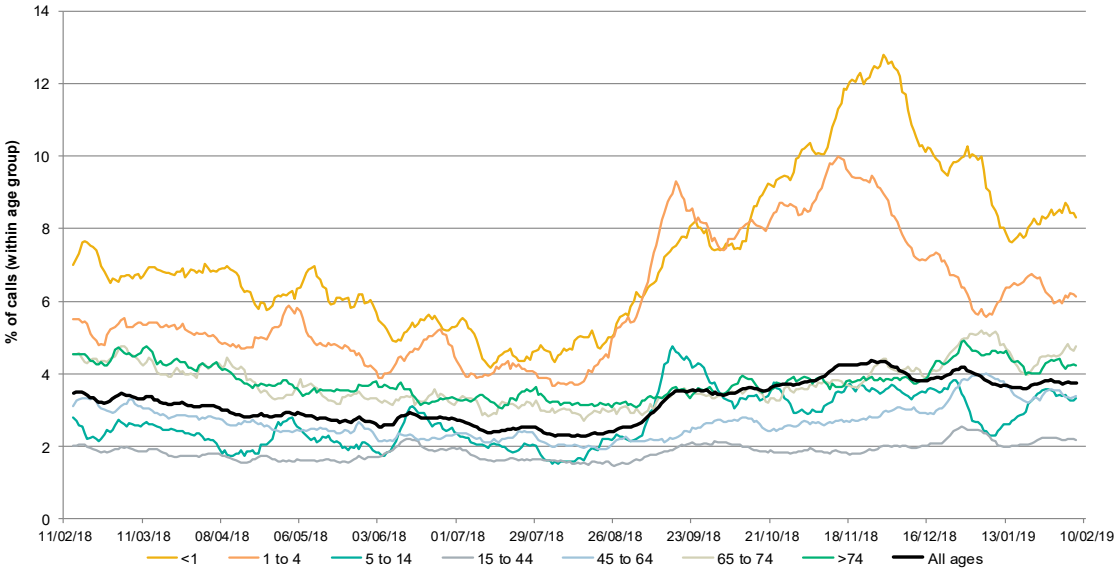
5: Difficulty breathing

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



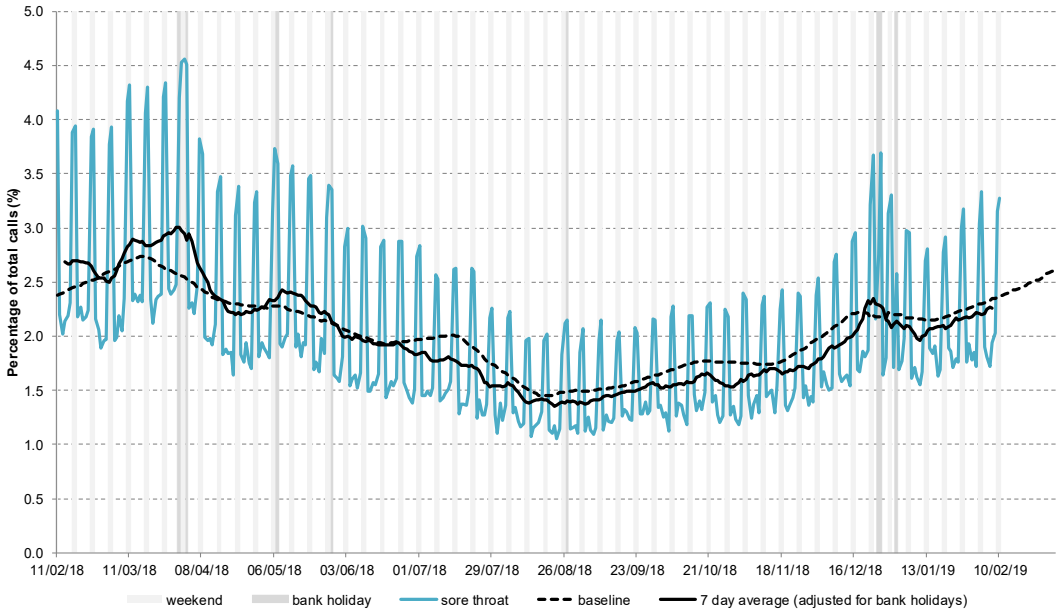
5a: Difficulty breathing calls by age group

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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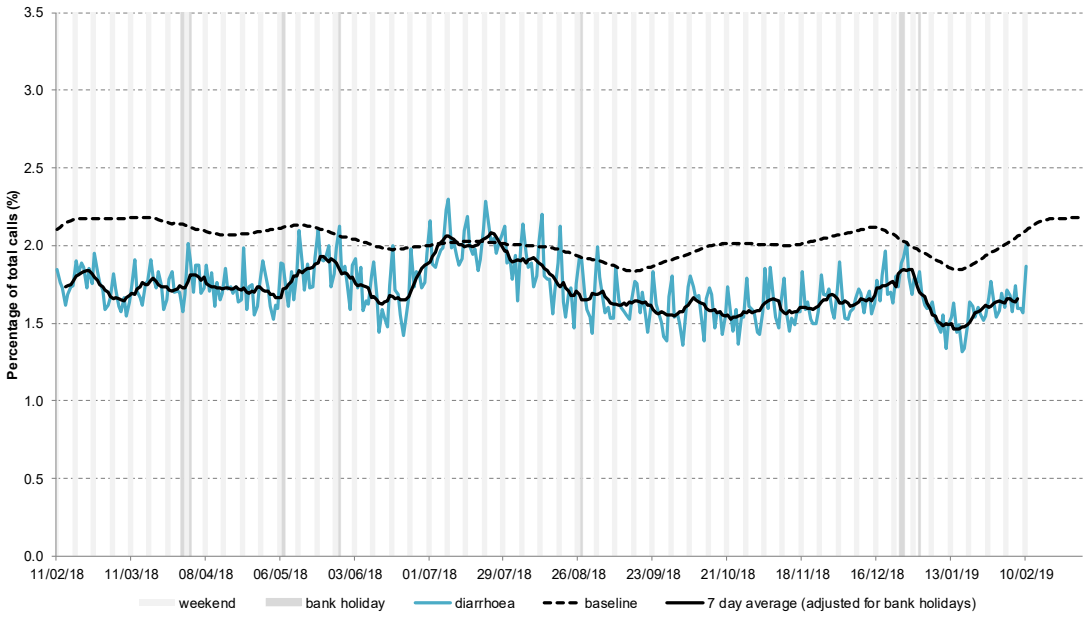
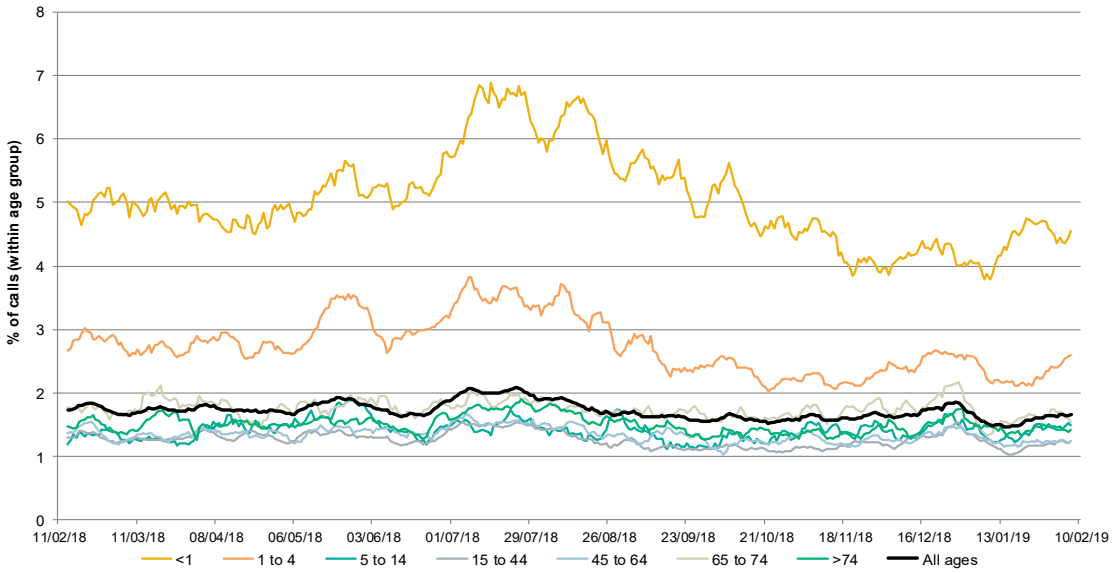
7. Diarrhoea

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



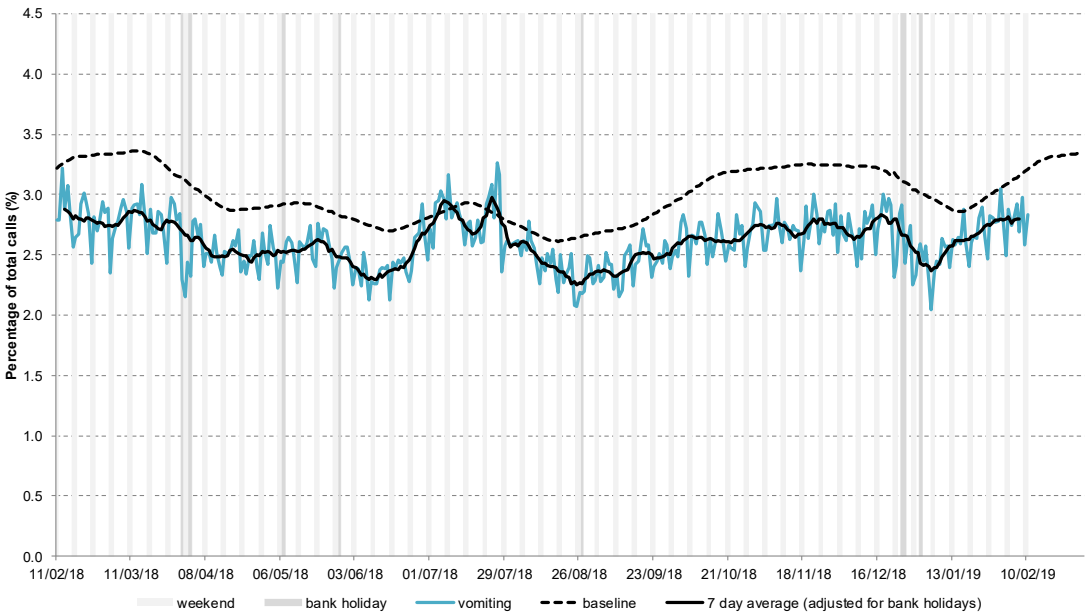
7a: Diarrhoea calls by age group

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



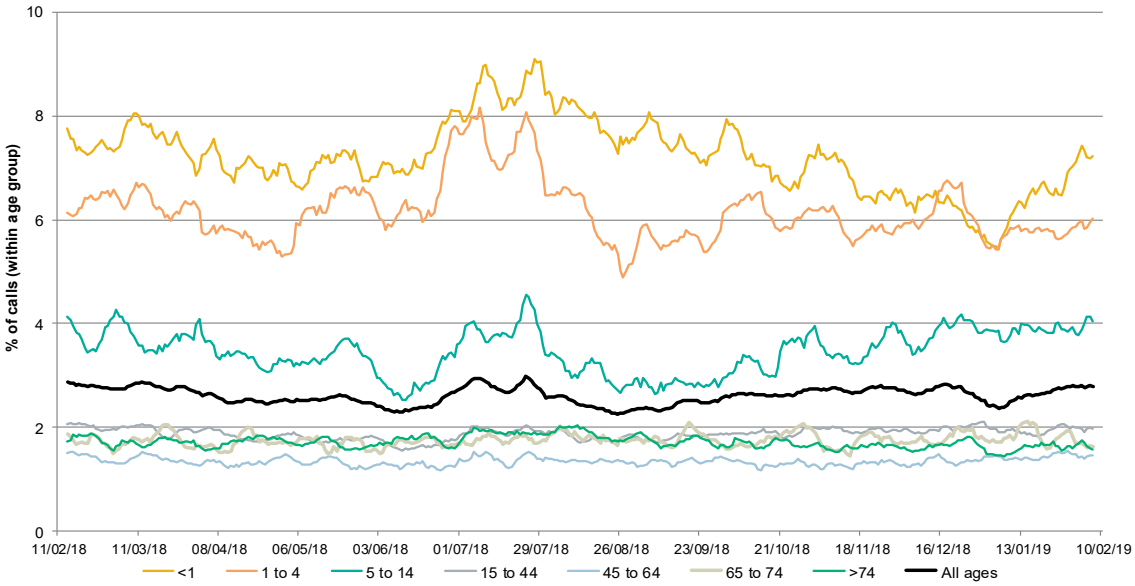
8: Vomiting calls

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



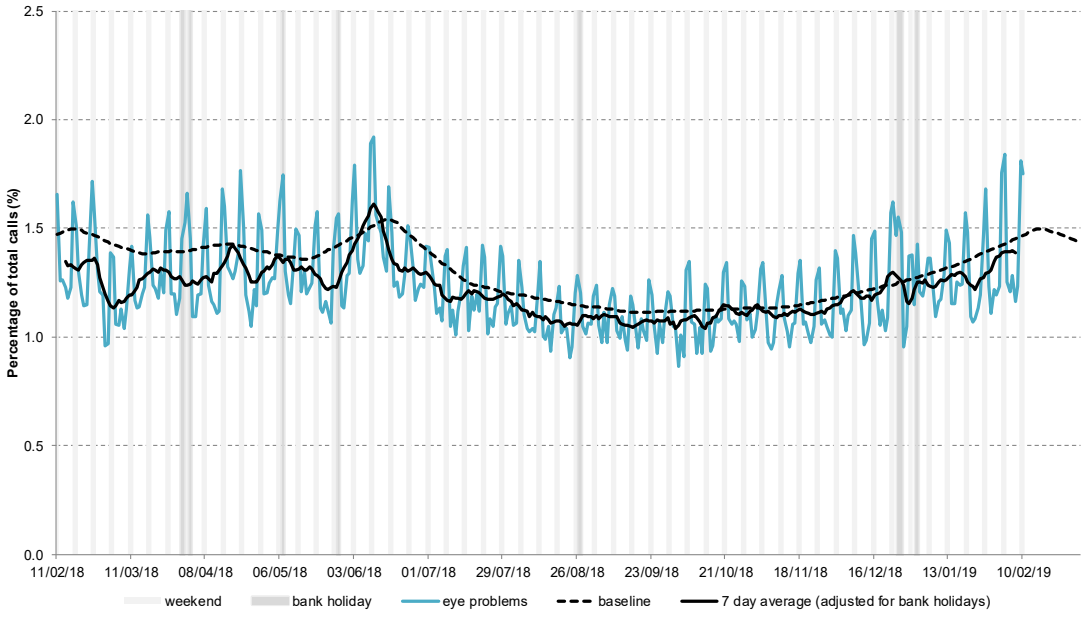
8a: Vomiting calls by age group

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 2013.



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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 winter 2018/19 we are presenting 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.[1]
- 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 five years of historic data (2013-2018). The thresholds are re-calculated every year.
- '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.

[1]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:
- 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:
- https://www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses

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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