



UK Health  
Security  
Agency

# **Remote Health Advice Syndromic Surveillance System Bulletin (England) 2022 Week 51**

## Key messages

### Data reported to: 27 December 2022

During week 51, NHS 111 total calls and online assessments increased sharply in line with expectations for an extended bank holiday weekend. NHS 111 calls and online assessments increased across a range of respiratory indicators including cough, difficulty breathing and 'potential COVID-19', particularly in adults aged 45 years and older, with decreases observed in children aged less than 15 years. Calls and online assessments for sore throat decreased overall and in children, while increases were noted in adults.

## Syndromic indicators at a glance

**Table 1: The current trend (based on previous weeks, not only the current week) and the level (compared to the expected baseline), of each indicator included in this bulletin.**

Indicator	Trend <sup>1</sup>	Level
Total NHS 111 calls ( <b>Figure 1</b> )	Increasing	No baseline
Total NHS 111 online ( <b>Figure 2</b> )	No trend	No baseline
Cold/flu NHS 111 calls ( <b>Figure 3</b> )	Increasing	Above baseline
Cold/flu NHS 111 online ( <b>Figure 4</b> )	No trend	Similar to baseline
Fever NHS 111 calls ( <b>Figure 5</b> )	No trend	Similar to baseline
Fever NHS 111 online ( <b>Figure 6</b> )	Decreasing	Similar to baseline
Cough NHS 111 calls ( <b>Figure 7</b> )	Increasing	Above baseline
Cough NHS 111 online ( <b>Figure 8</b> )	Increasing	Similar to baseline
Difficulty breathing NHS 111 calls ( <b>Figure 9</b> )	Increasing	Similar to baseline
Difficulty breathing NHS 111 online ( <b>Figure 10</b> )	Increasing	Similar to baseline
Sore throat NHS 111 calls ( <b>Figure 11</b> )	Decreasing	Above baseline
Sore throat NHS 111 online ( <b>Figure 12</b> )	Decreasing	Above baseline
Potential COVID-19 NHS 111 calls ( <b>Figure 13</b> )	Increasing	No baseline
Potential COVID-19 NHS 111 online ( <b>Figure 14</b> )	Increasing	No baseline
Diarrhoea NHS 111 calls ( <b>Figure 15</b> )	Increasing	Below baseline
Diarrhoea NHS 111 online ( <b>Figure 16</b> )	Increasing	Above baseline
Vomiting NHS 111 calls ( <b>Figure 17</b> )	No trend	Similar to baseline
Vomiting NHS 111 online ( <b>Figure 18</b> )	Decreasing	Similar to baseline
Eye problems NHS 111 calls ( <b>Figure 19</b> )	Increasing	Below baseline
Eye problems NHS 111 online ( <b>Figure 20</b> )	Increasing	Similar to baseline

<sup>1</sup> trend reports on the trend seen over most recent and earlier weeks

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## About this syndromic surveillance system

This bulletin presents data from the UK Health Security Agency (UKHSA) remote health advice syndromic surveillance system.

Syndromic surveillance can be used to:

- assess current trends
- assess current trends and levels compared to historical baselines
- compare trends between age groups/areas

Syndromic surveillance should not be used to:

- estimate total burden or number of 'cases' of a condition (see **Notes and caveats**)
- compare levels between age groups/areas

Fully anonymised, daily NHS 111 call and NHS 111 online assessment data are analysed and reported here, to identify and describe trends for a variety of syndromic indicators:

- syndromic indicators include groupings such as cold/flu, fever and diarrhoea
- syndromic indicators are based on:
  - symptoms (known as the Pathway) identified from both NHS 111 calls and NHS 111 online assessments
  - the potential COVID-19 syndromic indicator is based on the outcome (known as the Disposition), rather than the Pathway
- **Key messages** describes any notable trends nationally (England), by age group and/or by geographical area (based on UKHSA Regions)
- the full list of syndromic indicators reported here, along with their current level and trend, are summarised in **Table 1**
- charts are provided for each syndromic indicator, on a national basis, by age group and by geographical area (UKHSA Region). Each chart includes a year of data with:
  - 7-day moving averages (adjusted for weekends and bank holidays) to aid in the identification of trend
  - statistical baselines (where available) to aid in the assessment of level compared to historical expectations

For further information please see the **Notes and caveats** section.

Previous weekly bulletins from this system are available [here](#).

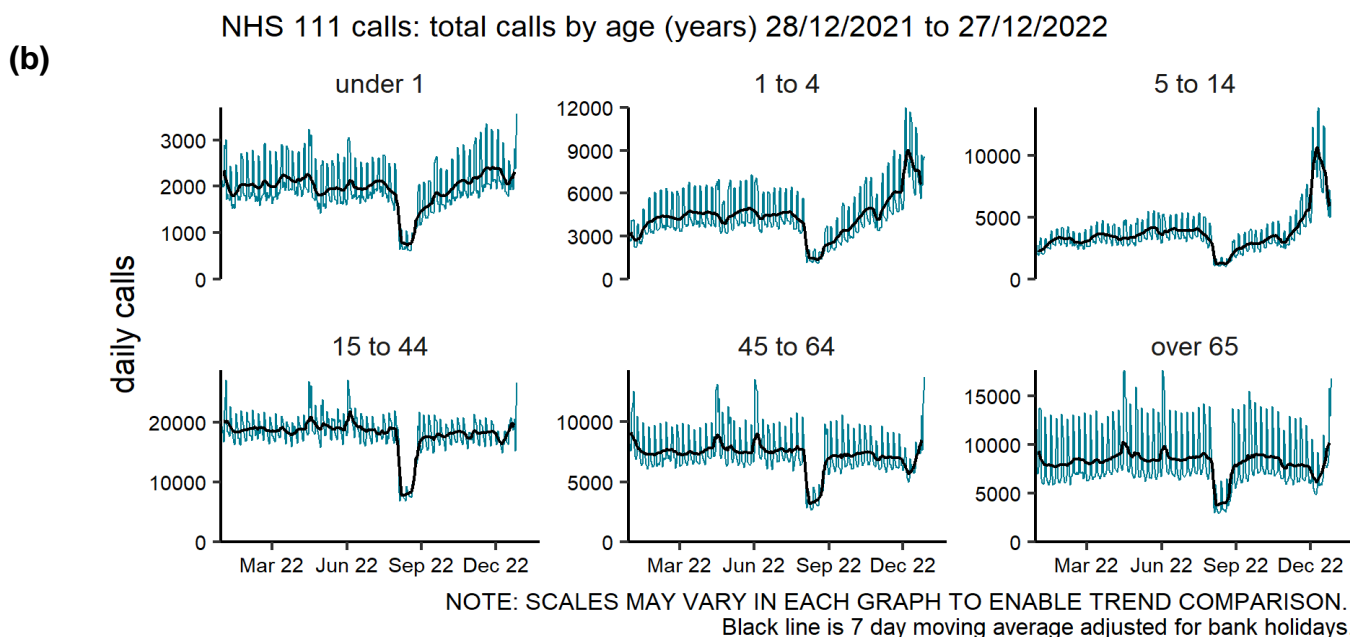
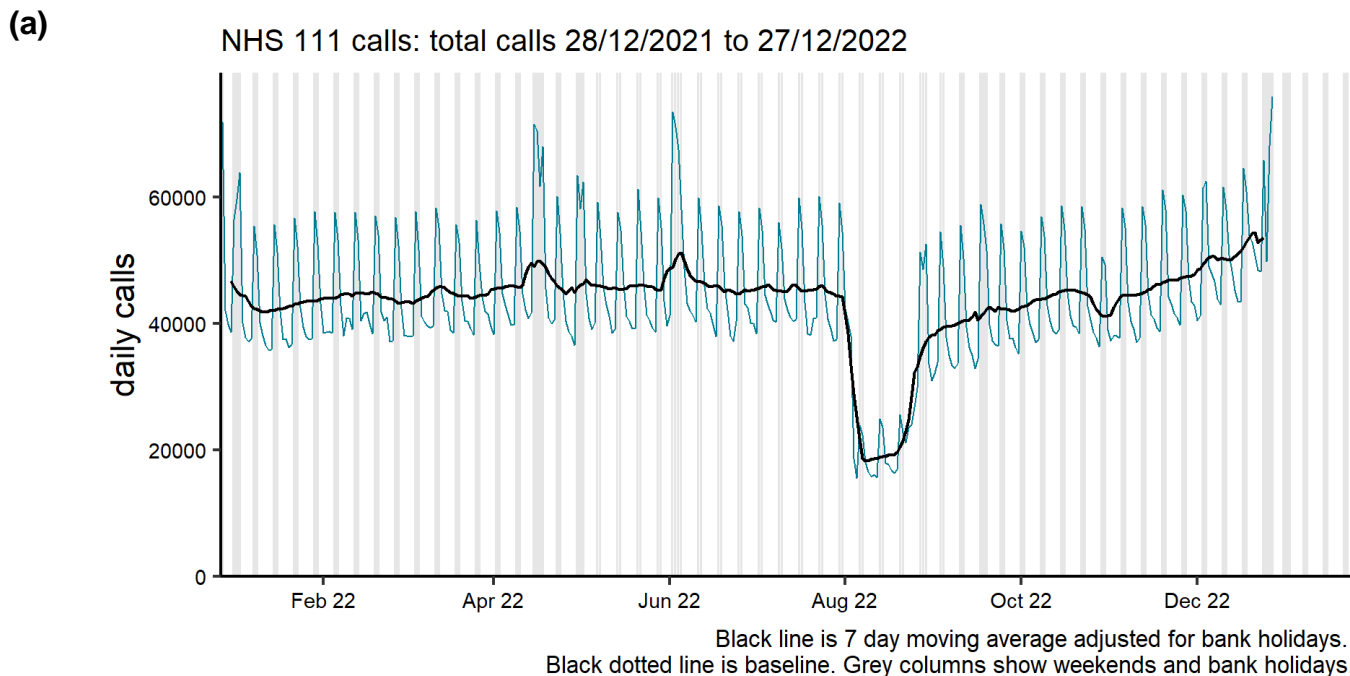
### Data quality issues of note this week

Syndromic NHS 111 calls presented in this report for August and September 2022 were low due to a widely publicised cybersecurity incident on 4 August, caused by ransomware that affected a NHS 111 clinical software system provider that is used in certain parts of the country.

# Total contacts

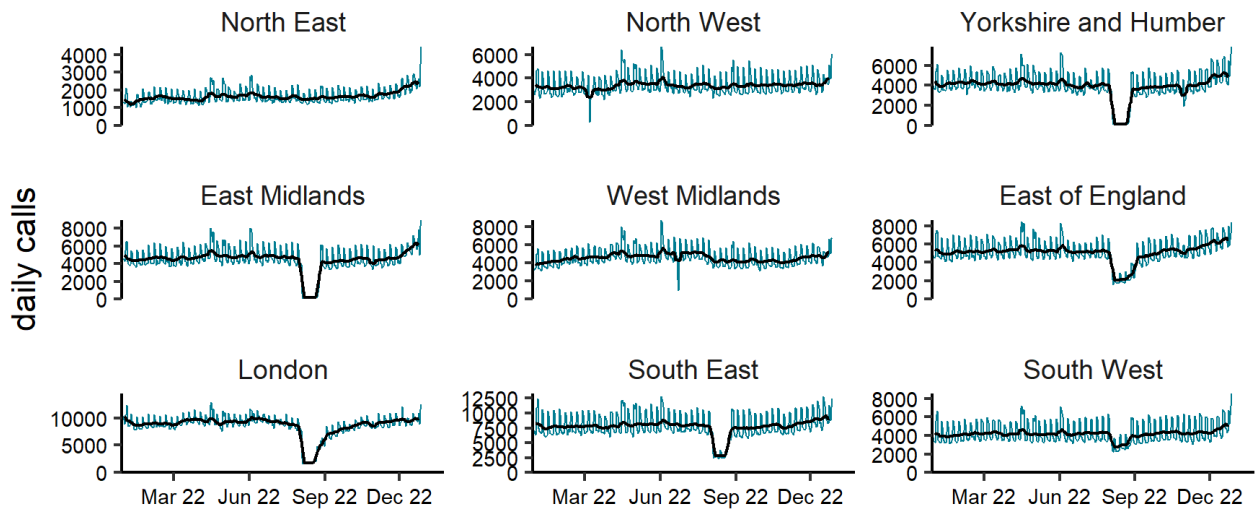
## NHS 111 calls

**Figure 1: Daily number of NHS 111 calls (with 7-day moving average adjusted for bank holidays) recorded in this syndromic surveillance system in England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

NHS 111 calls: total calls by region 28/12/2021 to 27/12/2022



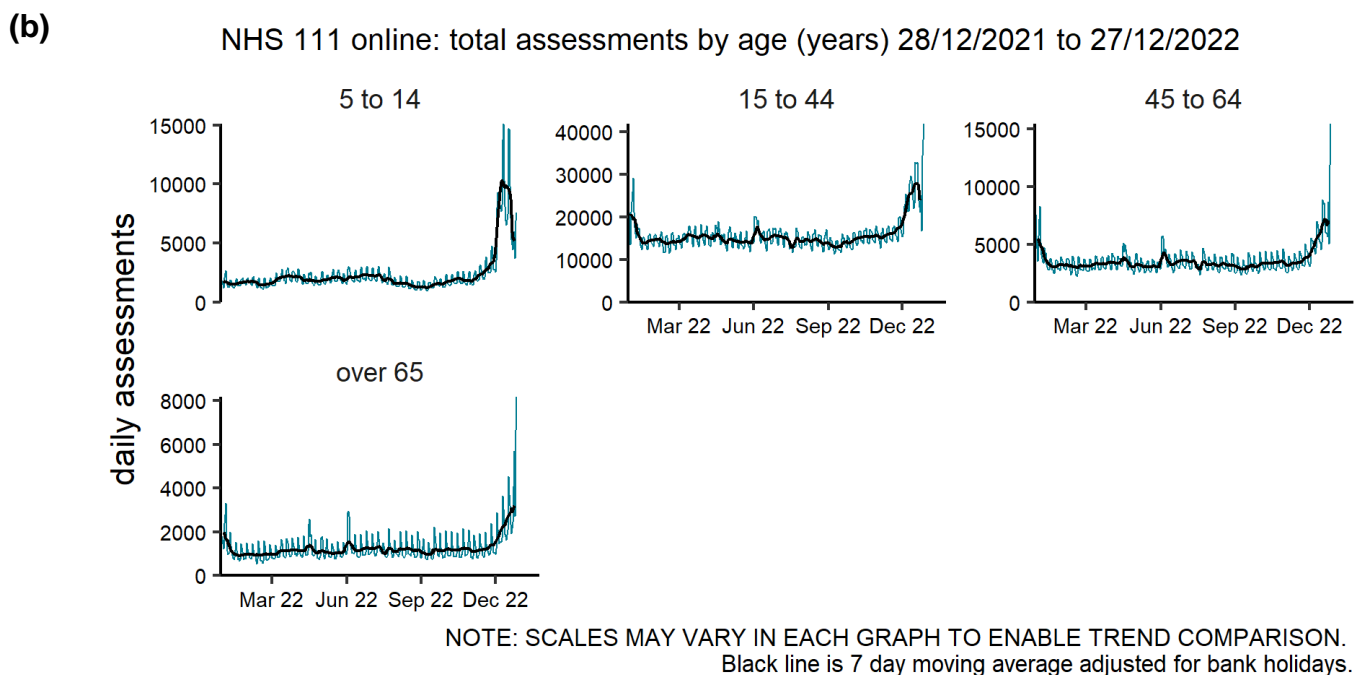
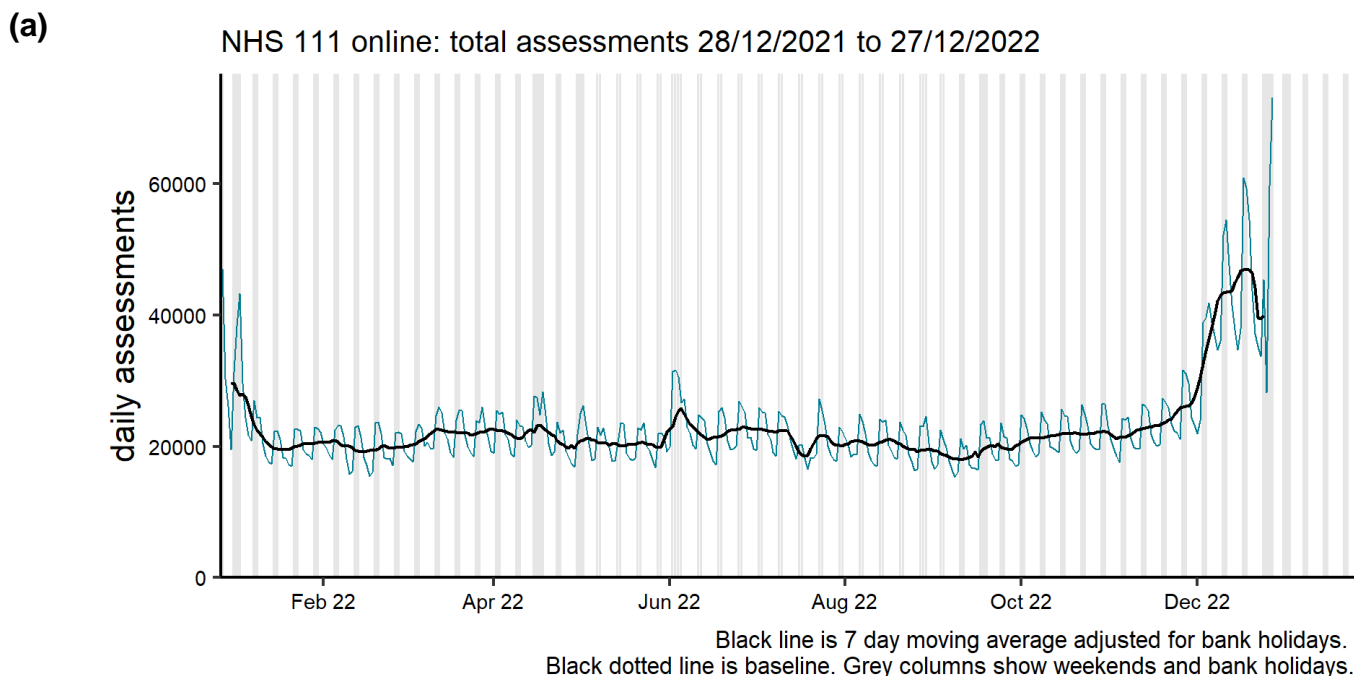
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
 Black line is 7 day moving average adjusted for bank holidays.  
 Black dotted line is baseline.

**Table 2: The number of NHS 111 calls in England recorded each day in the most recent week.**

Date	Number of calls
21 December 2022	50,950
22 December 2022	48,568
23 December 2022	48,469
24 December 2022	66,188
25 December 2022	50,149
26 December 2022	68,541
27 December 2022	76,197

# NHS 111 online

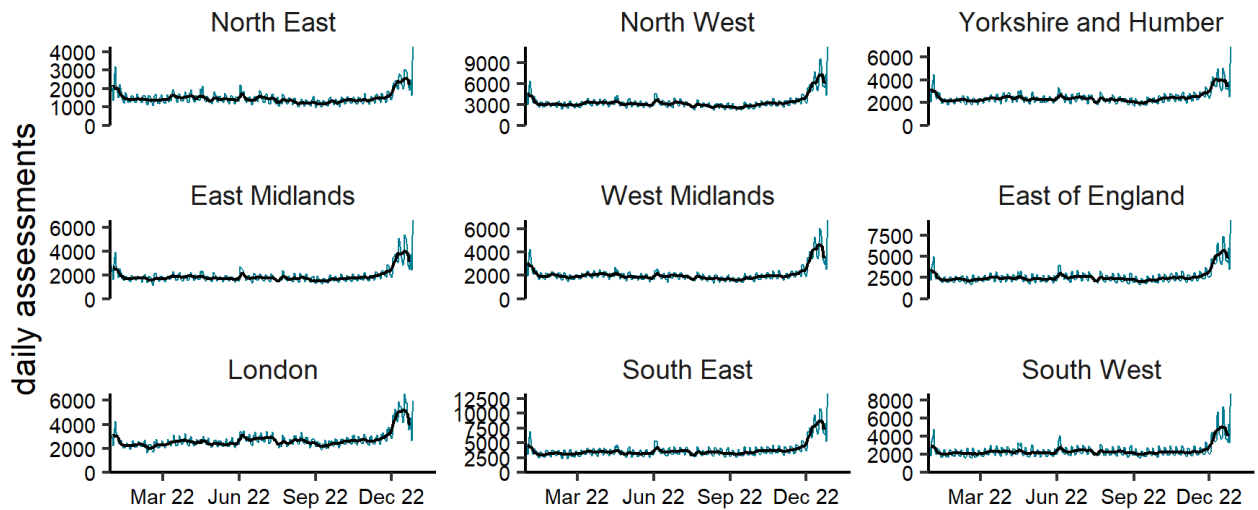
**Figure 2: Daily number of completed NHS 111 online assessments (with 7-day moving average adjusted for bank holidays) recorded in this syndromic surveillance system in England (a) nationally, (b) by age and (c) by UKHSA Region.**





(c)

NHS 111 online: total assessments by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
 Black line is 7 day moving average adjusted for bank holidays.  
 Black dotted line is baseline.

**Table 3: The number of completed NHS 111 online assessments in England recorded each day in the most recent week.**

Date	Number of completed assessments
21 December 2022	36,823
22 December 2022	34,901
23 December 2022	33,400
24 December 2022	45,141
25 December 2022	27,981
26 December 2022	59,344
27 December 2022	72,591

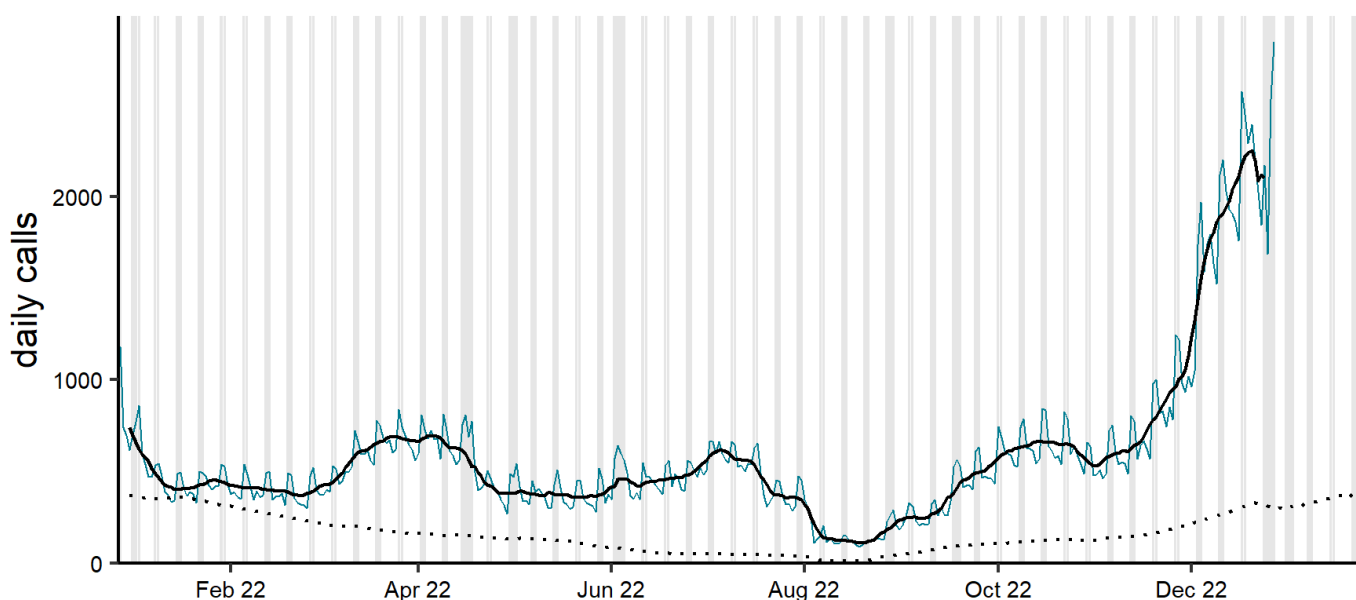
# Respiratory conditions

## Cold/flu NHS 111 calls

**Figure 3: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for cold/flu, England (a) nationally, (b) by age and (c) by UKHSA Region.**

(a)

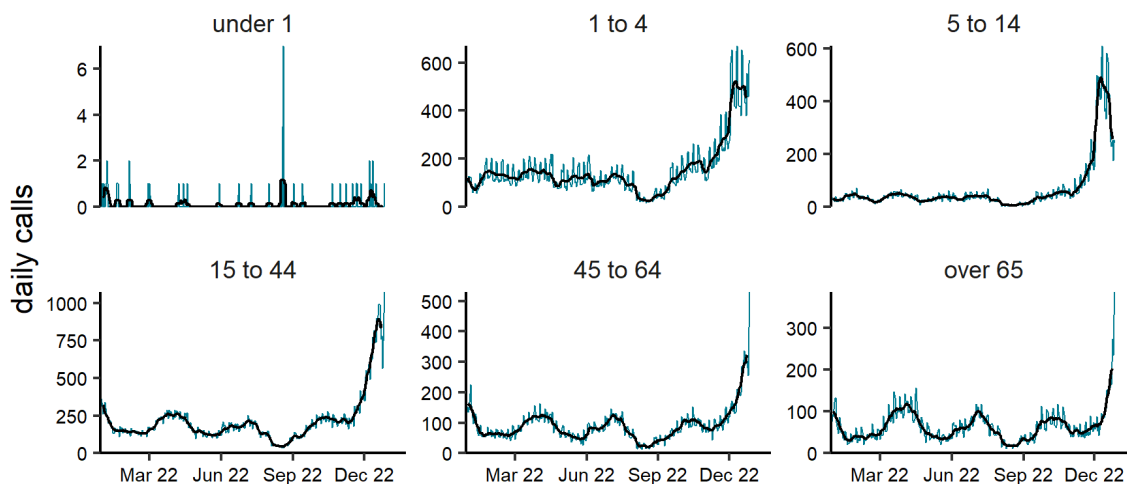
NHS 111 calls: cold or flu 28/12/2021 to 27/12/2022



Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline. Grey columns show weekends and bank holidays.

(b)

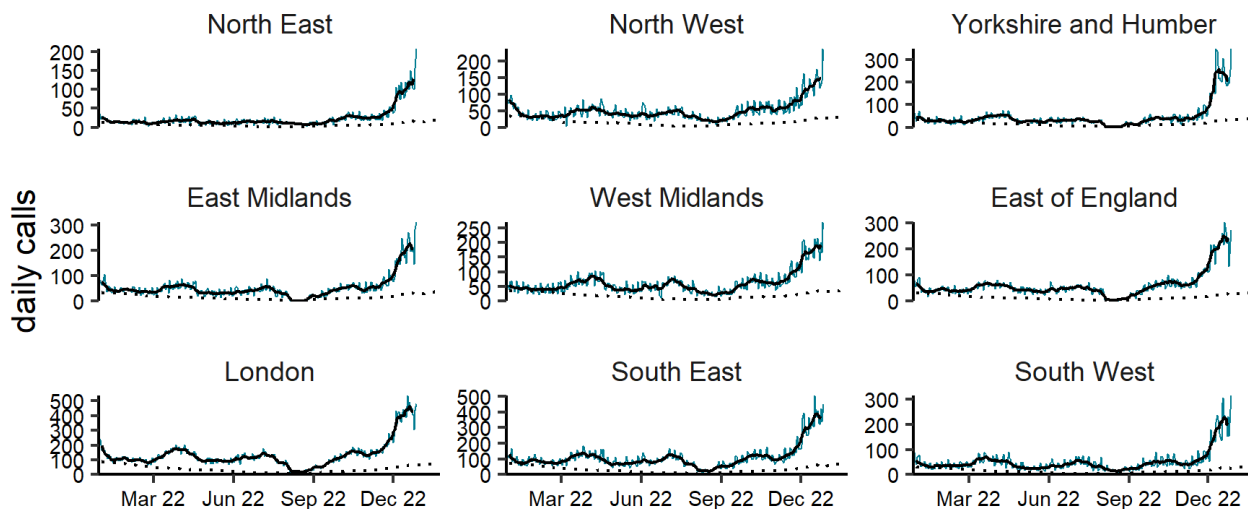
NHS 111 calls: cold or flu by age (years) 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.

(c)

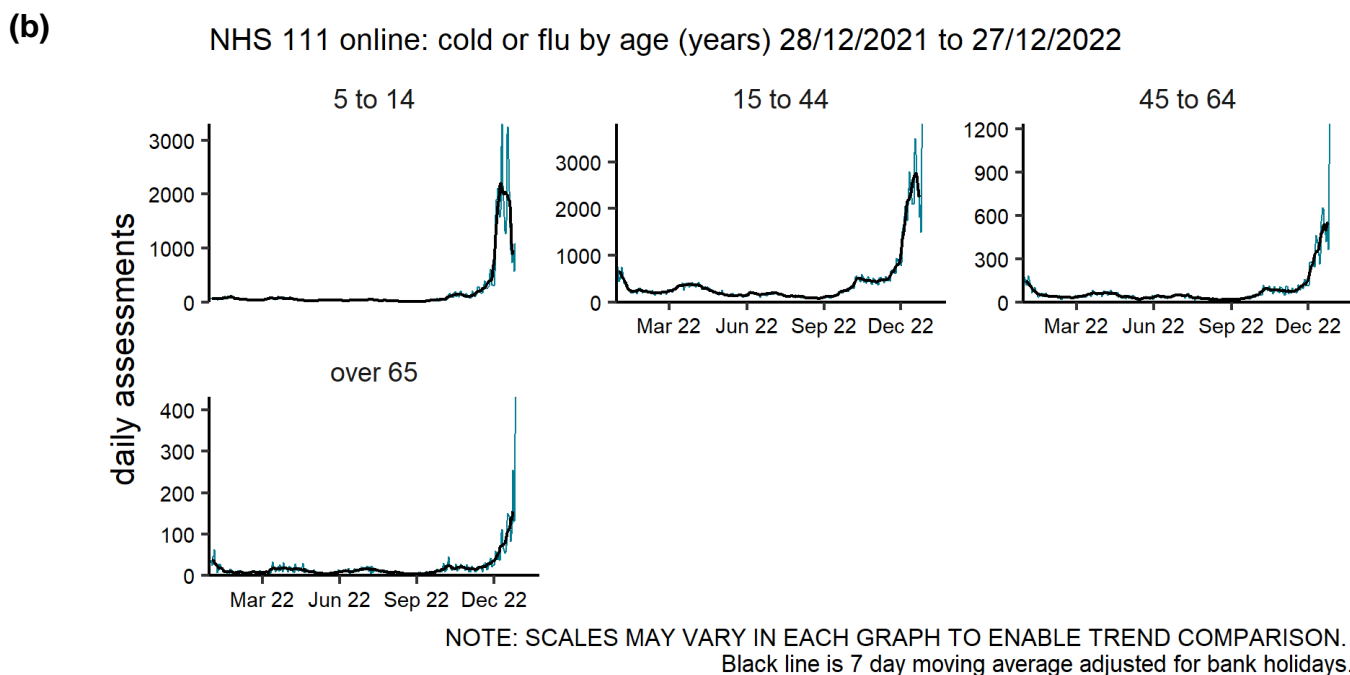
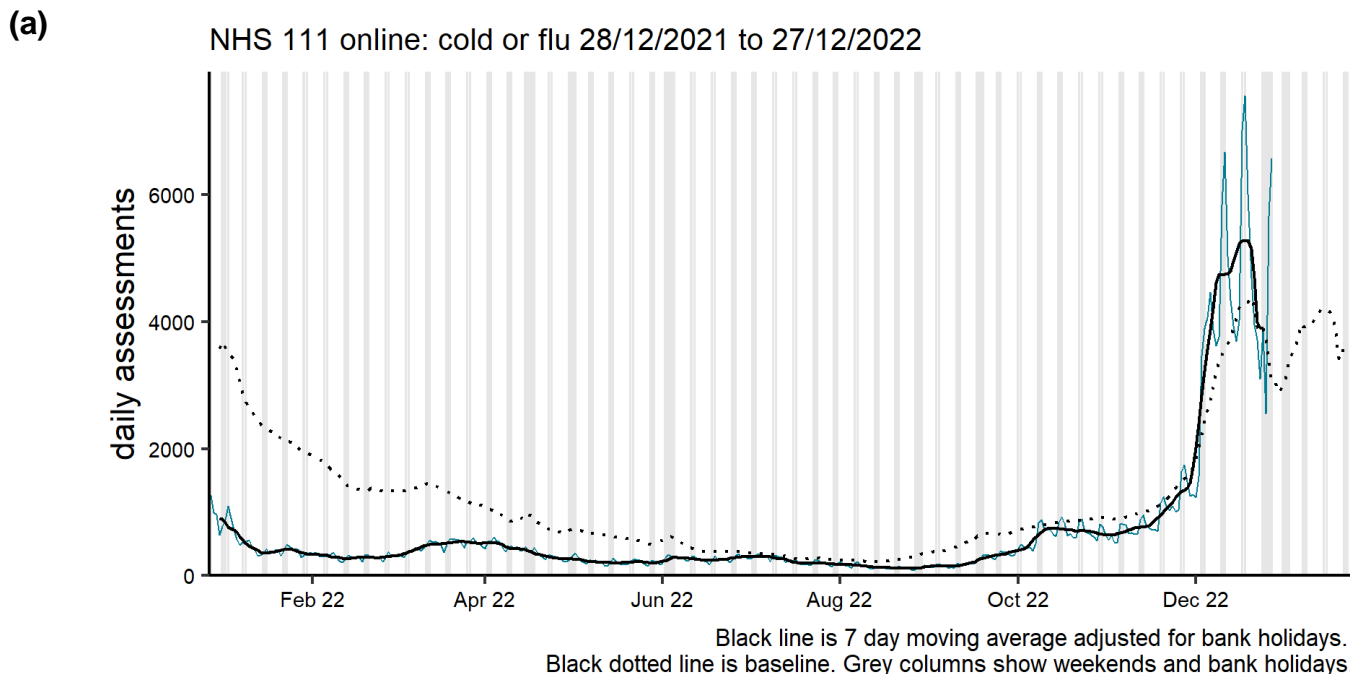
NHS 111 calls: cold or flu by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

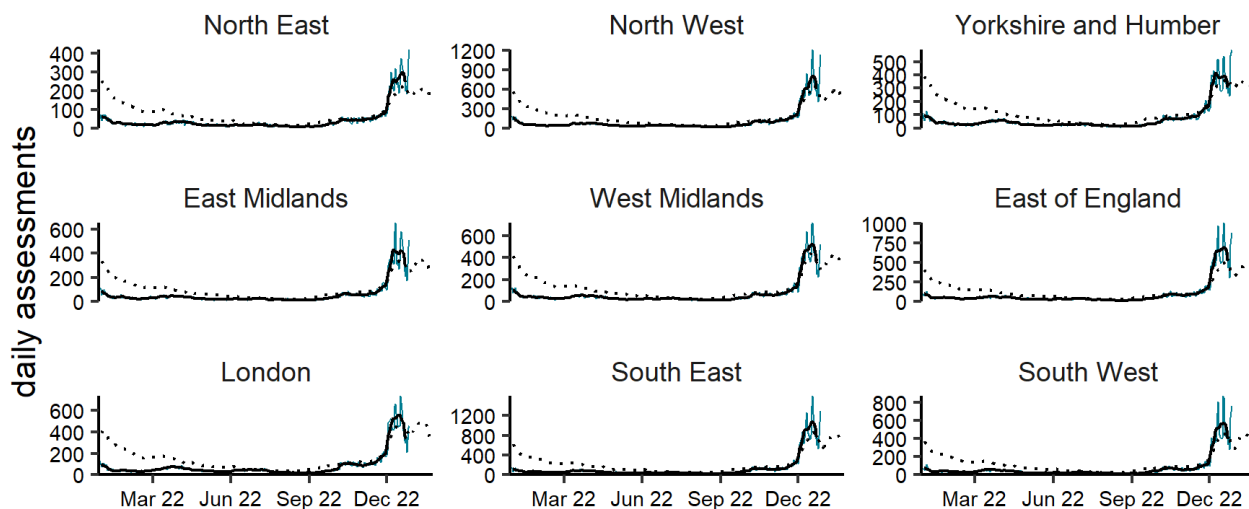
# Cold/flu NHS 111 online

**Figure 4: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for cold/flu, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

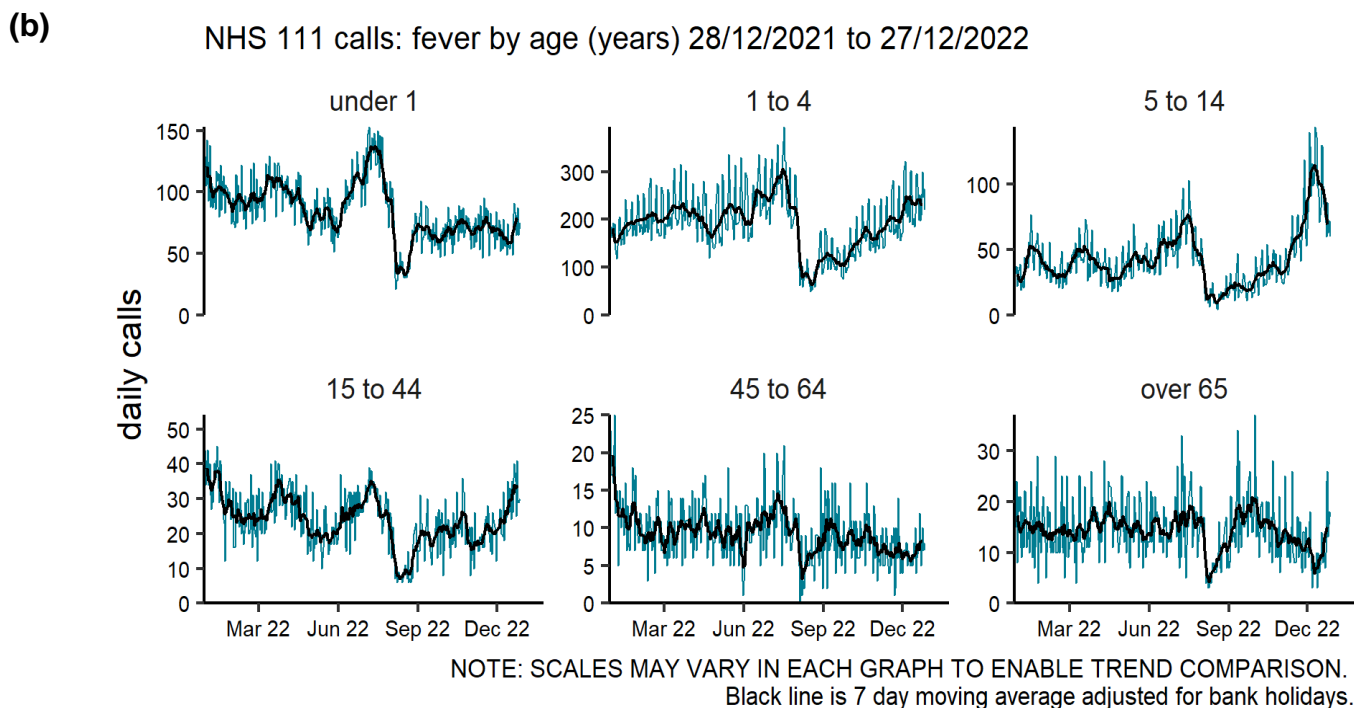
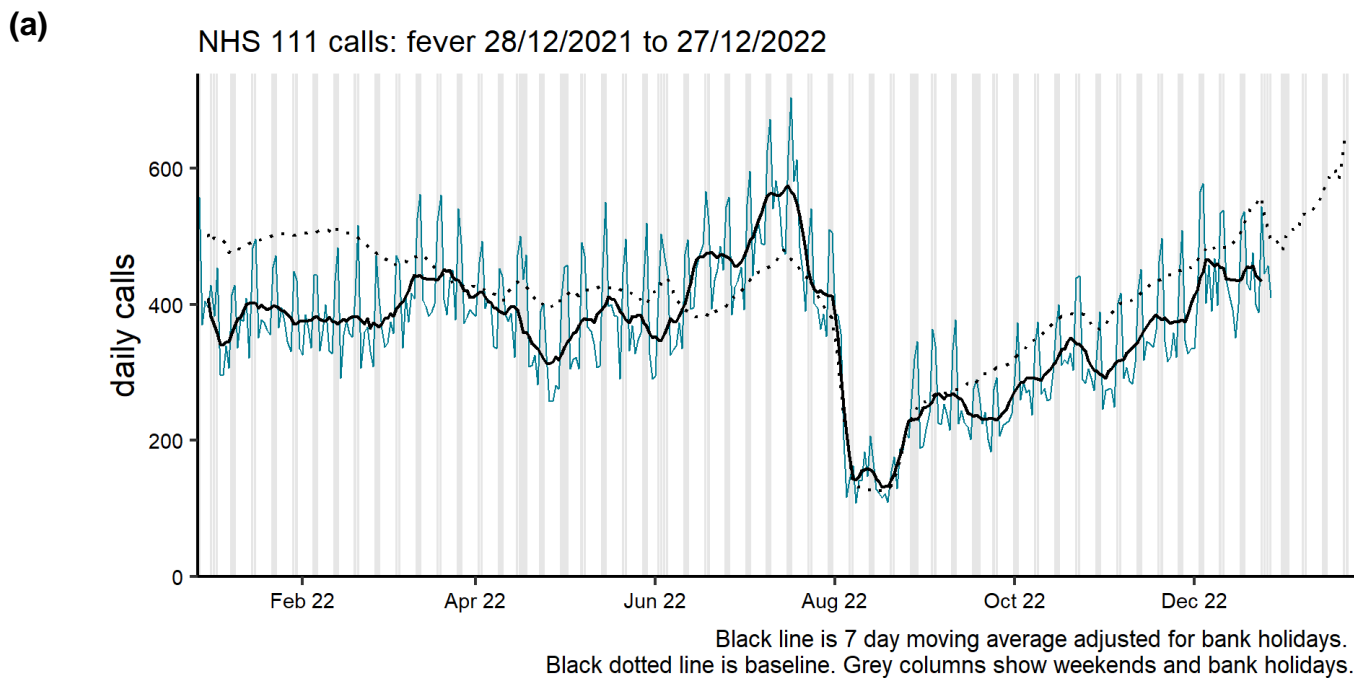
NHS 111 online: cold or flu by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
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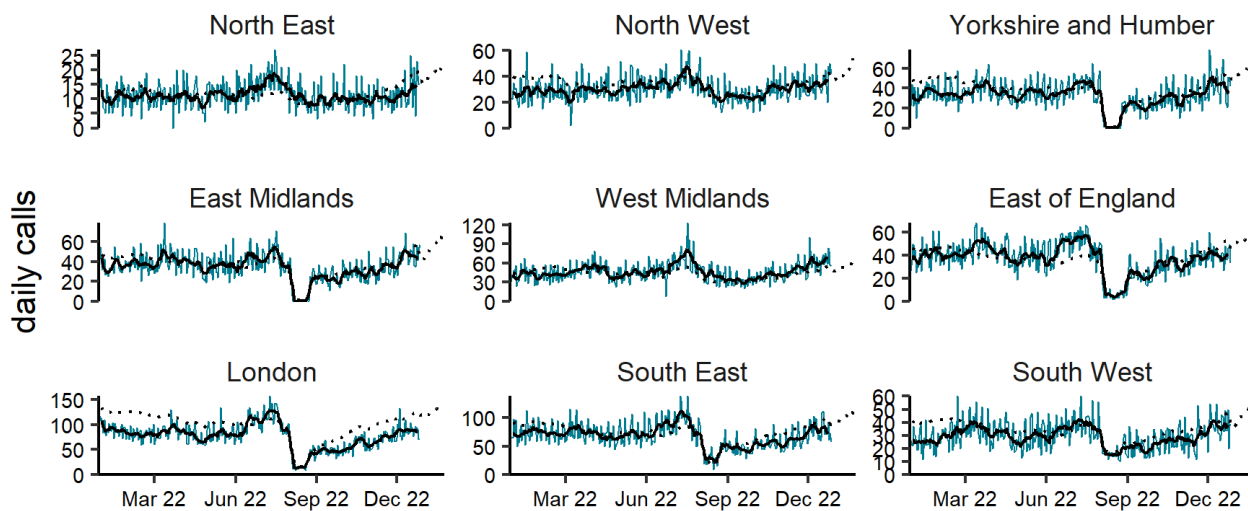
# Fever NHS 111 calls

**Figure 5: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for fever, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

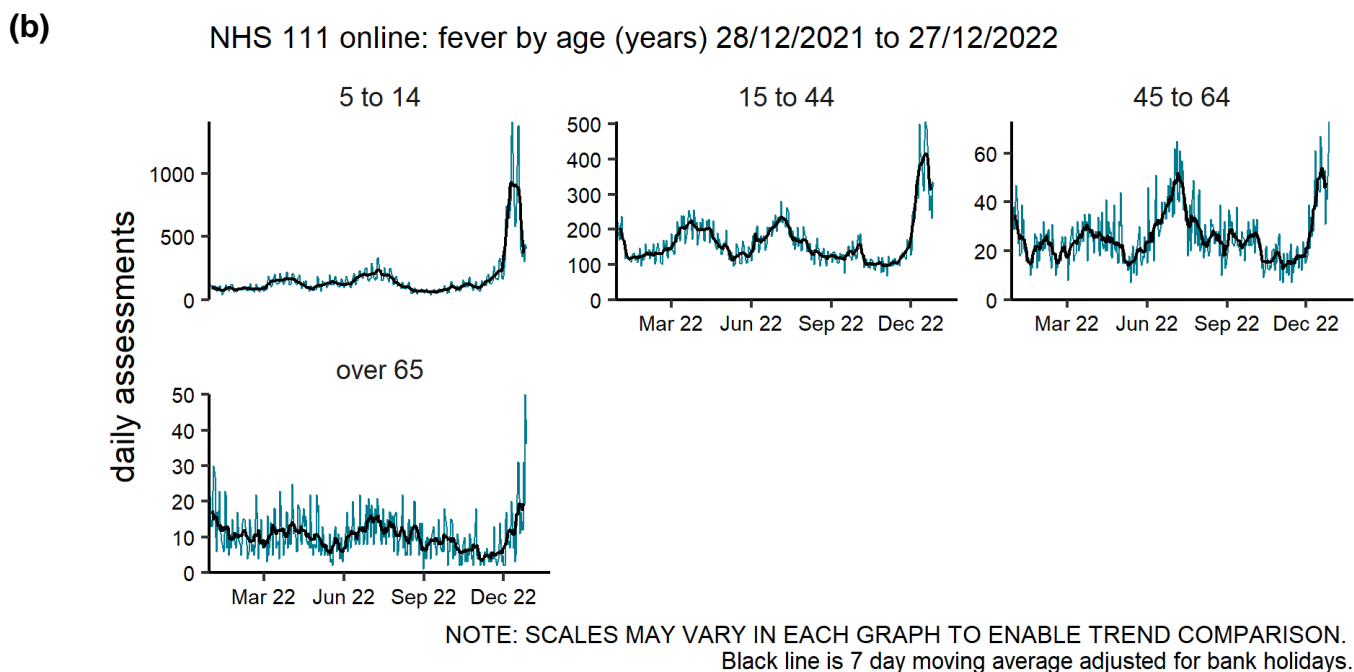
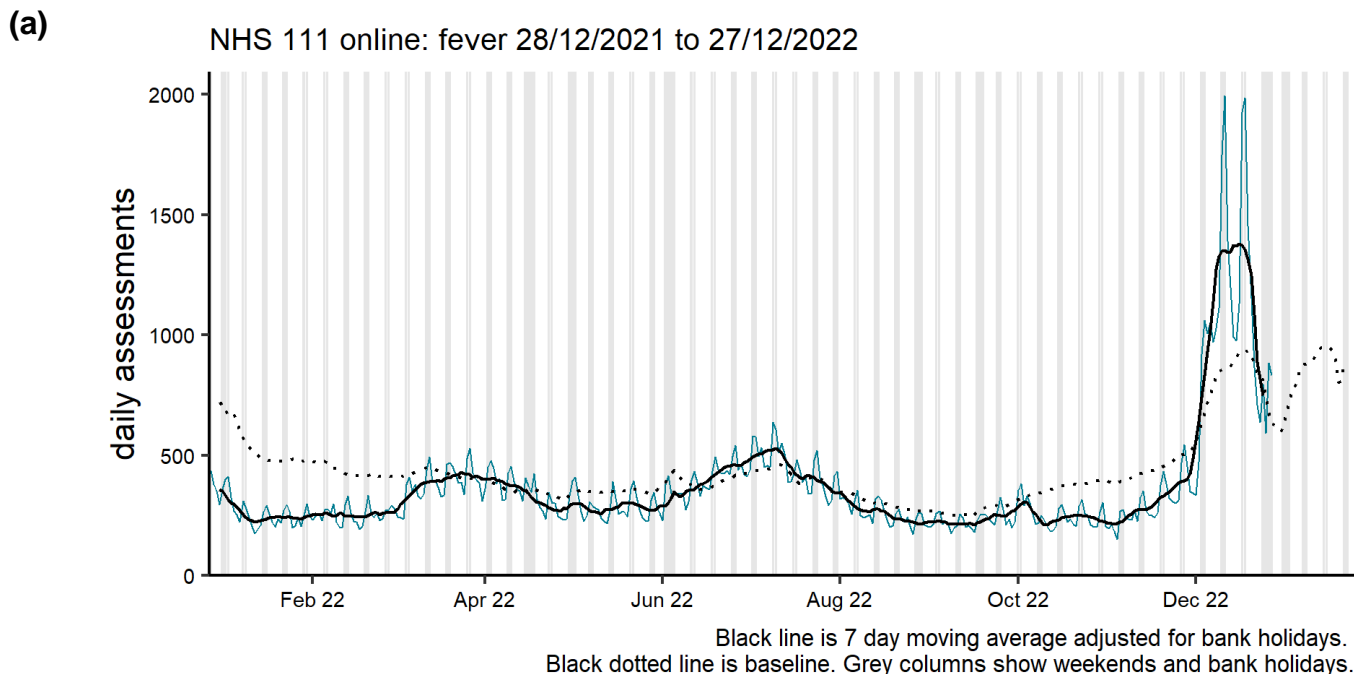
NHS 111 calls: fever by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
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## Fever NHS 111 online

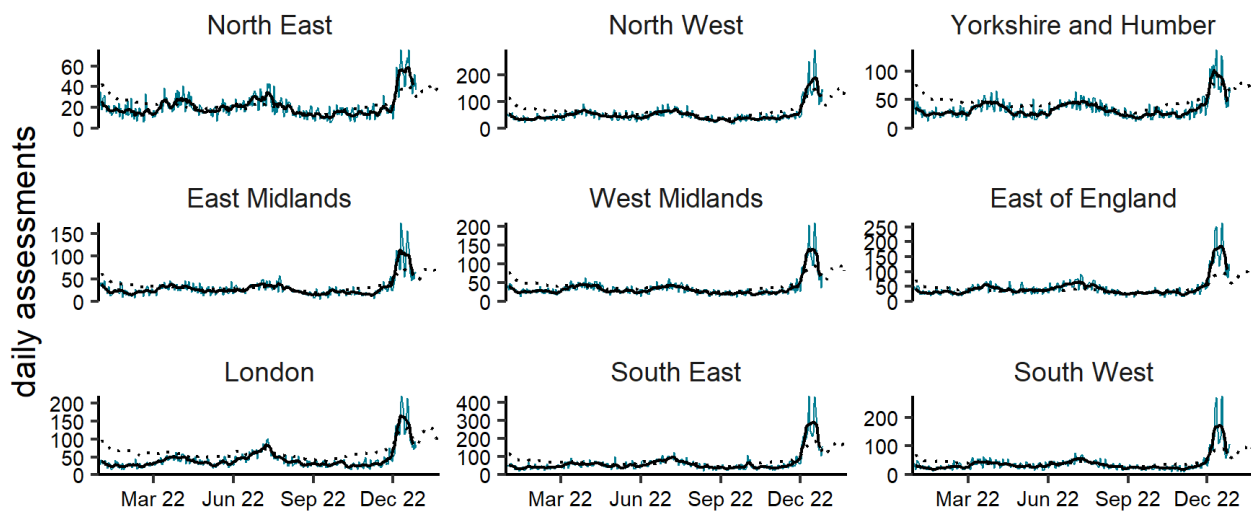
**Figure 6: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for fever, England (a) nationally, (b) by age and (c) by UKHSA Region.**





(c)

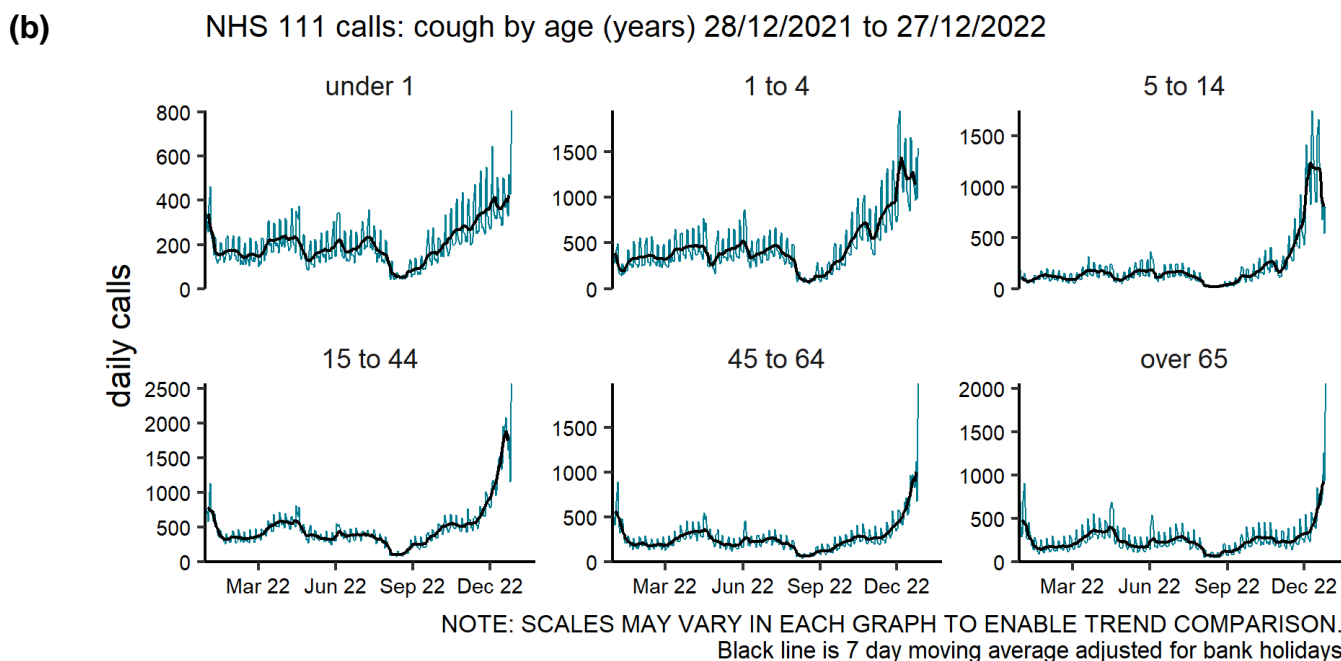
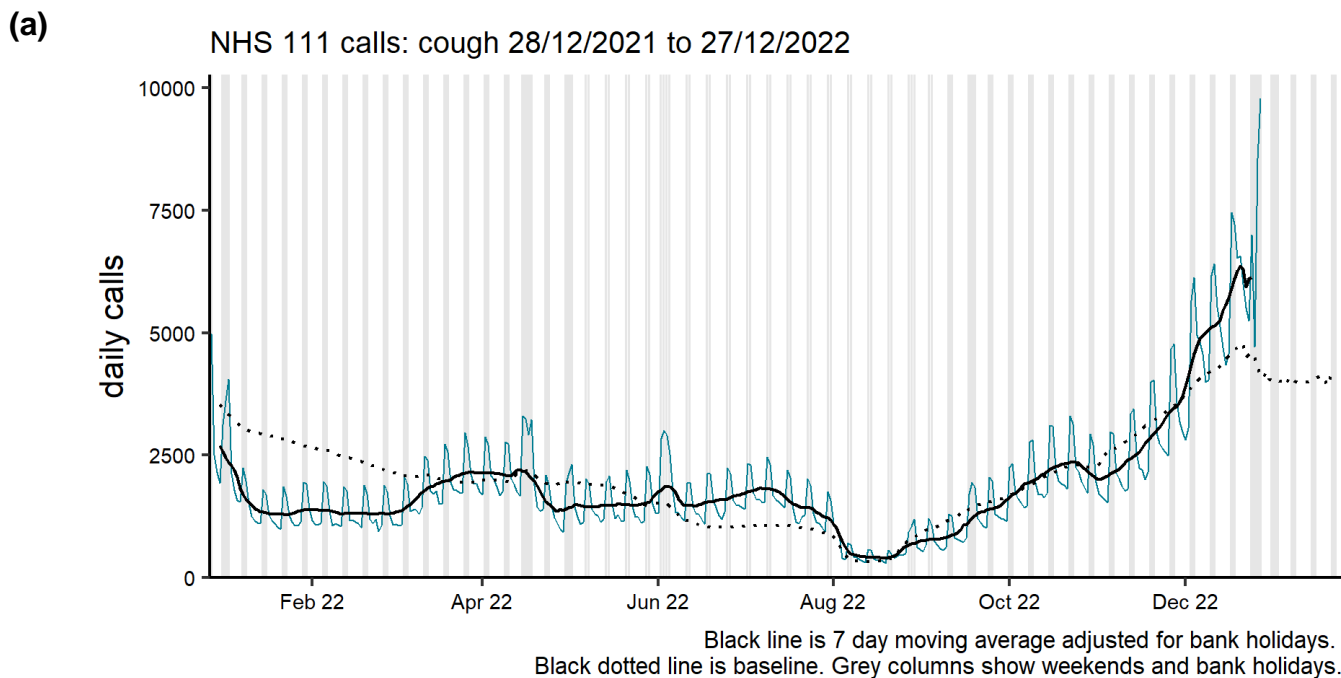
NHS 111 online: fever by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
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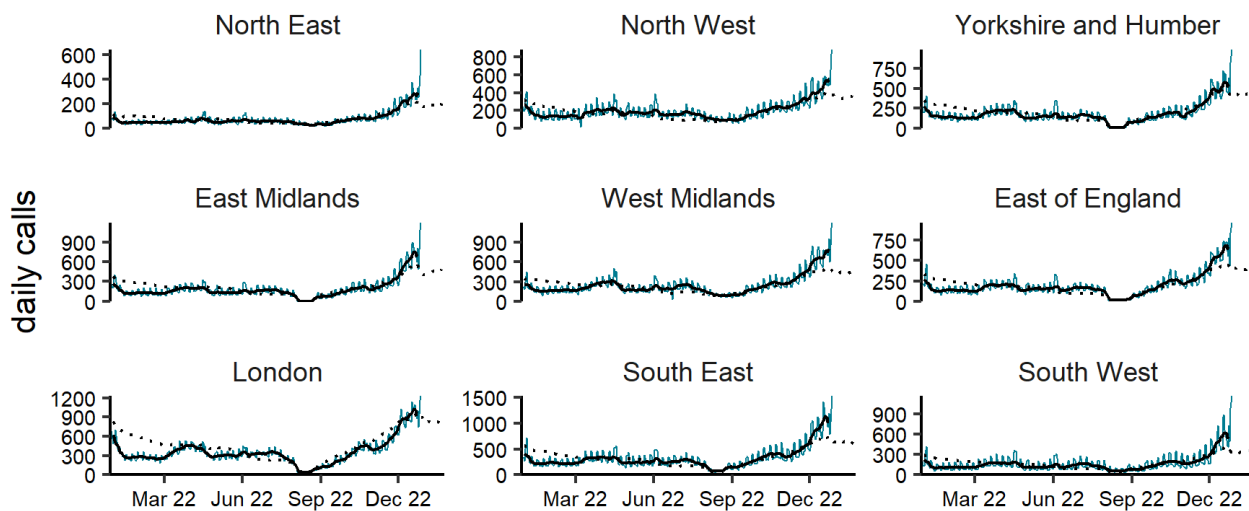
# Cough NHS 111 calls

**Figure 7: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for cough, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

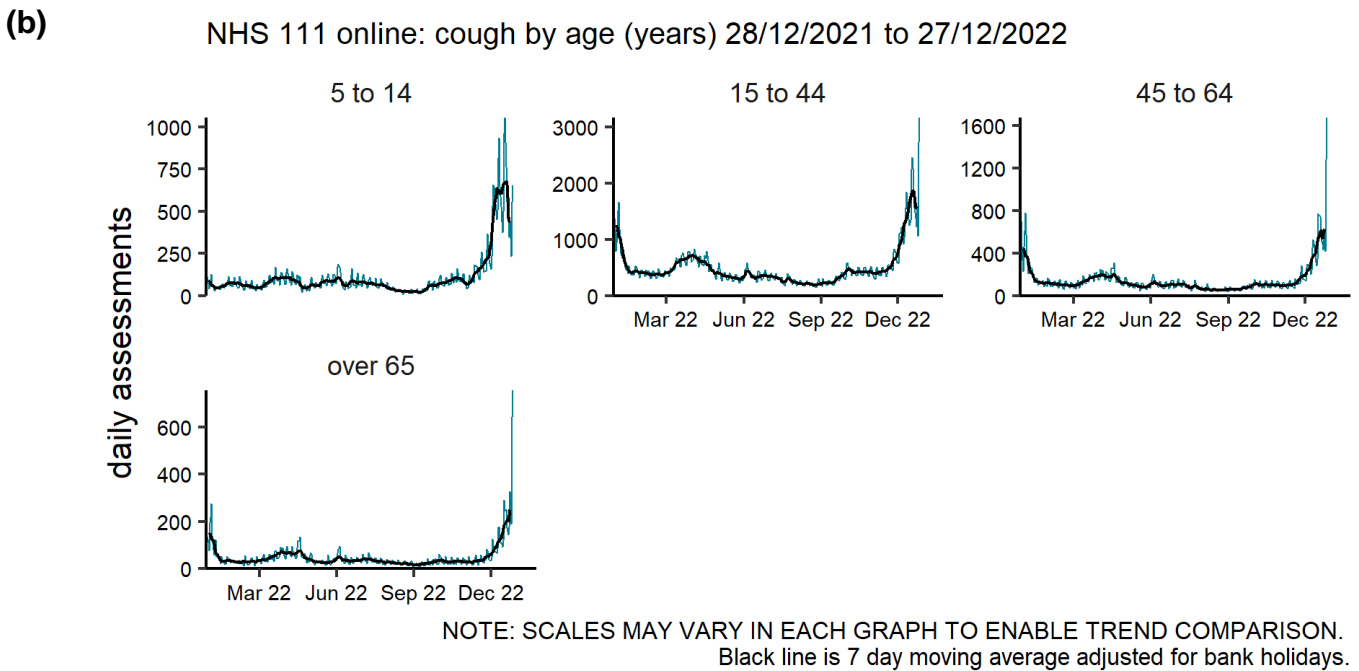
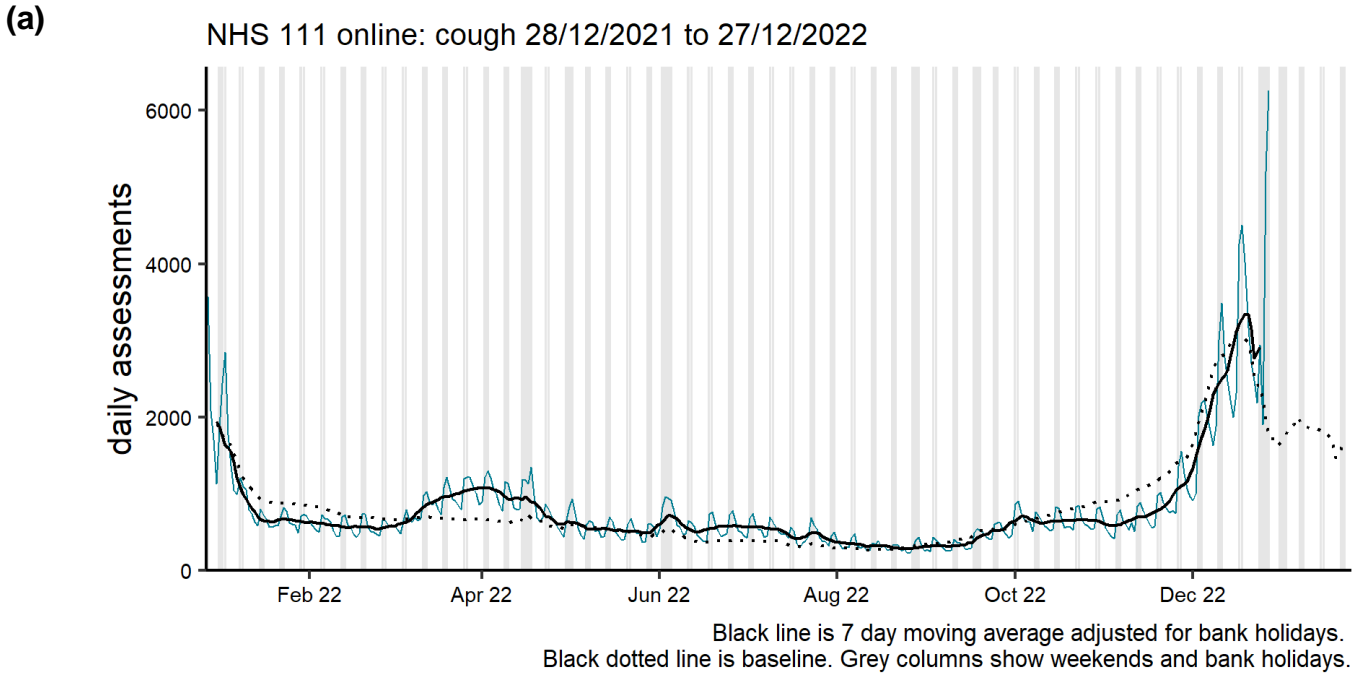
NHS 111 calls: cough by region 28/12/2021 to 27/12/2022



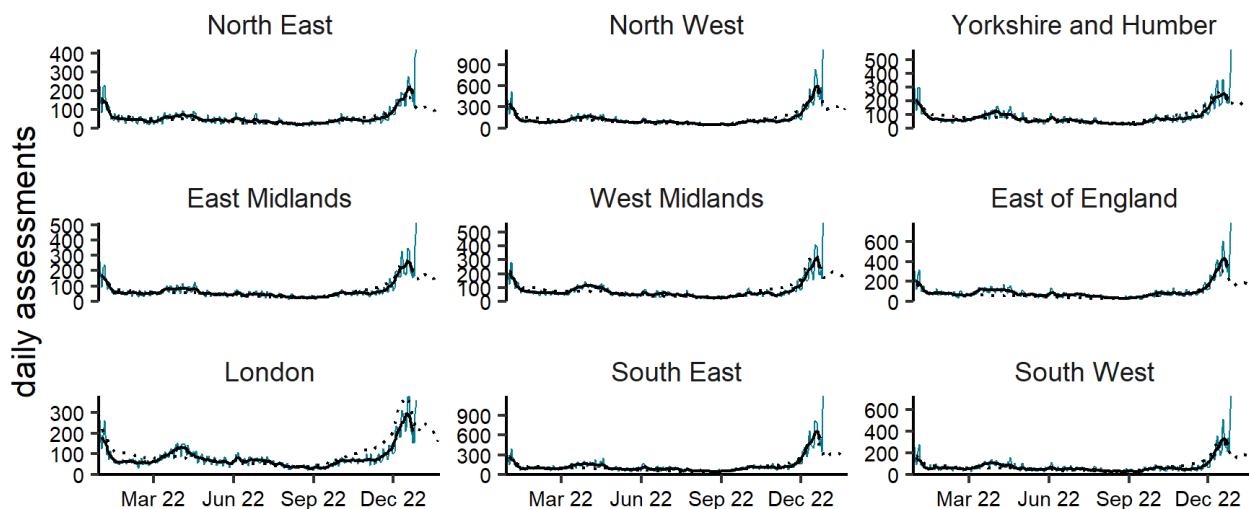
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
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Black dotted line is baseline.

# Cough NHS 111 online

**Figure 8: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for cough, England (a) nationally, (b) by age and (c) by UKHSA Region.**



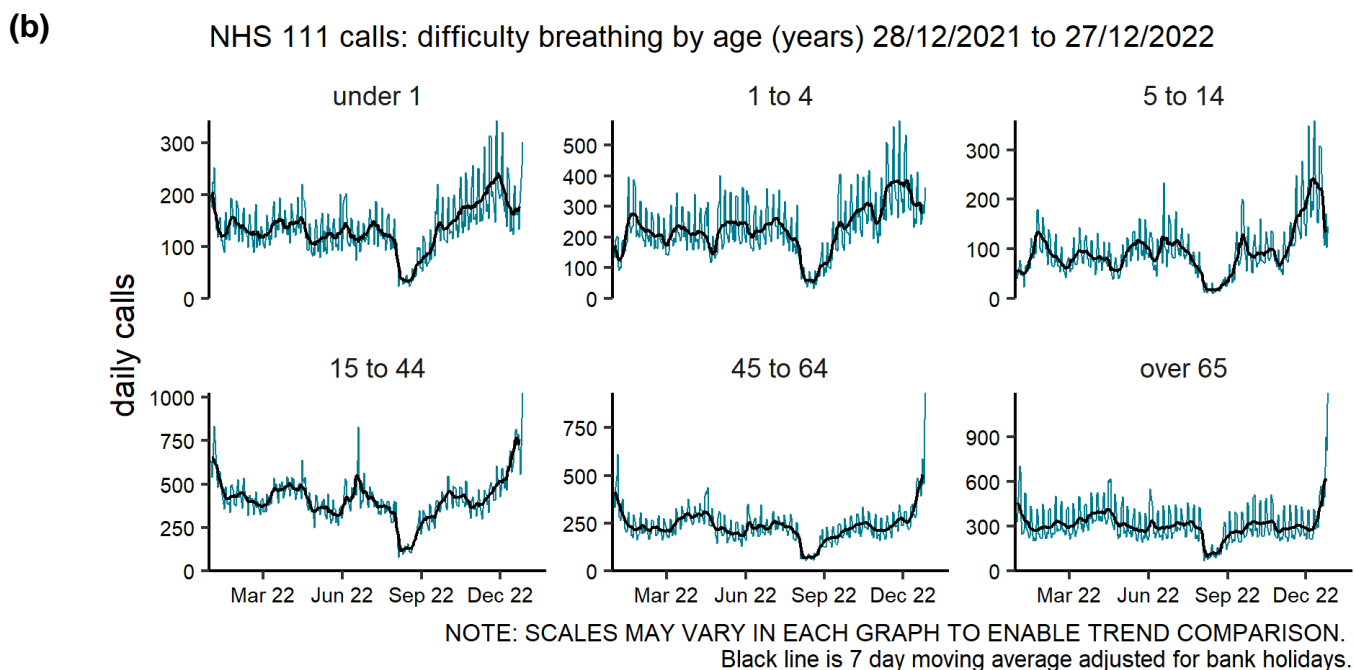
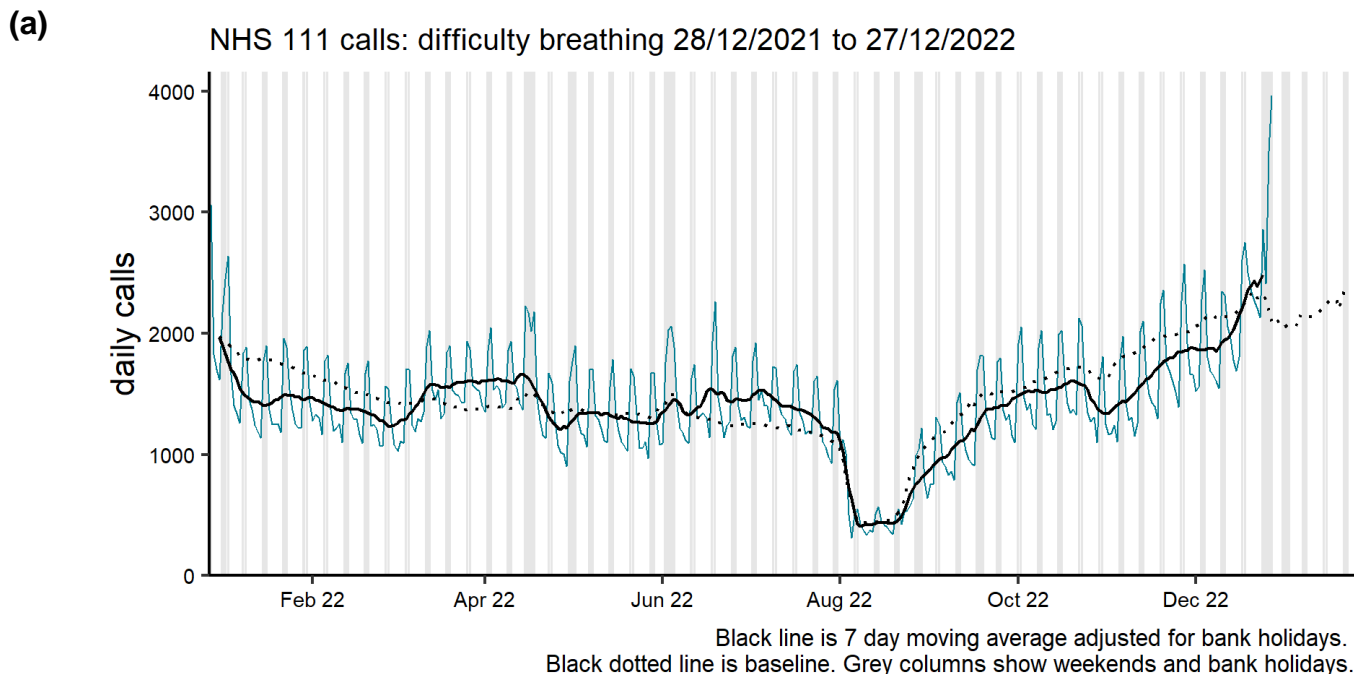
(c) NHS 111 online: cough by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

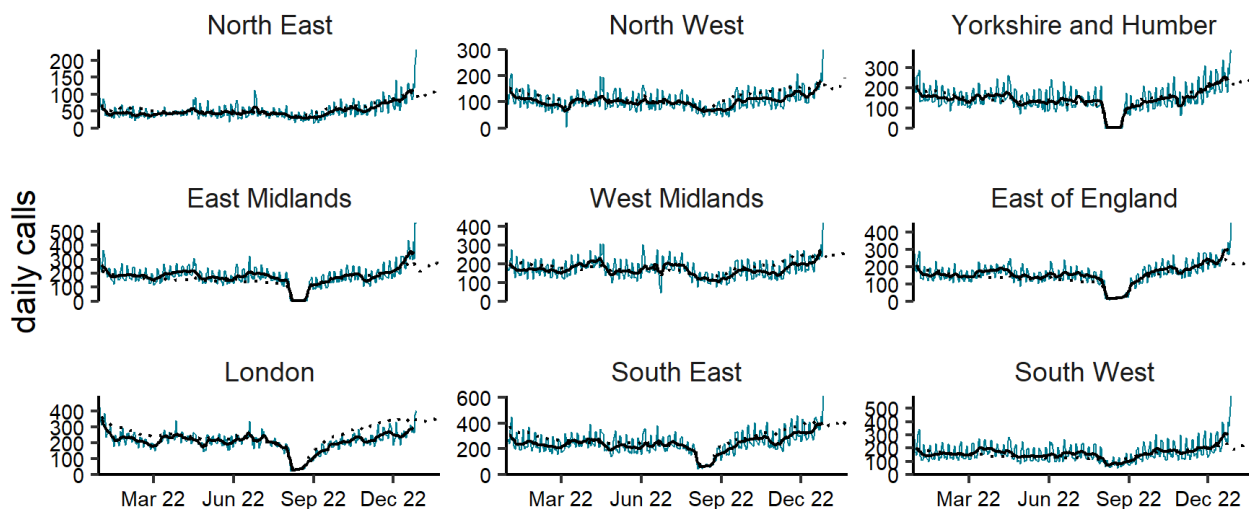
# Difficulty breathing NHS 111 calls

**Figure 9: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for difficulty breathing, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

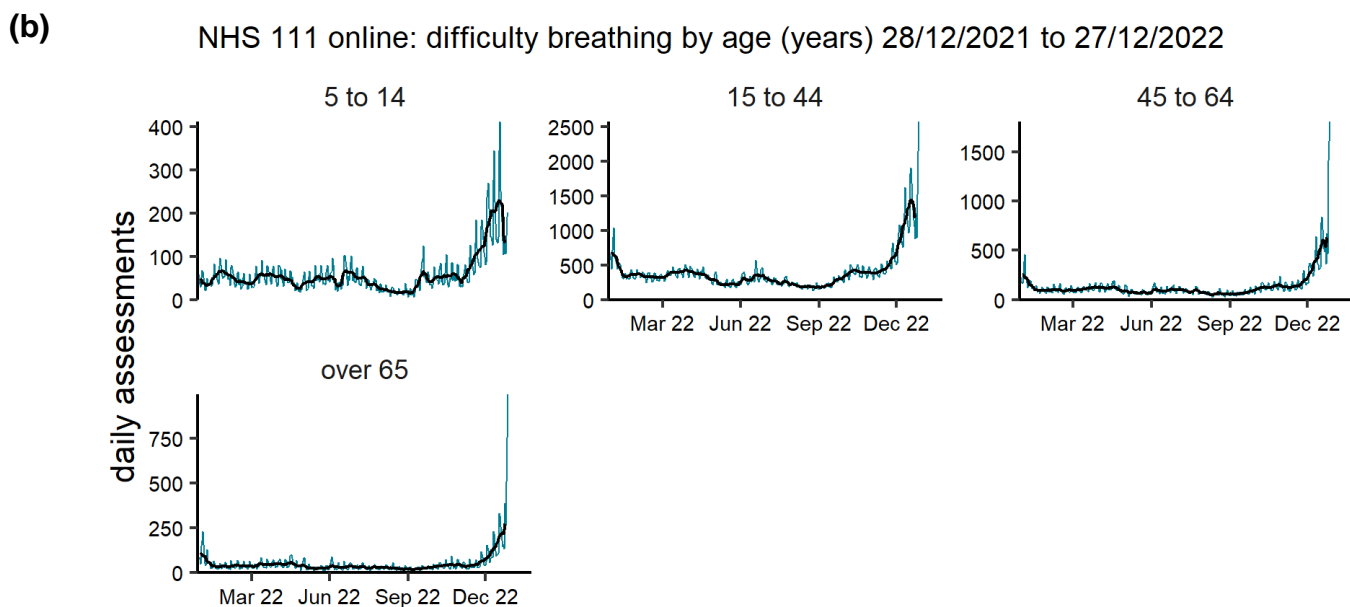
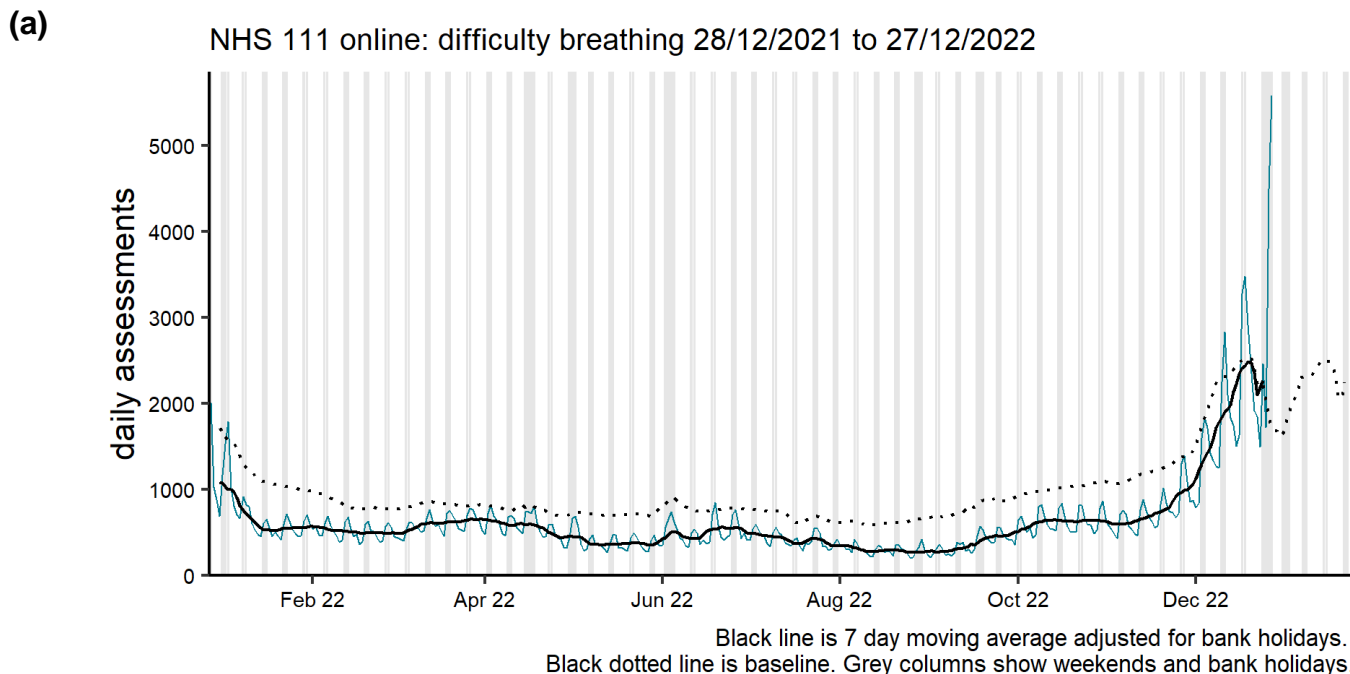
NHS 111 calls: difficulty breathing by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Difficulty breathing NHS 111 online

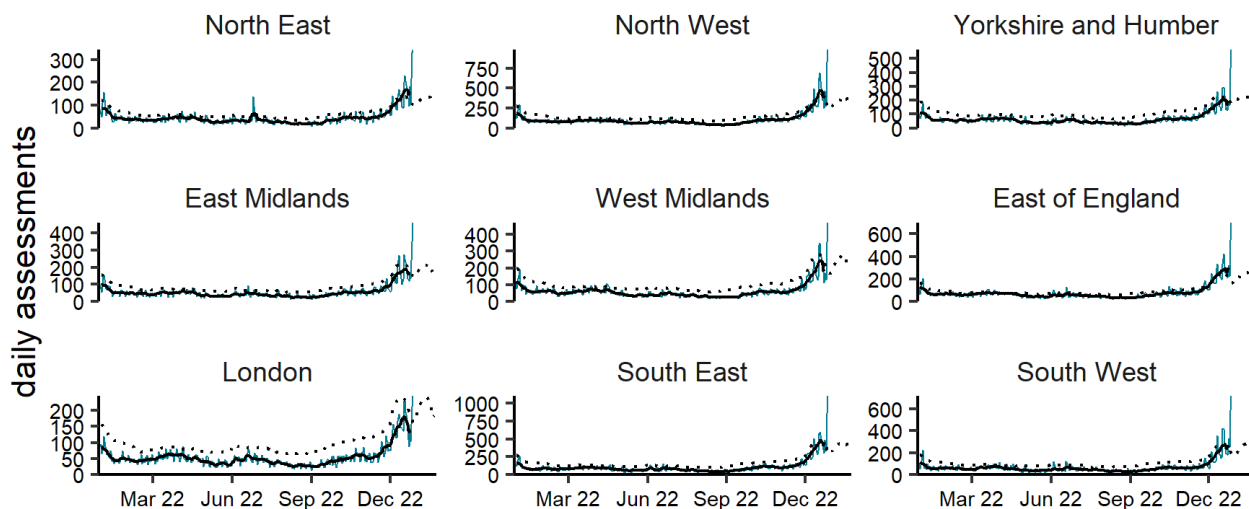
**Figure 10: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for difficulty breathing, England (a) nationally, (b) by age and (c) by UKHSA Region.**





(c)

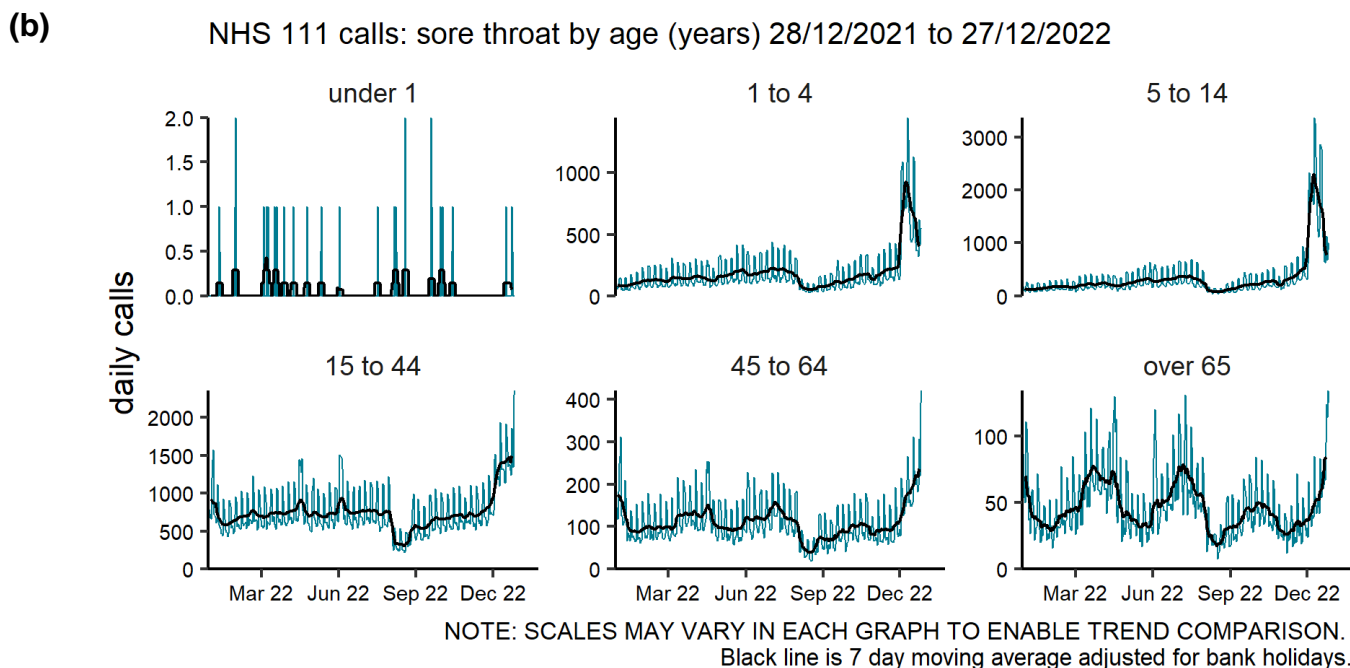
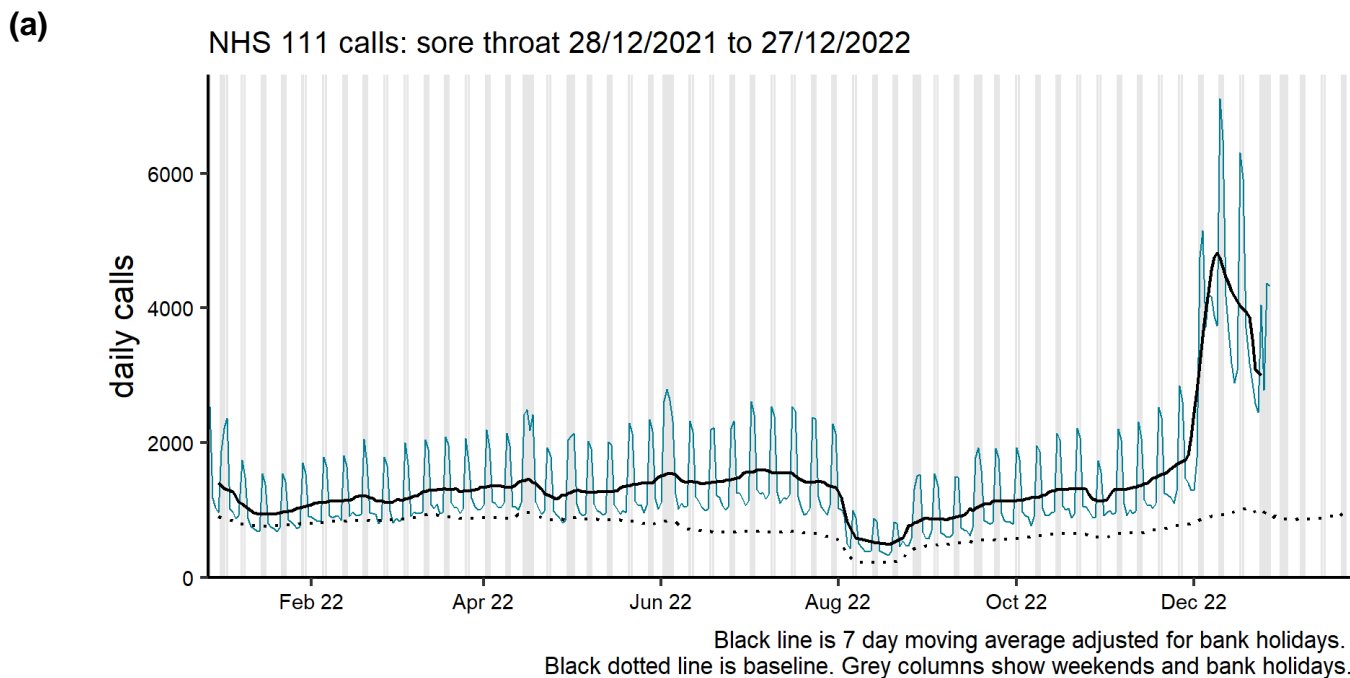
NHS 111 online: difficulty breathing by region 28/12/2021 to 27/12/2022



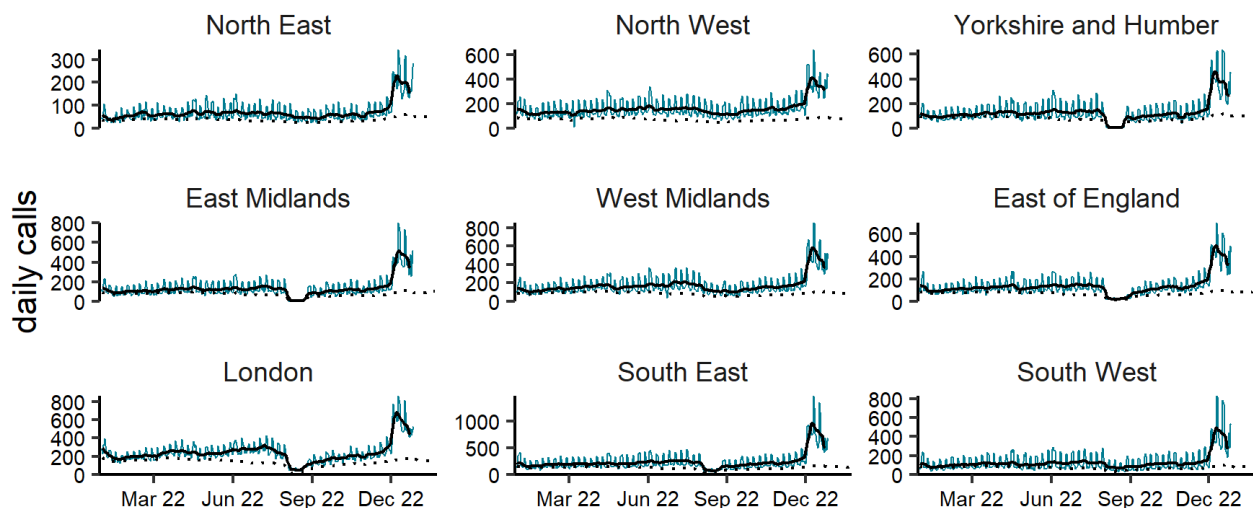
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Sore throat NHS 111 calls

**Figure 11: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for sore throat, England (a) nationally, (b) by age and (c) by UKHSA Region.**



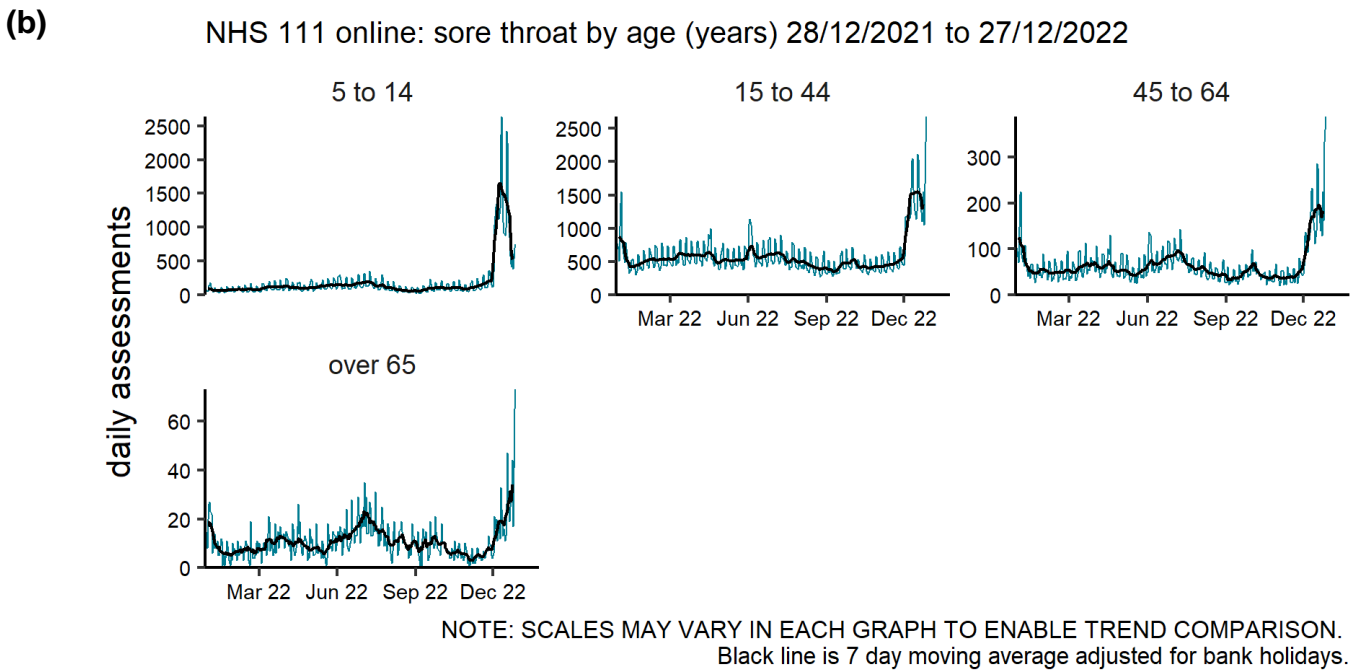
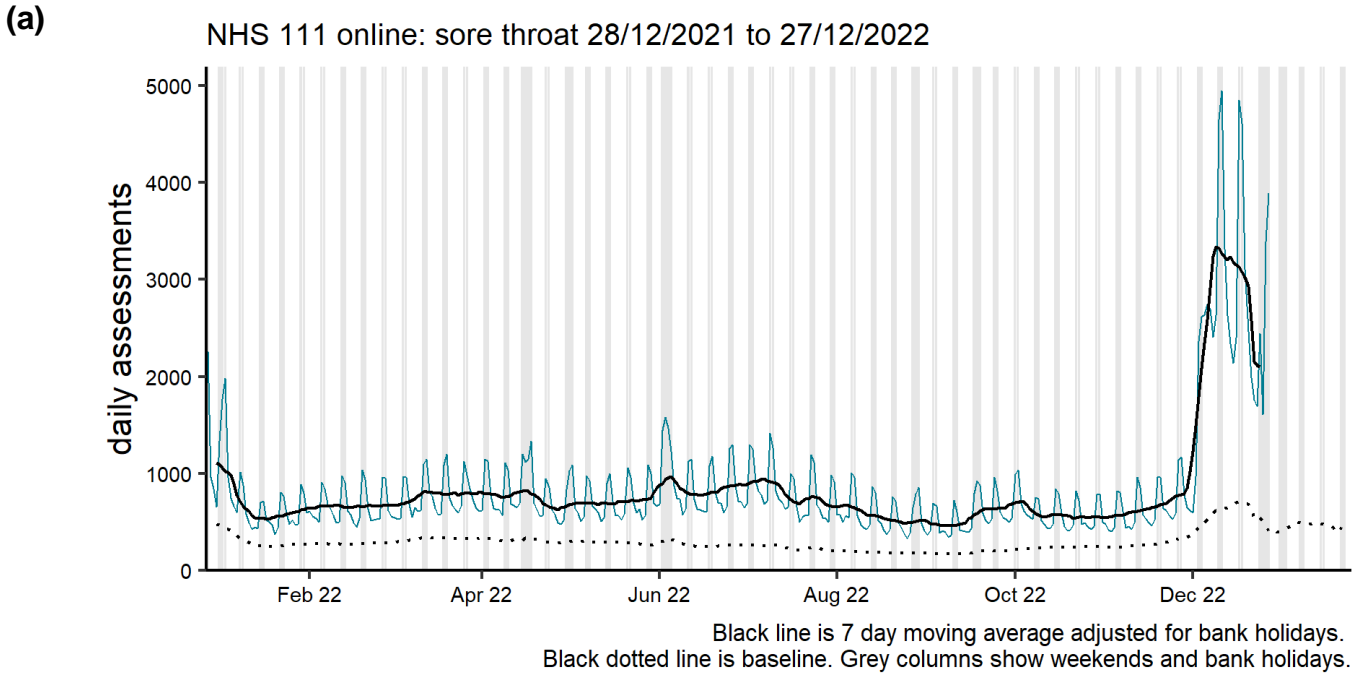
(c) NHS 111 calls: sore throat by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
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Black dotted line is baseline.

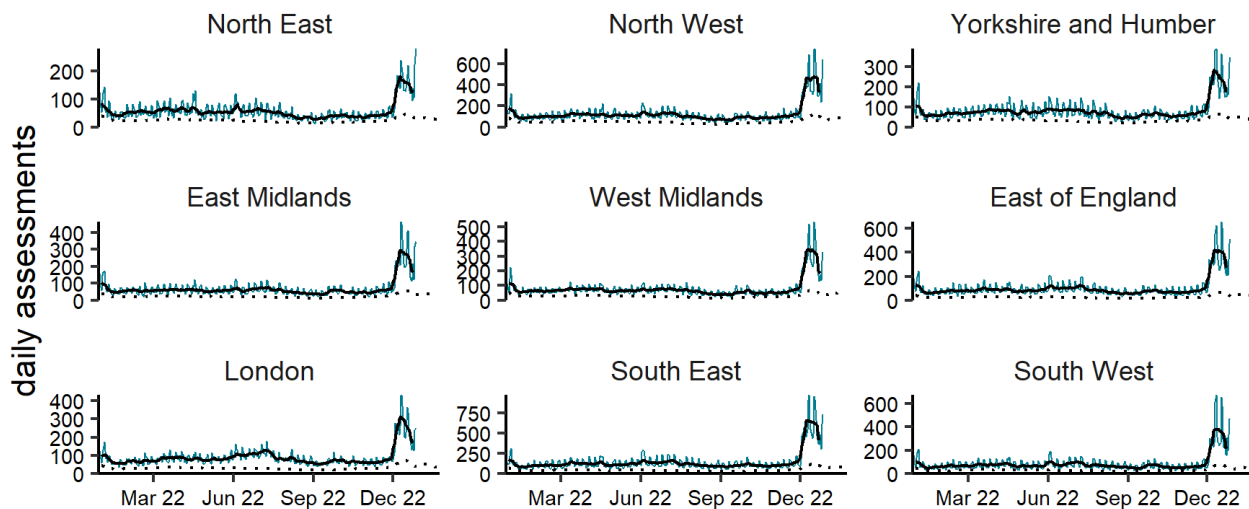
# Sore throat NHS 111 online

**Figure 12: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for sore throat, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

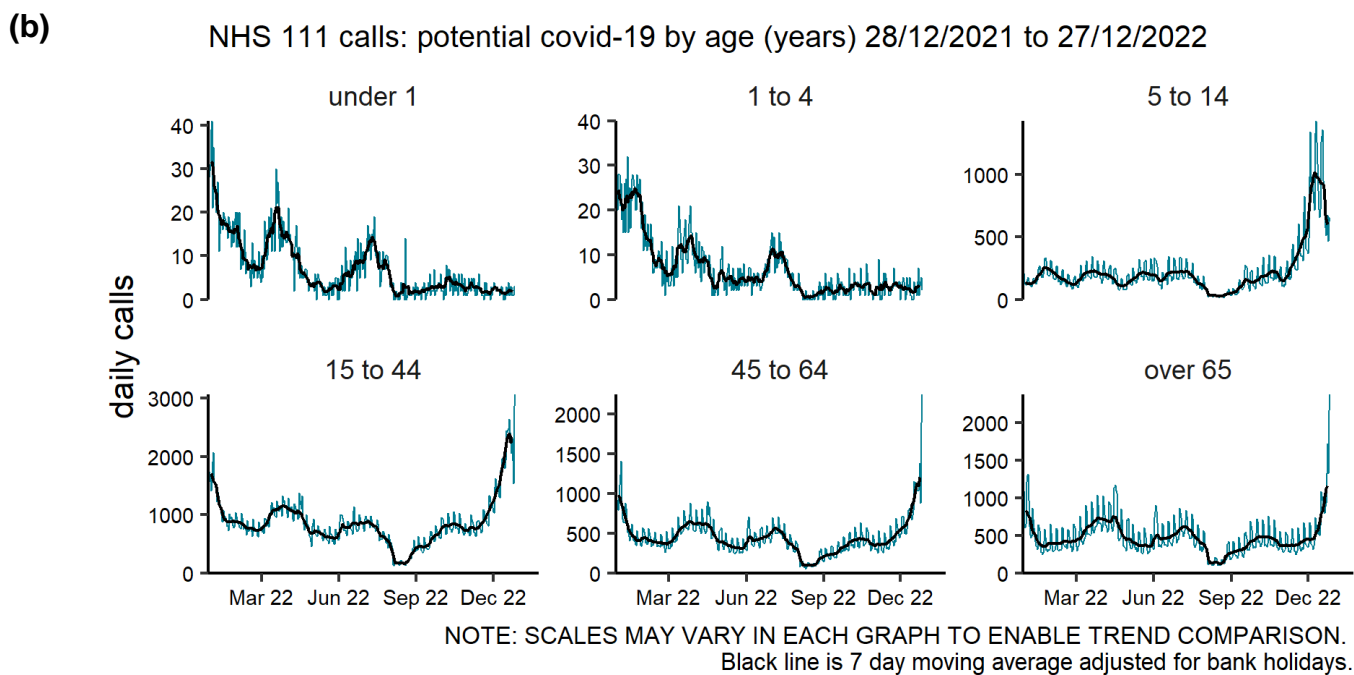
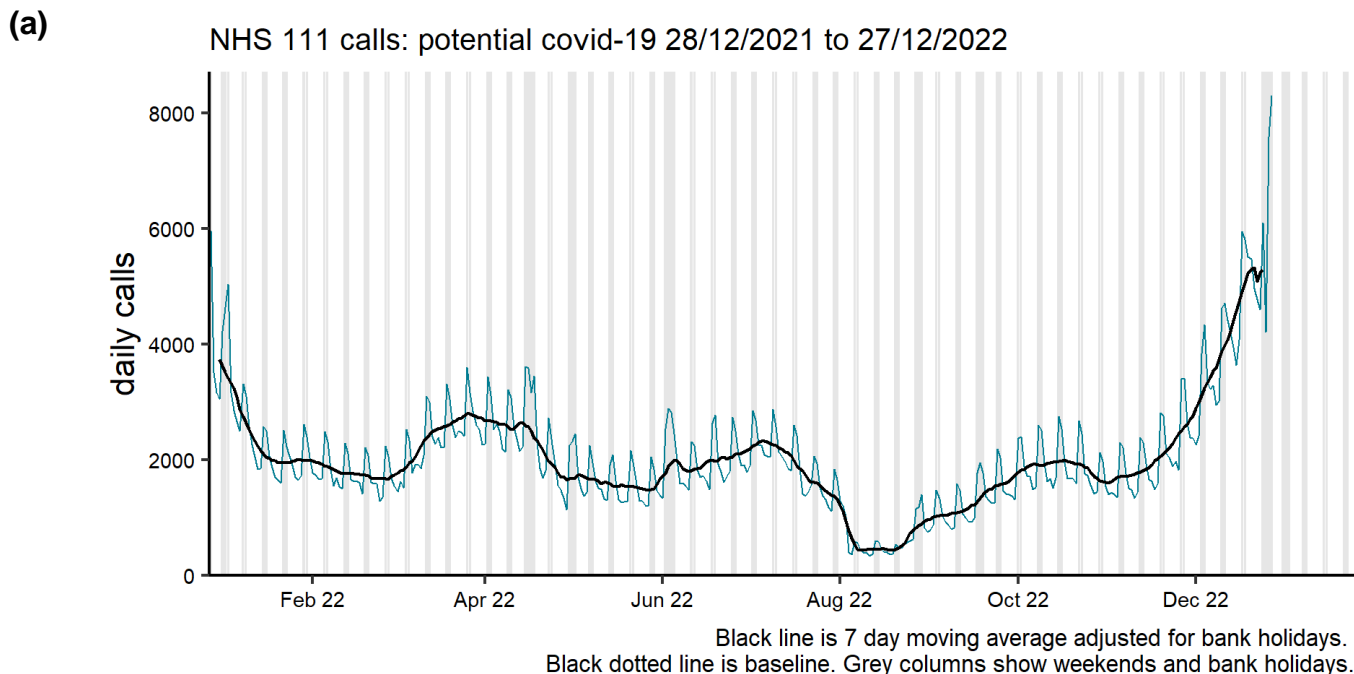
NHS 111 online: sore throat by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

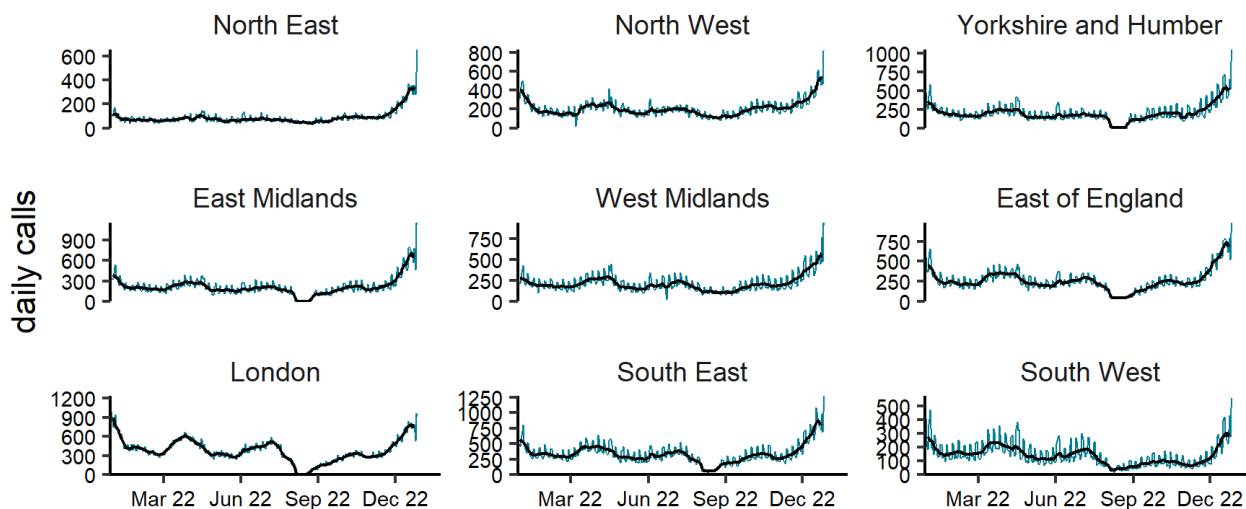
# Potential COVID-19 NHS 111 calls

**Figure 13: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for potential COVID-19, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

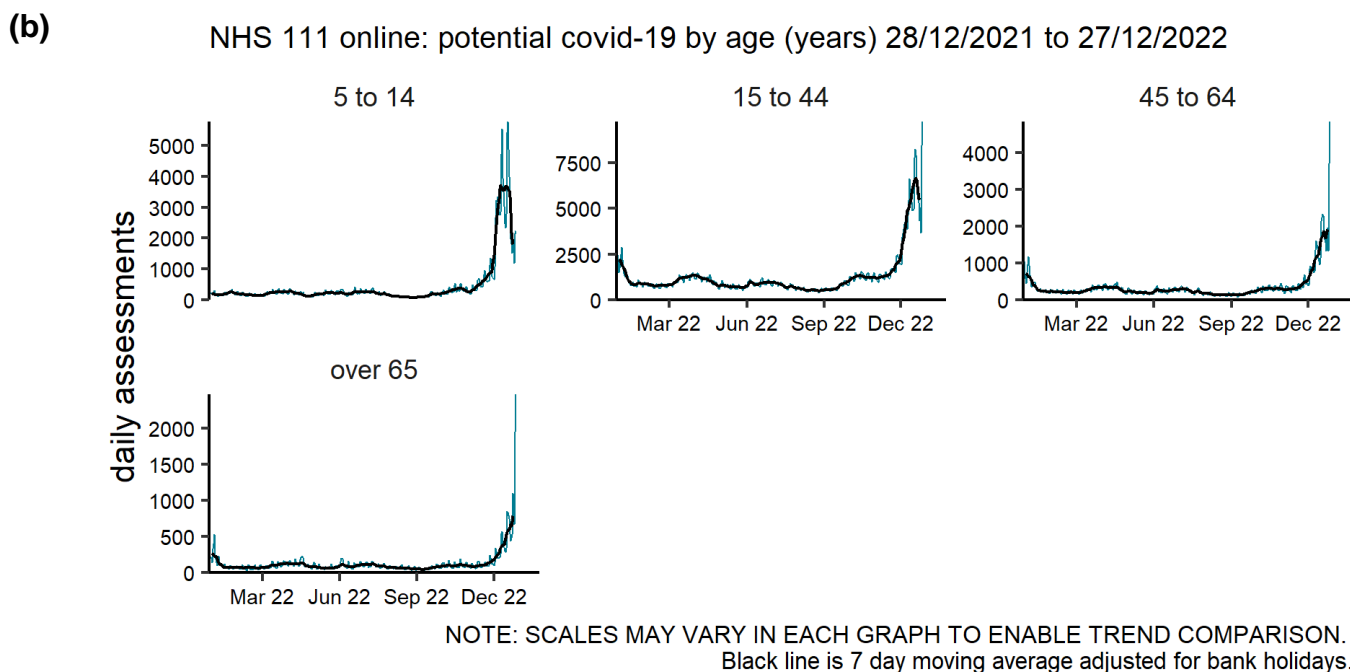
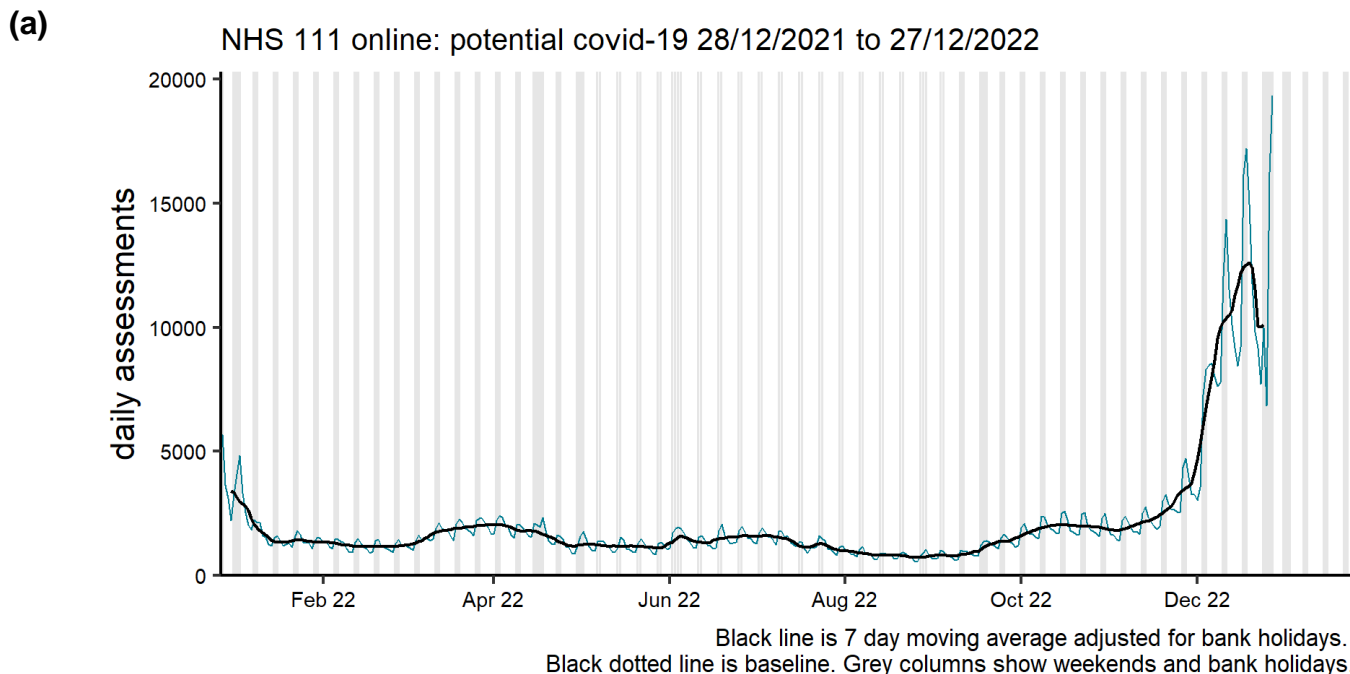
NHS 111 calls: potential covid-19 by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Potential COVID-19 NHS 111 online

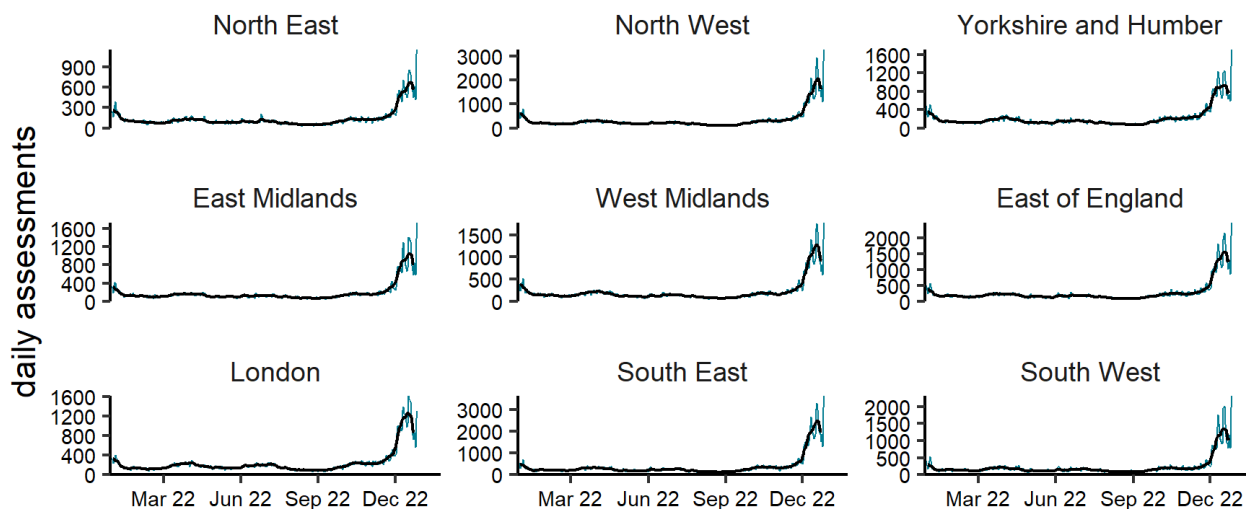
**Figure 14: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for potential COVID-19, England (a) nationally, (b) by age and (c) by UKHSA Region.**





(c)

NHS 111 online: potential covid-19 by region 28/12/2021 to 27/12/2022

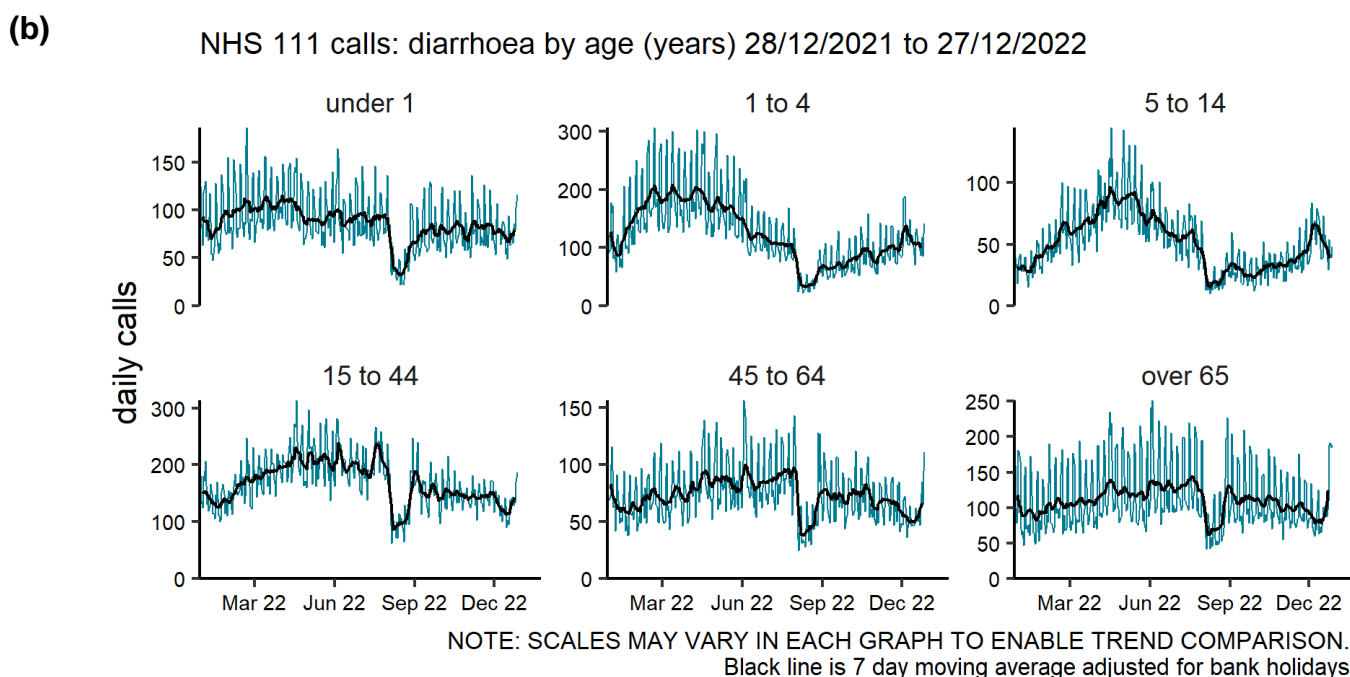
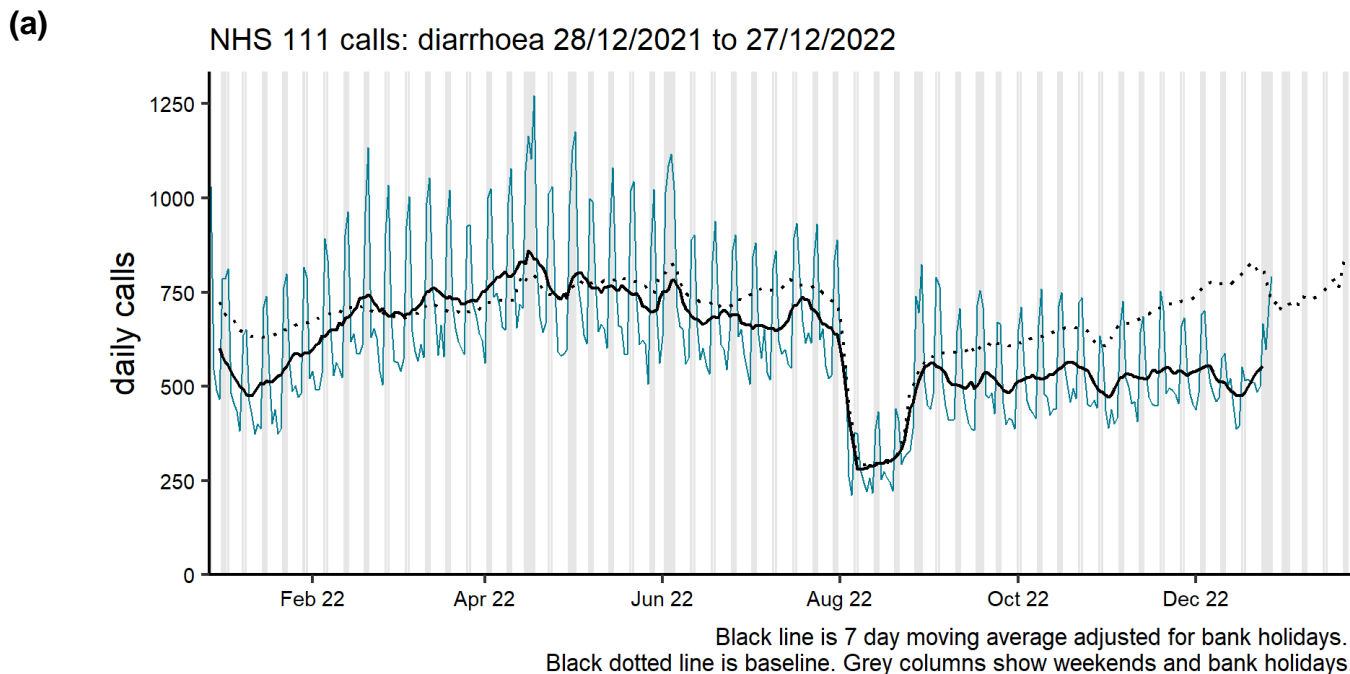


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Gastrointestinal conditions

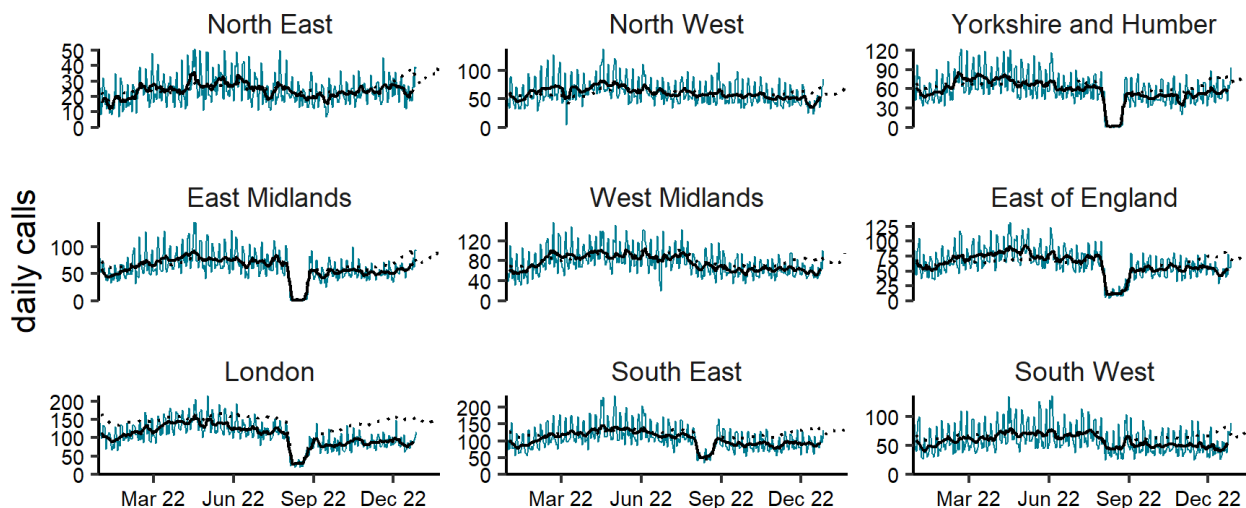
## Diarrhoea NHS 111 calls

**Figure 15: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for diarrhoea, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

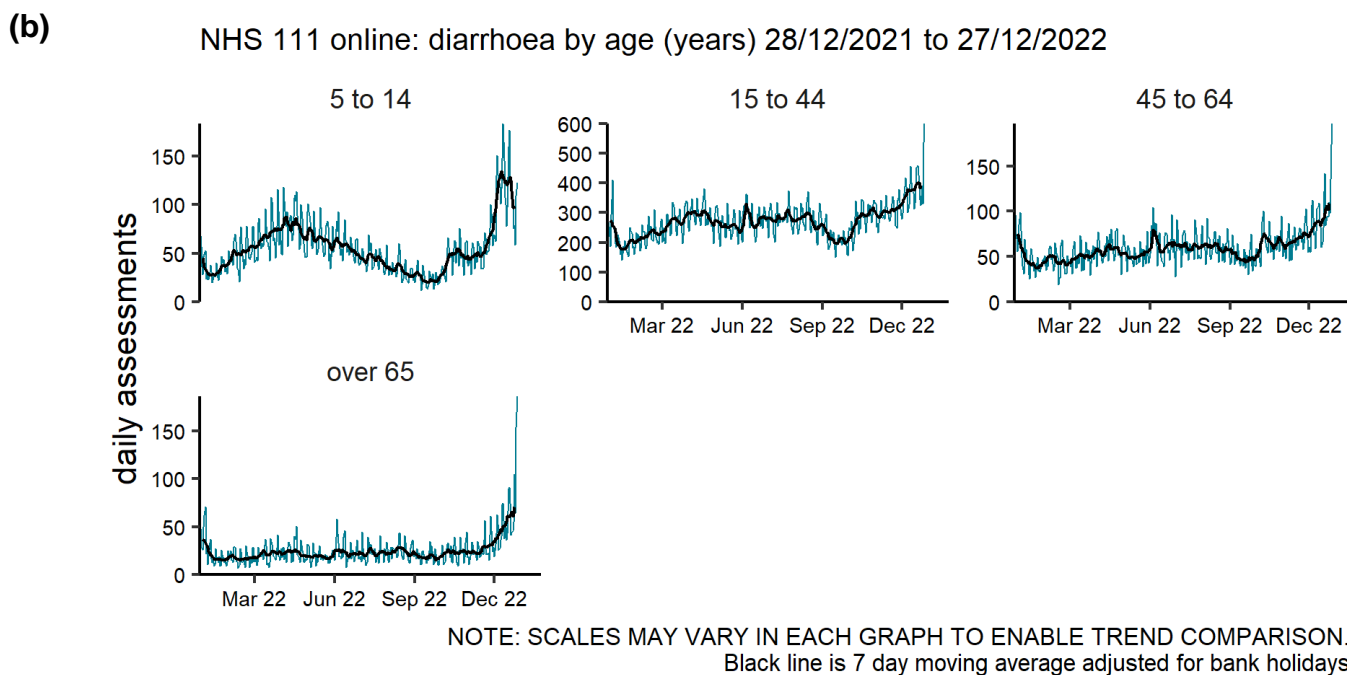
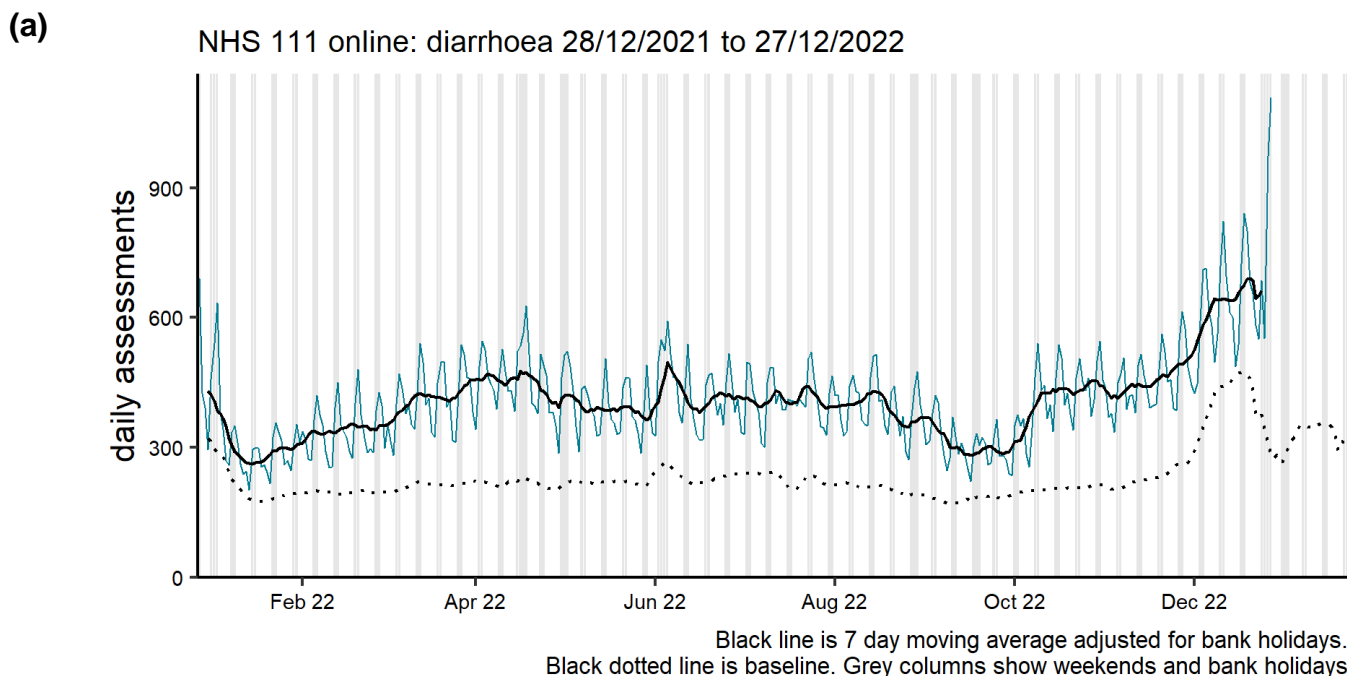
NHS 111 calls: diarrhoea by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

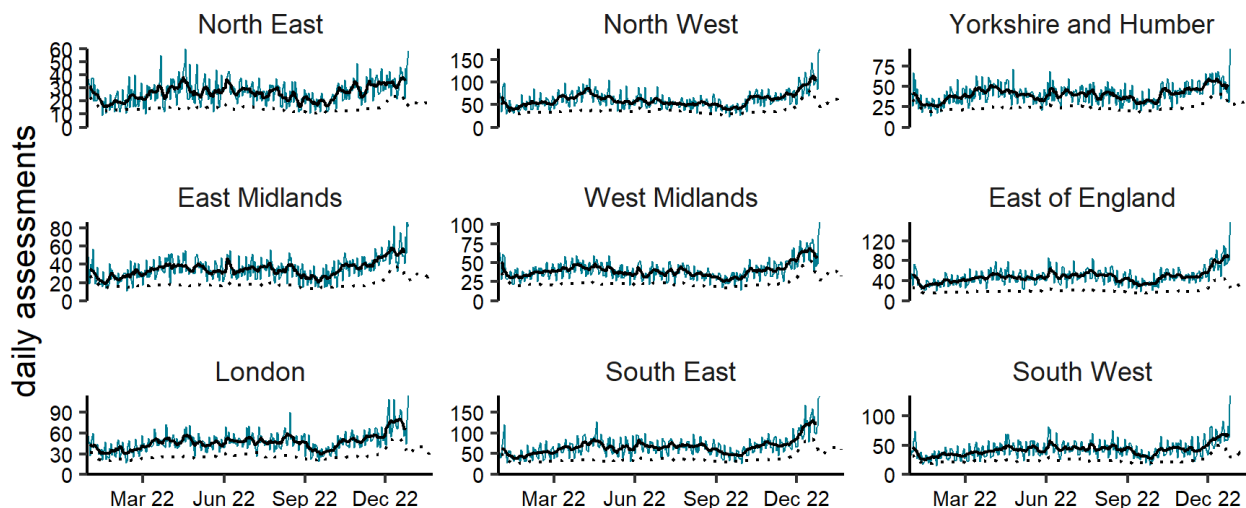
# Diarrhoea NHS 111 online

**Figure 16: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for diarrhoea, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

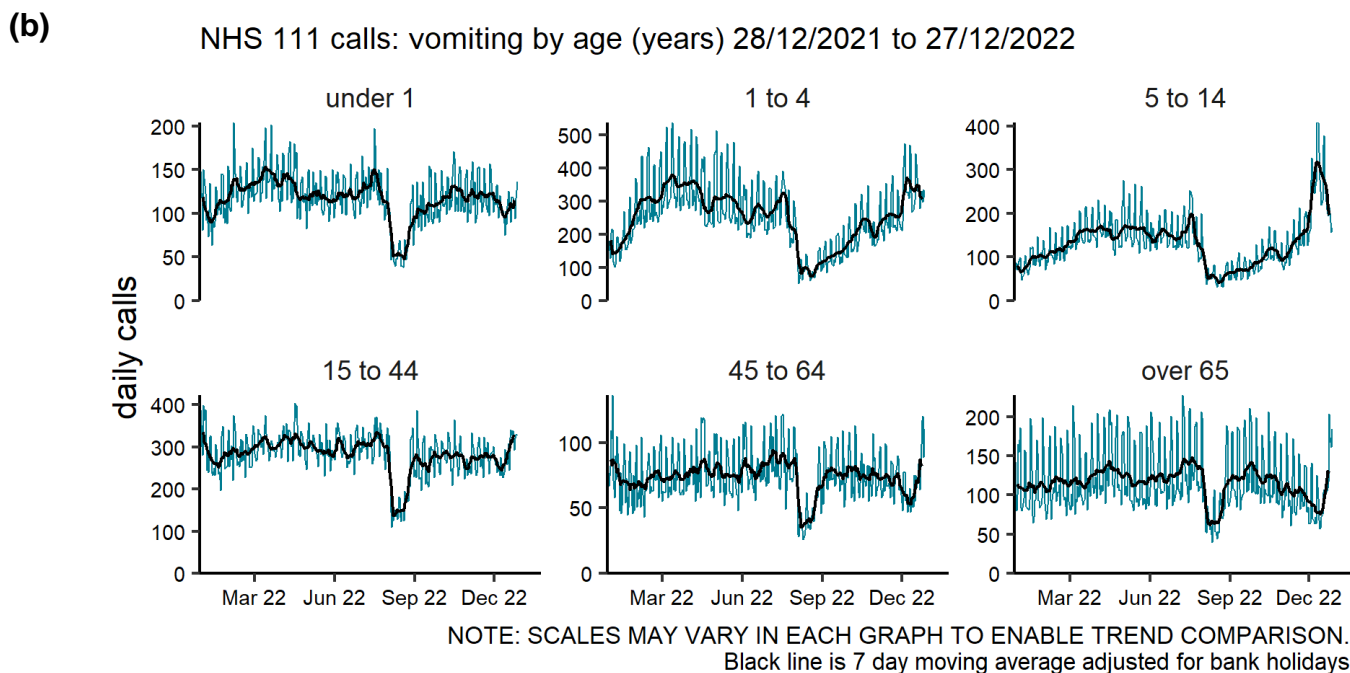
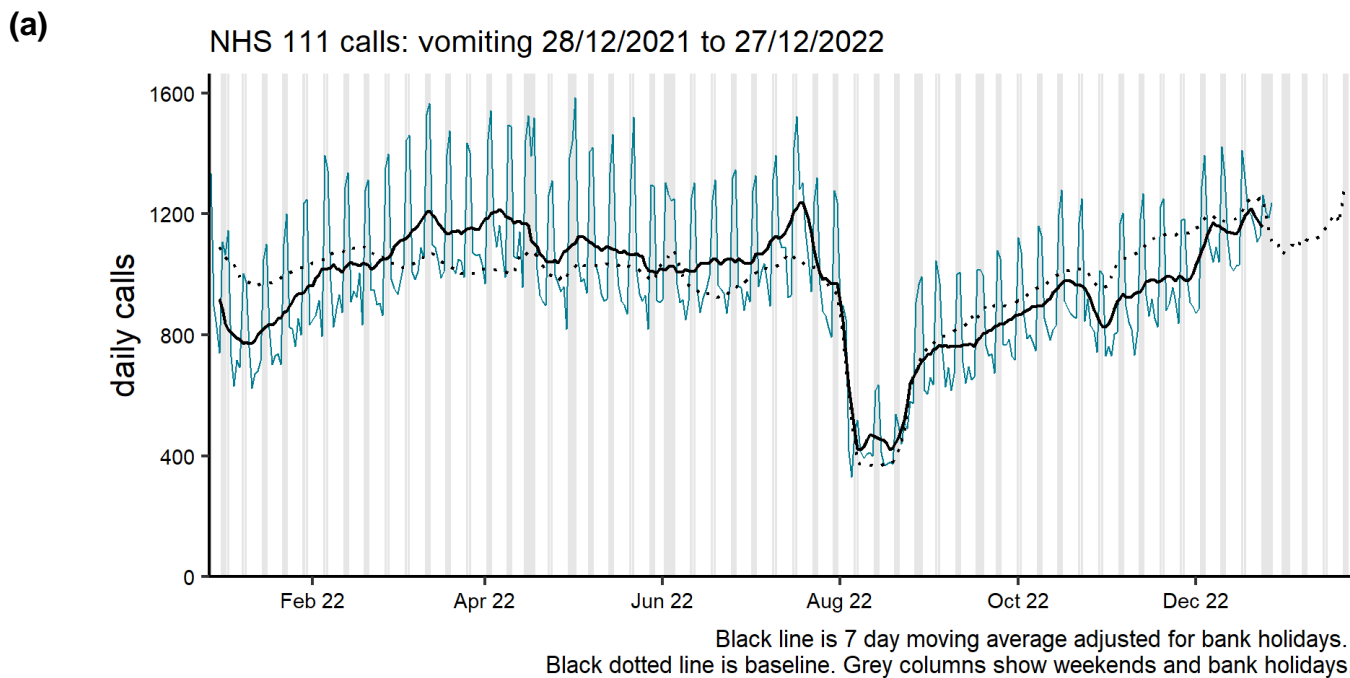
NHS 111 online: diarrhoea by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

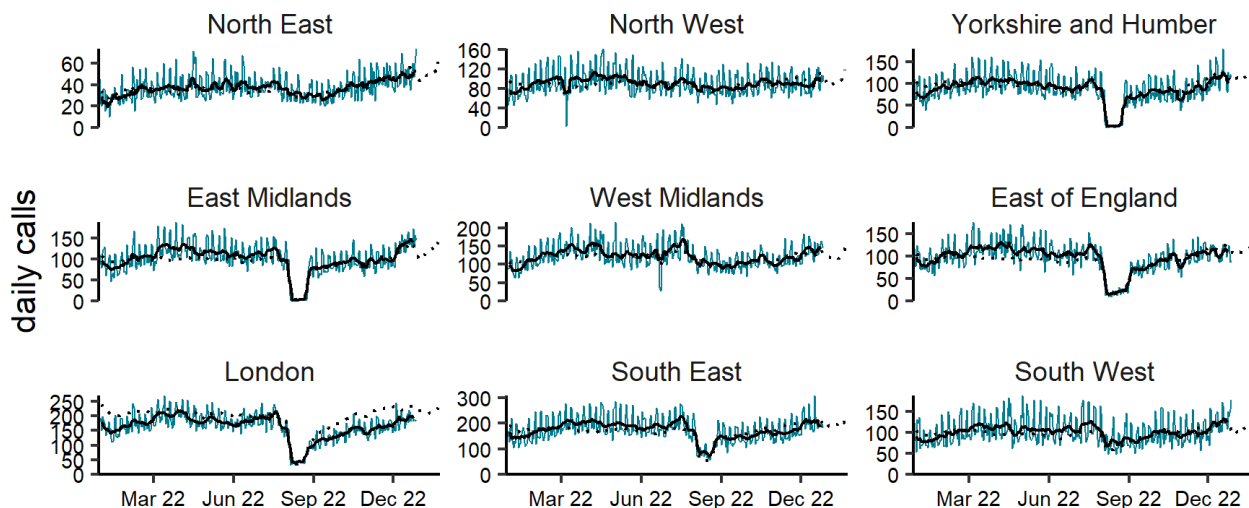
# Vomiting NHS 111 calls

**Figure 17: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for vomiting, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c)

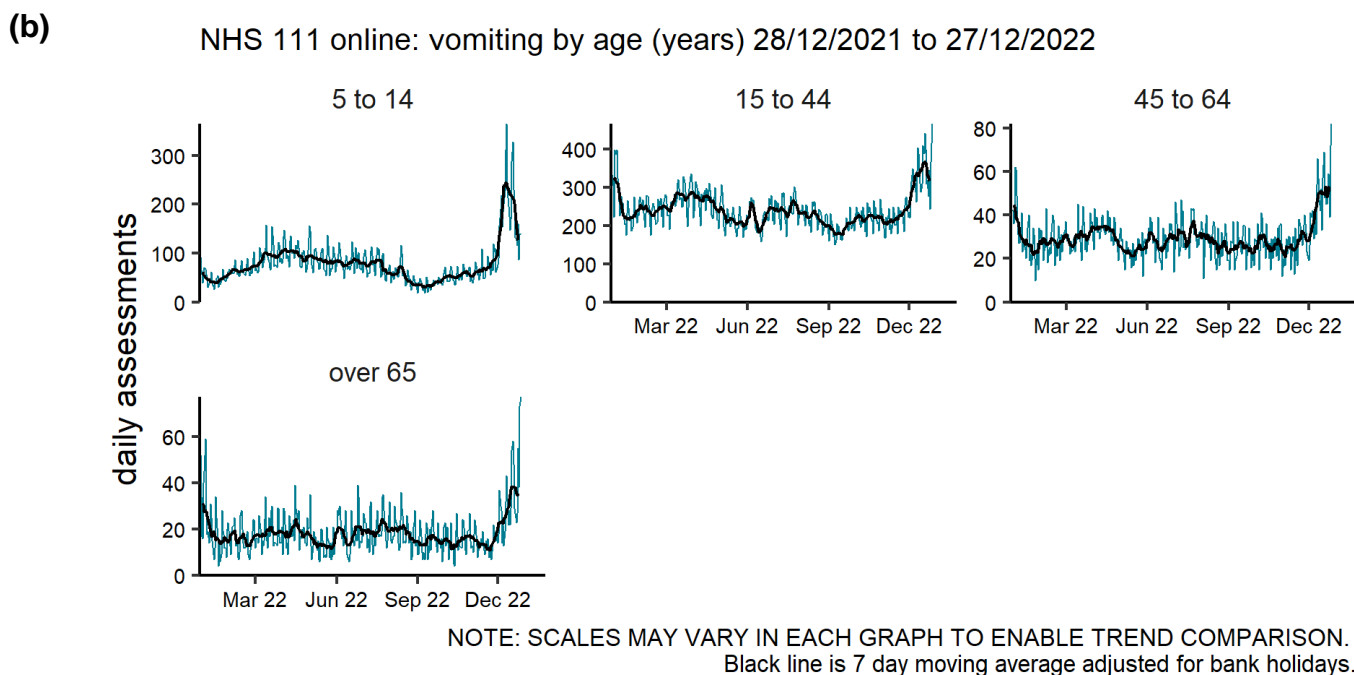
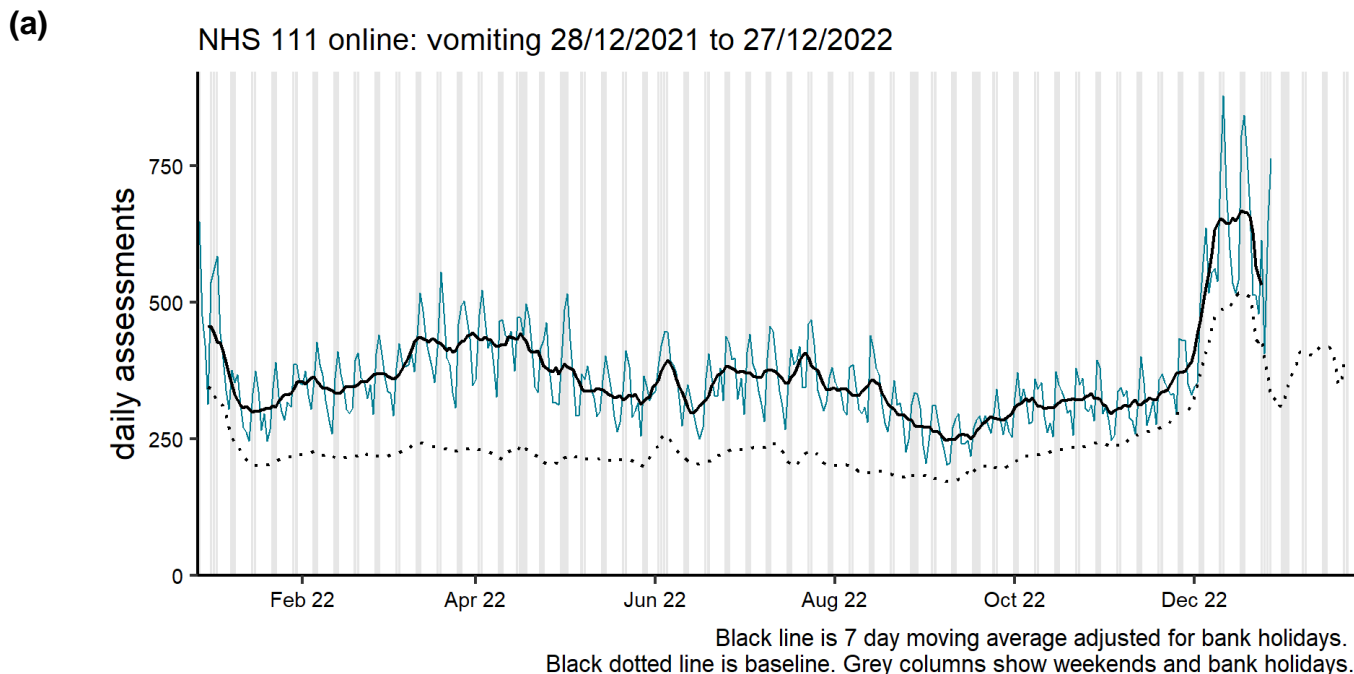
NHS 111 calls: vomiting by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Vomiting NHS 111 online

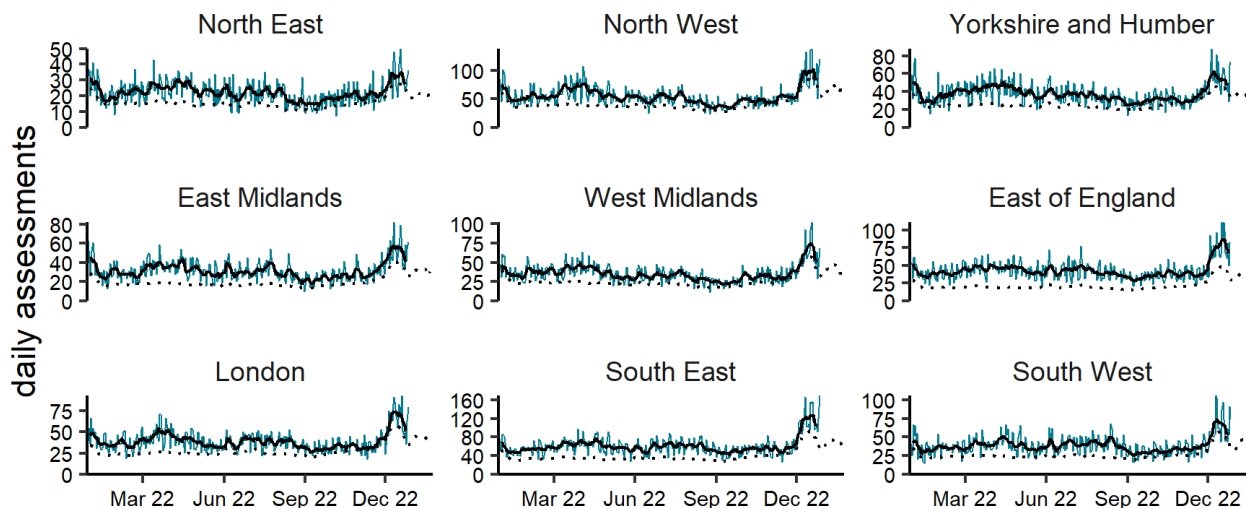
**Figure 18: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for vomiting, England (a) nationally, (b) by age and (c) by UKHSA Region.**





(c)

NHS 111 online: vomiting by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

## Seasonal environmental conditions

During set periods of the year the Met Office operates both heat and cold weather watch systems, in association with UKHSA. Syndromic indicators are used to monitor the impact of both extreme hot and cold weather in England during these periods and will be included below (where an appropriate syndromic indicator is available).

[Cold weather alert](#) period: 1 November to 31 March

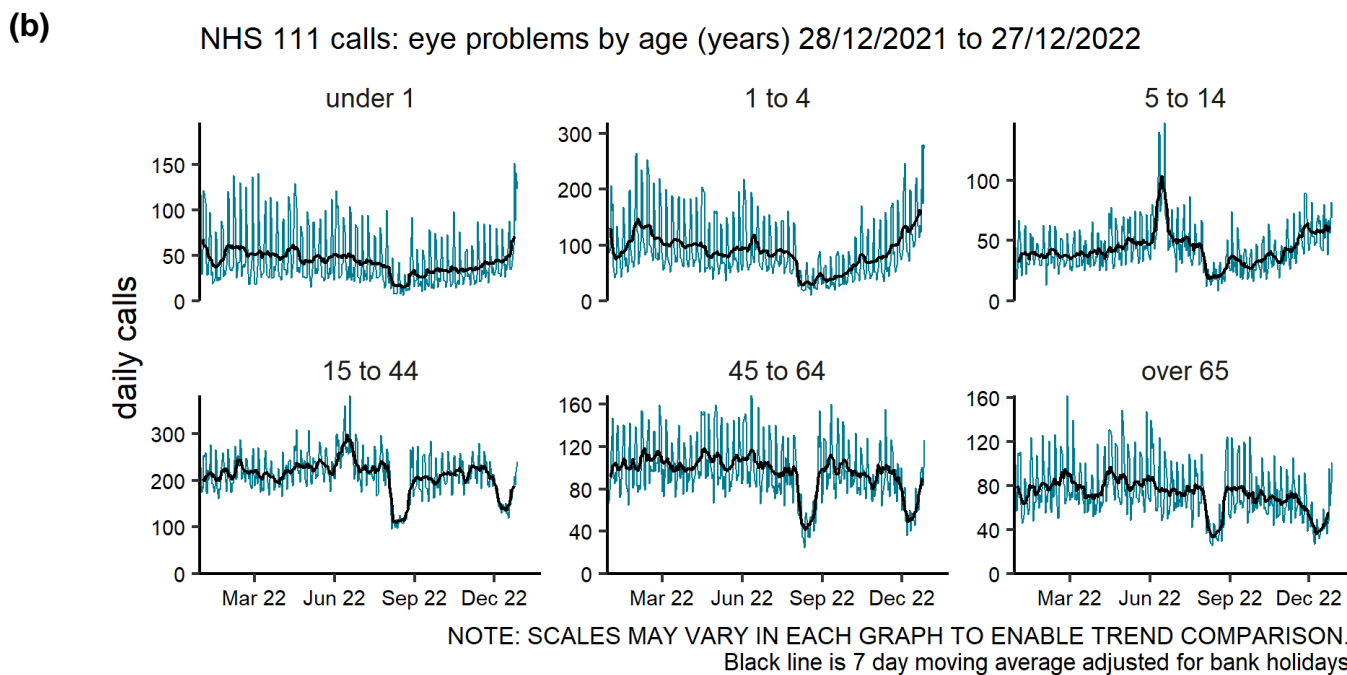
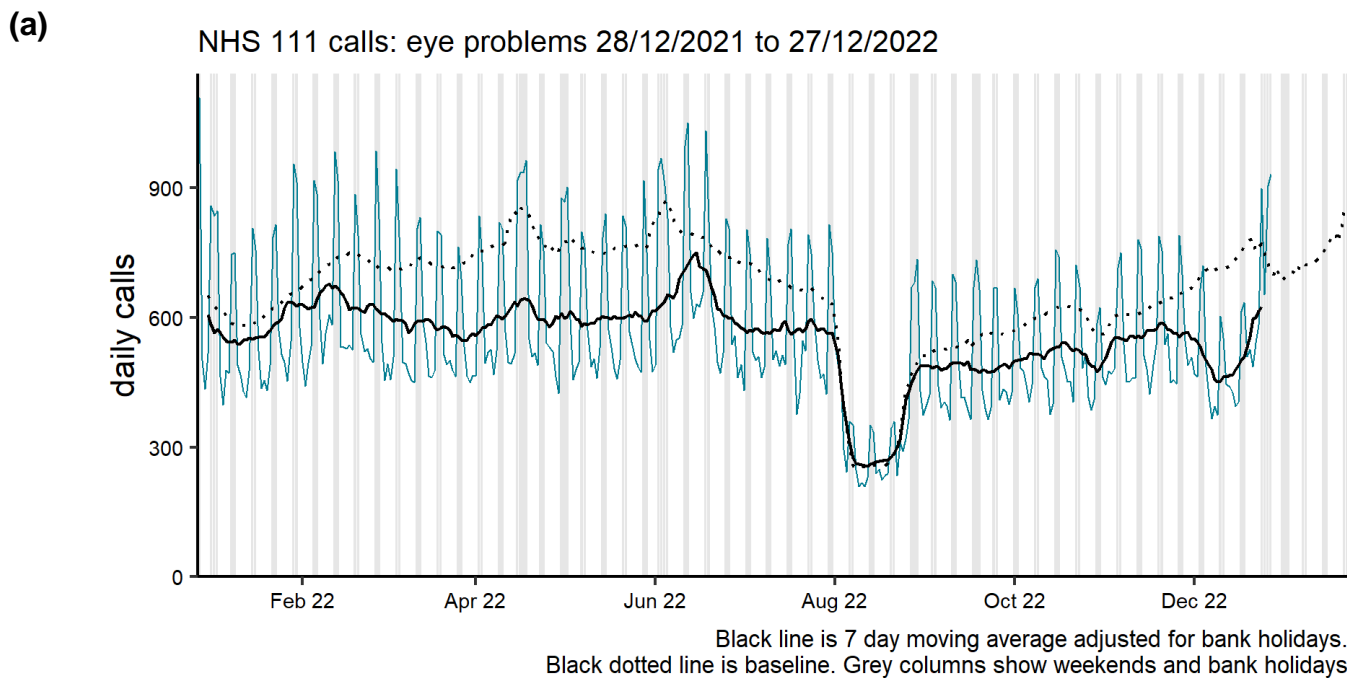
[Heat-Health Alert](#) period: 1 June to 15 September

Highest weather alert level during the current reporting week:

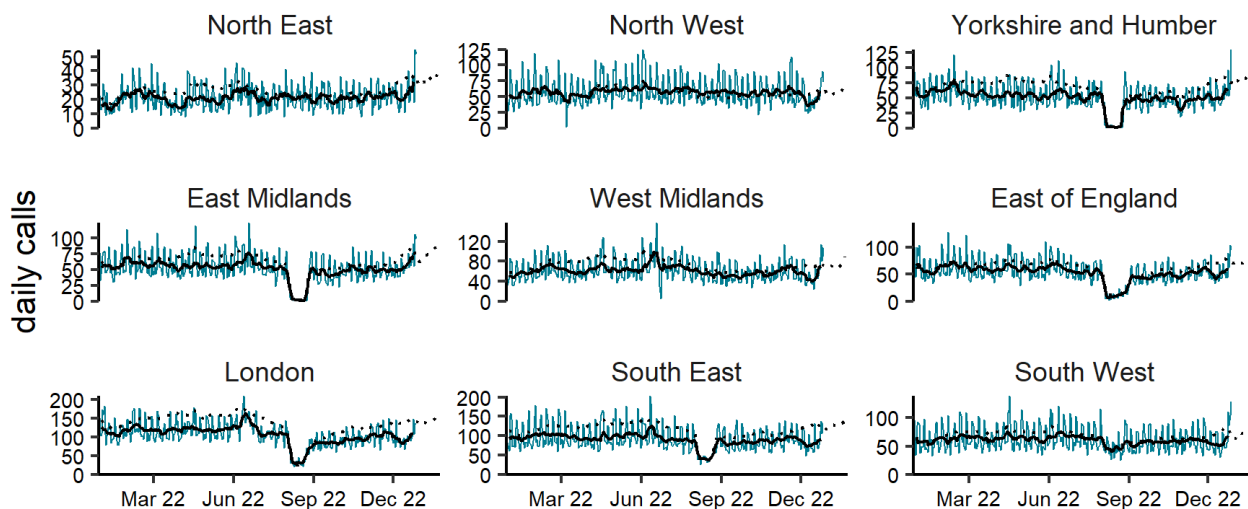
***Level 1 – Winter Preparedness and Action***

# Eye problems NHS 111 calls

**Figure 19: Daily number of NHS 111 calls (and 7-day moving average adjusted for bank holidays) for eye problems, England (a) nationally, (b) by age and (c) by UKHSA Region.**



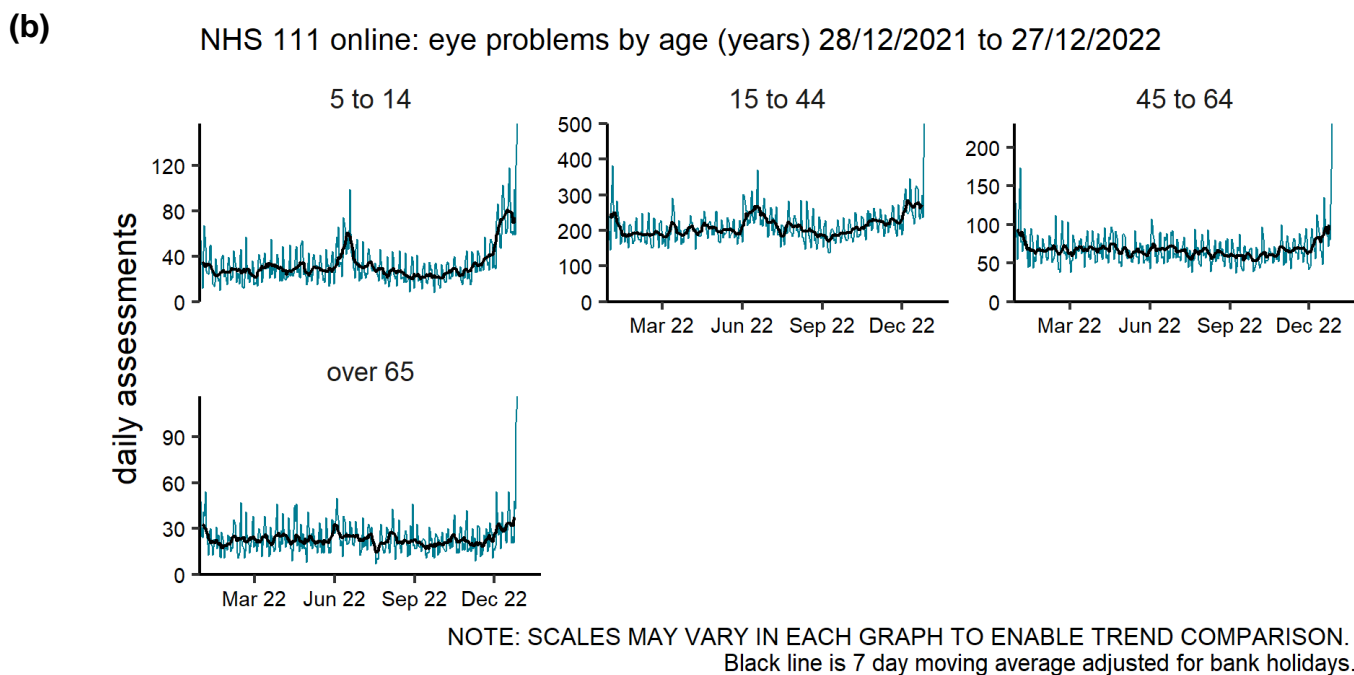
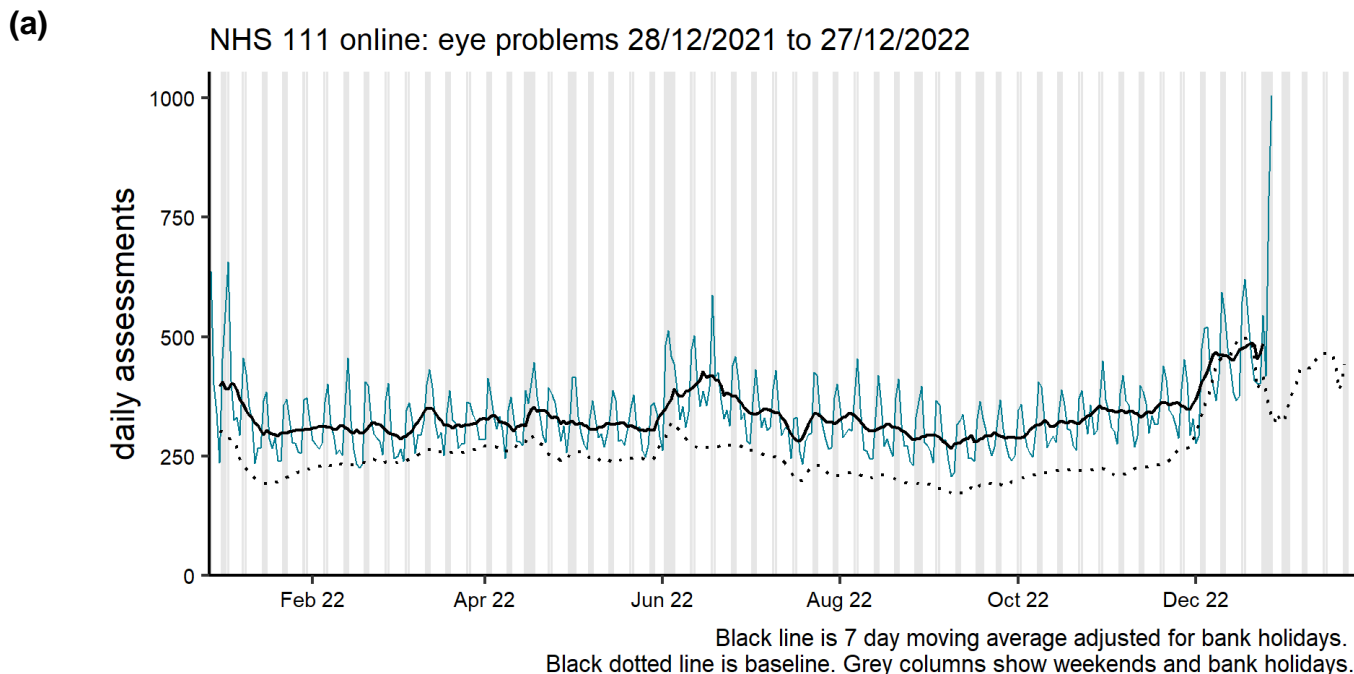
(c) NHS 111 calls: eye problems by region 28/12/2021 to 27/12/2022



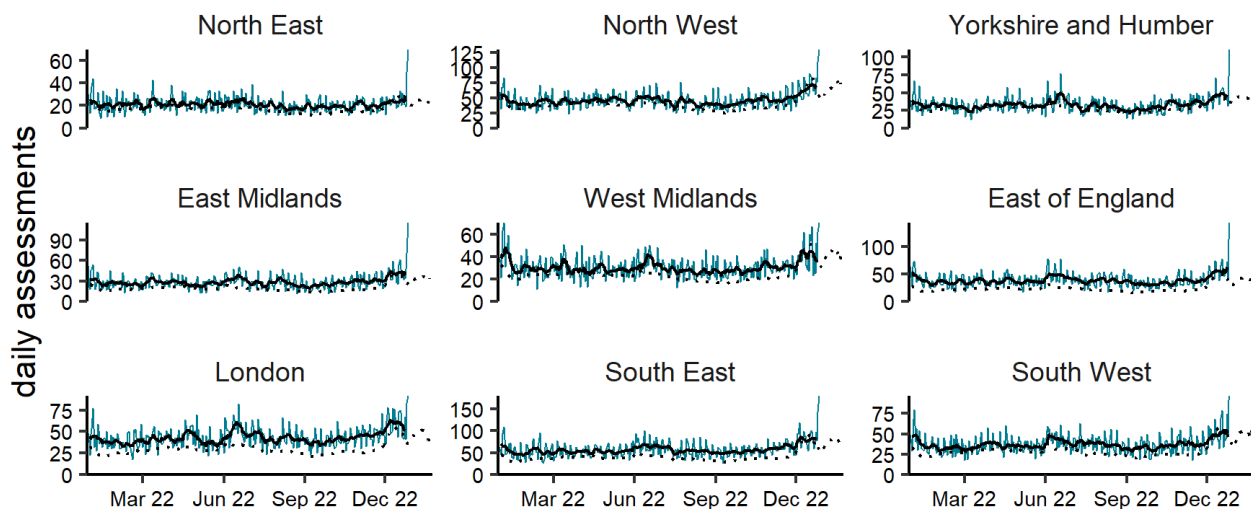
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Eye problems NHS 111 online

**Figure 20: Daily number of completed NHS 111 online assessments (and 7-day moving average adjusted for bank holidays) for eye problems, England (a) nationally, (b) by age and (c) by UKHSA Region.**



(c) NHS 111 online: eye problems by region 28/12/2021 to 27/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

## Notes and caveats

The following additional caveats apply to the UKHSA remote health advice syndromic surveillance system:

- all NHS 111 syndromic trends should be interpreted with caution due to changes in national advice and guidance regarding access to health care services as well as updates and changes to service provision during the COVID-19 pandemic
- data presented should be used to monitor trends rather than numbers of 'cases':
  - NHS 111 calls data may not include the most urgent calls which are rapidly redirected to ambulance services
  - any user that launches an online assessment may access the service multiple times and can change their answers and follow multiple journeys through the online system: only complete assessments are included here
  - an individual may use both the NHS 111 online and NHS 111 telephony services; counts from the two services cannot be considered as distinct counts of individuals
  - NHS 111 online assessment data does not include children under 5 years of age
- baselines:
  - were last remodelled May 2021
  - are constructed from historical data since January 2018
  - represent seasonally expected levels of activity
  - take account of any known substantial changes in data collection, population coverage or reporting practices and consequently may vary slightly from week to week (and will rescale) if there are substantial changes in call/online activity
    - the COVID-19 pandemic period is excluded, to show seasonally expected levels if COVID-19 had not occurred
  - may be remodelled to include the impacts seen during periods of the COVID-19 pandemic if/when appropriate due to introduction of large scale public health interventions which affect NHS 111 usage
- as NHS 111 systems evolve to meet service needs, we continue to work with NHS 111 and NHS England to ensure that:
  - changes impacting on syndromic indicators reported in this bulletin are identified and accounted for as far as possible
  - changes are described in: **Data quality issues of note this week**
- further information about NHS 111 can be found [here](#)

## COVID-19 syndromic surveillance

The 'potential COVID-19' syndromic indicator reported here for all NHS 111 data is based on the outcome of each call or online assessment (known as the disposition), not the symptom (Pathway) selected:

- potential COVID-19 is the only syndromic indicator which is based on disposition
- potential COVID-19 calls and online assessments may therefore also appear in other syndromic indicators based on the Pathway of each call or online assessment
- these data are based on potential COVID-19 symptoms reported and are not based on outcomes of tests for coronavirus



## Acknowledgements

We are grateful to NHS 111 and to NHS Digital for their assistance and support in providing the anonymised data that underpin this system.

# About the UK Health Security Agency

UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation health secure.

UKHSA is an executive agency, sponsored by the Department of Health and Social Care.

[www.gov.uk/government/organisations/uk-health-security-agency](http://www.gov.uk/government/organisations/uk-health-security-agency)

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