



UK Health
Security
Agency

Remote Health Advice Syndromic Surveillance System Bulletin (England) 2022 Week 49

Key messages

Data reported to: 11 December 2022

During week 49, there were further large increases in NHS 111 total calls for children aged 1-4 and 5-14 years. Calls and online assessments increased across a range of respiratory indicators. Of note, there were further increases observed in sore throat and cold/flu calls and online assessments across all age groups over 1 year old.

Please note: the continued widespread national media coverage of the 'group A strep' incident is likely to have increased the volume of NHS 111 calls and online assessments, particularly for children with respiratory symptoms. The data presented in this report should therefore be interpreted with some caution.

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

¹ 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](#).

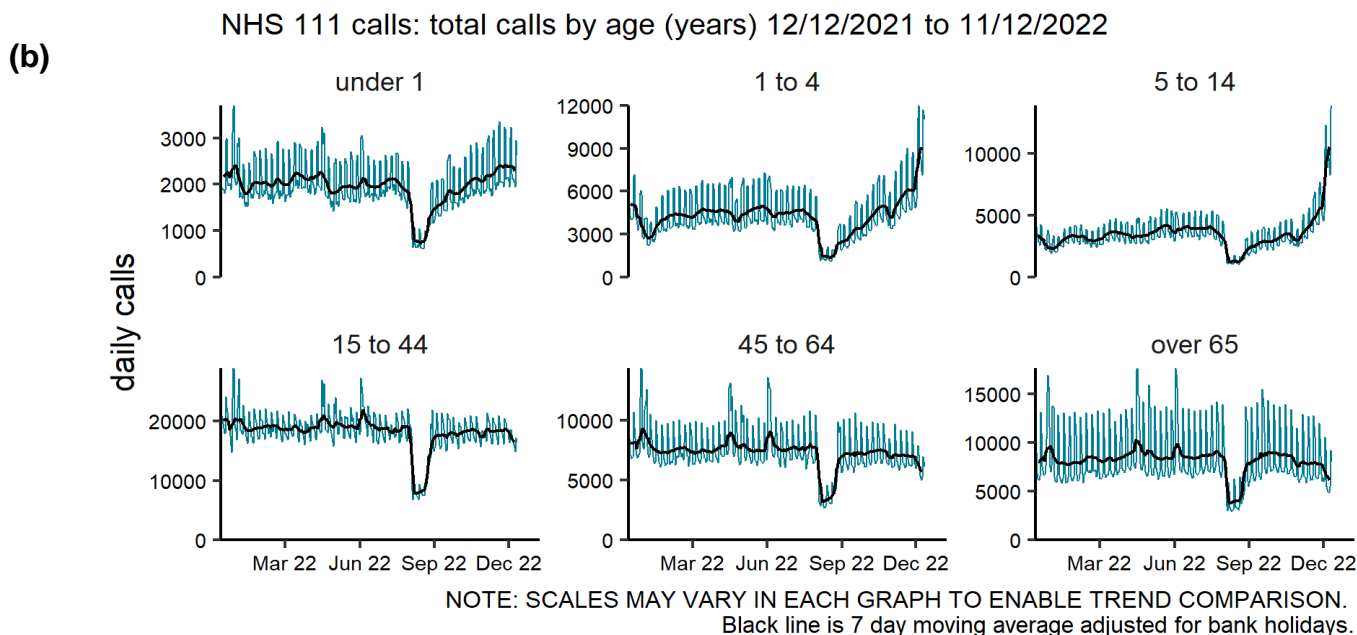
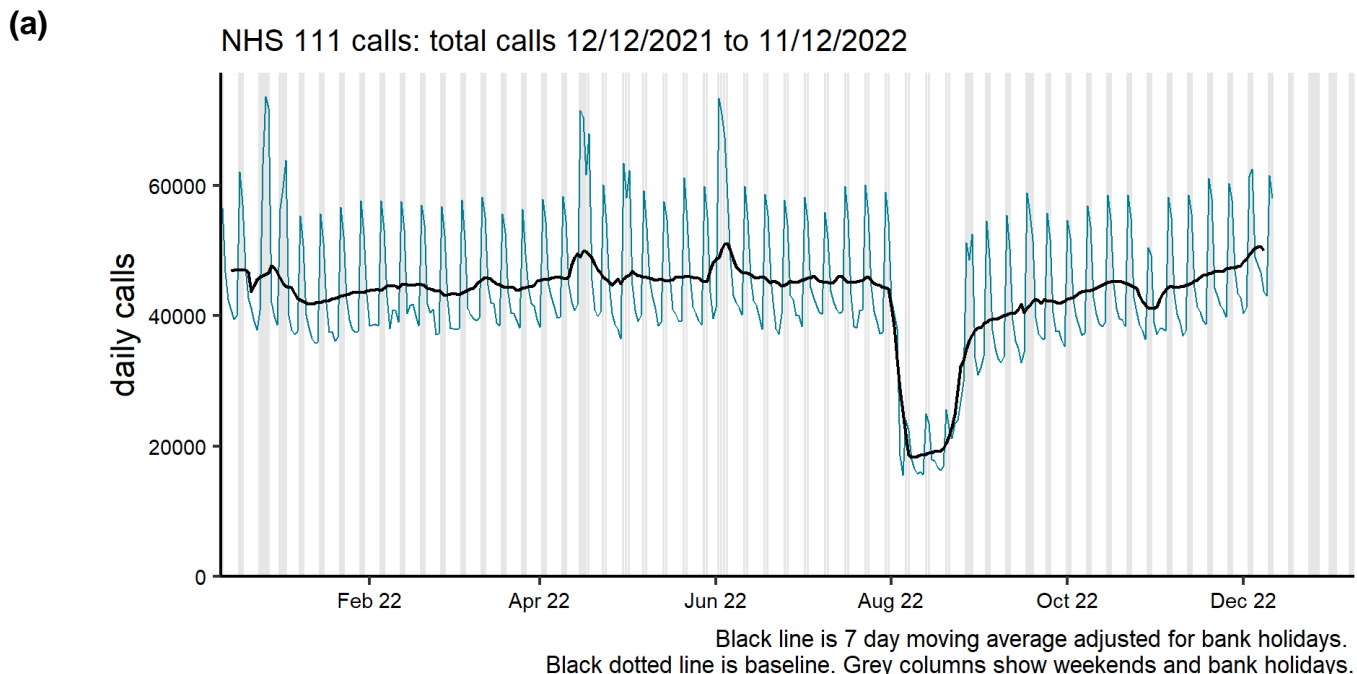
Data quality issues of note this week

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

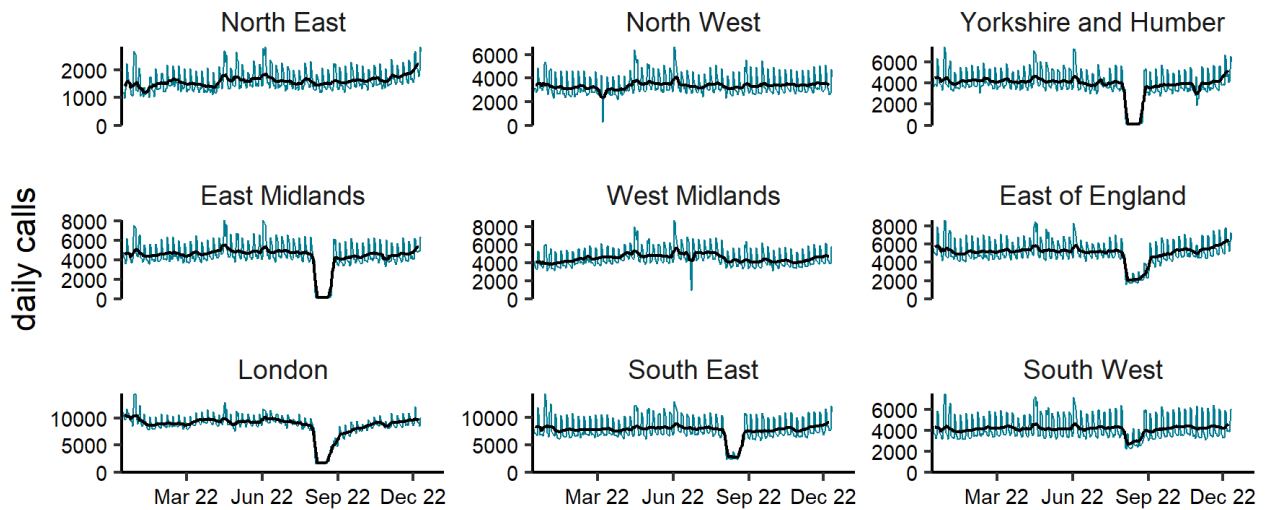
NHS 111 calls

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 12/12/2021 to 11/12/2022



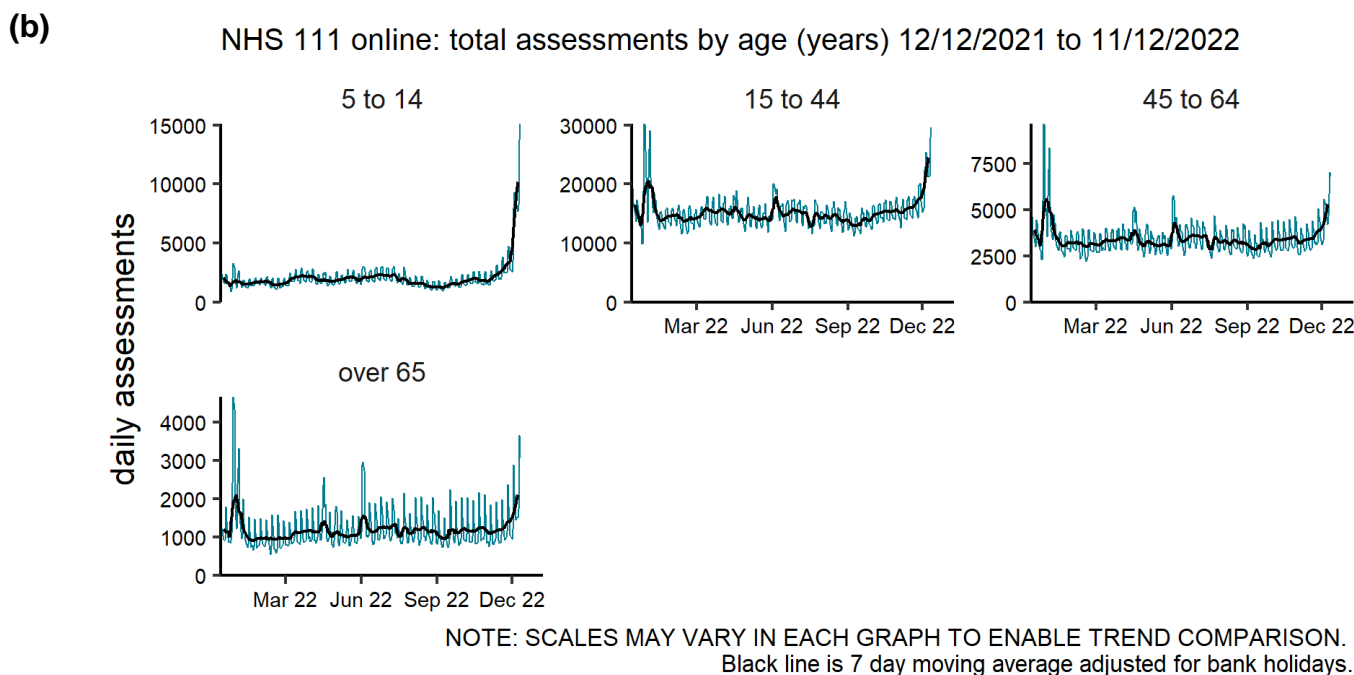
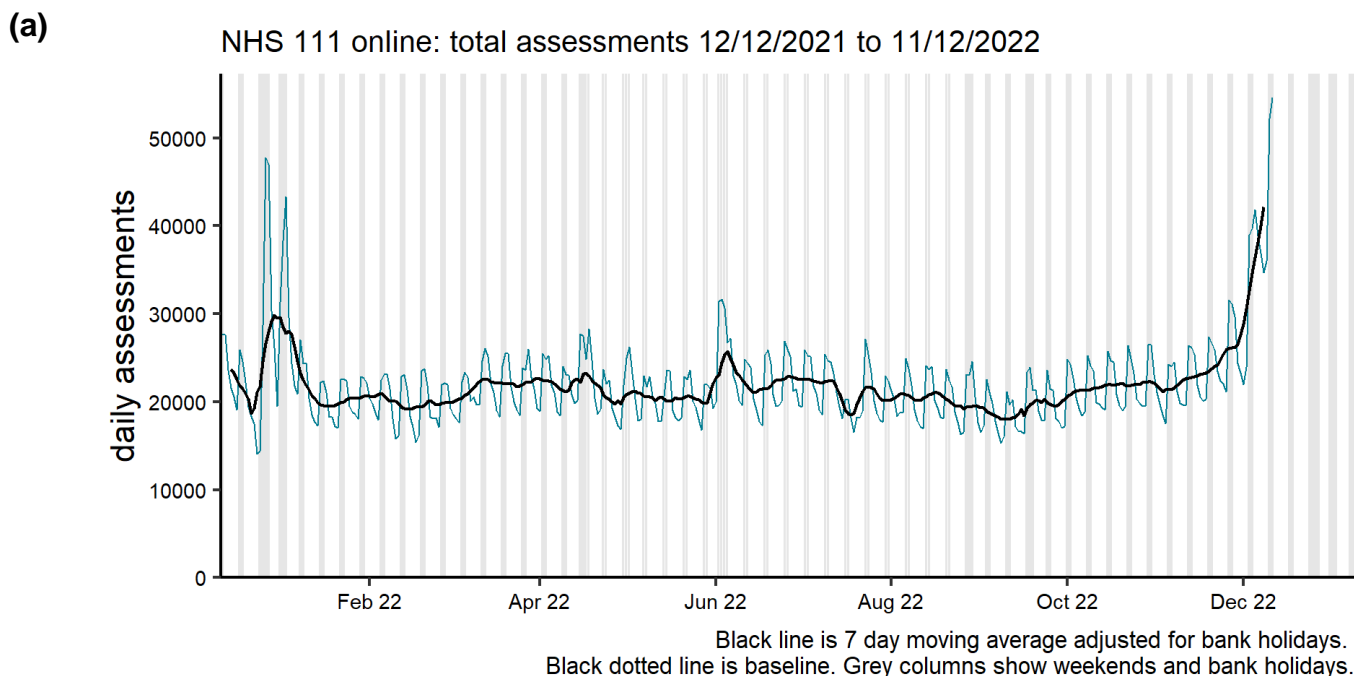
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
 Black line is 7 day moving average adjusted for bank holidays.
 Black dotted line is baseline.

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

Date	Number of calls
05 December 2022	49,236
06 December 2022	48,001
07 December 2022	46,868
08 December 2022	43,982
09 December 2022	43,209
10 December 2022	61,879
11 December 2022	58,372

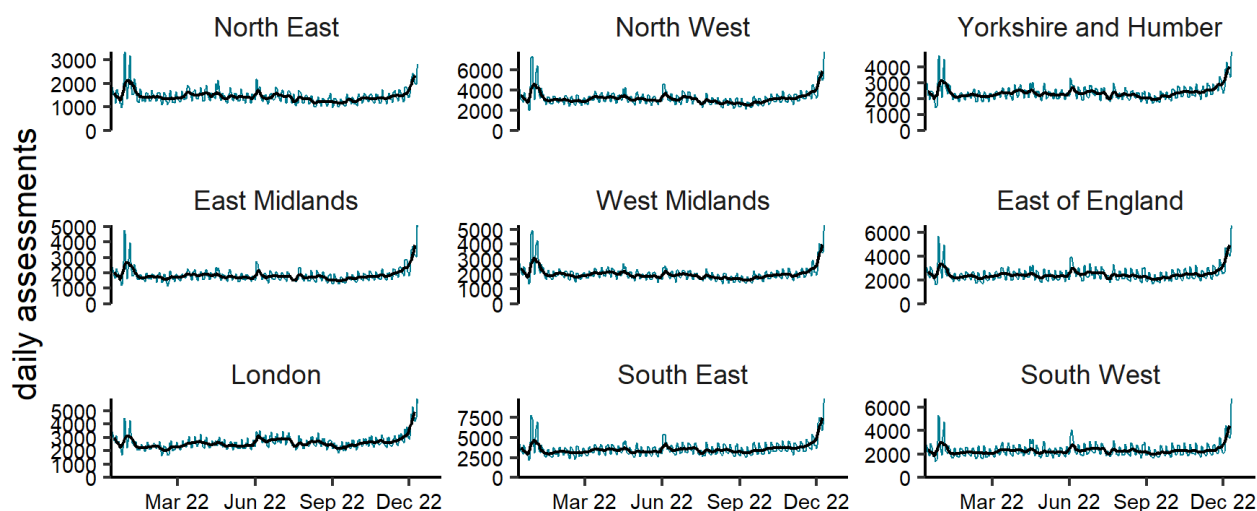
NHS 111 online

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 12/12/2021 to 11/12/2022



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
5 December 2022	41,354
6 December 2022	38,418
7 December 2022	36,566
8 December 2022	34,339
9 December 2022	35,689
10 December 2022	51,904
11 December 2022	54,259

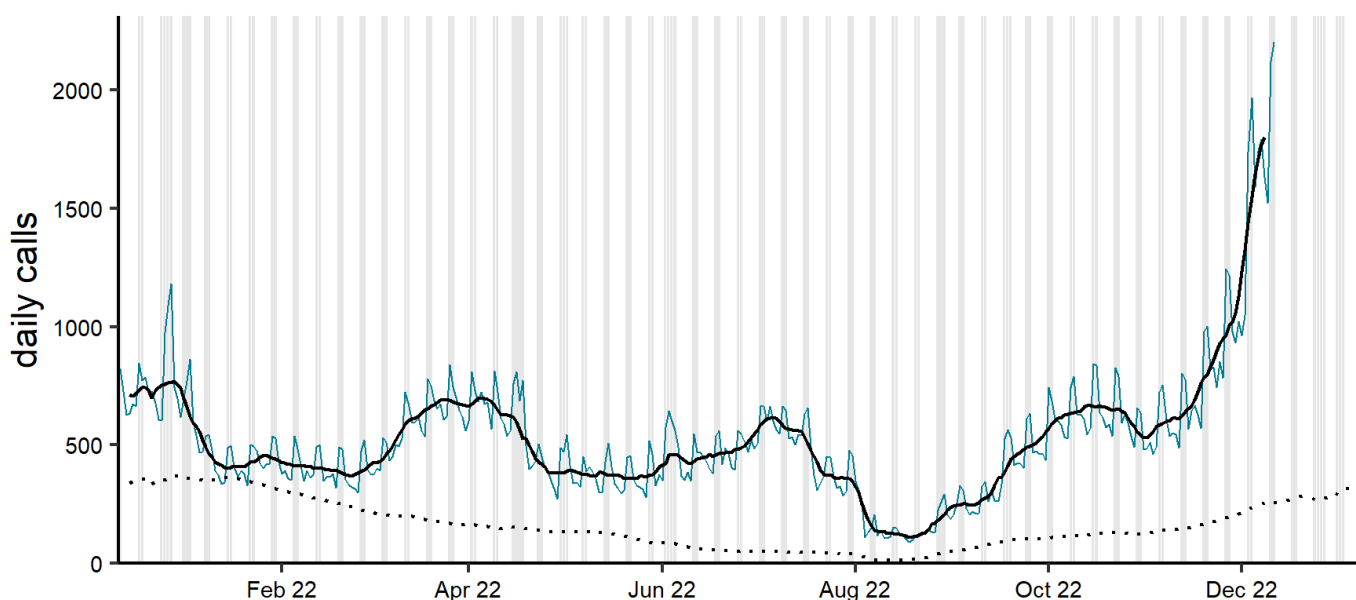
Respiratory conditions

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)

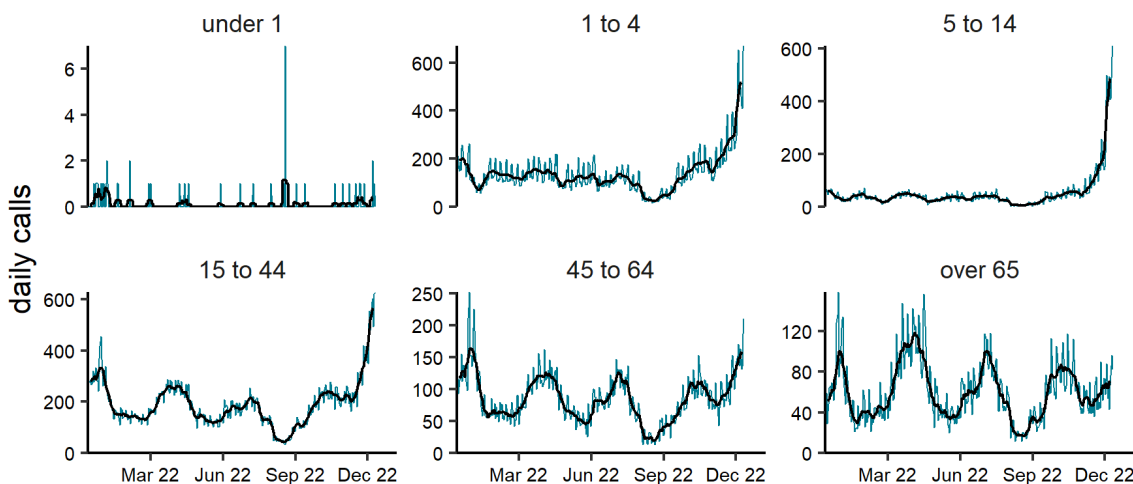
NHS 111 calls: cold or flu 12/12/2021 to 11/12/2022



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

(b)

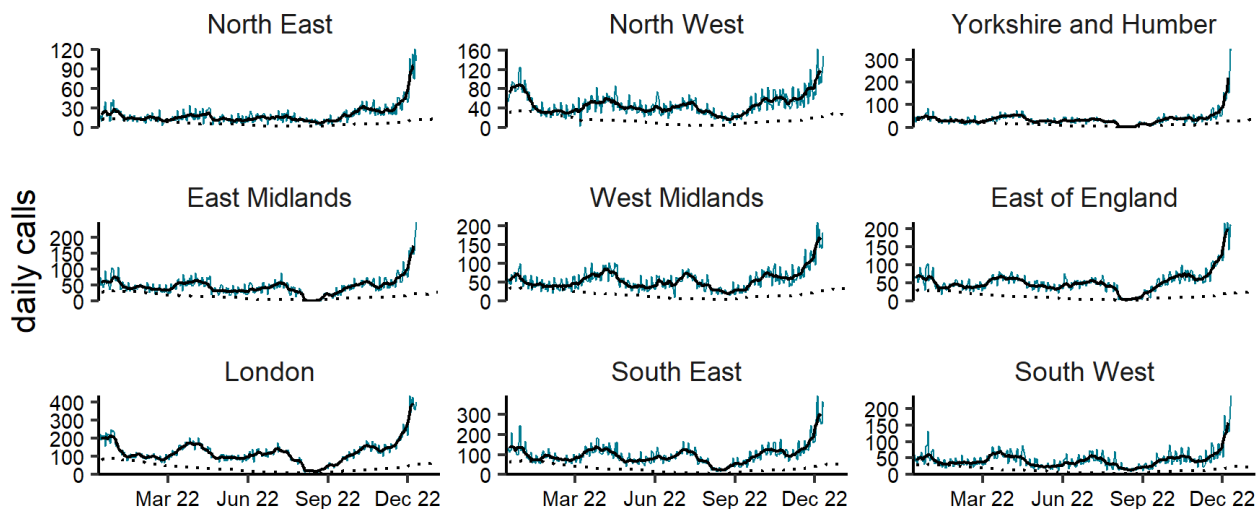
NHS 111 calls: cold or flu by age (years) 12/12/2021 to 11/12/2022



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

(c)

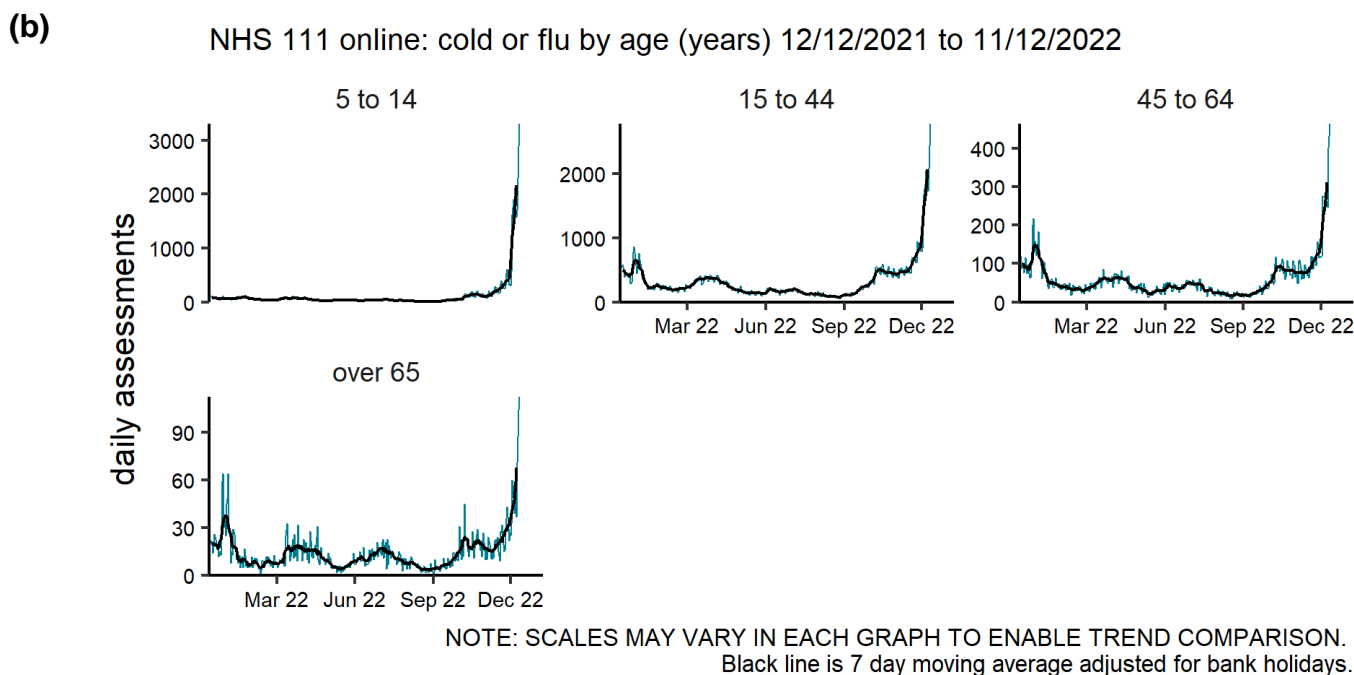
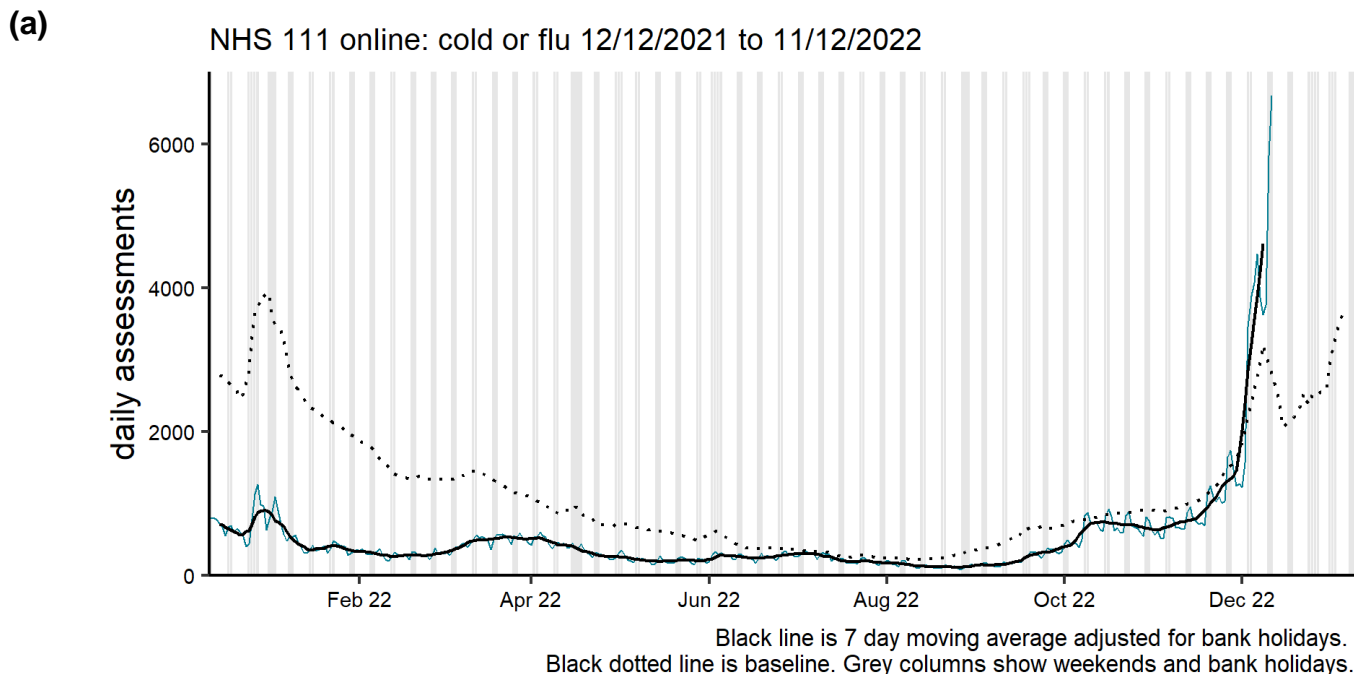
NHS 111 calls: cold or flu by region 12/12/2021 to 11/12/2022



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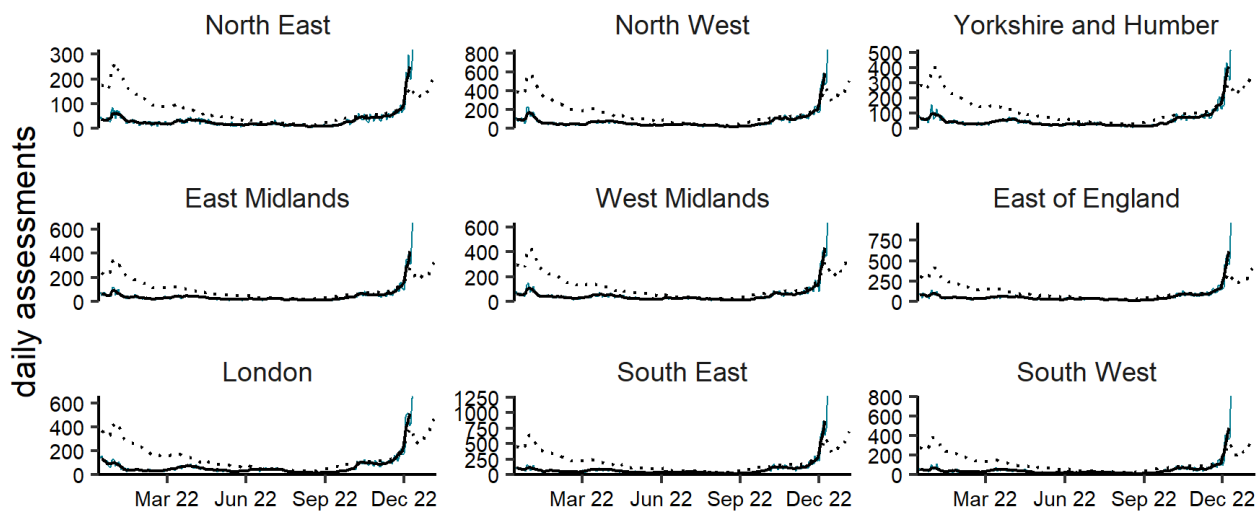
Cold/flu NHS 111 online

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 12/12/2021 to 11/12/2022



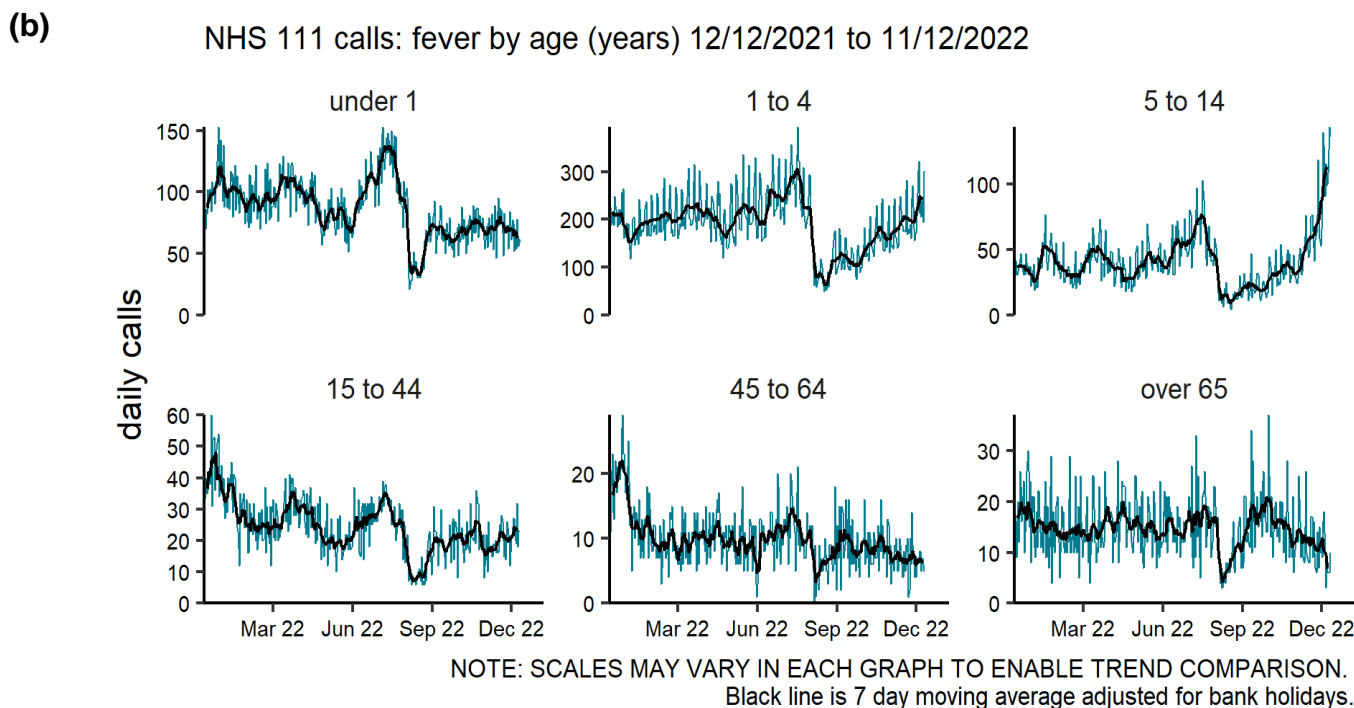
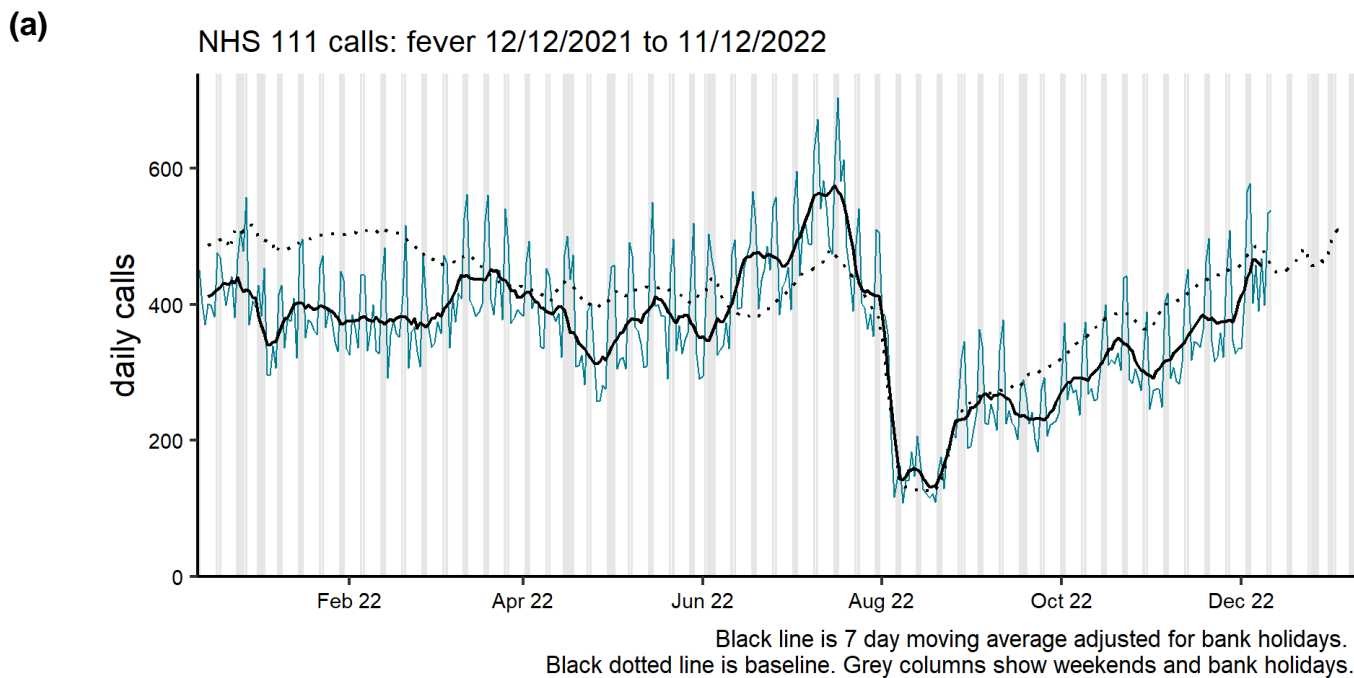
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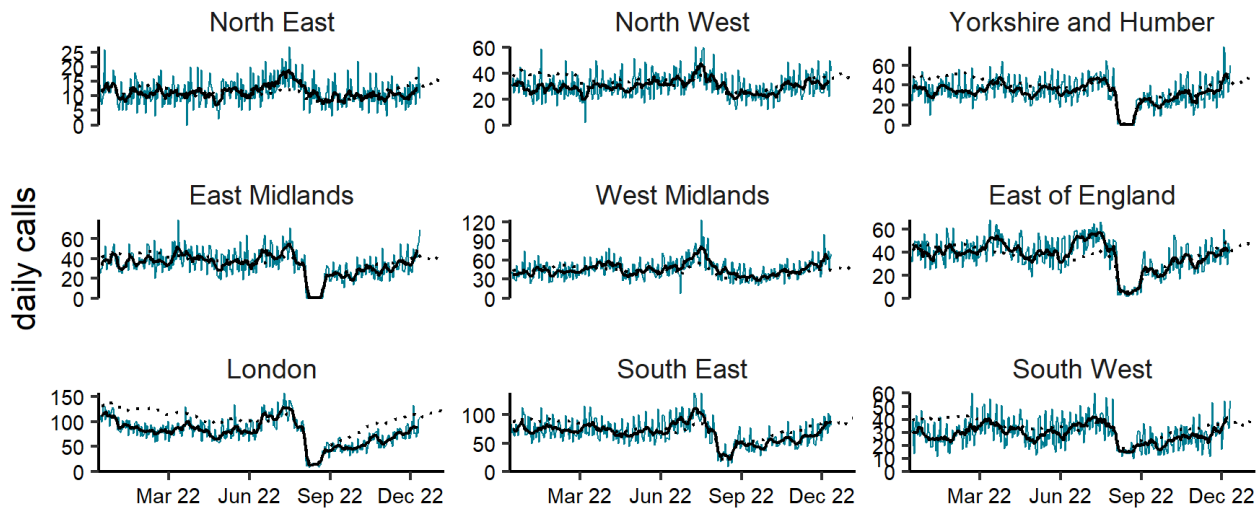
Fever NHS 111 calls

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)

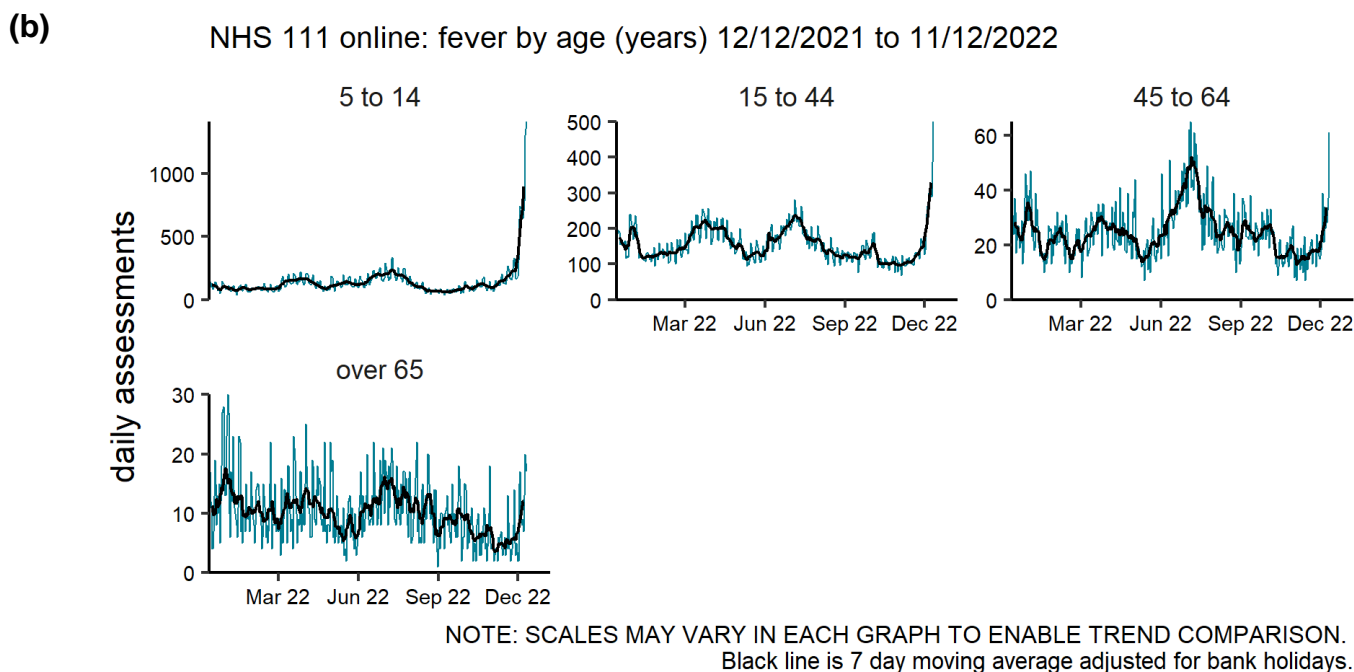
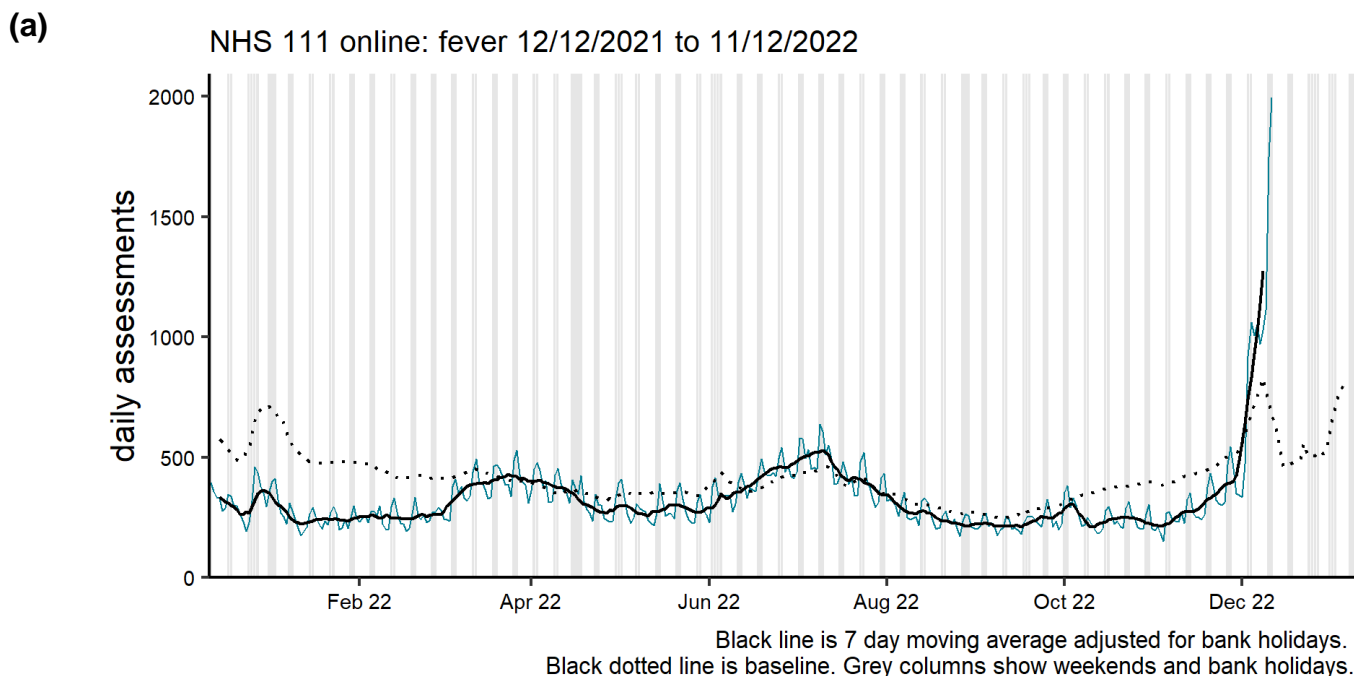
NHS 111 calls: fever by region 12/12/2021 to 11/12/2022



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
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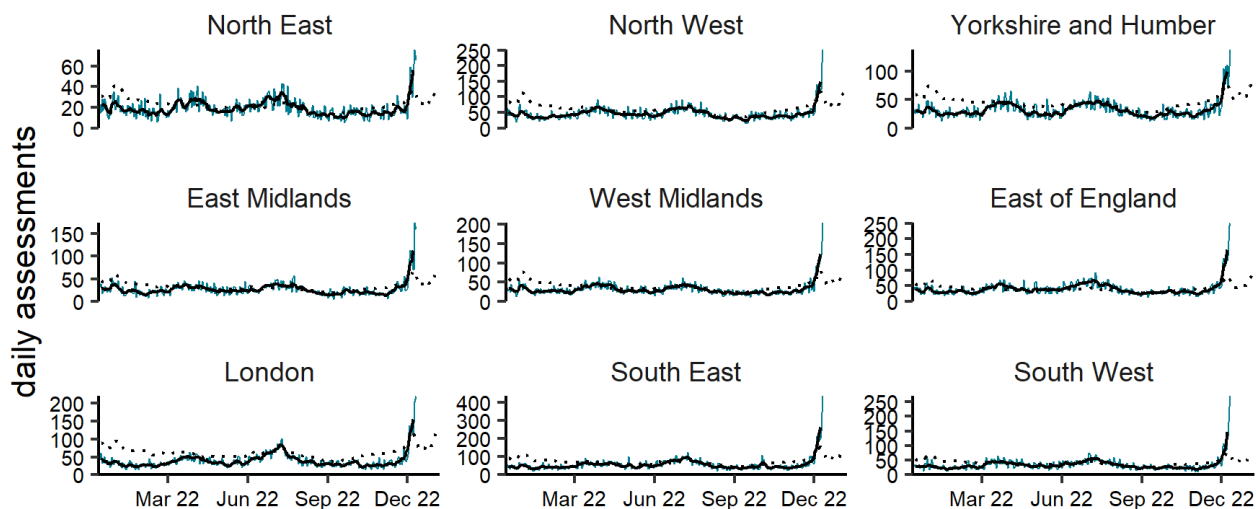
Fever NHS 111 online

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)

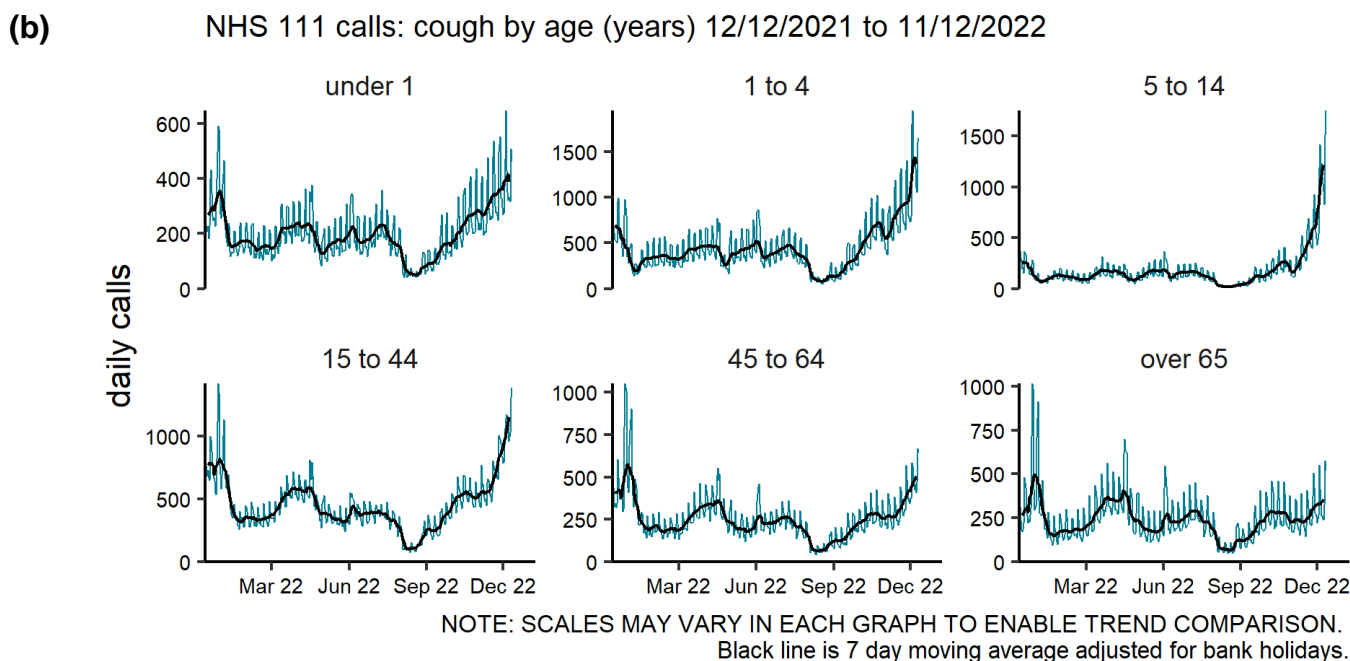
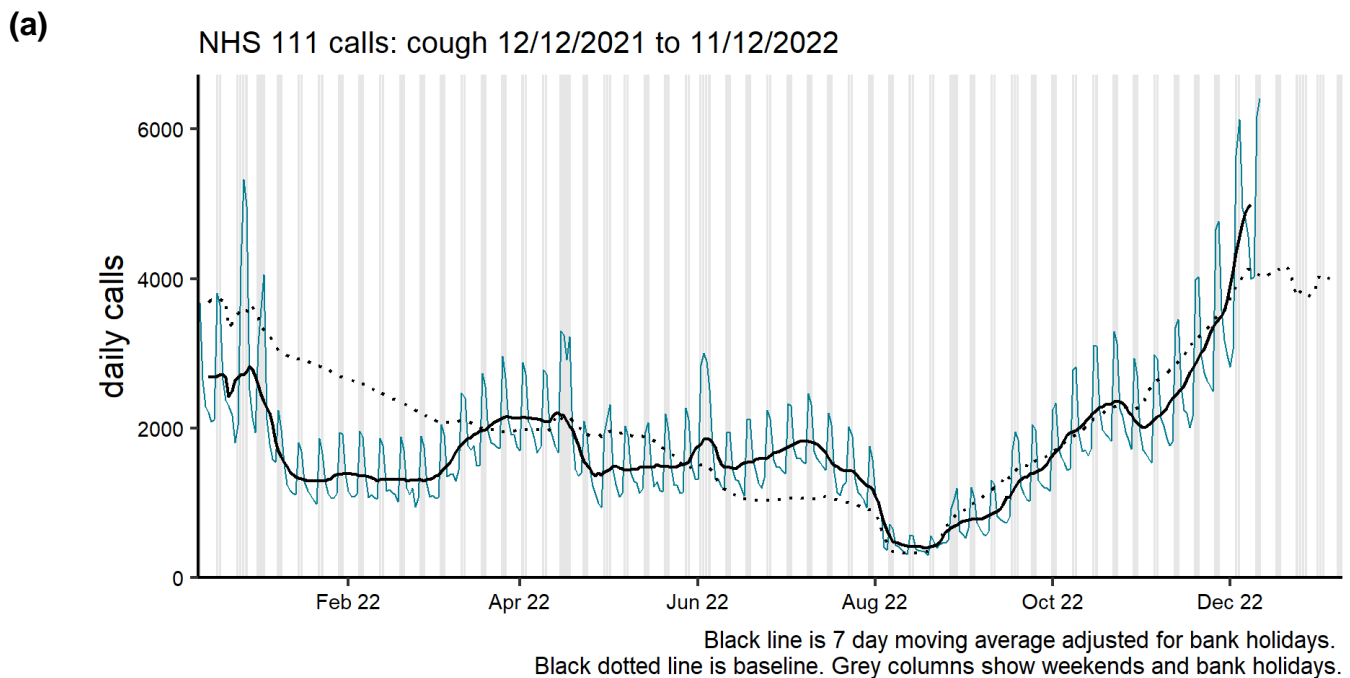
NHS 111 online: fever by region 12/12/2021 to 11/12/2022



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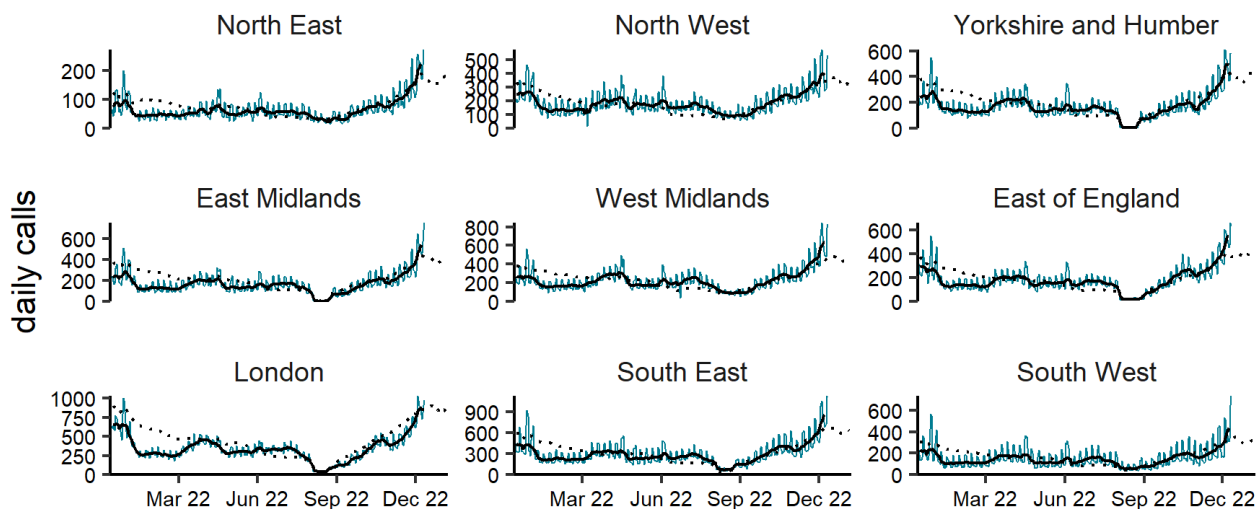
Cough NHS 111 calls

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 12/12/2021 to 11/12/2022



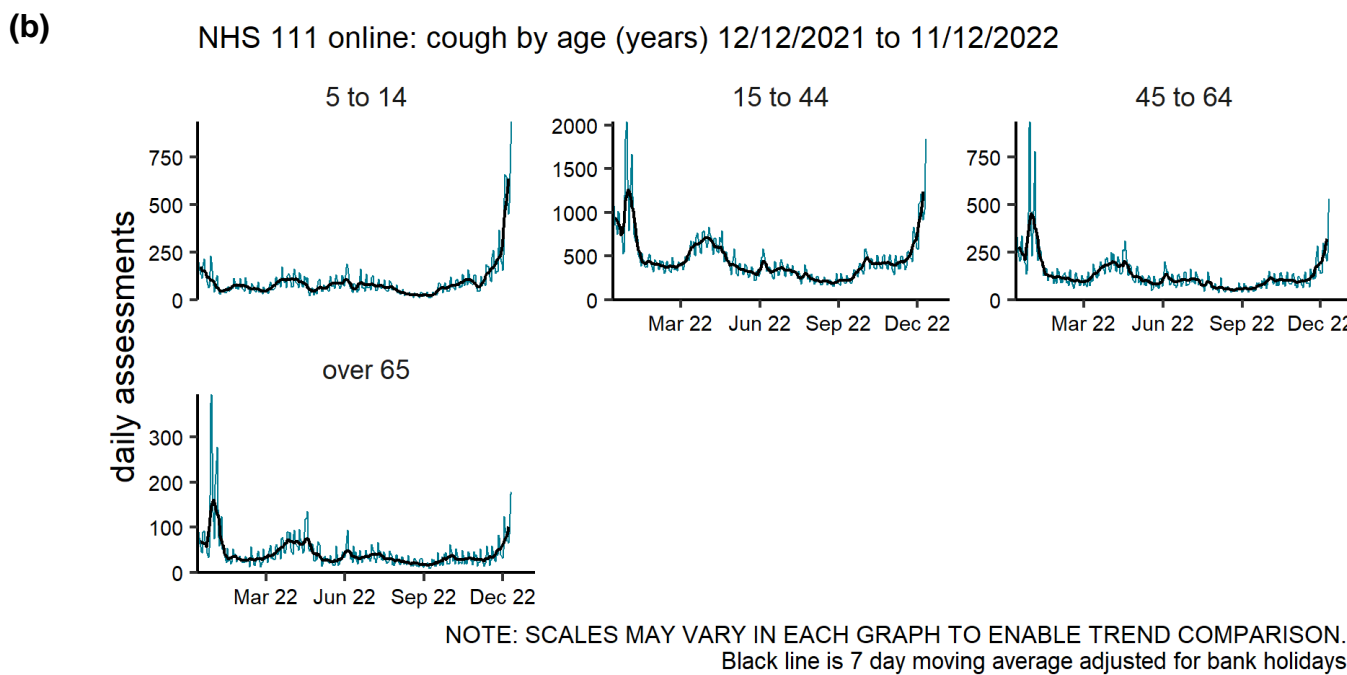
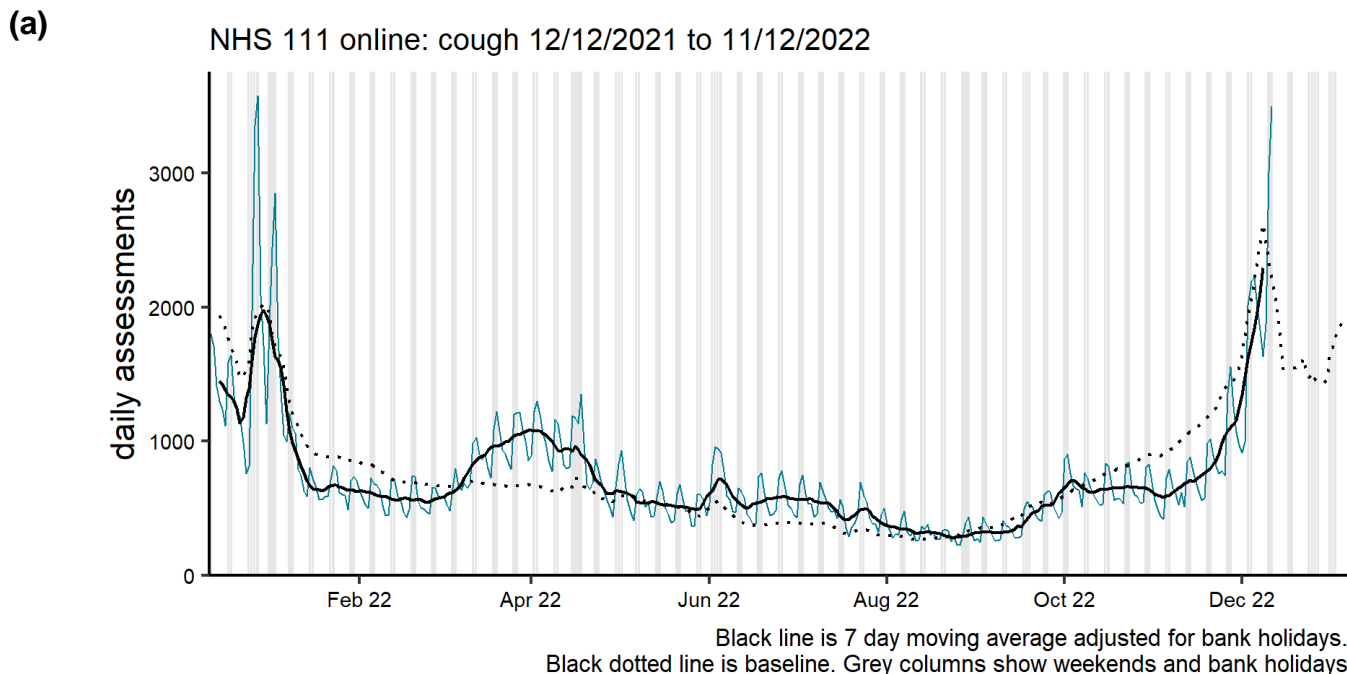
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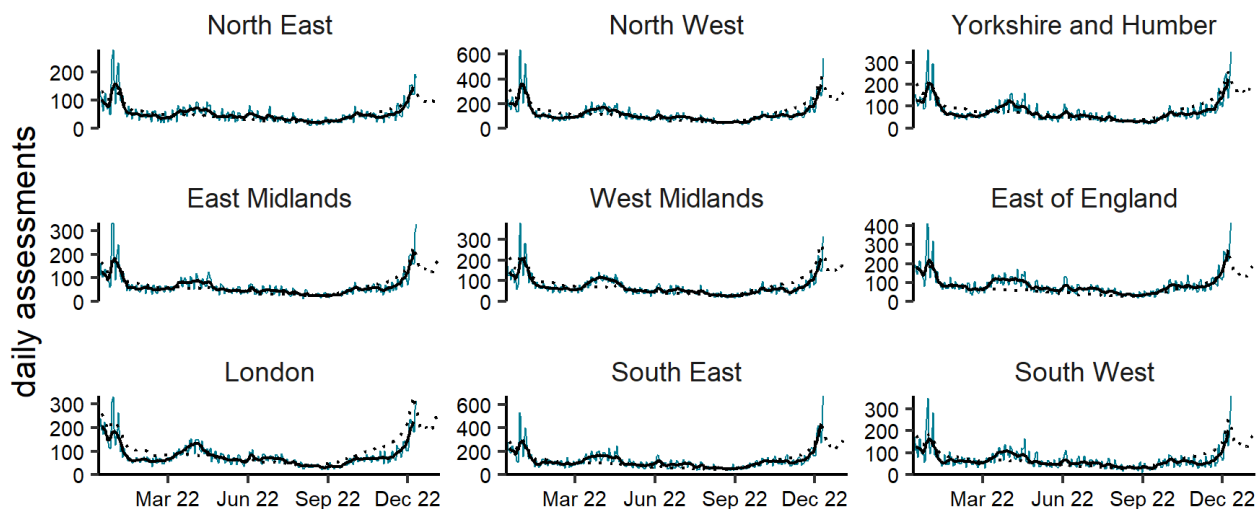
Cough NHS 111 online

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 12/12/2021 to 11/12/2022



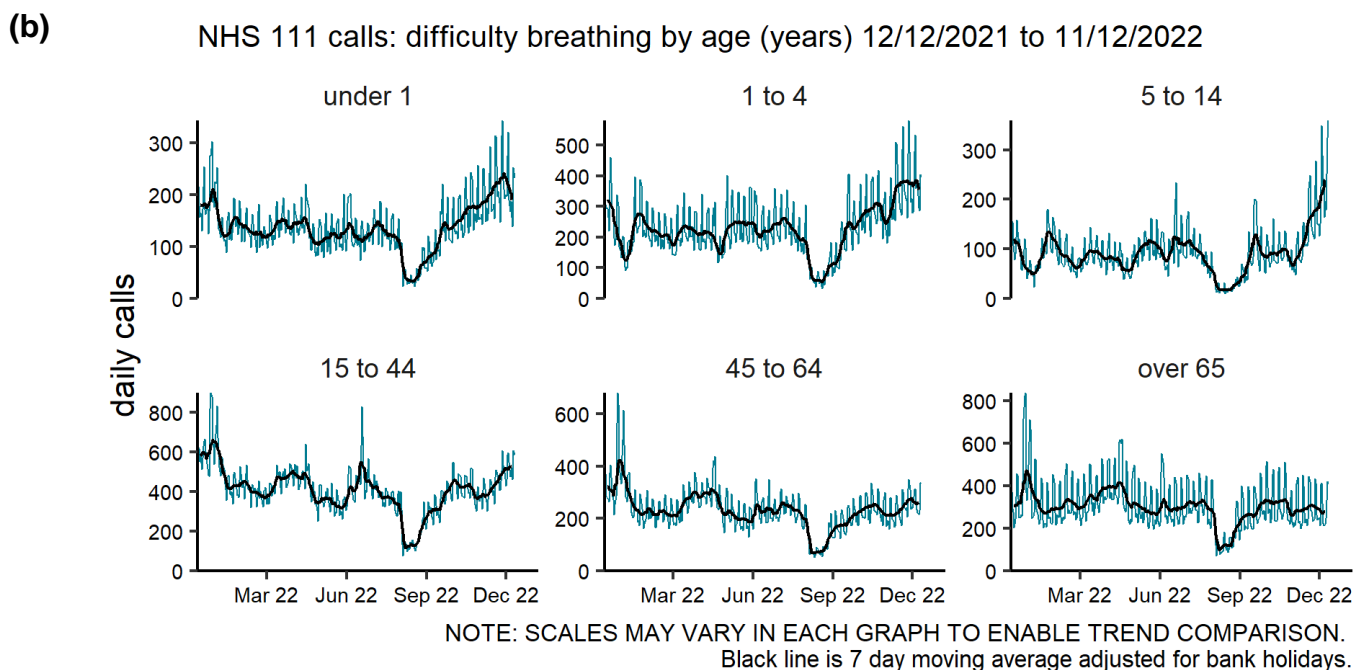
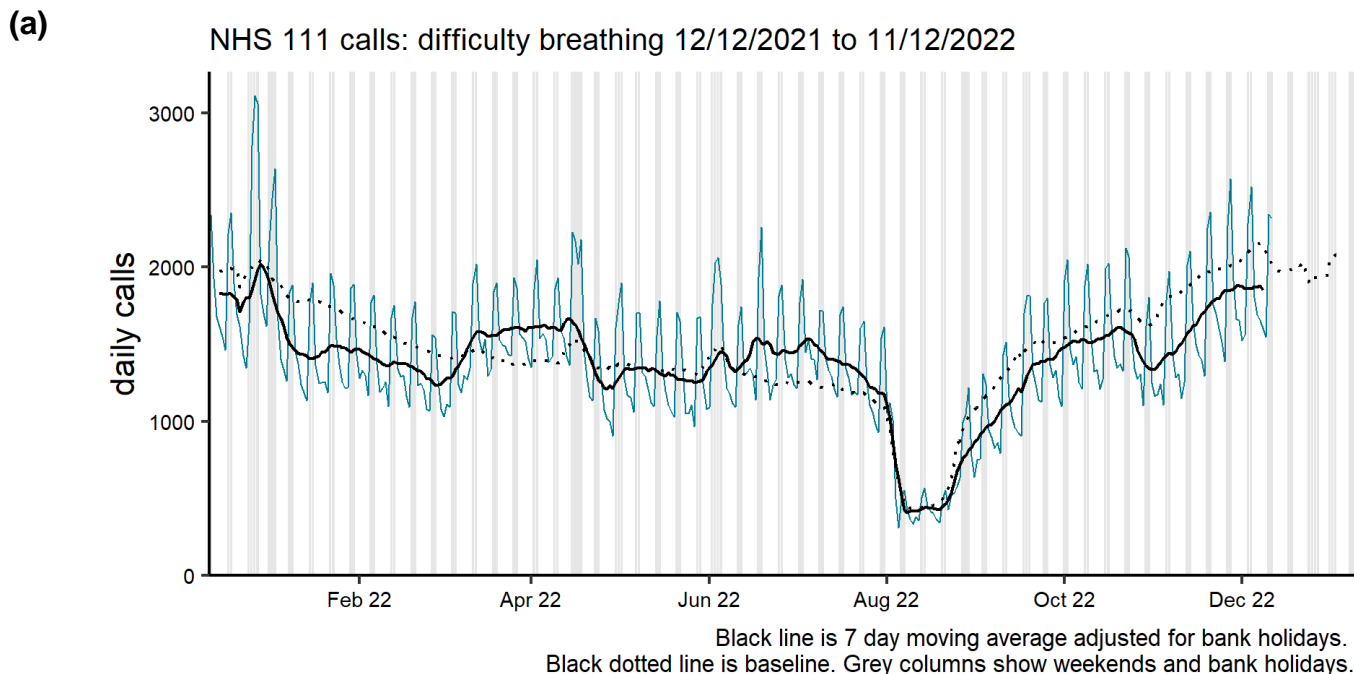
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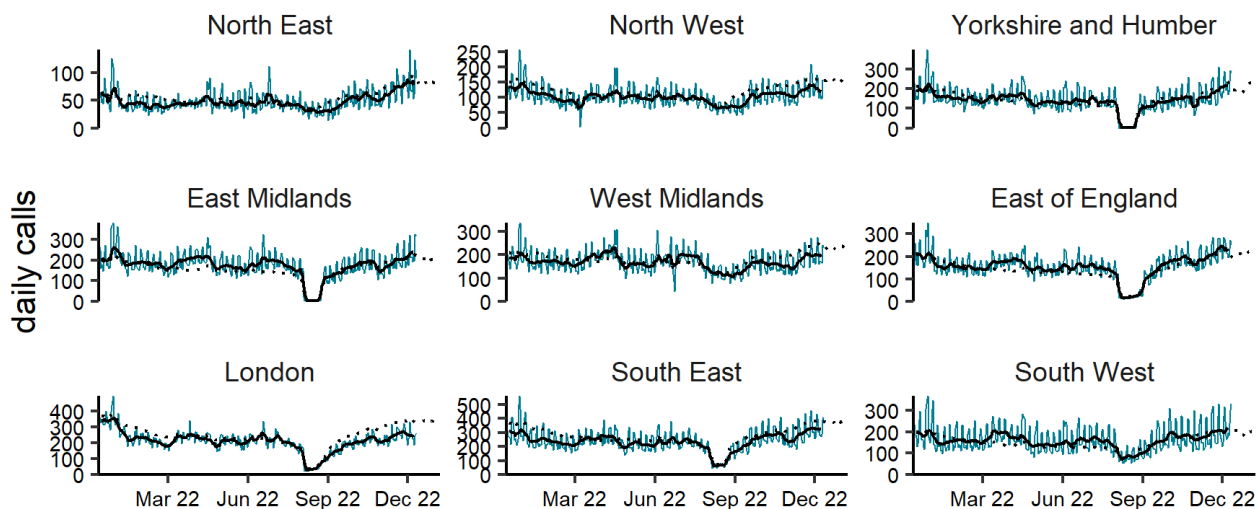
Difficulty breathing NHS 111 calls

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)

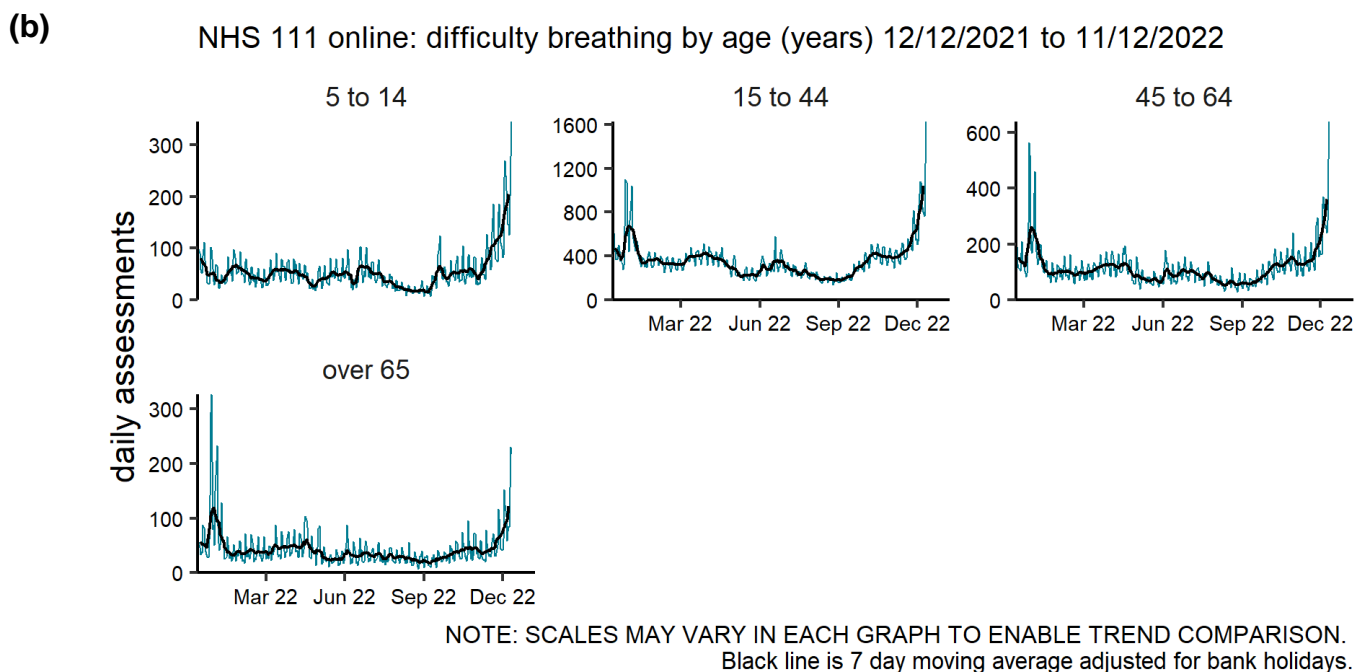
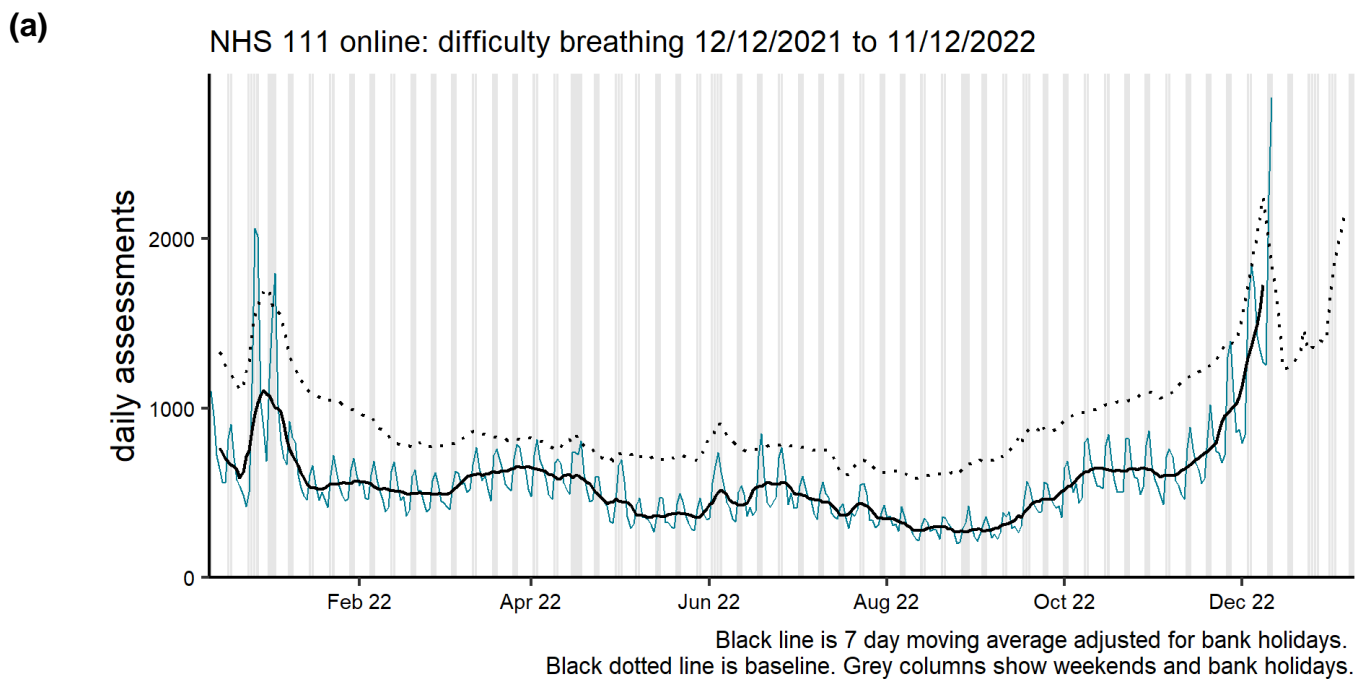
NHS 111 calls: difficulty breathing by region 12/12/2021 to 11/12/2022



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

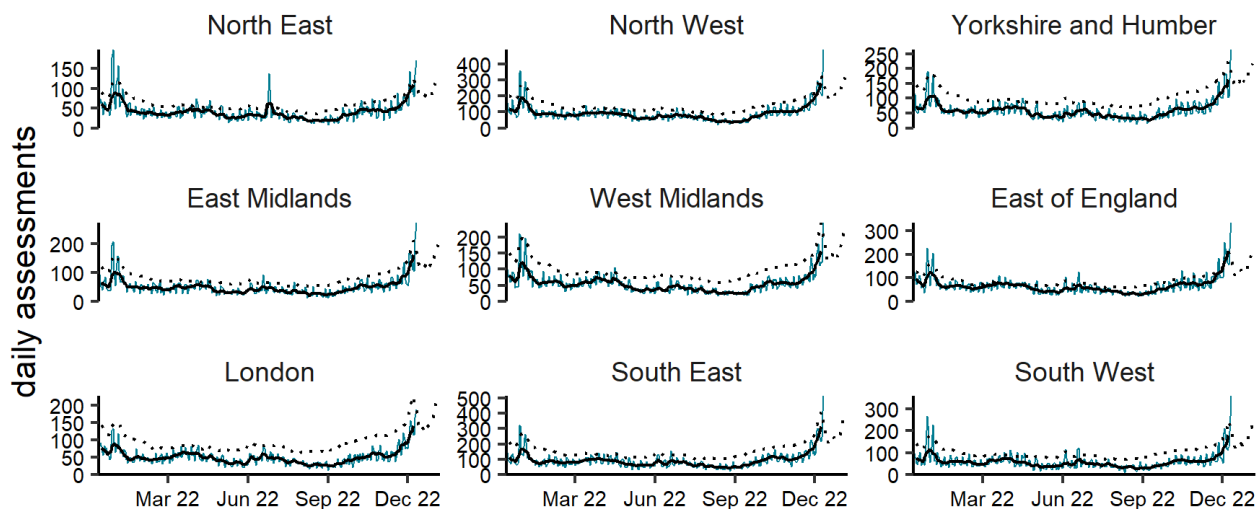
Difficulty breathing NHS 111 online

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 12/12/2021 to 11/12/2022



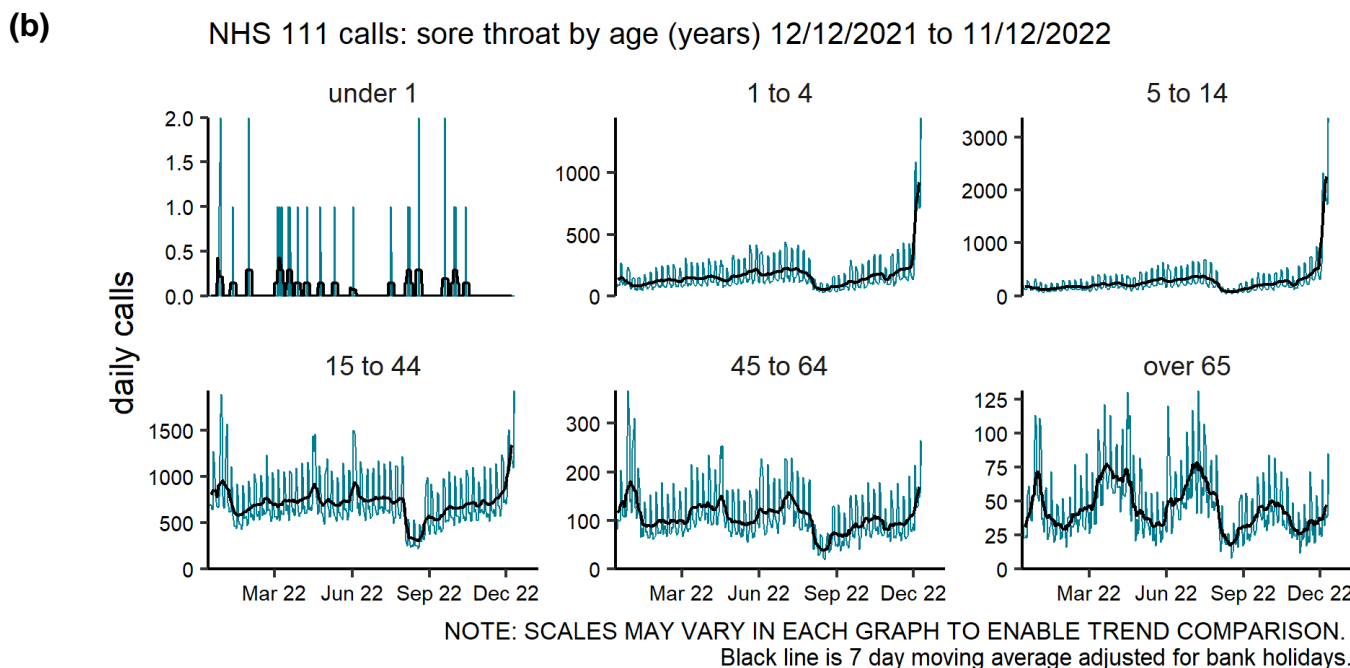
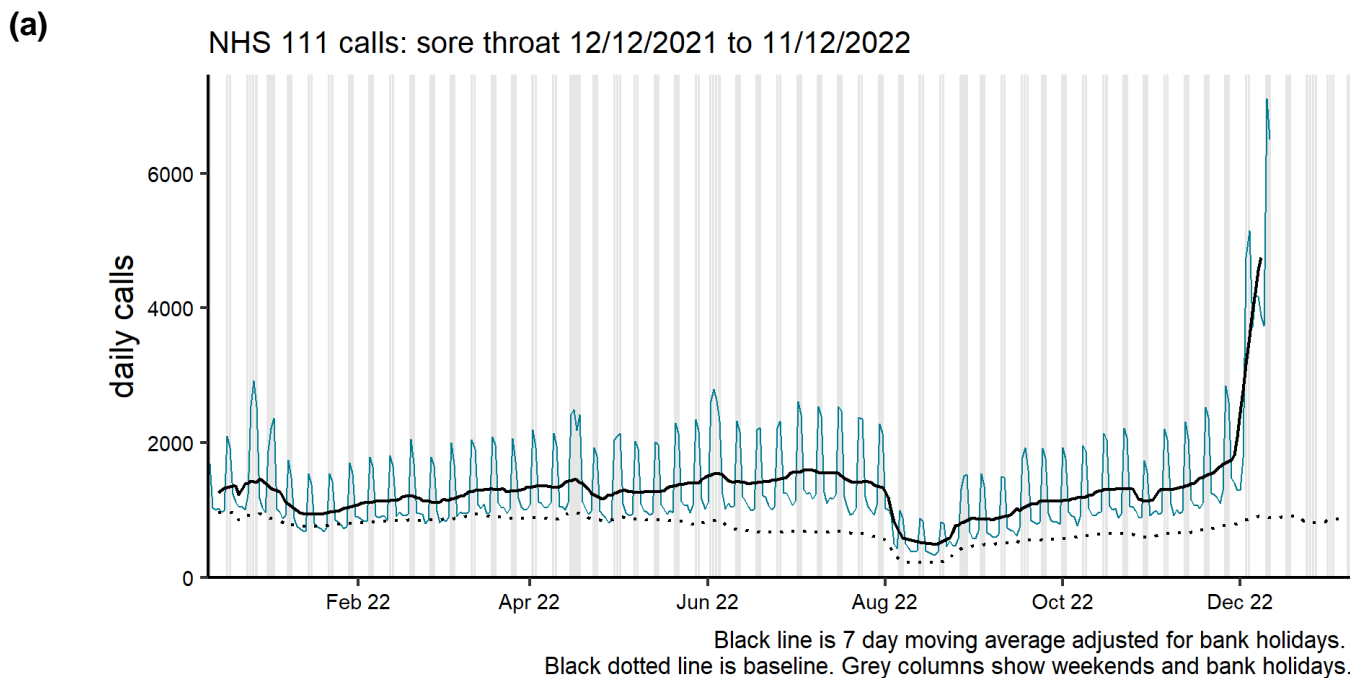
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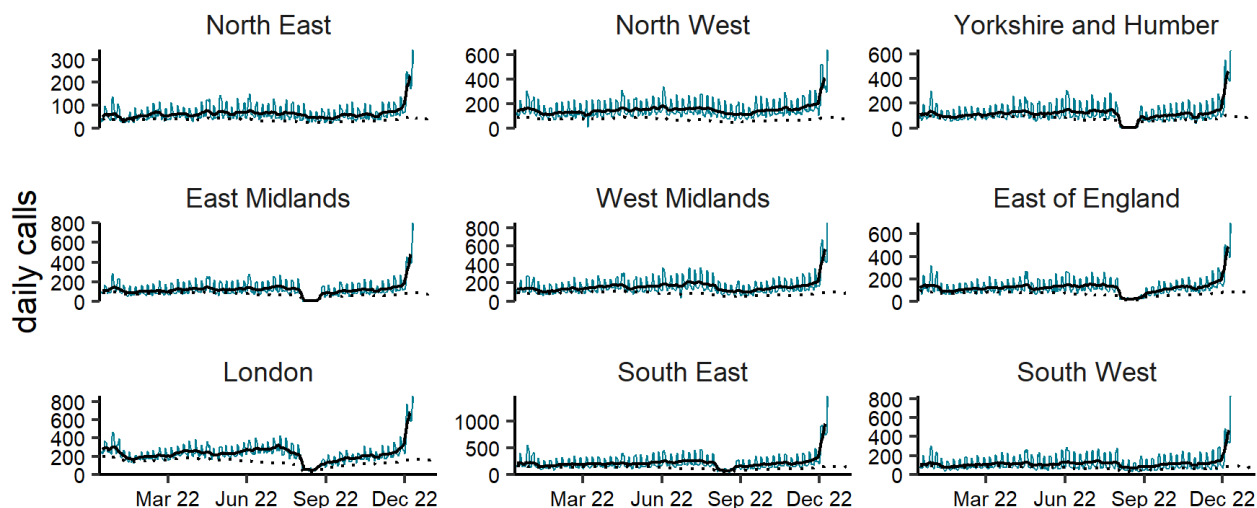
Black dotted line is baseline.

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.



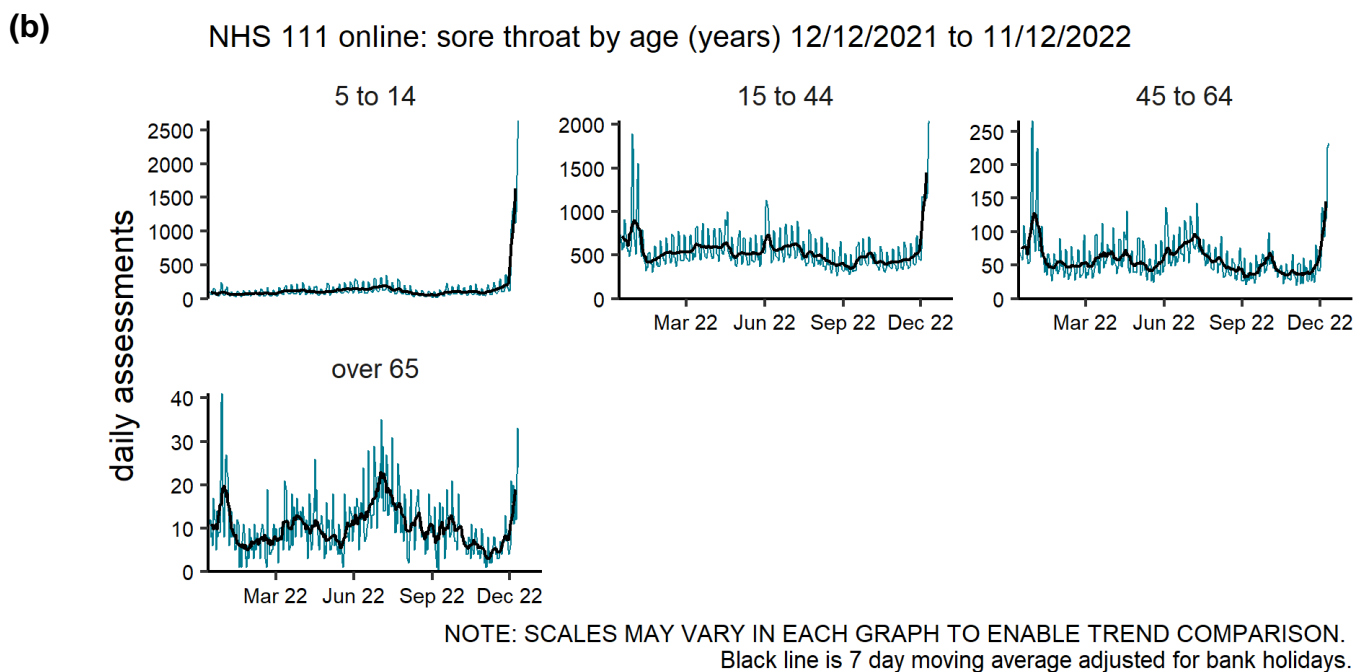
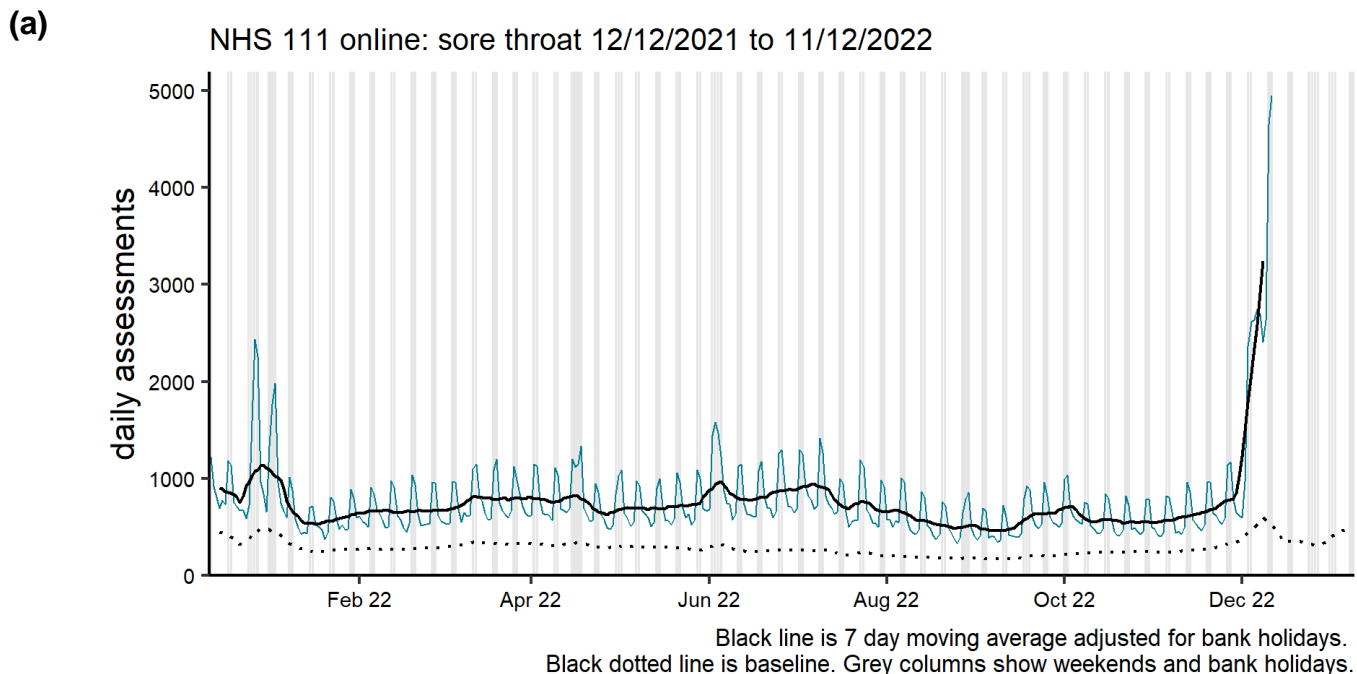
(c) NHS 111 calls: sore throat by region 12/12/2021 to 11/12/2022



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

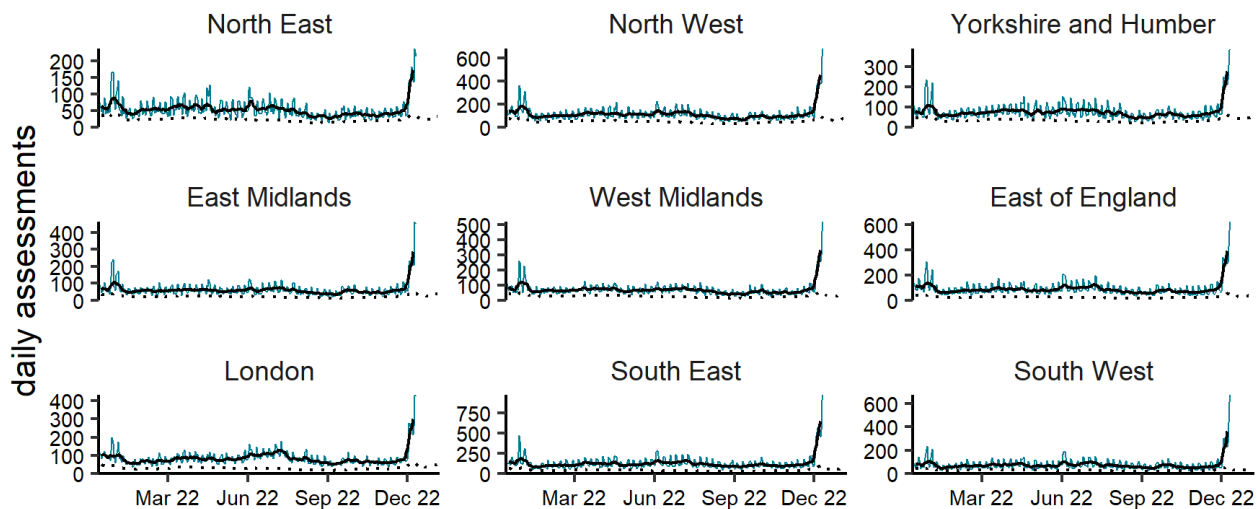
Sore throat NHS 111 online

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)

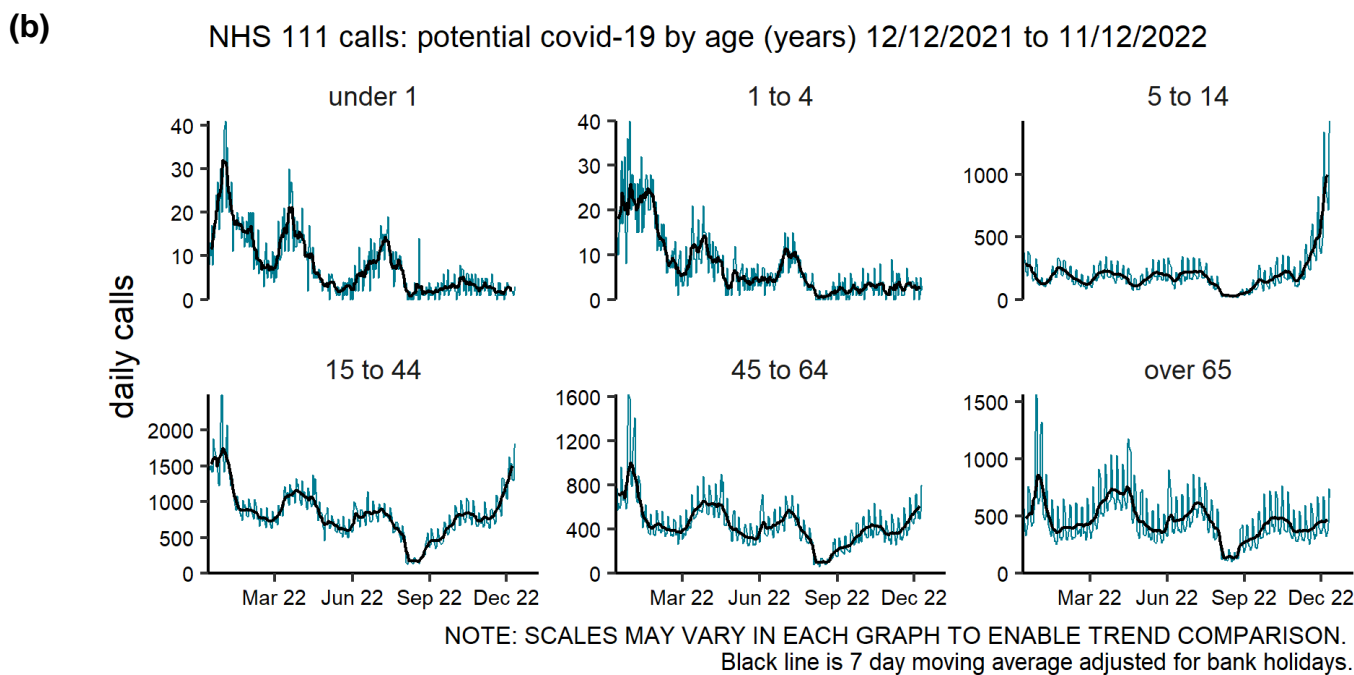
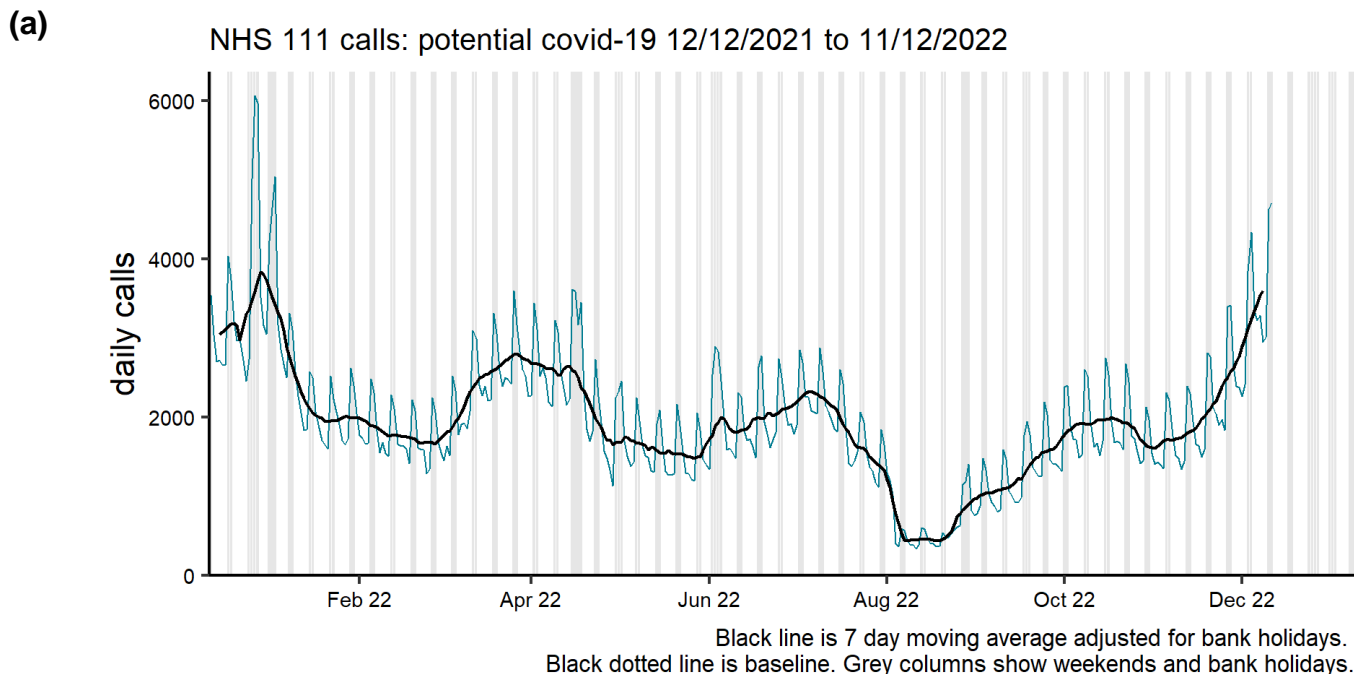
NHS 111 online: sore throat by region 12/12/2021 to 11/12/2022



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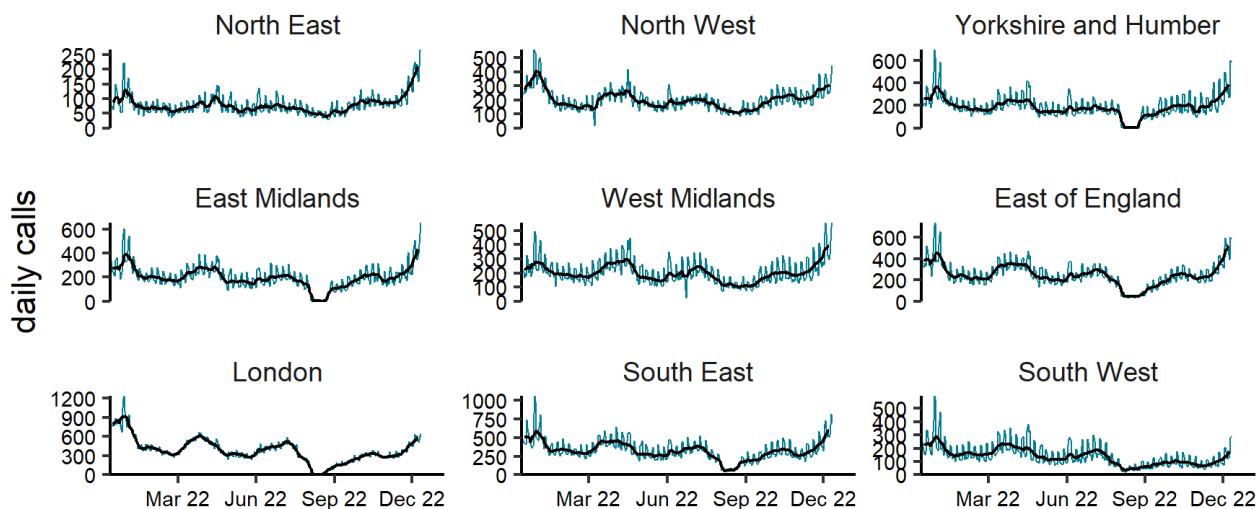
Potential COVID-19 NHS 111 calls

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 12/12/2021 to 11/12/2022



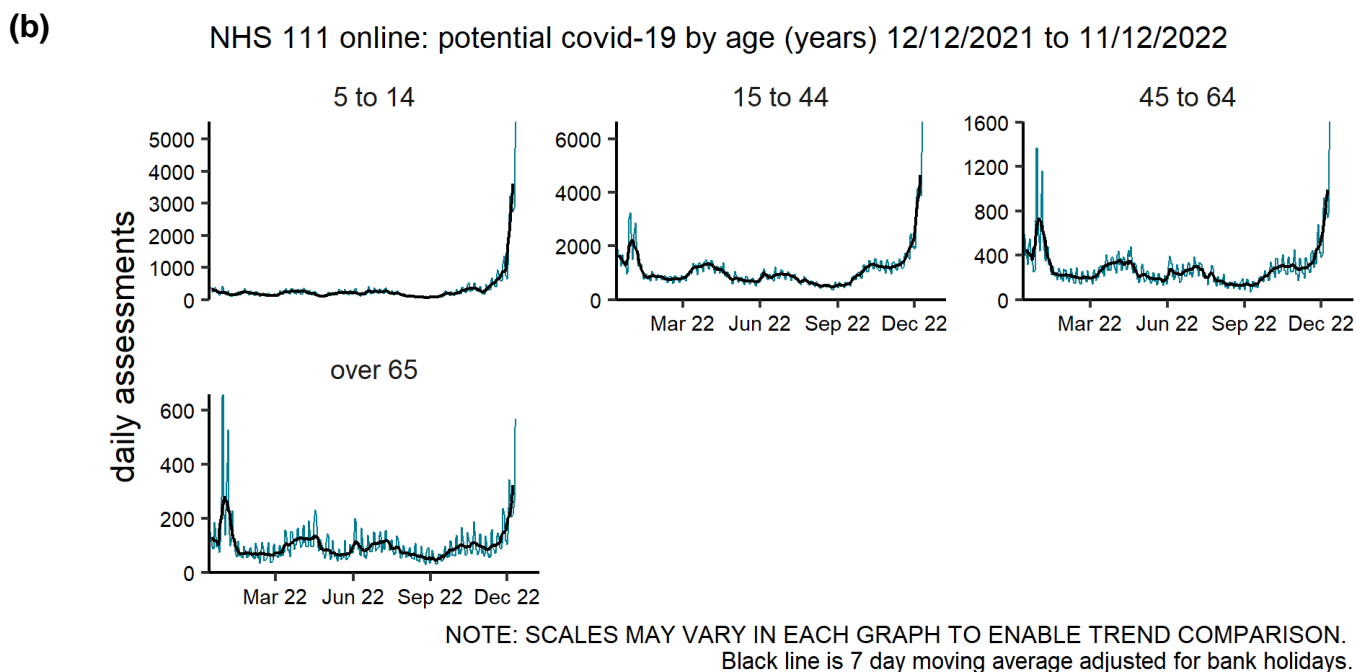
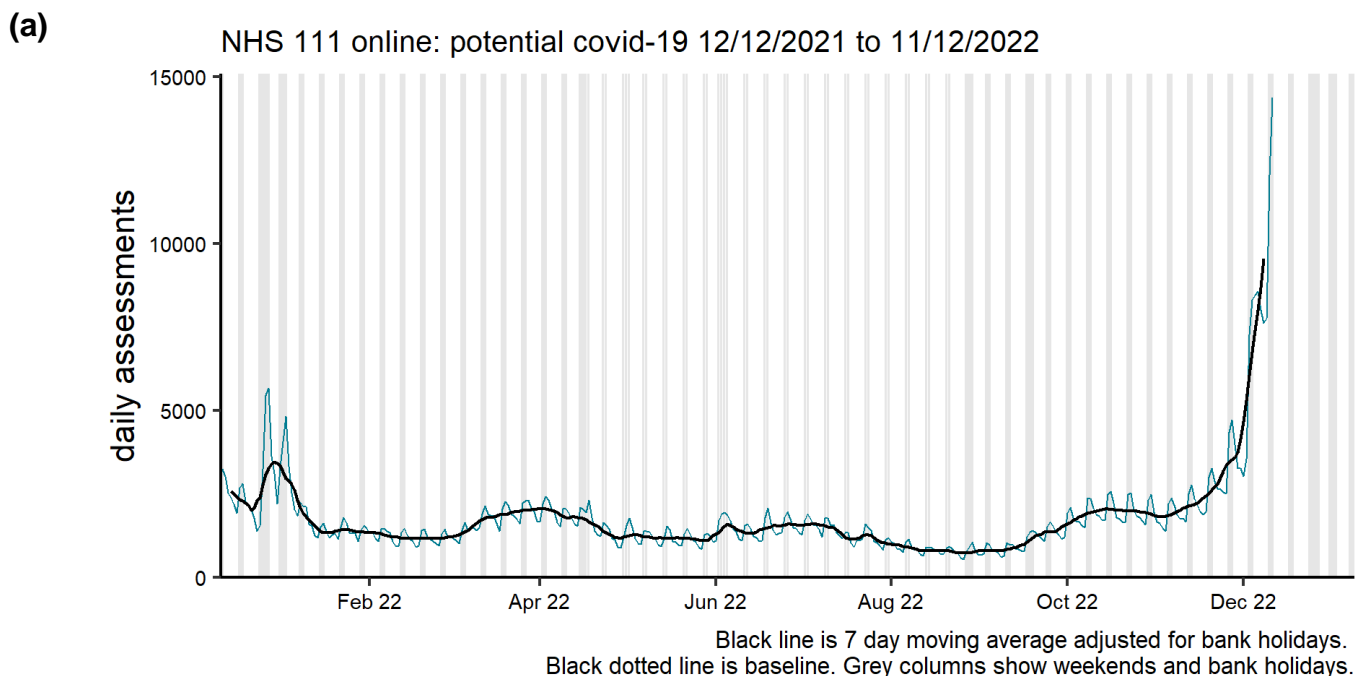
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Black dotted line is baseline.

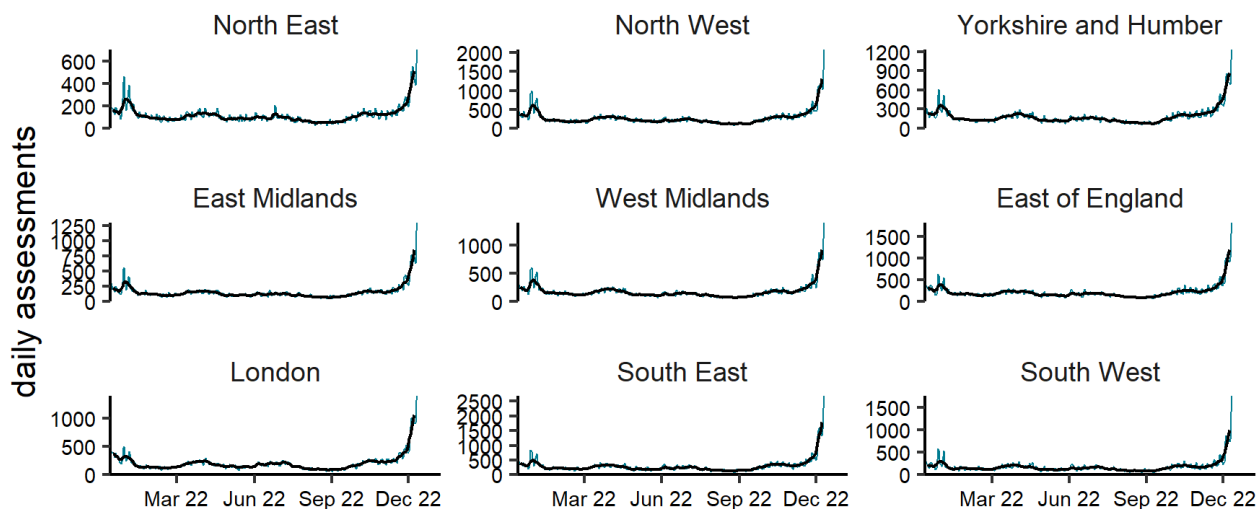
Potential COVID-19 NHS 111 online

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 12/12/2021 to 11/12/2022



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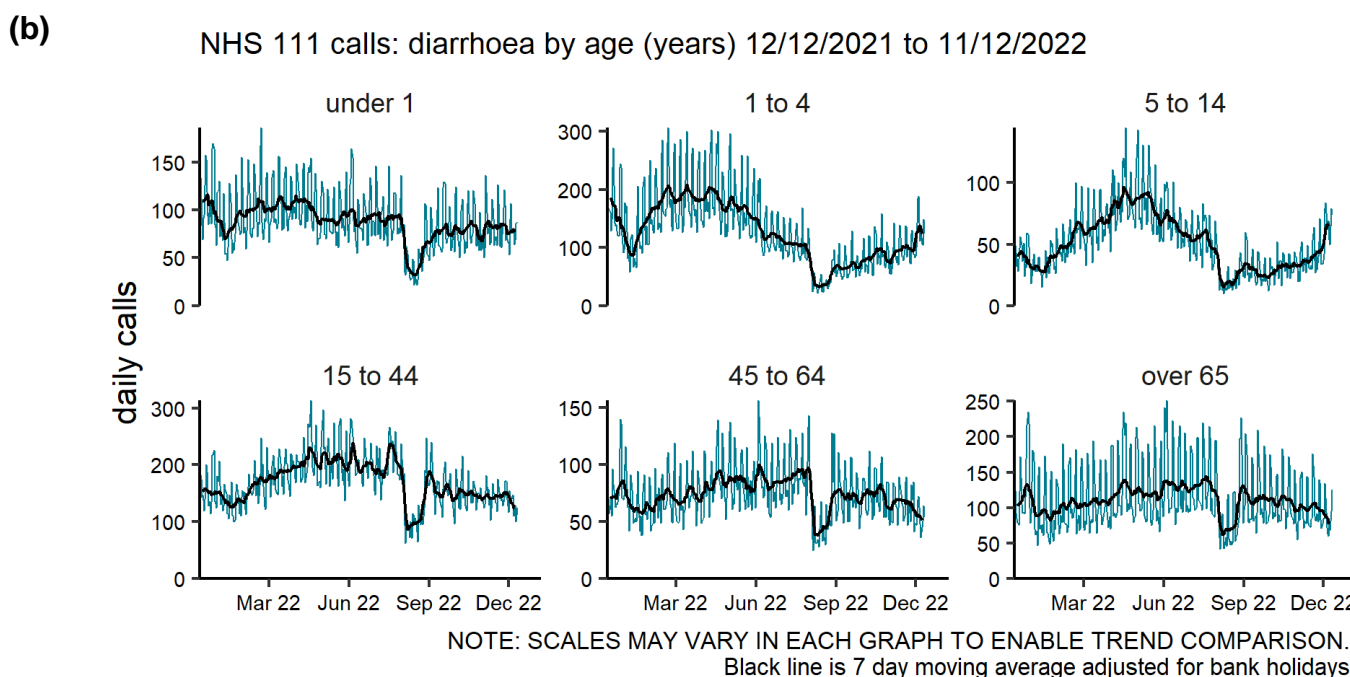
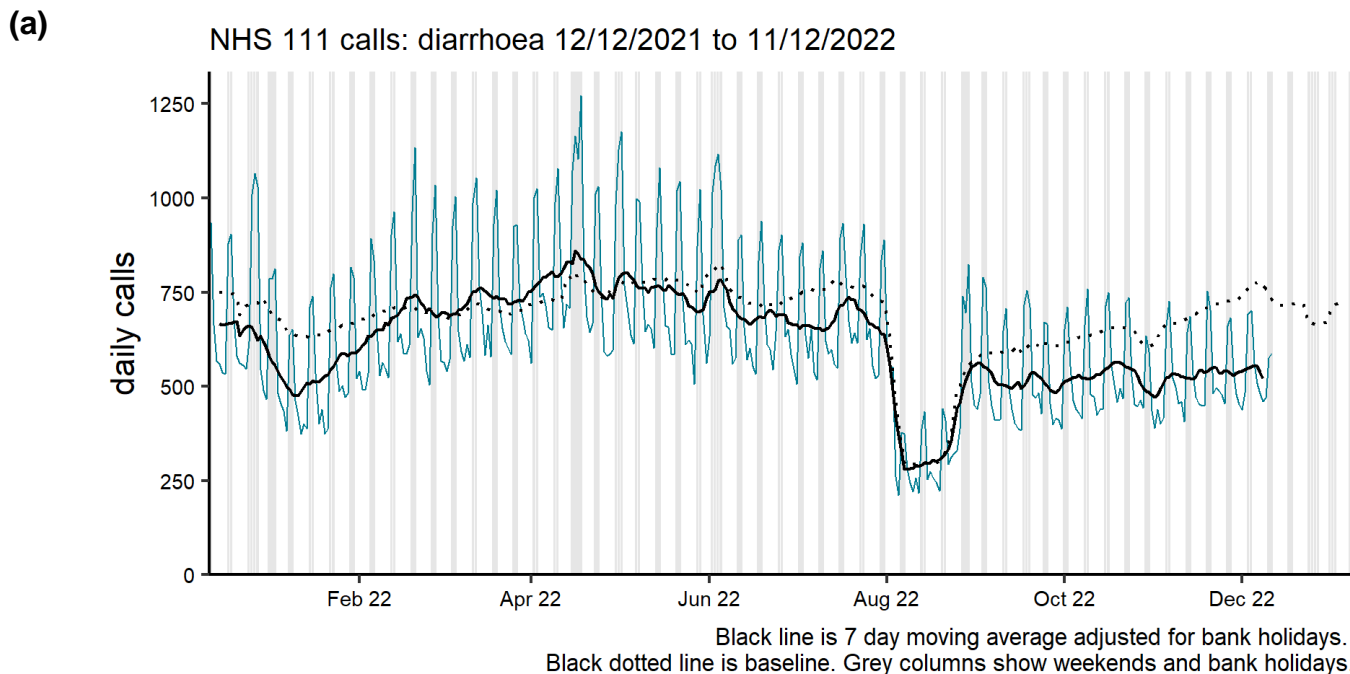
Black line is 7 day moving average adjusted for bank holidays.

Black dotted line is baseline.

Gastrointestinal conditions

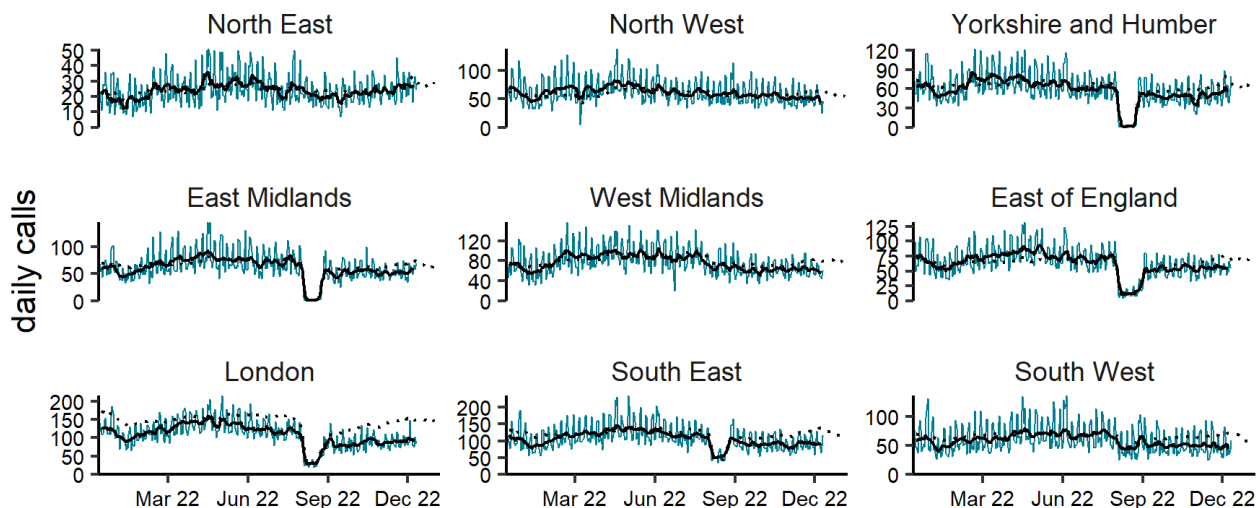
Diarrhoea NHS 111 calls

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)

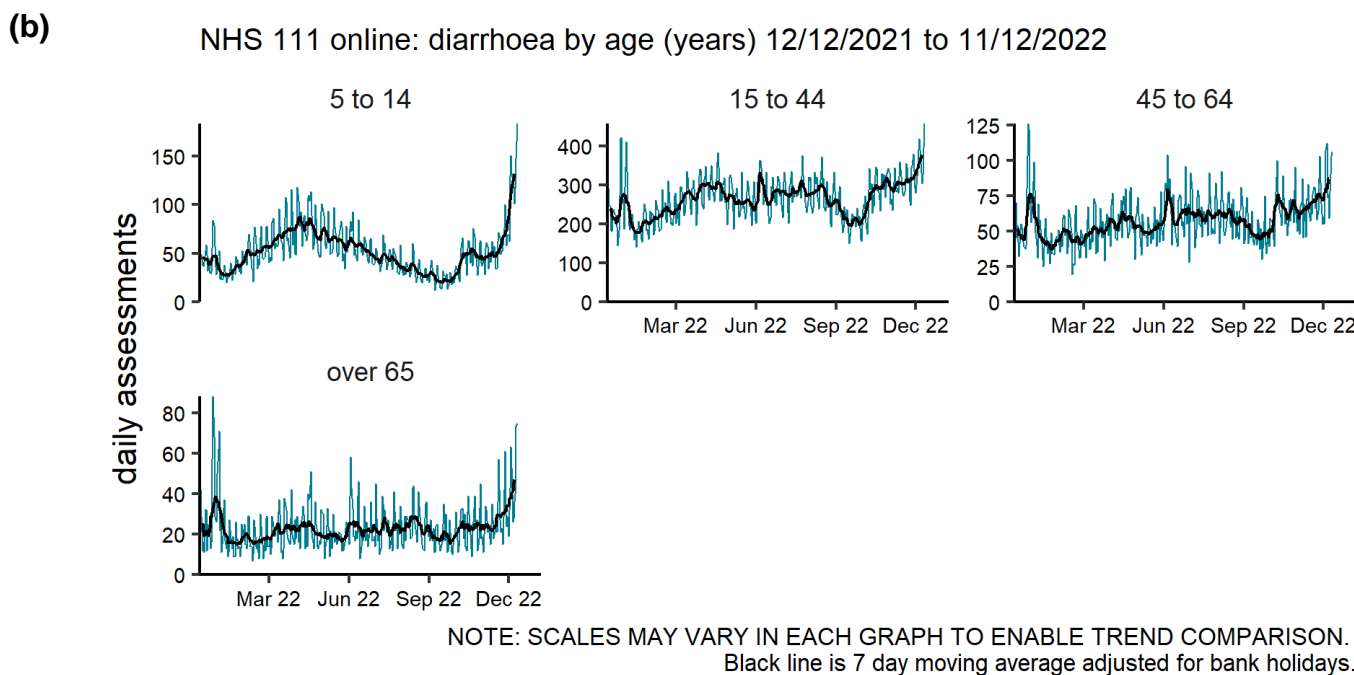
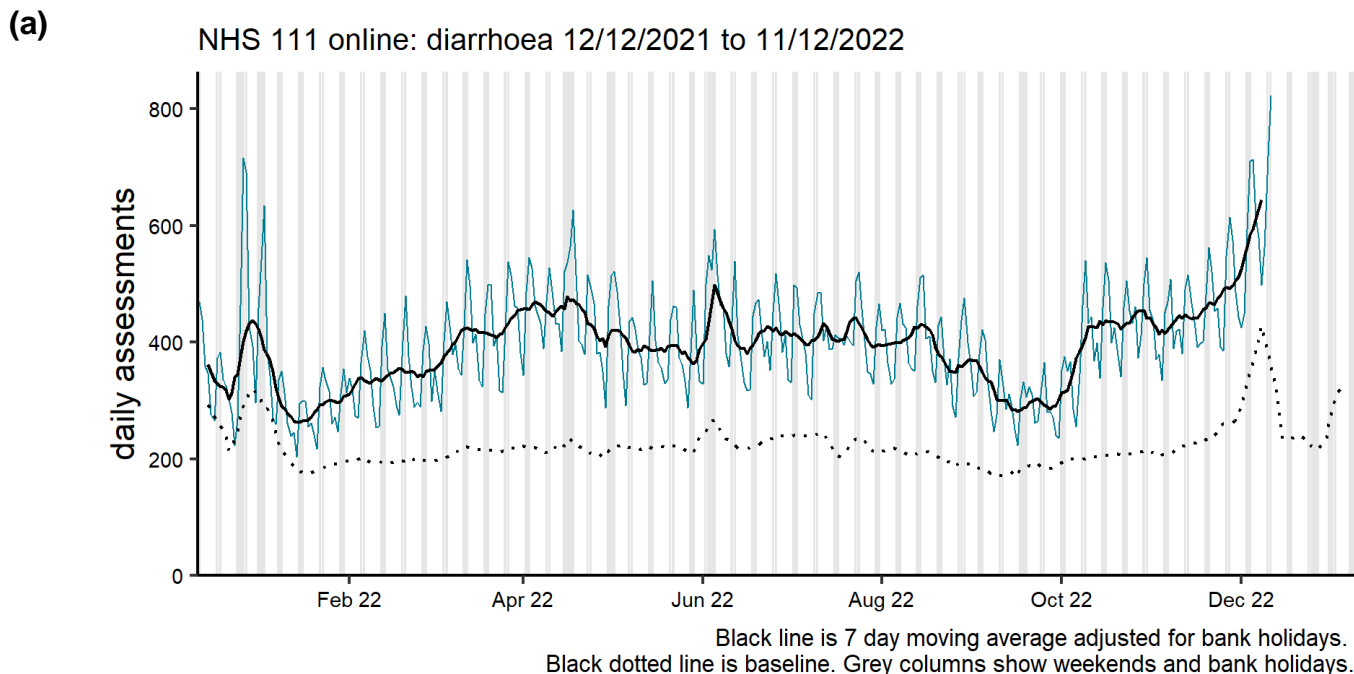
NHS 111 calls: diarrhoea by region 12/12/2021 to 11/12/2022



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Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

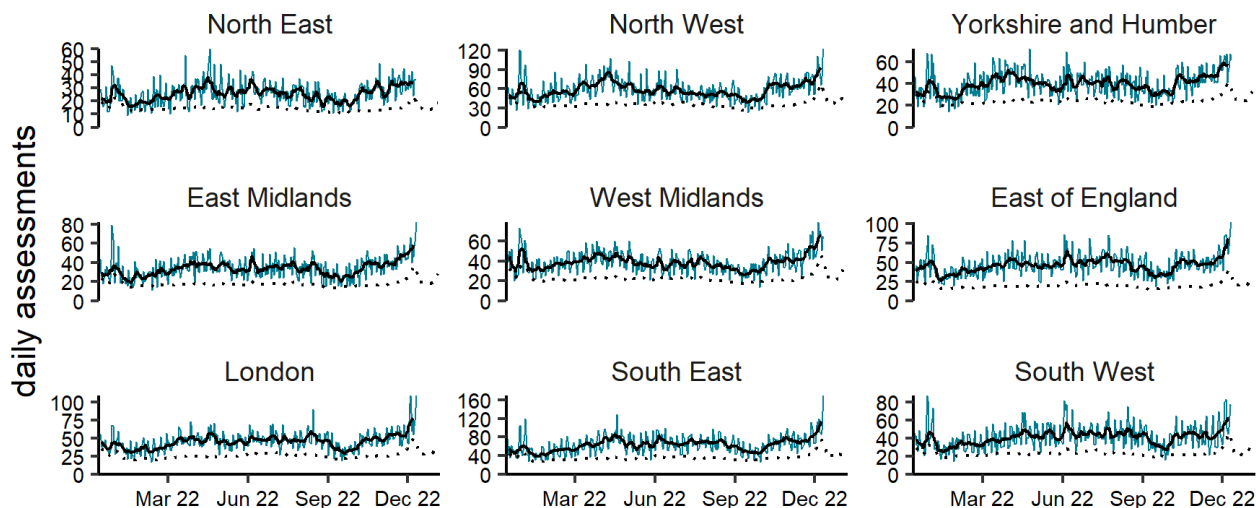
Diarrhoea NHS 111 online

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)

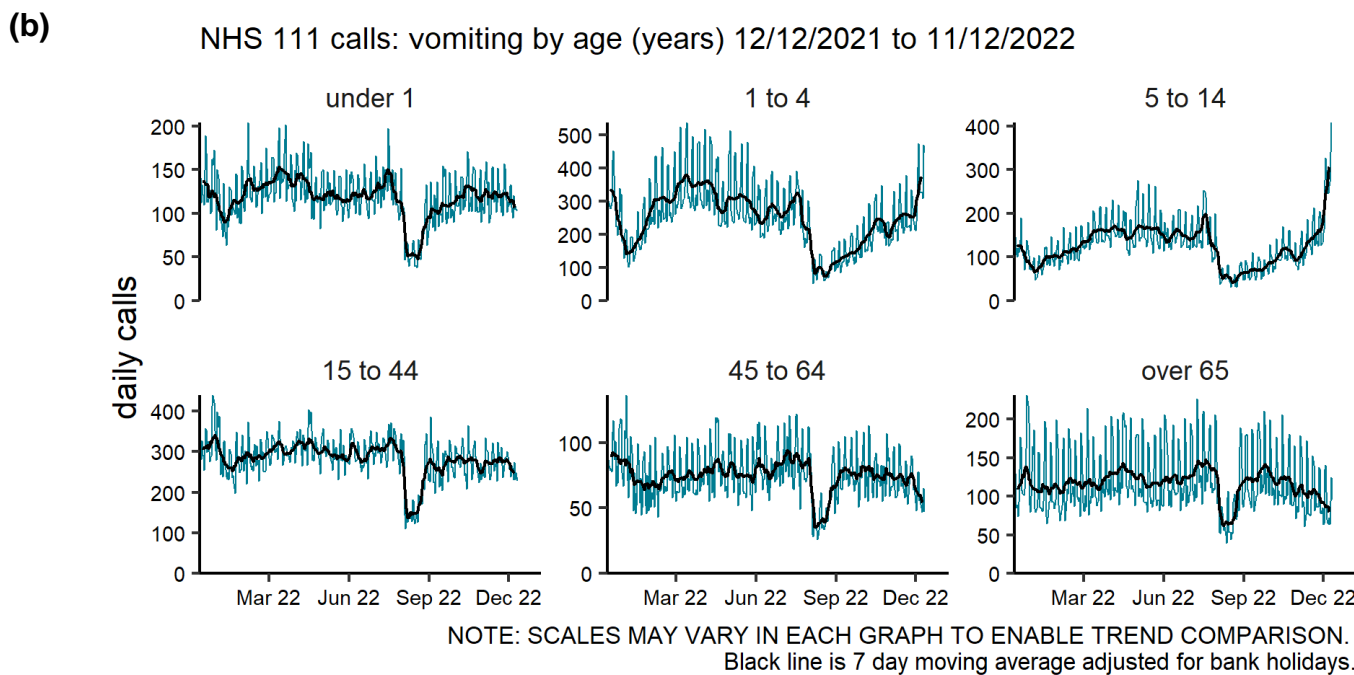
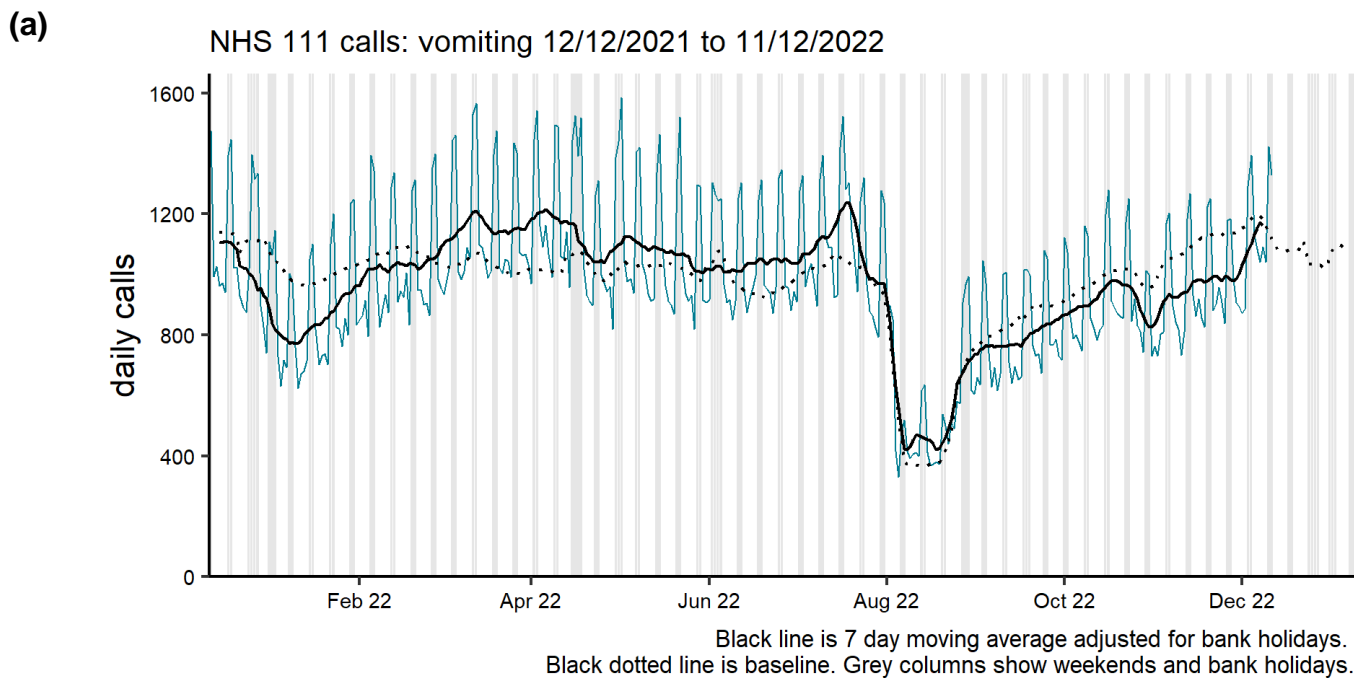
NHS 111 online: diarrhoea by region 12/12/2021 to 11/12/2022



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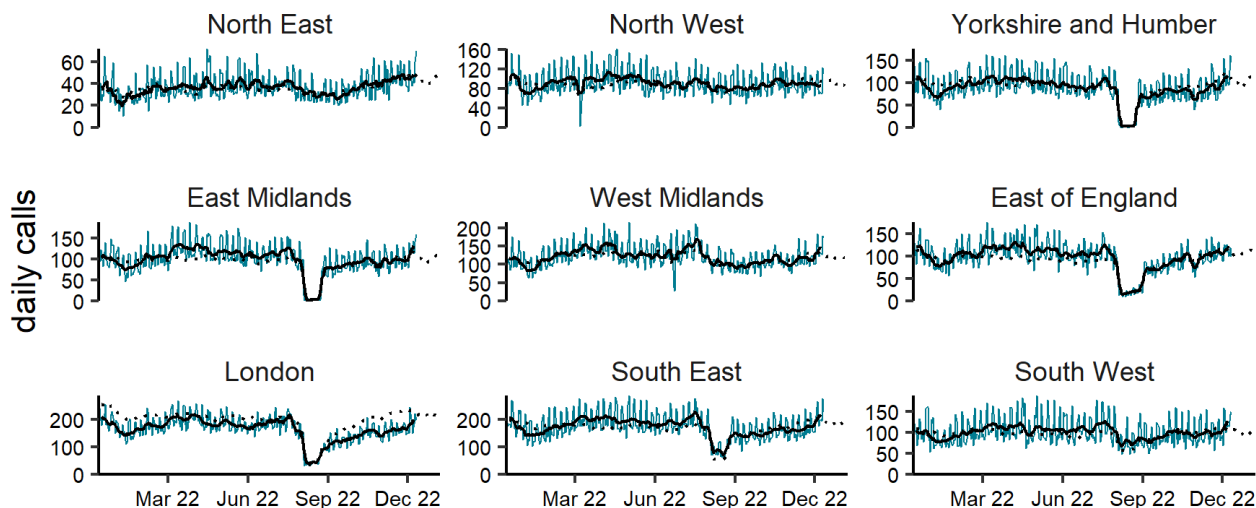
Vomiting NHS 111 calls

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)

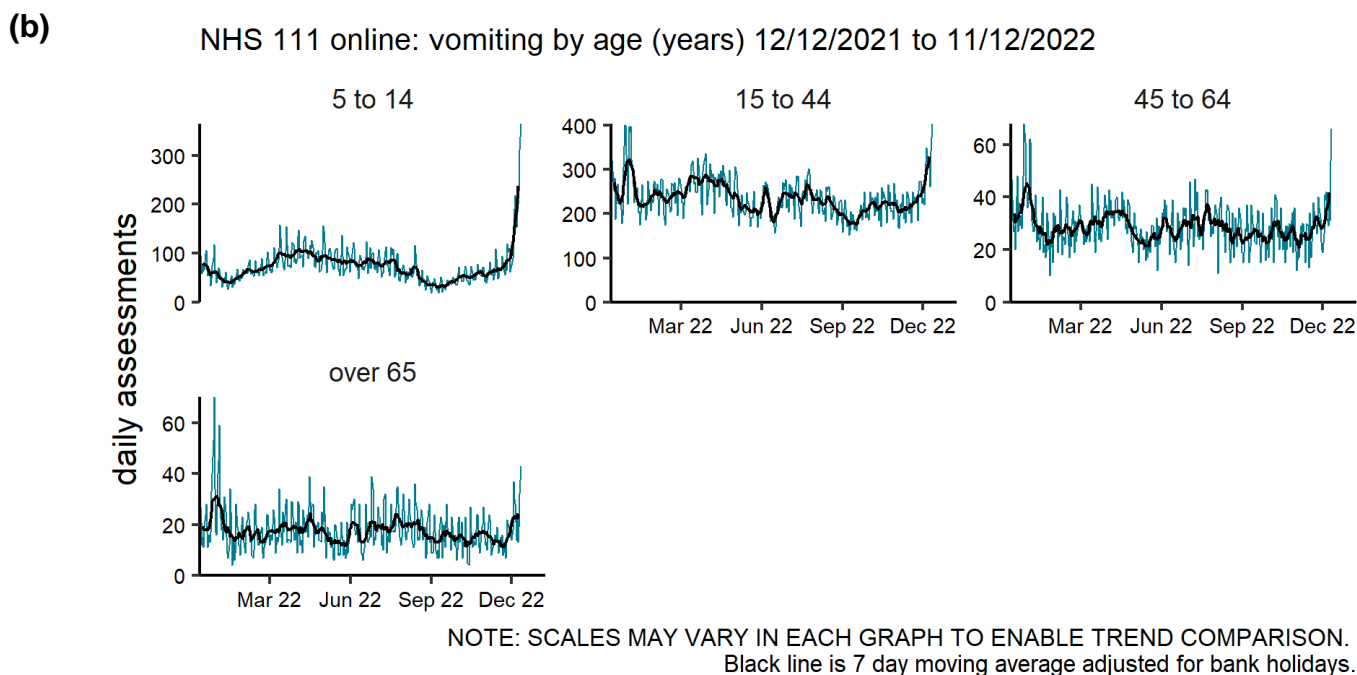
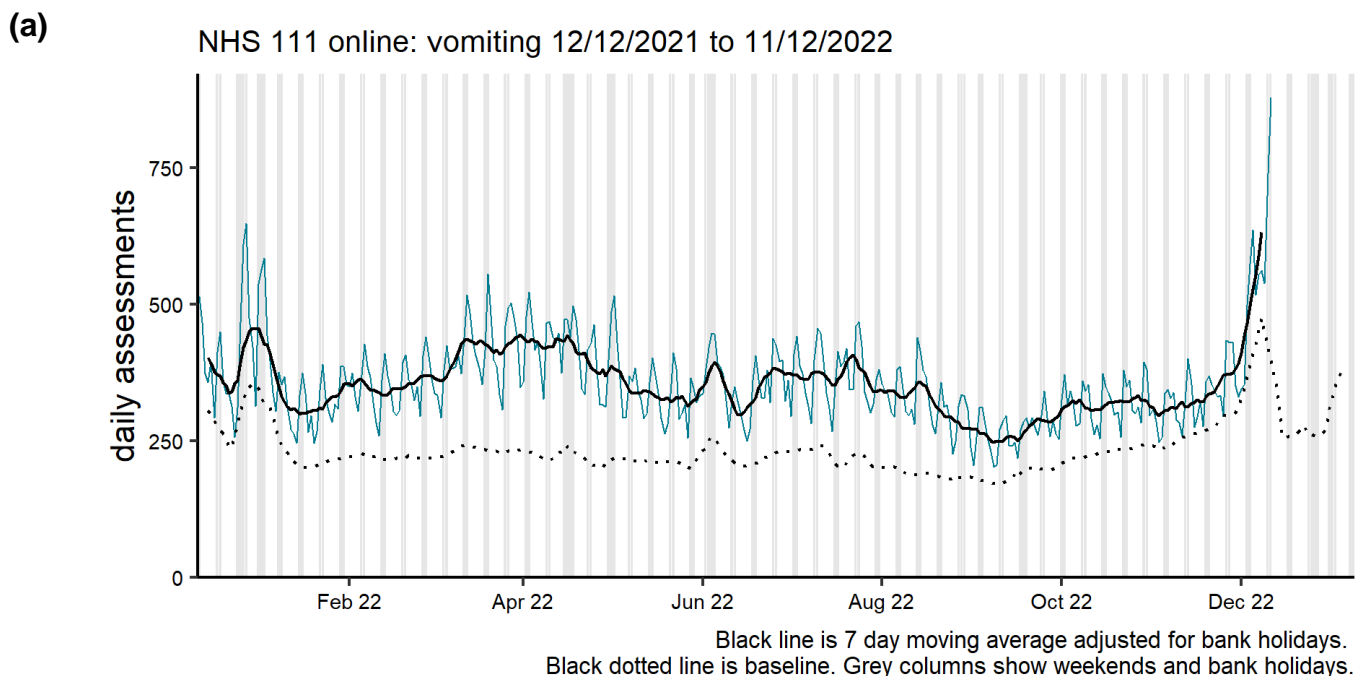
NHS 111 calls: vomiting by region 12/12/2021 to 11/12/2022



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.

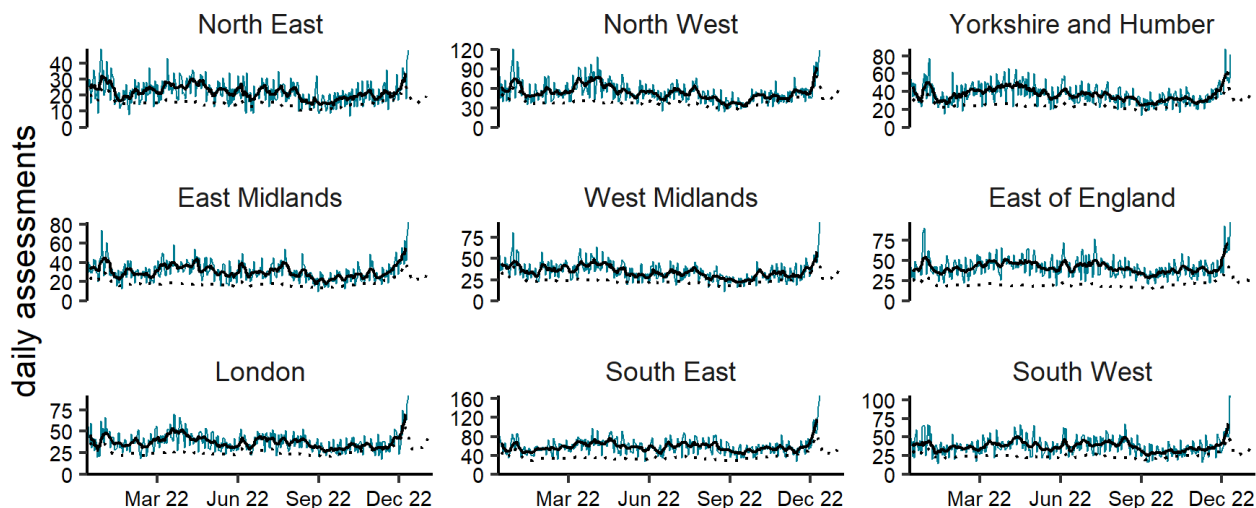
Vomiting NHS 111 online

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 12/12/2021 to 11/12/2022



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

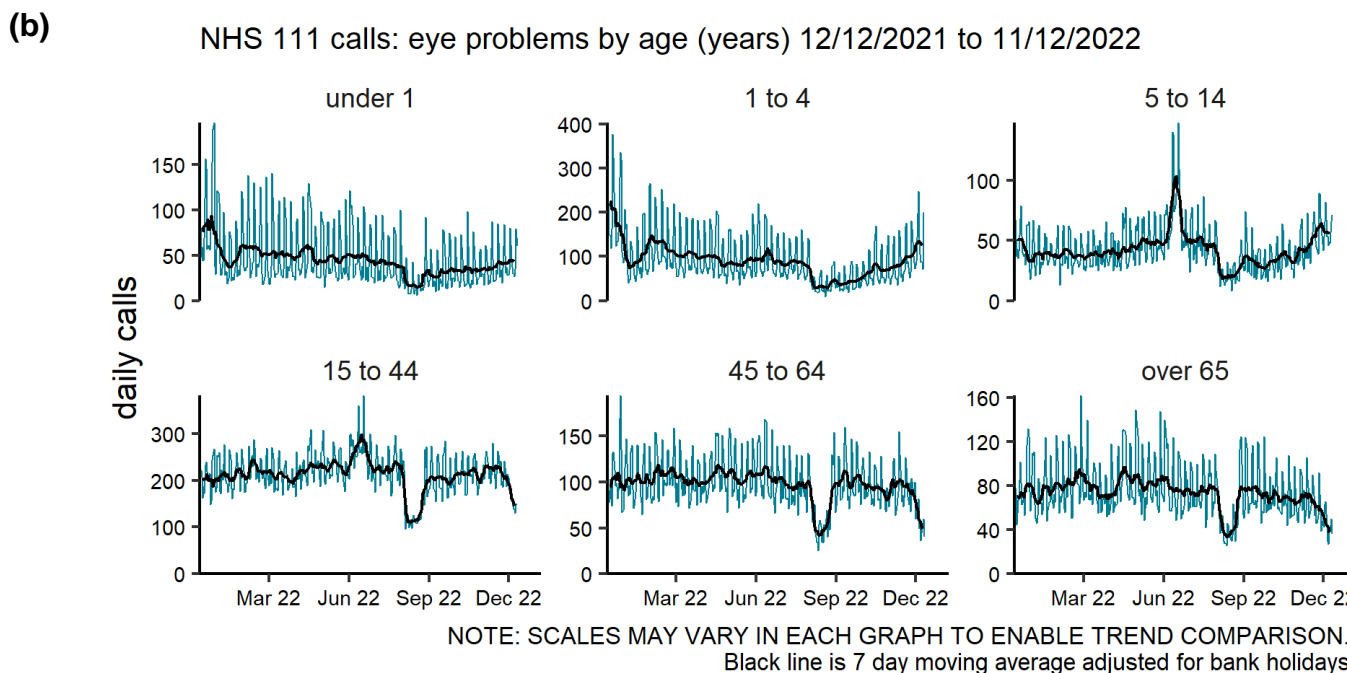
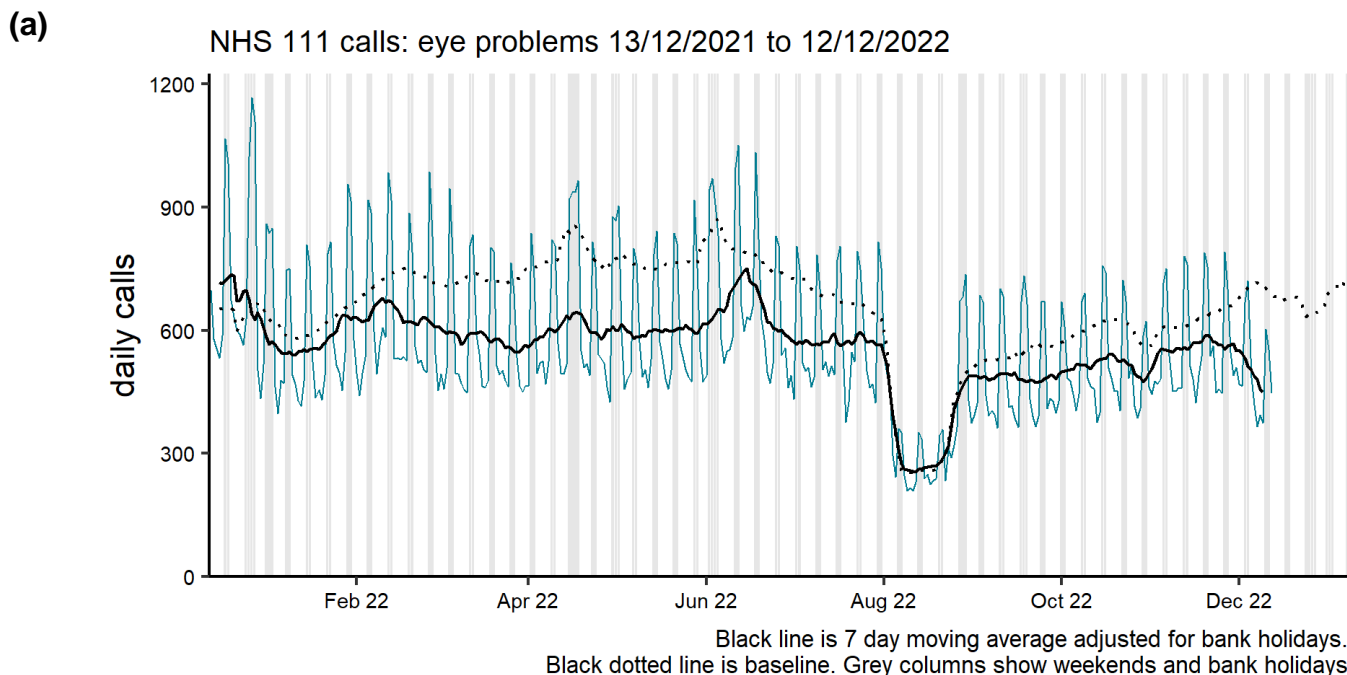
[Heat-Health Alert](#) period: 1 June to 15 September

Highest weather alert level during the current reporting week:

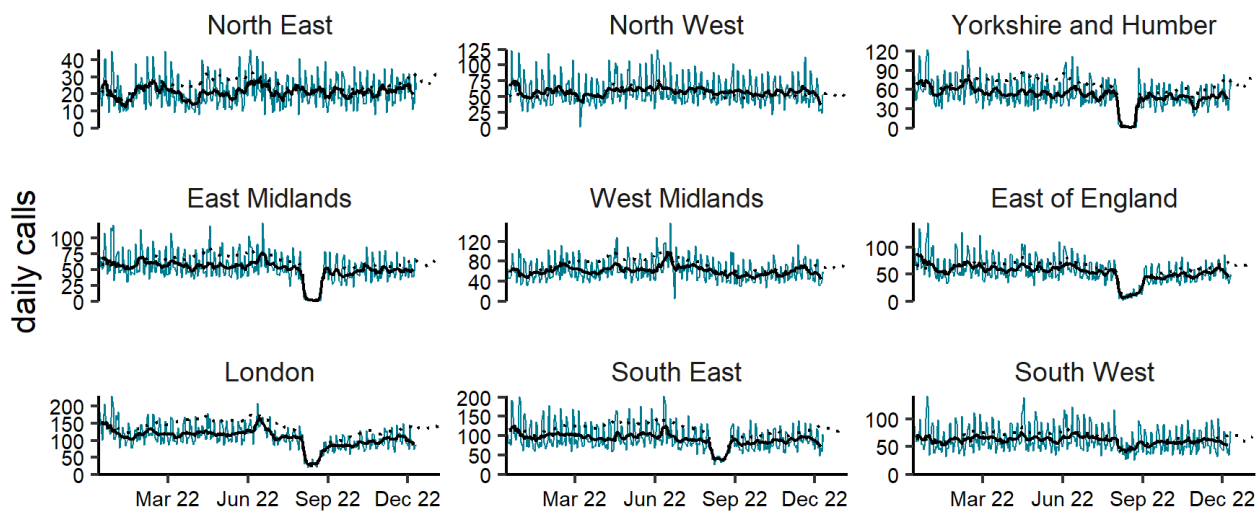
Level 3 – Severe weather action

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.



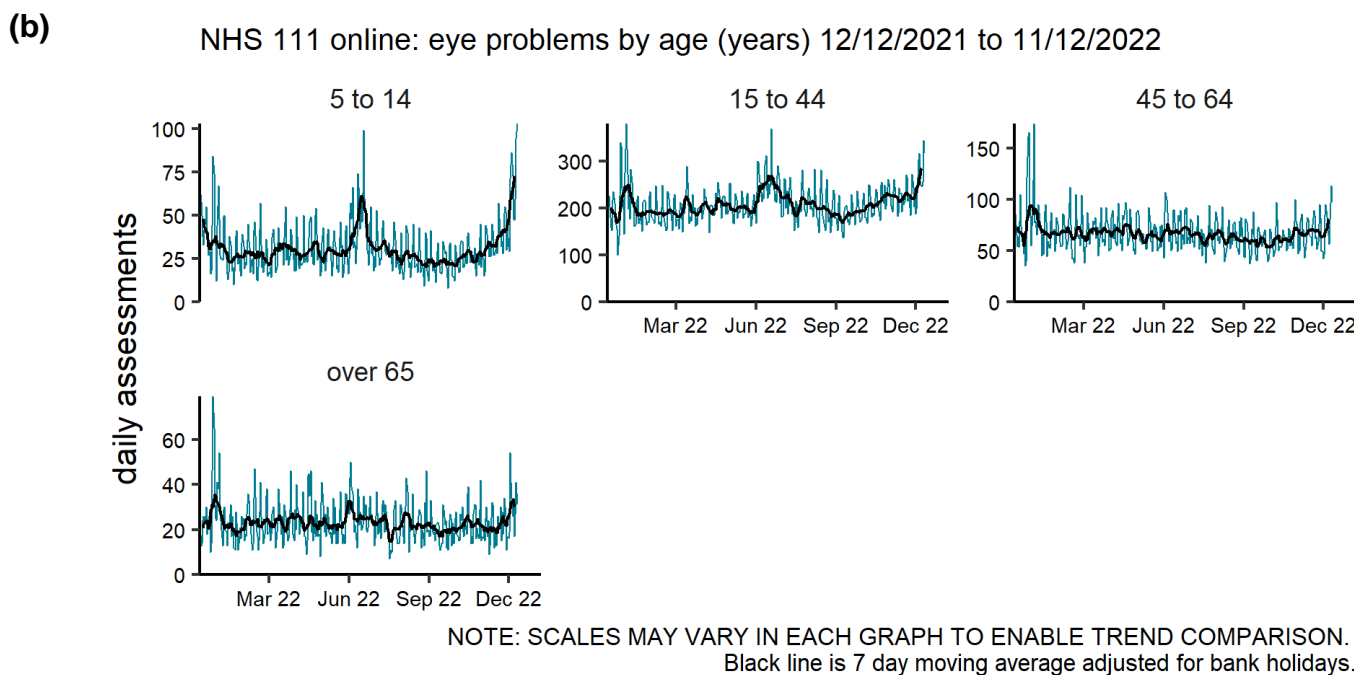
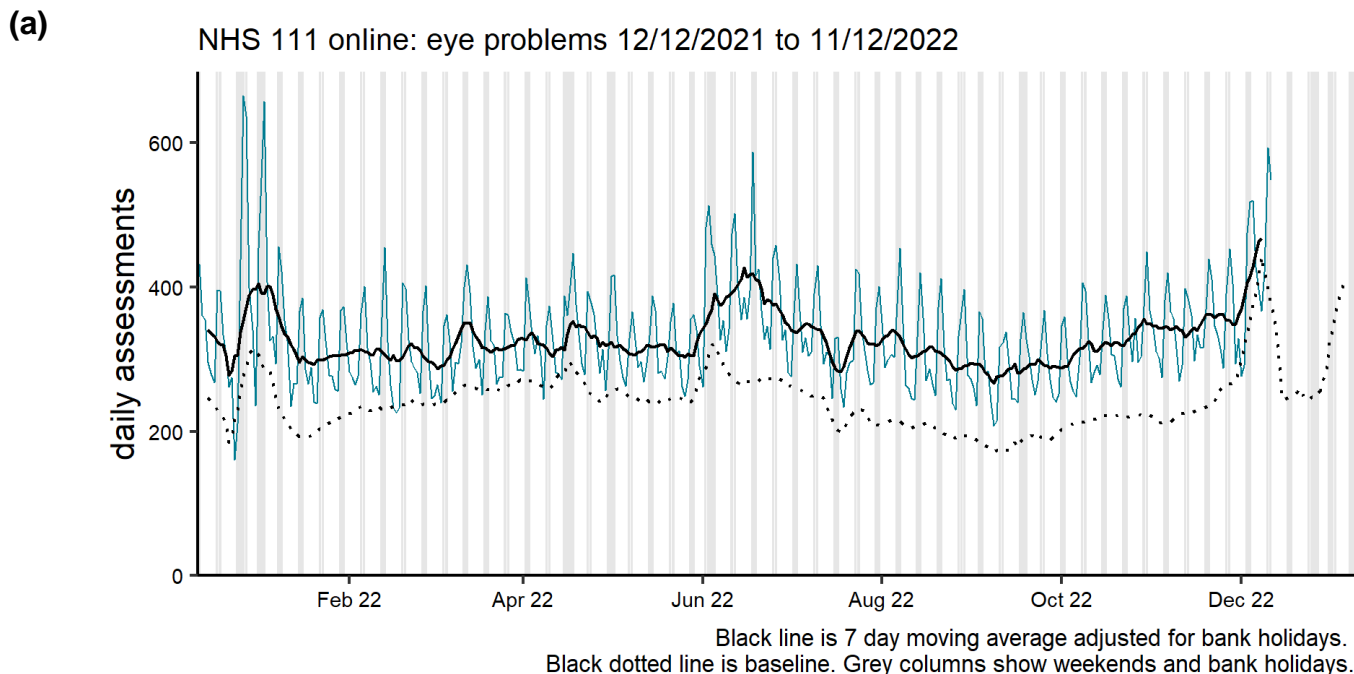
(c) NHS 111 calls: eye problems by region 12/12/2021 to 11/12/2022



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.

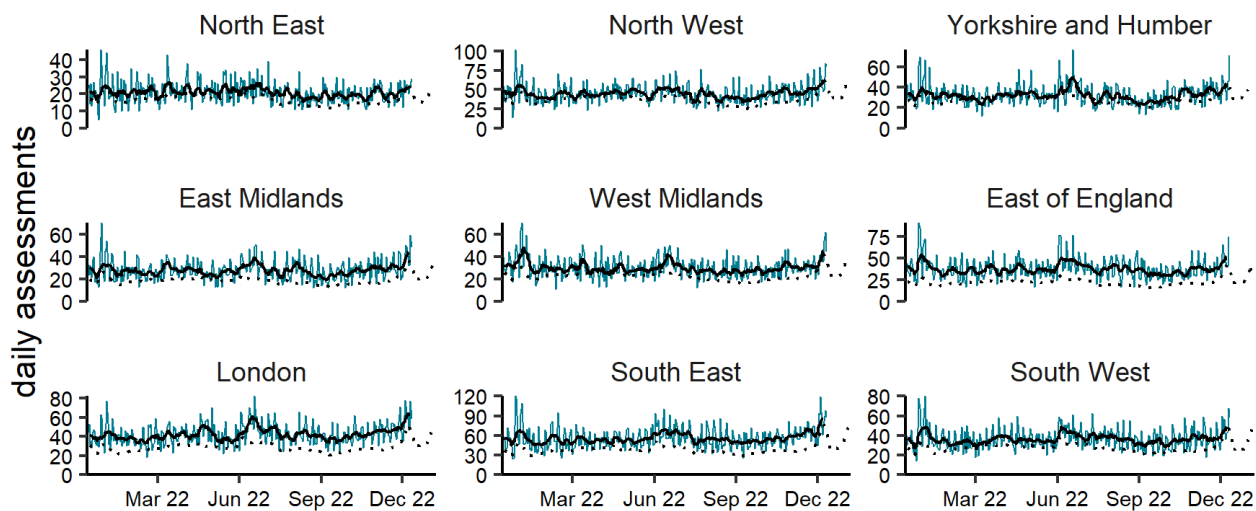
Eye problems NHS 111 online

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 12/12/2021 to 11/12/2022



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.

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Prepared by: Real-time Syndromic Surveillance Team
For queries relating to this document, please contact: syndromic.surveillan@ukhsa.gov.uk

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