



UK Health
Security
Agency

Ambulance Syndromic Surveillance System Bulletin (England)

2021 Week 51

Key messages

Data reported to: 28 December 2021

Please note: nationally, ambulance trusts have restarted using the ‘pandemic’ triage card for assessing COVID-19 patients. The associated syndromic chart has therefore been returned to this report. Other syndromic indicators (eg difficulty breathing and chest pain) should therefore be interpreted with caution. Please see **Data quality issues of note this week** for more information.

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	Level
COVID-19-like (Figure 1)	No trend	No baseline
Difficulty breathing (Figure 2)	Decreasing	Below baseline
Chest pain (Figure 3)	Decreasing	Below baseline
Cardiac or respiratory arrest (Figure 4)	No trend	Similar to baseline
Impact of heat or cold (Figure 5)	No trend	Similar to baseline
Headache (Figure 6)	No trend	Below baseline
Unconscious or passing out (Figure 7)	No trend	Below baseline
Collapsed with unknown problem (Figure 8)	No trend	Below baseline
Allergic reactions (Figure 9)	Decreasing	Below baseline
Injuries (Figure 10)	No trend	Similar to baseline
Overdose, or ingestion or poisoning (Figure 11)	Decreasing	Similar to baseline

System coverage

Table 2: The number of ambulance Trusts included in surveillance each day during the most recent week.

Date	Number of ambulance Trusts ¹
22 December 2021	10
23 December 2021	10
24 December 2021	10
25 December 2021	10
26 December 2021	10
27 December 2021	10
28 December 2021	10

¹ maximum 10 Trusts in England

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About this syndromic surveillance system

This bulletin presents data from the UK Health Security Agency (UKHSA) ambulance 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 ambulance call data are analysed and reported here, to identify and describe trends for a variety of syndromic indicators:

- syndromic indicators include groupings such as difficulty breathing, chest pain and injuries
- syndromic indicators are based on:
 - information gathered during the initial call
 - signs/symptoms and may not be laboratory confirmed
- **Key messages** describes any notable trends nationally (England), 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 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

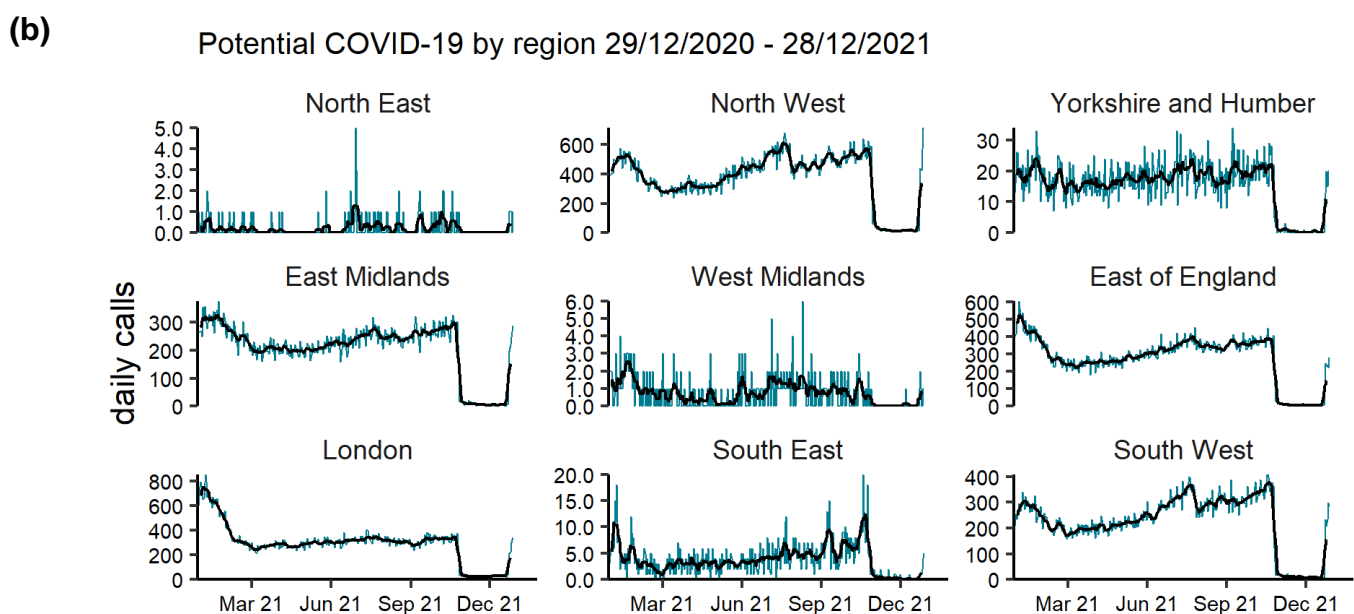
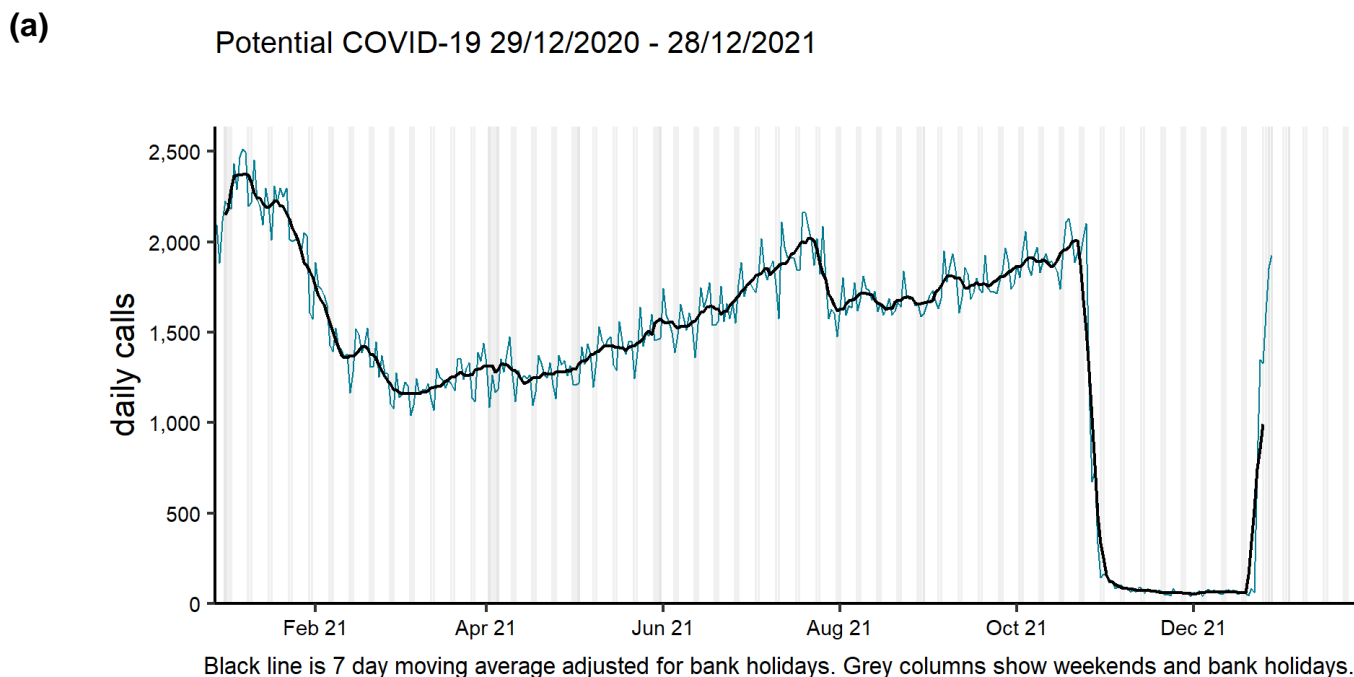
Ambulance trusts reduced use of the 'pandemic' triage card for assessing COVID-19 patients 25 October to 23 December 2021. Other syndromic indicators (particularly 'difficulty breathing' and 'chest pain') may have been affected in some regions as a result of this change.

See **Table 2** for the number of Trusts included in the most recent week, indicating where data has not arrived at the time of this report production. All historical data is complete.

Respiratory conditions

COVID-19-like

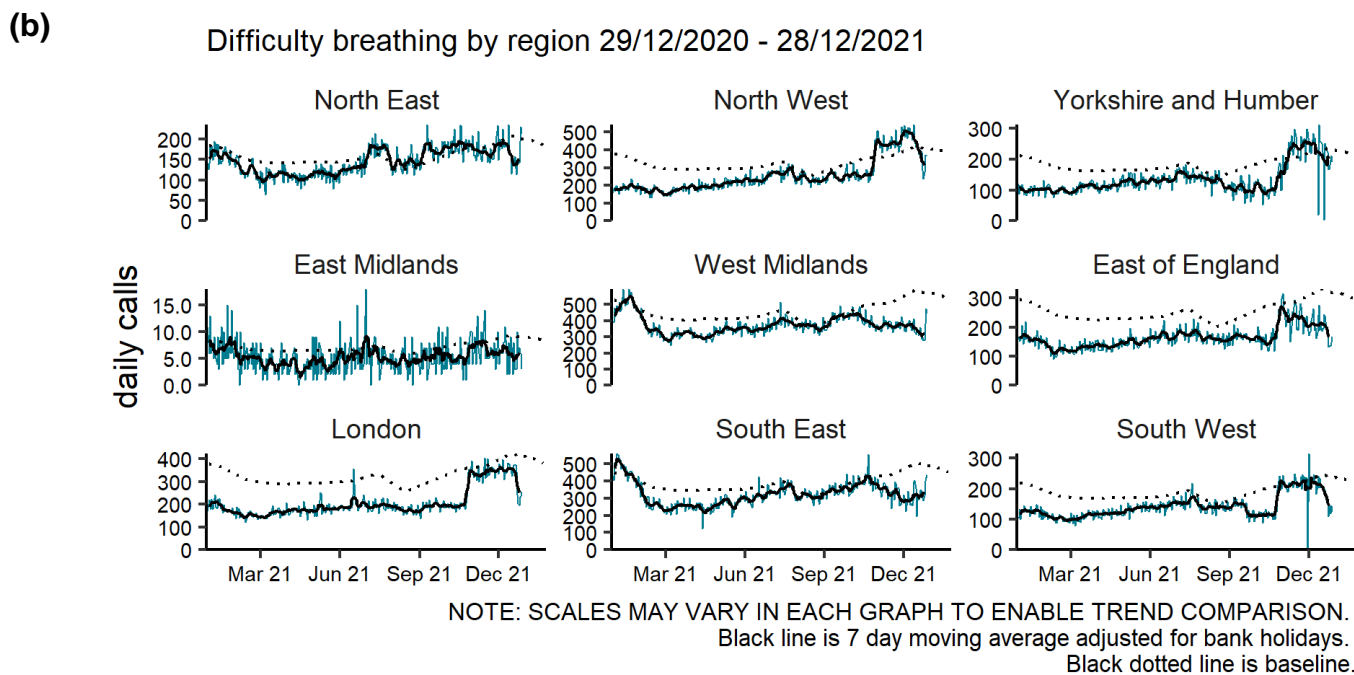
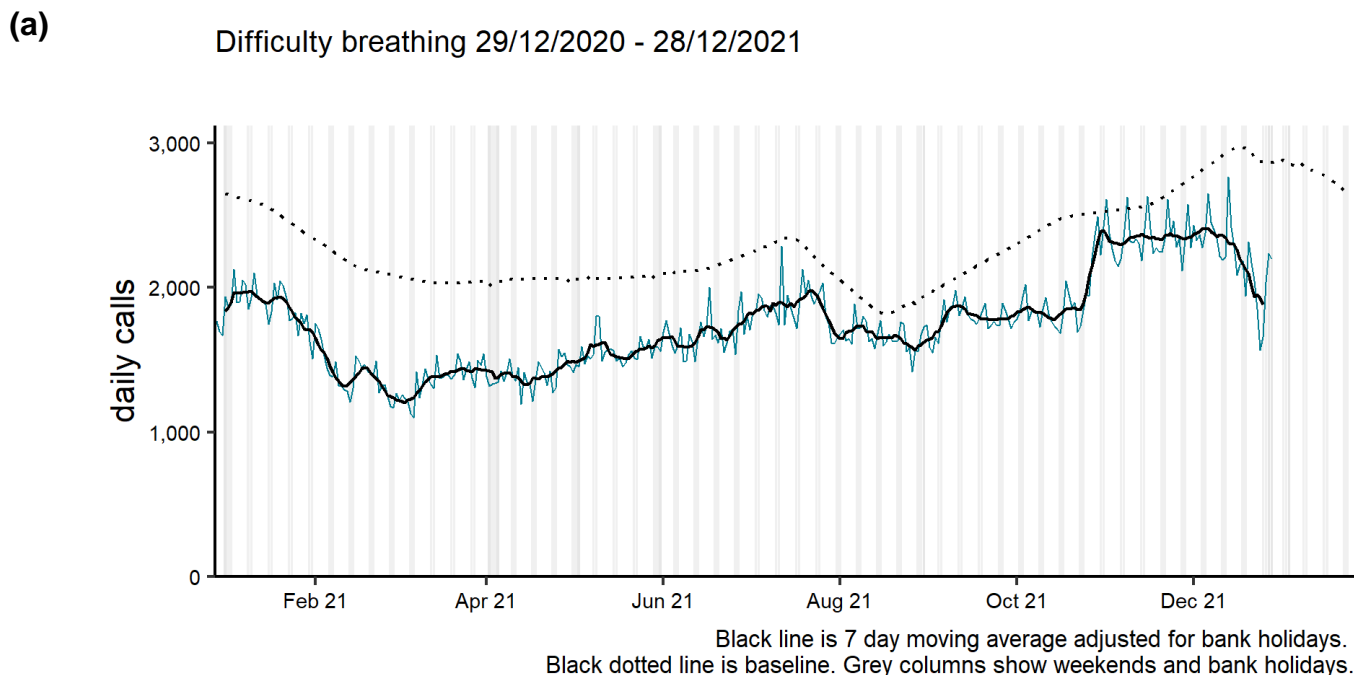
Figure 1: Daily number of COVID-19-like ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region. Please note there is minimal usage of this syndromic indicator by the North East, West Midlands and South East ambulance Trusts.



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

Difficulty breathing

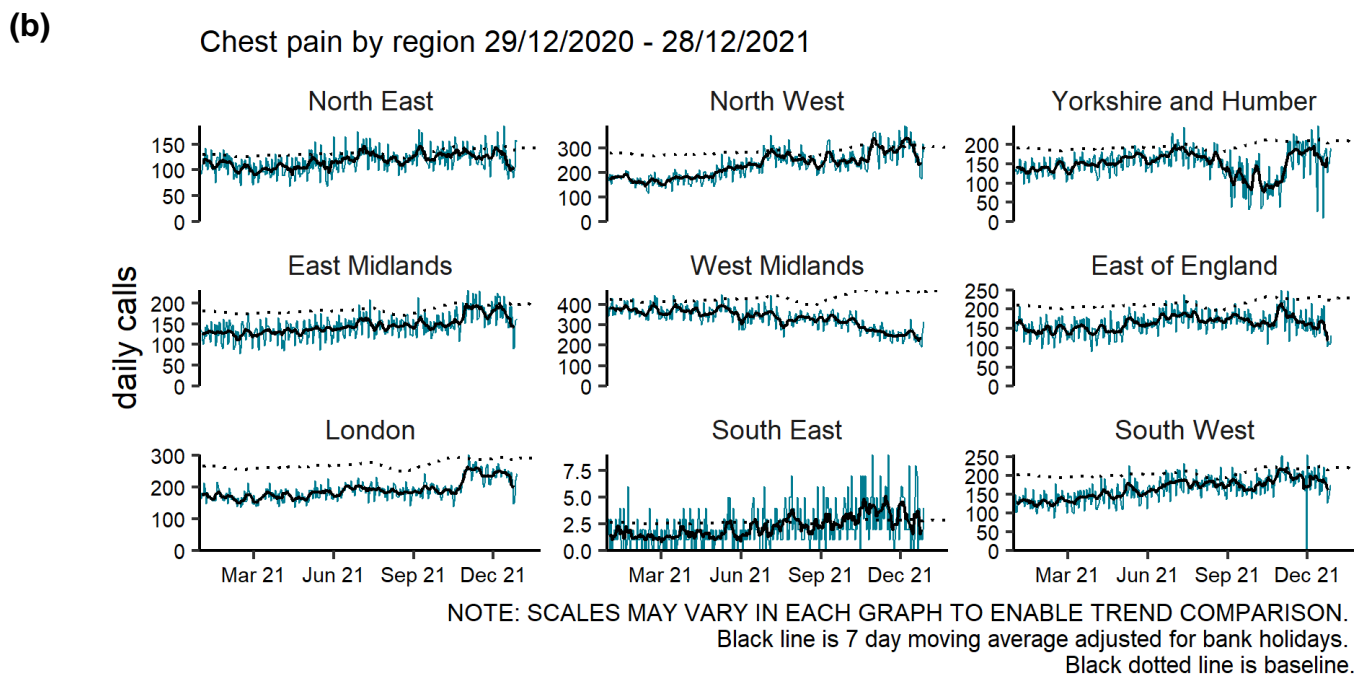
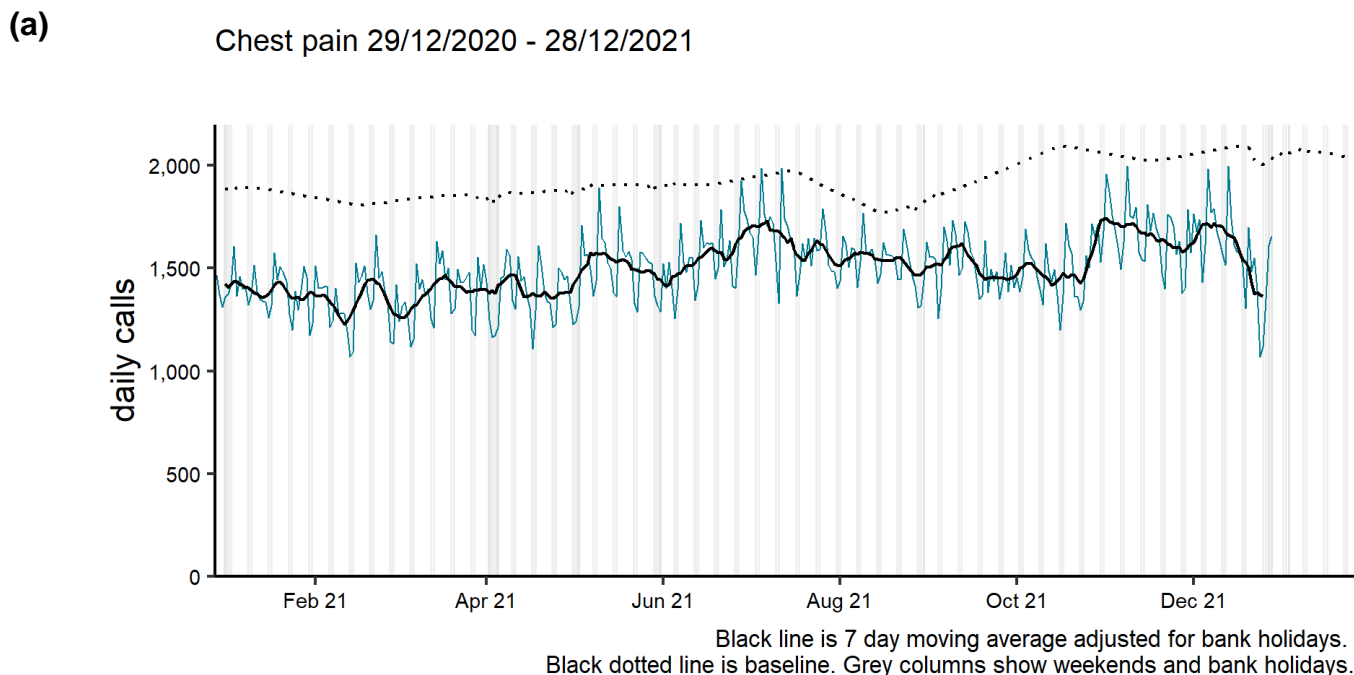
Figure 2: Daily number of difficulty breathing ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region. Please note there is minimal usage of this syndromic indicator by the East Midlands ambulance Trust.



Cardiac conditions

Chest pain

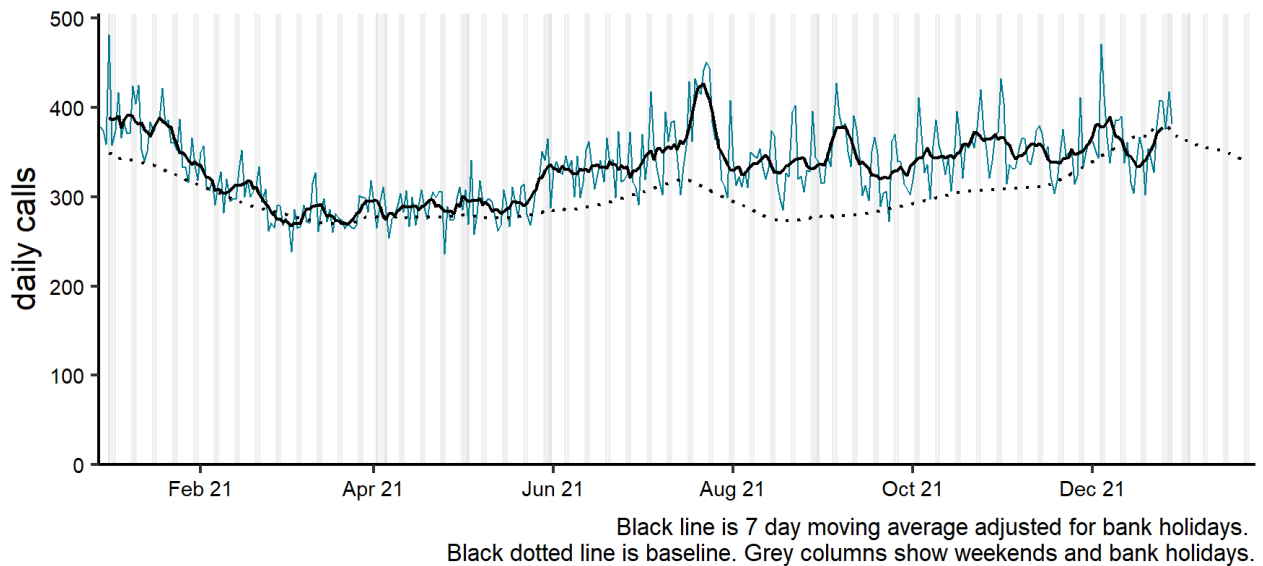
Figure 3: Daily number of chest pain ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region. Please note there is minimal usage of this syndromic indicator by the South East ambulance Trust.



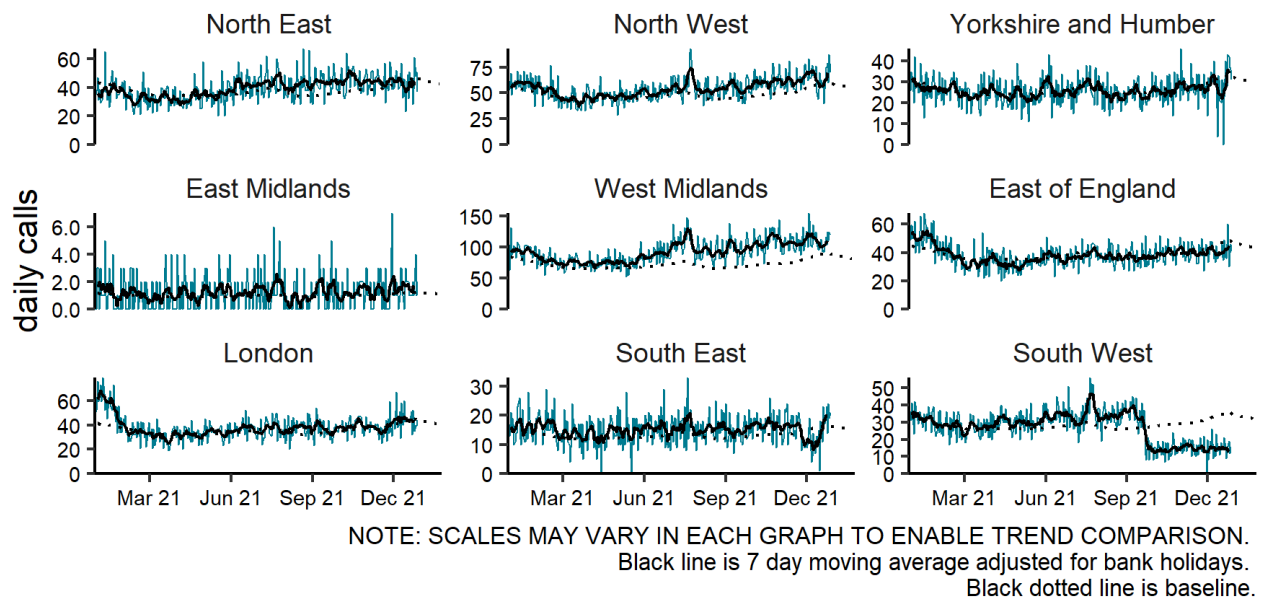
Cardiac or respiratory arrest

Figure 4: Daily number of cardiac or respiratory arrest ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region. Please note there is minimal usage of this syndromic indicator by the East Midlands ambulance Trust.

(a) Cardiac or respiratory arrest 29/12/2020 - 28/12/2021



(b) Cardiac or respiratory arrest by region 29/12/2020 - 28/12/2021



Seasonal or 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

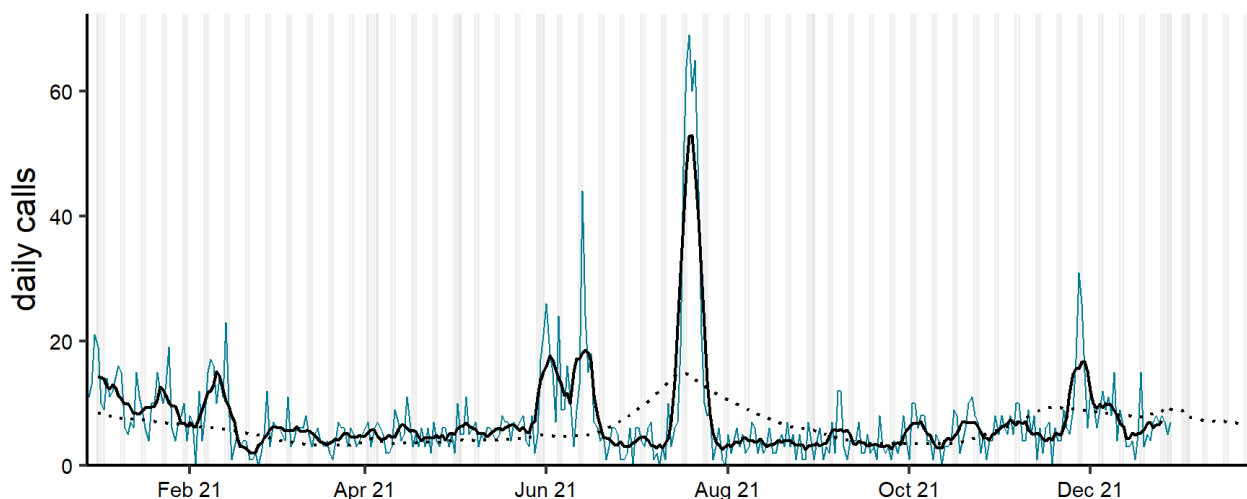
Highest weather alert level during the current reporting week:

Level 3 – Severe weather action

Impact of heat or cold

Figure 5: Daily number of heat or cold related ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.

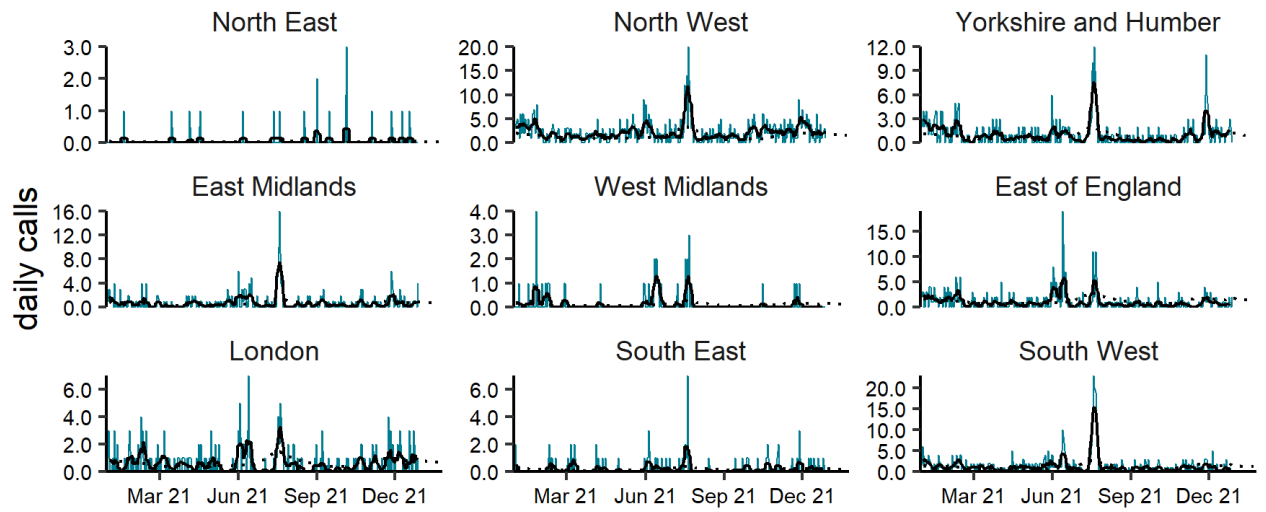
(a) Impact of heat or cold 29/12/2020 - 28/12/2021



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

(b)

Impact of heat or cold by region 29/12/2020 - 28/12/2021

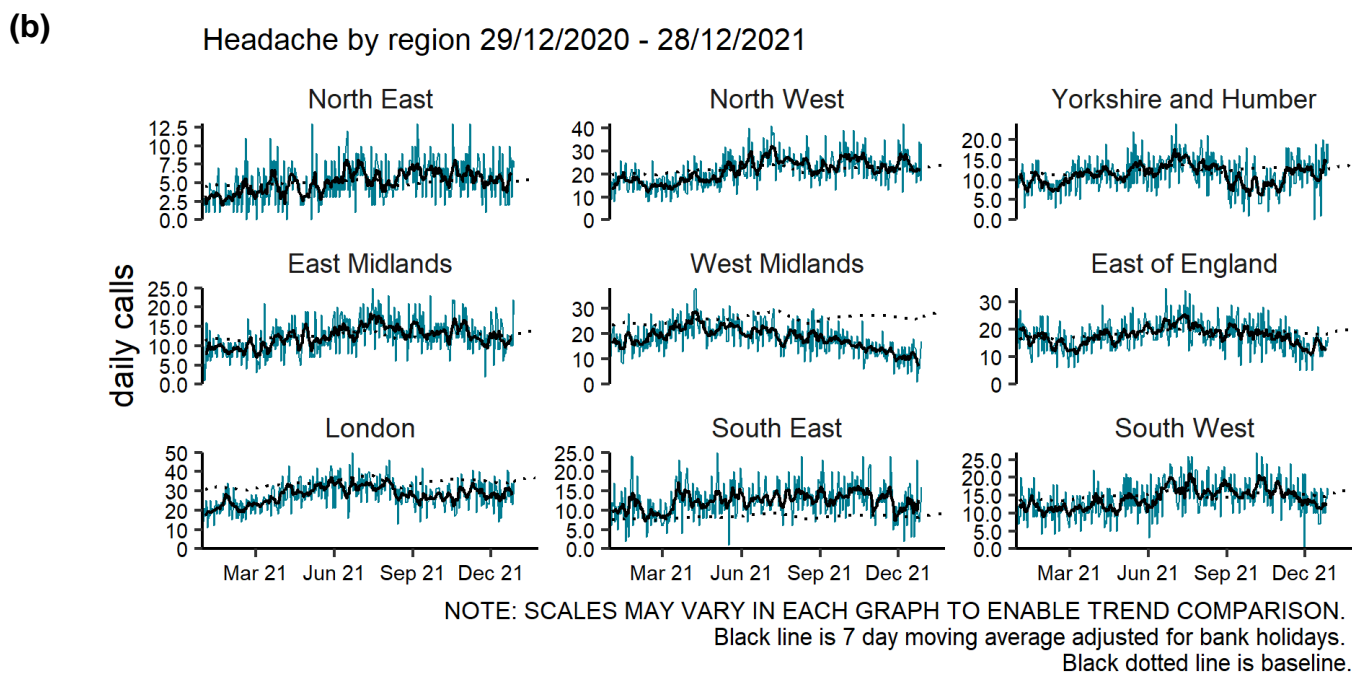
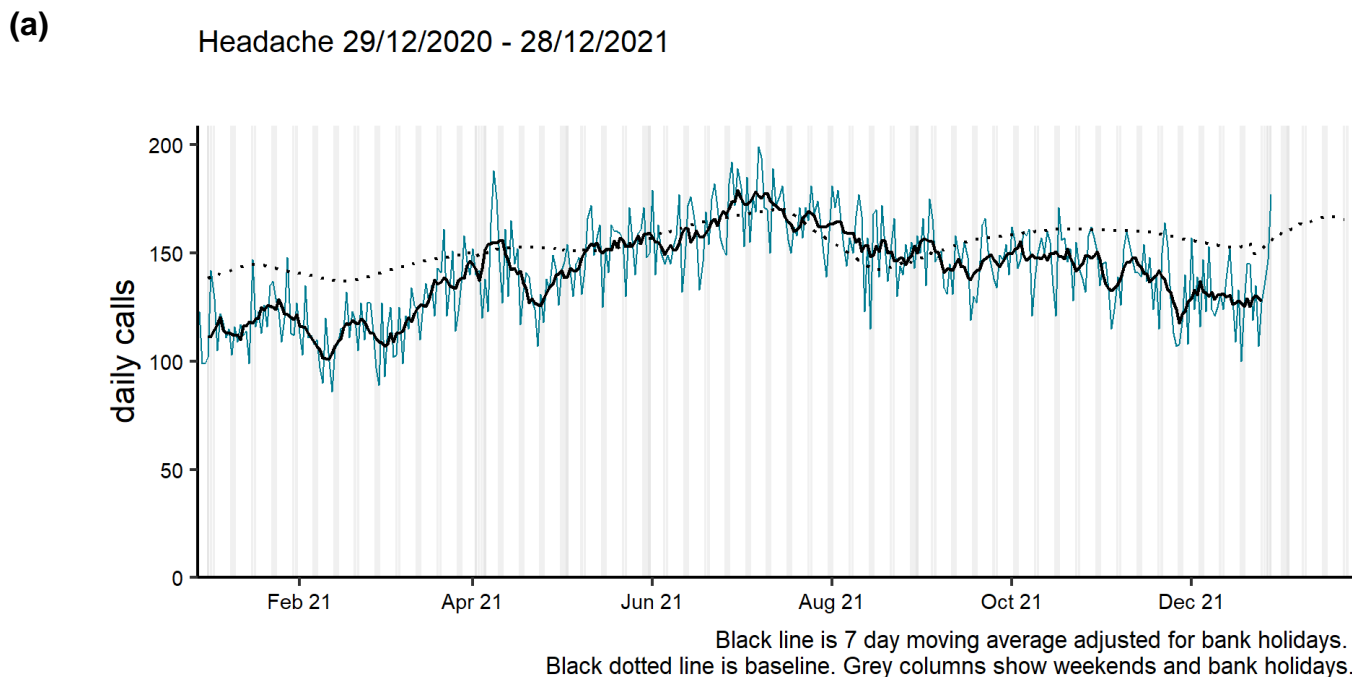


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Other conditions

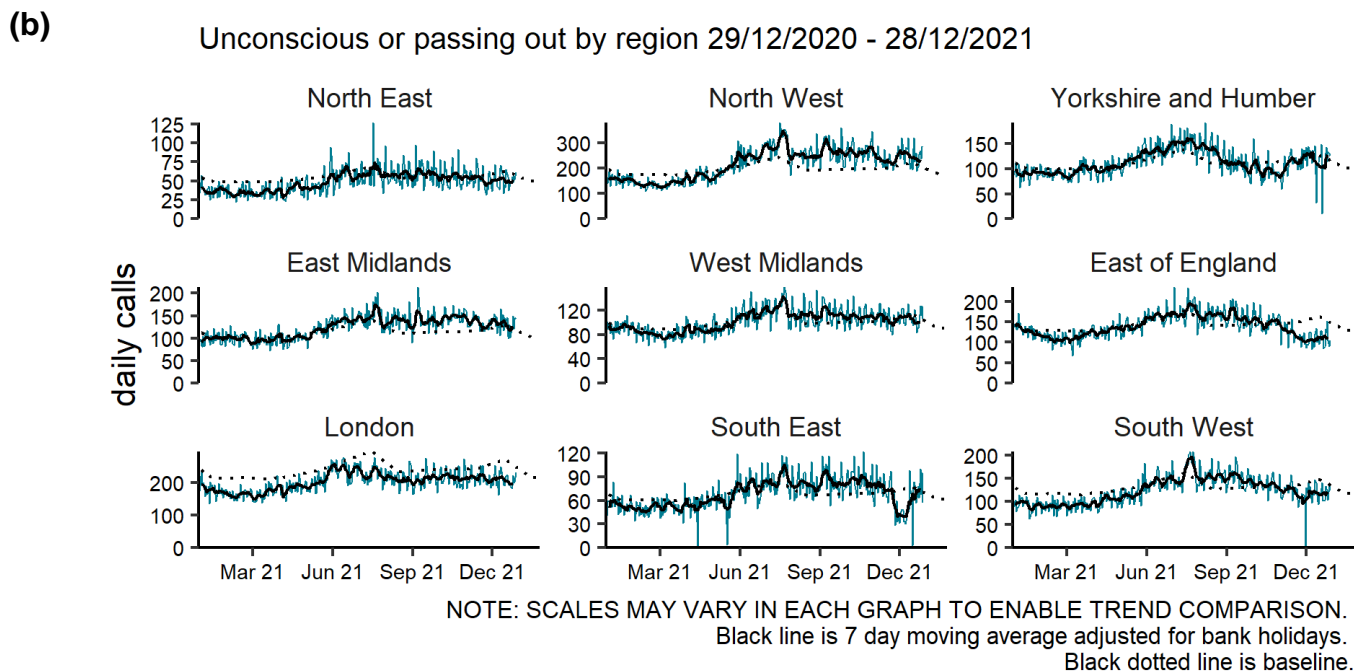
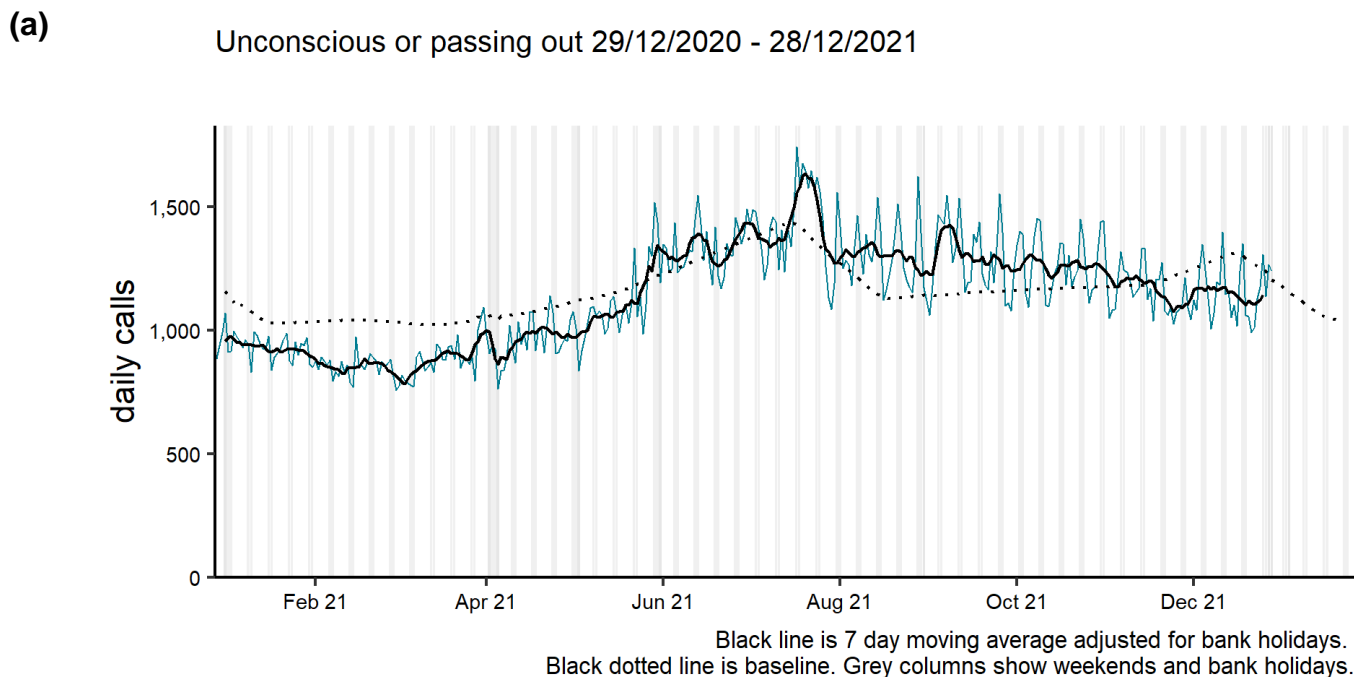
Headache

Figure 6: Daily number of headache ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.



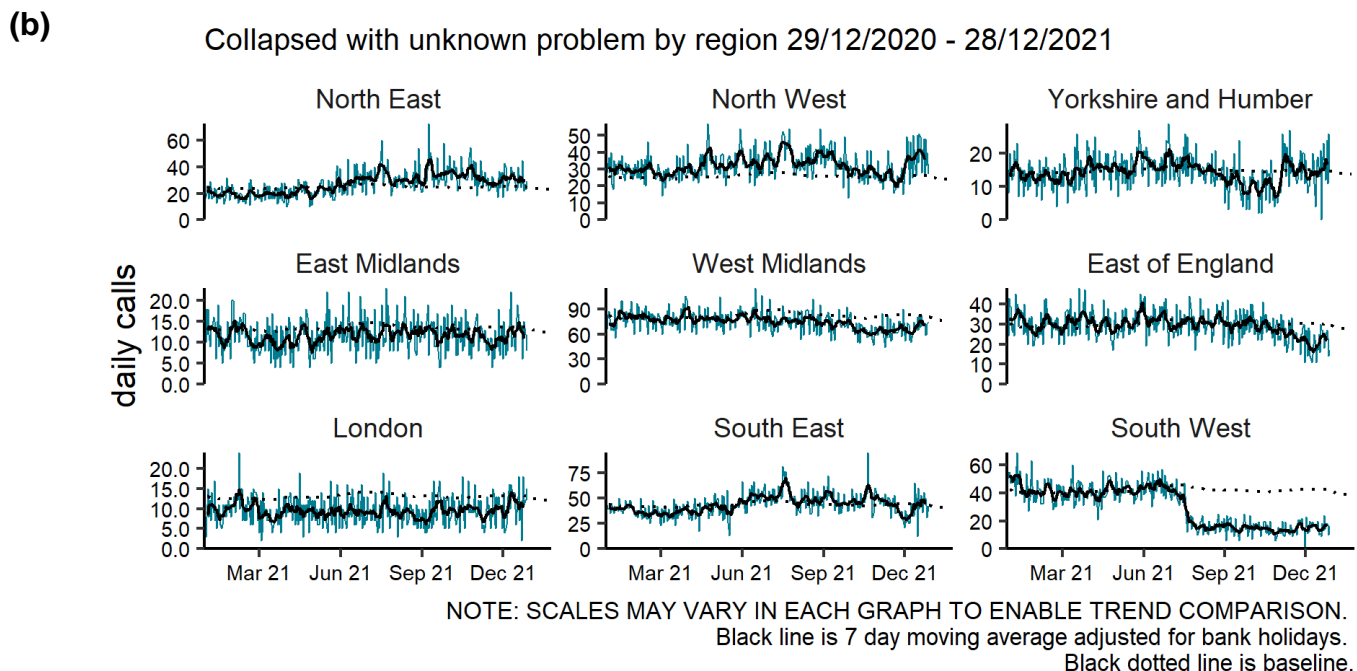
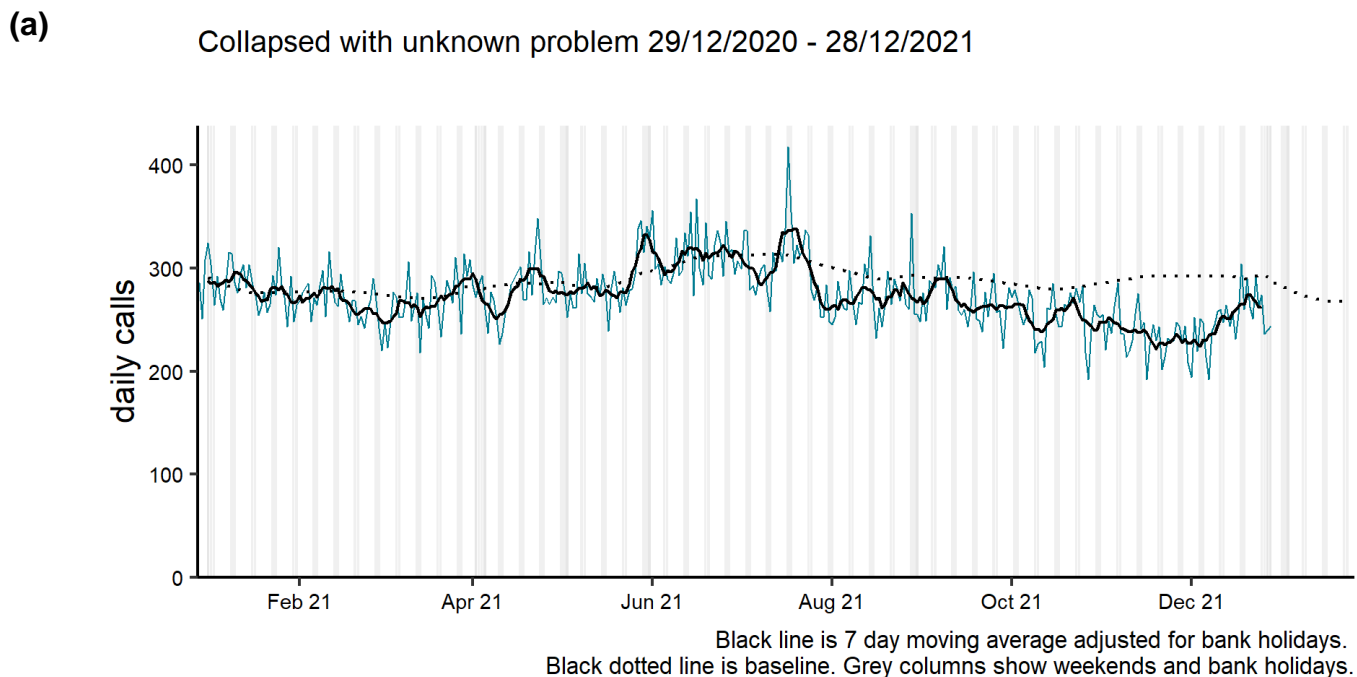
Unconscious or passing out

Figure 7: Daily number of unconscious or passing out ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.



Collapsed with unknown problem

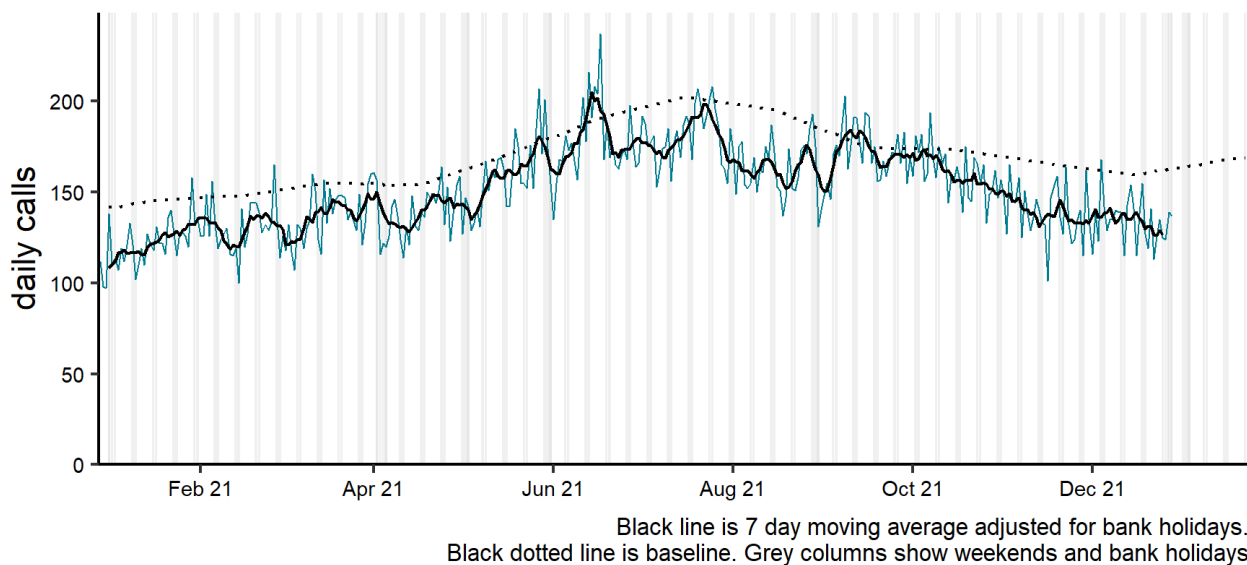
Figure 8: Daily number of collapsed with unknown problem ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.



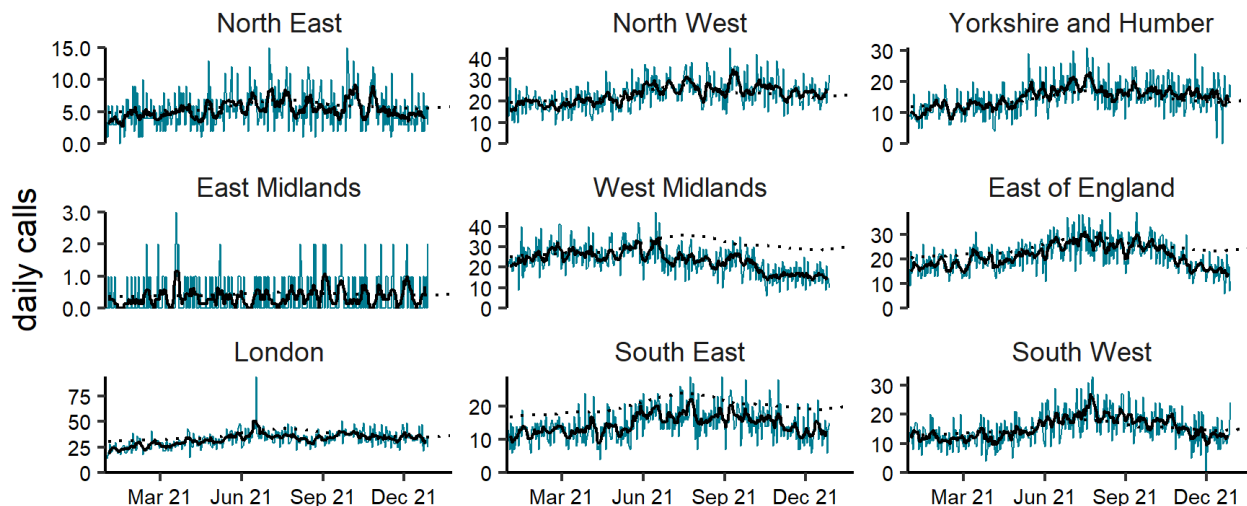
Allergic reactions

Figure 9: Daily number of allergic reactions ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.

(a) Allergic reactions 29/12/2020 - 28/12/2021



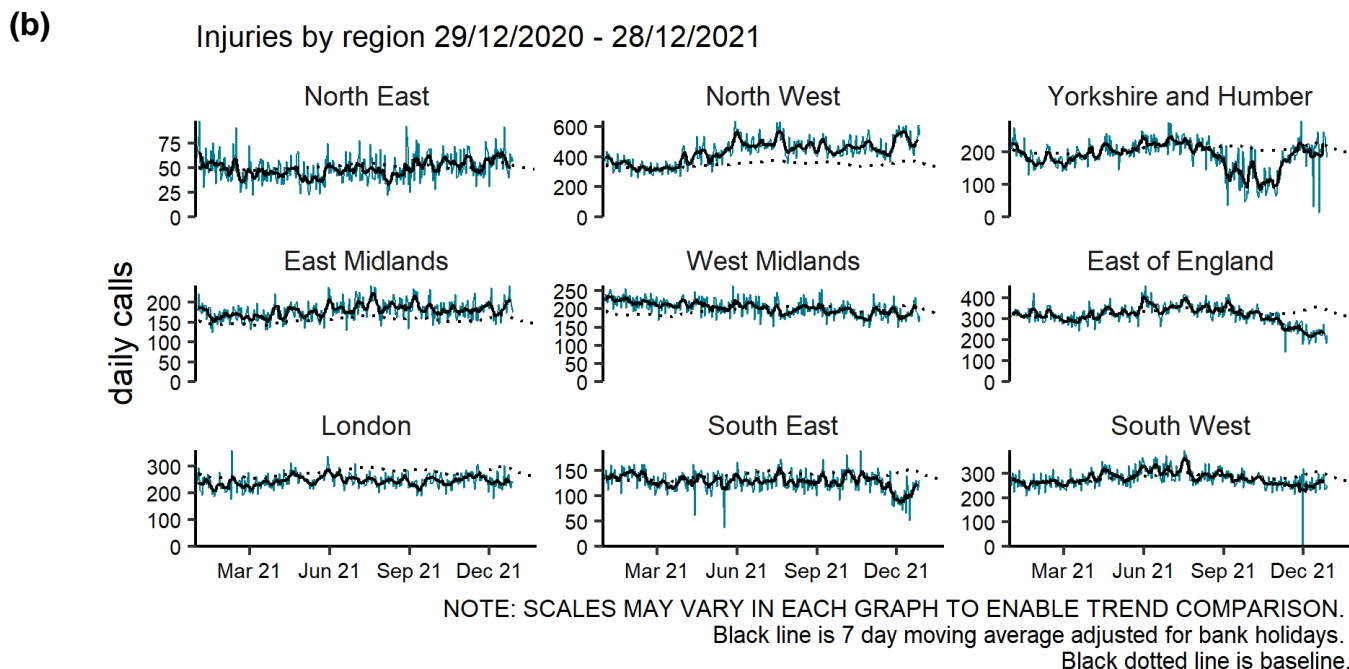
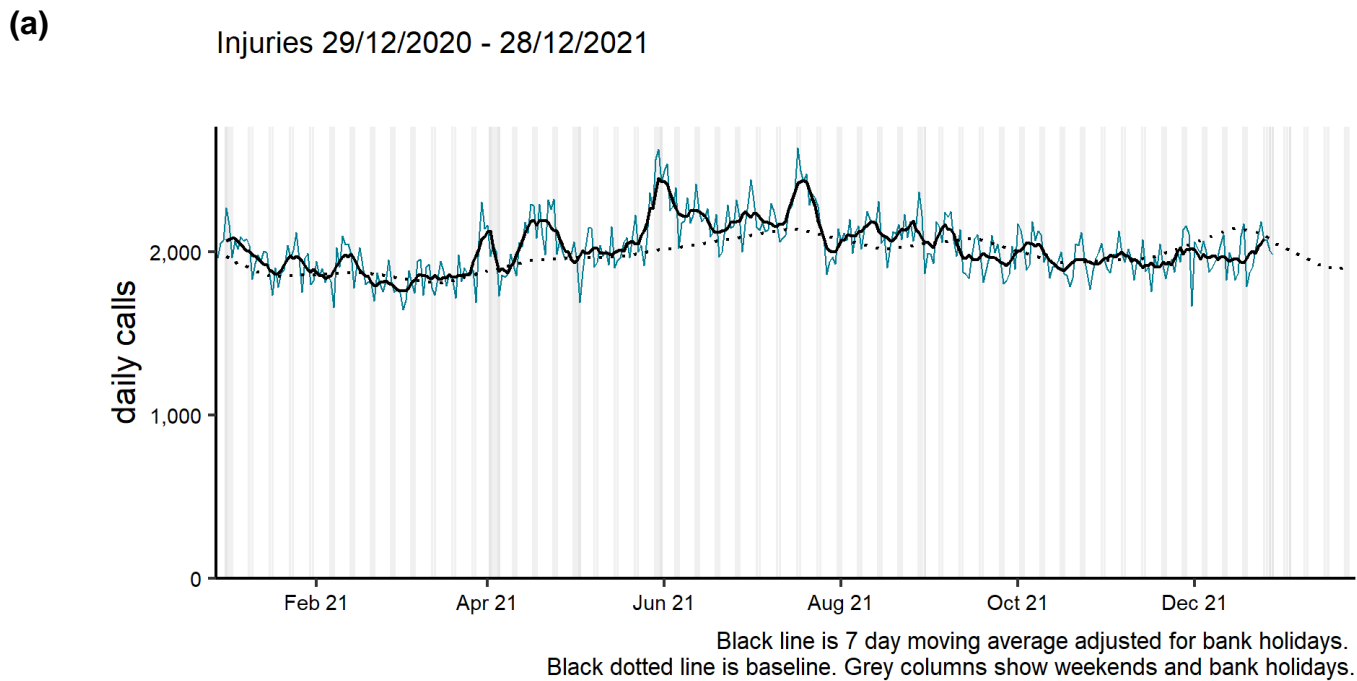
(b) Allergic reactions by region 29/12/2020 - 28/12/2021



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.

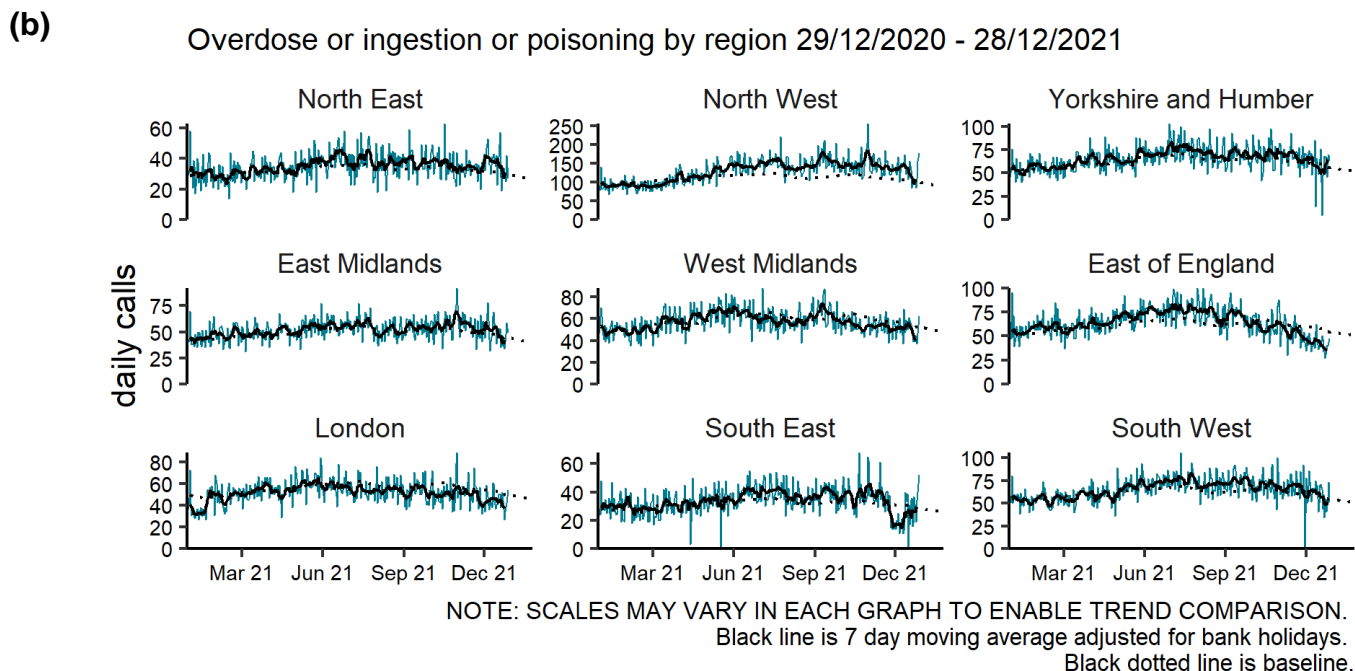
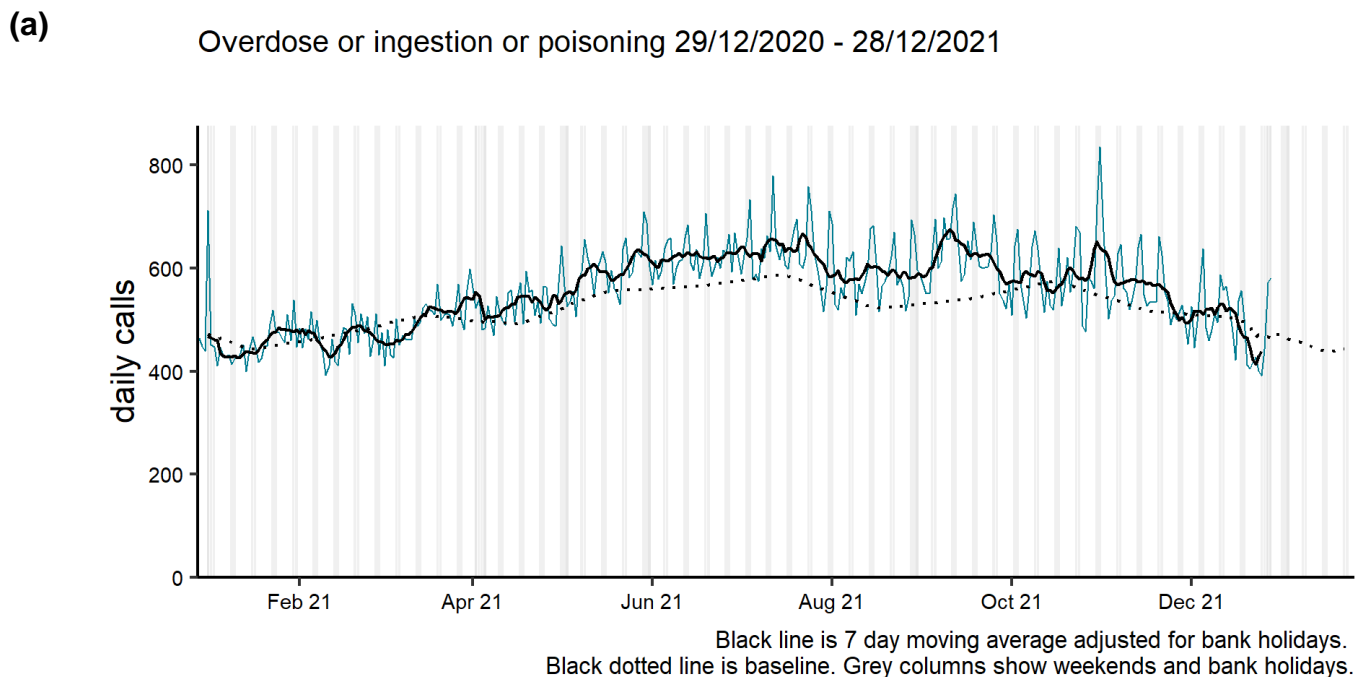
Injuries

Figure 10: Daily number of injury ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.



Overdose or poisoning

Figure 11: Daily number of overdose or poisoning ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region.



Notes and caveats

The following additional caveats apply to the UKHSA ambulance syndromic surveillance system

- the data presented are based on a national syndromic surveillance system:
 - the 10 ambulance trusts in mainland England are included
 - the number of Trusts included each day of the most recent week is included in **Table 2**
 - indicating where data has not arrived at the time of this report production. All historical data is complete
- the signs/symptoms related to each call may be recorded differently by each ambulance Trust
 - there may be minimal usage of some syndromic indicators by some ambulance Trusts
 - the title for each set of syndromic indicator charts will describe which Trusts (if any) are affected
- baselines:
 - were last remodelled July 2021
 - are constructed from historical data since January 2019
 - represent seasonally expected levels of activity
 - take account of any known substantial changes in data collection, population coverage or reporting practices:
 - 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 may affect call levels

COVID-19 syndromic surveillance

- the COVID-19-like syndromic indicator is based on calls grouped into a 'Pandemic/ Epidemic/ Outbreak' triage card:
 - these data are based on COVID-19-like symptoms reported and are not based on outcomes of tests for coronavirus
 - not all ambulance trusts use this grouping:
 - COVID-19-like calls to the North East, West Midlands and South East ambulance Trusts are included here in the 'difficulty breathing' syndromic indicator
 - the number of COVID-19-like calls should not be used to estimate an absolute count of ambulance calls for COVID-19 patients

Acknowledgements

We would like to thank:

- North East, North West, Yorkshire, East Midlands, West Midlands, East of England, London, South East Coast, South Central, and South Western NHS ambulance Trusts for submitting anonymised, daily data to this syndromic surveillance system
- the Association of Ambulance Chief Executives for their support in establishing this syndromic surveillance system

About the UK Health Security Agency

The UK Health Security Agency is an executive agency, sponsored by the [Department of Health and Social Care](#).

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