



UK Health  
Security  
Agency

# **Ambulance Syndromic Surveillance System Bulletin (England)**

## **2022 Week 49**

## Key messages

### Data reported to: 11 December 2022

During week 49, ambulance dispatch calls for difficulty breathing and ‘cardiac or respiratory arrest’ increased. There were also increases observed in ‘impact of heat or cold’ ambulance calls in line with the recent cold weather alert across England.

## 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
Difficulty breathing ( <b>Figure 1</b> )	Increasing	Below baseline
Chest pain ( <b>Figure 2</b> )	Increasing	Below baseline
Cardiac or respiratory arrest ( <b>Figure 3</b> )	Increasing	Above baseline
Impact of heat or cold ( <b>Figure 4</b> )	Increasing	Above baseline
Headache ( <b>Figure 5</b> )	Increasing	Below baseline
Unconscious or passing out ( <b>Figure 6</b> )	Increasing	Below baseline
Collapsed with unknown problem ( <b>Figure 7</b> )	Increasing	Below baseline
Allergic reactions ( <b>Figure 8</b> )	Increasing	Below baseline
Injuries ( <b>Figure 9</b> )	Increasing	Below baseline
Overdose or ingestion or poisoning ( <b>Figure 10</b> )	Decreasing	Below 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 <sup>1</sup>
05 December 2022	9
06 December 2022	9
07 December 2022	9
08 December 2022	9
09 December 2022	9
10 December 2022	9
11 December 2022	9

<sup>1</sup> maximum 10 Trusts in England

# Contents

Key messages .....	2
Syndromic indicators at a glance .....	2
System coverage .....	2
Contents .....	3
About this syndromic surveillance system .....	4
Respiratory conditions .....	5
Difficulty breathing .....	5
Cardiac conditions.....	6
Chest pain.....	6
Cardiac or respiratory arrest .....	7
Seasonal or environmental conditions .....	8
Impact of heat or cold.....	8
Other conditions .....	10
Headache.....	10
Unconscious or passing out.....	11
Collapsed with unknown problem.....	12
Allergic reactions .....	13
Injuries.....	14
Overdose or poisoning .....	15
Notes and caveats .....	16
COVID-19 syndromic surveillance .....	16
Acknowledgements .....	17
About the UK Health Security Agency .....	18

# 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

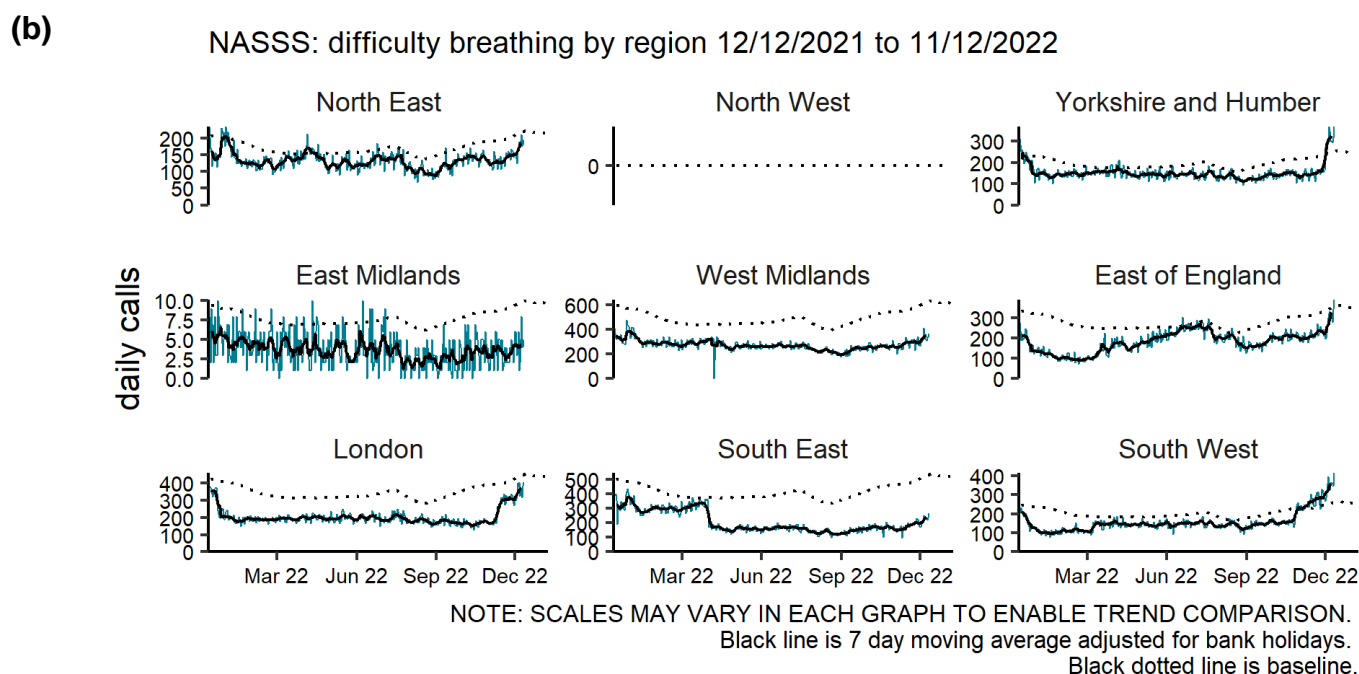
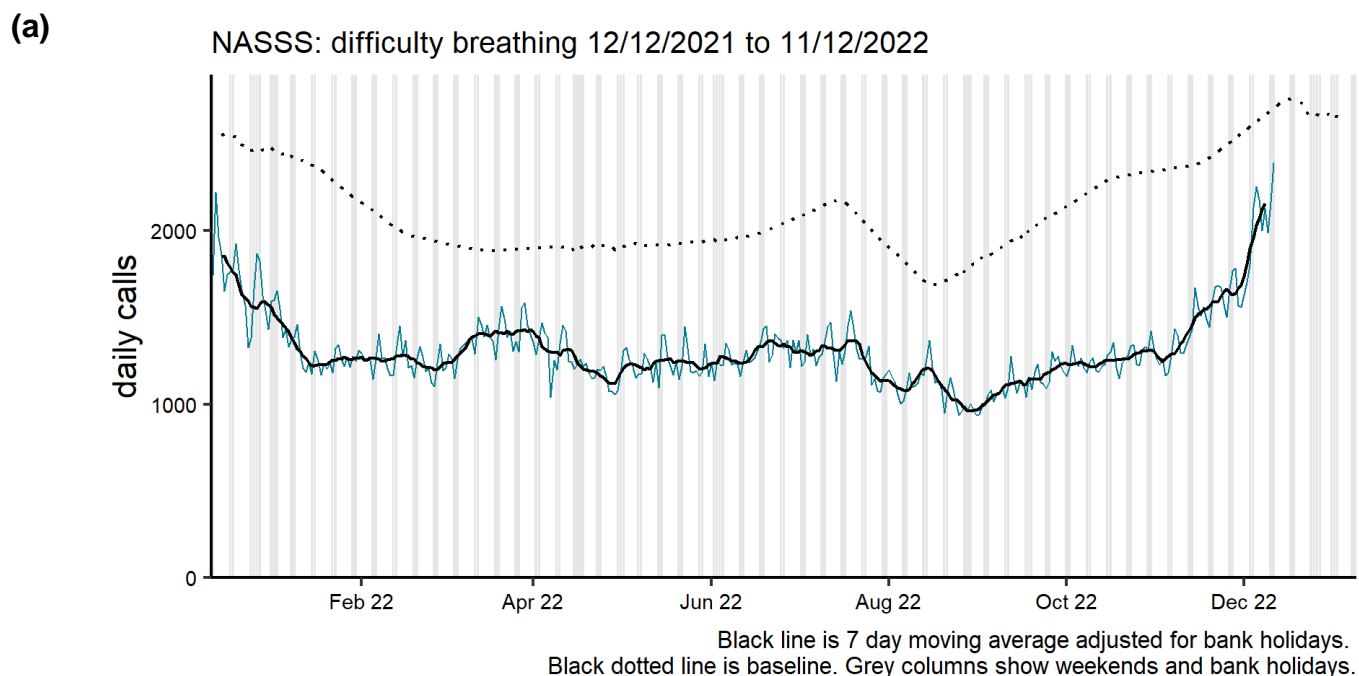
Call data from North West Ambulance Service are currently not fully available to be included in this bulletin.

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 are complete.

# Respiratory conditions

## Difficulty breathing

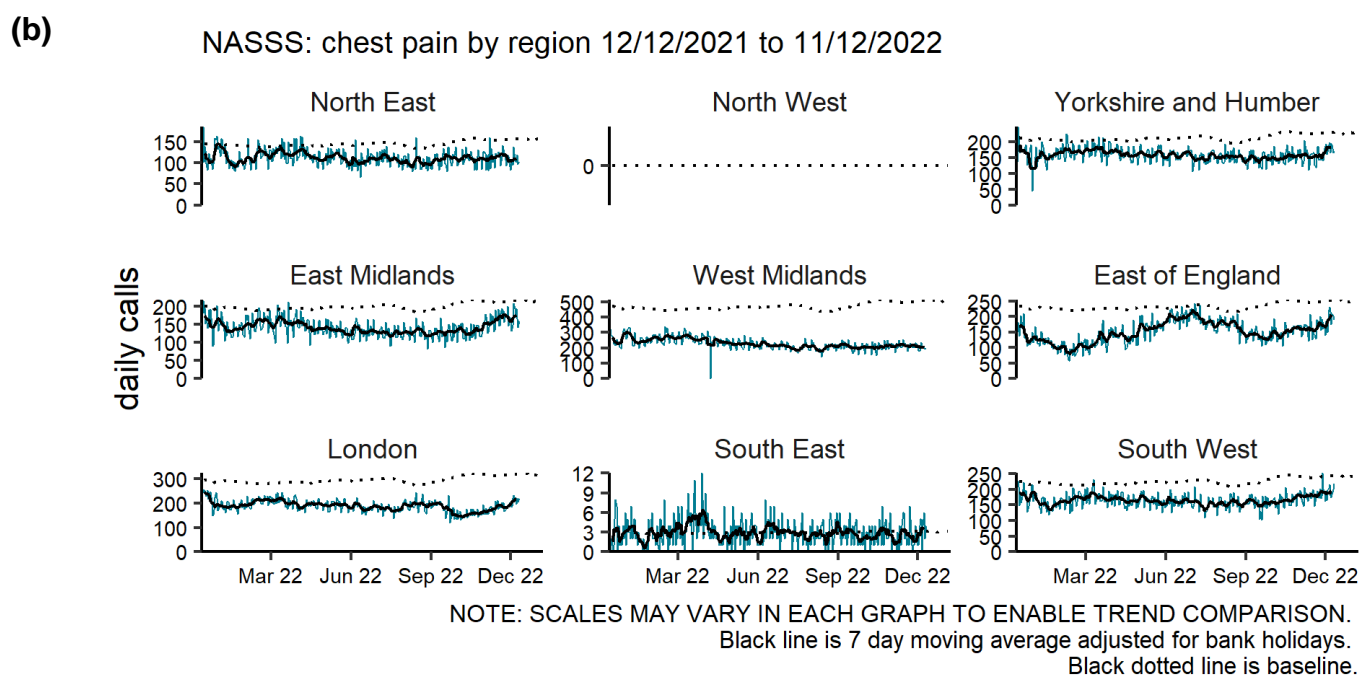
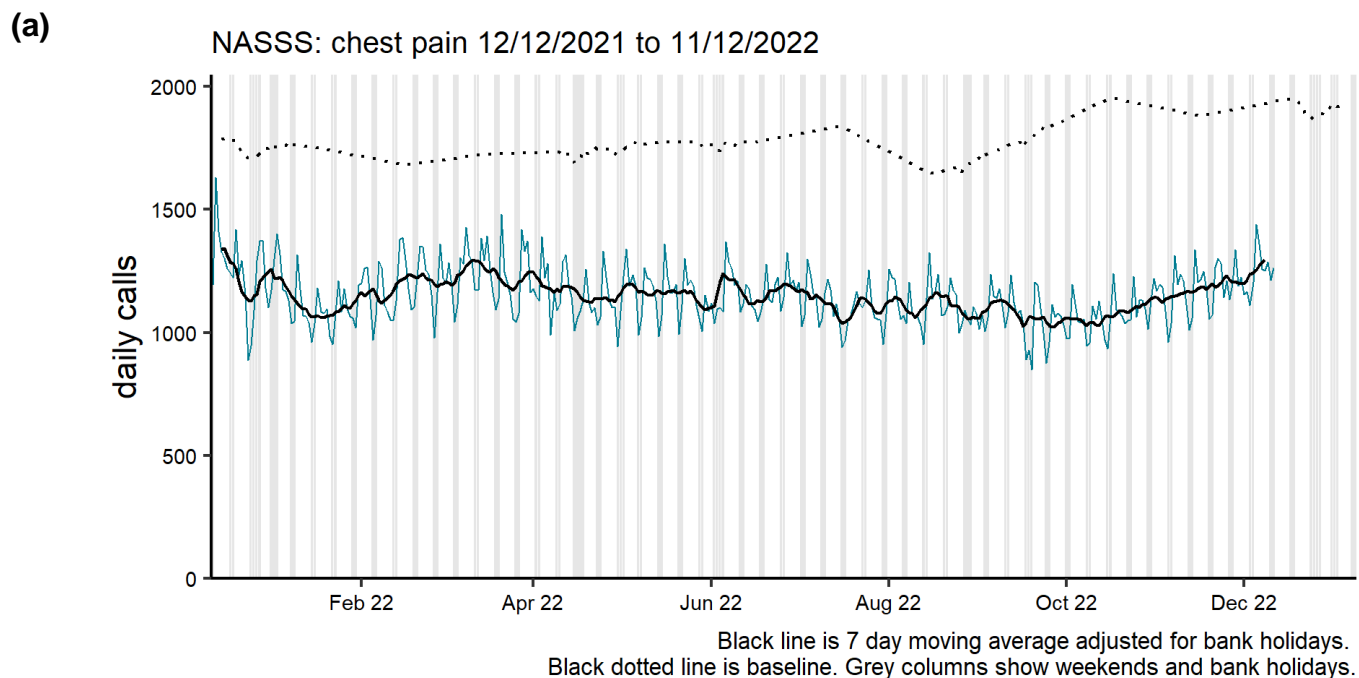
**Figure 1: Daily number of difficulty breathing ambulance service calls (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by UKHSA Region. Please note there is minimal usage of this syndromic indicator by the East Midlands ambulance Trust.**



# Cardiac conditions

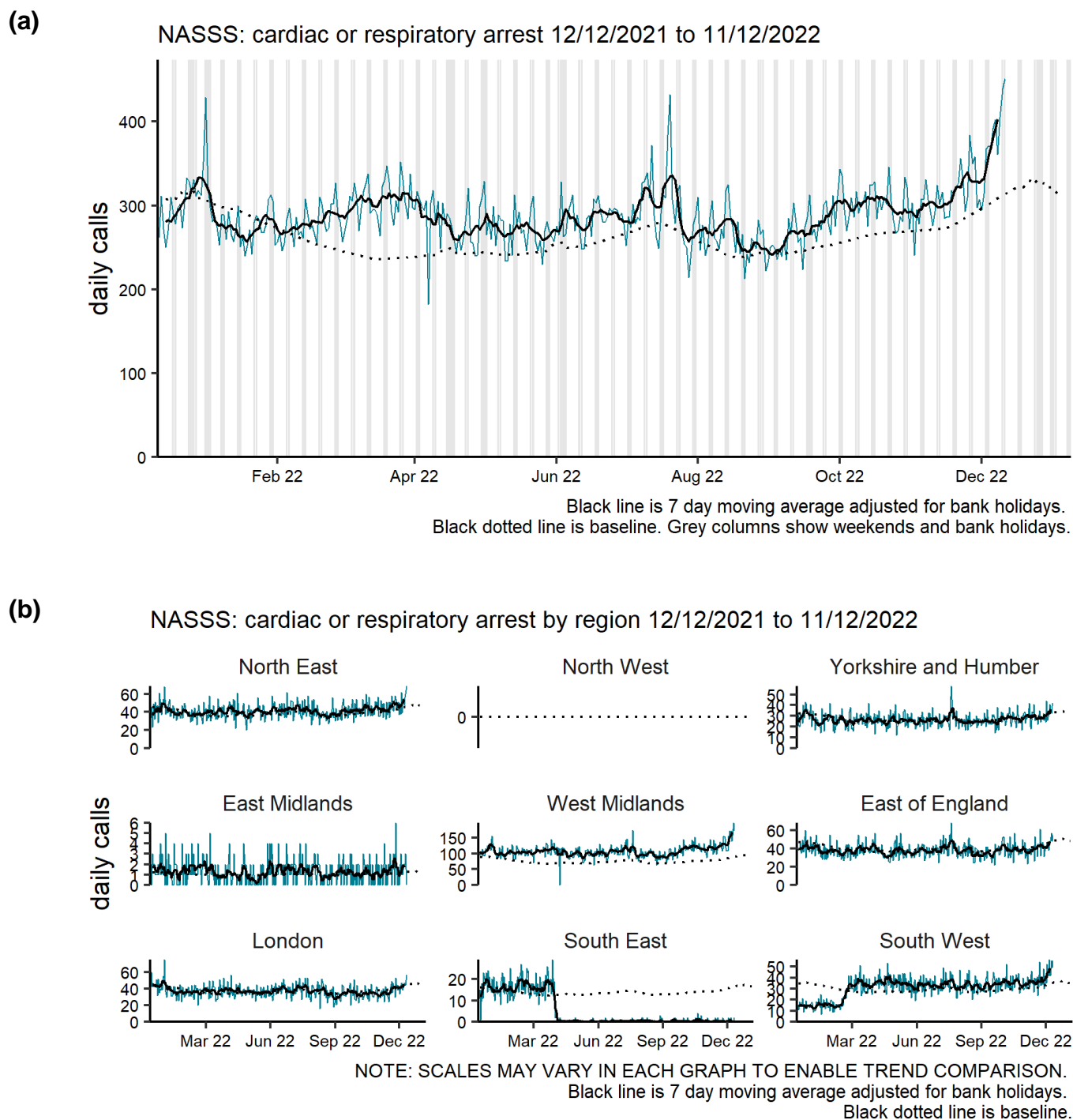
## Chest pain

**Figure 2: 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 3: 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.**



## 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

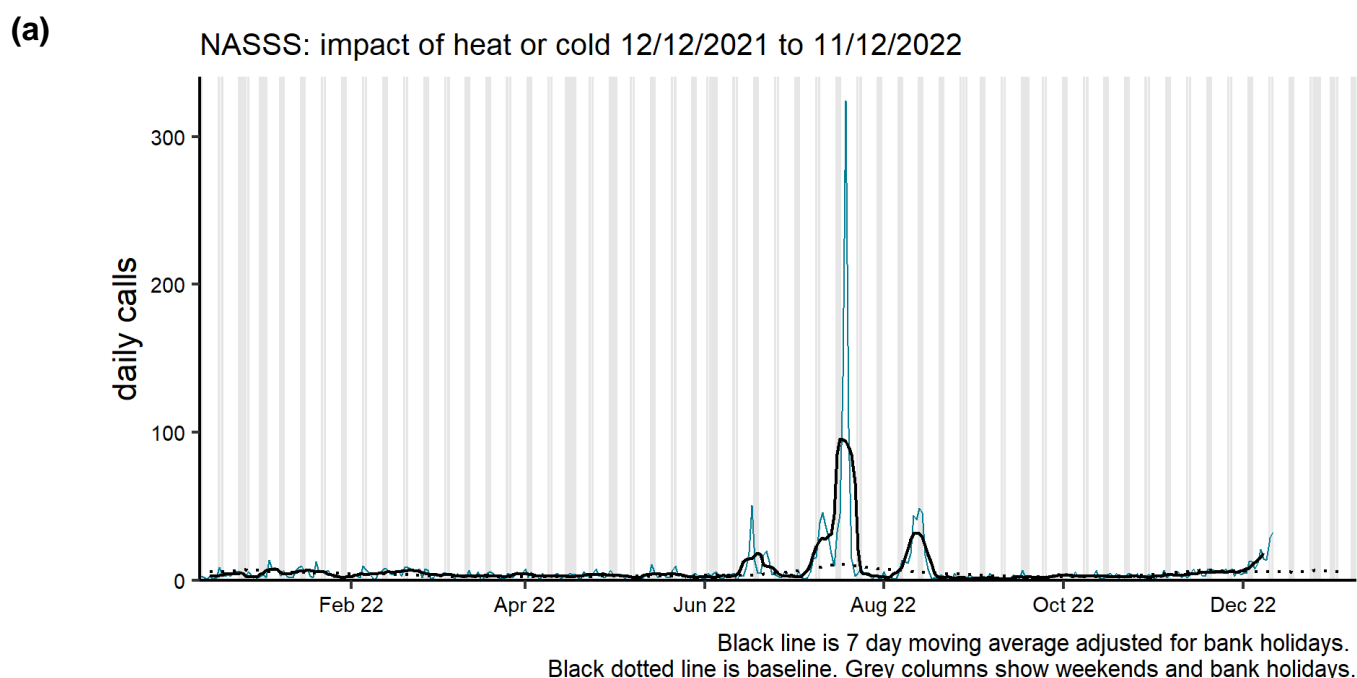
[Heat-Health Alert](#) period: 1 June to 15 September

Highest weather alert level during the current reporting week:

**Level 3 – Severe weather action.**

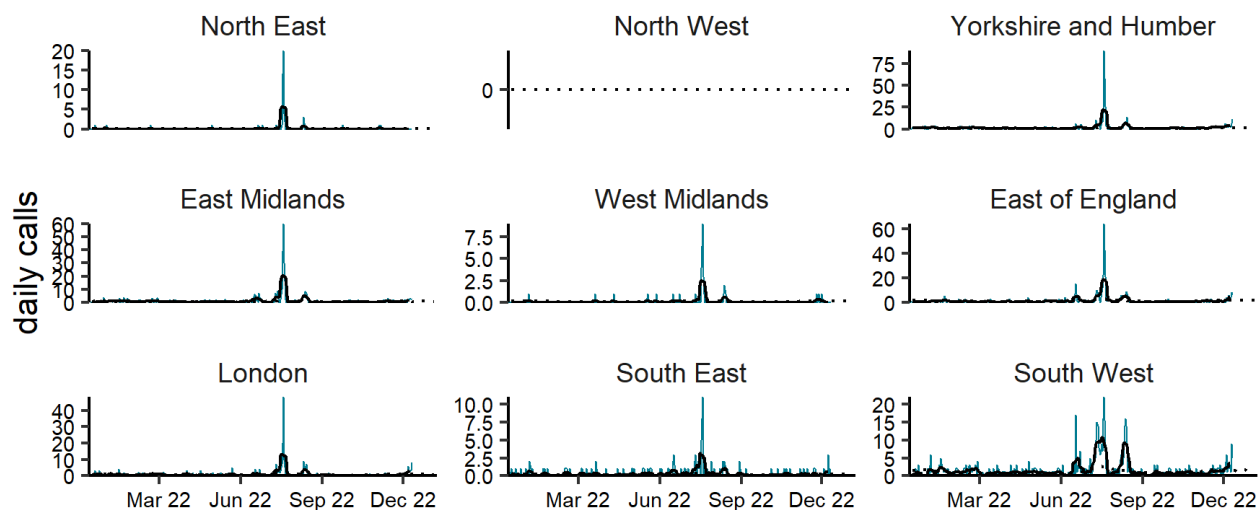
## Impact of heat or cold

**Figure 4: 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.**



(b)

NASSS: impact of heat or cold by region 12/12/2021 to 11/12/2022

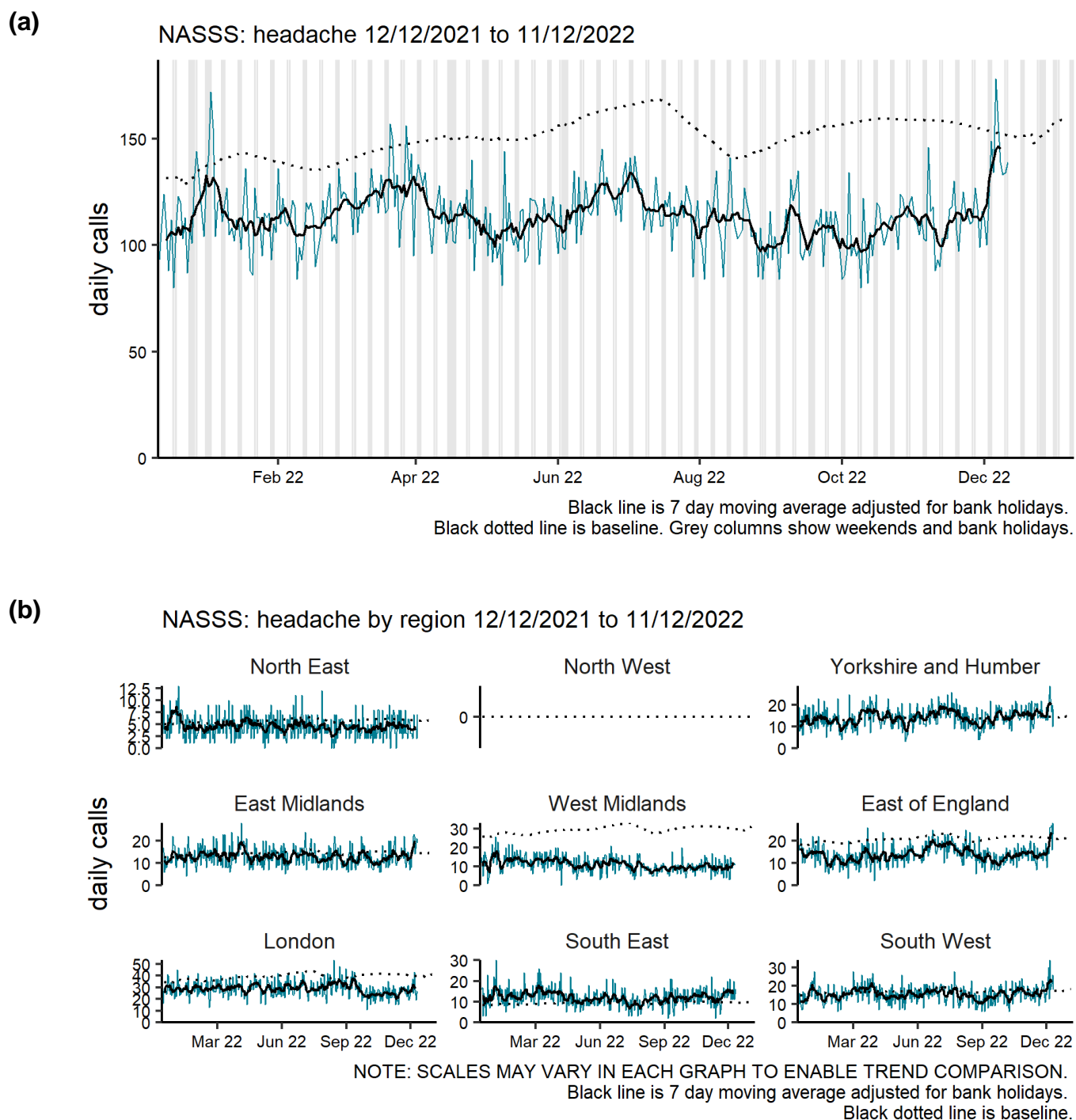


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
 Black line is 7 day moving average adjusted for bank holidays.  
 Black dotted line is baseline.

## Other conditions

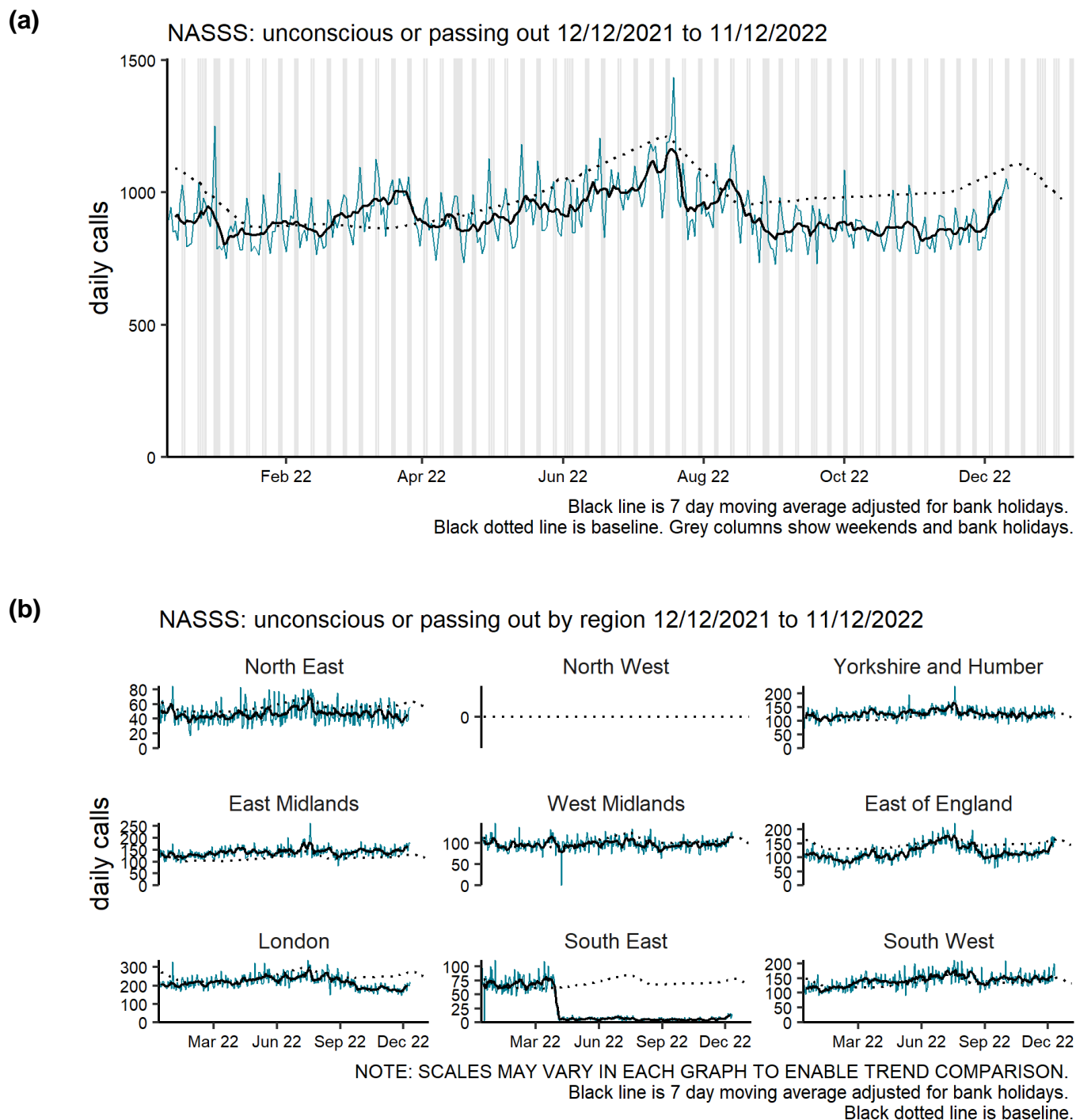
### Headache

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



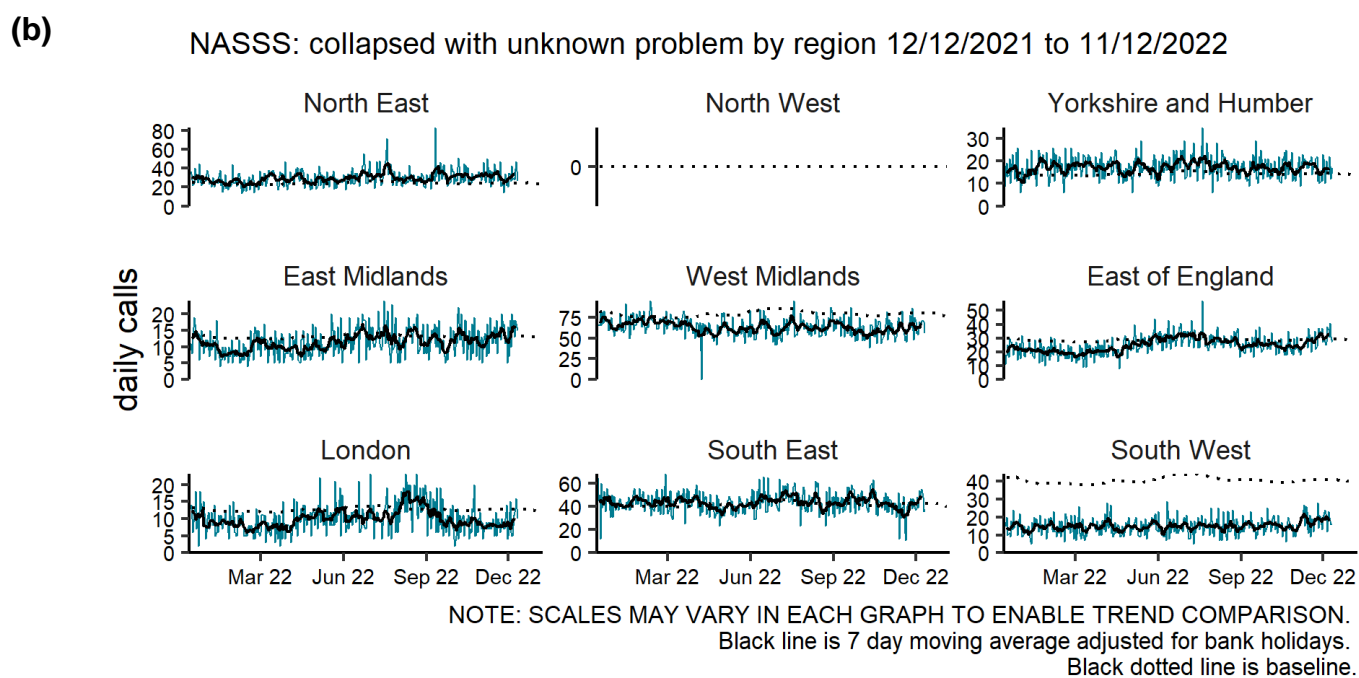
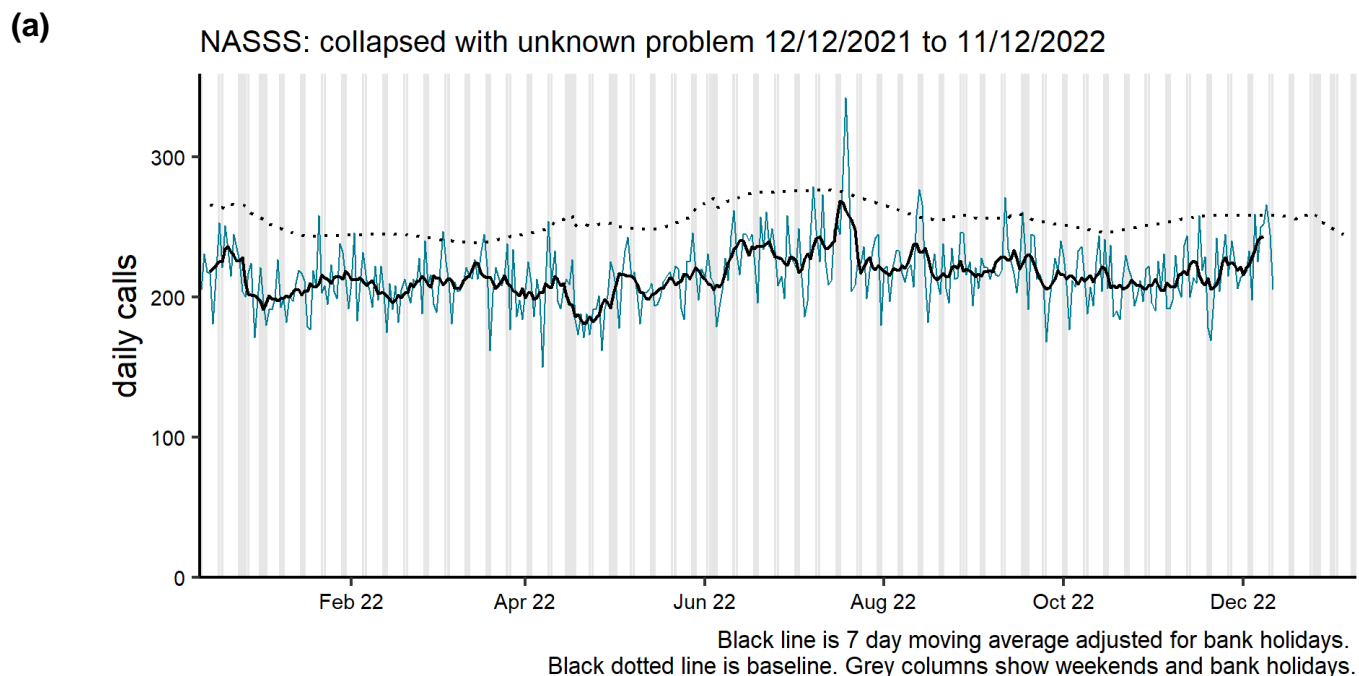
## Unconscious or passing out

**Figure 6: 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.**



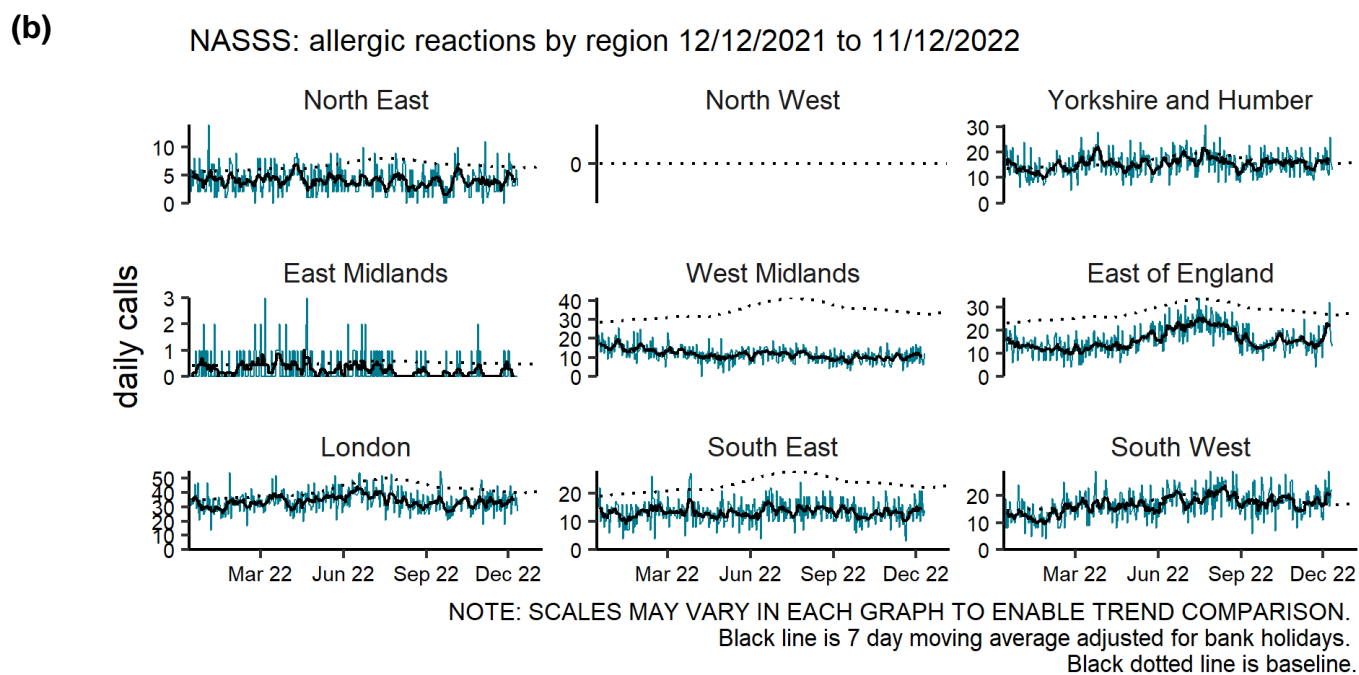
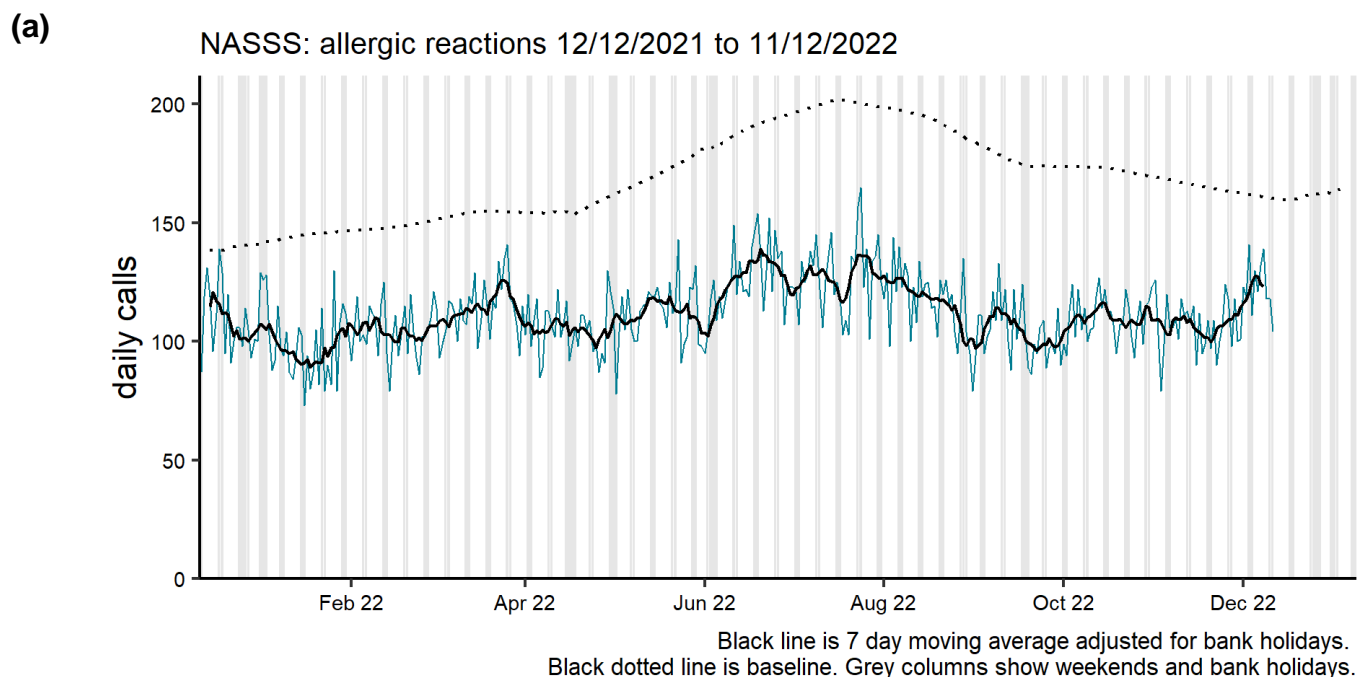
## Collapsed with unknown problem

**Figure 7: 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.**



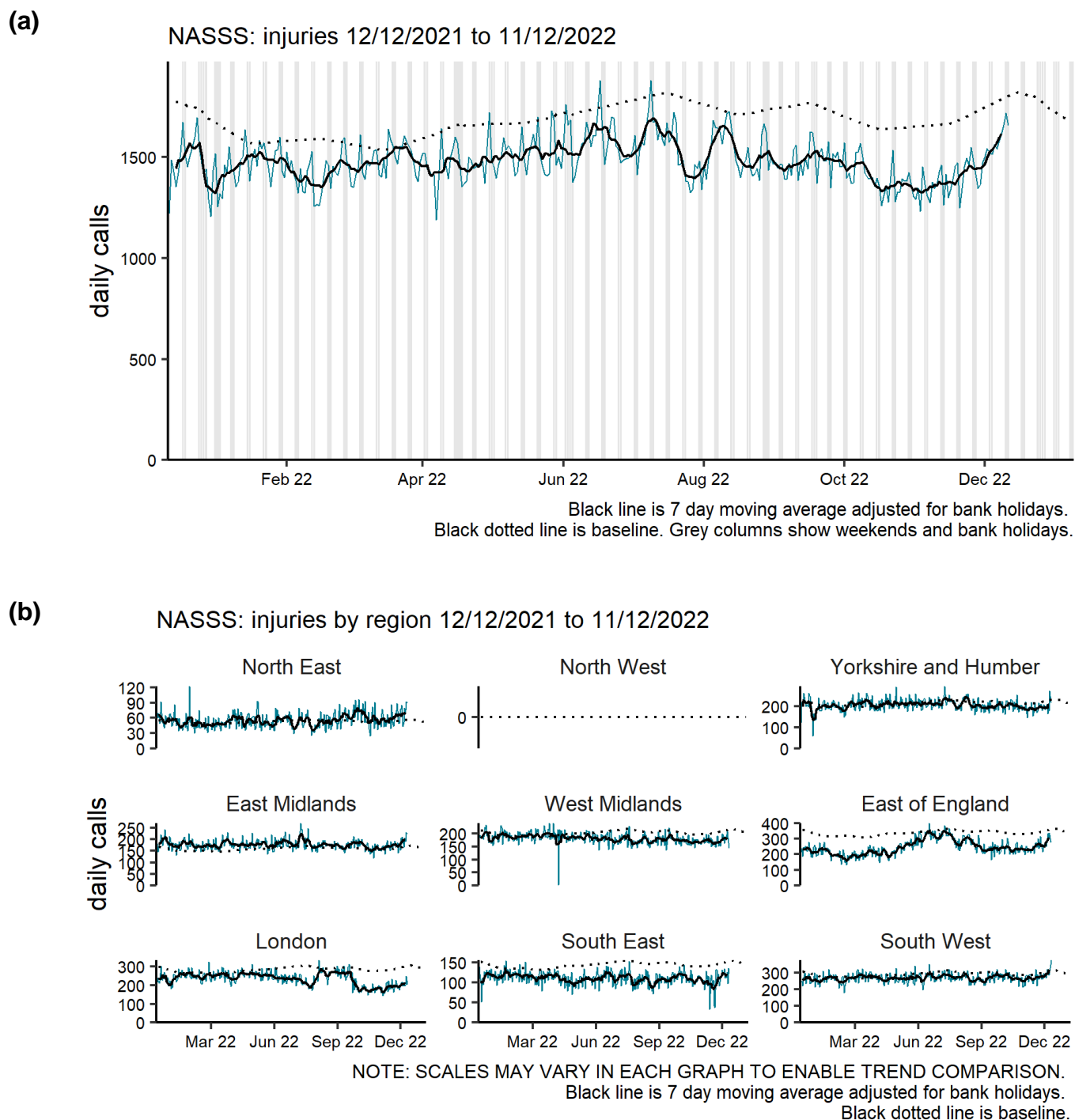
## Allergic reactions

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



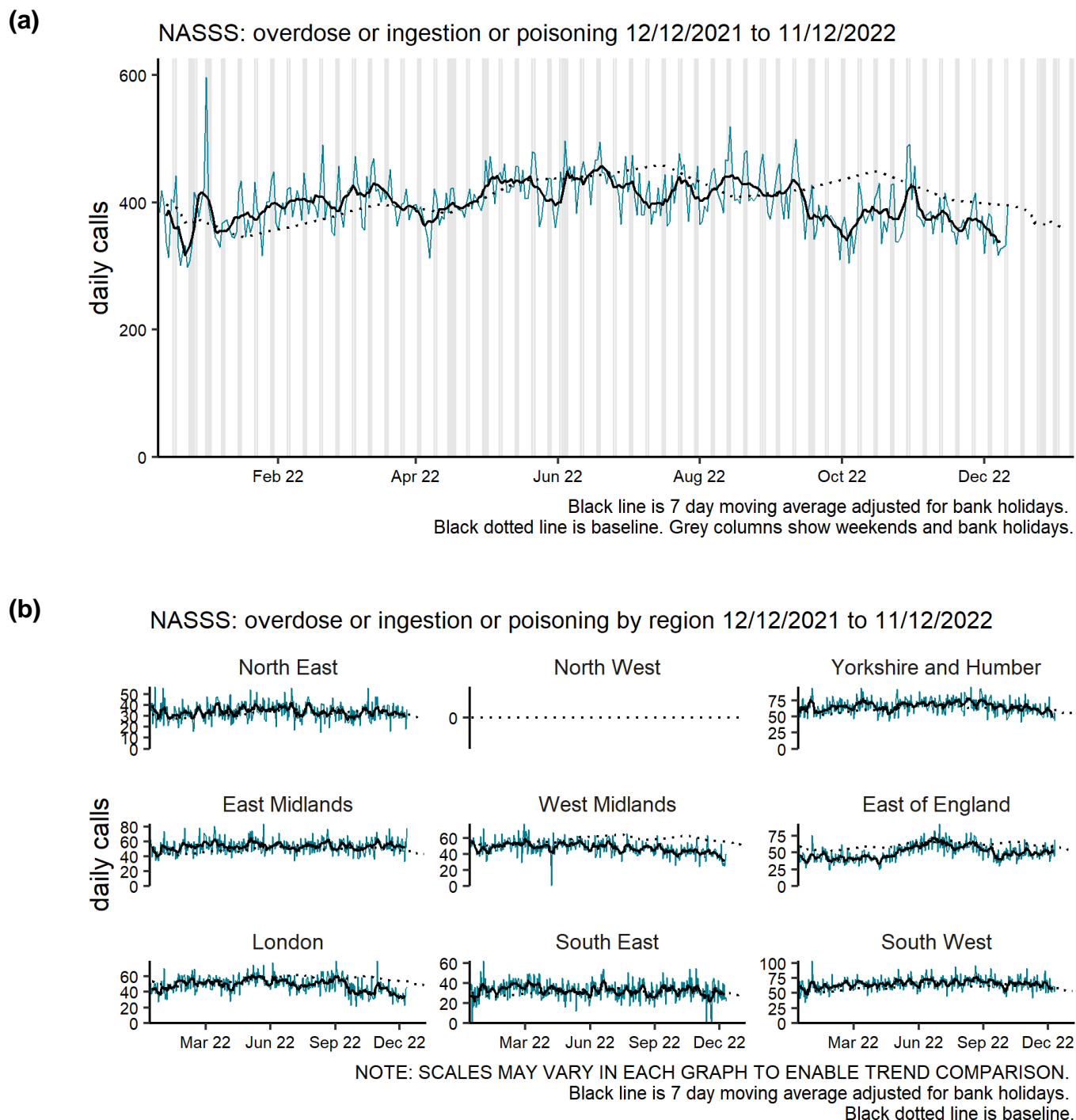
## Injuries

**Figure 9: 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 10: 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

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

© Crown copyright 2022  
Version: Amb-2

Prepared by: Real-time Syndromic Surveillance Team  
For queries relating to this document, please contact: [syndromic.surveillance@ukhsa.gov.uk](mailto:syndromic.surveillance@ukhsa.gov.uk)

Published: December 2022



You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](#). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.



UKHSA supports the UN  
Sustainable Development Goals

