



UK Health
Security
Agency

Emergency Department Syndromic Surveillance System Bulletin (England) 2024 Week 49

Key messages

Data reported to: 08 December 2024

During week 49, emergency department attendances for acute respiratory infections increased, however attendances decreased in children aged under 5 years while increasing across all other age groups. Acute bronchitis/bronchiolitis attendances decreased in children aged under 5 years. There was a further increase in influenza-like illness (ILI) attendances across all age groups. While national ILI attendances were in line with seasonally expected levels, ILI attendances in the West and East Midlands and North East regions were above expected levels.

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 attendances (Figure 1)	No trend	No baseline
COVID-19-like (Figure 2)	No trend	No baseline
Acute respiratory infections (Figure 3)	Increasing	Above baseline
Acute bronchiolitis or bronchitis (Figure 4)	Decreasing	Similar to baseline
Influenza-like illness (Figure 5)	Increasing	Similar to baseline
Pneumonia (Figure 6)	Increasing	Similar to baseline
Asthma (Figure 7)	Decreasing	Similar to baseline
Gastroenteritis (Figure 8)	No trend	Similar to baseline
Cardiac (Figure 9)	Decreasing	Similar to baseline
Myocardial ischaemia (Figure 10)	Decreasing	Similar to baseline
Acute alcohol intoxication (Figure 11)	No trend	Similar to baseline
Mental health (Figure 12)	No trend	No baseline
Scarlet fever (Figure 13)	Increasing	Similar to baseline
Impact of cold (Figure 14)	No trend	Similar to baseline

¹ trend reports on the trend seen over most recent and earlier weeks

Contents

Key messages	2
Syndromic indicators at a glance.....	2
Contents.....	3
About this syndromic surveillance system.....	4
Total attendances	5
Respiratory conditions.....	7
COVID-19-like	7
Acute respiratory infections	9
Acute bronchiolitis/bronchitis	11
Influenza-like illness	13
Pneumonia	15
Asthma	17
Gastrointestinal conditions	19
Gastroenteritis	19
Cardiac conditions	21
Cardiac.....	21
Myocardial ischaemia	23
Other conditions.....	25
Acute alcohol intoxication	25
Mental health.....	27
Scarlet fever	29
Seasonal environmental conditions	31
Impact of cold.....	32
Notes and caveats	34
Acknowledgements.....	35
About the UK Health Security Agency	36

About this syndromic surveillance system

This bulletin presents data from the UK Health Security Agency (UKHSA) emergency department syndromic surveillance system.

Syndromic surveillance can be used to:

- 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 ED data are analysed and reported here, to identify and describe trends for a variety of syndromic indicators:

- syndromic indicators include groupings such as acute respiratory tract infections, gastroenteritis and myocardial ischaemia
- syndromic indicators are based on:
 - the primary diagnosis for each attendance
 - other diagnoses may be recorded, but are not used for indicator grouping
 - diagnoses are based on signs/symptoms (not laboratory confirmed)
- **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 **Notes and caveats**

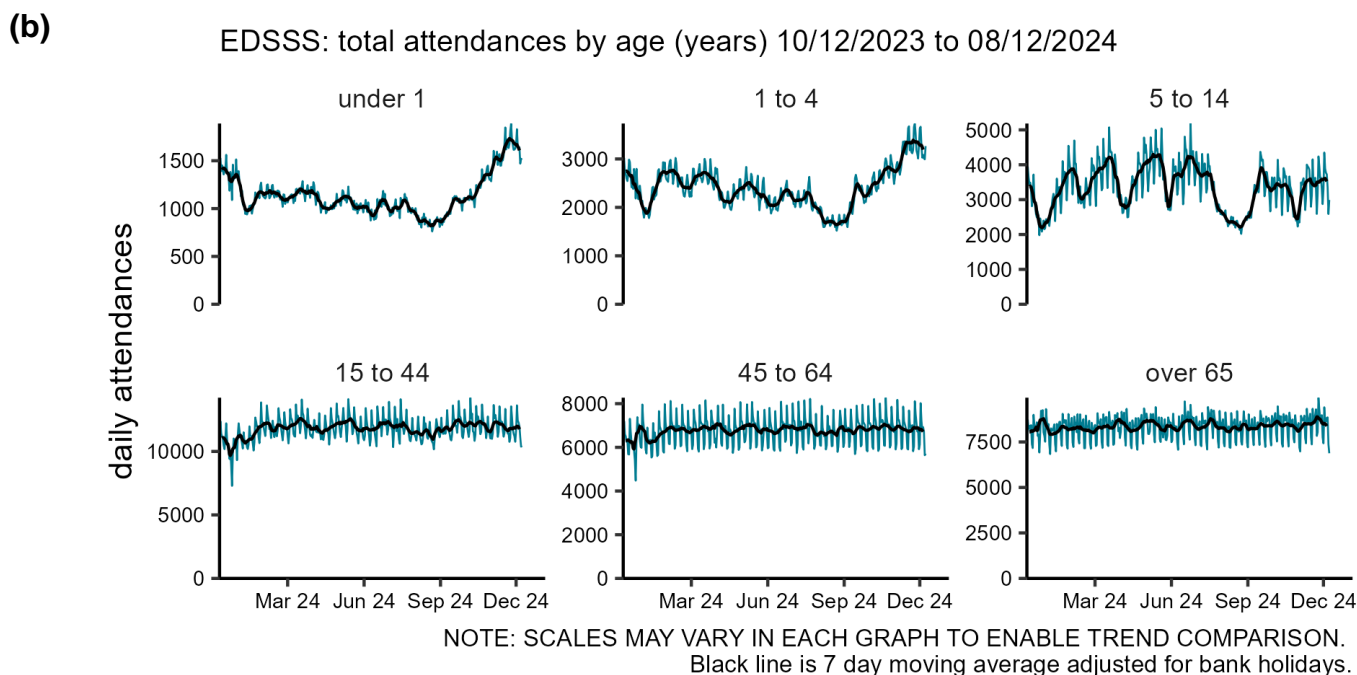
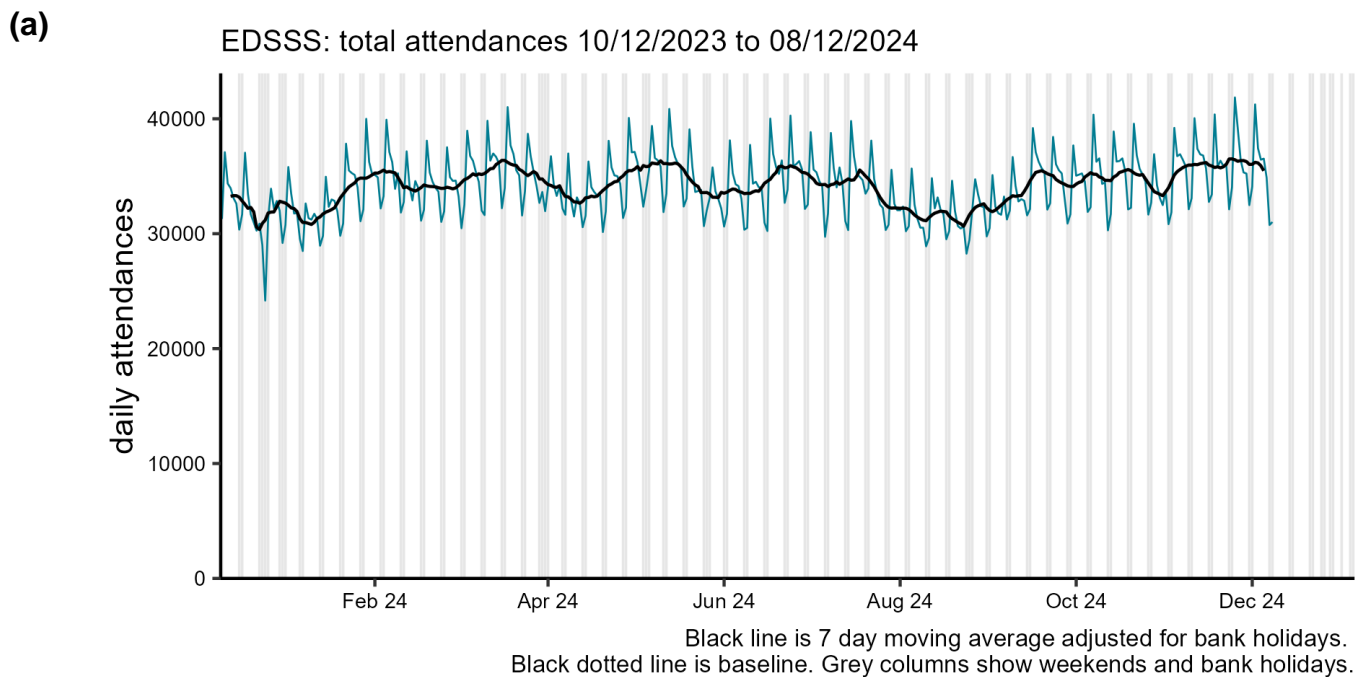
Previous weekly bulletins from this system are available [here](#).

Data quality issues of note this week

See **Table 2** and **Table 3** for the numbers of EDs included this week.

Total attendances

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



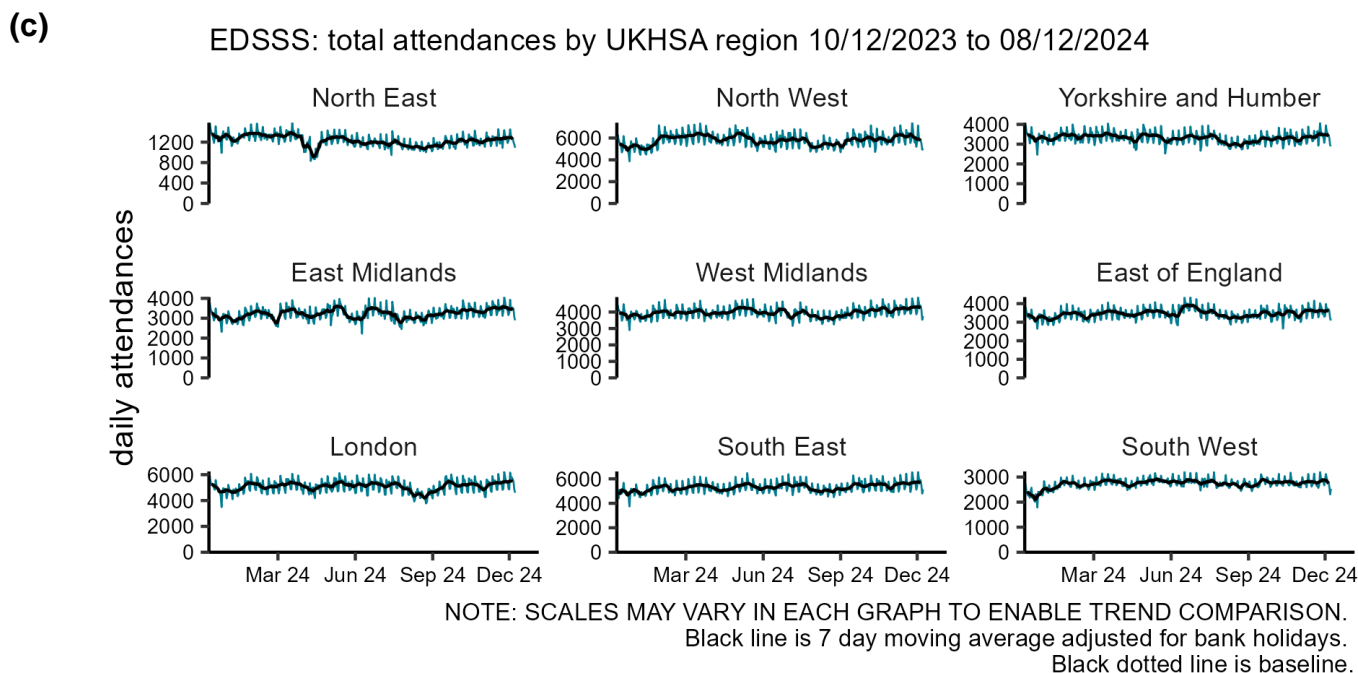


Table 2: The number of emergency department (ED) attendances and number with a diagnosis code included in surveillance each day during the most recent week.

Date	Total attendances ²	Diagnoses included ²
02 December 2024	41,256	24,850
03 December 2024	37,436	23,172
04 December 2024	36,440	22,723
05 December 2024	36,532	22,539
06 December 2024	34,874	21,973
07 December 2024	30,755	19,829
08 December 2024	31,016	19,847

Table 3: The number of EDs in total and in each UKHSA Region included in surveillance each day during the most recent week.

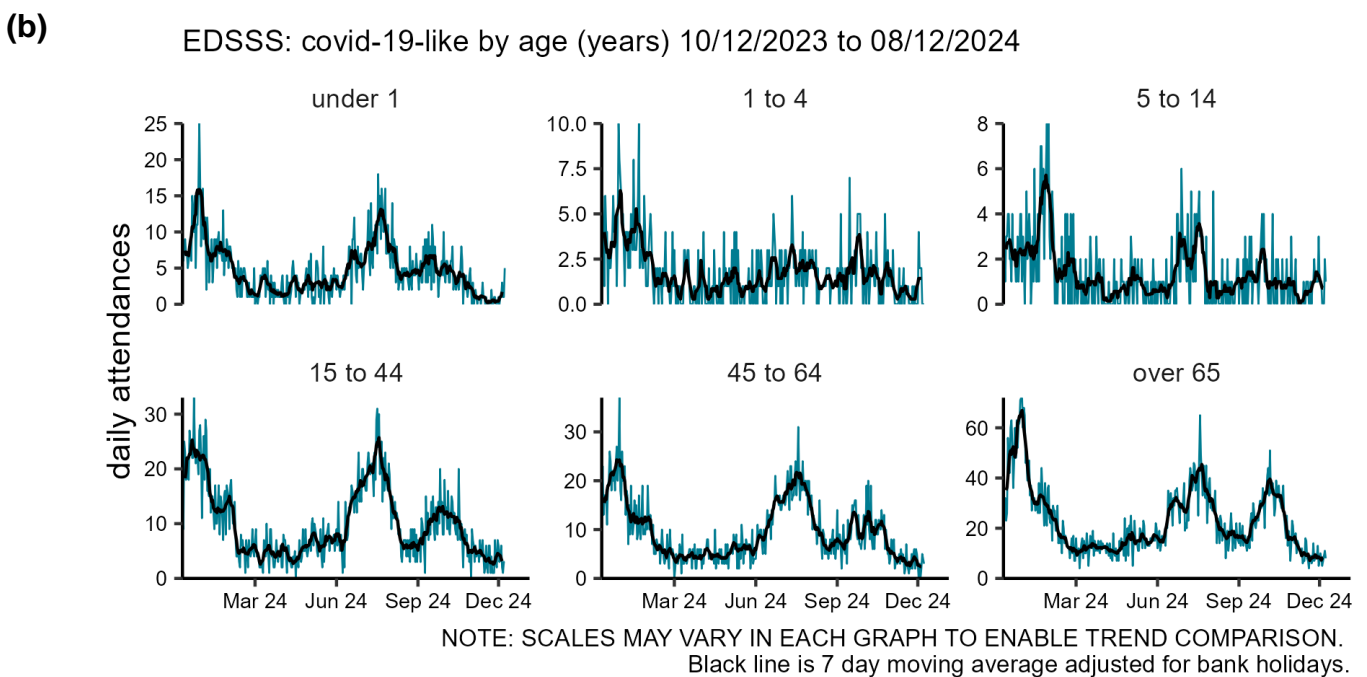
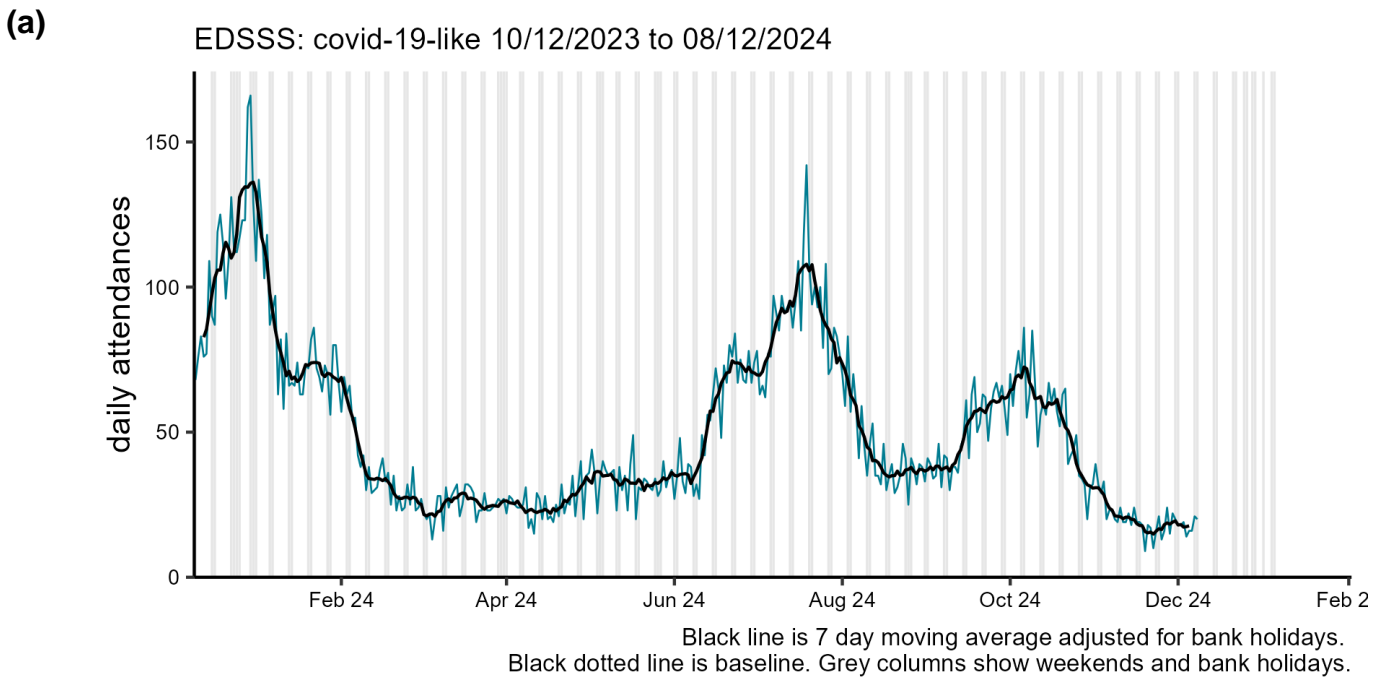
UKHSA Region	Number of EDs ²
North East	5
North West	24
Yorkshire and Humber	13
West Midlands	14
East Midlands	9
East of England	13
London	19
South West	13
South East	19
Total	129

² only attendances from Type 01 EDs meeting the weekly reporting criteria are included in this report, for further details see **Notes and caveats**

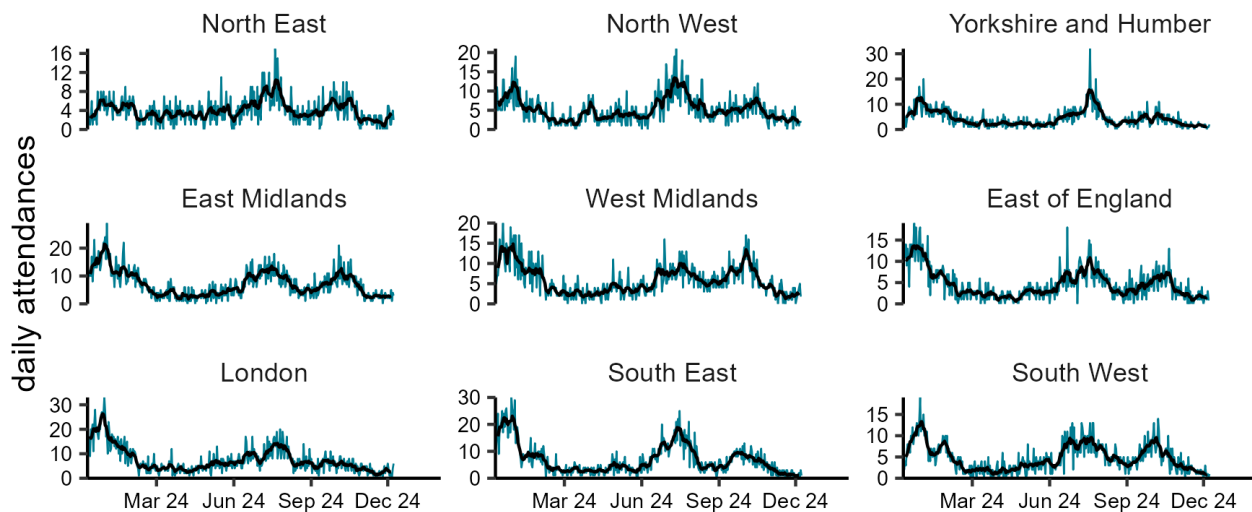
Respiratory conditions

COVID-19-like

Figure 2: Daily number of COVID-19-like ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



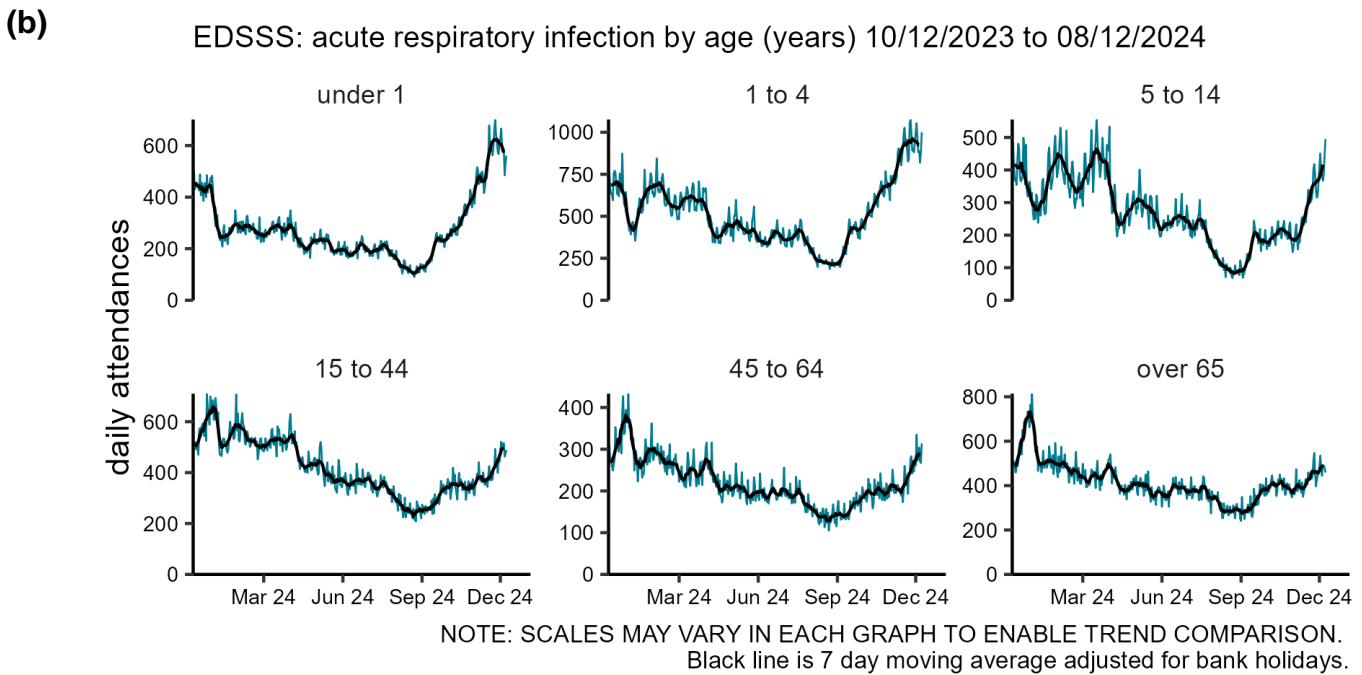
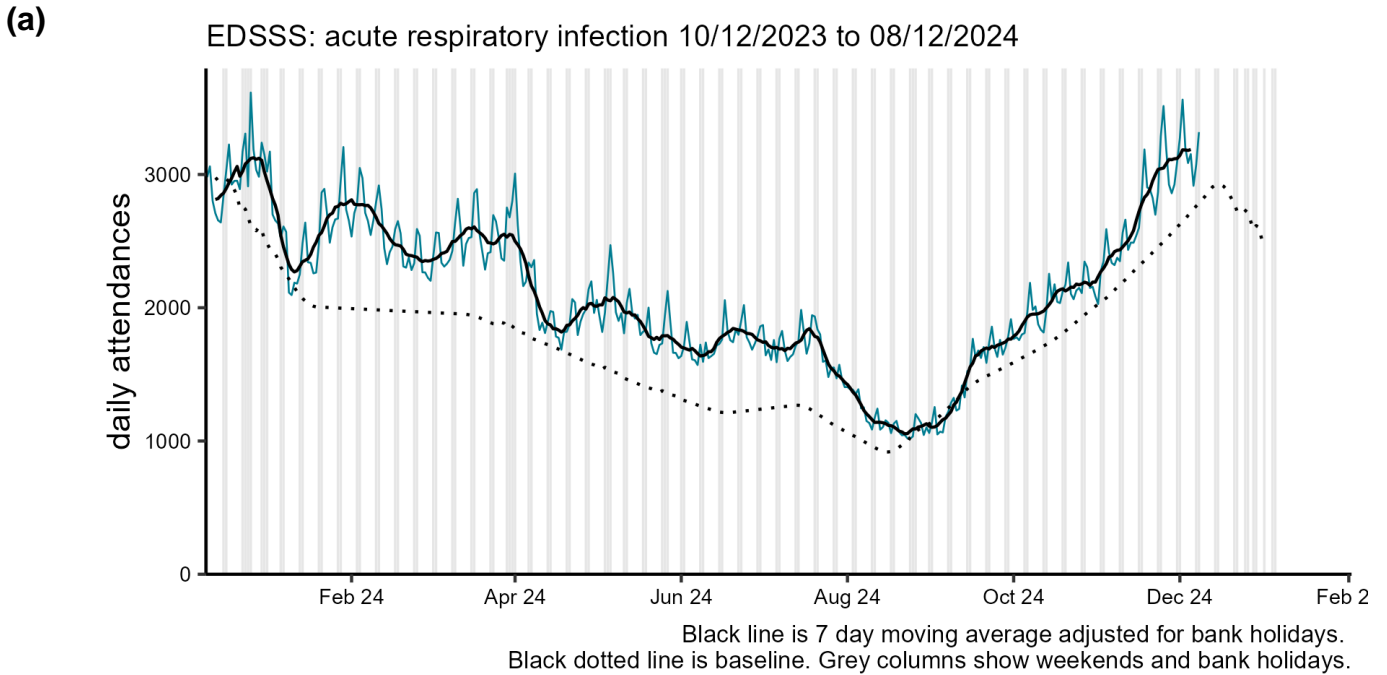
(c) EDSSS: covid-19-like by UKHSA region 10/12/2023 to 08/12/2024



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.

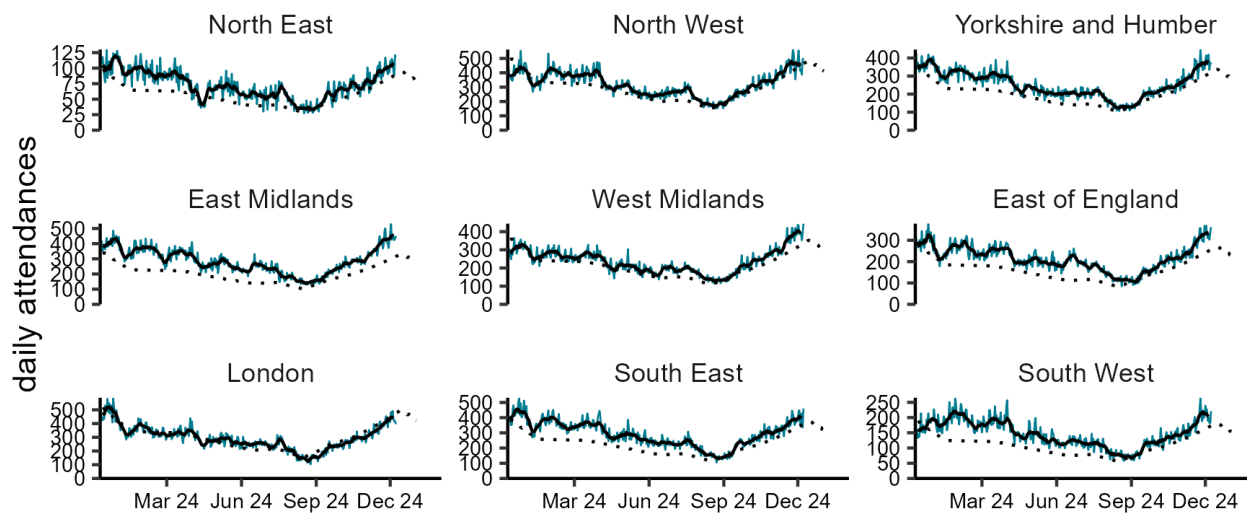
Acute respiratory infections

Figure 3: Daily number of acute respiratory infection ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

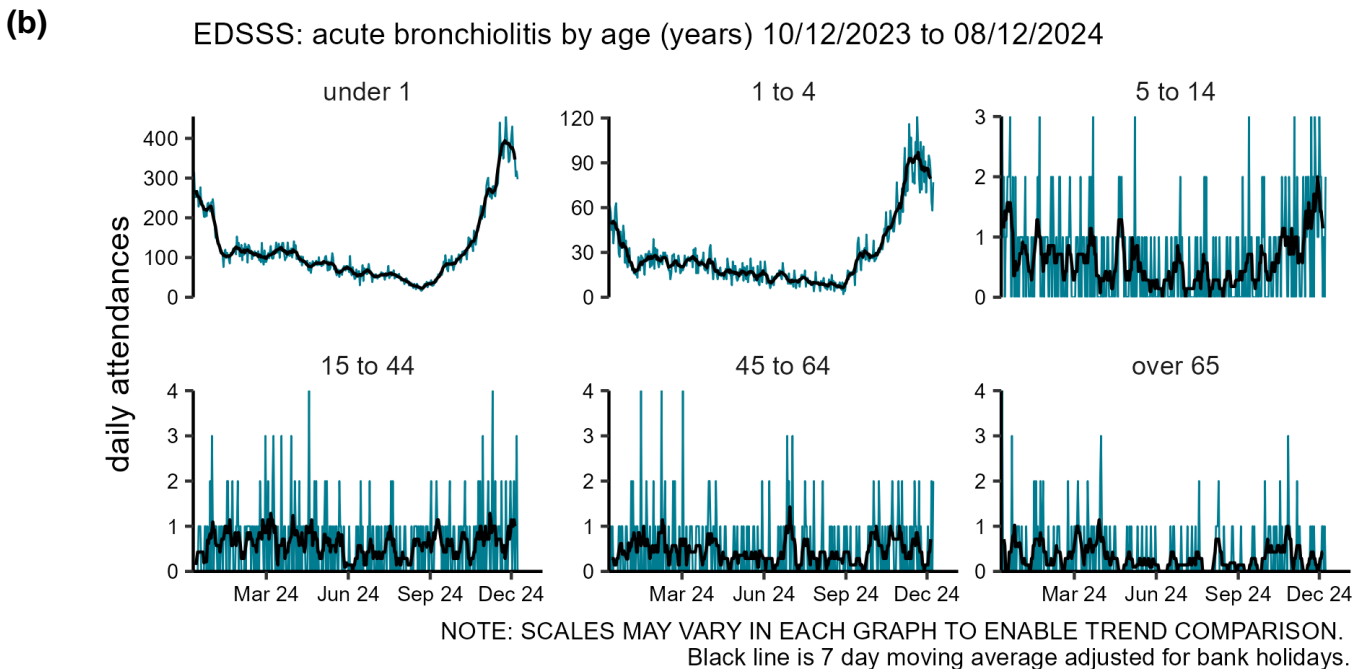
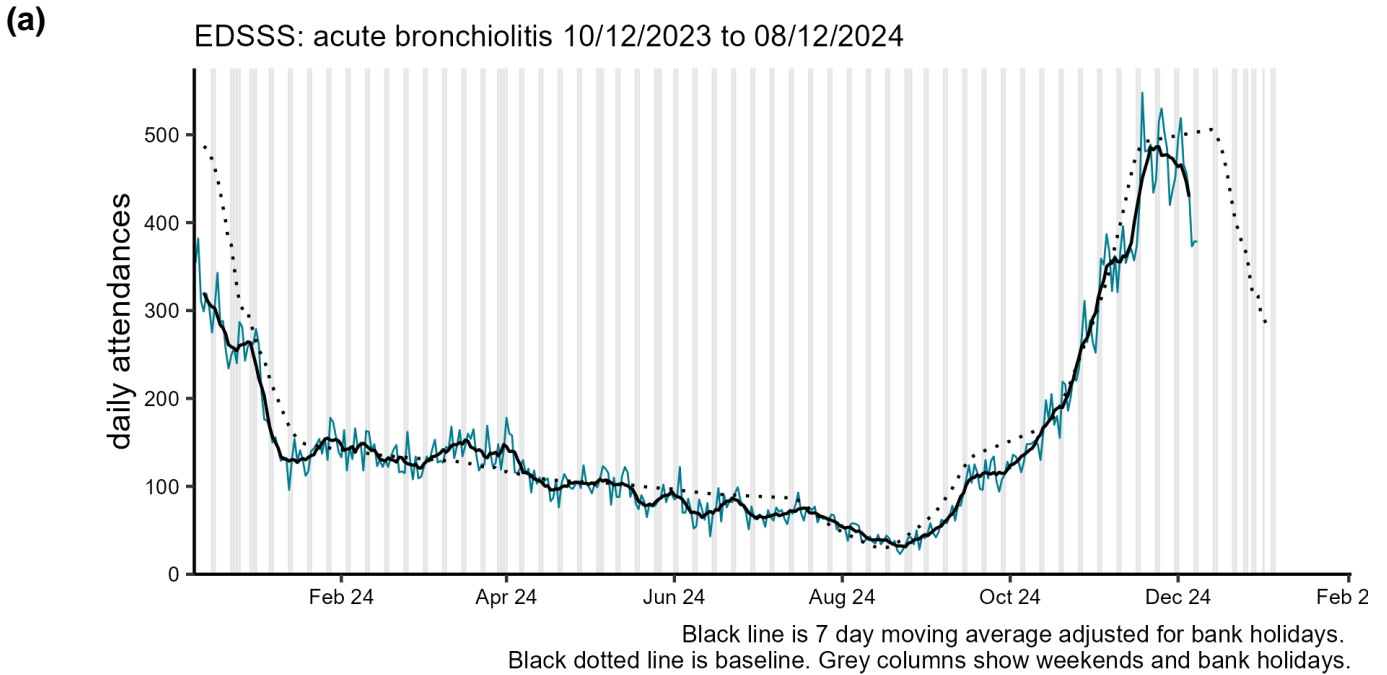
EDSSS: acute respiratory infection by UKHSA region 10/12/2023 to 08/12/2024



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.

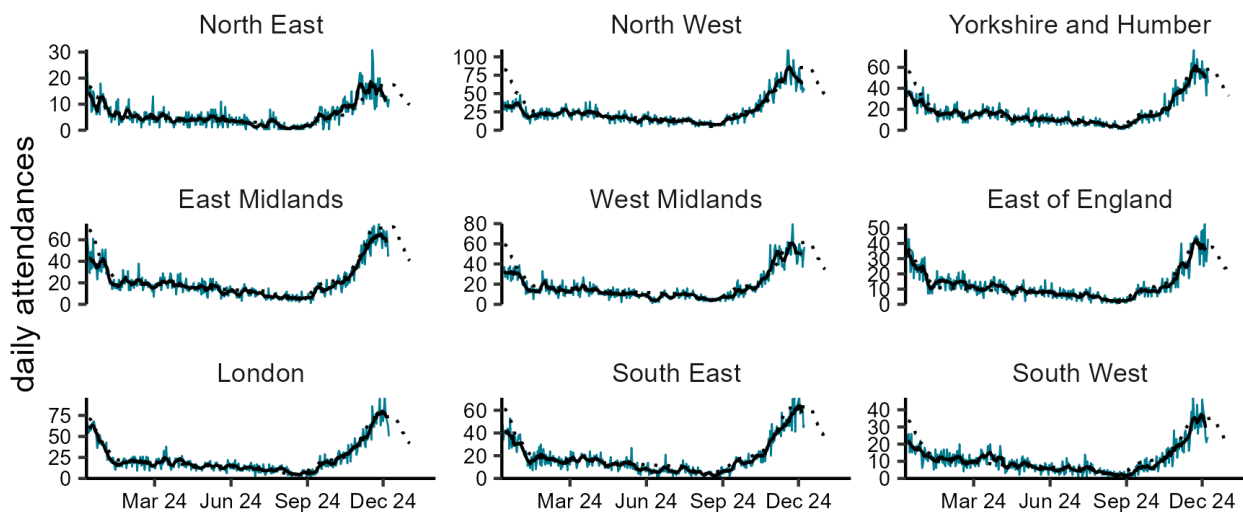
Acute bronchiolitis/bronchitis

Figure 4: Daily number of acute bronchiolitis/bronchitis ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

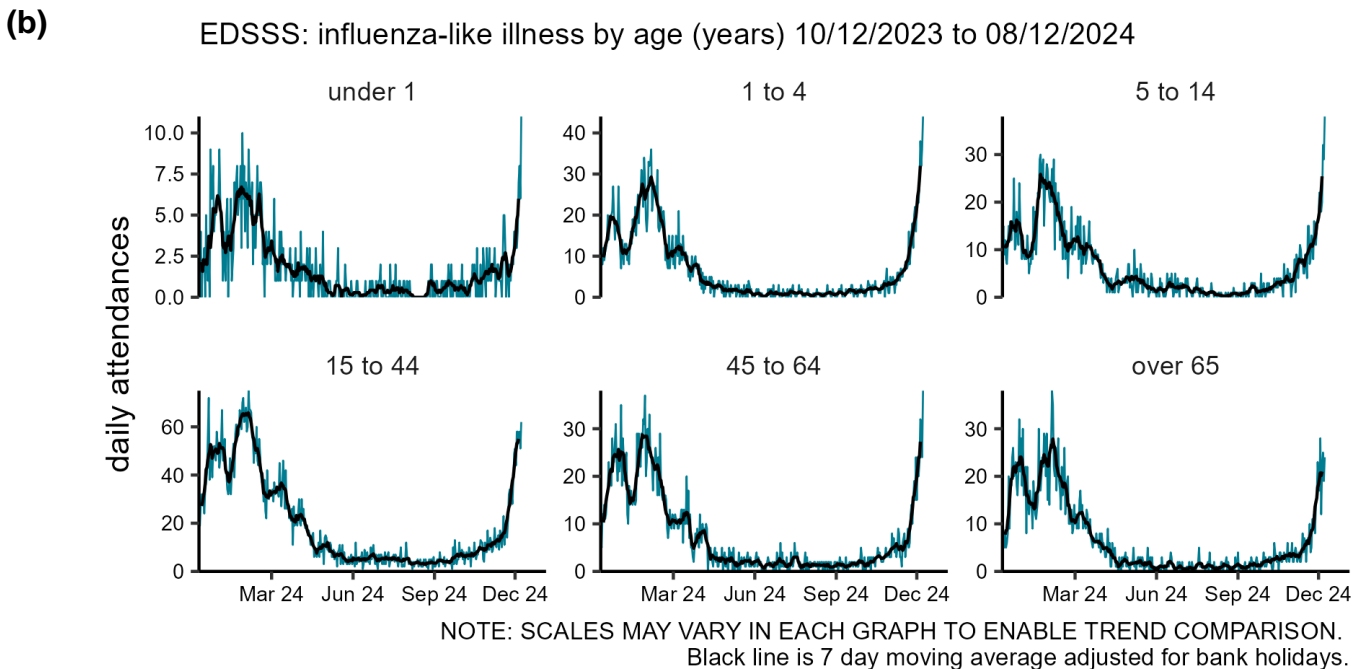
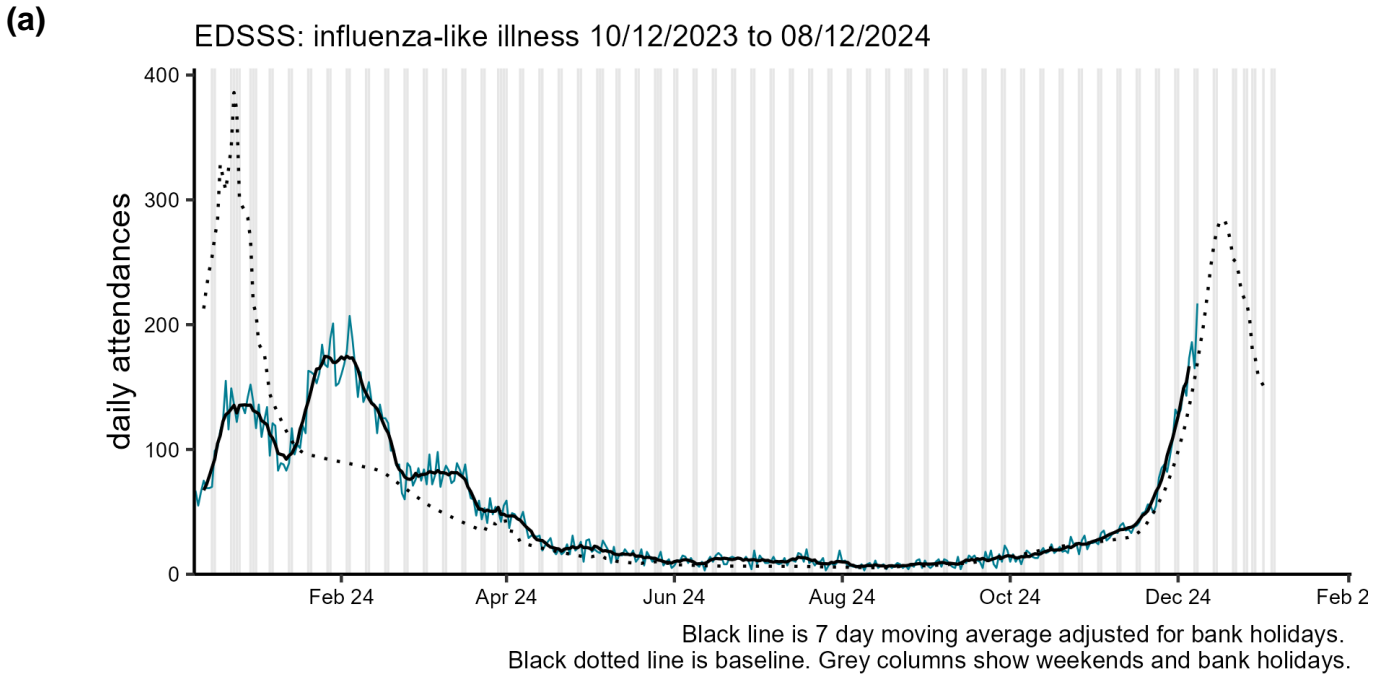
EDSSS: acute bronchiolitis by UKHSA region 10/12/2023 to 08/12/2024



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.

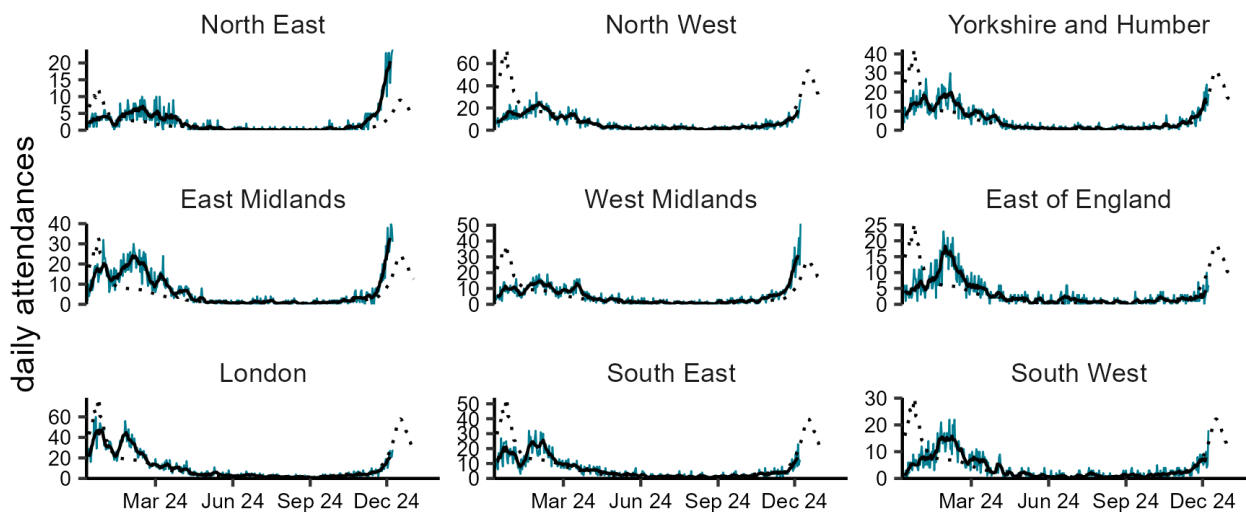
Influenza-like illness

Figure 5: Daily number of influenza-like illness ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

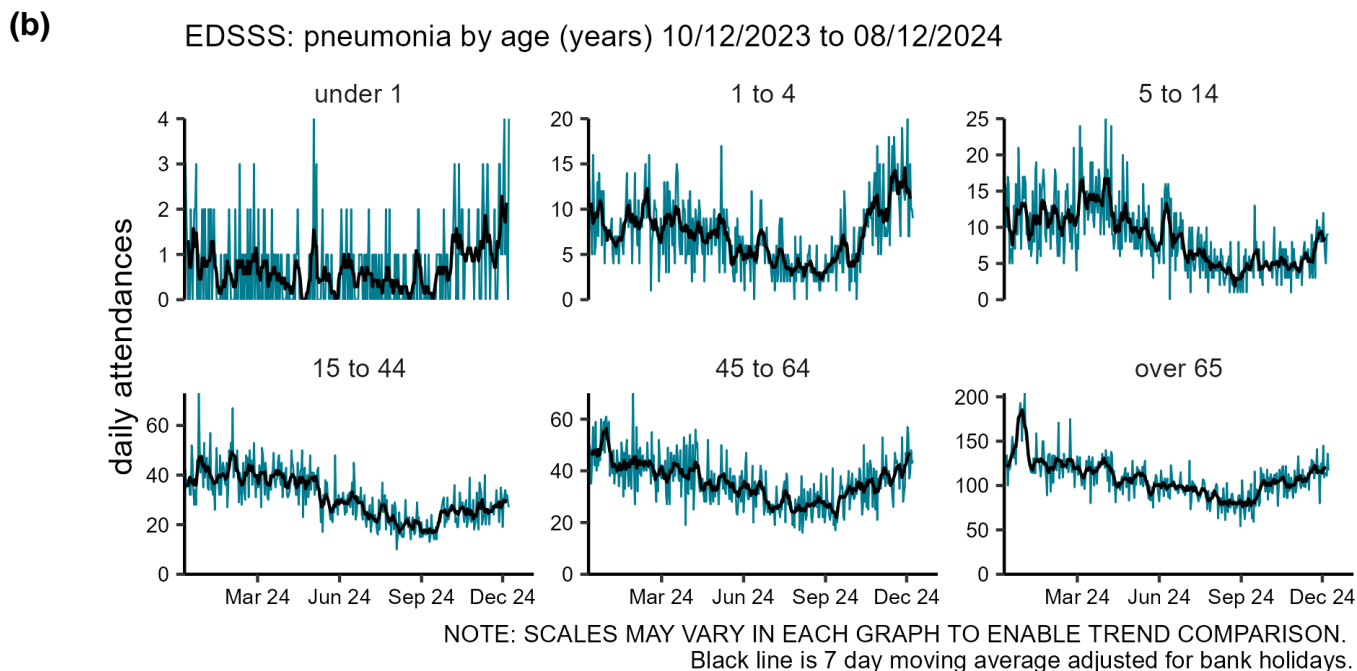
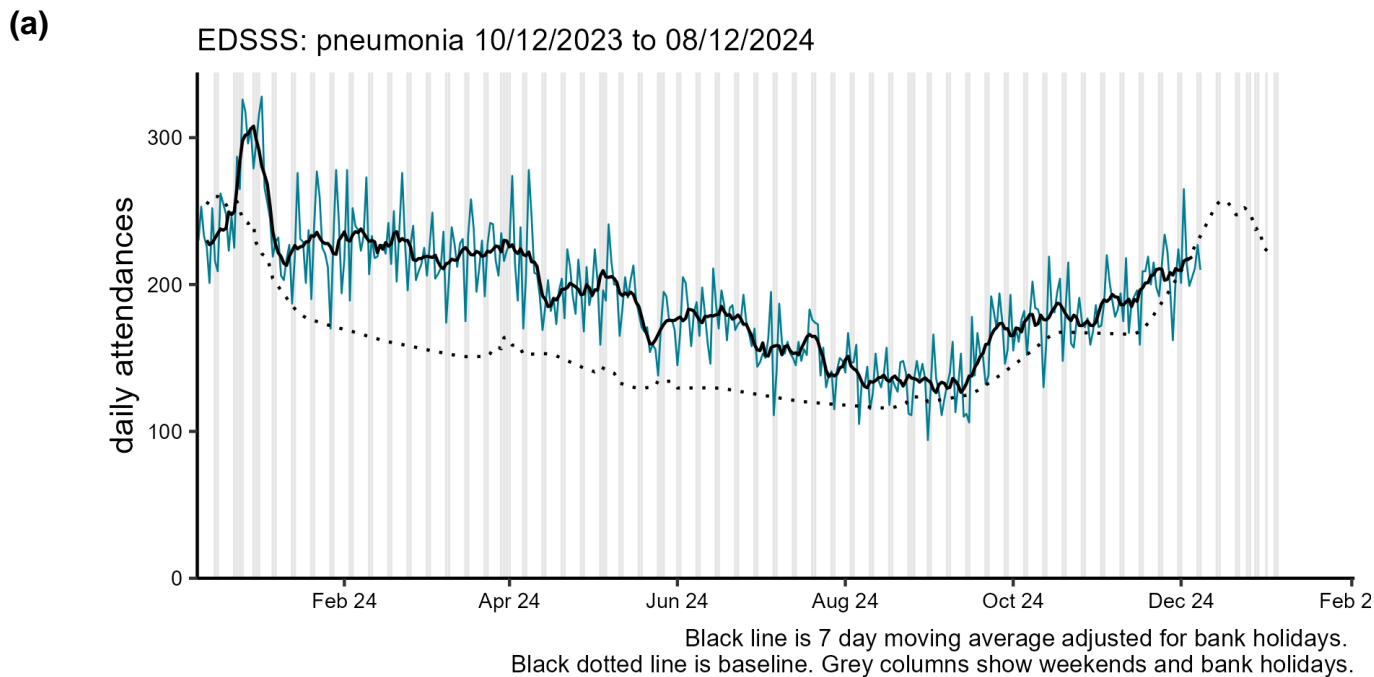
EDSSS: influenza-like illness by UKHSA region 10/12/2023 to 08/12/2024



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.

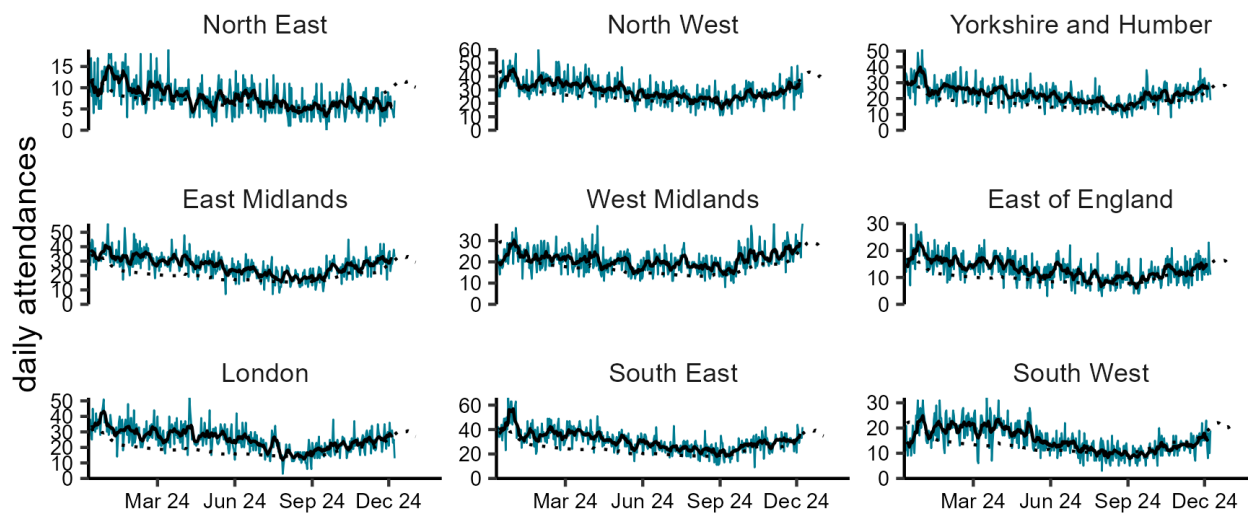
Pneumonia

Figure 6: Daily number of pneumonia ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

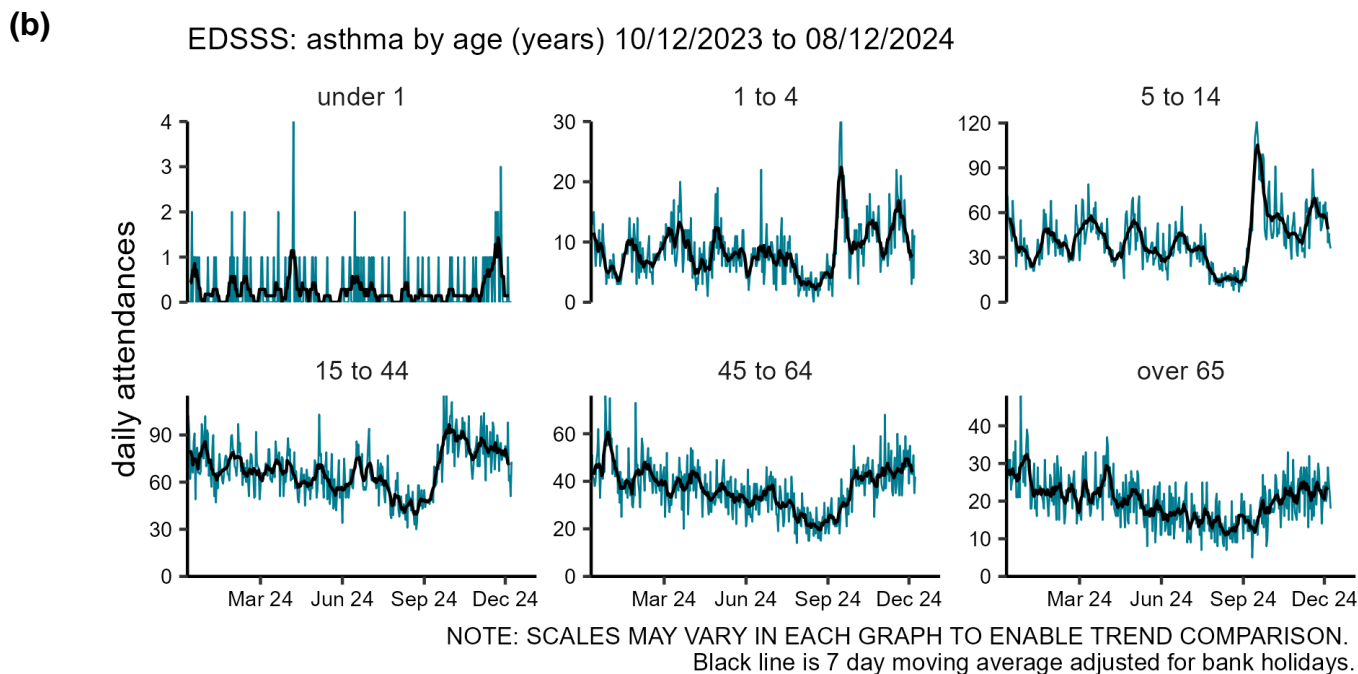
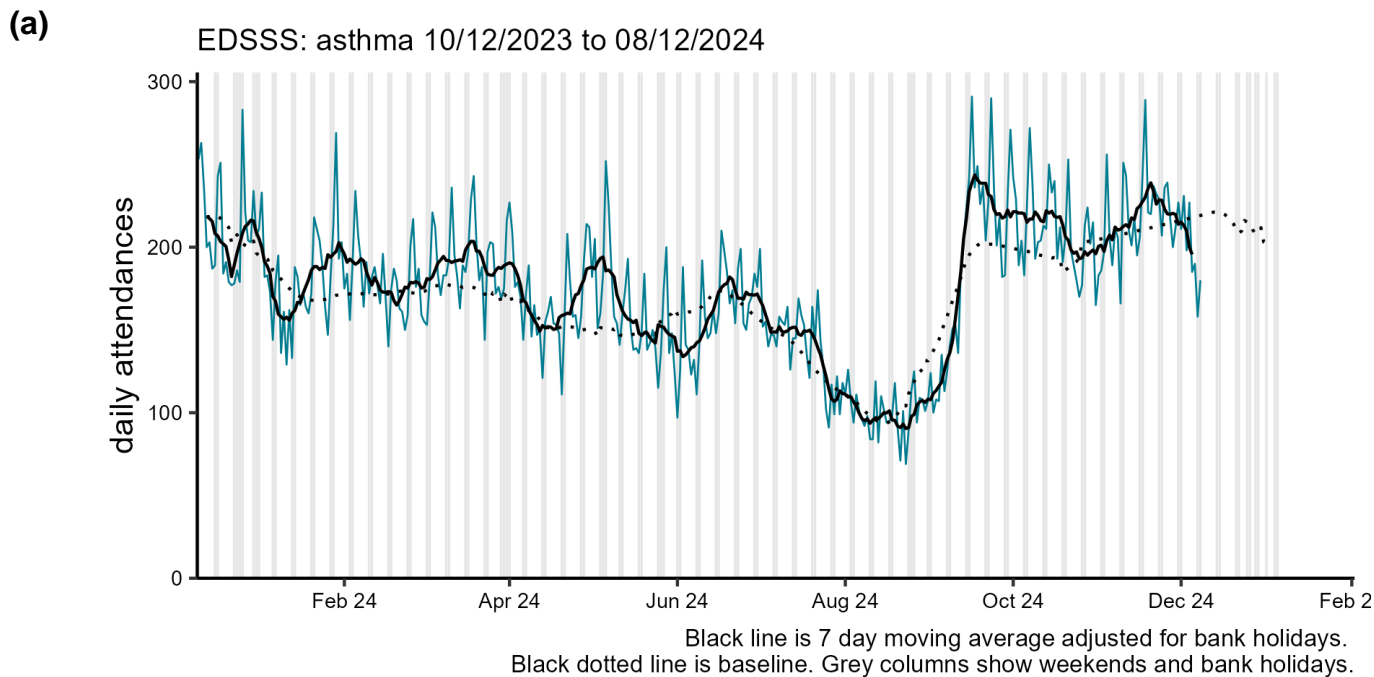
EDSSS: pneumonia by UKHSA region 10/12/2023 to 08/12/2024



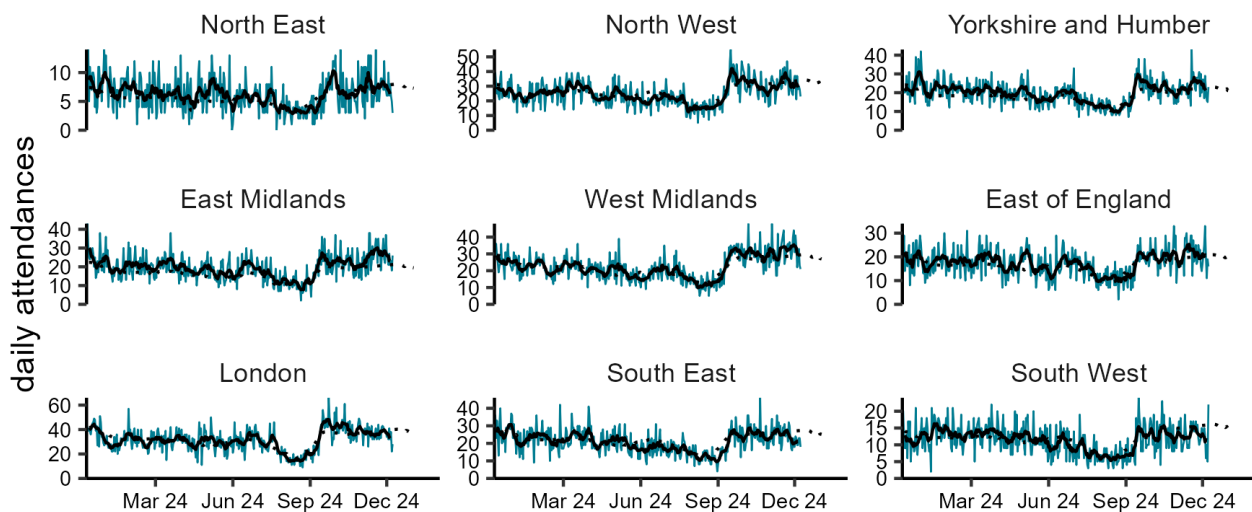
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Asthma

Figure 7: Daily number of asthma ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c) EDSSS: asthma by UKHSA region 10/12/2023 to 08/12/2024

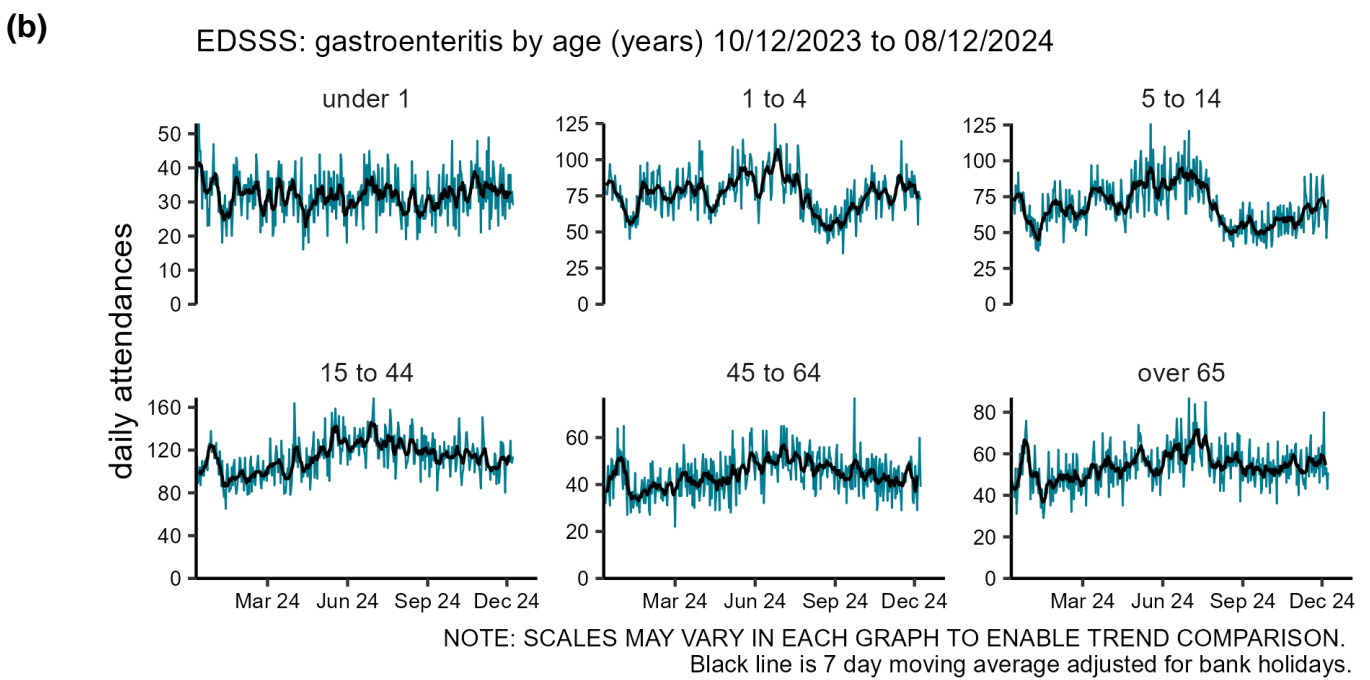
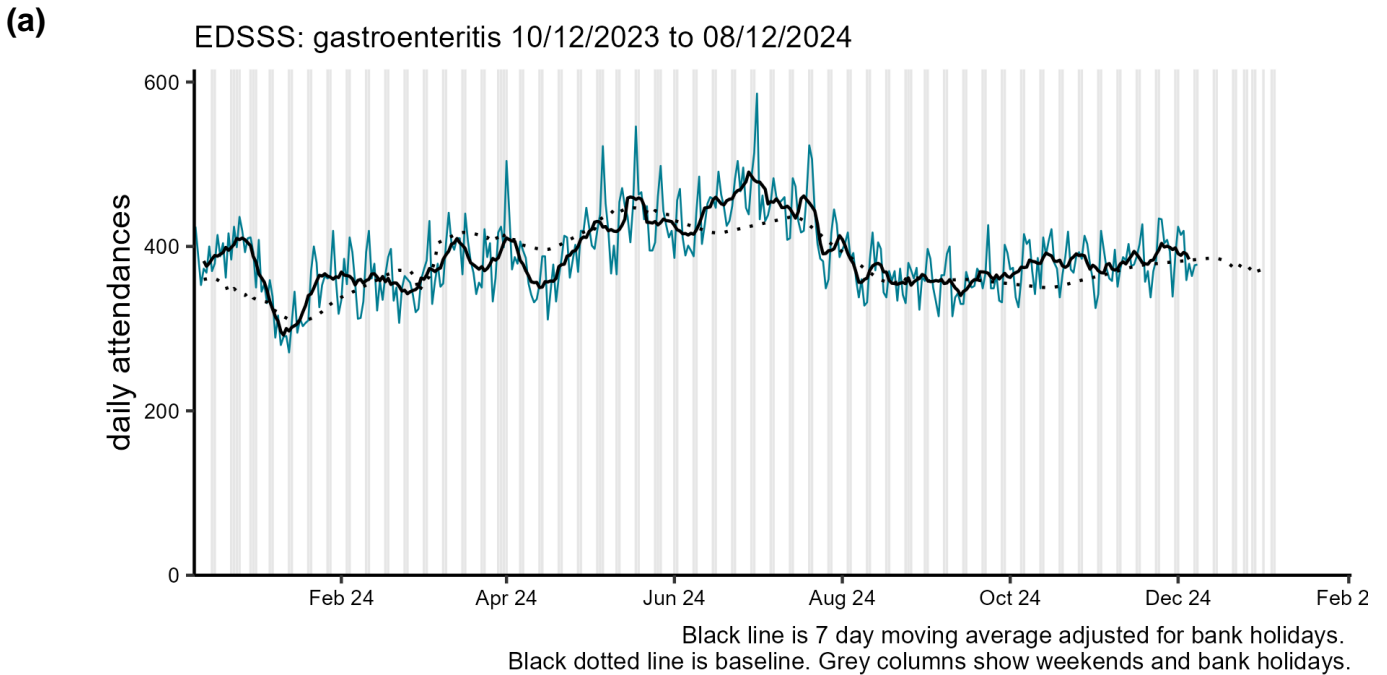


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Gastrointestinal conditions

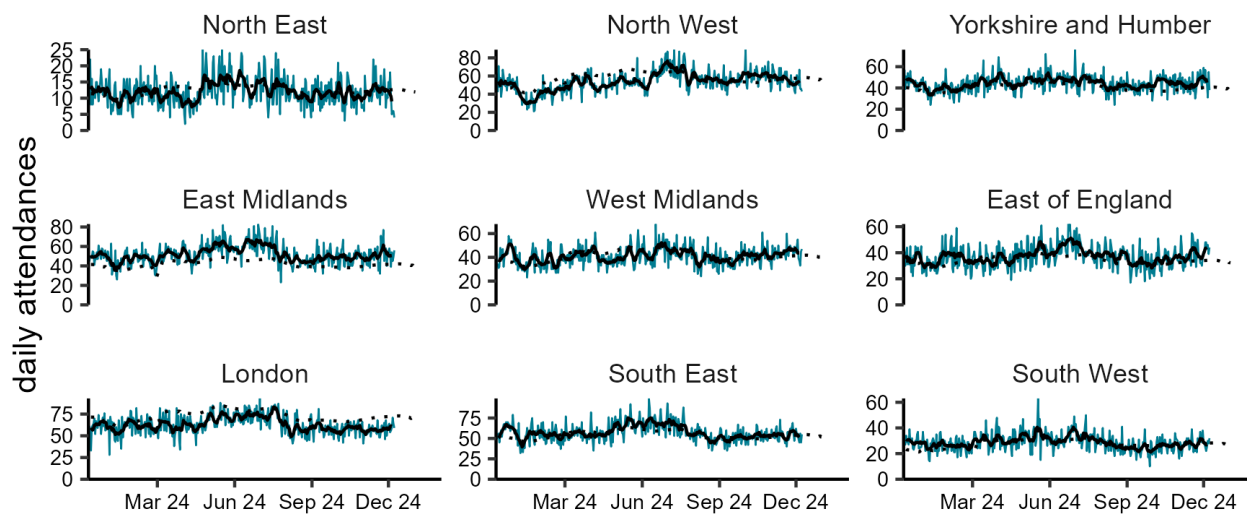
Gastroenteritis

Figure 8: Daily number of gastroenteritis ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

EDSSS: gastroenteritis by UKHSA region 10/12/2023 to 08/12/2024

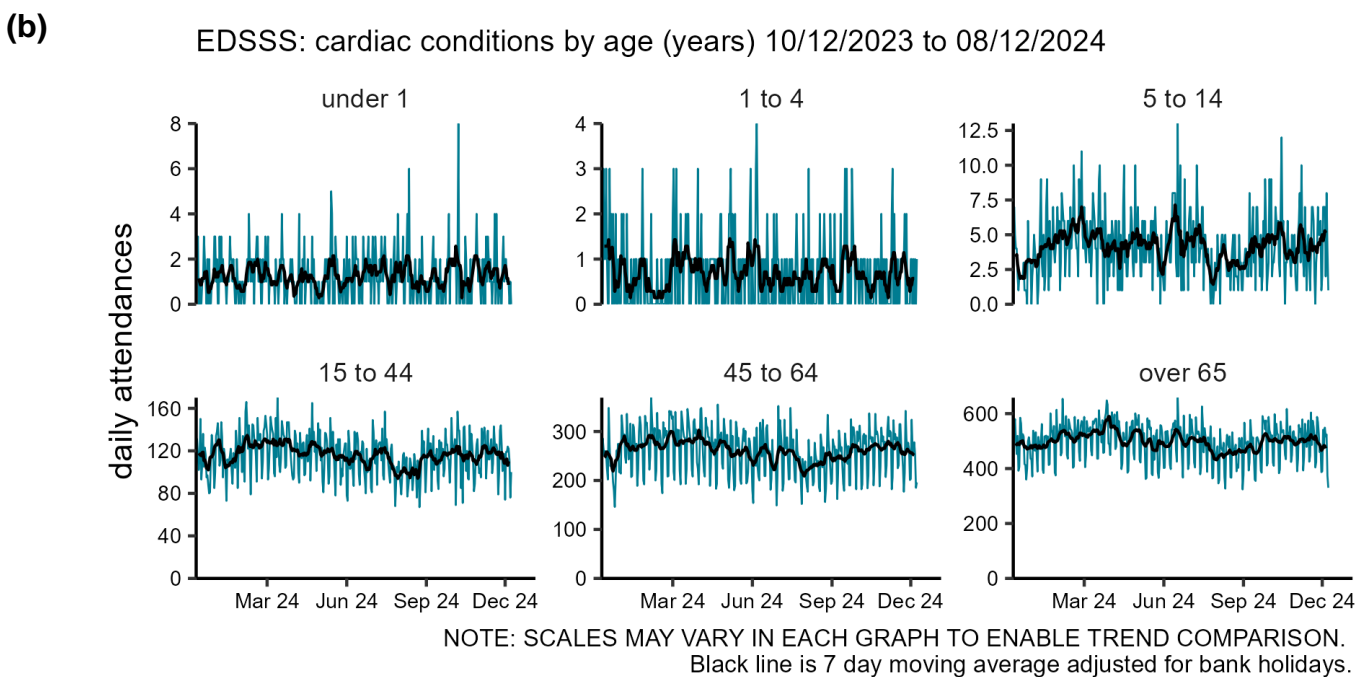
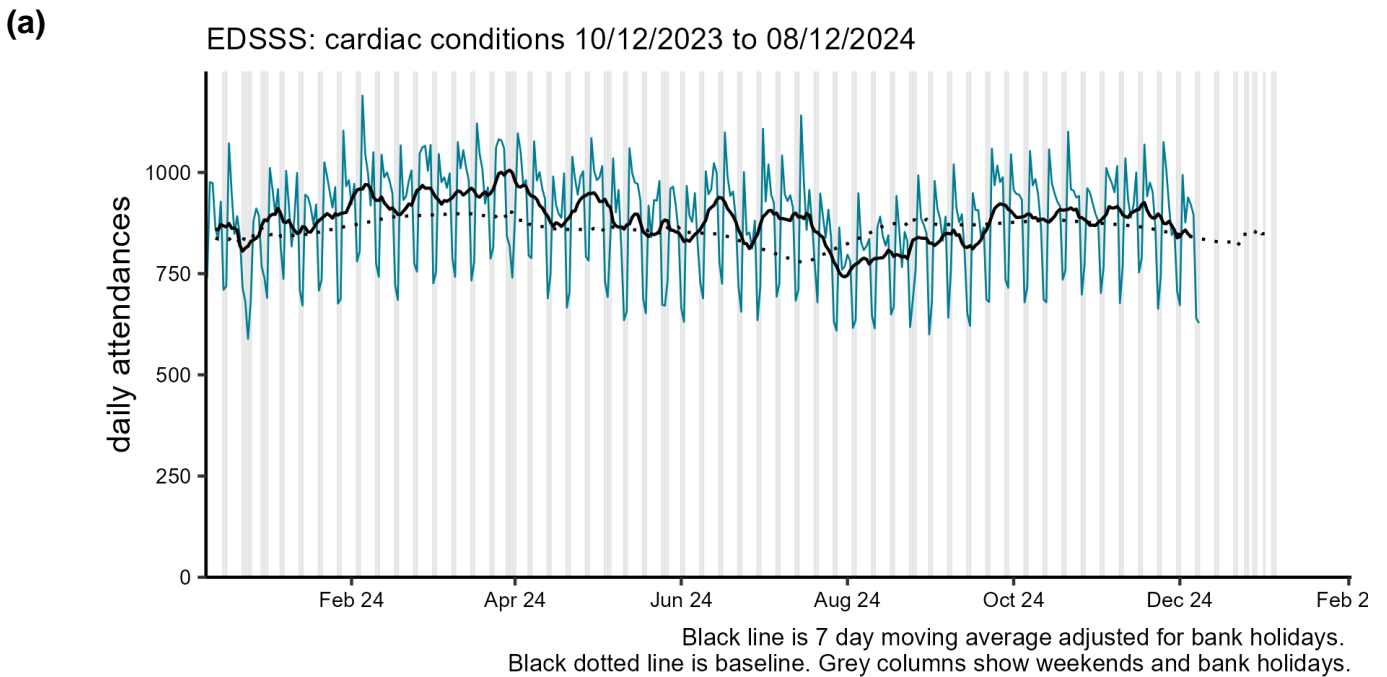


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Cardiac conditions

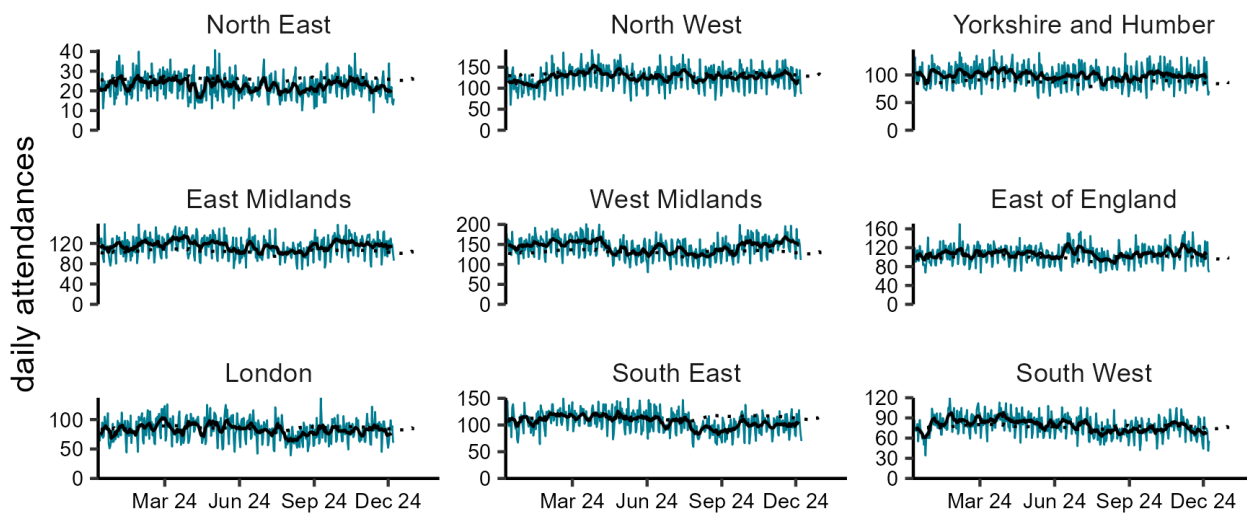
Cardiac

Figure 9: Daily number of cardiac ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

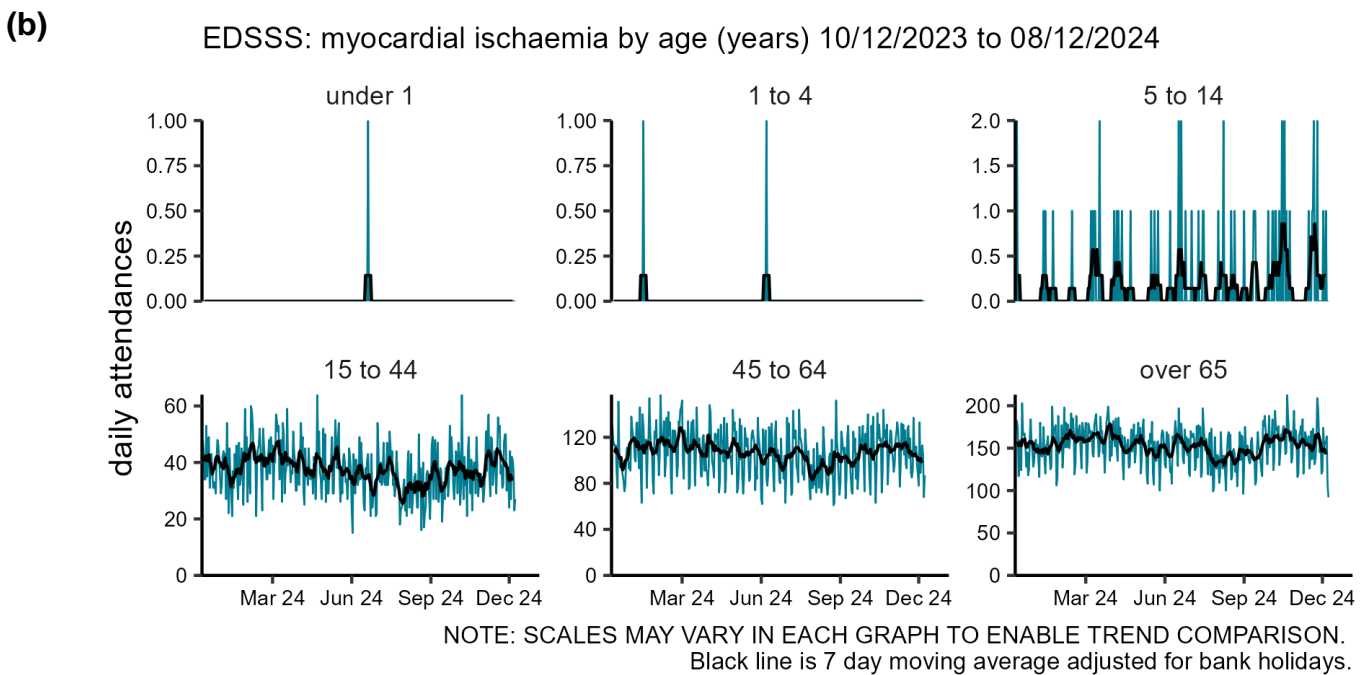
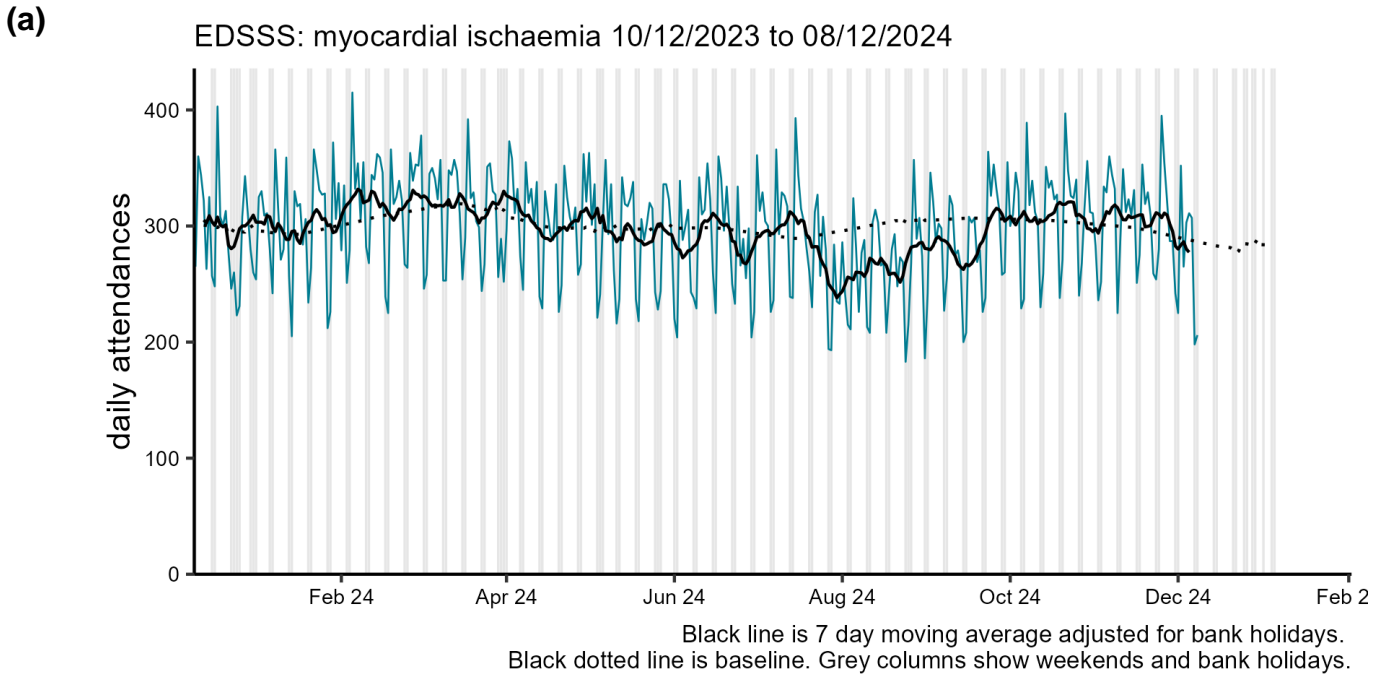
EDSSS: cardiac conditions by UKHSA region 10/12/2023 to 08/12/2024



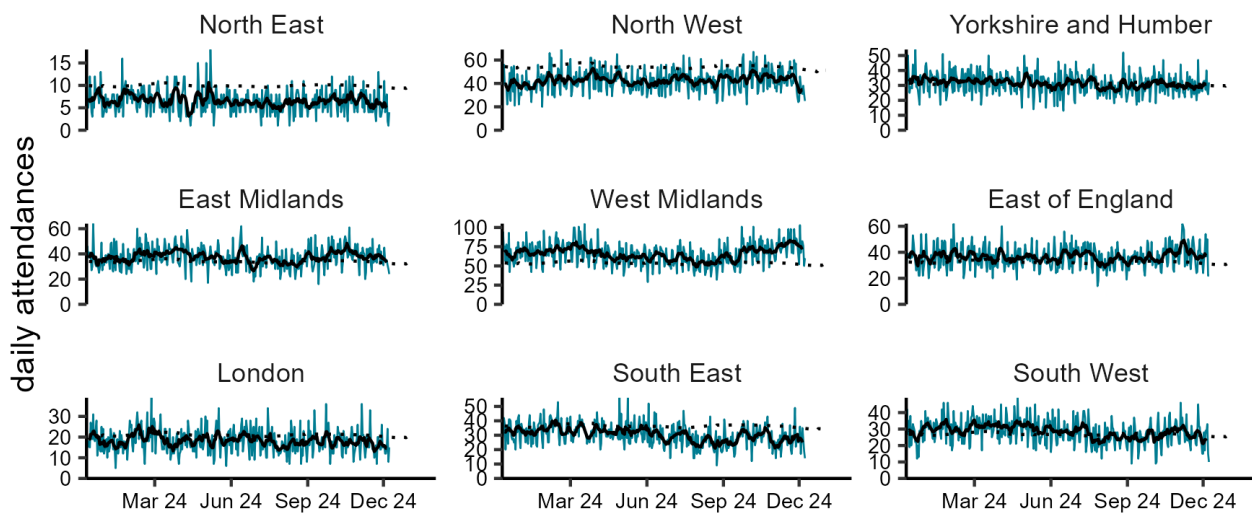
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Myocardial ischaemia

Figure 10: Daily number of myocardial ischaemia ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c) EDSSS: myocardial ischaemia by UKHSA region 10/12/2023 to 08/12/2024

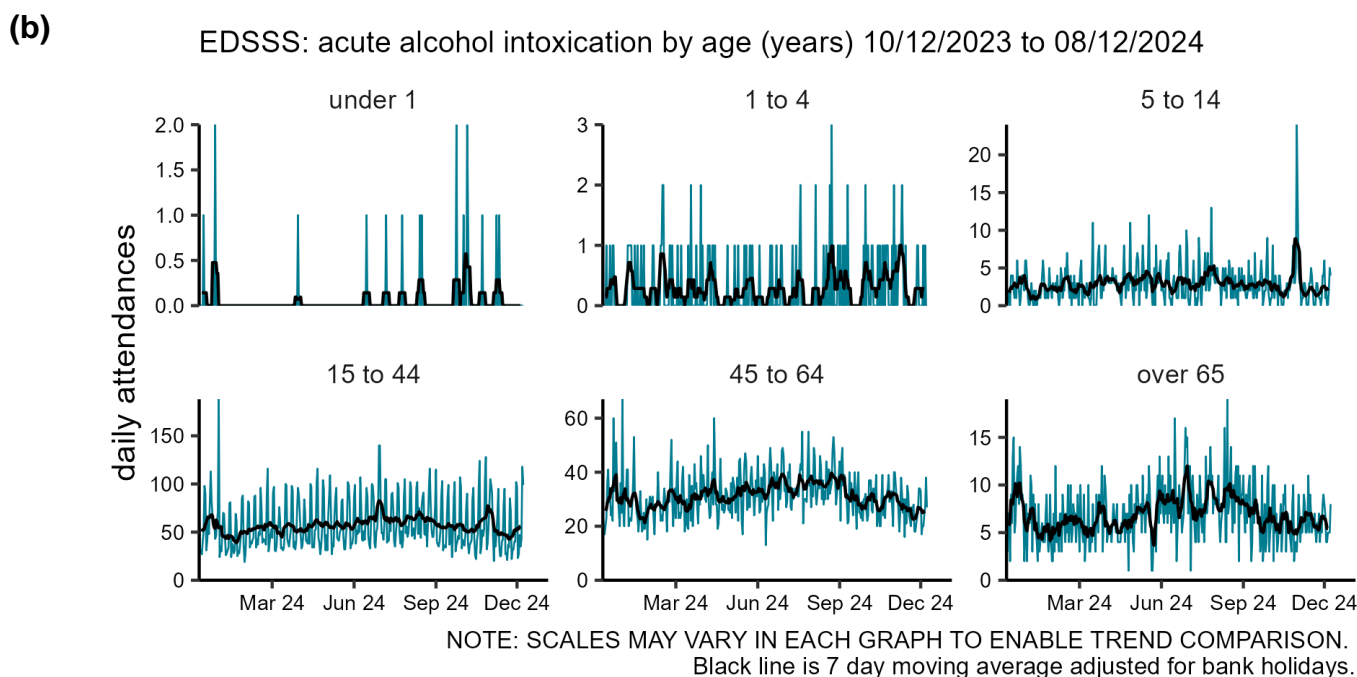
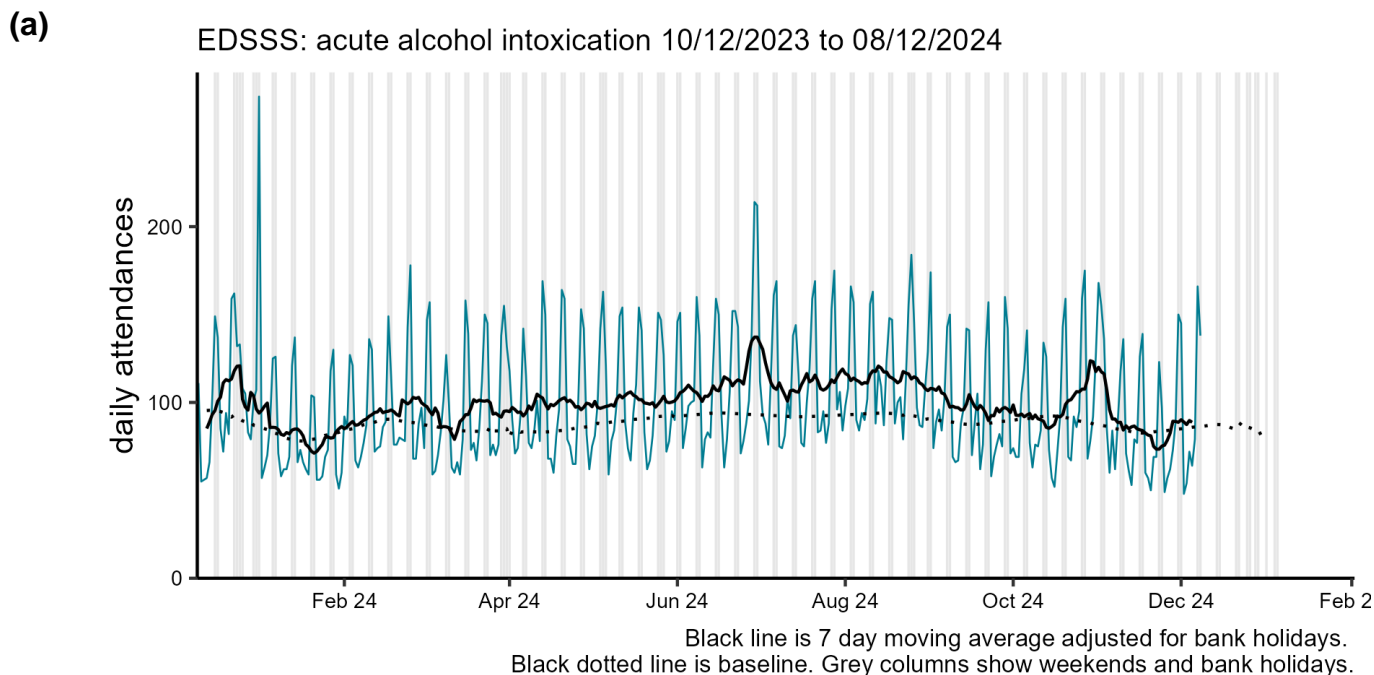


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Other conditions

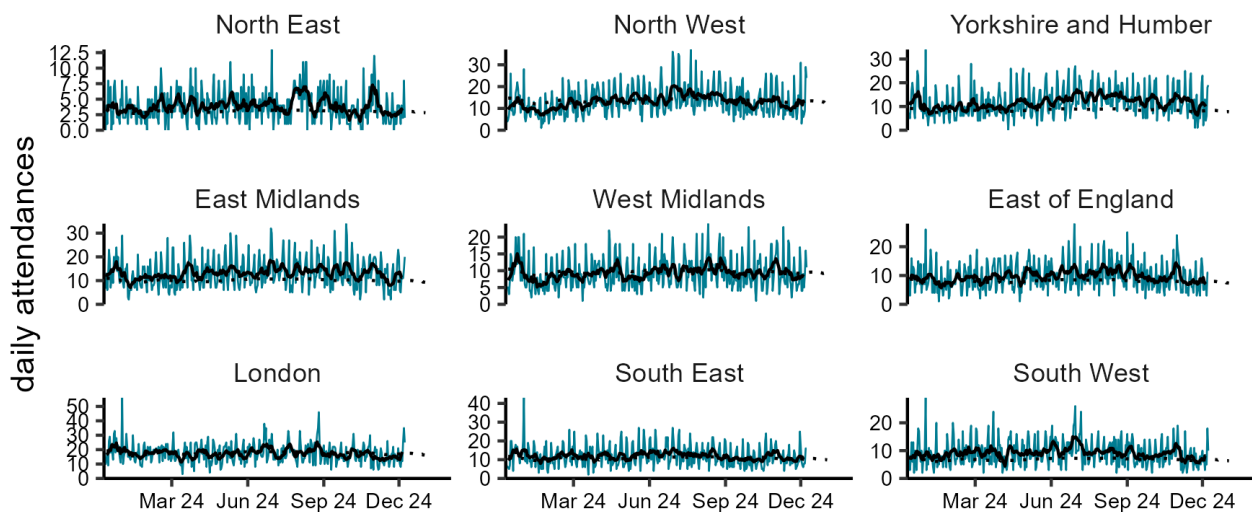
Acute alcohol intoxication

Figure 11: Daily number of acute alcohol intoxication ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

EDSSS: acute alcohol intoxication by UKHSA region 10/12/2023 to 08/12/2024

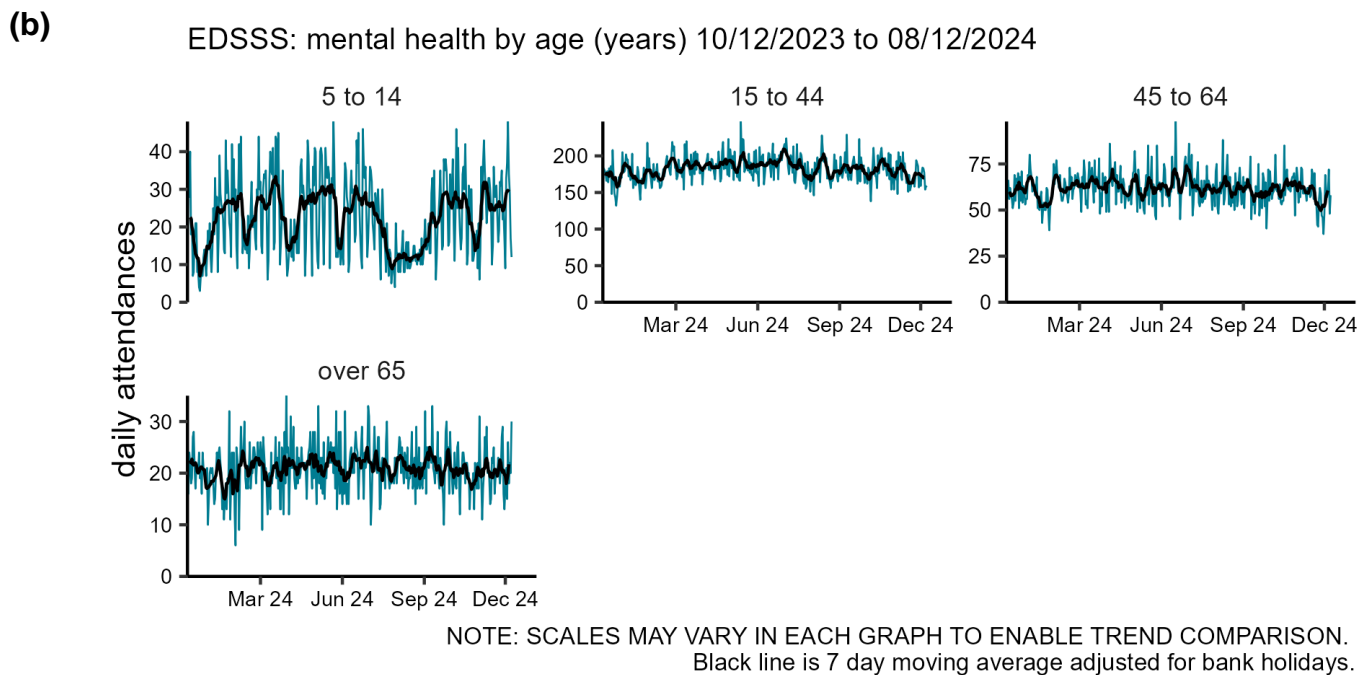
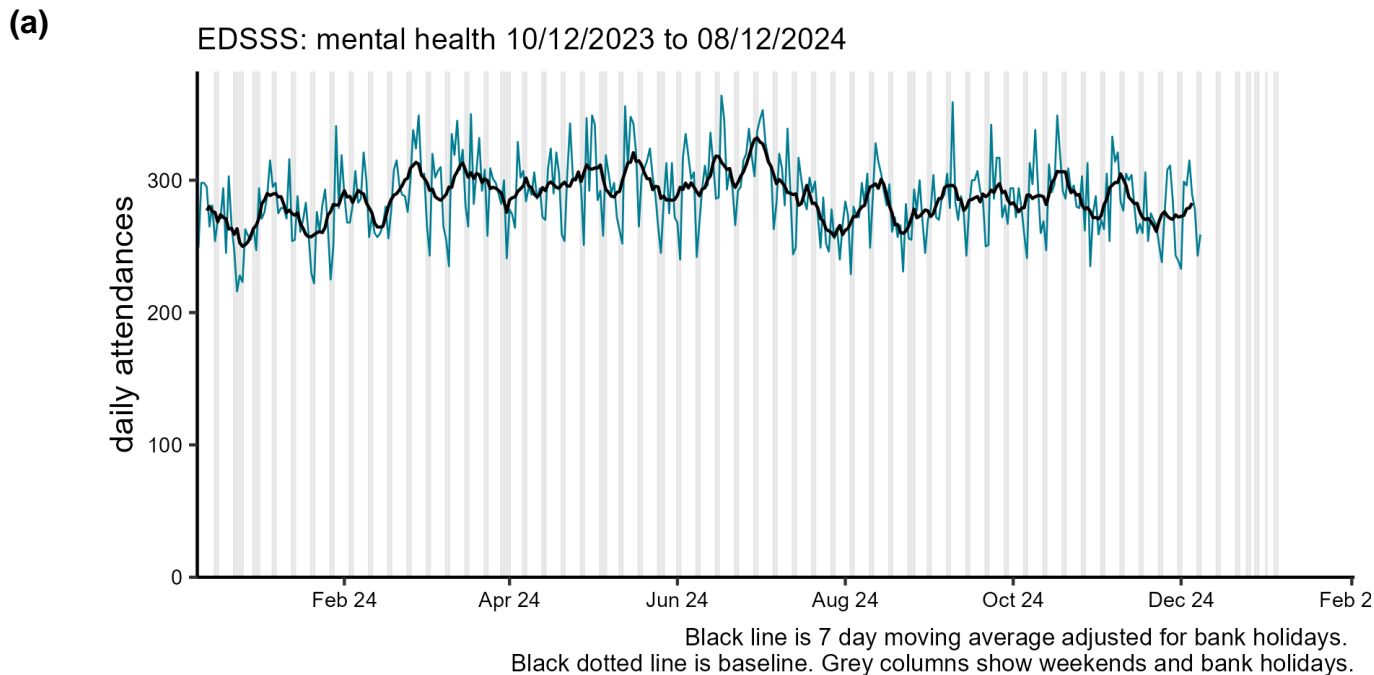


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Mental health

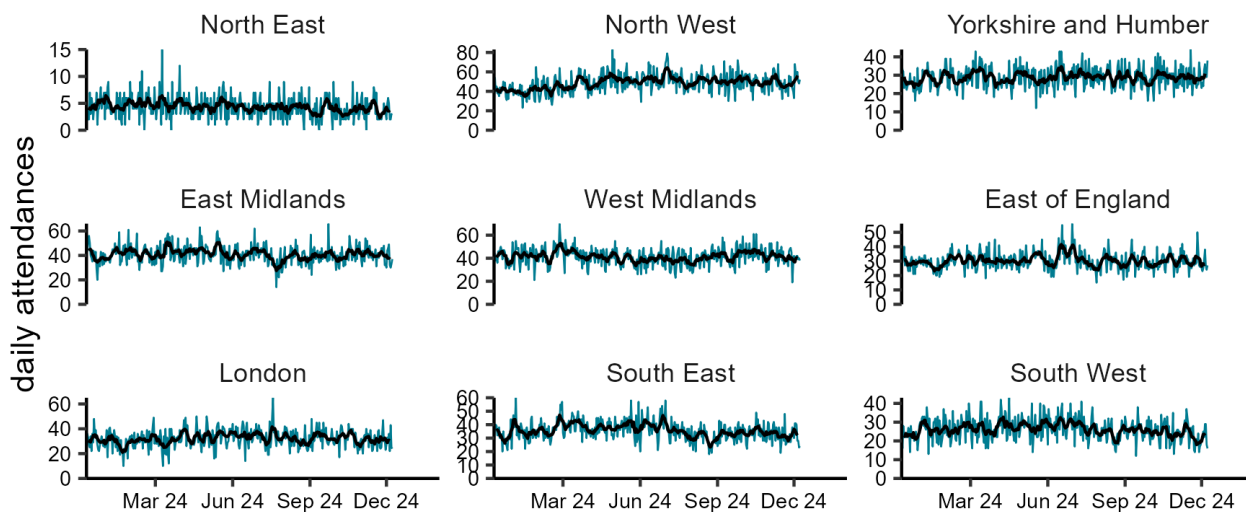
Figure 12: Daily number of mental health³ ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.

³ mental health attendances reported here are those with a primary diagnosis in the ECDS mental health diagnosis grouping. Attendances where the primary diagnosis relates to overdose, alcohol use or self harm are not included.



(c)

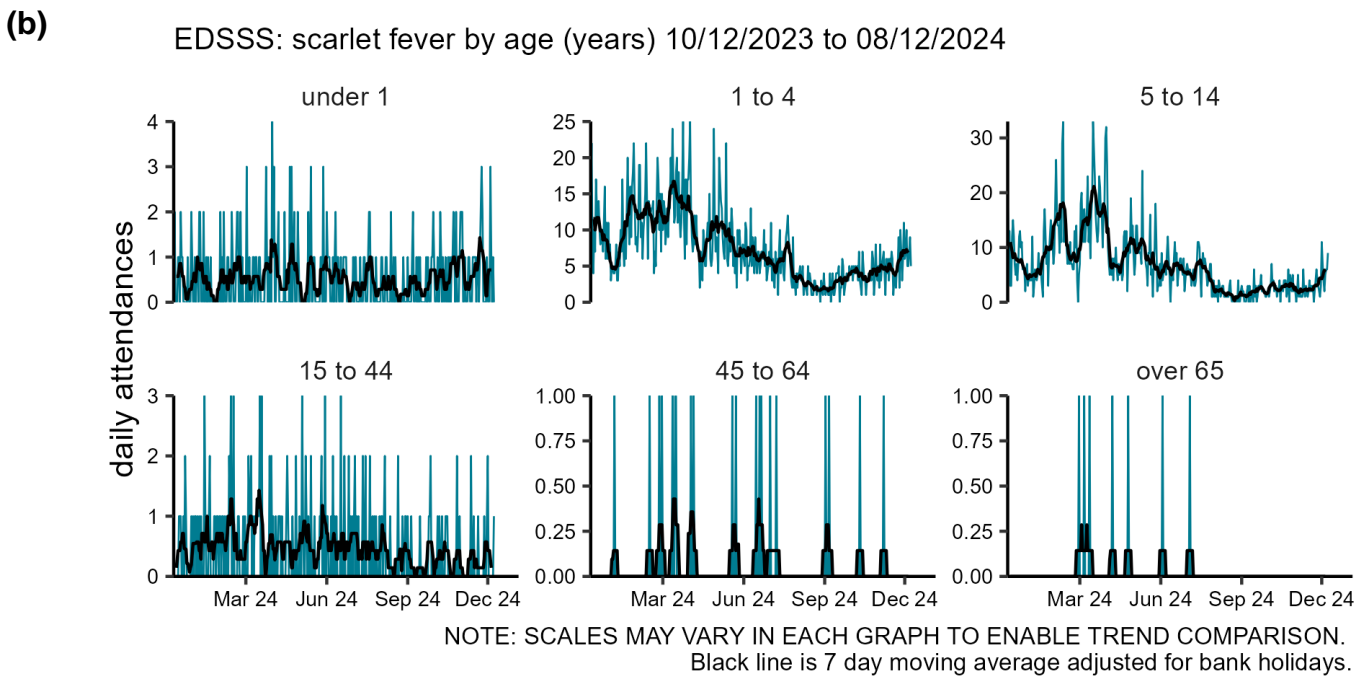
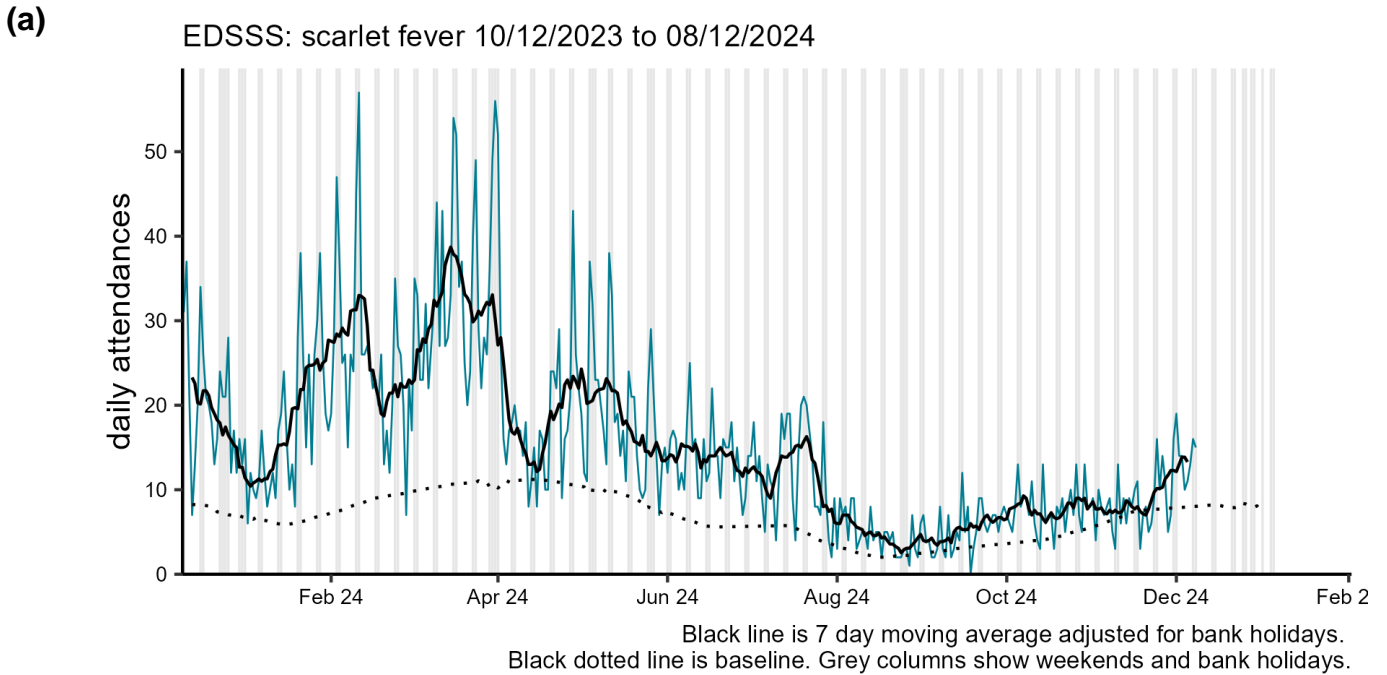
EDSSS: mental health by UKHSA region 10/12/2023 to 08/12/2024



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.

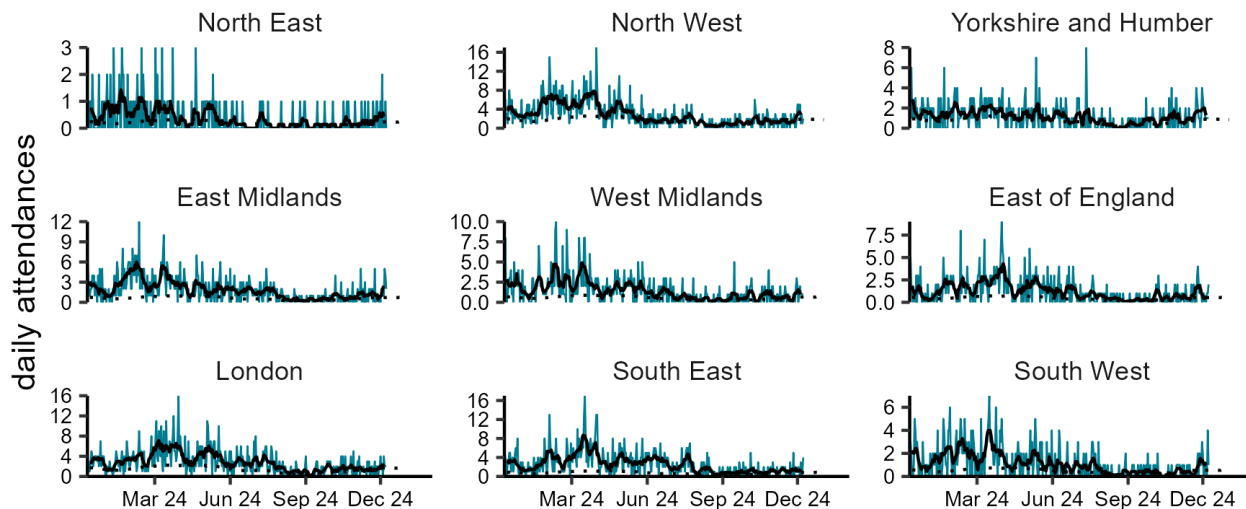
Scarlet fever

Figure 13: Daily number of scarlet fever ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c)

EDSSS: scarlet fever by UKHSA region 10/12/2023 to 08/12/2024



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

UKHSA and the Met Office operate a weather-health alert system that includes both heat and cold weather alert periods. Syndromic indicators are used to monitor the impact of both extreme hot and cold weather in England during these periods and will be routinely included below (where an appropriate syndromic indicator is available).

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

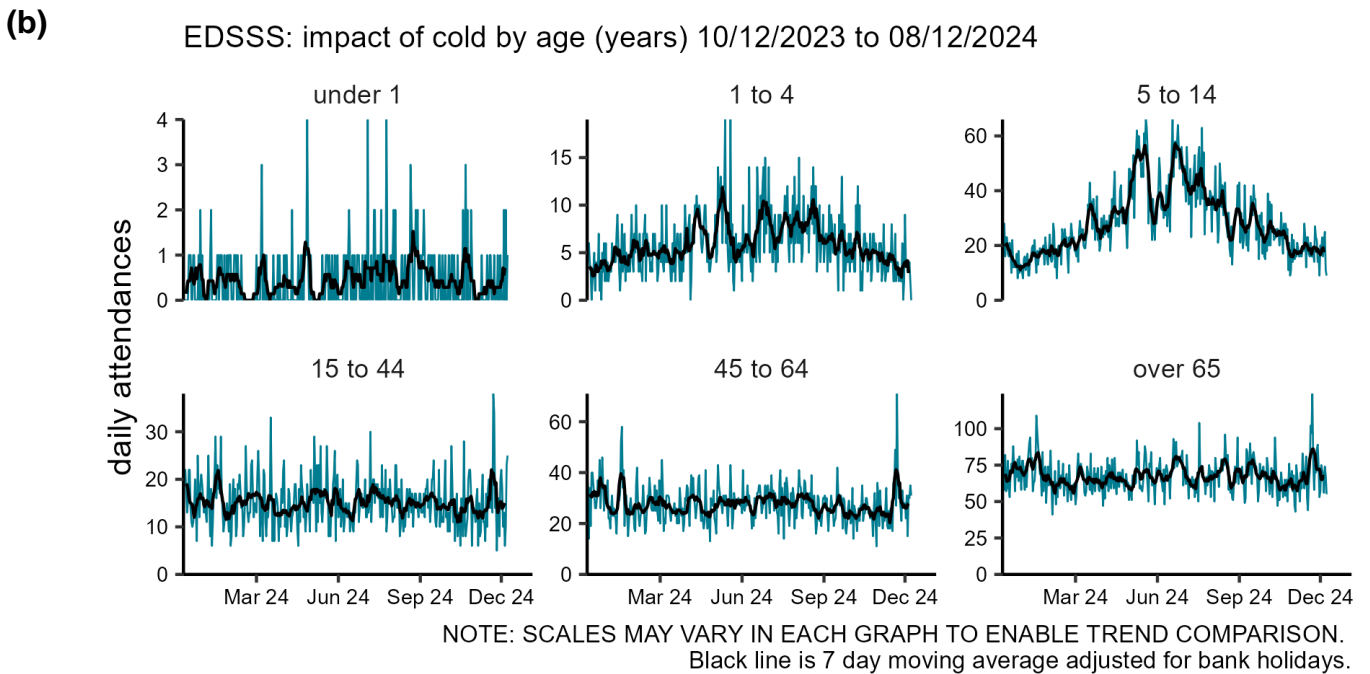
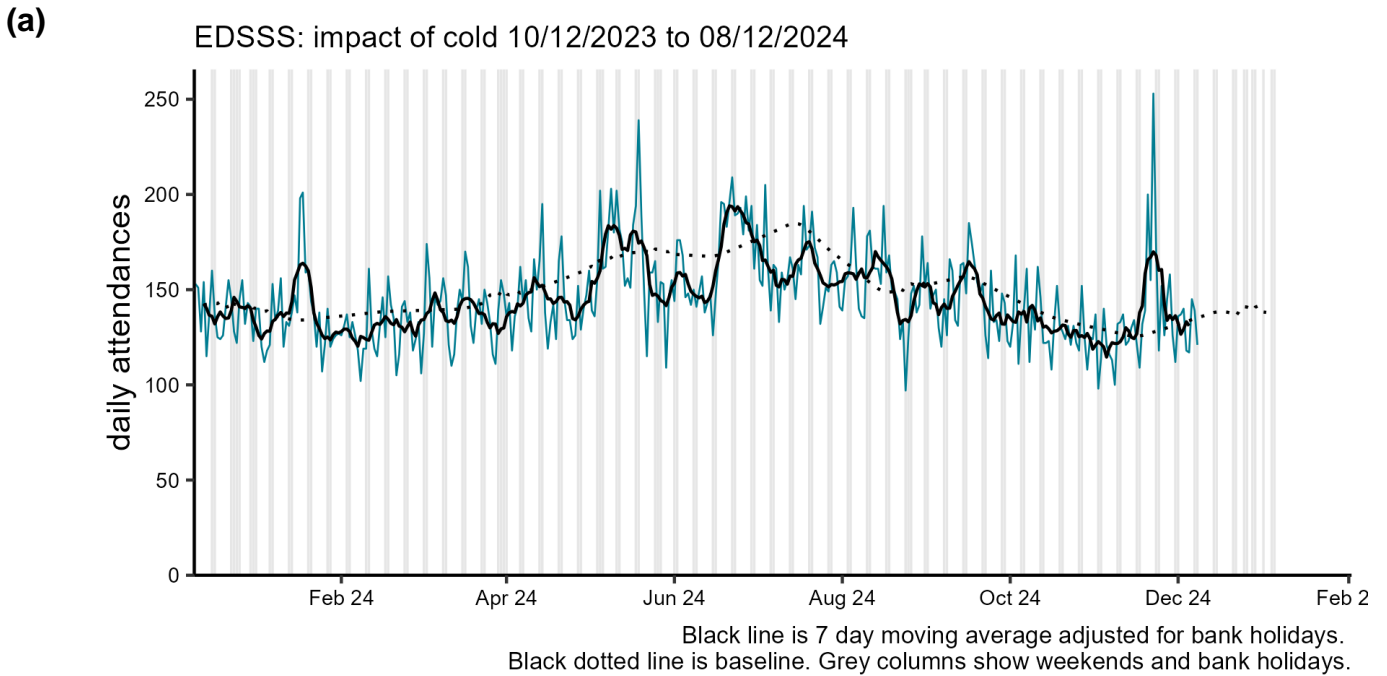
[Heat-Health Alert](#) period: 1 June to 30 September

Highest weather alert level during the current reporting week:

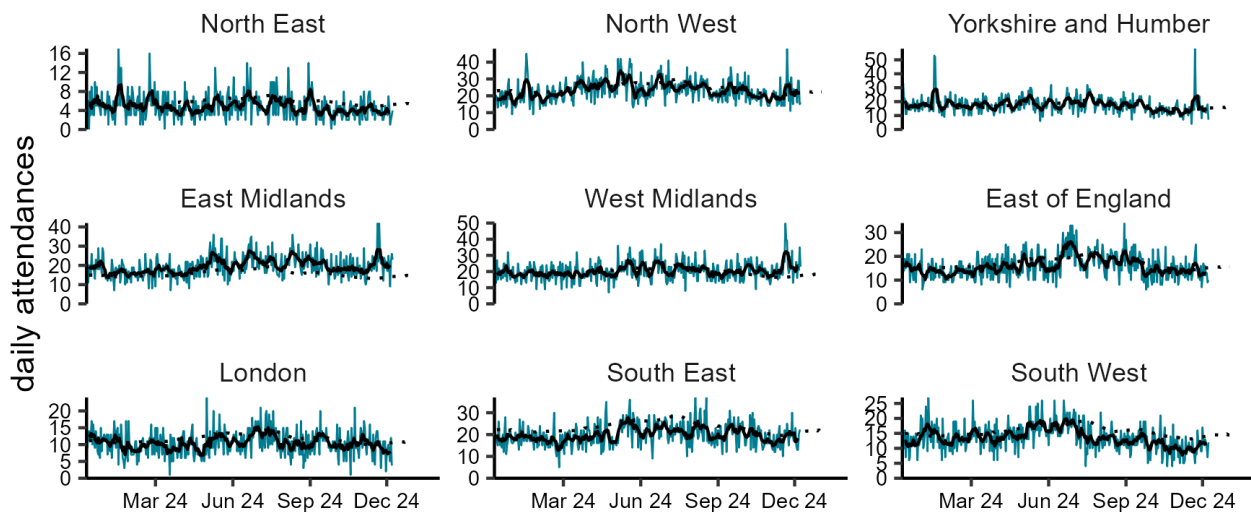
No alerts issued.

Impact of cold

Figure 14: Daily number of impact of cold ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.



(c) EDSSS: impact of cold by UKHSA region 10/12/2023 to 08/12/2024



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 emergency department syndromic surveillance system:

- the data presented are based on a national syndromic surveillance system:
 - should be used to monitor trends not to estimate numbers of ‘cases’
 - an automated daily transfer of anonymised ED data is received from NHS Digital, from the [Emergency Care Data Set](#) (ECDS)
 - not all EDs currently provide data on a daily basis, EDs are eligible for inclusion in this report only where:
 - data relates to attendances at a type 01 ED
 - data for 7 of the 7 most recent days was received
 - data for those days was received within 2 calendar days of the patient arrival
 - when an ED meets these criteria, all historical data from that ED is included
 - EDs included each week is likely to change, which will affect the historical data inclusion
 - national coverage each week is included in **Table 2**,
 - the number of EDs in each region area is described in **Table 3**
- individual EDs will not be identified in these bulletins
- some syndromic indicators are hierarchical:
 - acute respiratory infections includes:
 - COVID-19-like
 - acute bronchitis or bronchiolitis
 - other and non-specific acute respiratory infections
 - influenza-like illness
 - pneumonia
 - cardiac conditions includes:
 - myocardial ischaemia
 - other and non-specific cardiac conditions
- baselines:
 - were last remodelled January 2023 (influenza-like illness baselines were refitted to influenza-like illness surveillance data during December 2023 to account for post-COVID-19 changes in health care seeking behaviour)
 - for asthma were last remodelled October 2024
 - are constructed from historical data since April 2018
 - 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 ED attendance levels

Acknowledgements

We are grateful to the clinicians in each ED and other staff within each Trust for their continued involvement in the EDSSS.

We thank the Royal College of Emergency Medicine, NHS Digital and NHS England for their support in the development of national EDSSS, using anonymised data collection from ECDS.

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

© Crown copyright 2024
Version: ED-2

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

Published: December 2024



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

