



UK Health  
Security  
Agency

# **Emergency Department Syndromic Surveillance System Bulletin (England) 2022 Week 37**

# Key messages

## Data reported to: 18 September 2022

During week 37, emergency department attendances for acute respiratory infections increased, particularly in children aged 1-4 and 5-14 years. Acute bronchiolitis attendances increased in children aged <5 years. There was also an increase in asthma attendances in children, in line with expected trends and the recent return to school. Overall, COVID-19-like attendances remained stable during week 37.

## 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 attendances ( <b>Figure 1</b> )	Increasing	No baseline
COVID-19-like ( <b>Figure 2</b> )	No trend	No baseline
Acute respiratory infections ( <b>Figure 3</b> )	Increasing	Above baseline
Acute bronchiolitis or bronchitis ( <b>Figure 4</b> )	Increasing	Below baseline
Influenza-like illness ( <b>Figure 5</b> )	No trend	Above baseline
Pneumonia ( <b>Figure 6</b> )	No trend	Below baseline
Asthma ( <b>Figure 7</b> )	Increasing	Below baseline
Gastroenteritis ( <b>Figure 8</b> )	Decreasing	Above baseline
Cardiac ( <b>Figure 9</b> )	No trend	Below baseline
Myocardial ischaemia ( <b>Figure 10</b> )	No trend	Below baseline
Acute alcohol intoxication ( <b>Figure 11</b> )	No trend	Below baseline
Mental health ( <b>Figure 12</b> )	Decreasing	No baseline
Heat or sunstroke ( <b>Figure 13</b> )	No trend	Similar to baseline

<sup>1</sup> 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
Seasonal environmental conditions .....	29
Heat or sunstroke .....	30
Notes and caveats .....	32
Acknowledgements .....	33
About the UK Health Security Agency .....	34

# 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
- 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 may be based on signs/symptoms and may not be 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 the **Notes and caveats** section.

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

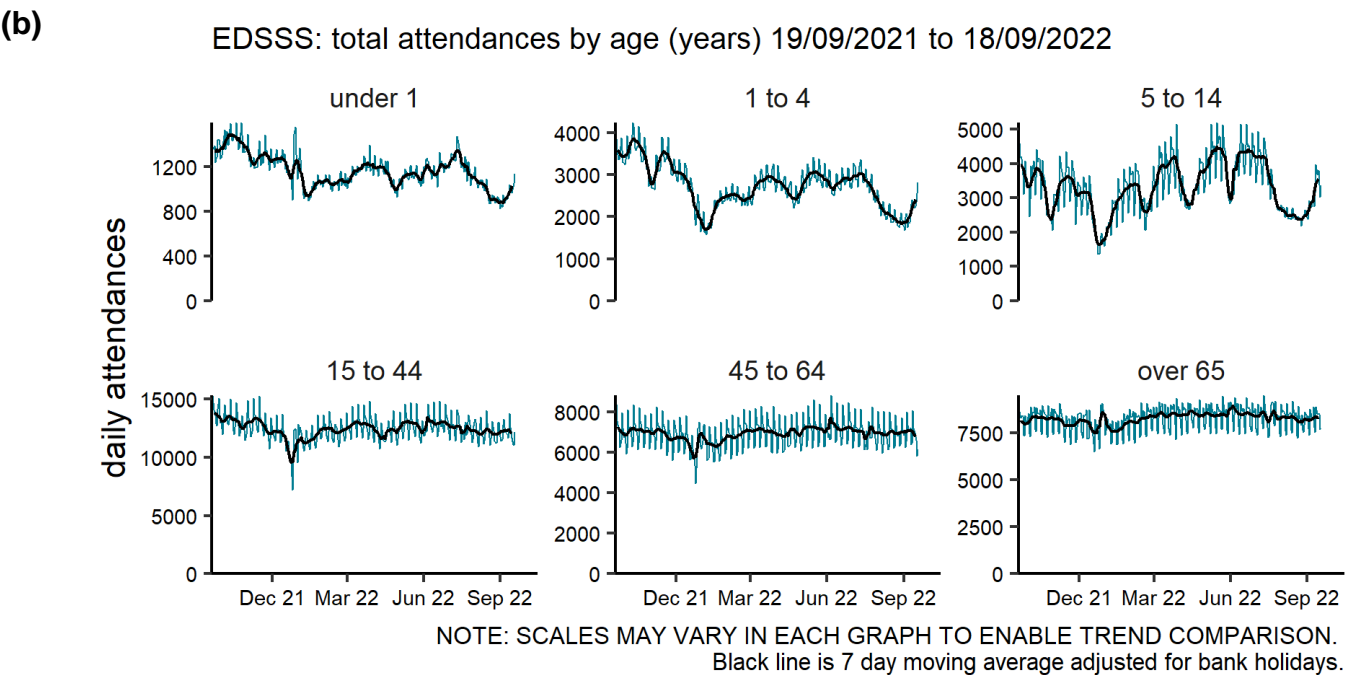
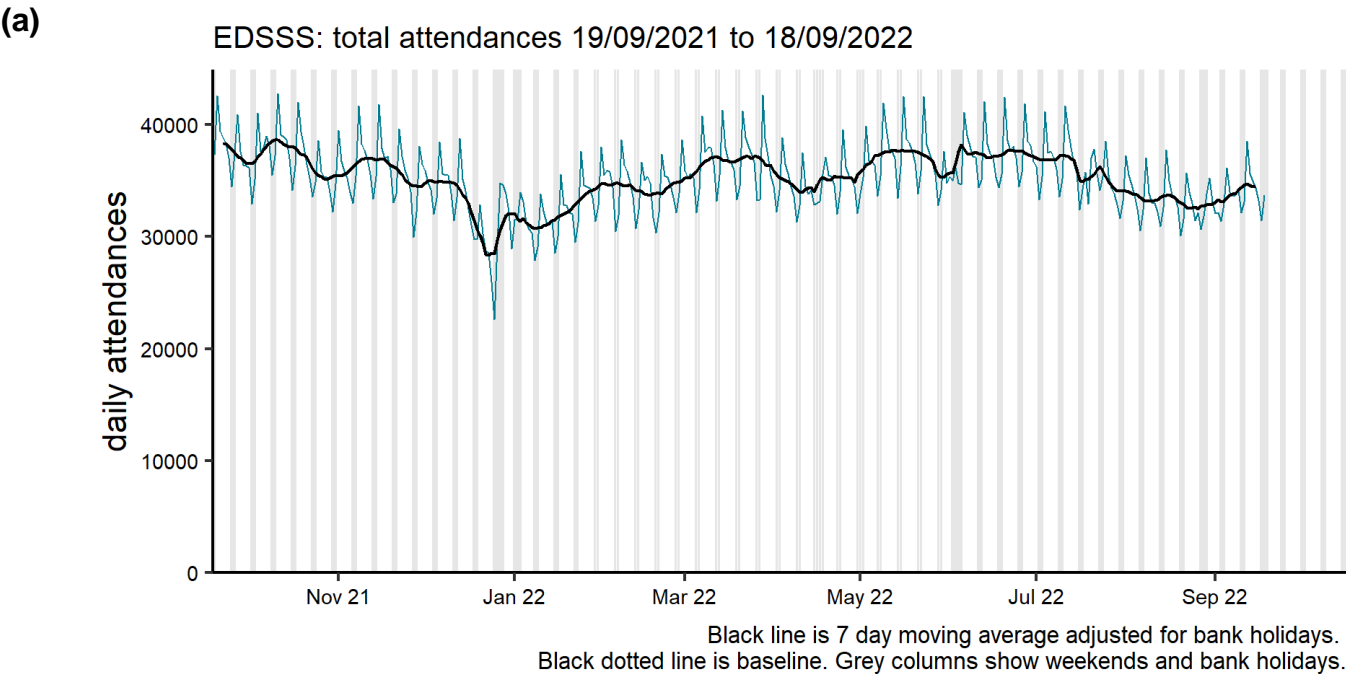
## Data quality issues of note this week

No issues identified.

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

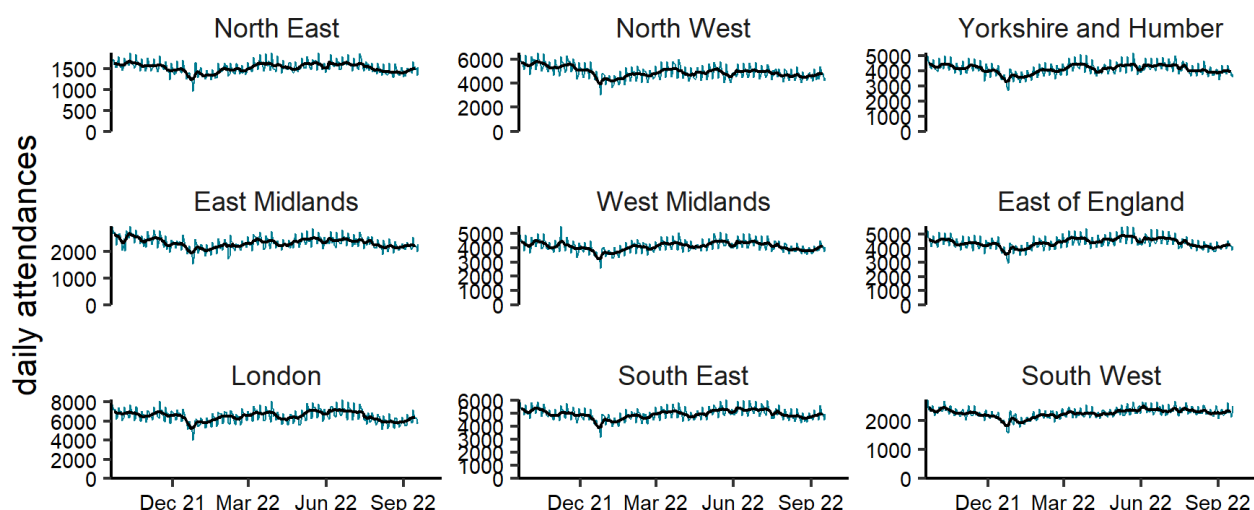
# Total attendances

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.



(c)

EDSSS: total attendances by region 19/09/2021 to 18/09/2022

**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 <sup>2</sup>	Diagnoses included <sup>2</sup>
12 September 2022	38520	24770
13 September 2022	35633	23590
14 September 2022	35011	23066
15 September 2022	34366	22361
16 September 2022	33274	21981
17 September 2022	31420	20643
18 September 2022	33671	22419

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

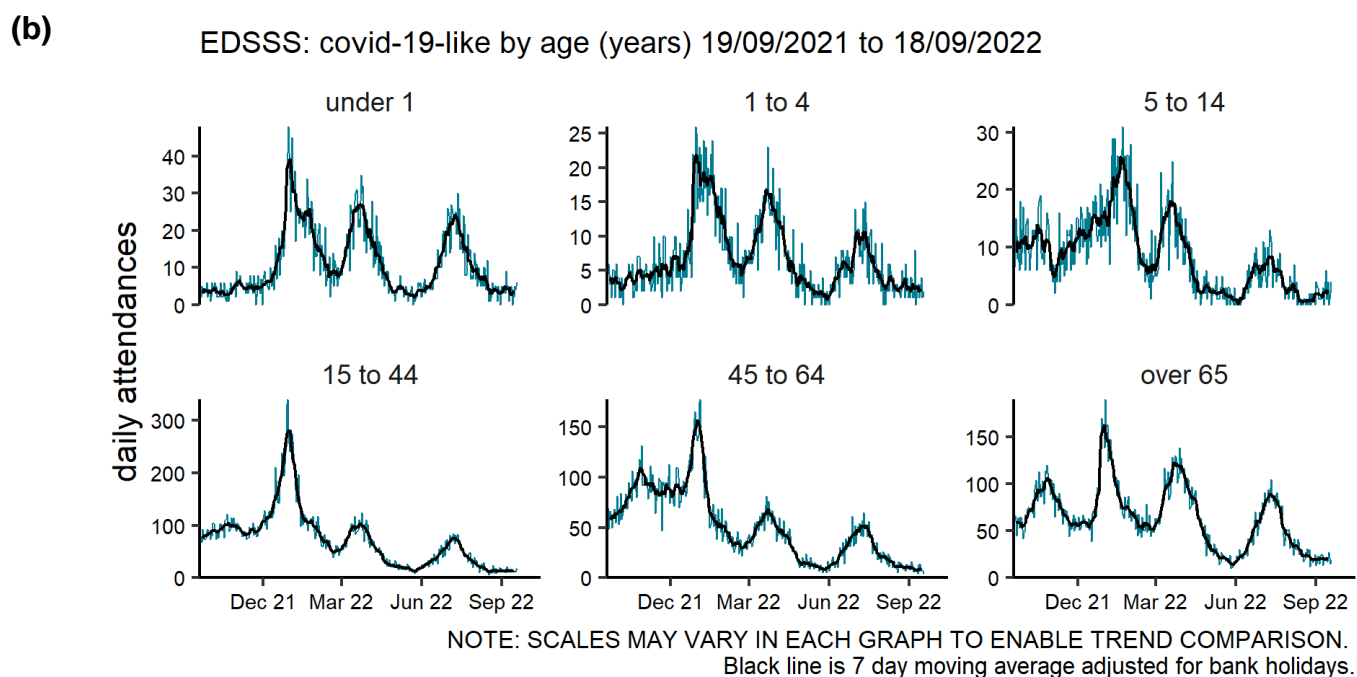
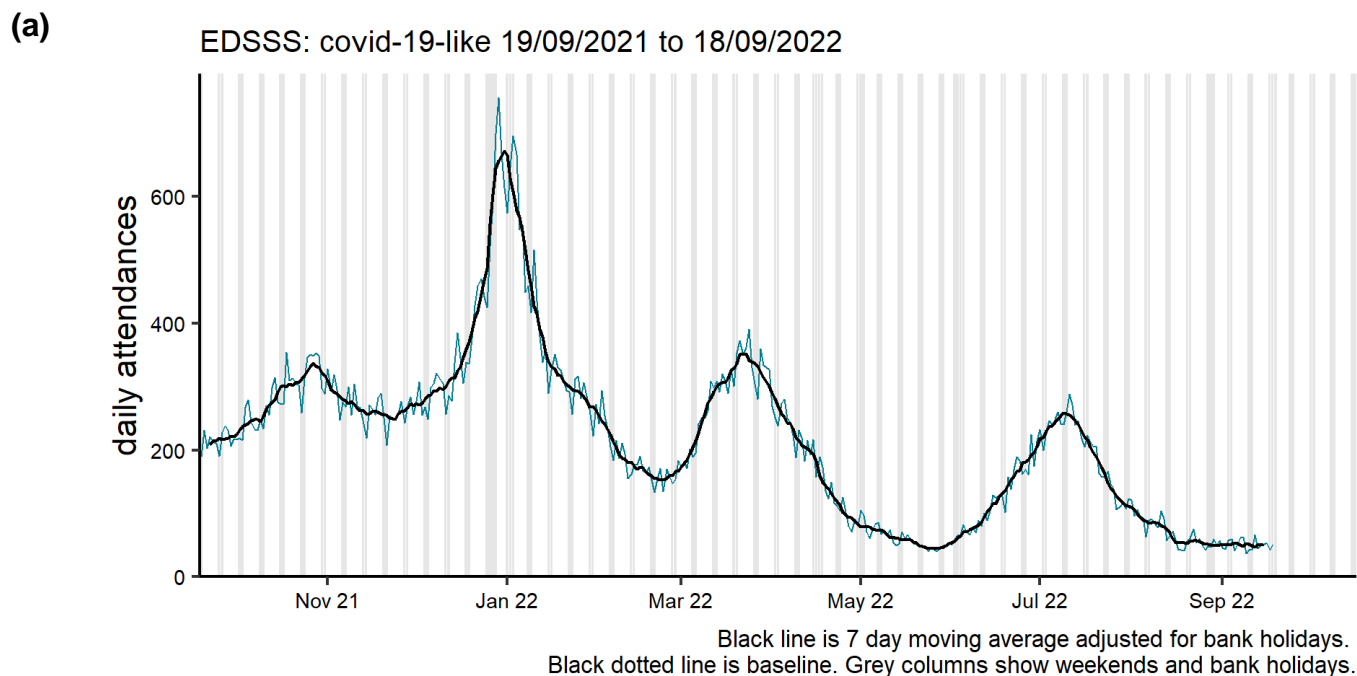
UKHSA Region	Number of EDs <sup>2</sup>
North East	6
North West	22
Yorkshire and Humber	17
West Midlands	17
East Midlands	10
East of England	16
London	24
South West	11
South East	20
Total	143

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

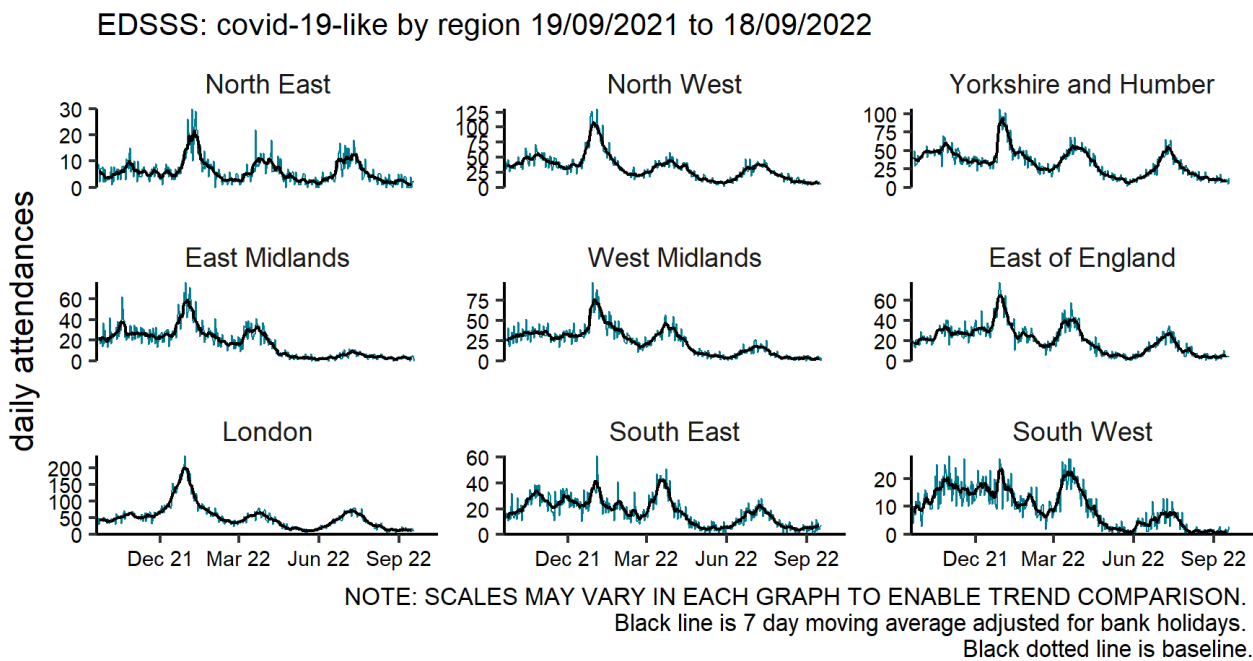
# Respiratory conditions

## 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)

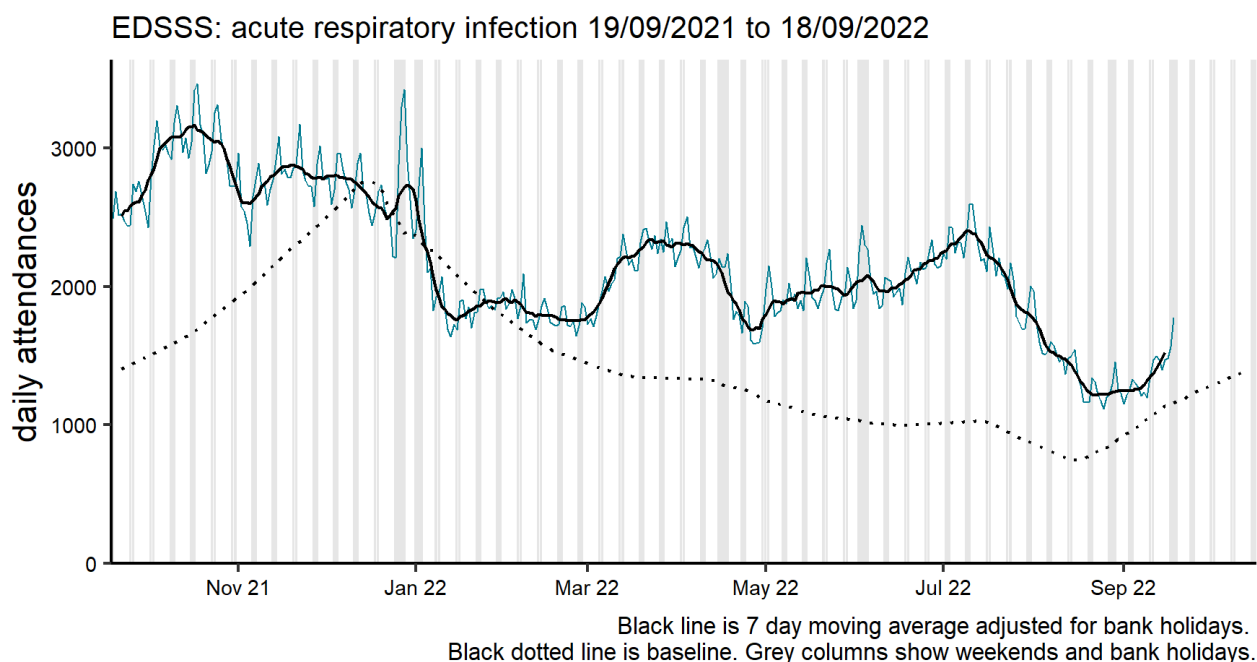




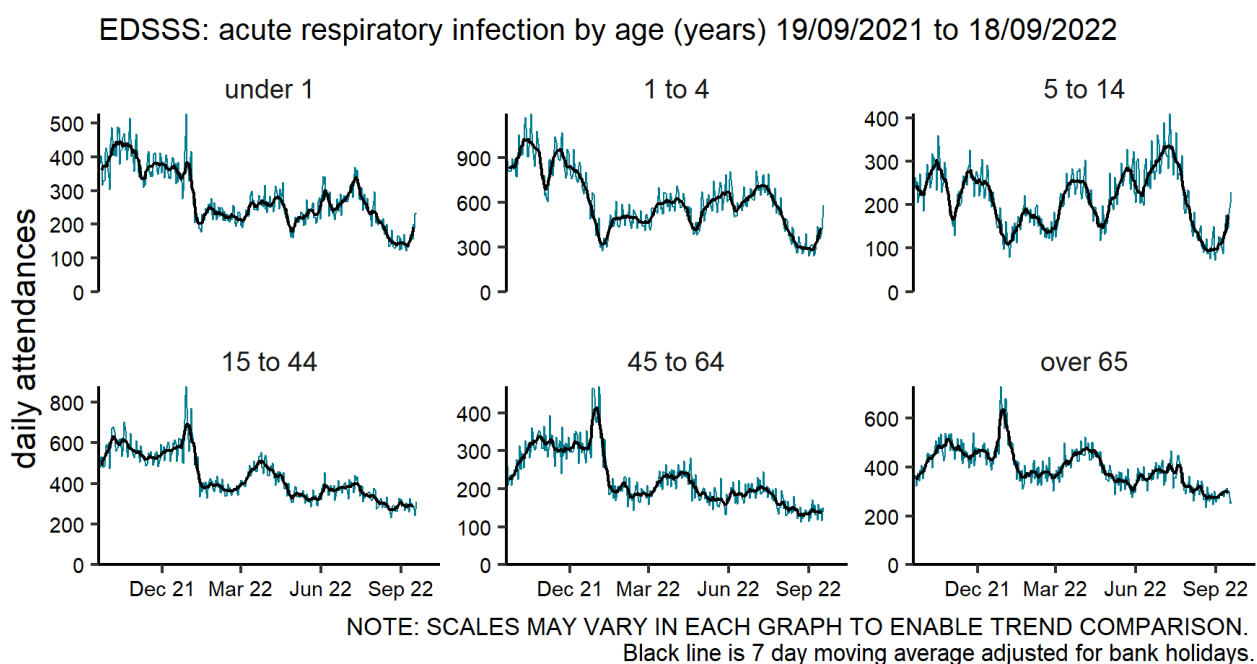
## Acute respiratory infections

**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.**

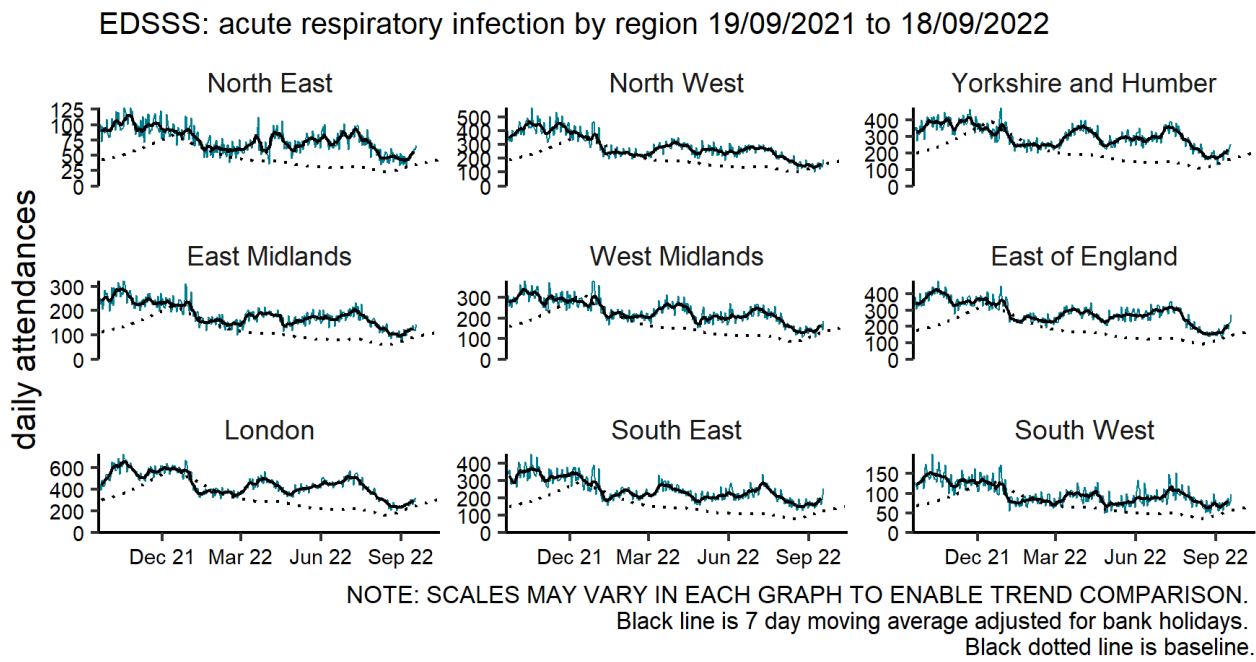
(a)



(b)

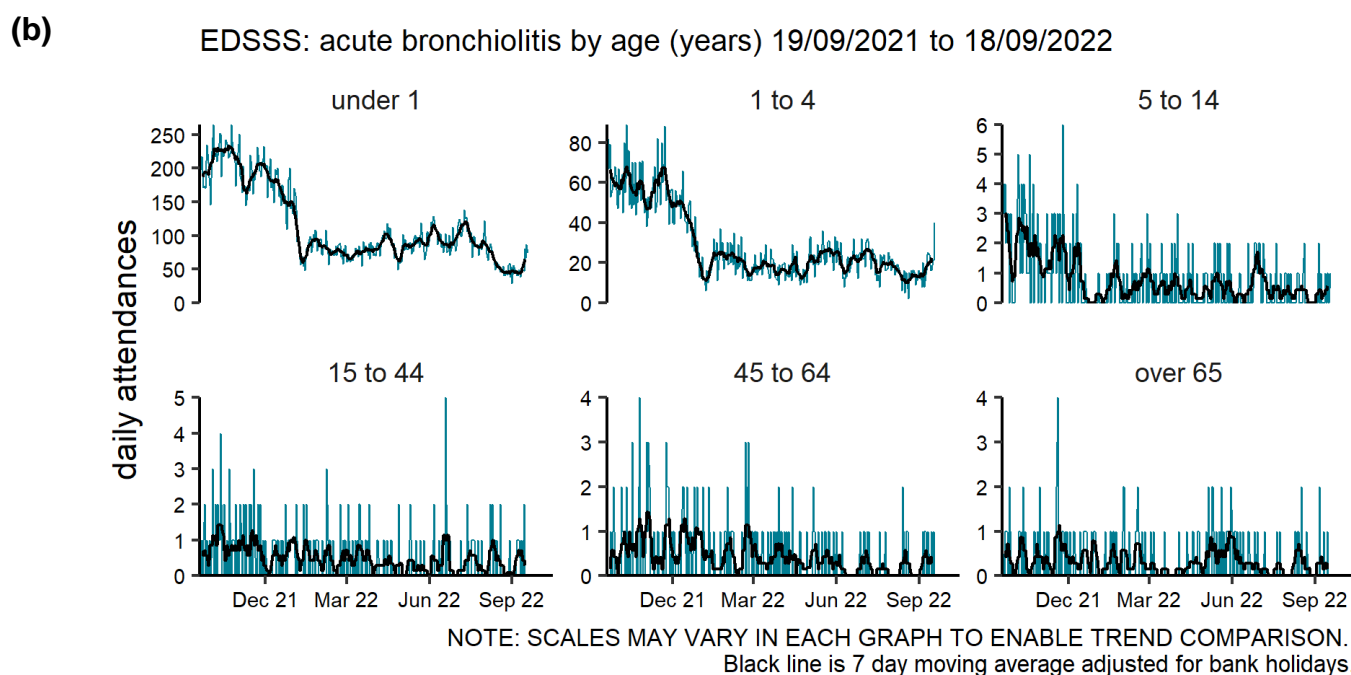
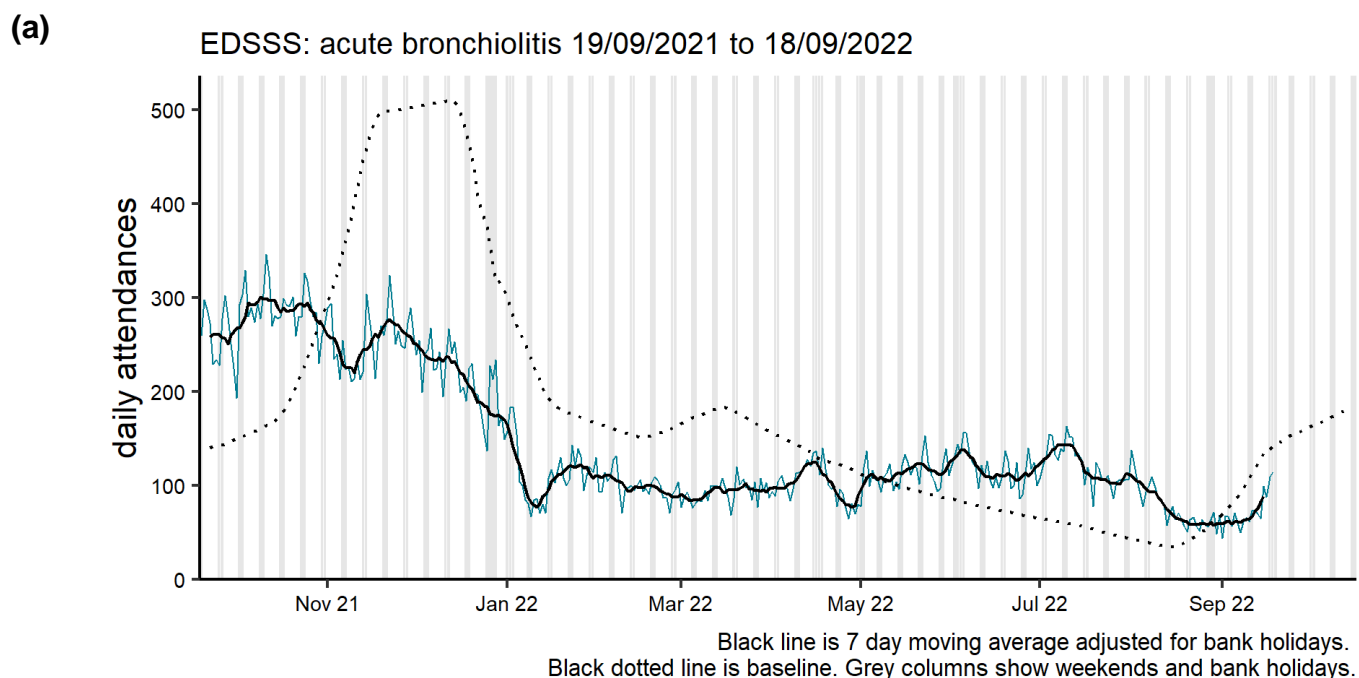


(c)



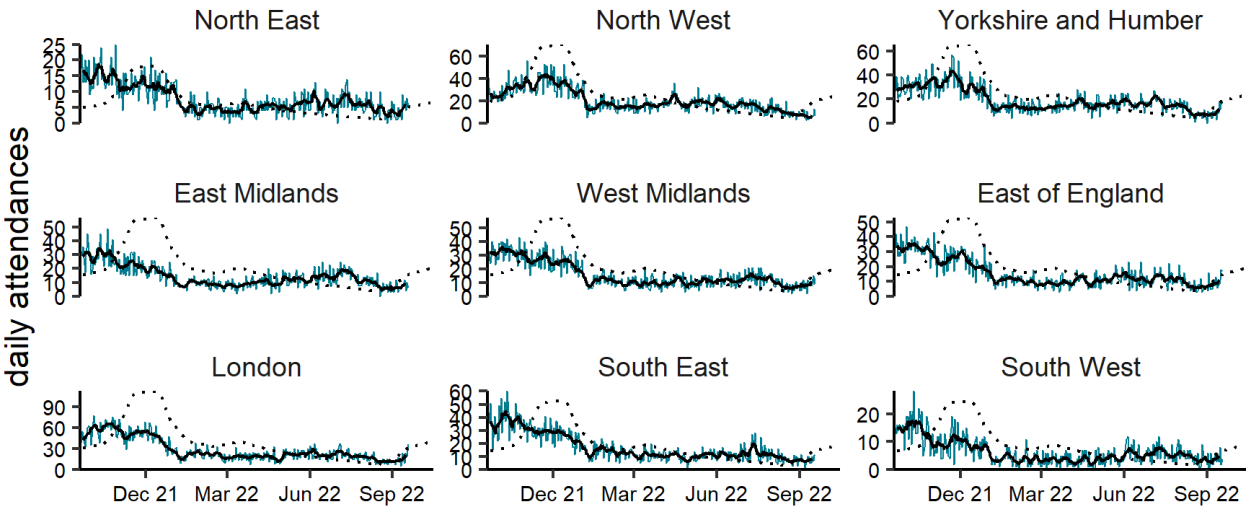
## Acute bronchiolitis/bronchitis

**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)

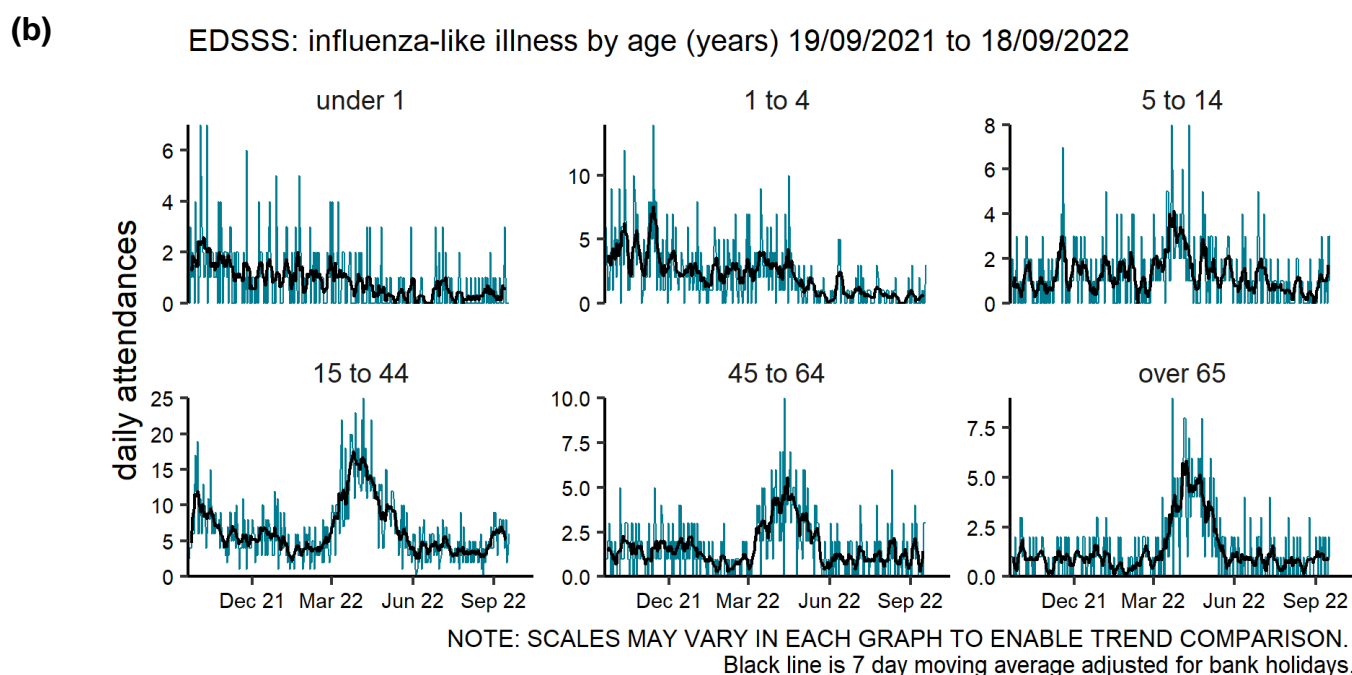
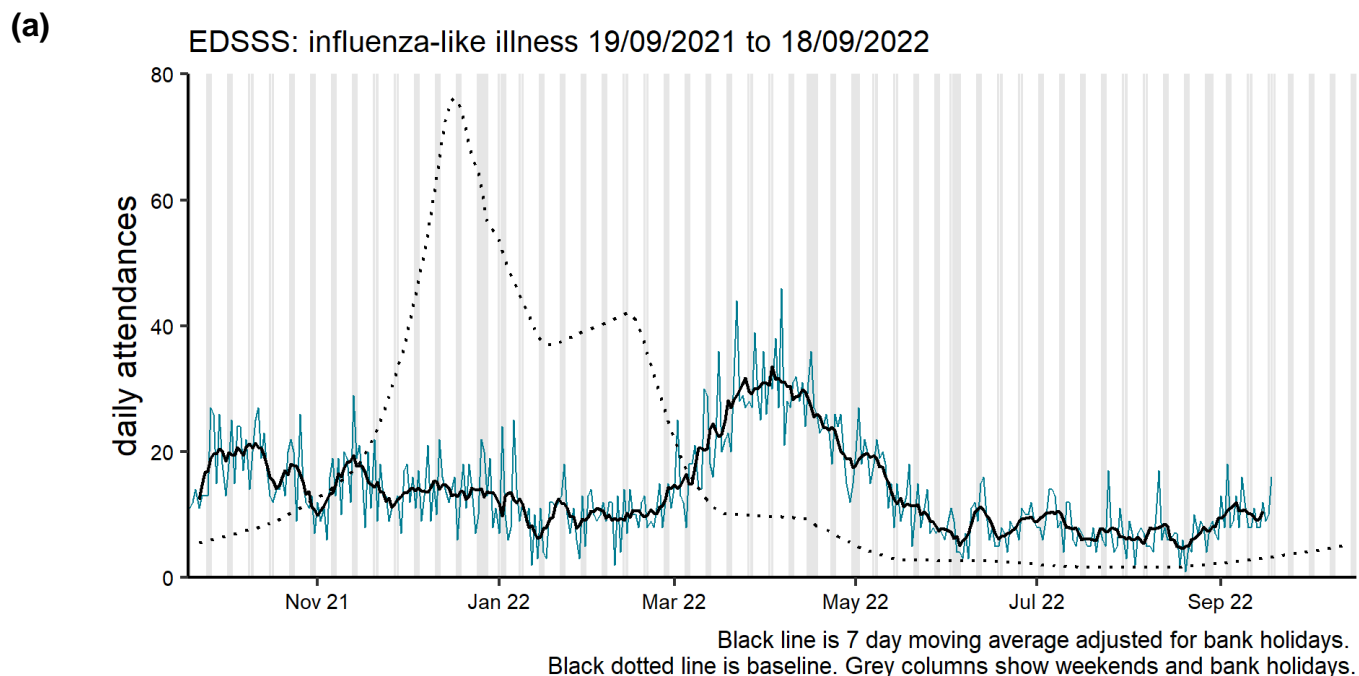
EDSSS: acute bronchiolitis by region 19/09/2021 to 18/09/2022



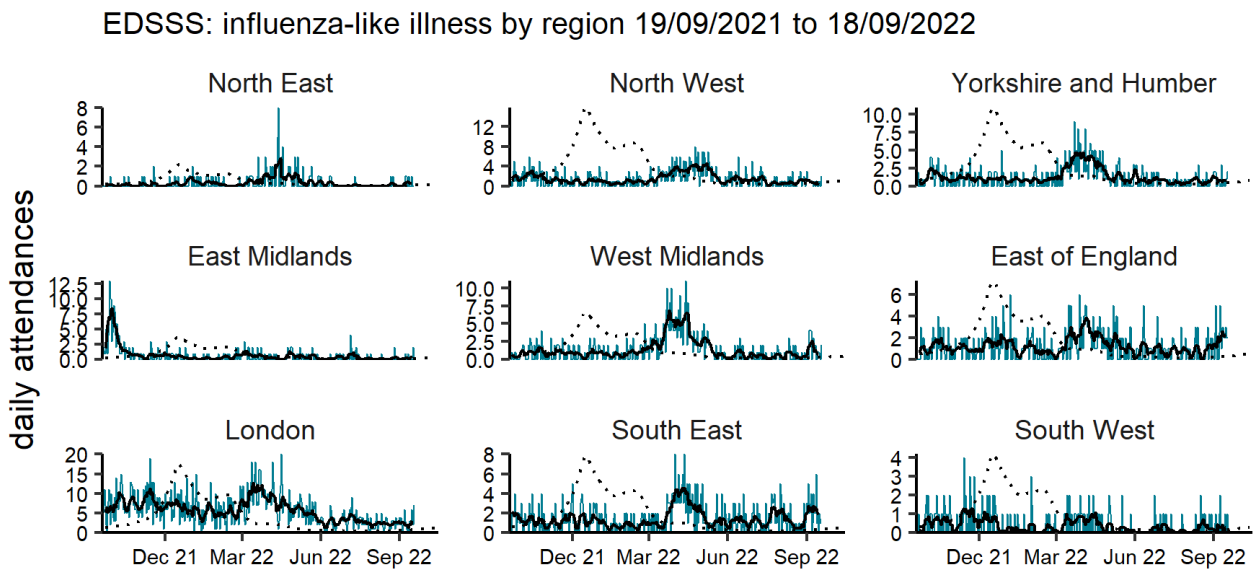
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

## 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.**



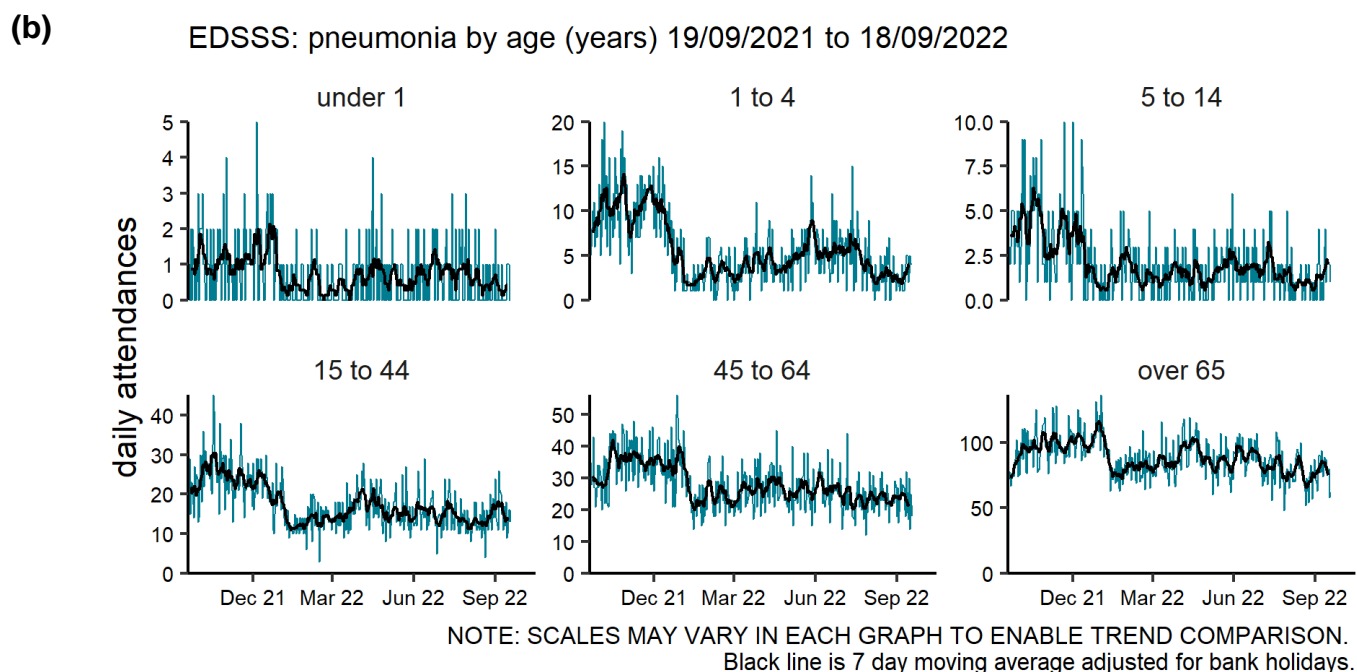
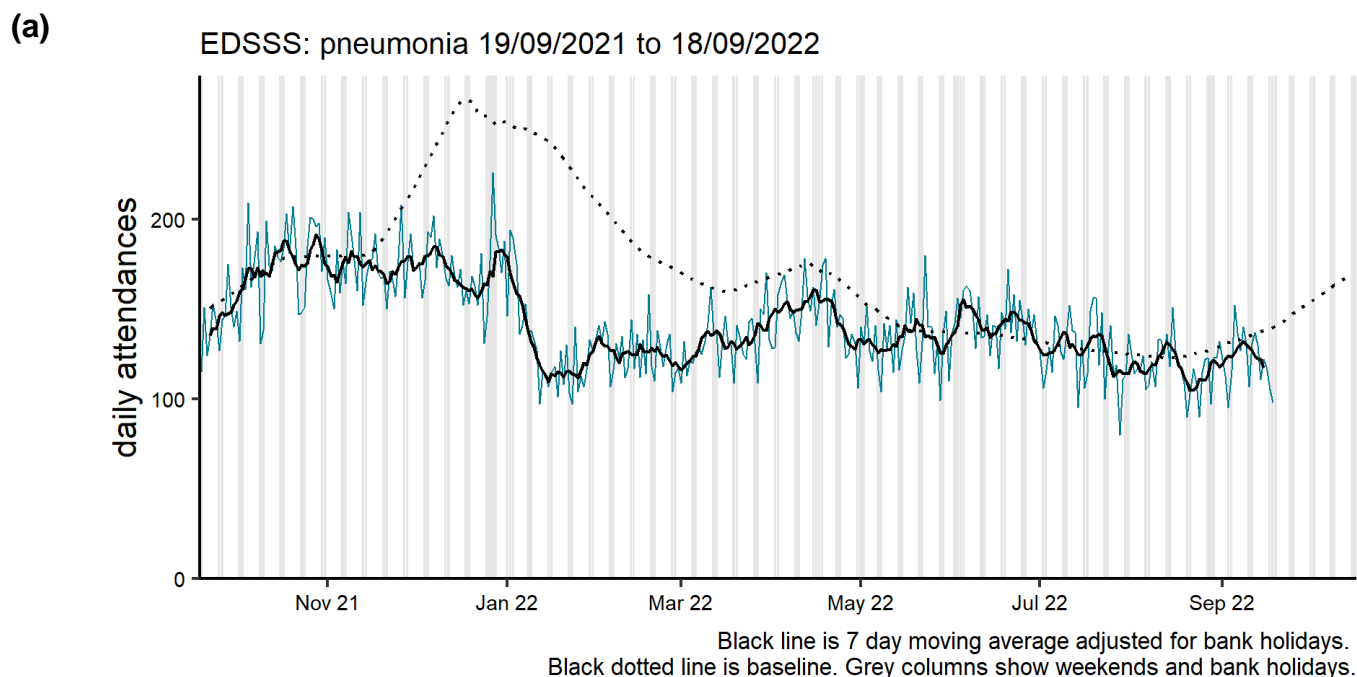
(c)



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.

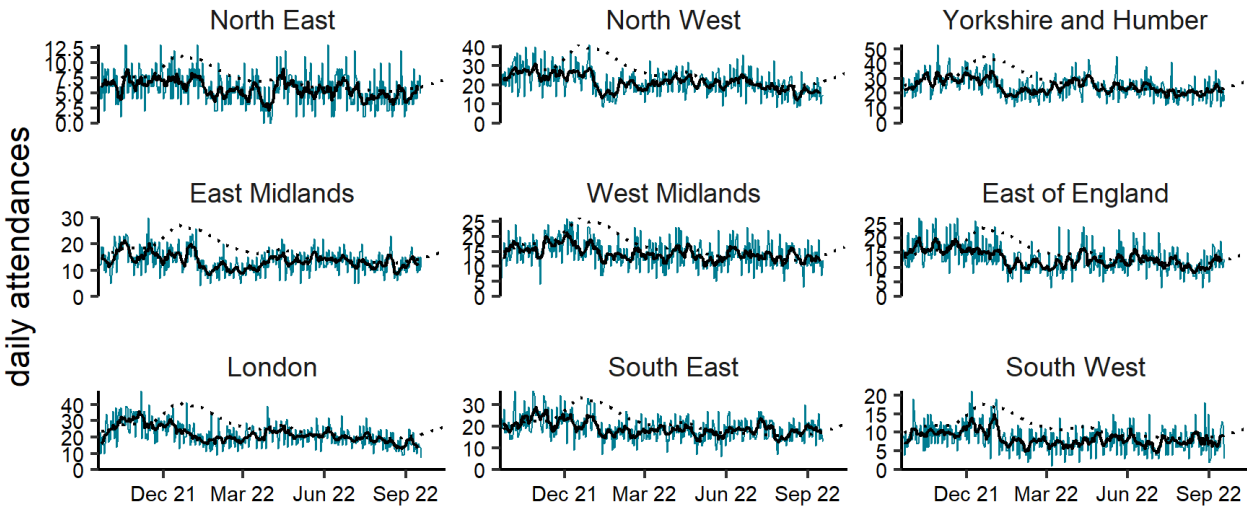
## Pneumonia

**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 region 19/09/2021 to 18/09/2022

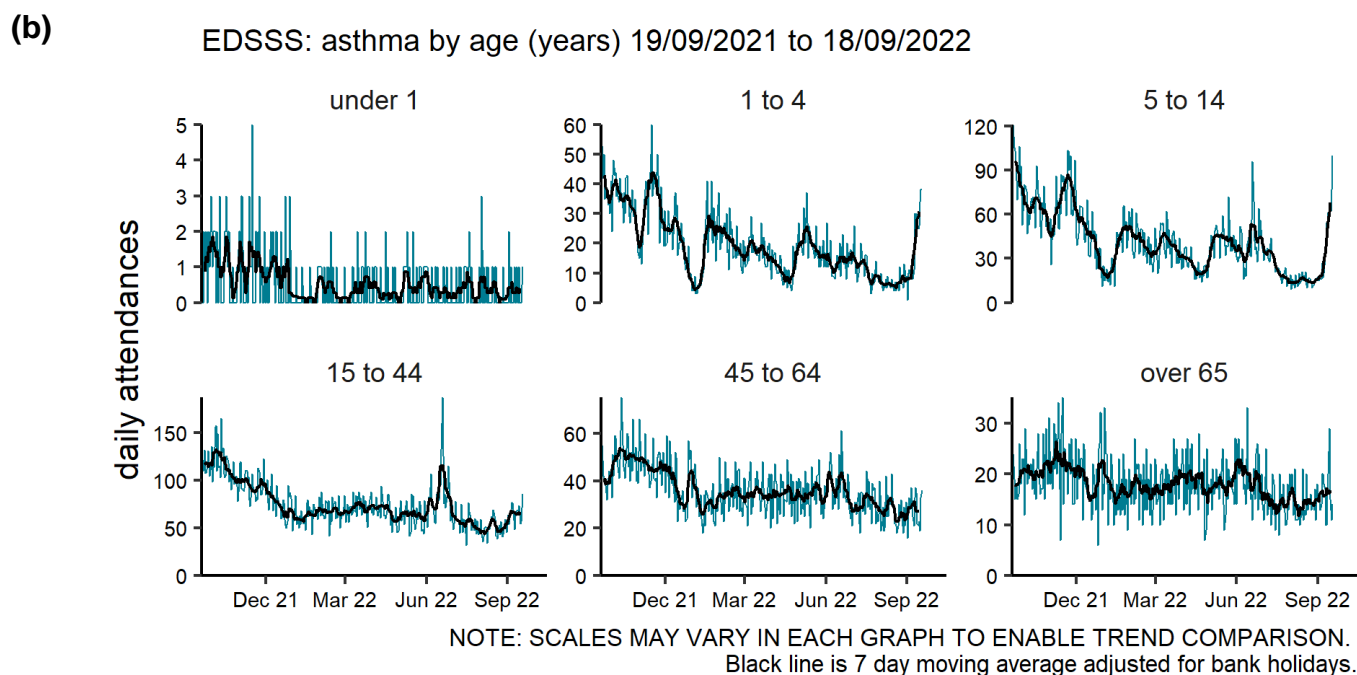
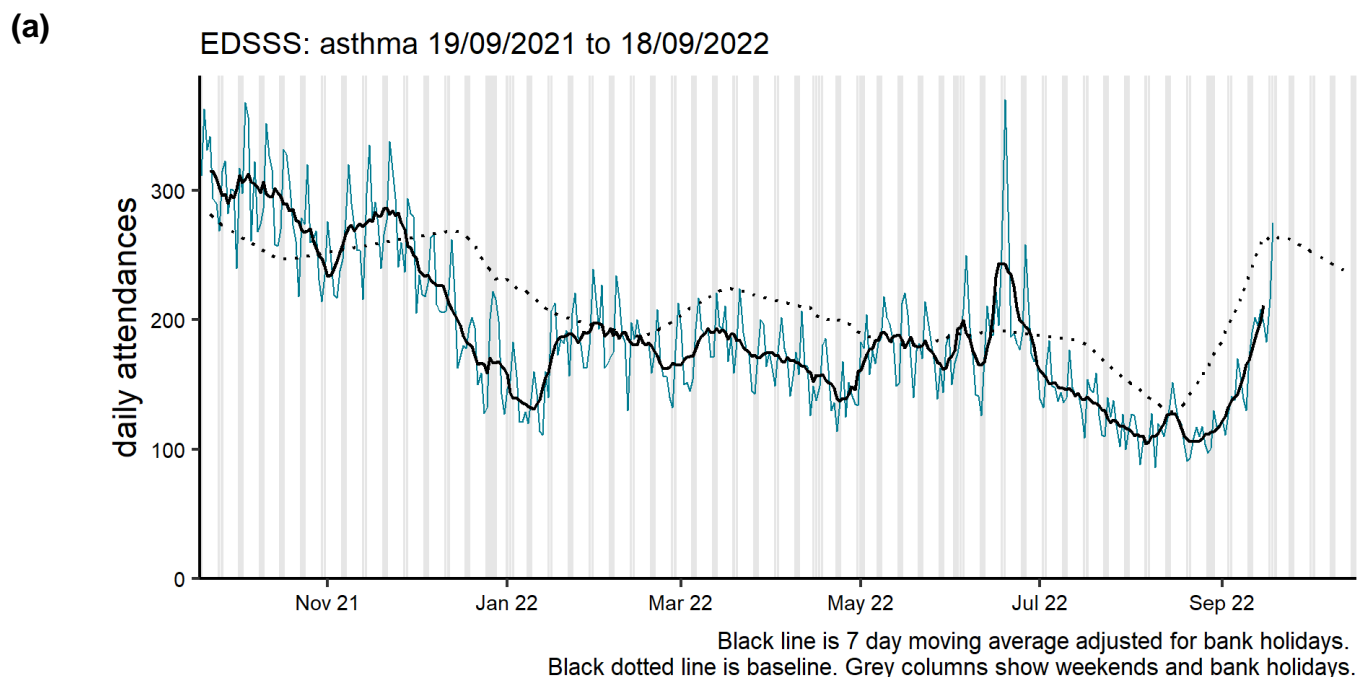


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

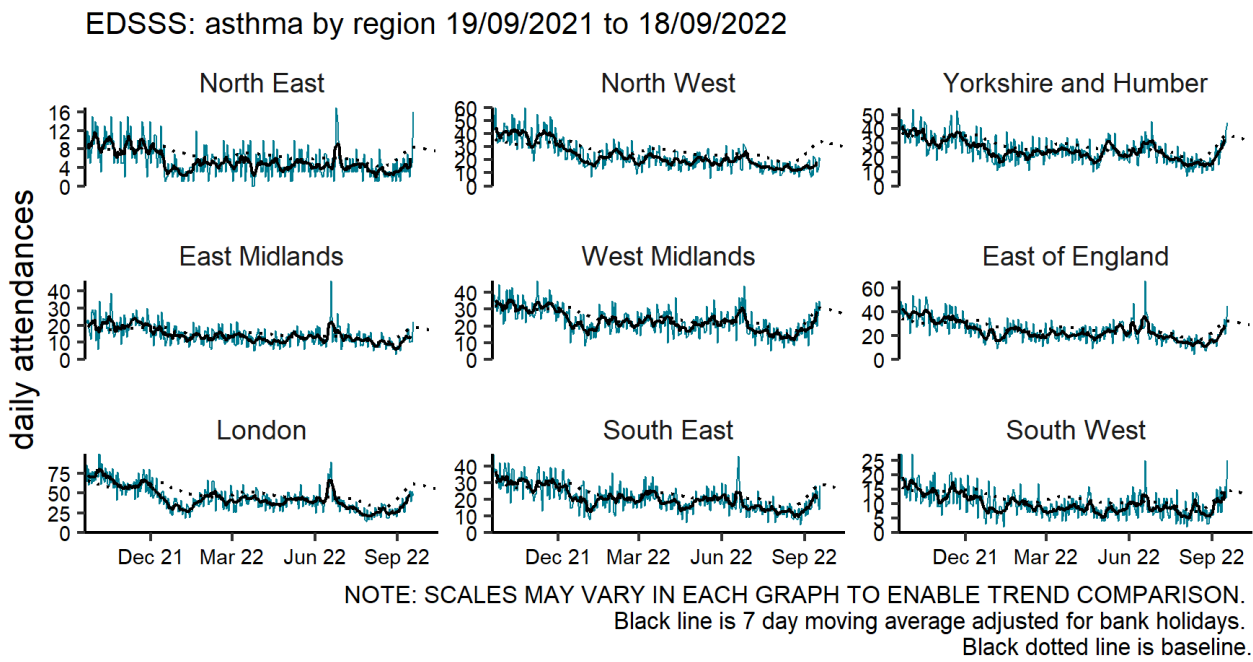


## Asthma

**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.**



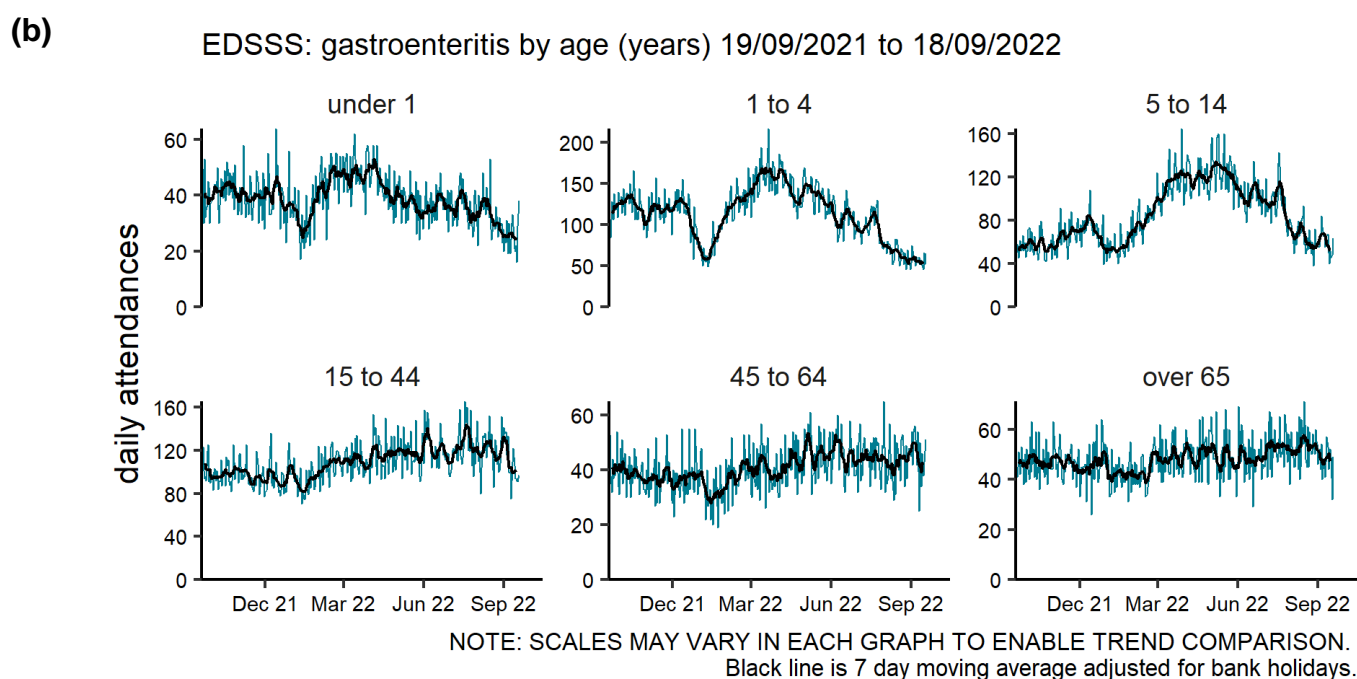
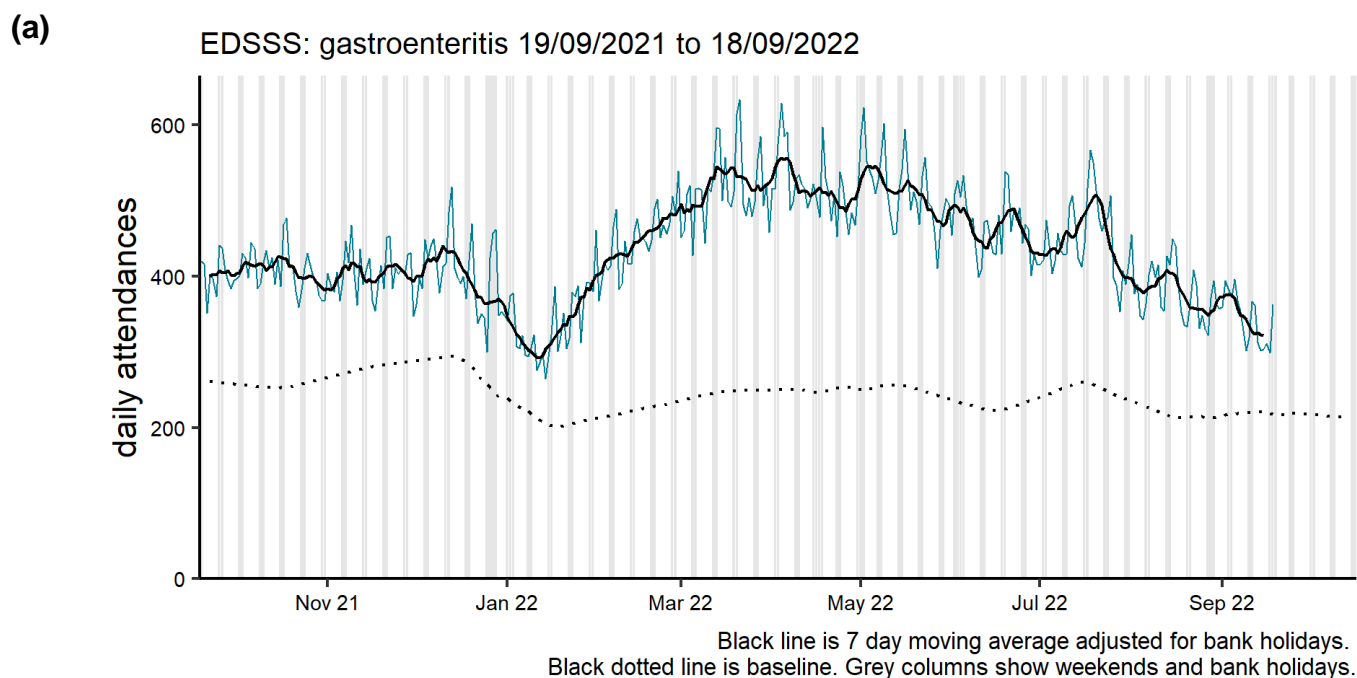
(c)



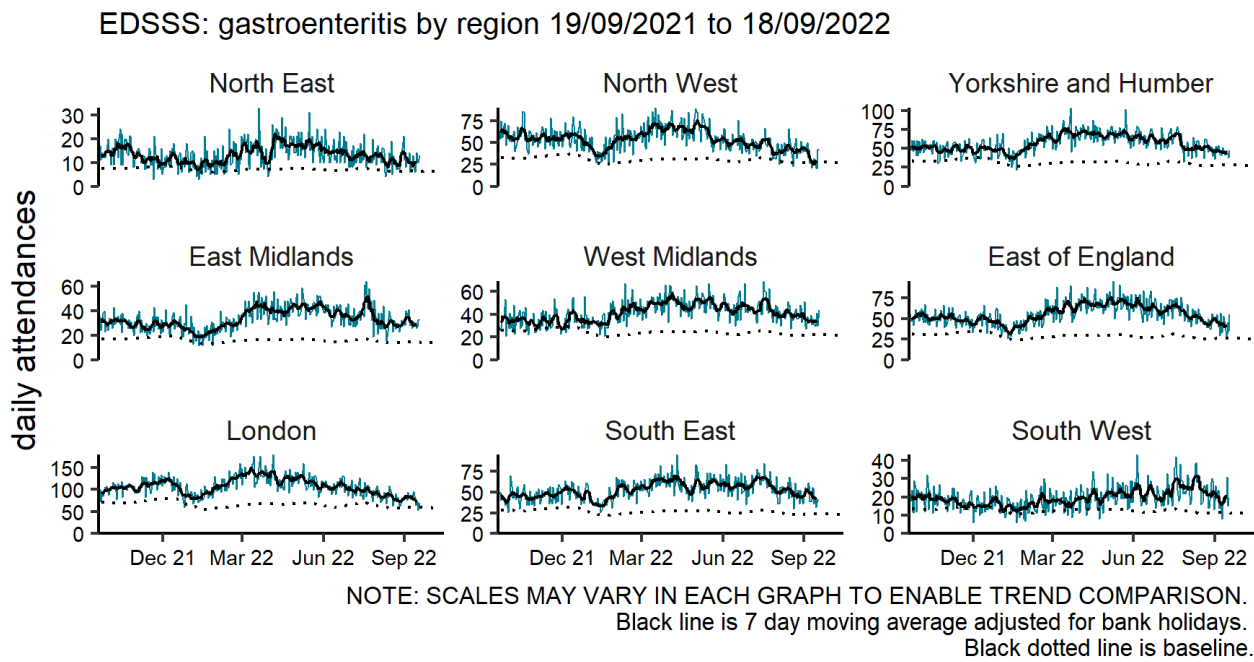
# Gastrointestinal conditions

## 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.**



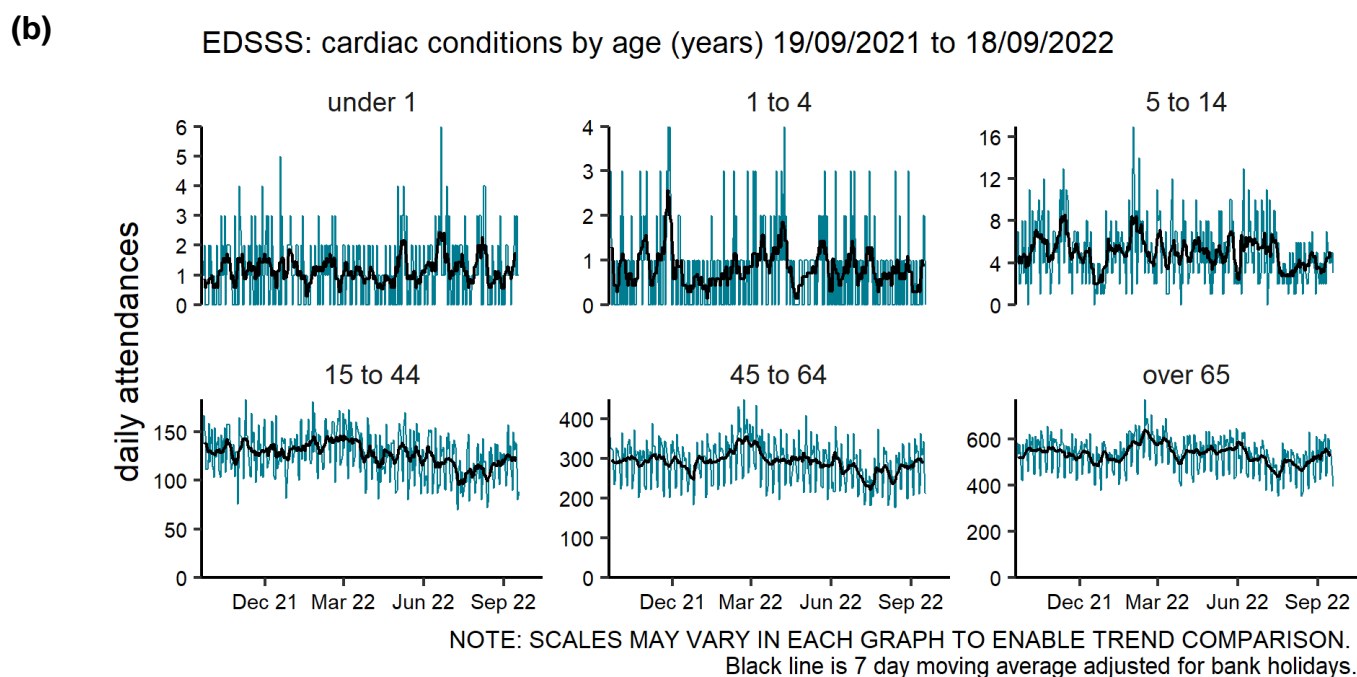
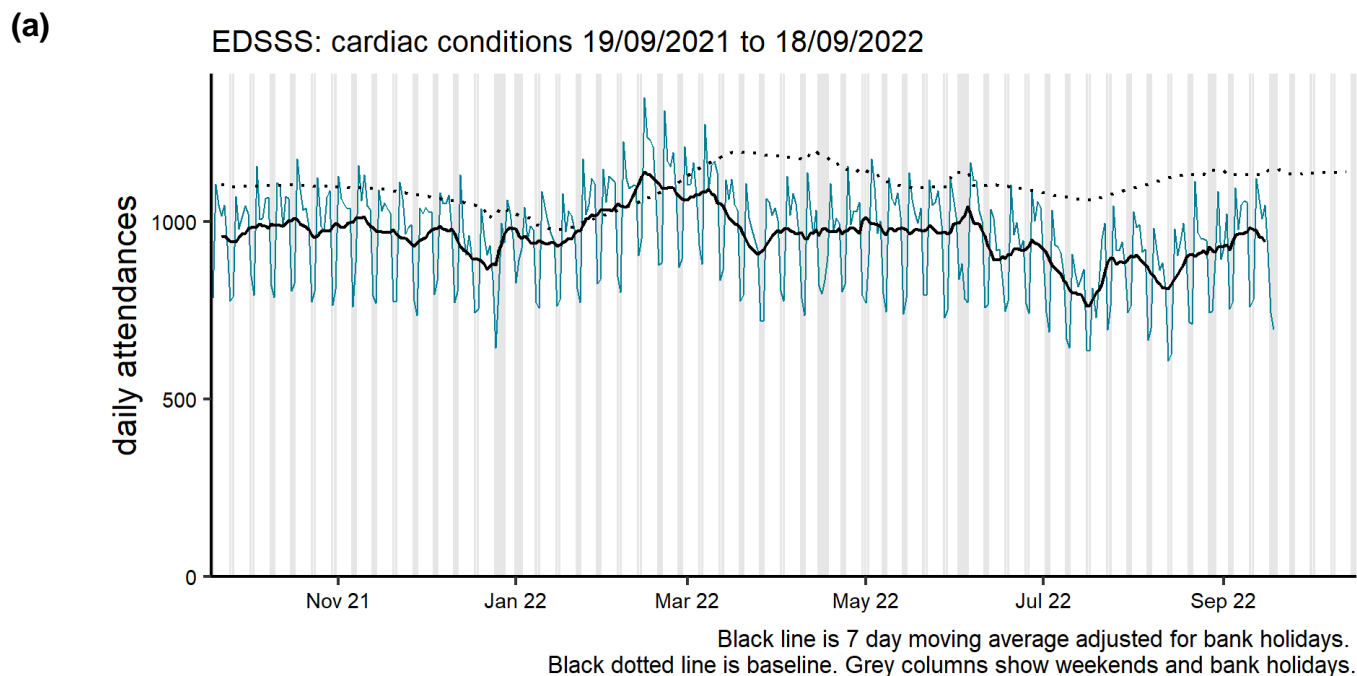
(c)



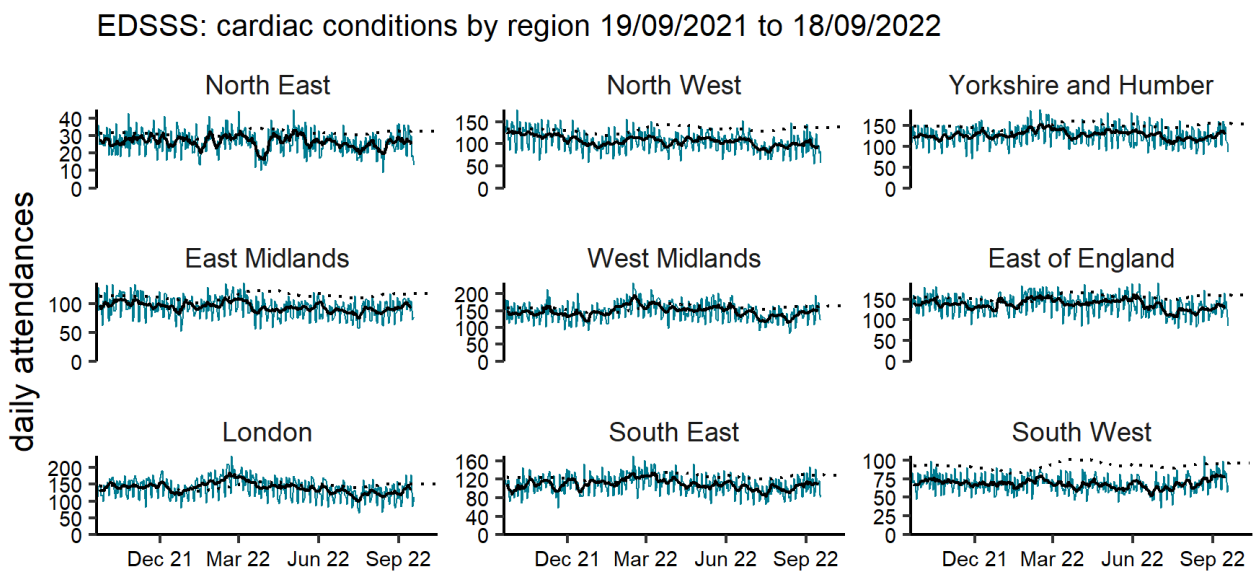
# Cardiac conditions

## 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.**



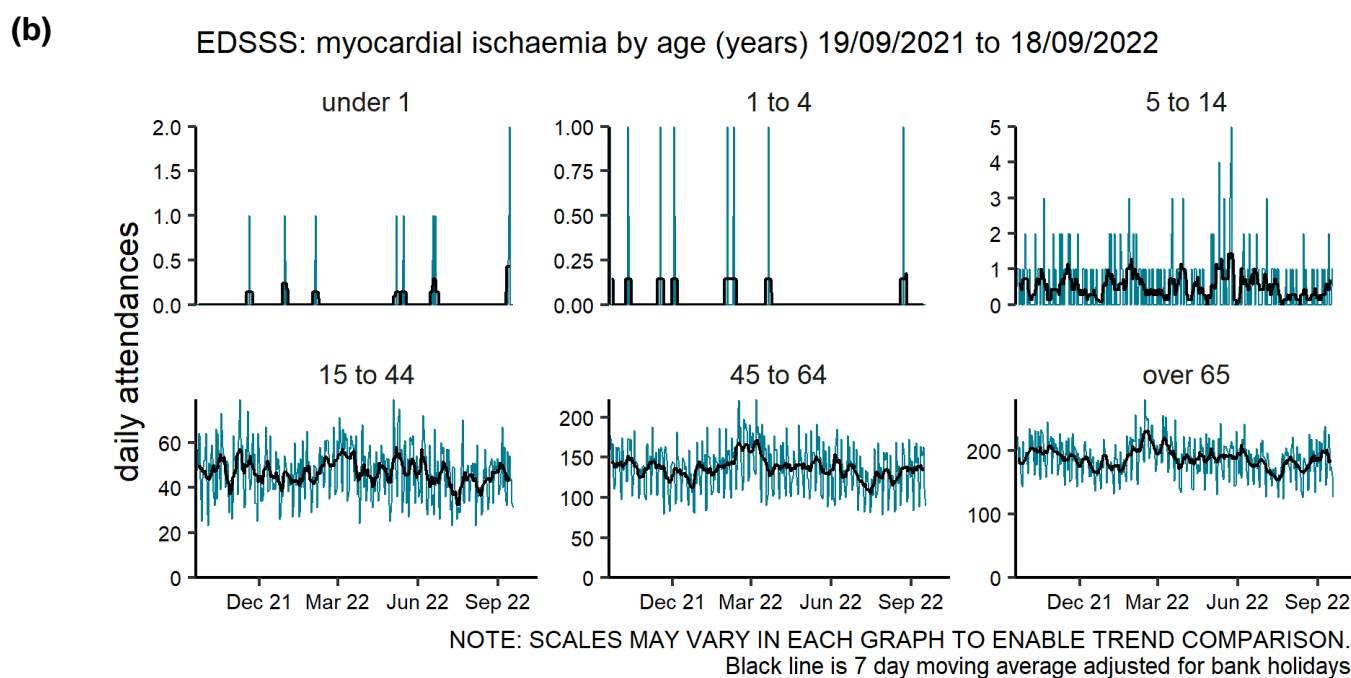
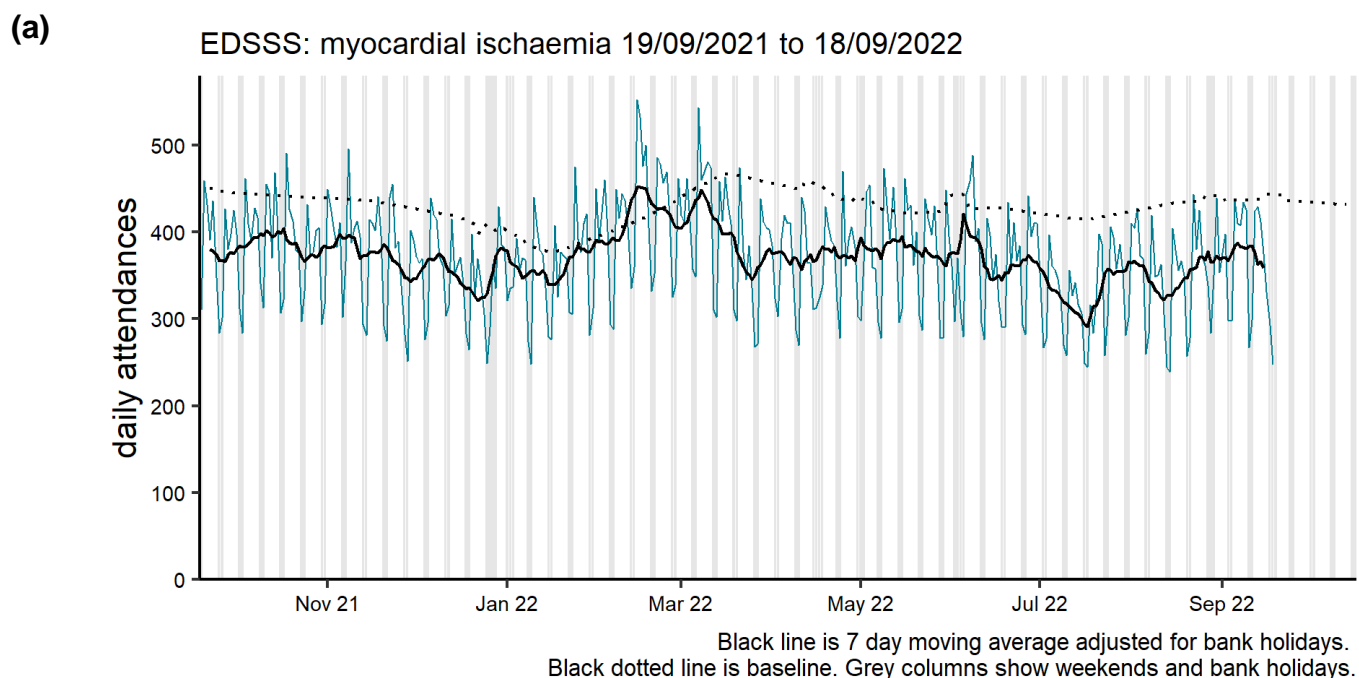
(c)



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.

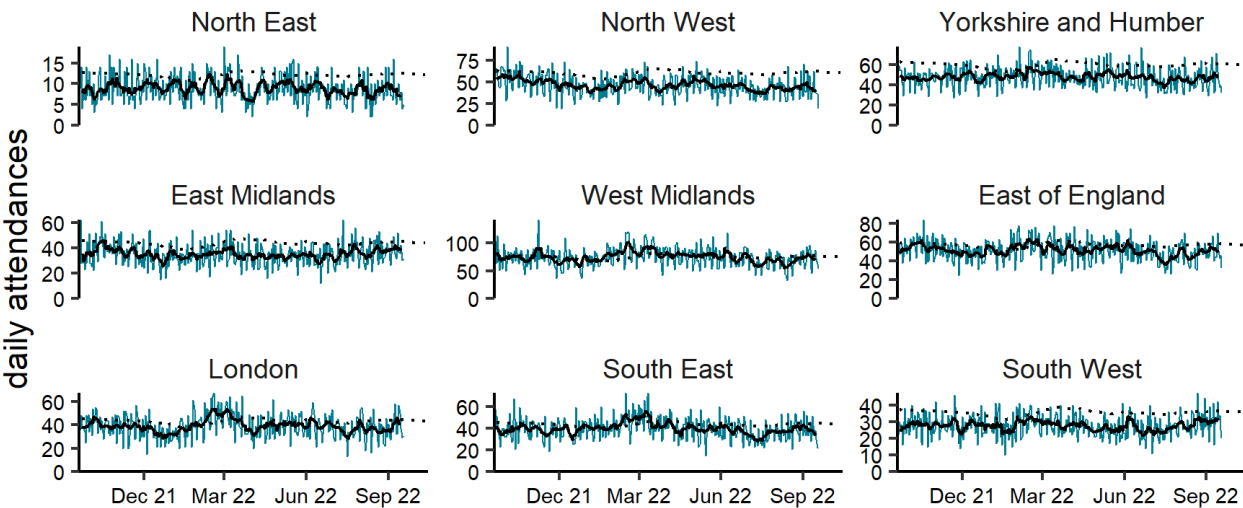
## Myocardial ischaemia

**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 region 19/09/2021 to 18/09/2022



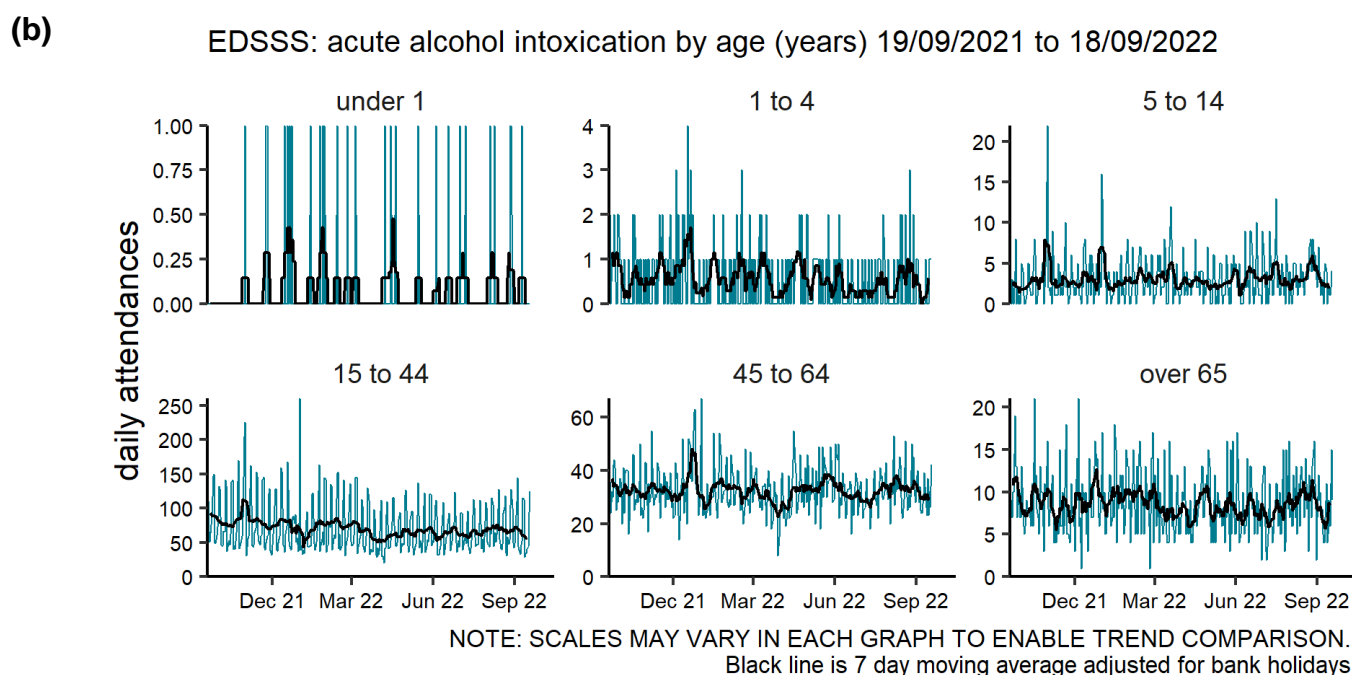
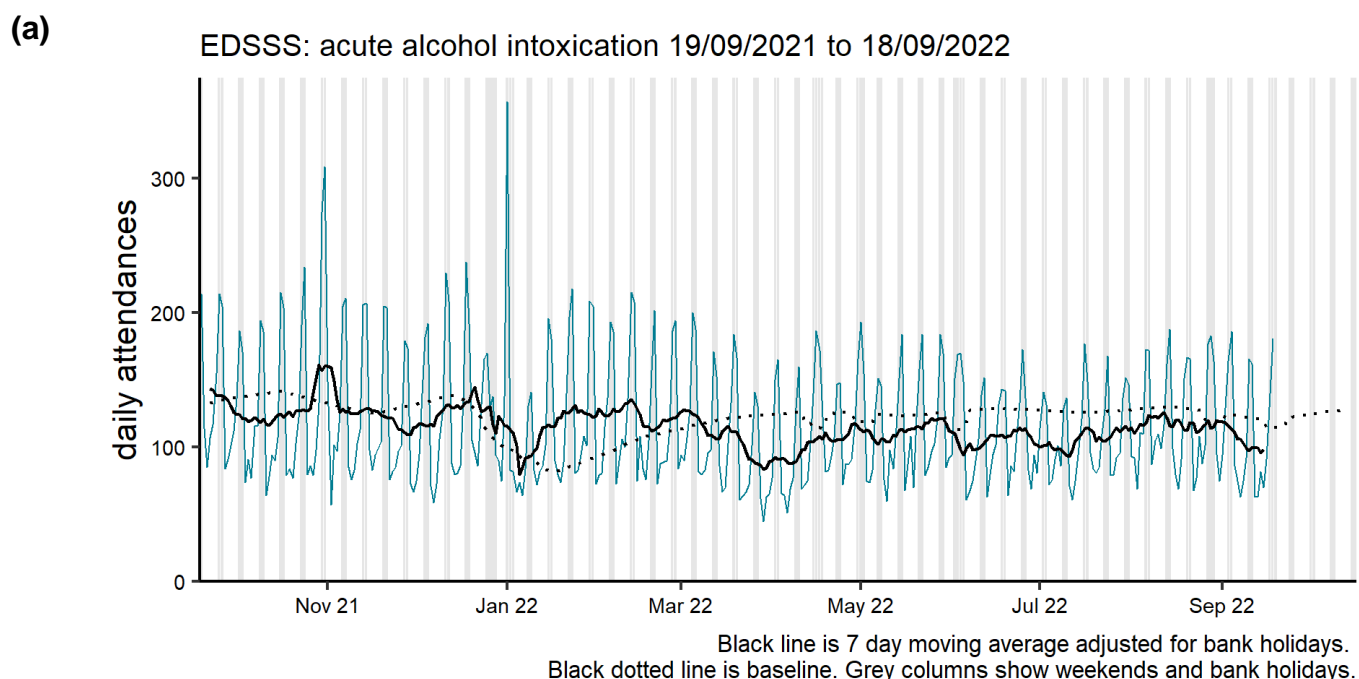
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.



## Other conditions

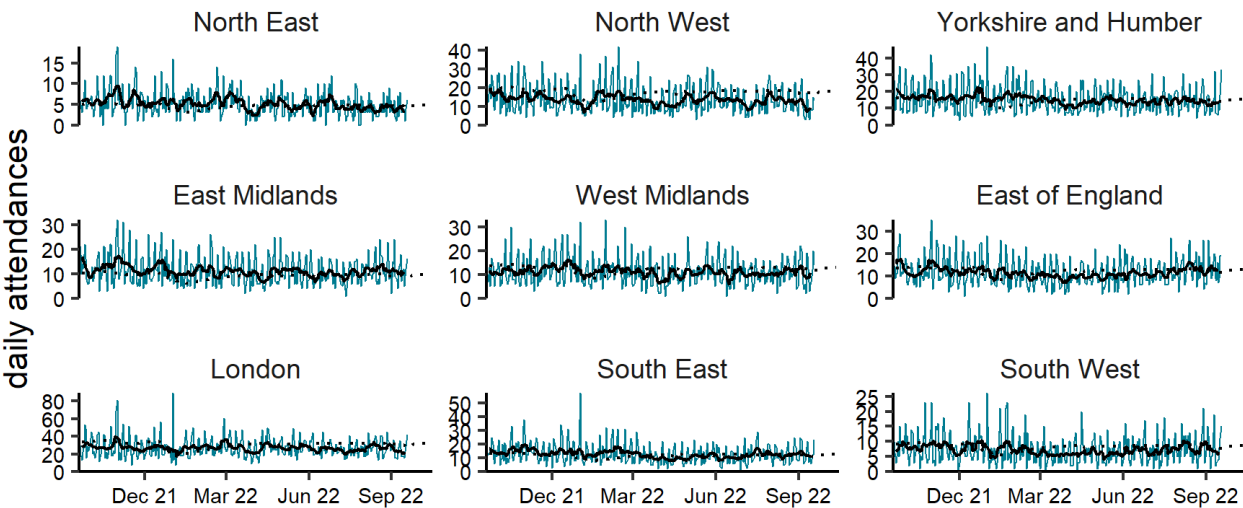
### Acute alcohol intoxication

**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 region 19/09/2021 to 18/09/2022

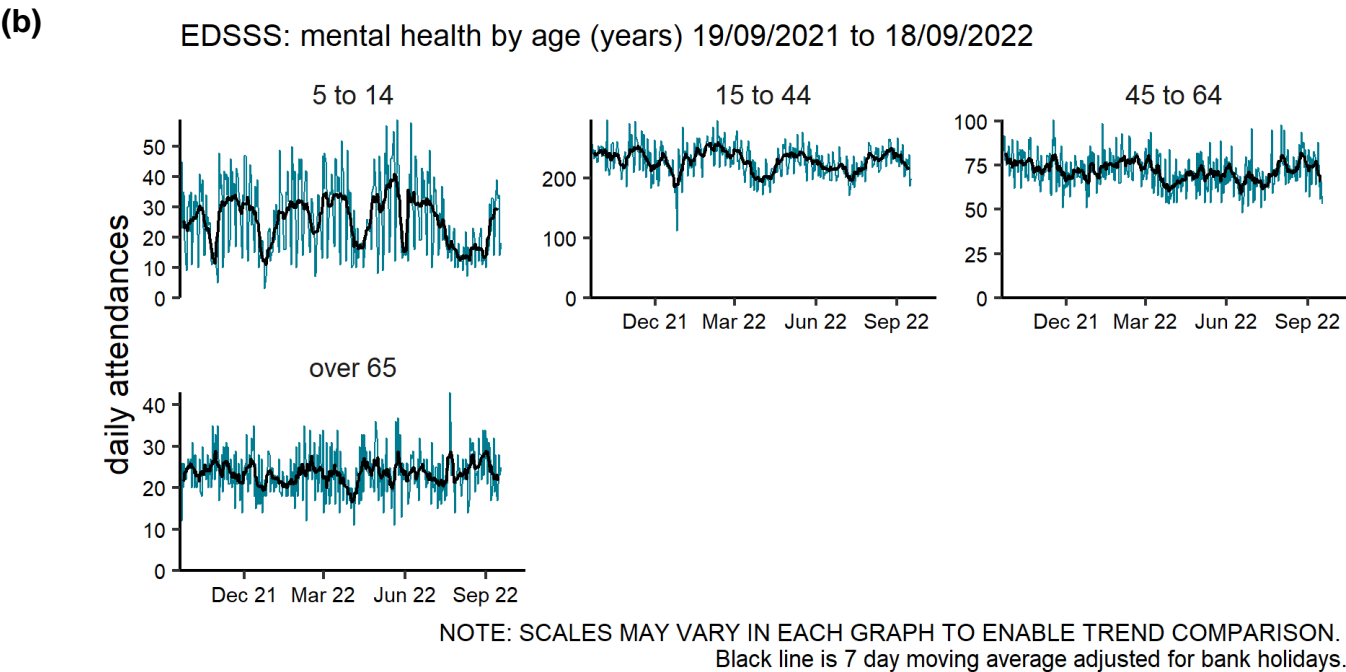
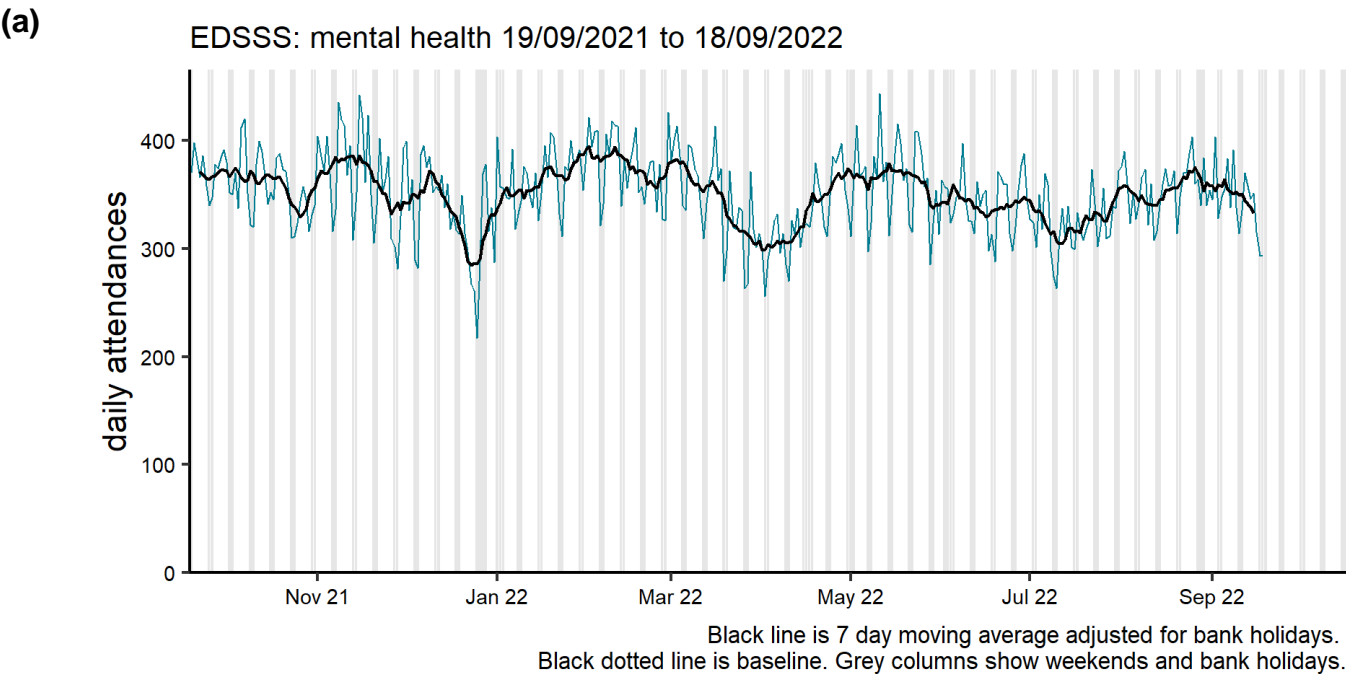


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.  
Black line is 7 day moving average adjusted for bank holidays.  
Black dotted line is baseline.

# Mental health

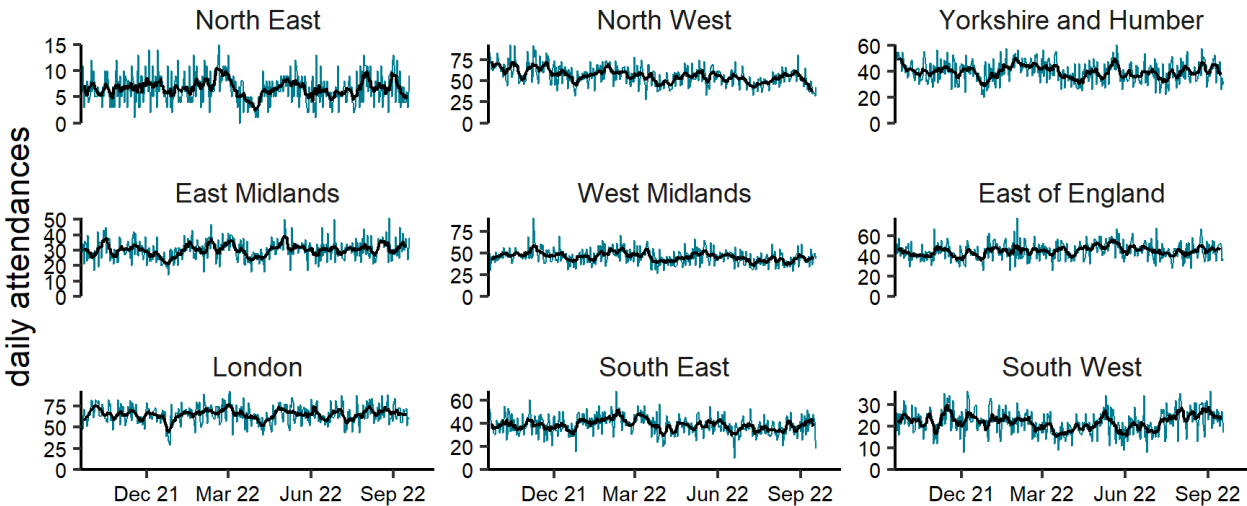
**Figure 12: Daily number of mental health<sup>3</sup> ED attendances (and 7-day moving average adjusted for bank holidays), England (a) nationally, (b) by age and (c) by UKHSA Region.**

<sup>3</sup> 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 region 19/09/2021 to 18/09/2022



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

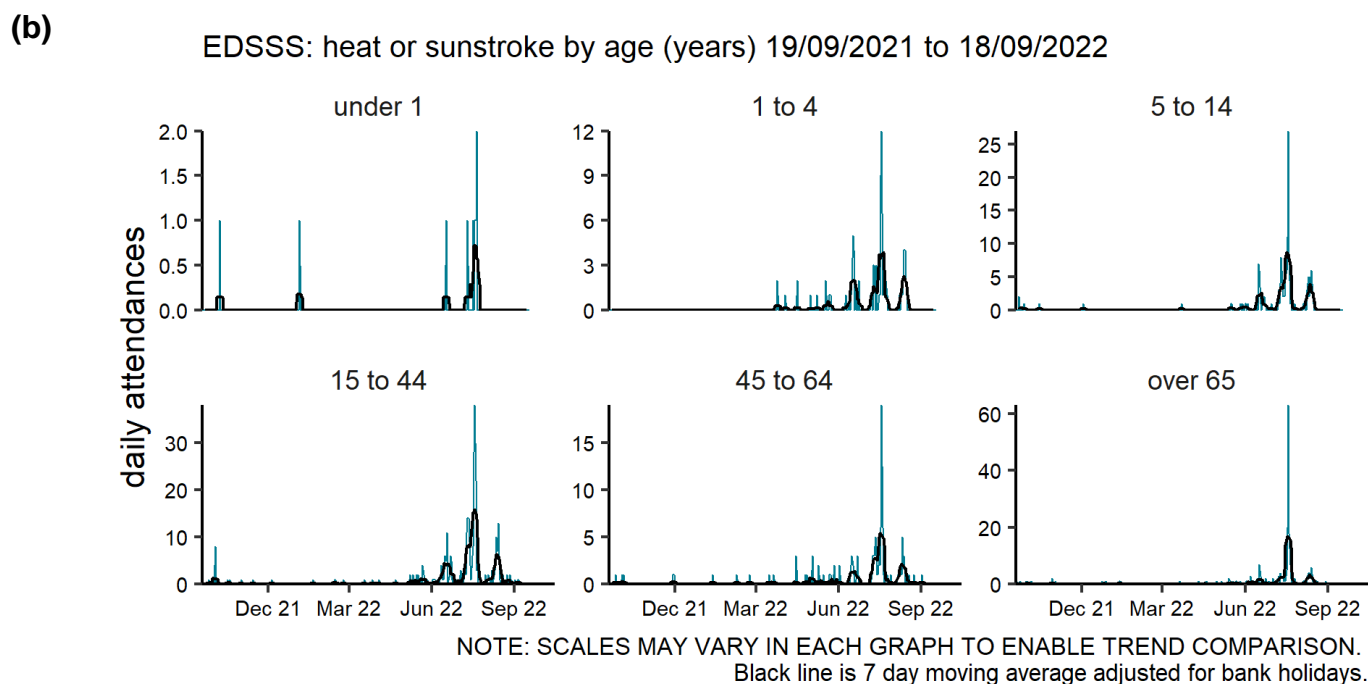
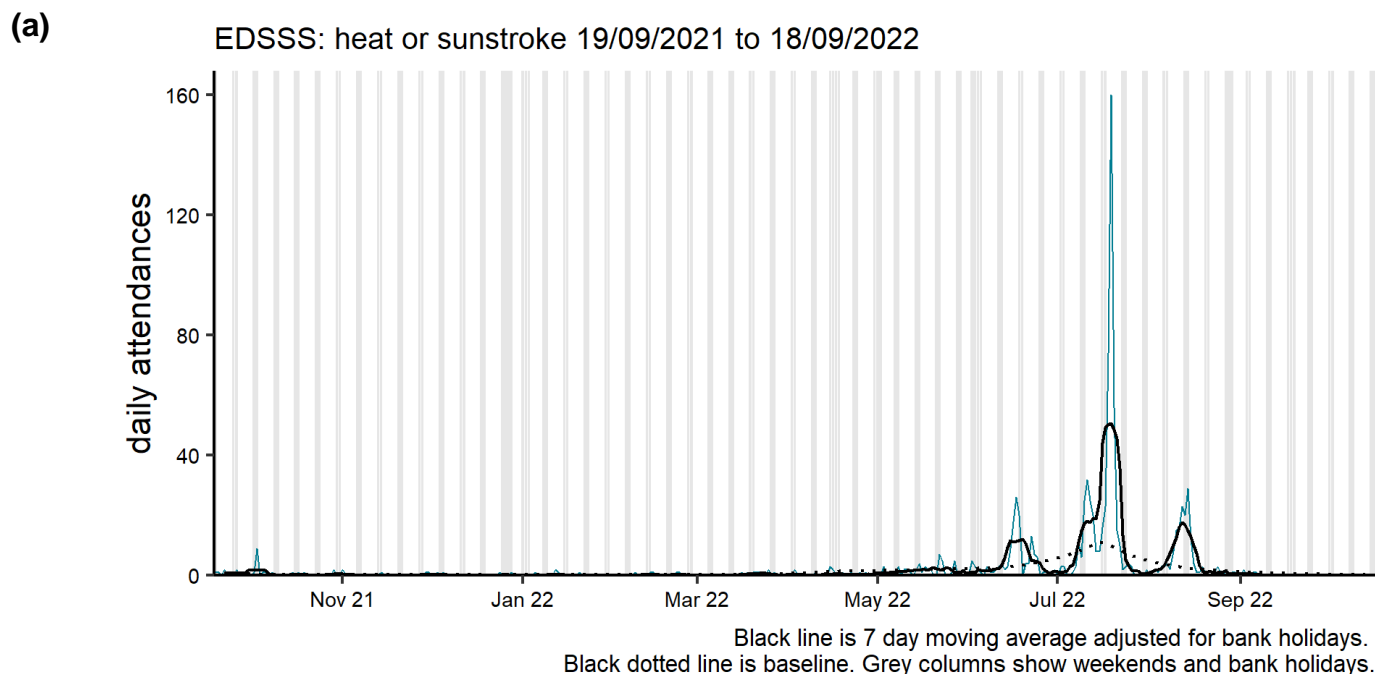
[Heat-Health Alert](#) period: 1 June to 15 September

Highest weather alert level during the current reporting week:

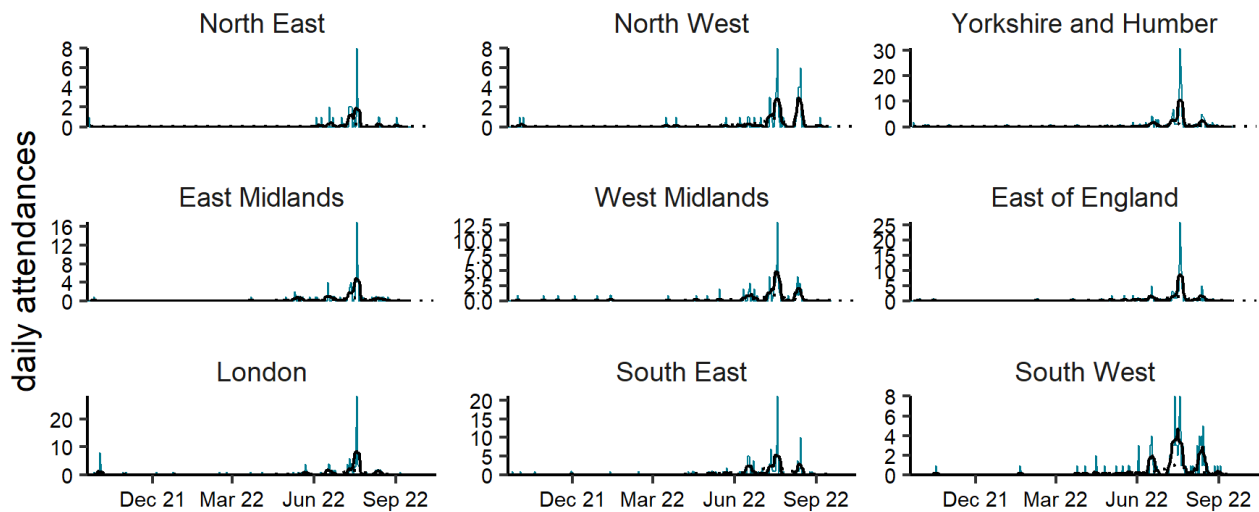
**Level 1 – Summer Preparedness**

## Heat or sunstroke

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



(c) EDSSS: heat or sunstroke by region 19/09/2021 to 18/09/2022



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 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 April 2021
  - 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](https://www.gov.uk/government/organisations/uk-health-security-agency)

© Crown copyright 2022  
Version: ED-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: September 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

