UK Health Security Agency

Emergency Department Syndromic Surveillance System Bulletin (England)

2021 Week 40

Key messages

Data reported to: 10 October 2021

During week 40, ED attendances for acute respiratory infections continued to increase, notably in the age groups under 44 years. Influenza-like-illness is also increasing, mainly in the 1-4 and 5-14 years age groups. ED attendances for acute bronchiolitis have increased nationally, mainly in childhood age groups.

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**)	Increasing	-
COVID-19-like (**Figure 2**)	Increasing	-
Acute respiratory infections (**Figure 3**)	Increasing	Above baseline
Acute bronchiolitis or bronchitis (**Figure 4**)	Increasing	Above baseline
Influenza-like illness (**Figure 5**)	Increasing	Above baseline
Pneumonia (**Figure 6**)	Increasing	Below baseline
Asthma (**Figure 7**)	Decreasing	Above baseline
Gastroenteritis (**Figure 8**)	No trend	Above baseline
Cardiac (**Figure 9**)	No trend	Below baseline
Myocardial ischaemia (**Figure 10**)	No trend	Below baseline
Acute alcohol intoxication (**Figure 11**)	Decreasing	Below baseline

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

Contents

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

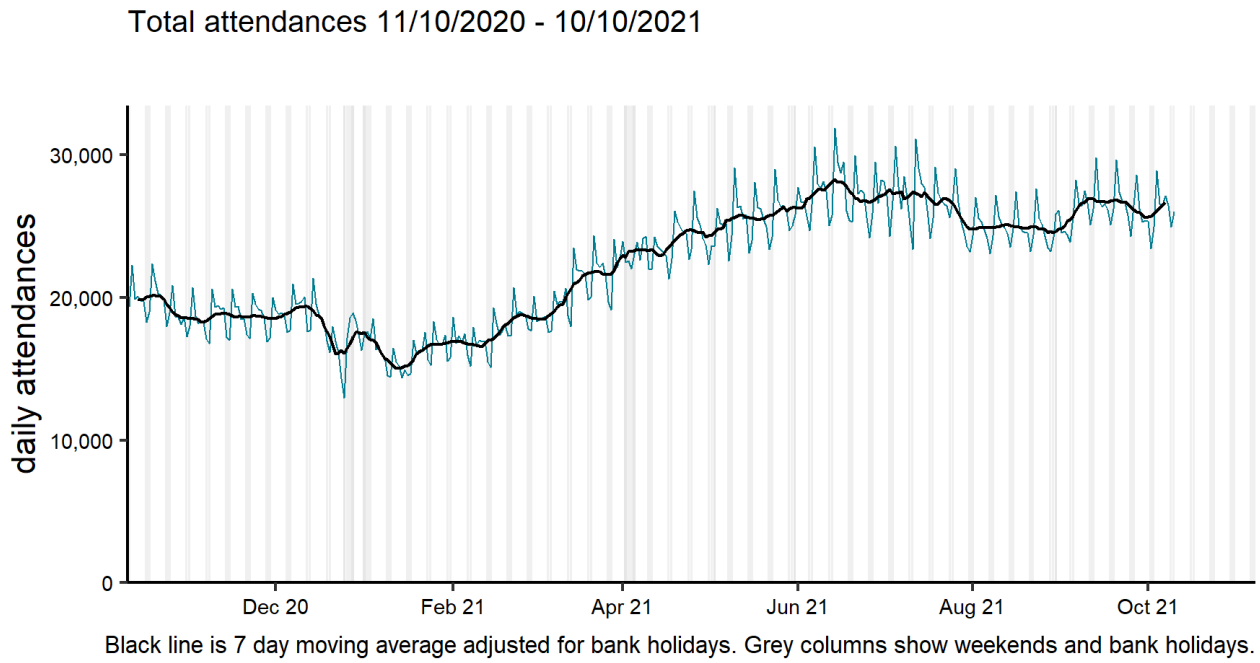
No issues identified.

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

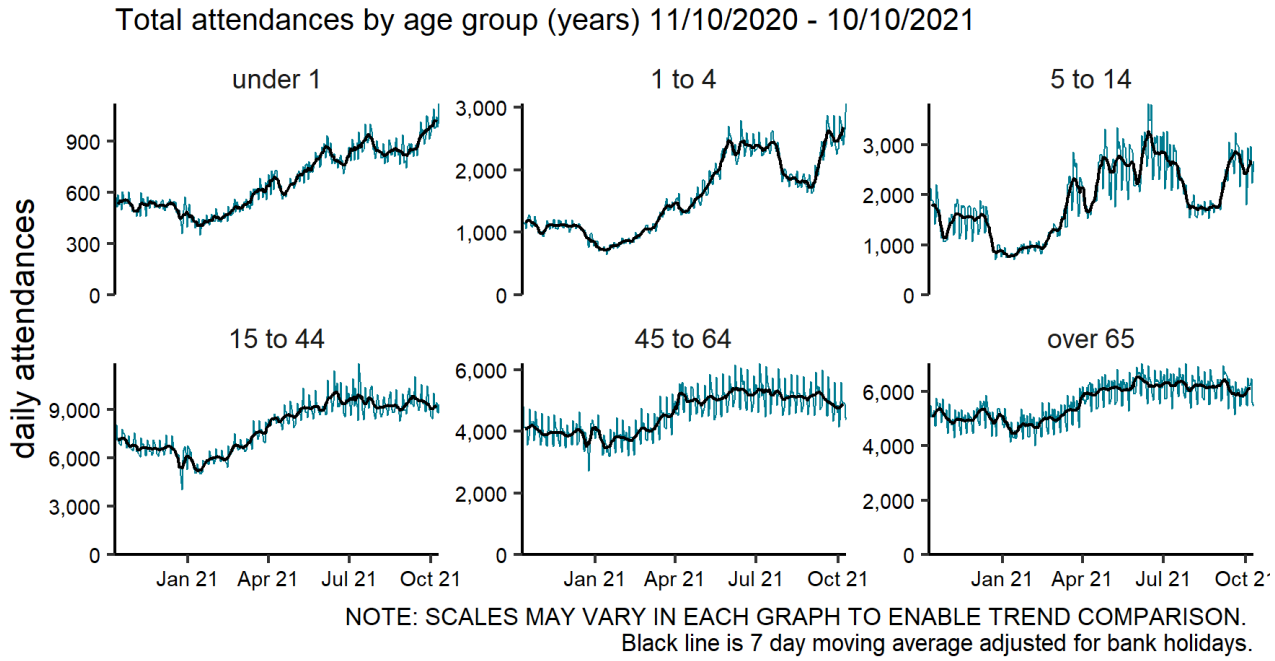
Total attendances

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.

(a)



(b)



(c)

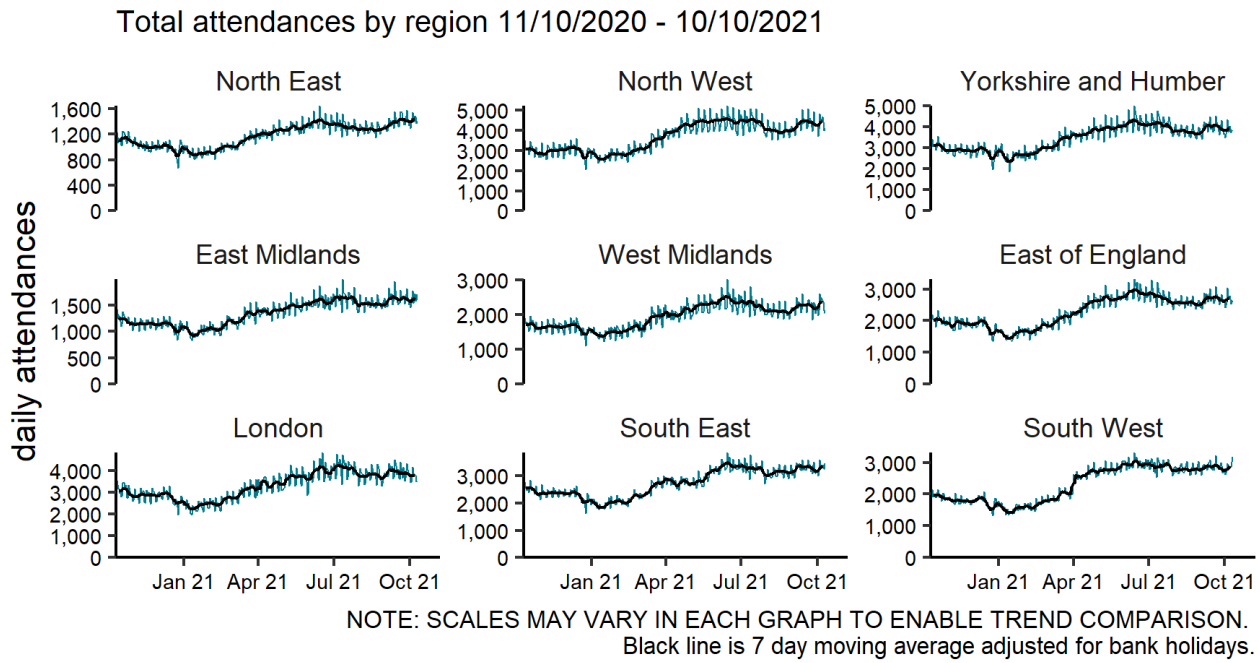


Table 2: The number of emergency department (ED) attendances, number with a diagnosis code included in surveillance each day during the most recent week.

Date	Total attendances[1]	Diagnoses included[1]
04 October 2021	28,891	20,206
05 October 2021	26,549	18,589
06 October 2021	26,479	18,551
07 October 2021	27,125	19,122
08 October 2021	26,470	18,267
09 October 2021	24,936	16,909
10 October 2021	26,011	17,839

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[1]
North East	6
North West	17
Yorkshire & Humber	15
West Midlands	8
East Midlands	7
East of England	10
South West	14
London	13
South East	16
Total	106

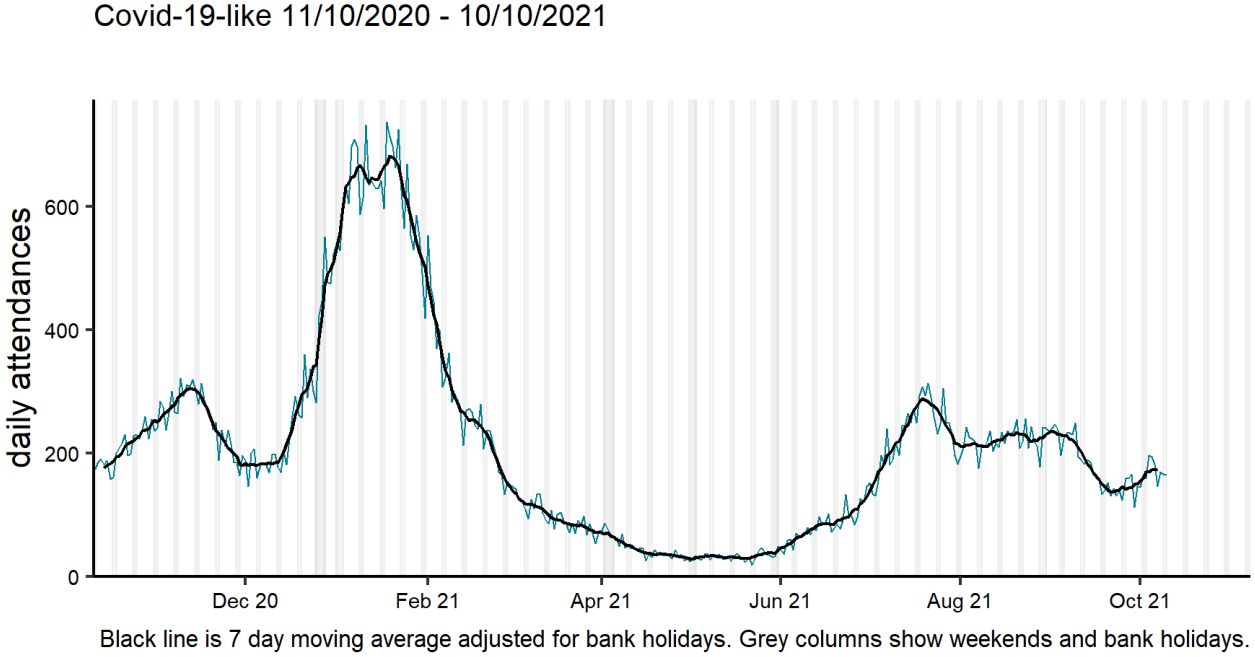
[1] only attendances from Type 01 EDs meeting the weekly reporting criteria are included in this report, see **Notes and caveats** for further details.

Respiratory conditions

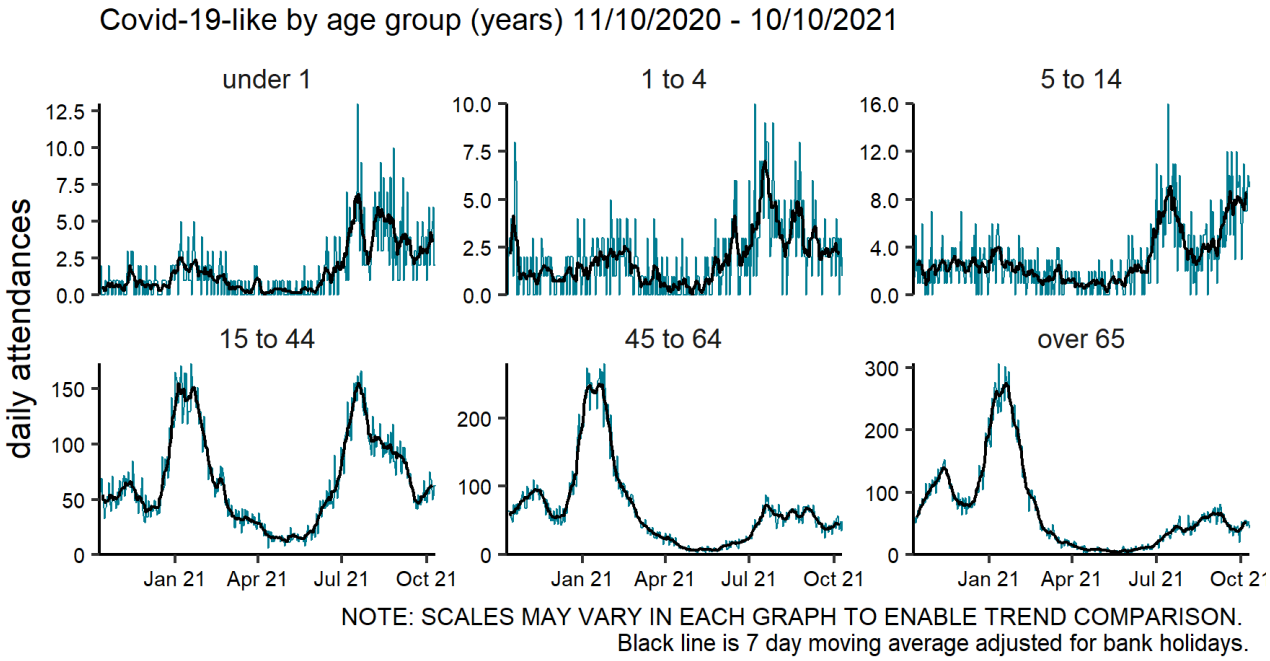
COVID-19-like

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.

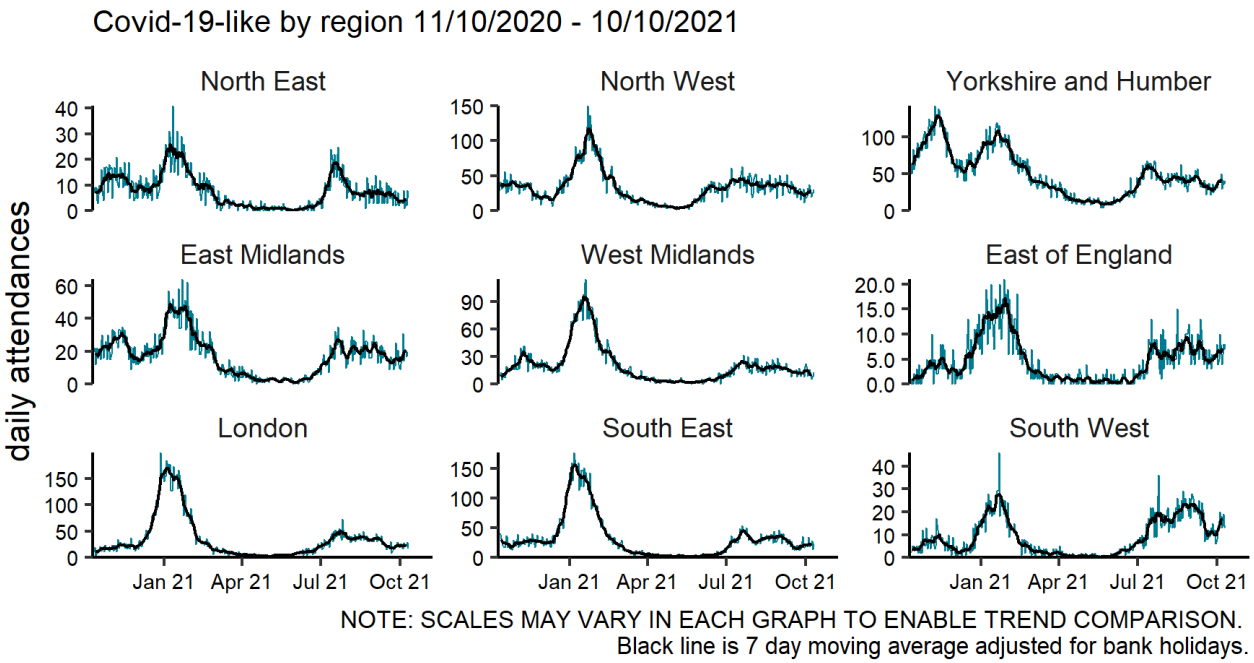
(a)



(b)



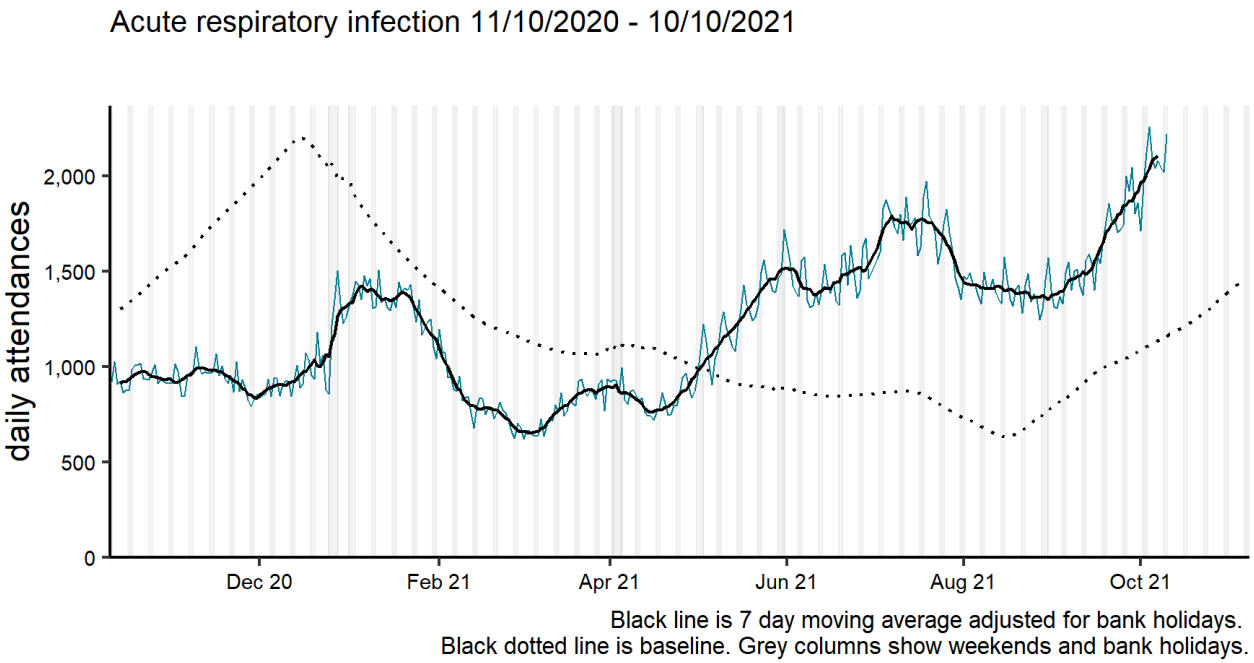
(c)


Covid-19-like by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.

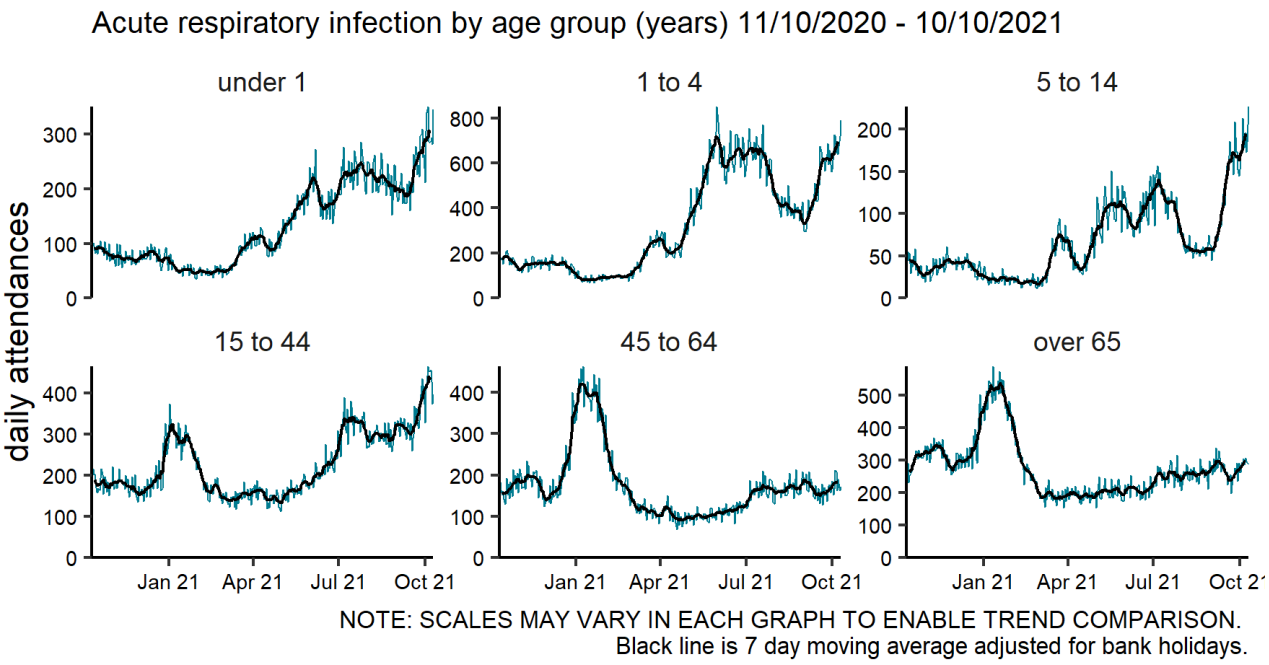
Acute respiratory infections

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.

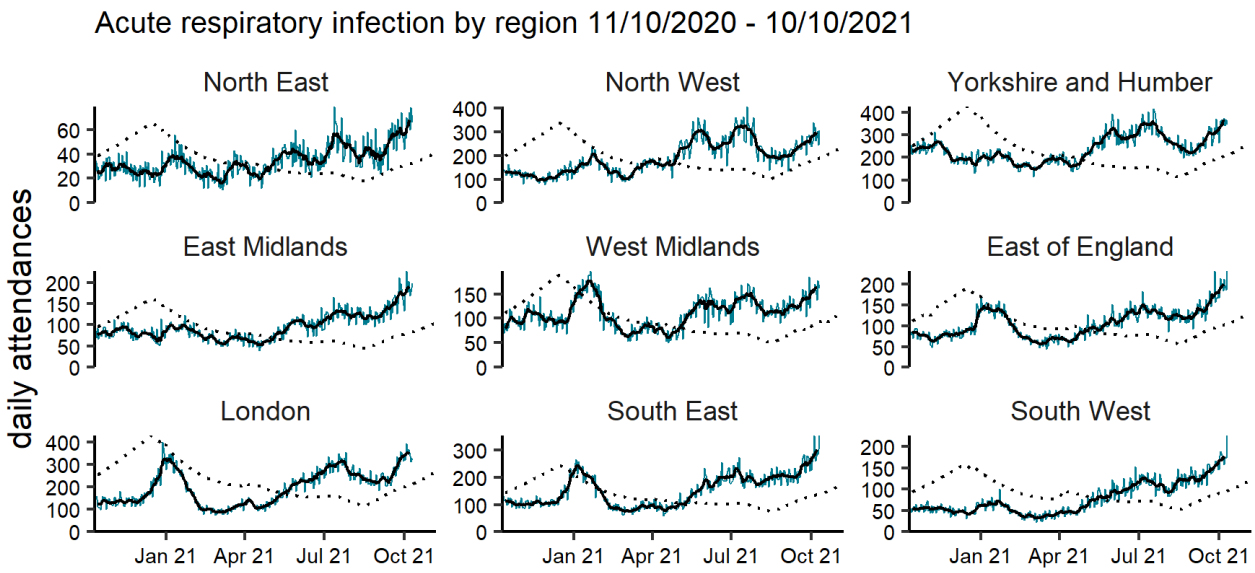
(a)



(b)



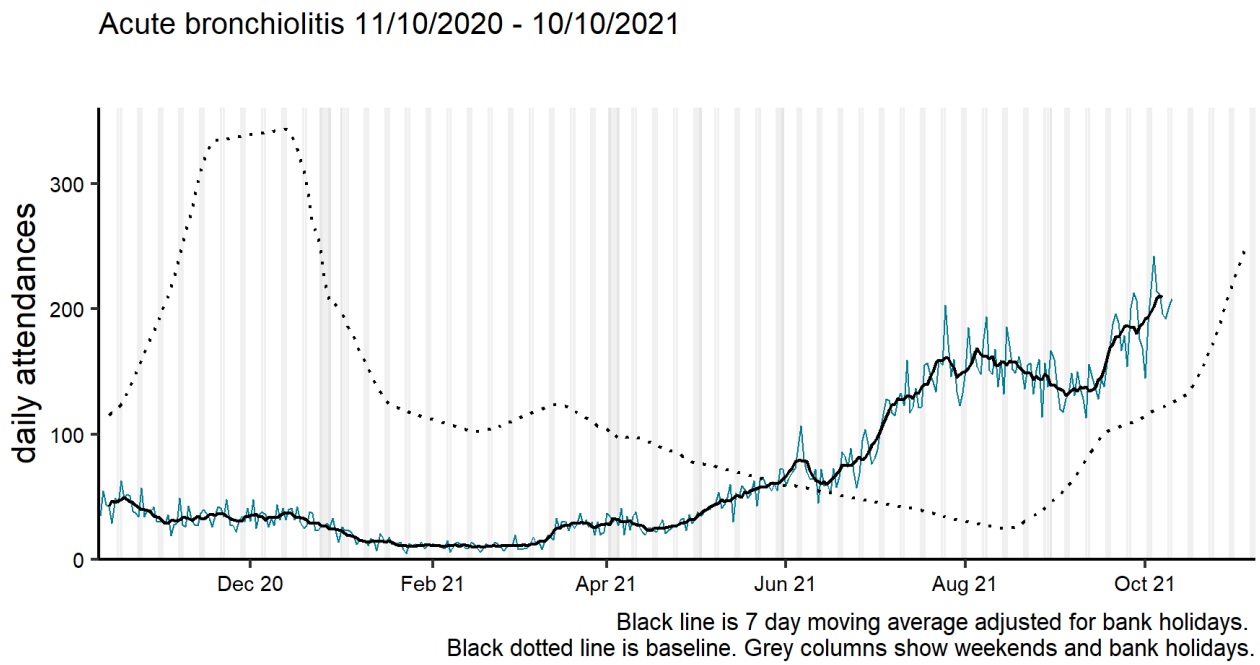
(c)


Acute respiratory infection by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
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.

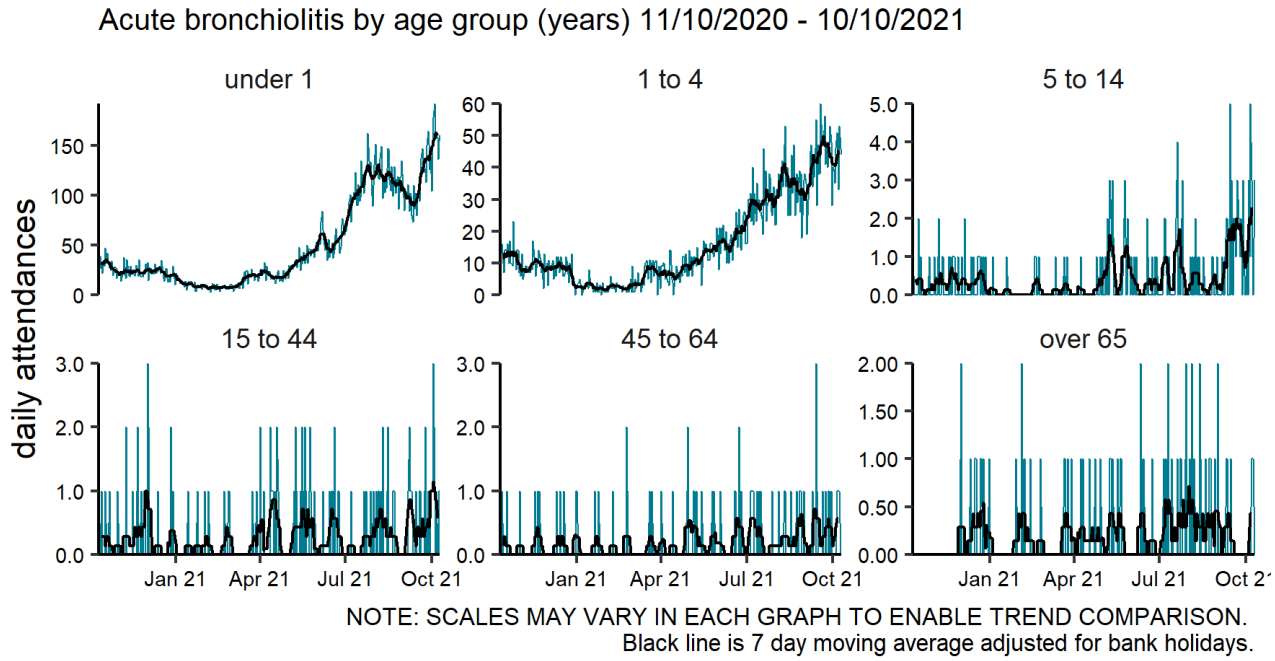
Acute bronchiolitis/ bronchitis

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.

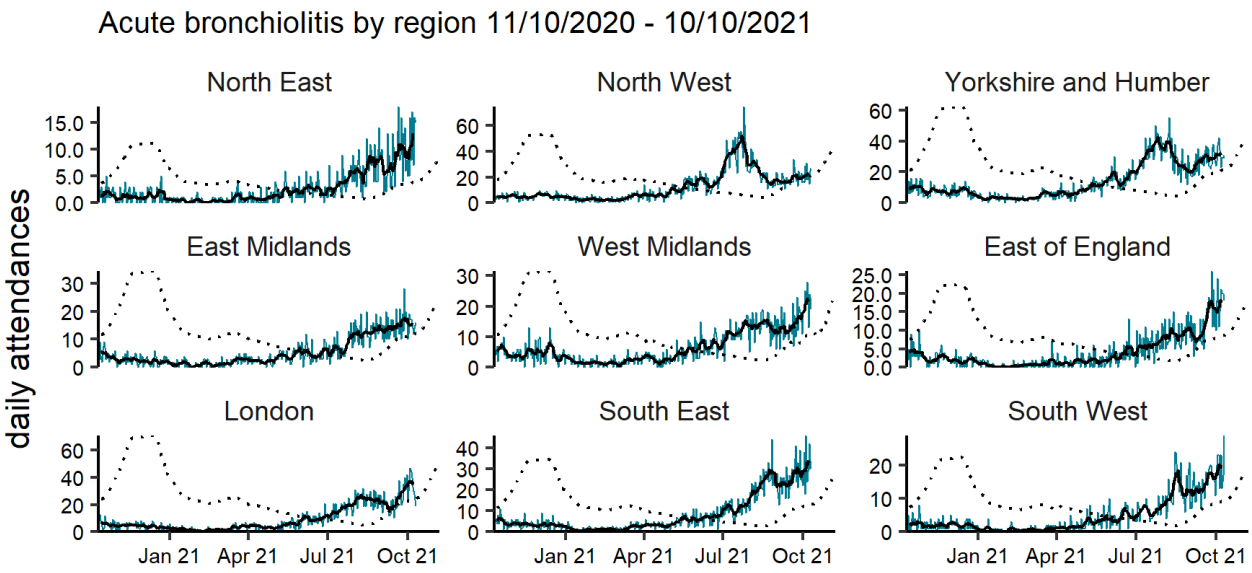
(a)



(b)



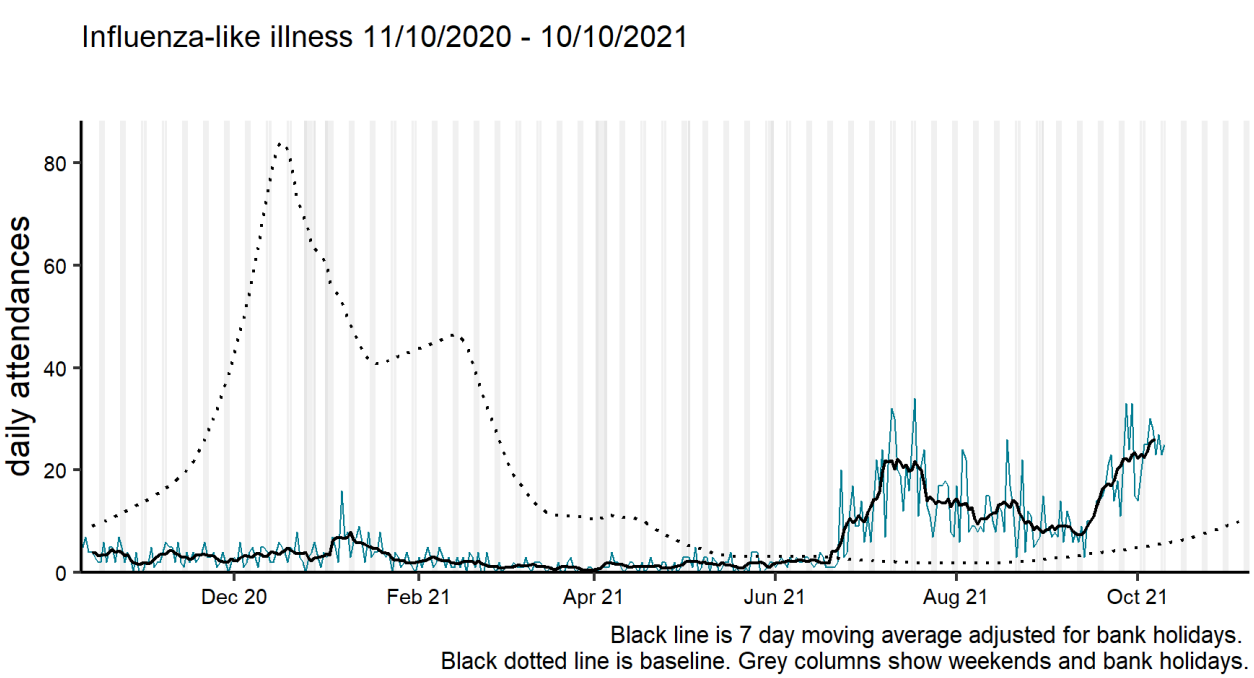
(c)


Acute bronchiolitis by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
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.

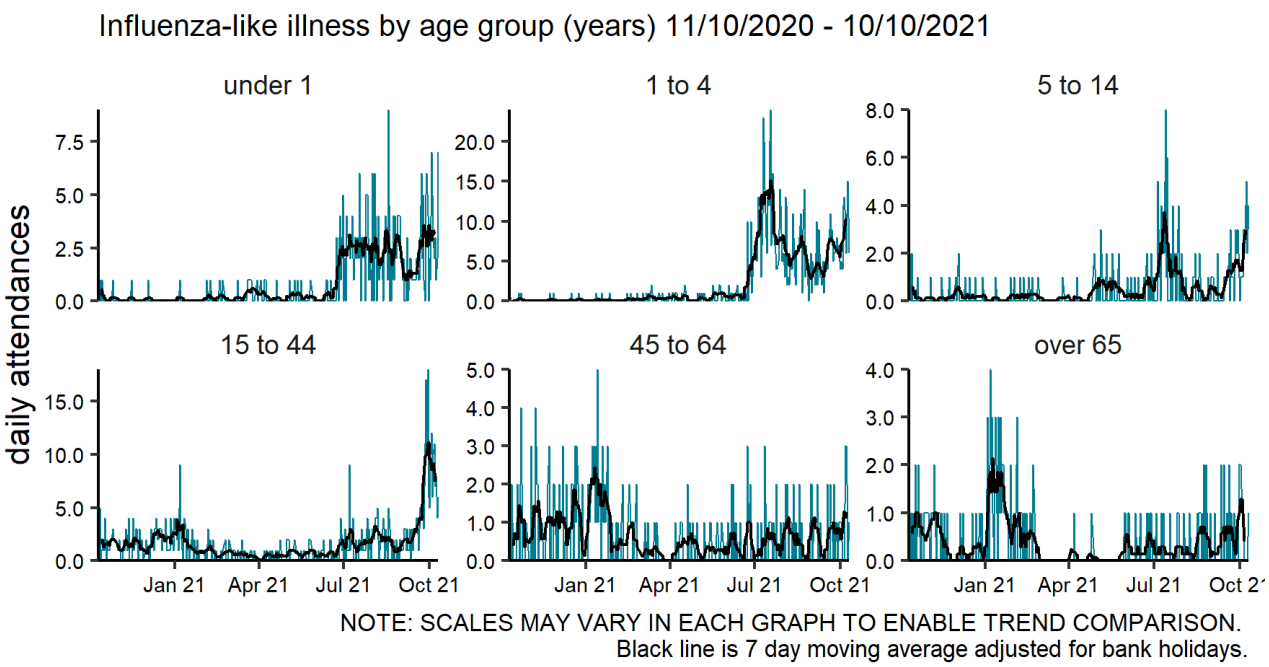
Influenza-like illness

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.

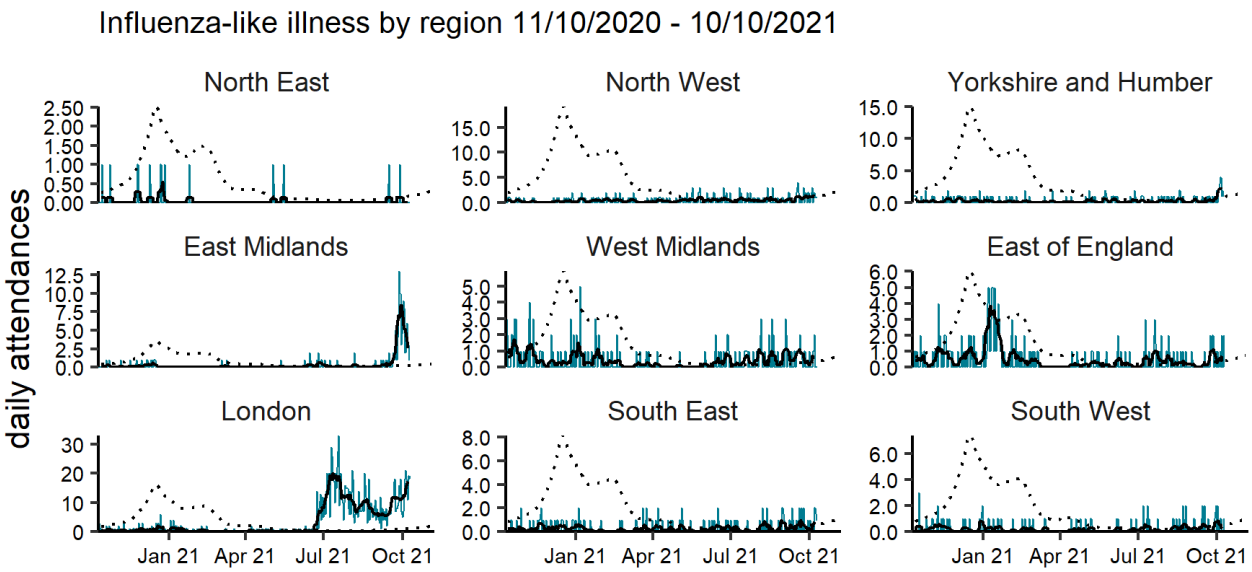
(a)



(b)



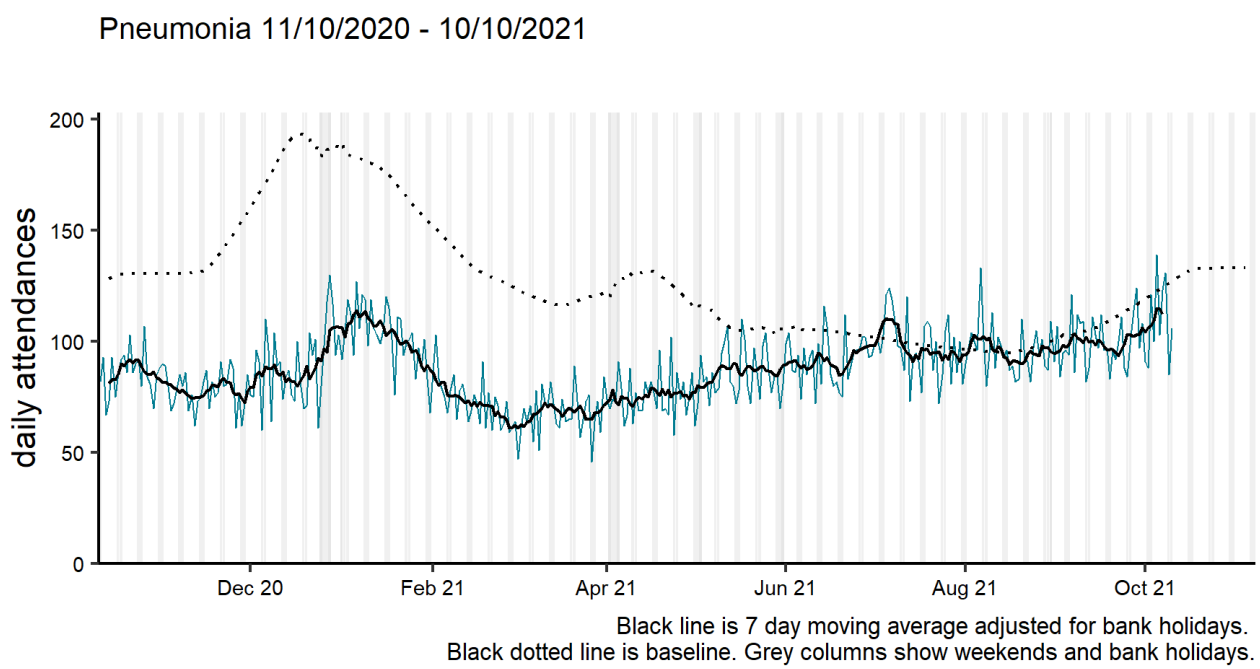
(c)


Influenza-like illness by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
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.

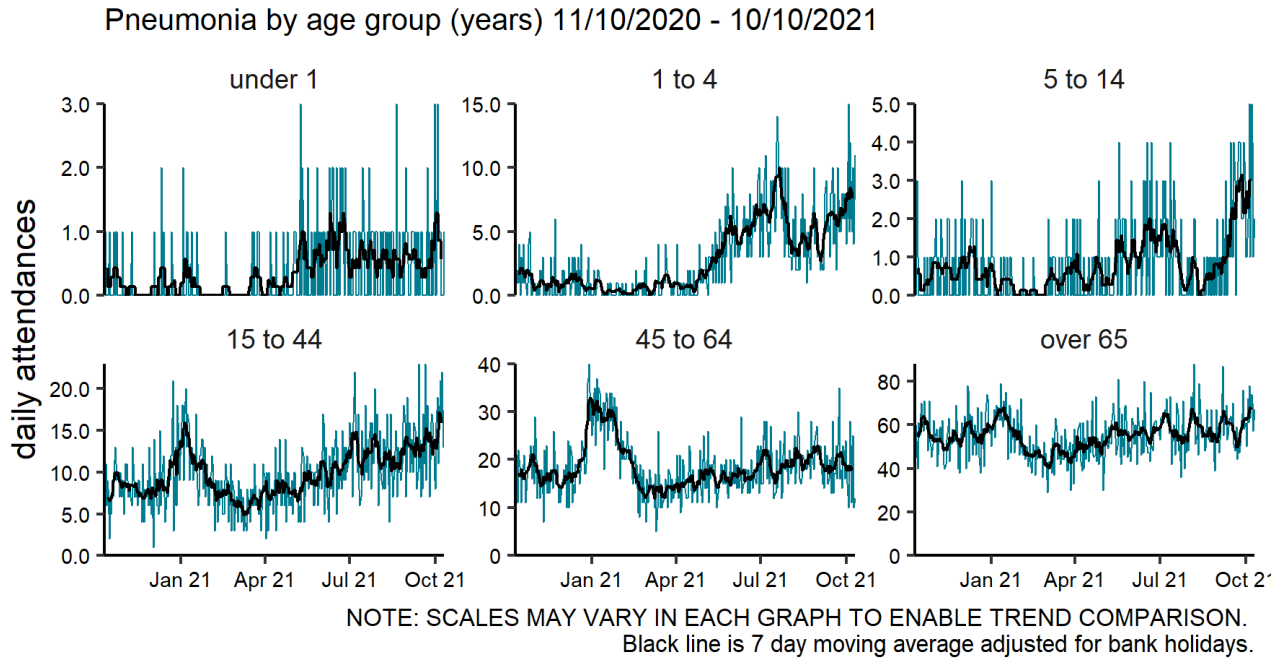
Pneumonia

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.

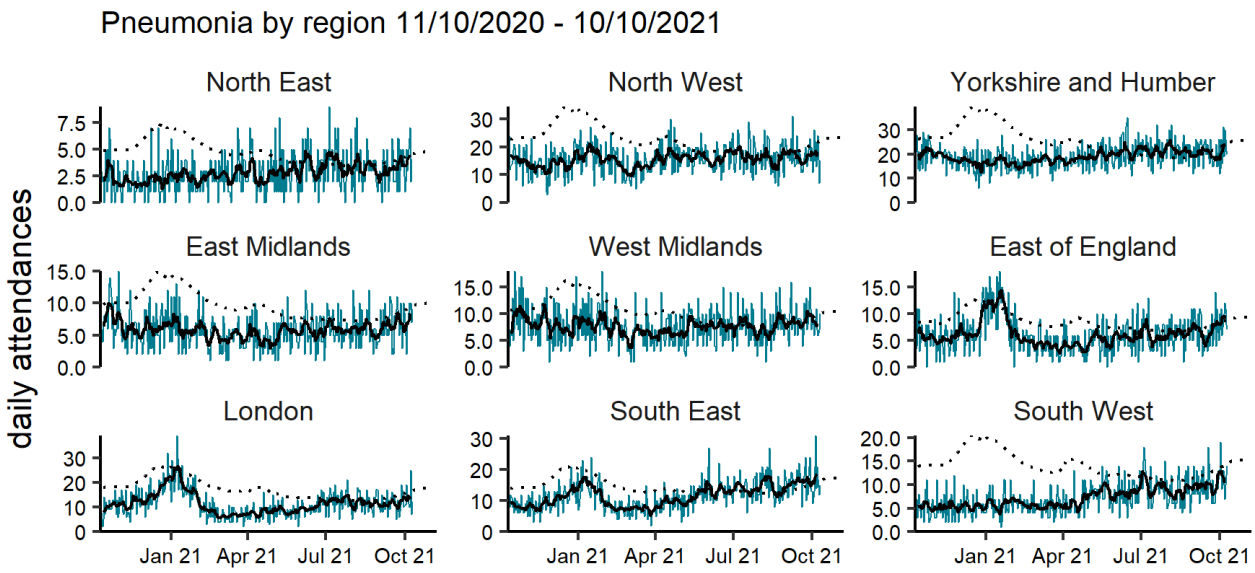
(a)



(b)



(c)

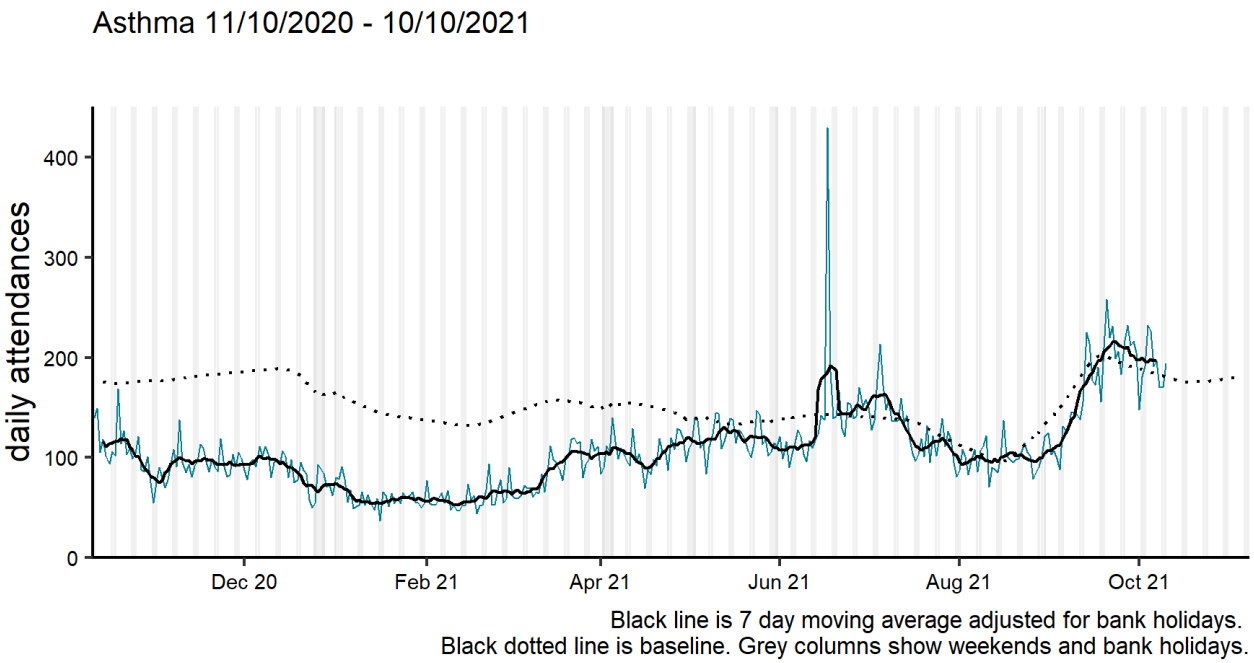


NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

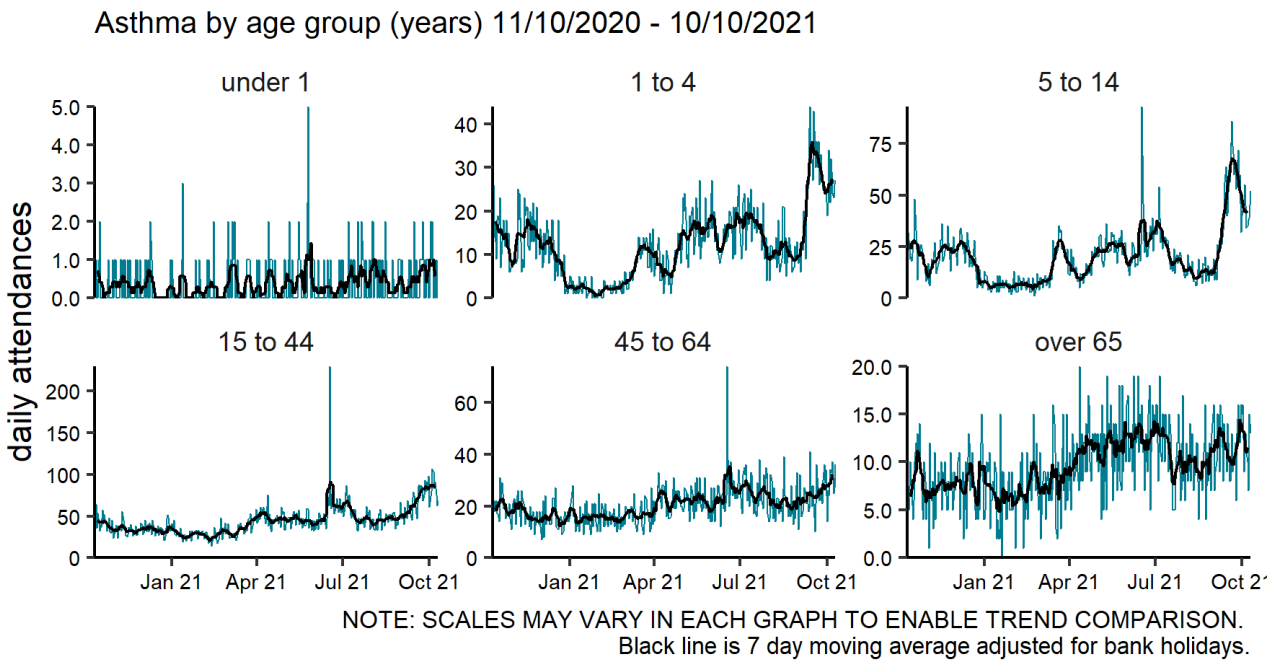
Asthma

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.

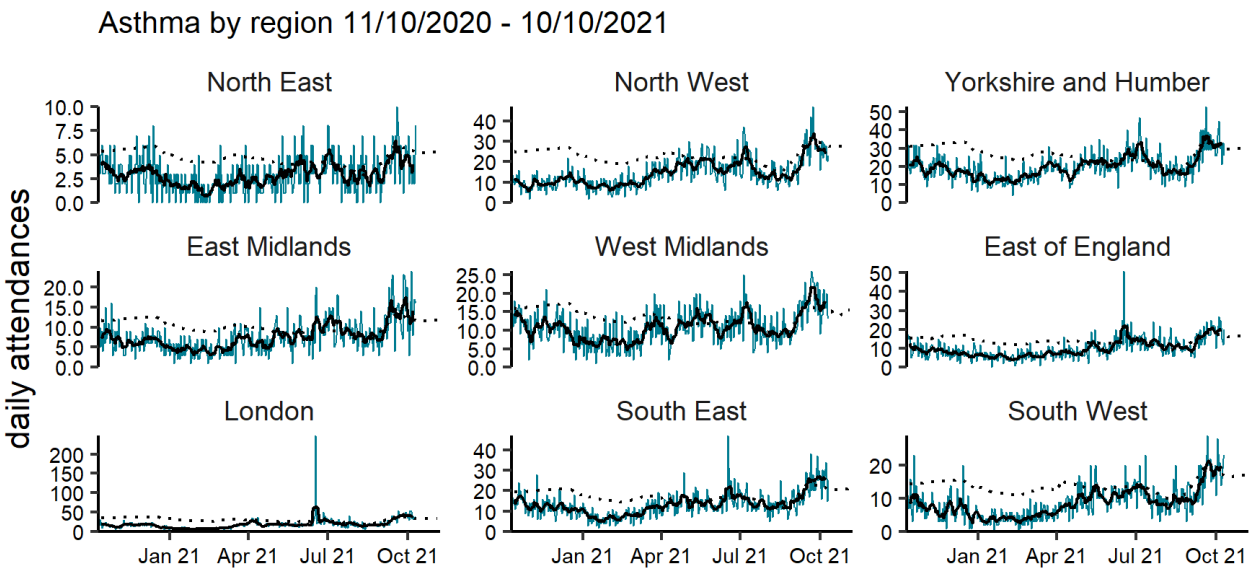
(a)



(b)



(c)

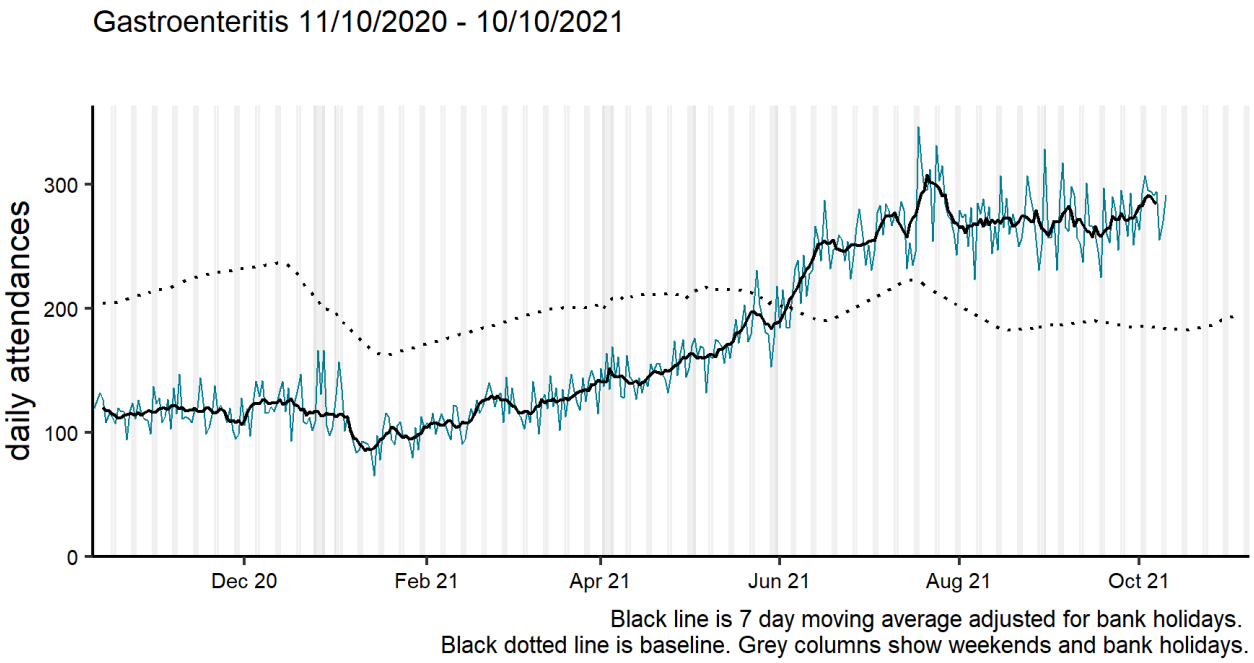

Asthma by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Gastrointestinal conditions

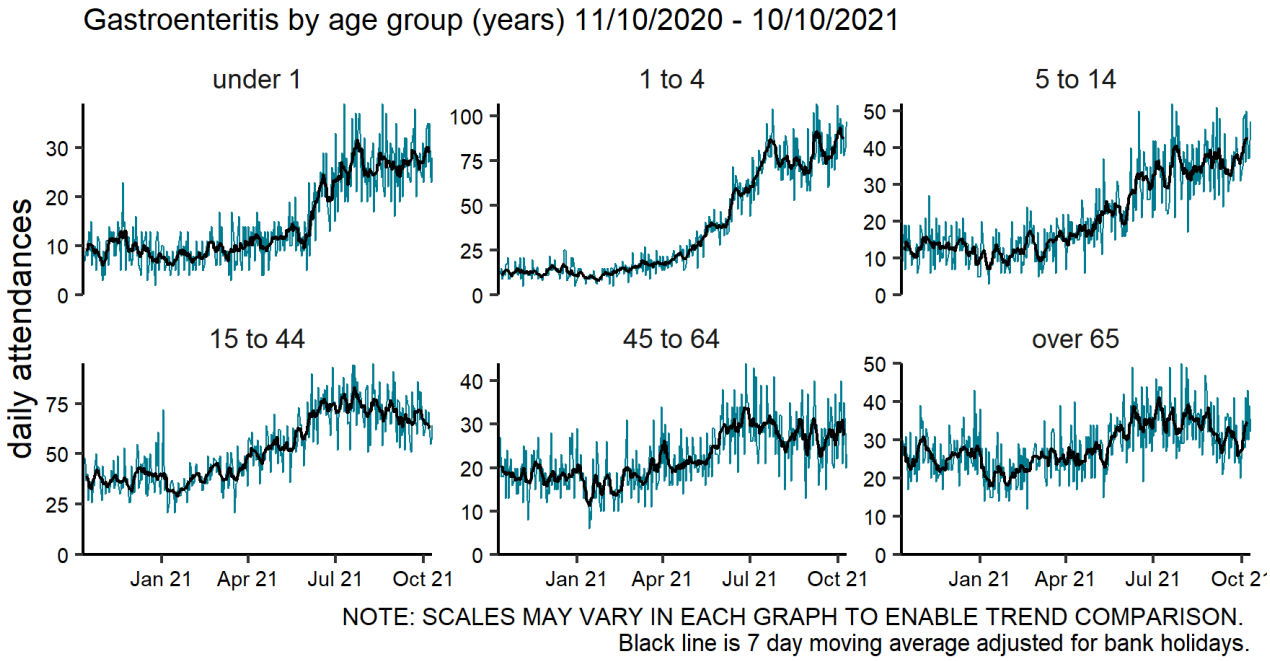
Gastroenteritis

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.

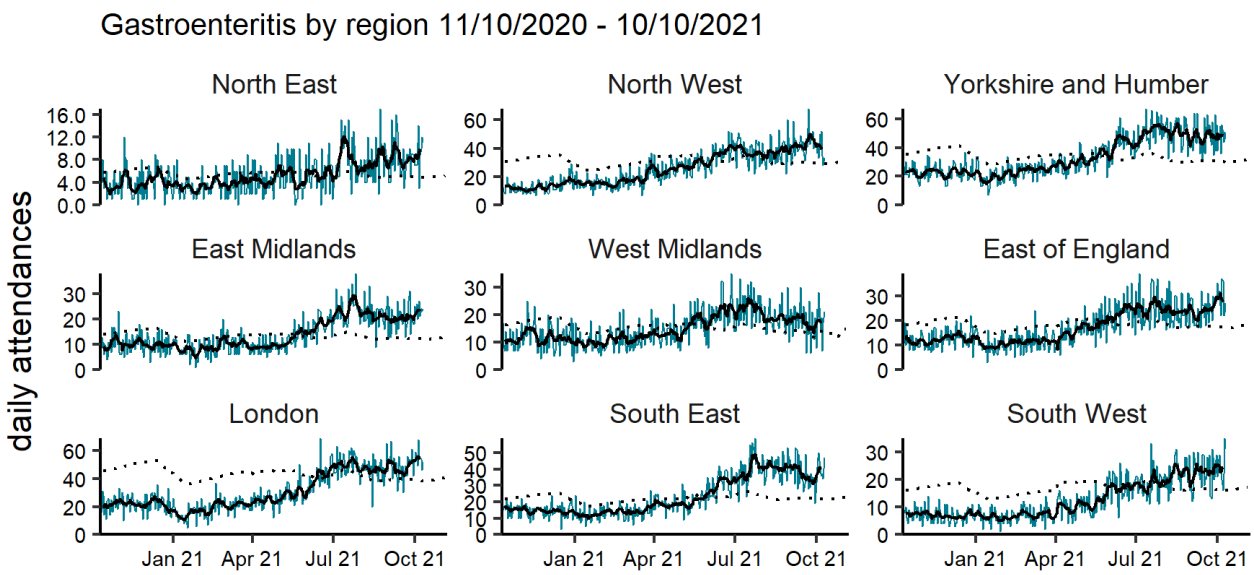
(a)



(b)



(c)

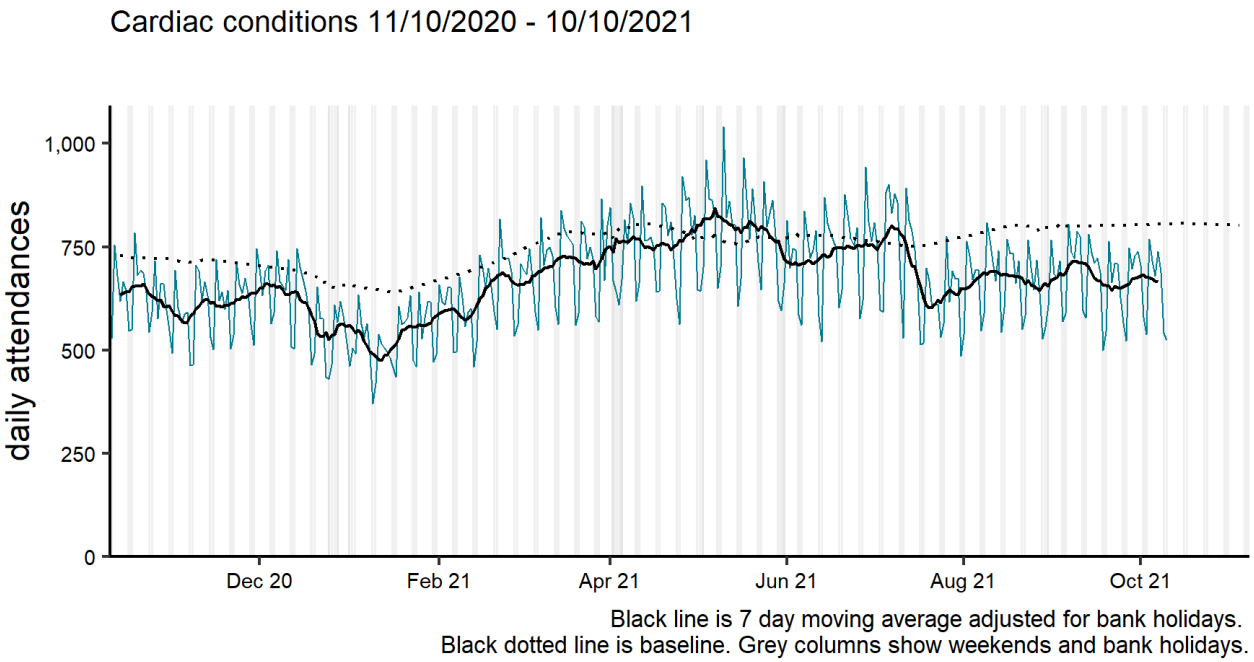

Gastroenteritis by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Cardiac conditions

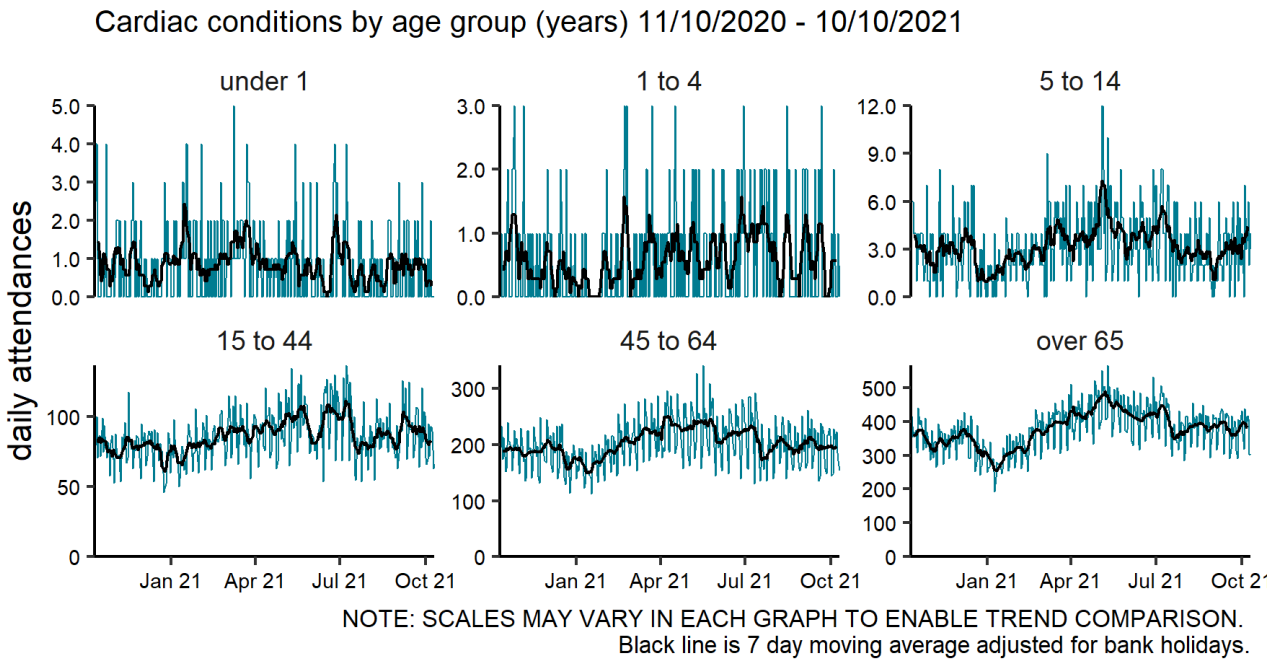
Cardiac

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.

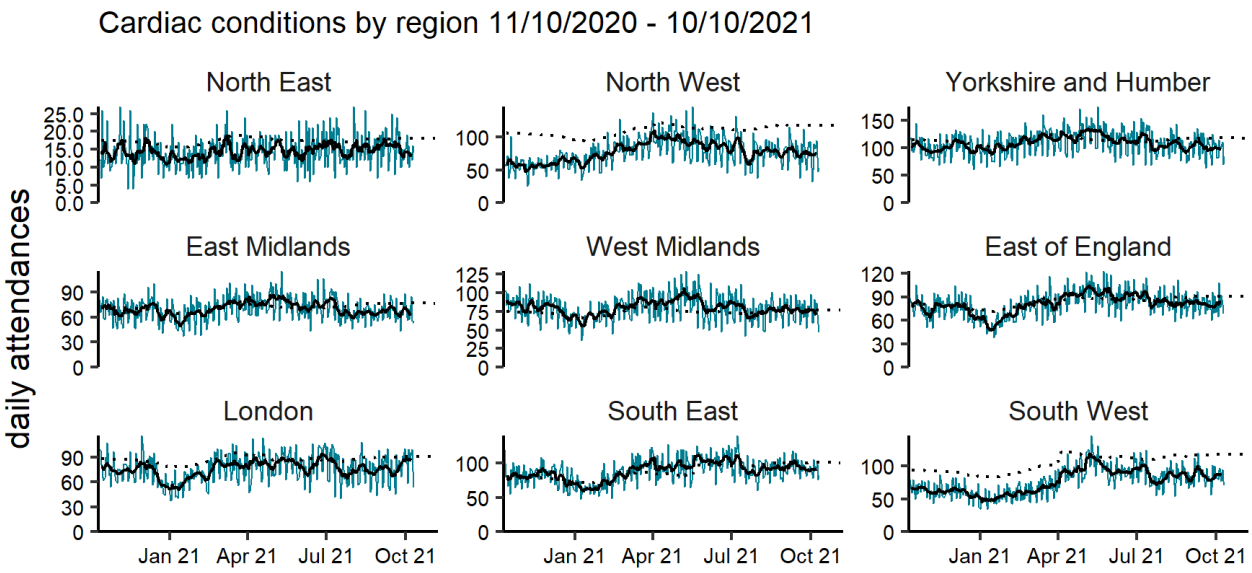
(a)



(b)



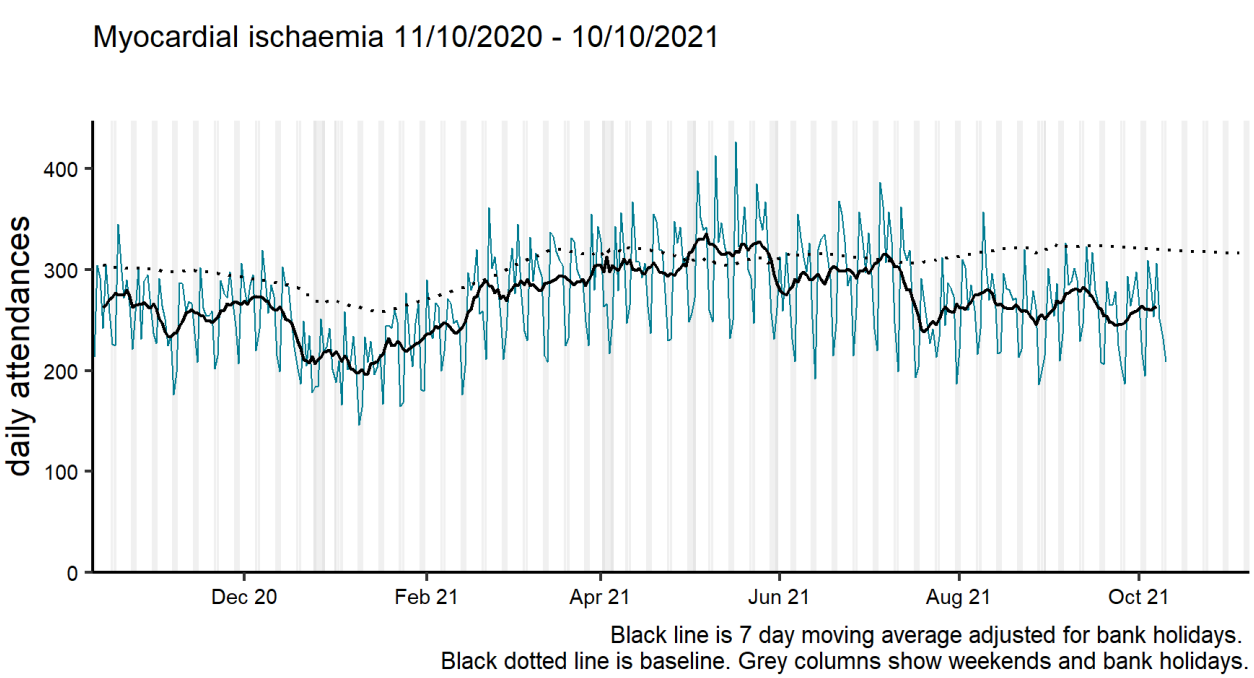
(c)


Cardiac conditions by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
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.

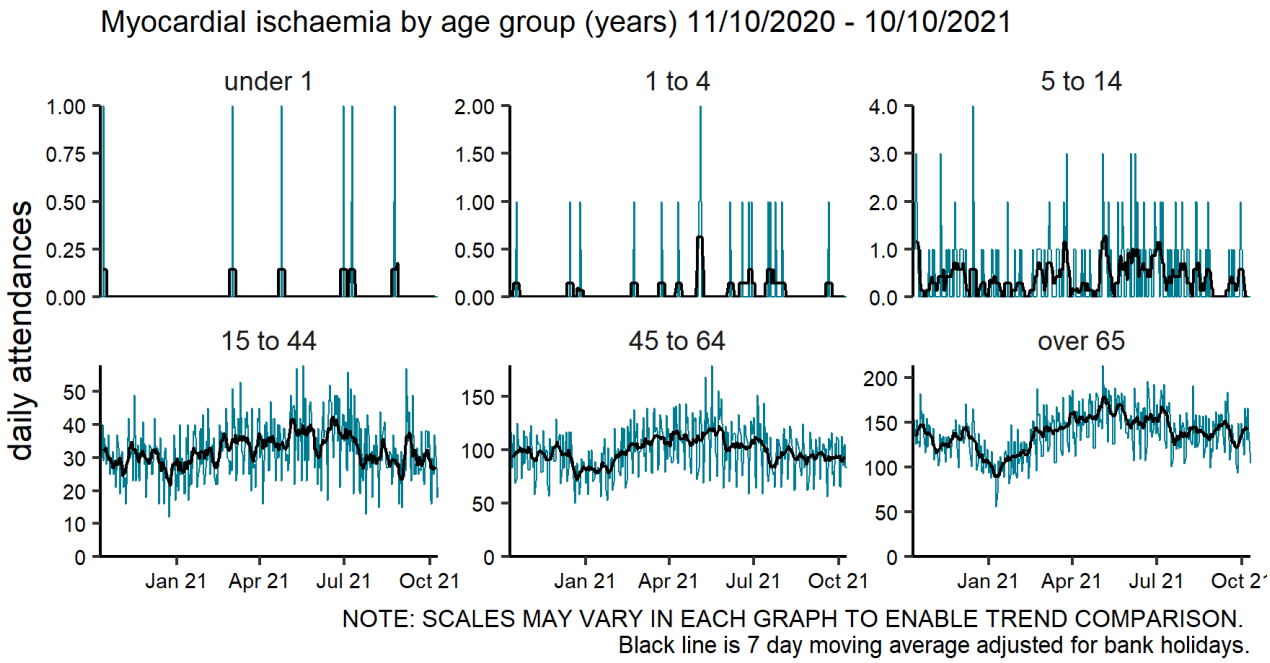
Myocardial ischaemia

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.

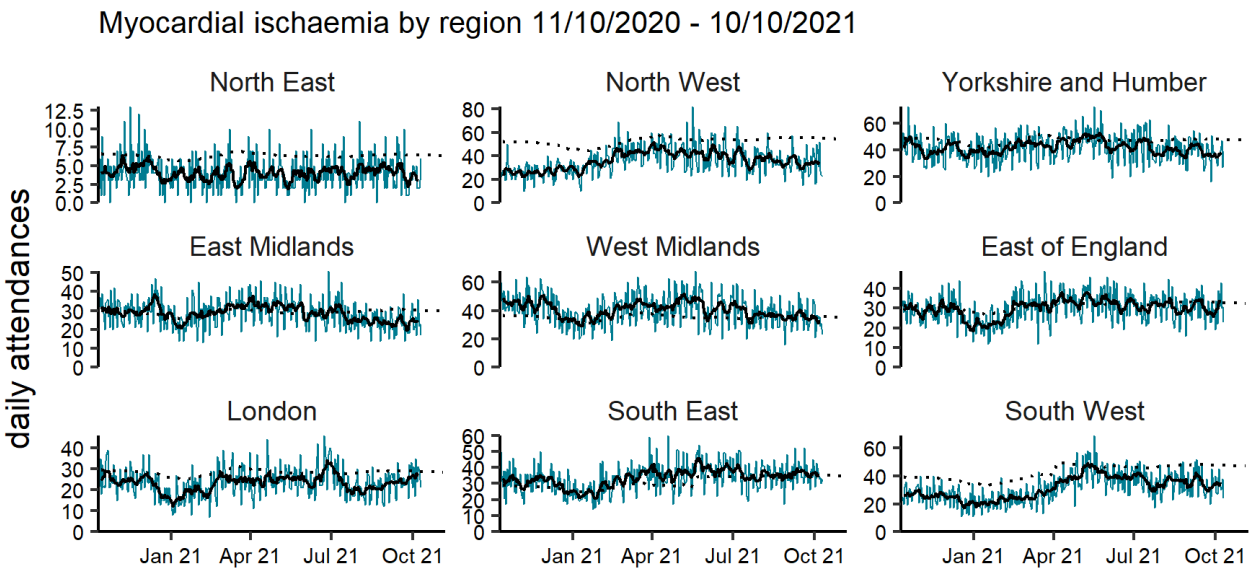
(a)



(b)



(c)

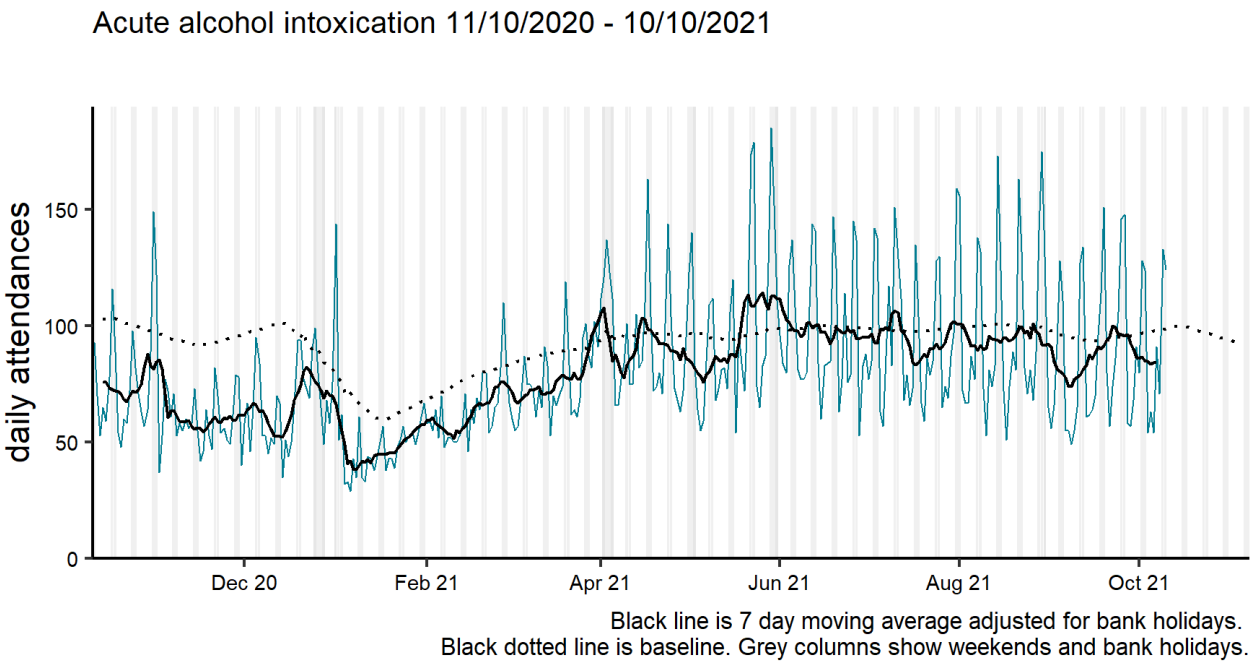

Myocardial ischaemia by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Other conditions

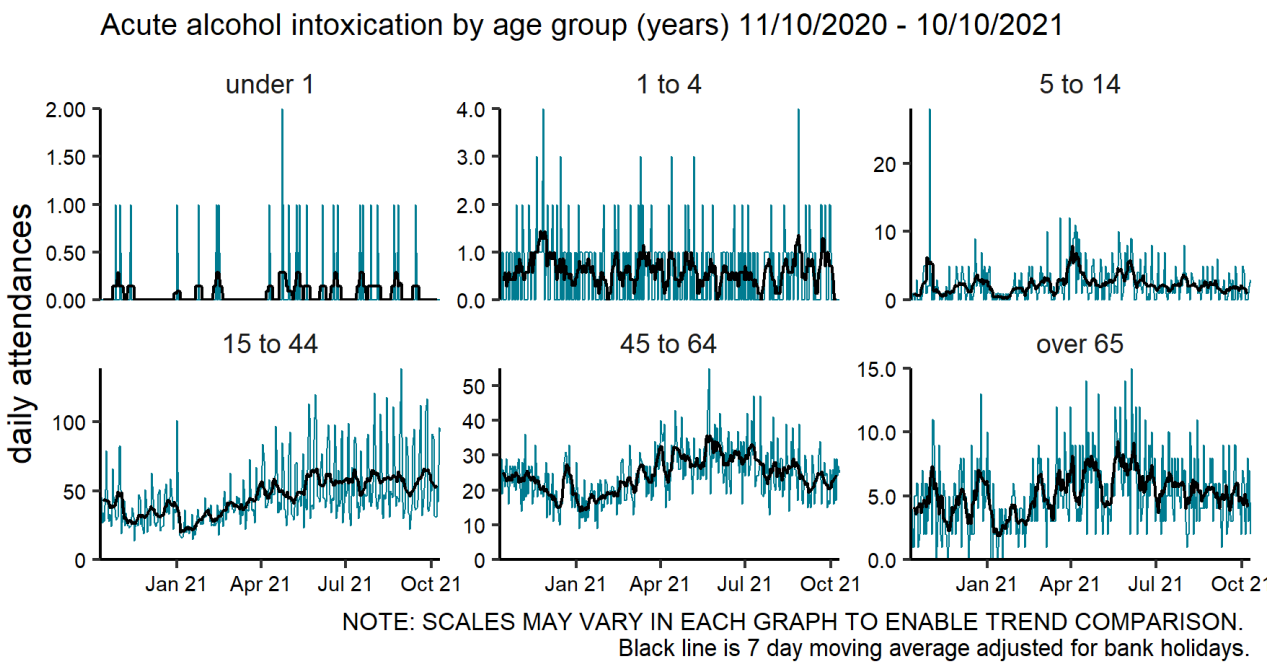
Acute alcohol intoxication

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.

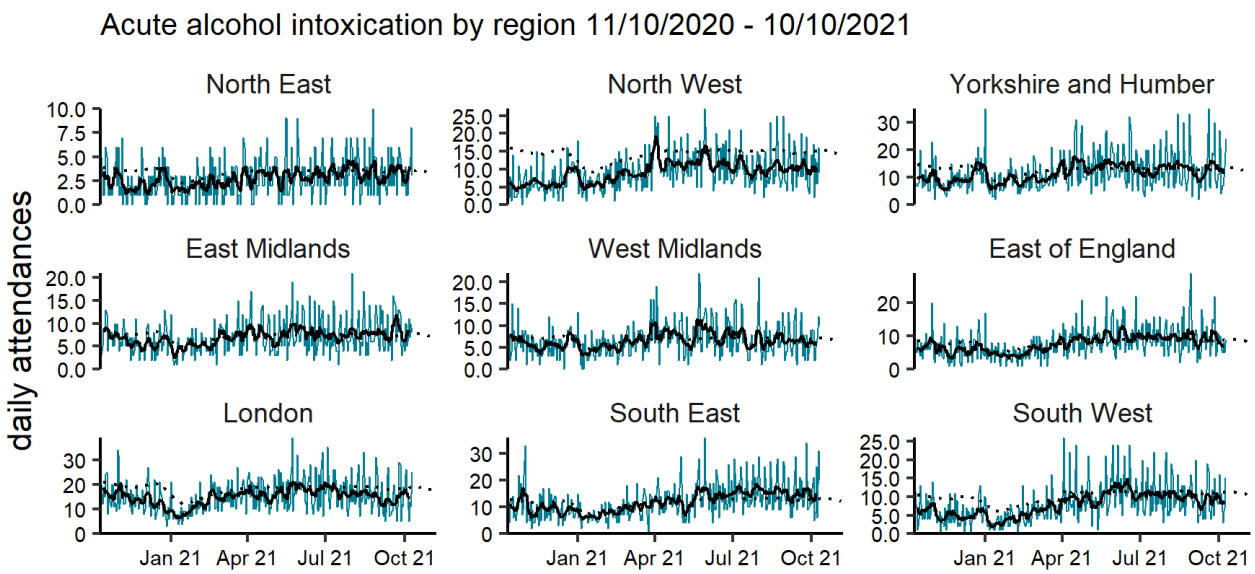
(a)



(b)



(c)


Acute alcohol intoxication by region 11/10/2020 - 10/10/2021
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Jan 21
Apr 21
Jul 21
Oct 21
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

Weather alert level (current reporting week): ***Level 0 - Long-term planning***

No weather watch in place

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): https://www.england.nhs.uk/ourwork/tsd/ec-data-set/
    - 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

The UK Health Security Agency is an executive agency, sponsored by the Department of Health and Social Care.

www.ukhsa.gov.uk

Version: ED-1

Prepared by: Real-time Syndromic Surveillance Team
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