

Statistical Note: Ambulance Quality Indicators (AQI)

In May 2023, for all categories, the average ambulance response times were longer than in April 2023, but shorter than in every month of 2022.

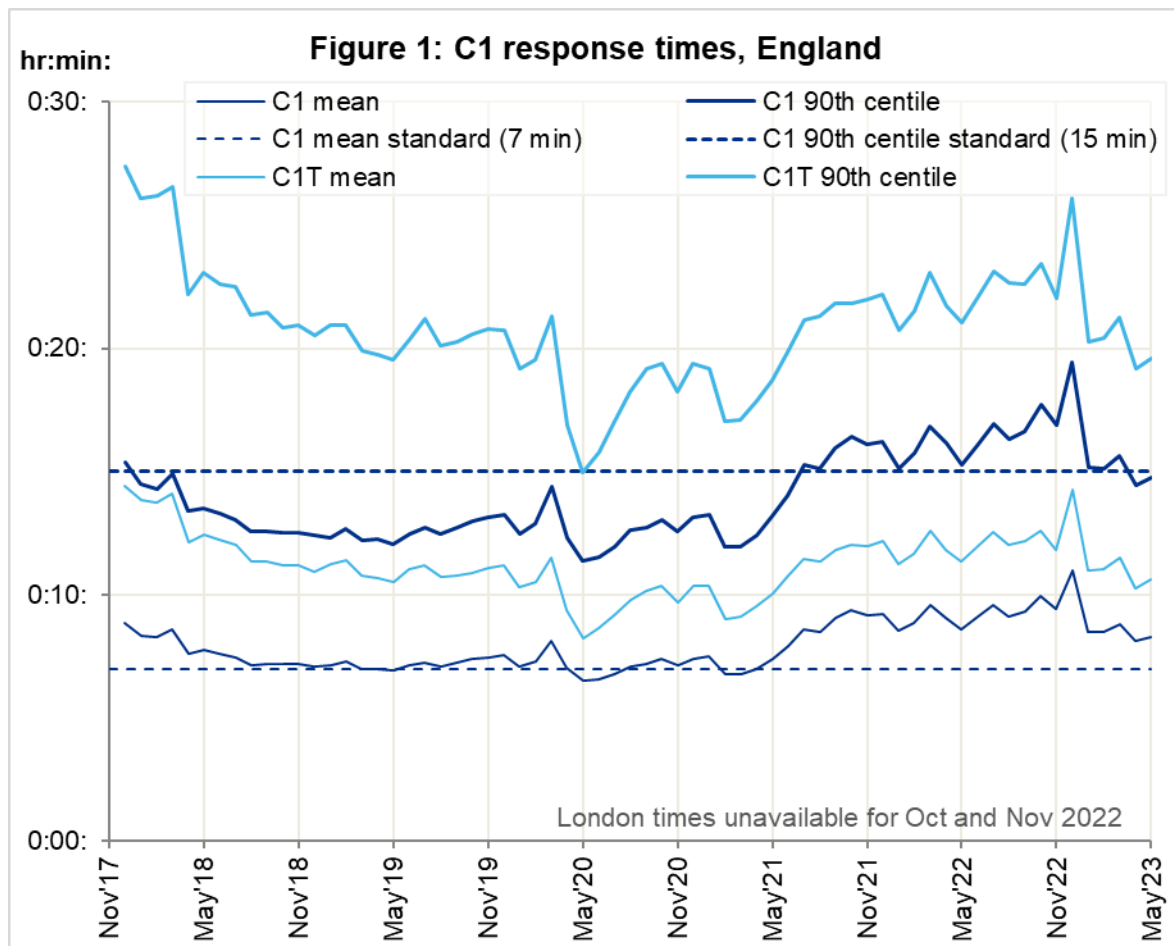
Revisions published today for AmbSYS from September 2022 to April 2023 include London data for some indicators for 23-30 September that was previously missing. Revisions to response times would not be apparent if shown in Figures 1-4.

1. Ambulance Systems Indicators (AmbSYS)

1.1 Response times

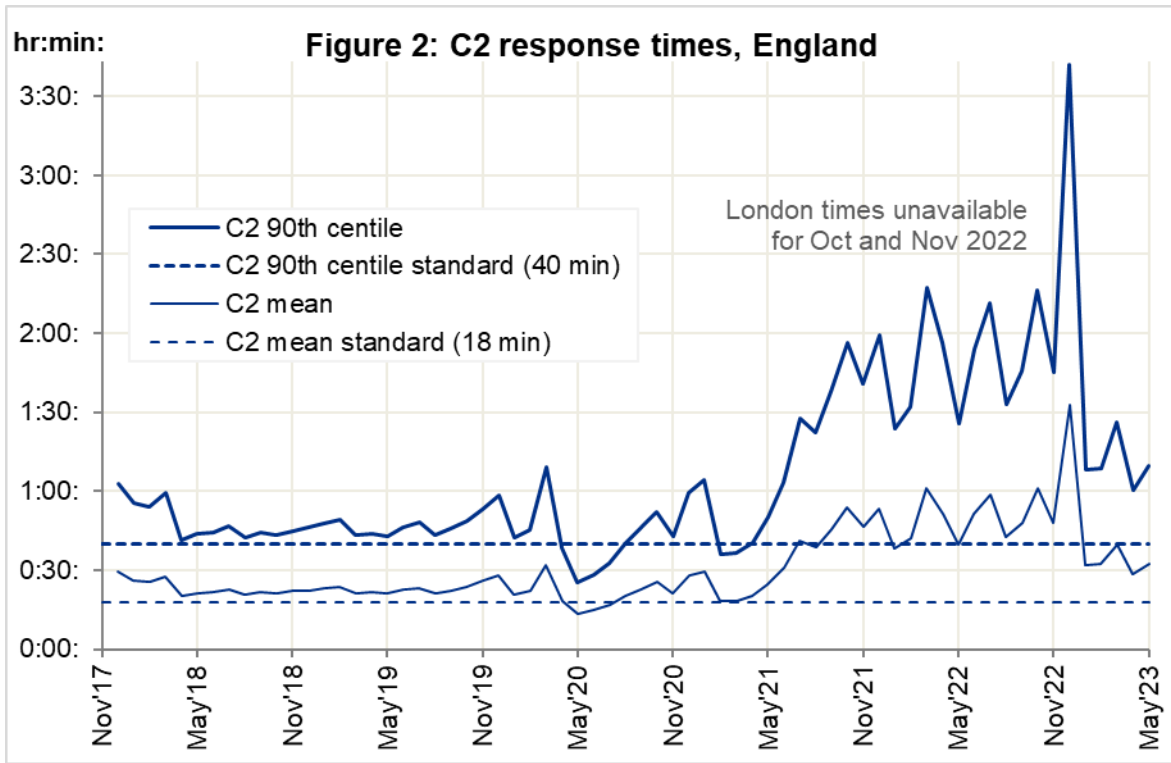
For England, the mean average response time for the most urgent Category, C1, was 8 minutes 17 seconds in May 2023. The only standard¹ met was the C1 90th centile of 15 minutes, with 14:45 in May 2023.

For C1T (time to the arrival of the transporting vehicle for C1 incidents), the mean average was 10:36, and the 90th centile 19:37.

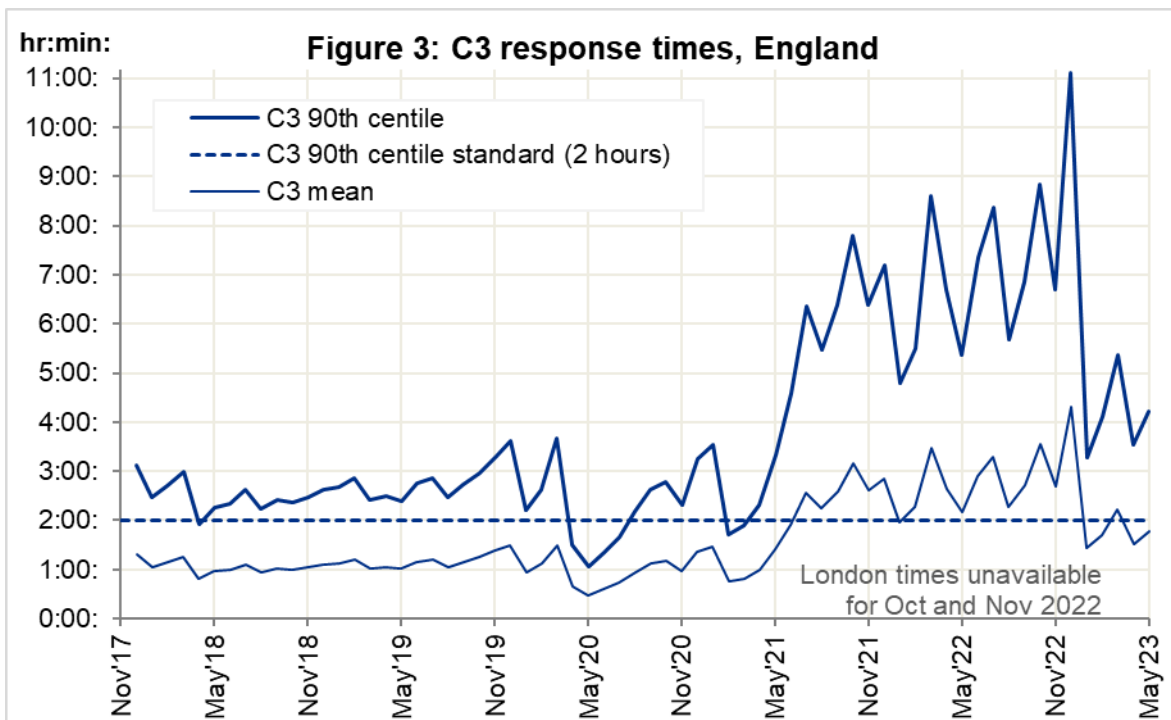


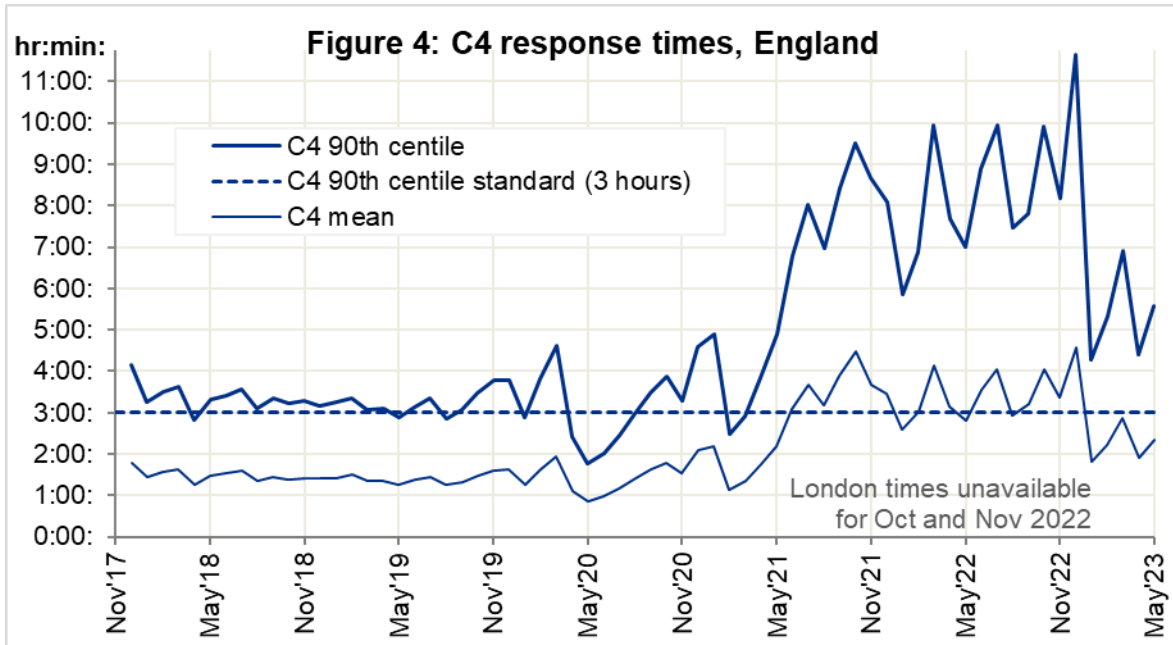
¹ Standards in the NHS Constitution Handbook: www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england/the-handbook-to-the-nhs-constitution-for-england

The C2 average in May 2023 was 32:24. In the last two years, this was only shorter in January and April 2023. The 90th centile was 1:09:45. (Figure 2)



In May 2023, the C3 average was 1:46:08 with a 90th centile of 4:12:34 (Figure 3), and the C4 average was 2:20:13, with a 90th centile of 5:35:15 (Figure 4). All these were longer than in January, February, and April 2023, but shorter than in all the other months in the last two years.

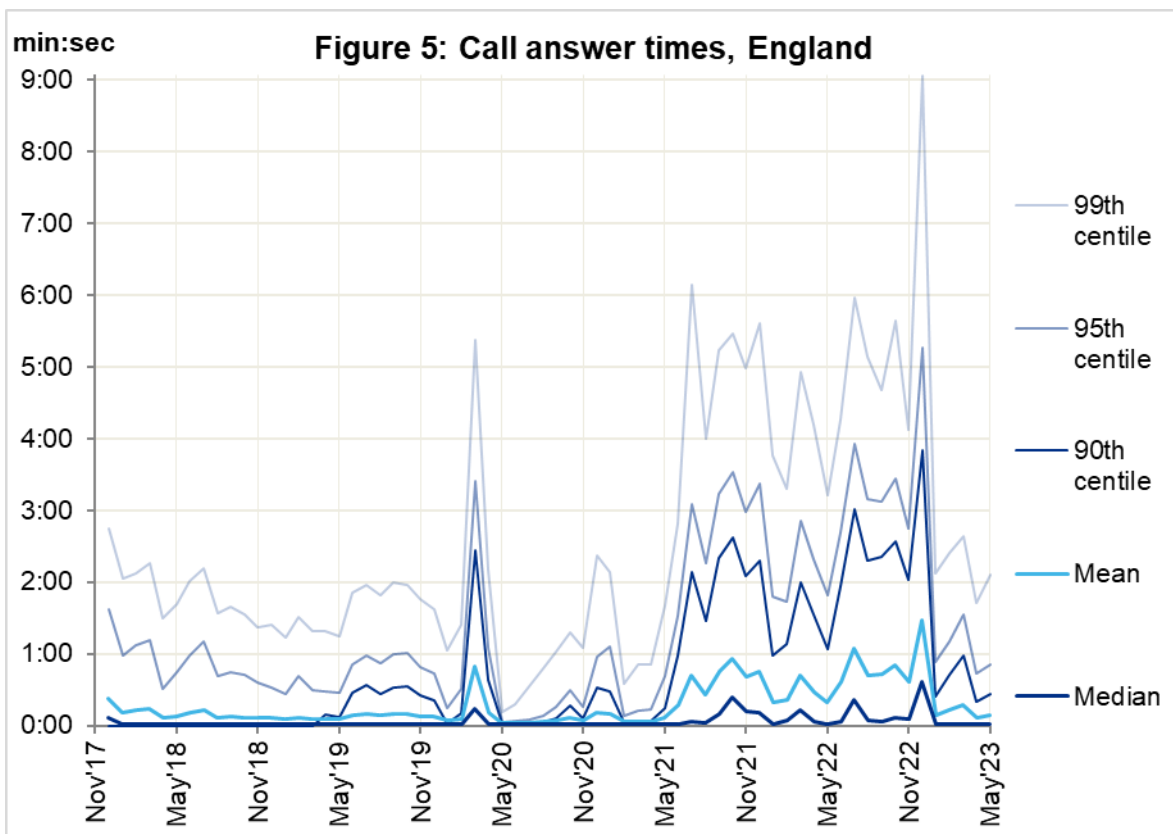




1.2 Other Systems Indicators

The average 999 call answer time in May 2023 was 9 seconds. Apart from in April 2023, this was the lowest since May 2021 (Figure 5).

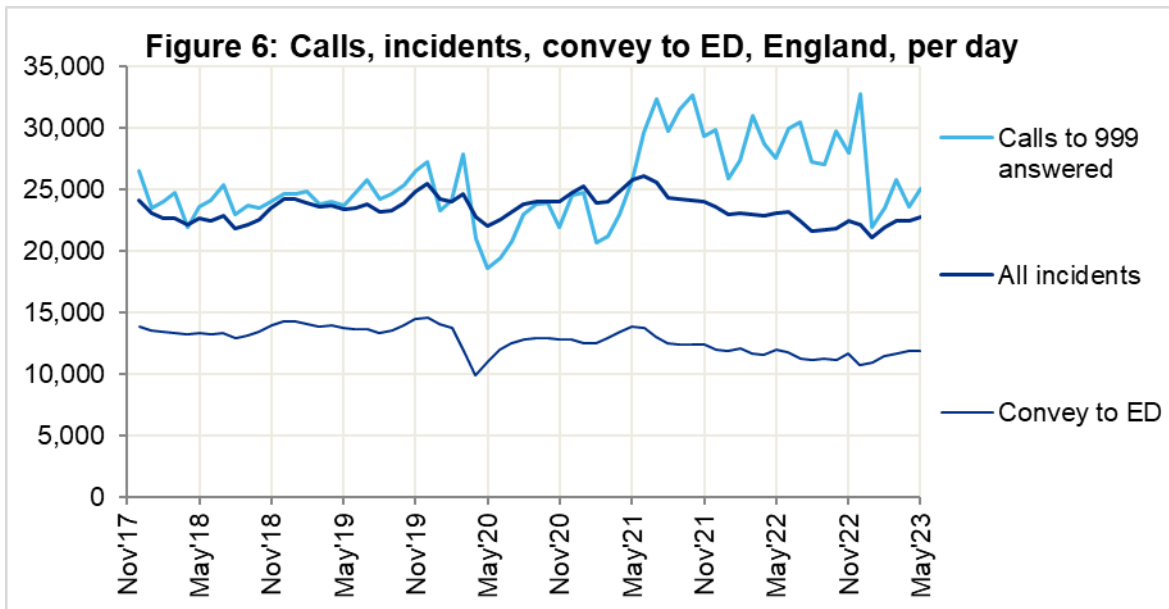
September 2022 call answer times in London have been revised; the largest revision increased the 90th centile for England from 2:01 to 2:21.



There were 705,261 incidents in May 2023, or 22,750 per day, and 369,919 had conveyance to ED, or 11,933 per day. Each was the largest since at least July 2022.

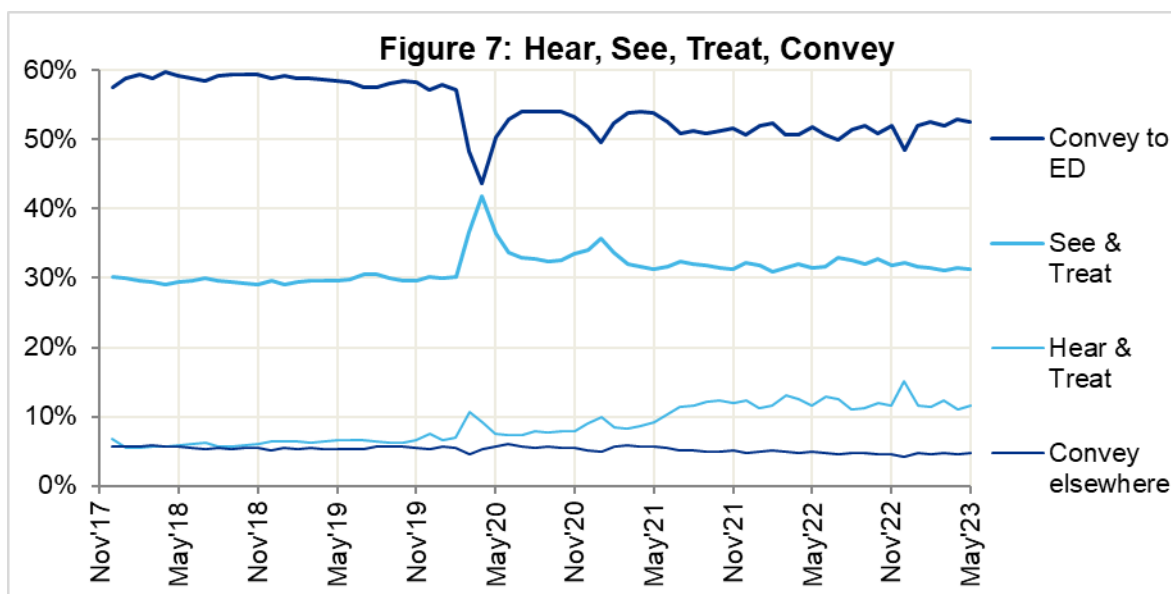
However, the count of 999 calls answered per day, despite an increase from 23,583 in April 2023 to 25,081 in May, was still fewer than in every month of 2022. (Figure 6)

Revisions to London data, completing the days previously missing in September 2022, show the England call count for that month was 27,045 per day; not 26,011 as previously published, but still less than 27,215 in August 2022. Incidents in September per day were about 800 larger, and conveyance to ED about 400 larger.



Conveyance to ED decreased a little to 52% in May 2023, and incidents resolved on the telephone (Hear & Treat) increased a little to 12%. Conveyance to non-ED (5%) and incidents resolved on the scene (See & Treat, 31%) changed little.

Revisions, mainly in the West Midlands, have increased the Hear & Treat proportion for December 2022, already the highest in the series, to 15.1%. (Figure 7)



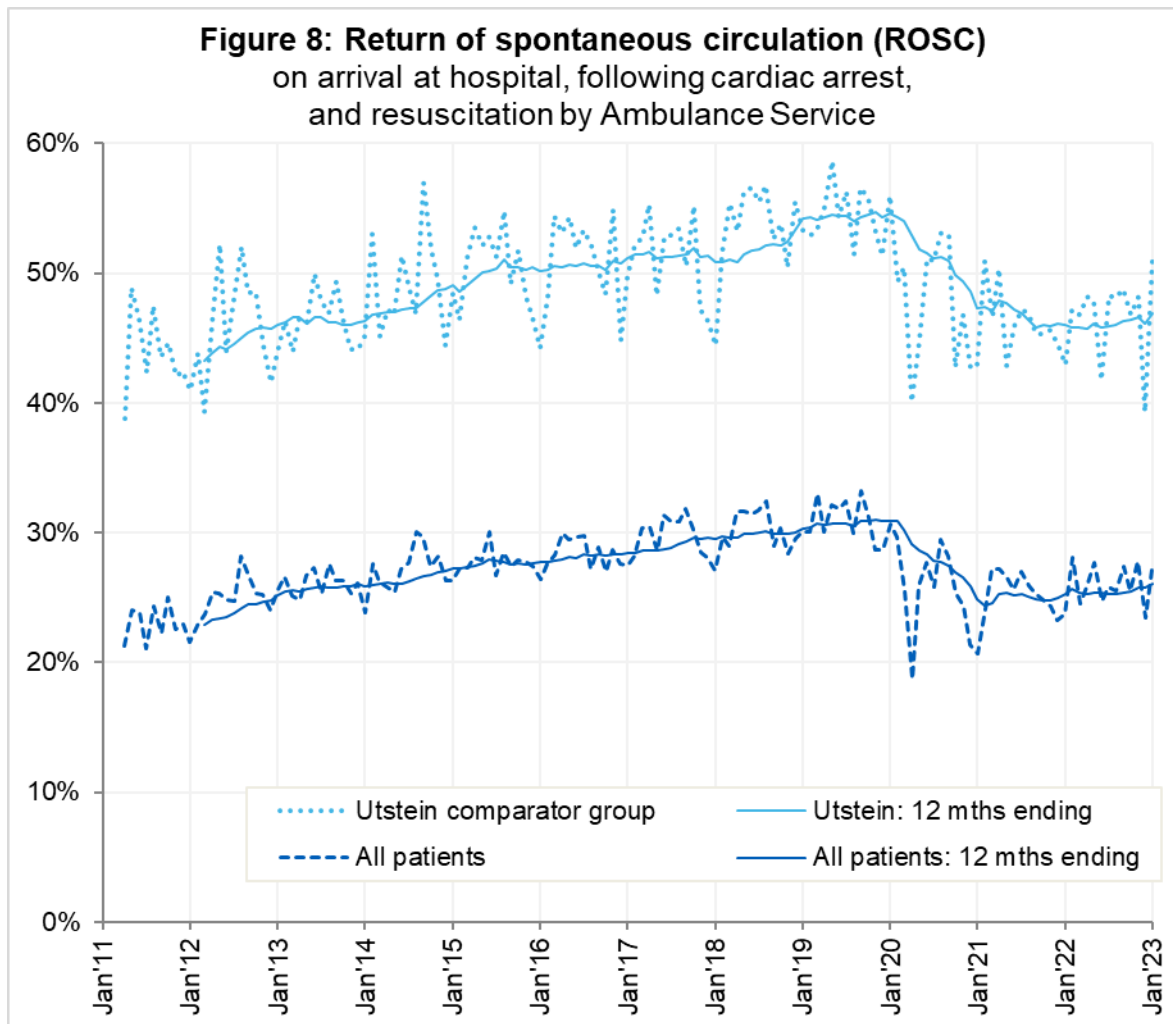
2. Ambulance Clinical Outcomes (AmbCO)

We continue to summarise data for STEMI (a type of heart attack) and cardiac arrest in this Statistical Note when we publish January, April, July, or October AmbCO data, and stroke data in the following month.

2.1 Return of spontaneous circulation (ROSC) after cardiac arrest (Figure 8)

For the 3,290 patients in January 2023 with cardiac arrest and resuscitation by an ambulance service in England, 895 (27%) had ROSC on arrival at hospital, significantly² more than for the year ending September 2022 (25%).

The Utstein comparator group comprises patients with an out-of-hospital cardiac arrest of presumed cardiac origin, where the initial rhythm was Ventricular Fibrillation or Ventricular Tachycardia, and the arrest was bystander witnessed. This group therefore have a better chance of survival. In January 2023, of the 3,290 cardiac arrest patients, 441 met these criteria, and of those, 226 (51%) had ROSC on arrival at hospital, also significantly more than for the year ending September 2022 (46%).

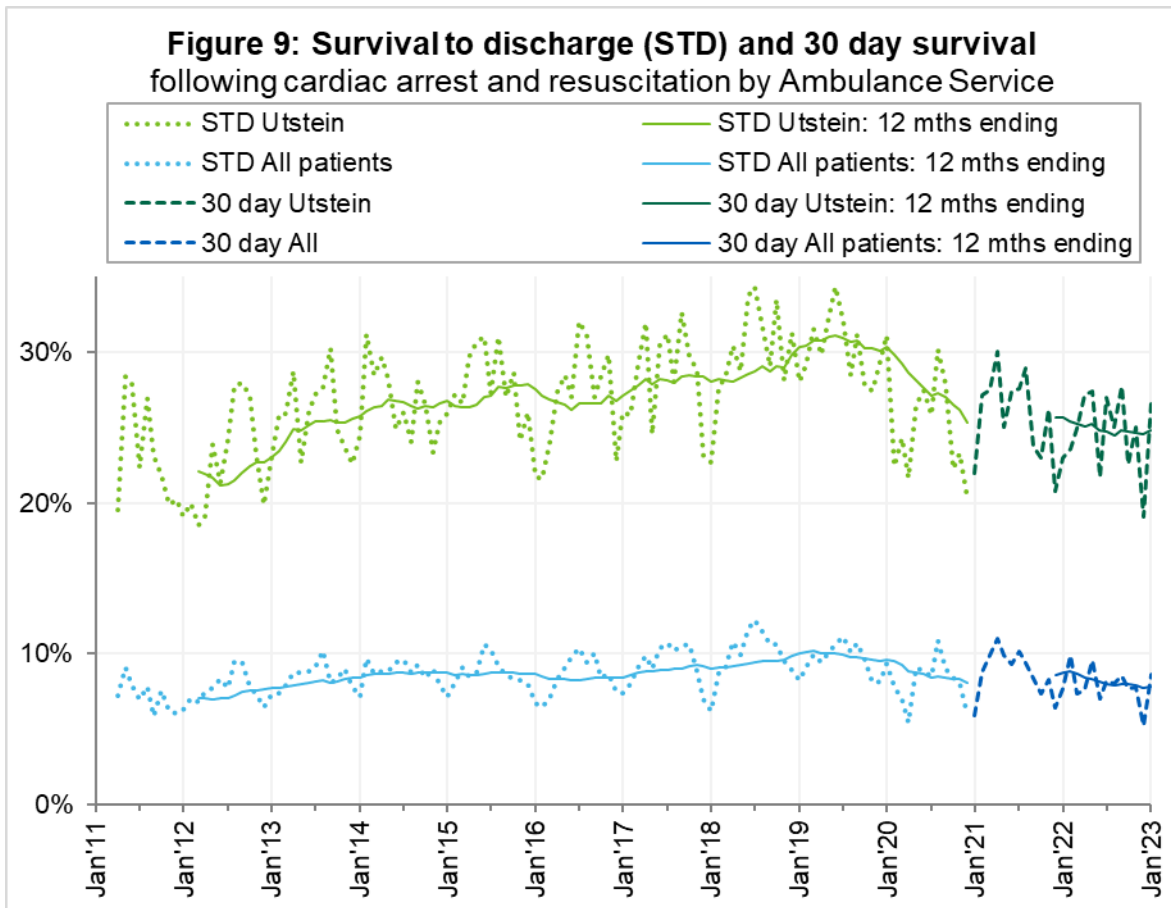


² Calculated using Student's t-test with 95% significance.

2.2 Survival following cardiac arrest (Figure 9)

For the 3,244 resuscitated cardiac arrest patients in England in January 2023 where survival at 30 days is known, 279 (9%) survived. For the Utstein group, 114 of 427 (27%) survived for 30 days. Both were not significantly different to the year ending September 2022 (8% and 25% respectively).

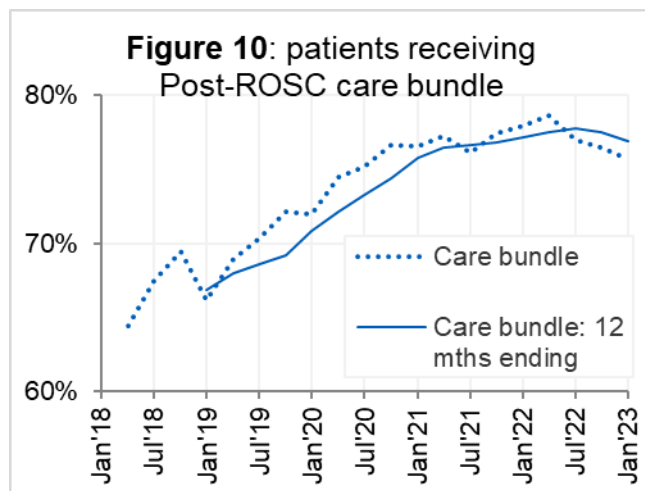
Figure 9 shows that survival from cardiac arrest is higher in summer.



2.3 Cardiac arrest care bundle (Figure 10)

In January 2023, there were 1,168 cardiac arrest patients resuscitated by an ambulance service in England who had return of spontaneous circulation on scene (not necessarily on arrival at hospital).

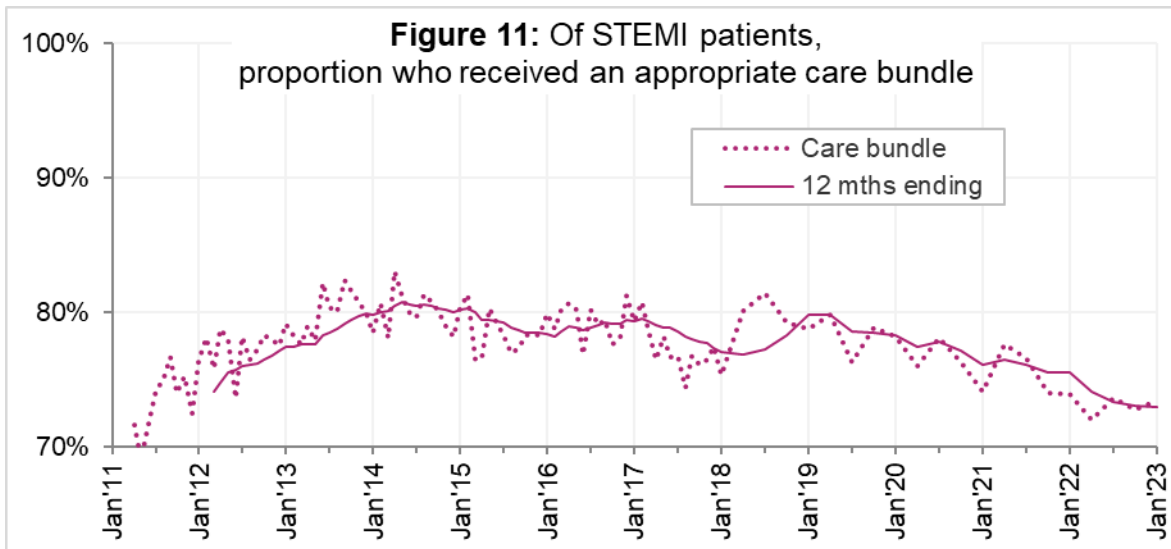
Of these, 884 (76%) received the appropriate care bundle, not significantly different to the year ending September 2022 (78%).



2.5 ST-segment elevation myocardial infarction (STEMI)

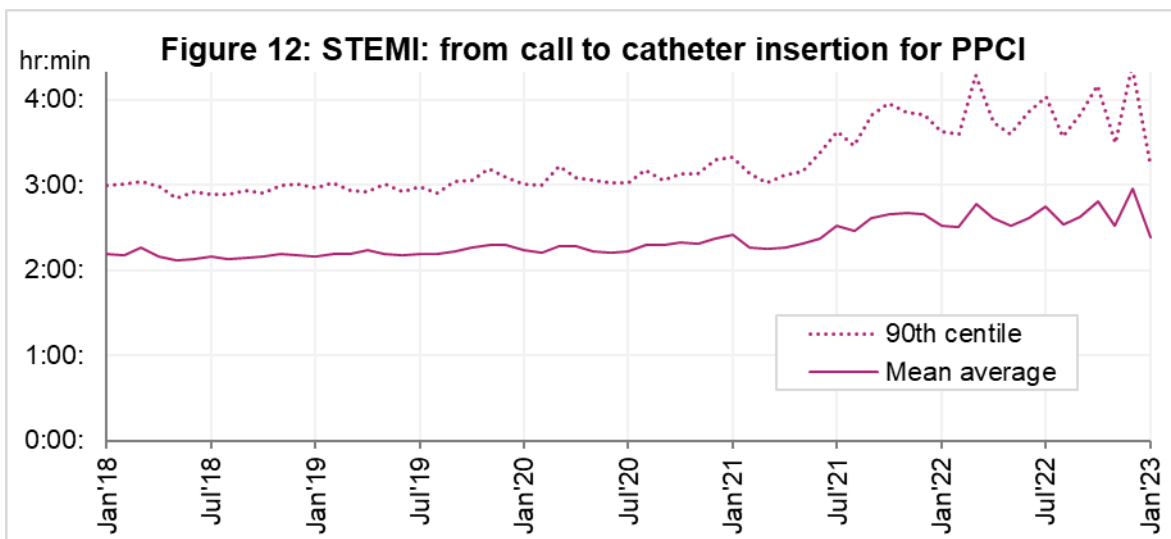
STEMI is a type of heart attack, determined by an electrocardiogram (ECG) test. Early access to reperfusion, where blocked arteries are opened to re-establish blood flow, and other assessment and care interventions, are associated with reductions in STEMI mortality and morbidity.

Of 1,692 patients with an acute STEMI in England in January 2023, 1,242 (73%) received an appropriate care bundle from the ambulance service (Figure 11), the same as for the year ending September 2022.



For STEMI patients, the Myocardial Ischaemia National Audit Project (MINAP) collects the time from ambulance call to insertion of a catheter for primary percutaneous coronary intervention (PPCI): inflation of a balloon inside a blood vessel to restore blood flow to the heart. (Figure 12)

In England in December 2022, the mean average time from 999 call to catheter insertion was 2 hours 57 minutes, and the 90th centile was 4 hours 23 minutes, both the highest since this collection began in November 2017. In January 2023, they decreased to 2:23 and 3:15, each the lowest for at least 18 months.



3. Further information on AQI

3.1 The AQI landing page and Quality Statement

www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators, or <http://bit.ly/NHSAQI>, is the AQI landing page, and it holds:

- a Quality Statement for these statistics, which includes information on relevance, accuracy, timeliness, coherence, and user engagement;
- the specification guidance documents for those who supply the data;
- timetables for data collection and publication;
- time series spreadsheets and csv files from April 2011 up to the latest month;
- links to individual web pages for each financial year;
- contact details for the responsible statistician (also in section 3.5 below).

Publication dates are also at

www.gov.uk/government/statistics/announcements?keywords=ambulance.

The web pages for each financial year hold:

- separate spreadsheets of each month's data;
- this Statistical Note, and equivalent versions from previous months;
- the list of people with pre-release access to the data.

3.2 AQI Scope

The AQI include calls made by dialling either the usual UK-wide number 999 or its international equivalent 112. As described in the specification guidance in section 3.1, incidents resulting from a call to NHS 111 are included in all the AQI, except the counts of 999 calls (indicators A1, A124, and A125) and answer times (A1 to A6 and A114).

3.3 Related statistics

NHS England publishes ambulance handover delays at hospital during winter 2012-13 to 2014-15 and winter 2017-18 to 2022-23 at

www.england.nhs.uk/statistics/statistical-work-areas/winter-daily-sitreps.

The Quality Statement described in section 3.1 includes information on:

- the “Ambulance Services” publications by NHS Digital <https://digital.nhs.uk/data-and-information/publications/statistical/ambulance-services>, with data from before 2000, to 2014-15;
- a dashboard with an alternative layout for AQI data up to April 2016;
- the comparability of data for other countries of the UK:

Wales: <https://easc.nhs.wales/asi>

Scotland: See Quality Improvement Indicators (QII) documents at www.scottishambulance.com/TheService/BoardPapers.aspx

Northern Ireland: www.health-ni.gov.uk/articles/emergency-care-and-ambulance-statistics



3.4 Centiles

The centile data for England in this document, also published in spreadsheets alongside this document, are not precise centiles calculated from national record-level data. Instead, they are the centiles calculated from each individual trust's record-level data, weighted by their incident count, and averaged across England. So, if England only had two trusts, with centiles of 7:10 and 7:40, and the former had twice as many incidents as the latter, the England centile would be 7:20.

3.5 Contact information

Media: NHS England Media team, nhsengland.media@nhs.net, 0113 825 0958.

The person responsible for producing this publication is Ian Kay, Performance Analysis Team, Transformation Directorate, NHS England, 0113 825 4606, england.nhsdata@nhs.net.

3.6 National Statistics

The UK Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.