Statistical Note: Ambulance Quality Indicators (AQI)

In October 2021, the Ambulance Services of England answered more 999 calls, and more calls per day, than any other month. For all categories C1-C4, response times in October 2021 were all the longest since the categories were introduced in 2017.

Of patients with suspected sepsis transported by ambulances in England in June 2021, the proportion receiving the appropriate care bundle was similar to the proportion for the previous year.

1. Ambulance Systems Indicators

1.1 Response times

In October 2021, the England mean average response time for Category C1, the most urgent incidents, was 9:20, and the C1 90th centile was 16:23, so neither the 7-minute mean nor the 15-minute 90th centile standards\(^1\) were met.

For C1T (response times for arrival of transporting vehicle, for C1 patients transported), the mean was 11:57, and the 90th centile was 21:46 (Figure 1).

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For C2 in England (Figure 2), the average response time in October 2021 was 53:54, and the 90th centile was 1:56:13, so the 18- and 40-minute standards were not met.

![Figure 2: C2 response times, England](image)

For C3 (Figure 3), the mean average response time was 3:09:58. The 90th centile was 7:47:15, so the two-hour standard was not met.

![Figure 3: C3 response times, England](image)
C4 information for North West Ambulance Service (NWAS) is unavailable after May 2021. The dark lines in Figure 4, for England excluding NWAS, show the C4 mean (3:37:00) and C4 90th centile (8:01:16) in October 2021 were more than in all previous months. The pale line shows February and March were the only months of 2021 where the C4 standard of 3 hours was met for all England.

1.2 Other Systems Indicators and revisions
In October 2021, per day, there were (Figure 5):

- 32.7 thousand calls to 999 answered, 3.5% more than in September 2021;
- 24.1 thousand incidents that received a response (whether on the telephone or on the scene) from an ambulance service, 0.6% less than in September;
- 12.4 thousand incidents where a patient was conveyed to an Emergency Department (ED), 0.04% more than in September.
Figure 6 shows that in October 2021, the proportion of incidents resolved at the scene (See & Treat) was 31.5%, slightly less than in September (31.9%). Other proportions changed even less, with 12.3% resolved on the telephone (Hear & Treat) in October, 51.4% with conveyance to ED, and 4.8% with conveyance to non-ED.

2. Ambulance Clinical Outcomes (AmbCO)

We continue to collect and publish data for the sepsis care bundle once every three months, and in those months, we will summarise those data in this Statistical Note.

2.1 Sepsis

Sepsis is a time-critical condition. Early recognition and management of sepsis in the pre-hospital setting can reduce mortality and improve the health and well-being of patients. Making a diagnosis quickly and ensuring early transport of a patient to an appropriate Emergency Department capable of providing further tests, treatment, and care (including appropriate antibiotics for those who are eligible) represents a standard of ambulance care.

In June 2021, of patients with suspected sepsis and a NEWS2 (National Early Warning Score 2) of 7 or more, the proportion who received the sepsis care bundle was 82.4% (Figure 7), which was not significantly different (Student’s t-test with 95% significance) to the 2020-21 average of 83.0%.
As stated in our 9 September 2021 Statistical Note, when we published AmbCO revisions, only London and South East Coast Ambulance Services revised their sepsis data. For ambulance patients with sepsis for England as a whole, the revisions to the proportion who received the care bundle were all less than 0.1%, so they would be imperceptible in Figure 7.

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 mentioned in section 3.1, incidents resulting from a call to NHS 111 are included in all Systems Indicators the except the call indicators, A1 to A6 and A114.

3.3 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.

3.4 Related statistics

The Quality Statement described in section 3.1 includes information on:

- a dashboard with an alternative layout for AQI data up to April 2016;
- the comparability of data for other countries of the UK:


3.5 Contact information

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

The person responsible for producing this publication is Ian Kay; Performance Analysis Team; Finance, Performance and Planning Directorate; NHS England and NHS Improvement (NHSEI); england.nhsdata@nhs.net; 0113 825 4606.

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.