

## Statistical Note: Ambulance Quality Indicators (AQI)

In January 2020, two of the six ambulance response standards in the Handbook<sup>1</sup> to the NHS constitution were met, the C1 and C4 90th centiles.

For England as a whole, for each category, response times in January 2020 were shorter than in each of the previous four months.

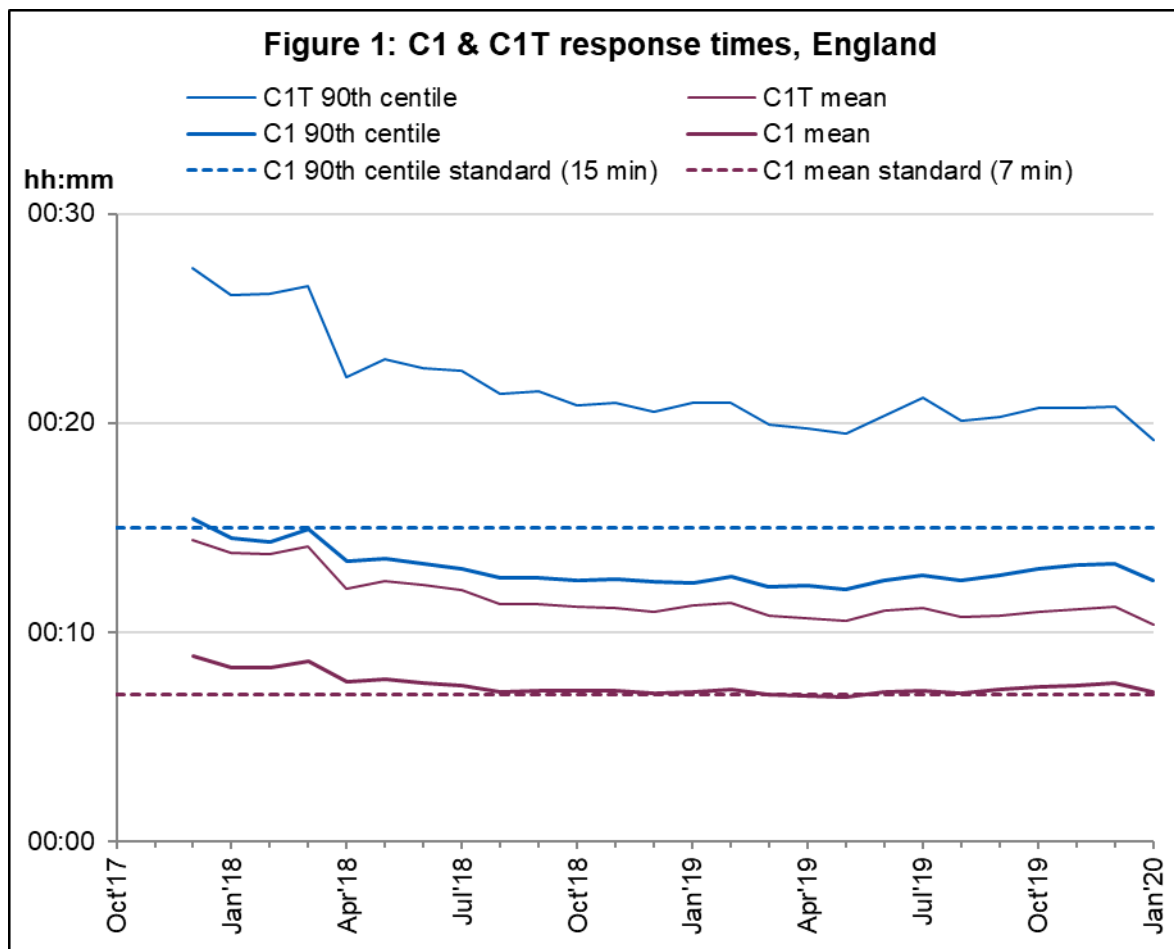
### 1. Systems Indicators

#### 1.1 Response times

The mean average C1 response time across England was 7 minutes 8 seconds in January, more than the standard of 7 minutes.

The C1 90th centile response times averaged 12:30 across England in January which, as in all the months of 2018 and 2019, was less than standard of 15 minutes.

For C1T (arrival of transporting vehicle, for C1 patients transported) the mean and 90th centile response times were 10:21 and 19:12 respectively.

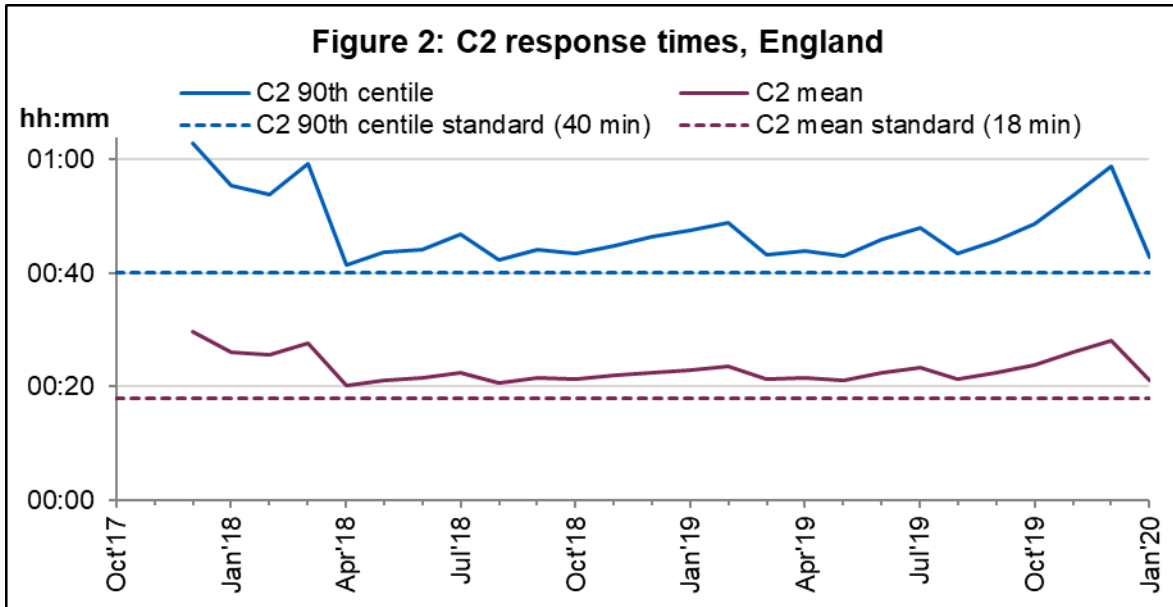


<sup>1</sup> Ambulance standards are in the Handbook to the NHS Constitution: [www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england](http://www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england)

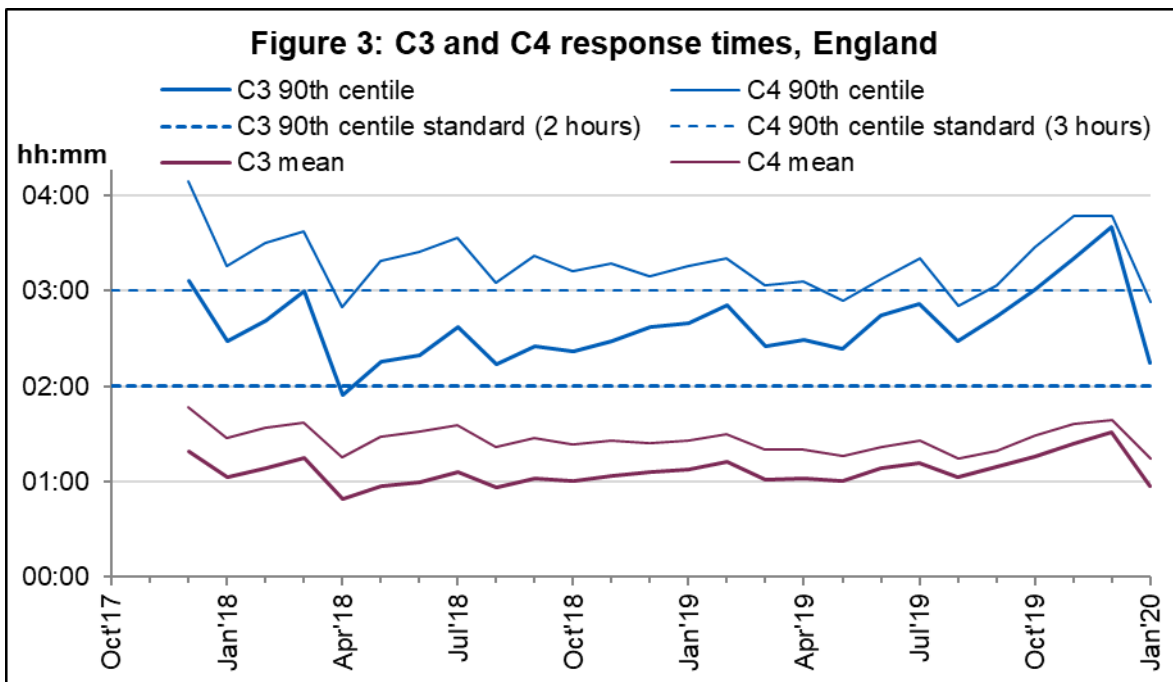
For C2, C3, and C4, the mean and 90th centile response times for England in January 2020 were all at least 20% less than in December 2019.

The mean average response time for all C2 incidents, in January 2020, for England, was 21:05, more than the standard of 18 minutes but, compared with December (28:08), a decrease of more than seven minutes (Figure 2, purple lines).

The C2 90th centiles averaged 42:55 across England, also more than the standard (40 minutes), but still a decrease of more than 16 minutes on December.



In January 2020, across England, the 90th centile times for C3 averaged 2:14:31, more than the standard of 2 hours, but the shortest since August 2018. The 90th centile times for C4 averaged 2:52:43, meeting the standard of three hours, for only the fourth time since the category was in use across England (Figure 3, blue lines).

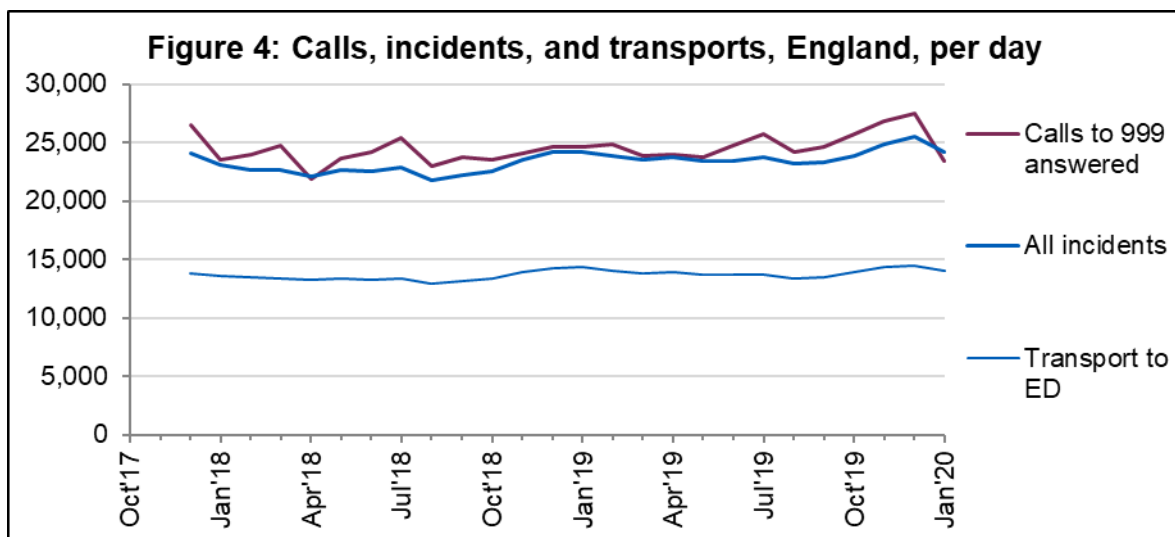


## 1.2 Other Systems Indicators

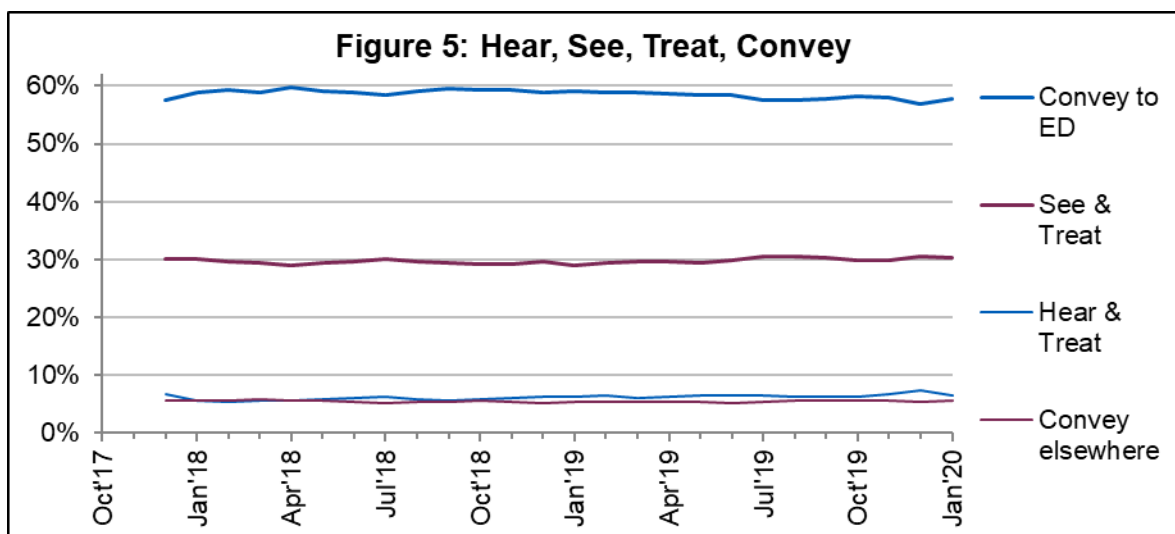
Across England, the mean average call answer time in January 2020 was 4 seconds. This mean time, and the 95th (14 seconds) and 99th (63 seconds) centile times, were all the shortest since these measures were introduced in autumn 2017.

Per day, there were (Figure 4):

- 23.4 thousand calls to 999 answered in January, a 15.1% decrease on December;
- 24.2 thousand incidents that received a response (whether on the telephone or on the scene) from an ambulance service in January, 5.1% fewer than December;
- 14.0 thousand incidents where a patient was transported to an Emergency Department (ED) in January, 3.5% fewer than in December.



Incidents in January 2020 (Figure 5) comprised 57.7% where a patient was transported to an Emergency Department (ED), 5.6% with a patient transported elsewhere, 30.2% with a patient attended but not transported (see and treat), and 6.5% resolved on the telephone (hear and treat). All these proportions were within 0.2 percentage points of the averages for 2019/20 so far.



## 2. Clinical Outcomes

We continue to publish Clinical Outcomes data in spreadsheets each month; and discuss data for each topic area in the month when we publish new bundle data for that topic.

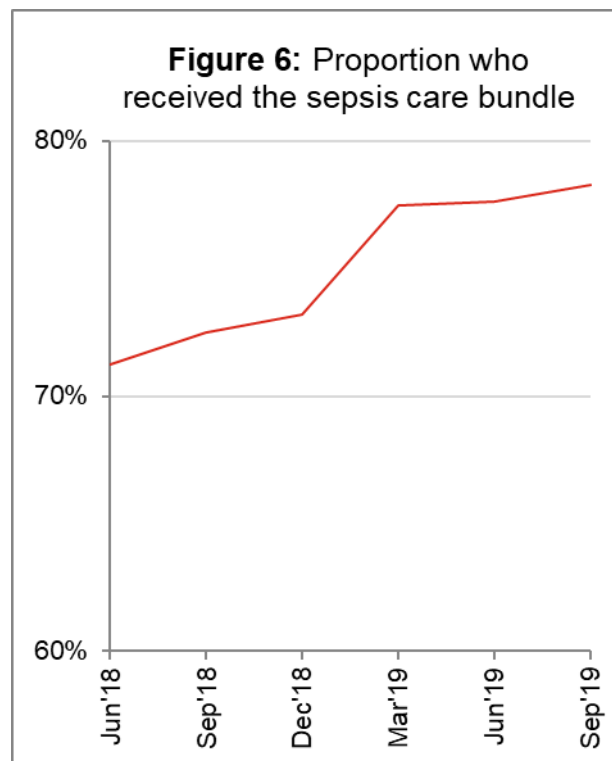
However, besides the latest sepsis data, today we will also describe the stroke data that we were unable to cover in the 9 January AQI statistical note, due to the delay in the delivery caused by the Christmas holiday period.

### 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 September 2019, 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 78.3% (Figure 6), a significant<sup>2</sup> increase on the average for twelve months ending in September 2019 (76.5%).



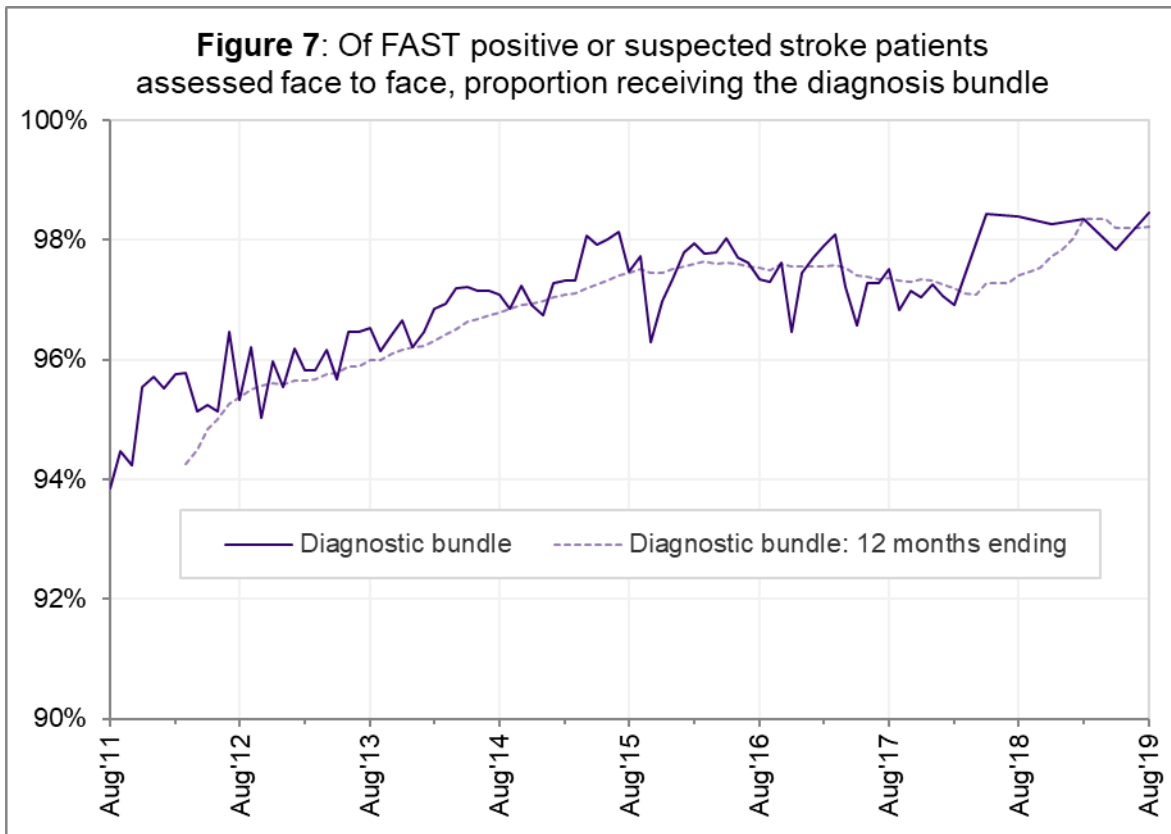
### 2.2 Stroke

The FAST procedure helps assess whether someone has suffered a stroke:

- Facial weakness: can the person smile? Has their mouth or eye drooped?
- Arm weakness: can the person raise both arms?
- Speech problems: can the person speak clearly and understand what you say?
- Time to call 999 for an ambulance if you spot any one of these signs.

Of stroke patients in England assessed face-to-face, the latest bundle data available, for August 2019, shows the proportion that received an appropriate diagnostic bundle was 98.5% (Figure 7), similar to the average for 2018-19 (98.4%).

<sup>2</sup> Calculated using Student's t-test with 95% significance.



As described in the [AQI statistical note](#) on 12 September 2019, for April 2019 data onwards, the patient counts and times from call to hospital arrival after a stroke are now supplied at record-level by ambulance services to the Sentinel Stroke National Audit Project (SSNAP) at King's College London, who then provide the times in aggregate form to NHS England, on a monthly basis.

For stroke patients transported by ambulance services in England in September 2019, the mean average time from call until arrival at hospital was 1 hour 22 minutes. The mean, median, and 90th centile were all within one minute of their respective averages for April to September 2019.

For time from arrival at hospital until CT scan in September 2019, the mean average was 1:21, and the mean, median, and 90th centile were also similar to the averages for April to September 2019.

For time from arrival at hospital until thrombolysis in September 2019, the mean and median were again similar to the averages for April to September 2019, but the 90th centiles averaged 1:30, the shortest for over twelve 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](http://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 3.4 below).

Publication dates are also at

[www.gov.uk/government/statistics/announcements?keywords=ambulance](http://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 Related statistics

Ambulance handover delays of over 30 minutes at each Emergency Department are published by NHSEI during winter 2012-13, 2013-14, 2014-15, 2017-18, 2018-19, and 2019-20, at [www.england.nhs.uk/statistics/statistical-work-areas/winter-daily-sitreps](http://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<sup>3</sup> by NHS Digital, 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://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Performance/Ambulance-Services>

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

Northern Ireland: [www.health-ni.gov.uk/articles/emergency-care-and-ambulance-statistics](http://www.health-ni.gov.uk/articles/emergency-care-and-ambulance-statistics)

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<sup>3</sup> <https://digital.nhs.uk/data-and-information/publications/statistical/ambulance-services>



### 3.3 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 call data items, A1 to A6.

### 3.4 Contact information

Media: NHSEI Media team, [nhsengland.media@nhs.net](mailto:nhsengland.media@nhs.net), 0113 825 0958.

The team responsible for producing this publication is Ian Kay; Finance, Performance and Planning Directorate; NHS England and NHS Improvement; [england.nhsdata@nhs.net](mailto:england.nhsdata@nhs.net); 0113 825 4606.

### 3.5 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.