Ambulance Quality Indicators: Quality Statement, April 2015

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1. Introduction


1.1 Contact information

We welcome feedback on the AQI, and this Statement, to:

Ian Kay, Analytical Services (Operations), NHS England, 5E24 Quarry House, Leeds LS2 7UE; 0113 824 9411; i.kay@nhs.net.

2. Relevance

2.1 Purpose

The purposes of the AQI are for;

- Ambulance Services to manage the service they provide;
- NHS England to monitor the service, and respond to enquiries from the media and the public;
- Department of Health (DH) to brief ministers on performance and account to Parliament;
- Parliament, the media and the public to hold the public service organisations to account;
- Clinical Commissioning Groups to commission services.

The 26 March 2013 Handbook¹ to the NHS Constitution lists pledges on waiting times, and one bullet on page 30 relates to two of the AQI:

- “all ambulance trusts to respond to 75 per cent of Category A calls within eight minutes and to respond to 95 per cent of Category A calls within 19 minutes of a request being made for a fully equipped ambulance vehicle (car or ambulance) able to transport the patient in a clinically safe manner.”

¹ Handbook: www.nhs.uk/choiceintheNHS/Rightsandpledges/NHSConstitution/Pages/Overview.aspx
2.2 Specification

The specification² for the AQI was developed by Professor Matthew Cooke, the National Clinical Director for Emergency Care, and Peter Bradley, the National Ambulance Director. The data collection was welcomed by the National Audit Office and the College of Emergency Medicine.³

One objective was the requirement in the Department of Health NHS Outcomes Framework⁴ for clinical outcomes that matter most to people, and not just process targets.

NHS England maintains the specification for the data that Ambulance Services collect, based upon user requirements and discussion with data providers. Provider groups include the National Ambulance Information Group (NAIG) for Ambulance Systems Indicators (SI) data; and the National Ambulance Service Clinical Quality Group (NASCQG) for Clinical Outcomes (CO) data.

NAIG and NASCQG represent the eleven Ambulance Services in England who provide and use the data.

Operational changes can affect the specification. For example, in June 2012, Ambulance calls in Category A were split⁵ between the new definitions of Red 1 and Red 2. Therefore, we agreed a new data specification, informed by advice from NAIG, and labelled the statistics to explain the change.

2.3 Users

We receive many enquiries from NHS England staff, including the Operations Directorate, Chief Executive’s Office, and Media Relations relaying questions from the media. We also receive many enquiries from DH including the Performance Insight Team (PIT), Urgent and Emergency Care Team, and Parliamentary Team relayed enquiries from Parliament. Our engagement plan is to continue to answer queries and discuss products with these staff, and to review our service to them annually.

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² The specification for the data that Ambulance Trusts provide is in the AQI Guidance v1.31 at www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators.


⁵ Red 1 calls are the most time critical, and cover cardiac arrest patients who are not breathing and do not have a pulse, and other severe conditions such as airway obstruction. Red 2 calls are serious, but less immediately time critical, and cover conditions such as stroke and fits. www.gov.uk/government/news/changes-to-ambulance-response-time-categories
Requests from the above contacts in 2014 included:

- several parliamentary questions on ambulance response times;
- comparing how response times vary with call volumes;
- comparing, for 999 and 111 telephone calls, the proportions of emergency ambulance journeys that result in patient transportation to A&E, to check each telephone triage system works as it should;
- using counts of calls presented to switchboard to allocate some 2014/15 operational resilience funding to Ambulance Services.

Less frequently, we receive requests from other users. In the first half of 2014 we had enquiries from Clinical Commissioning Groups, students, academic institutions, Monitor, other government Departments, commercial organisations and the public.

We maintain a list of one-off requests from users in order to assess demand for new products or layouts.

We have registered with the Health Statistics User Group (HSUG) and StatsUserNet forums in order to post and respond to any discussions there regarding the AQI, and we will post a HSUG article to publicise the AQI.

We have announced the monthly publications from 4 July 2014 onwards on www.twitter.com, using the @NHSEnglandStats account, which had 636 followers as at 2 September 2014.

The AQI website received 1111 unique page views during June 2014.

2.4 Use of feedback

We encourage users to contact us with questions and feedback, and we are interested in how they use our data.

We improved the AQI commentary in January 2014, with the addition of more guidance, definitions, tables and graphs. We refined graphs in June 2014, following discussions with NHS England policy staff, and expanded the commentary in September 2014 using advice from the UK Statistics Authority.

During spring 2013, we considered collecting CO data after a seven month lag rather than four months, so that the data were more complete. However, we decided in July 2013 not to change, following feedback from users. The Association of Ambulance Chief Executives (AACE) said:

- “as a measure of quality, data that is 6 months old is not helpful.
- although data might be more complete, by taking the pressure off the hospitals to provide the data, we would be giving out the message that the importance of the information has diminished.
- many ambulance services have worked very hard to build up relationships with hospitals, and the increased time period would be seen as a backwards step.”
2.5 Other feedback received
The DH Urgent and Emergency Care Team told us:
- “Information from the Ambulance Quality Indicators (AQI) collection is used by the Department of Health to brief Ministers, answer Parliamentary Questions and provide responses to correspondence on the Category A response times, the number of emergency calls, the number of emergency responses and the number of emergency patient journeys, and how these have changed since the last year.”

North West Ambulance Service NHS Trust told us:
- “The Ambulance Quality Indicators (AQI) provide a regulatory check as the central mandated return for ambulance services. The information provides a high level benchmark of ambulance services for comparison. The development of the measures and supporting guidance have enabled Trusts to provide a patient centred holistic view of ambulance service provision.”

2.6 Statistical planning
The collection of ambulance quality indicators from the NHS is ‘licensed’ through a formal process operated by the Health and Social Care Information Centre (HSCIC) that assesses the reasons why such information needs to be collated centrally and the burden on the NHS of supplying the information. Licenses require ministerial approval. In addition, fundamental reviews of existing data collections have been carried out in recent years.

Within NHS England, planning is typically carried out across analytical services and directorates as a whole rather than limited to statistical functions. This is done on an ongoing basis, in response to emerging demands for information and analysis. Those demands can originate from within the organisation, from other health organisations or from external sources such as public debate. Such requests for new information and analysis need to be prioritised against existing work. Wider prioritisation exercises are often carried out as part of the annual business planning process or as part of strategic reviews.

NHS England seeks users’ views where any changes would have a material effect on existing statistical products.

3. Accuracy
The “Joint DH – NHS England Statement of Administrative Sources” at www.england.nhs.uk/statistics/code-compliance contains information on how we use the Administrative Sources for AQI.

The collection is intended to be a census of all activity, not a sample, so there should be no sampling error. However, as calls and responses are part of a stochastic process, the statistics are subject to random variation, both between Services and over time. There are also sources of non-sampling error.
3.1 Coverage error
The statistics do not include details of some emergency events, when the information has not been captured in administrative systems in time for it to be included in the publication.

This could be caused where time is required after emergency events for the details to be recorded in administrative systems. The timetable for the Systems Indicators (SI) data collection is quick, with Ambulance Services only having about three weeks after a month ends to supply total numbers of calls, incidents and responses.

This is why we give Services an opportunity to revise data every six months, to pick up any late reporting that was not available when they first submitted data. Section 7 contains more information about revisions.

3.2 Processing by Ambulance Services
Ambulance Services use two approved call prioritisation systems (the Medical Priority Dispatch System and NHS Pathways) to categorise category A (immediately life threatening) and other less serious incidents. These systems also generate the data required by the specification, so the burden upon Services of providing data is low.

Ambulance Service telephone operators who answer the calls ask a series of questions to ascertain the nature of the emergency, following a pre-agreed path depending on the input to the bespoke software, which classifies the category of the emergency. Processing (non-sampling) errors could occur where operators in the ambulance control centres incorrectly input data into their administrative system. Measurement errors could occur from operators who mis-interpret a response to a question or have different interpretations to the same question, thus leading to a mis-categorisation. To ensure this is reduced to a minimum, Ambulance Services have their own internal training and monitoring of actual calls, and act upon any mis-classification.

For Clinical Outcomes, each Ambulance Service has a different Patient Report Form to be completed by clinicians for each individual outcome; some use paper records, others wholly electronic, and the remainder use a mix of electronic and paper.

3.3 Validity: NHS England tasks to improve quality
We provide Ambulance Services with an Excel template that requires data suppliers to select their organisation and time period from drop-down lists, ensuring each Trust’s data reach the NHS England Unify2 data collection software in an identical format.

It would be possible to include numeric validation checks on whether the figures supplied in the template, are within a certain acceptable range. However, because Services vary so much in activity, from 460,000 Category A calls in London to 7,000 in the Isle of Wight in 2013-14, the acceptable ranges would be too wide to be useful.
Instead, we use validation spreadsheets each month that replicate data from previous months, or highlight data that are not similar to previous data from the same Trust. We maintain several contact details for suppliers, and ask them to check the data, which leads to them either confirming the results or sending corrected data in good time for publication. The Unify2 system is designed so that, when providers revise data, there is no ambiguity over which version of the data is correct.

We maintain contact with data suppliers, and continue to request more information about their collection and quality assurance processes. We have instigated the first in what we intend to be a series of visits to Services to gain deeper insight into their collection and assurance processes.

3.4 Evidence from Ambulance Services

Ambulance Services can be fined\(^6\) for failing to meet the standards in the Handbook to the NHS Constitution, creating an incentive to ensure reported performance is maintained. Part of our confidence in the reliability of the data, is due to the fact that, in at least one month in the first half of 2014, every single Ambulance Service reported that it had missed the 75% target for either Red 1 or Red 2. In addition, four Services reported they had missed the Red 2 target for 2013-14 as a whole.

The Association of Ambulance Chief Executives (AACE) told us they completed an informal internal audit in 2014. They found that Ambulance Services had a range of data quality measures in place, with a few examples of particularly good practice; no governance arrangements were found to be weak. They had no concerns over general misreporting although they did find that some AQI measures needed tighter definition in order to ensure consistent reporting. They plan to establish a small group of control managers and informatics staff to work on reaching a more consistent understanding in respect of those measures.

NASCQG organised a benchmarking day in 2014, where all Ambulance Services mapped and compared their CO data collection processes. NASCQG collated the information into a paper for the National Ambulance Services Medical Directors Group and for AACE. NASCQG are also developing a programme of peer-to-peer review, where Services visit each other to harmonise their data systems.

Further confidence in the data comes from Ambulance Services publishing their Board papers, including Integrated Performance reports. Board papers in autumn 2014 all contain data for these standards that match our publication:

<table>
<thead>
<tr>
<th>Region</th>
<th>URL</th>
</tr>
</thead>
</table>

3.5 Ambulance Services Quality Accounts

As the Department of Health requires for all providers,\(^7\) Ambulance Services compile Quality Accounts, including the information specified in the schedule to The National Health Service (Quality Accounts) Regulations 2010.\(^8\) They submit Accounts to the NHS Choices website by June 30, and make them publicly available:

<table>
<thead>
<tr>
<th>Region</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>North East</td>
<td><a href="http://www.neas.nhs.uk/about-us/how-we-are-doing.aspx">www.neas.nhs.uk/about-us/how-we-are-doing.aspx</a></td>
</tr>
<tr>
<td>North West</td>
<td><a href="http://www.nwas.nhs.uk/about-us/how-we-are-doing/delivering-quality/quality-account">www.nwas.nhs.uk/about-us/how-we-are-doing/delivering-quality/quality-account</a></td>
</tr>
<tr>
<td>Yorkshire</td>
<td><a href="http://www.yas.nhs.uk/Publications/Annual_Report.html">www.yas.nhs.uk/Publications/Annual_Report.html</a></td>
</tr>
<tr>
<td>West Midlands</td>
<td><a href="http://www.wmas.nhs.uk/Pages/QualityAccounts.aspx">www.wmas.nhs.uk/Pages/QualityAccounts.aspx</a></td>
</tr>
<tr>
<td>East of England</td>
<td><a href="http://www.nhs.uk/services/trusts/overview/defaultview.aspx?id=29234">www.nhs.uk/services/trusts/overview/defaultview.aspx?id=29234</a></td>
</tr>
<tr>
<td>London</td>
<td><a href="http://www.londonambulance.nhs.uk/about_us/publications.aspx">www.londonambulance.nhs.uk/about_us/publications.aspx</a></td>
</tr>
<tr>
<td>South East Coast</td>
<td><a href="http://www.secamb.nhs.uk/about_us/our_performance/quality_account.aspx">www.secamb.nhs.uk/about_us/our_performance/quality_account.aspx</a></td>
</tr>
<tr>
<td>South Central</td>
<td><a href="http://www.nhs.uk/Services/Trusts/Overview/DefaultView.aspx?id=29239">www.nhs.uk/Services/Trusts/Overview/DefaultView.aspx?id=29239</a></td>
</tr>
<tr>
<td>South West</td>
<td><a href="http://www.swast.nhs.uk/annual-reports-and-quality-accounts.htm">www.swast.nhs.uk/annual-reports-and-quality-accounts.htm</a></td>
</tr>
</tbody>
</table>

In 2013/14, Monitor requires the auditors of all Foundation Trusts (FTs) to undertake a review of the content contained within the quality report. The audit must report on whether there is evidence to suggest that they have not been reasonably stated in all material respects in accordance with the NHS Foundation Trust Annual Reporting Manual\(^9\) and the six dimensions of data quality set out in the Detailed Guidance for External Assurance on Quality Reports.

In 2013/14, for the five Ambulance Services that are FTs, Monitor requires the audit to include data for the 8 minute and 19 minute standards in the Handbook to the NHS Constitution. The Quality Accounts show that Price Waterhouse Coopers reviewed the North East and South West Ambulance Services, KPMG reviewed South Central, and Grant Thornton reviewed West Midlands and South East Coast Ambulance Services, and each auditor agreed there was no such evidence.

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\(^7\) www.nhs.uk/aboutNHSChoices/professionals/healthandcareprofessionals/quality-accounts/Pages/about-quality-accounts.aspx

\(^8\) NHS Quality Accounts regulations: www.legislation.gov.uk/uksi/2010/279/schedule/made

3.6 HSCIC Information Governance Toolkit (IGT)

Item 10 in the Quality Accounts schedule is a self-assessment against the IGT. The HSCIC publishes the results of these via “report of participating organisations' assessments" at https://nww.igt.hscic.gov.uk/Home.aspx.

The toolkit chiefly relates to Data Protection and Security, but one of the five sections concerns Clinical Information Assurance, and this section places four requirements upon Ambulance Trusts:

12-400 The Information Governance agenda is supported by adequate information quality and records management skills, knowledge and experience.
12-401 There is consistent and comprehensive use of the NHS Number in line with National Patient Safety Agency requirements.
12-402 Procedures are in place to ensure the accuracy of service user information on all systems and/or records that support the provision of care.
12-404 A multi-professional audit of clinical records across all specialties has been undertaken.

Trusts need to provide evidence against specific criteria to achieve each level within each requirement.

Example: Requirement 12-400 in Clinical Information section of HSCIC IGT

<table>
<thead>
<tr>
<th>Level</th>
<th>Requirement</th>
</tr>
</thead>
</table>
| Level 3 | Information quality and records management is effectively incorporated within the broader Information Governance (IG) work plan (see requirement 101). The IG forum or equivalent committee is routinely briefed on information quality and records management issues, reviews the assessment of the Information Quality and Records Management requirements and signs off the work done prior to formal approval and agrees any necessary improvement plans.  
(If Attainment Level 3 was achieved in any previous assessment.)  
Policy and law change over time and it is important that the people assigned responsibilities for information quality and records management remain updated and/or that the arrangements to access expertise are regularly reviewed. |
| Level 2 | Responsibilities for Information Quality and Records Management Assurance are identified in various staff roles co-ordinated by the lead managers / officers and include corporate responsibility at a senior management level.  
All staff assigned responsibility for Information Quality and Records Management Assurance have been appropriately trained to carry out their role. |
| Level 1 | The roles of Information Quality and Records Managers / Officers have been appropriately assigned.  
There are documented strategies for information quality and records management that identify the support necessary to ensure related work is appropriately carried out.  
The strategies, which form part of the broader Information Lifecycle Policy, have been approved by senior management, an appropriate committee or other established local governance process. |
| Level 0 | Insufficient evidence to attain Level 1. |

In January 2015, the latest HSCIC data showed that all Ambulance Services assessed themselves as Level 2 or 3 for every requirement in the toolkit, including all those in the Clinical Information section.
3.7 Distribution of Category A measures

In 2003, the Commission for Health Improvement\(^1\) described the fact that for some Ambulance Services, response times had an unlikely distribution, increasing to a sharp peak just before 8 minutes, and with very small counts of response times after 8 minutes, suggesting some misreporting of times by Ambulance Services.

Each Ambulance Service supplied NHS England with a one-off data submission for 2013-14, shown in Figures 1 and 2. We compared these with the regular data supplied for the AQI, and confirmed they were consistent. Figures 1 and 2 show that this is no longer a concern, because the distribution is now more normal, with no peak on 8 minutes. We will ask providers to annually refresh the data, to check that this remains true.

![Figure 1: Count of Red 1 emergency responses](image1)

![Figure 2: Count of Red 2 emergency responses](image2)

3.8 Evidence from other organisations

For non-Foundation Trusts (FT), the NHS Trust Development Authority (TDA) is responsible for providing assurance that Trusts have effective arrangements in place that enable them to record data accurately. We are in regular contact with the TDA in order to stay up to date with their findings on the six Ambulance Services that are not FTs.

\(^1\) Commission for Health Improvement report: [www.ncbi.nlm.nih.gov/pmc/articles/PMC2667302](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2667302).

Also Blastland, Michael; Dilnot, A. W. (2008). *The Tiger That Isn't*, Figure 8, page 95. ISBN 978-1-84668-1110, [http://books.google.co.uk/books?id=zaEZcQuKI70C](http://books.google.co.uk/books?id=zaEZcQuKI70C).
For FTs, Monitor ensures they are well-governed. It is the responsibility of each FT’s Board to put processes and structures in place to ensure its national data returns are accurate. If it came to light that data returns were not accurate, Monitor would consider whether the Trust is in breach of its licence, although Monitor does not have the mandate to audit FT performance data.

The Care Quality Commission (CQC) is responsible for inspecting all NHS Trusts, and in 2014 it published “A fresh start for the regulation of ambulance services”. 11

CQC use the AQIs on the NHS England website as intelligence when preparing for inspections, and would contact Ambulance Services to query any data that looked obviously wrong. CQC inspections of Ambulance Services, including Emergency Operations Centres, would investigate any concerns they had in CQC’s evidence base, and any concerns that came to light during an inspection. That could, but would not necessarily, include how the Ambulance Service records and stores data, and how data are reported to management and outside the Trust.

In order to keep up to date with CQC intelligence, we have signed up to their website facility that alerts us each time a new Ambulance Service inspection is published. This enabled us, for example, to examine the CQC report on South Central Ambulance Service published on 14 January 2015.

4. Timeliness

We publish Ambulance Systems Indicators (SI) for each complete month about five weeks after the month ends, at 9:30am on a pre-announced Thursday. Our Timetable on the AQI website itself (see Introduction) shows publication dates as far forward as August 2015. Publication dates are also on the National Statistics publication hub, 12 and in the NHS England 12 month statistical calendar. 13

We publish Clinical Outcomes (CO) data three months after SI data. This is because, for patients assisted by Ambulance Services, enough time must pass before assessing the condition of patients. Further time is then needed, for Services to collect and process outcome information from hospitals, before passing it on to us.

Section 2.4 Use of feedback describes how the timeliness for CO data was decided.

5. Accessibility

The AQI are accompanied by a Statistical Note to help interpret the data. To meet Public Data Principles, all data items are available in comma separated variable (csv) format as well as in spreadsheets.

This statement, the Statistical Notes, and data files, are all available free of charge via the AQI landing page at the start of this Quality Statement.

6. Coherence

6.1 HSCIC publication

HSCIC publishes similar data in its publication, Ambulance Services.14

Originally, this publication contained data from HSCIC’s annual KA34 data collection. The KA34 generally covered the same data items as the AQI System Indicators, along with some extra information on Category C calls, but without items on Clinical Outcomes. The KA34 ran from 2004/05 to 2012/13 inclusive.

Like our AQI, the HSCIC KA34 collected data direct from Ambulance Services, but data from the two collections did not always match. Services had several months to provide KA34 data, unlike the AQI, where Services submit data to us about three weeks after the end of each month. Also, the AQI include revisions described in Section 7 below, which did not feature in the KA34 collection.

The 2013 HSCIC publication includes both KA34 and AQI data, so comparisons can be made for 2011-12 and 2012-13 where the two collections overlap.

From 2014, the HSCIC publication uses the same Systems Indicators data as the AQI publication, but takes a more long-term view than the AQI monthly publication, with more detailed analysis on annual figures. We work closely with HSCIC so our publications remain consistent and complementary.

6.2 Historic weekly data

From 8 November 2010 to 29 May 2011, NHS England collected Weekly Situation Reports, including:

- Category A and Category B calls made to Ambulance Services in England;
- of those calls, how many were responded to within 8 minutes (category A) or 19 minutes (category B);
- the number of urgent and emergency journeys;
- instances of delayed handover to A&E staff.


14 [www.hscic.gov.uk/searchcatalogue?q="ambulance%20services"&topics=0%2fPatient+experience](http://www.hscic.gov.uk/searchcatalogue?q="ambulance%20services"&topics=0%2fPatient+experience)
6.3 AQI Dashboard

The AQI landing page also holds the AQI dashboard. This is a spreadsheet with identical data to the other spreadsheets on the AQI site, but with an alternative layout, an interactive map, and a facility for Ambulance Services to embed their own commentary on the latest performance in Portable Document Format (PDF) format. The following organisations place their own versions on their own websites:

<table>
<thead>
<tr>
<th>Region</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>North West</td>
<td><a href="http://www.nwas.nhs.uk/about-us/how-we-are-doing/delivering-quality/quality-indicators/quality-indicator-dashboard">www.nwas.nhs.uk/about-us/how-we-are-doing/delivering-quality/quality-indicators/quality-indicator-dashboard</a></td>
</tr>
<tr>
<td>Yorkshire</td>
<td><a href="http://www.yas.nhs.uk/Publications/Ambulance_Quality_Indicators.html">www.yas.nhs.uk/Publications/Ambulance_Quality_Indicators.html</a></td>
</tr>
<tr>
<td>East Midlands</td>
<td><a href="http://www.emas.nhs.uk/about-us/ambulance-quality-indicators">www.emas.nhs.uk/about-us/ambulance-quality-indicators</a></td>
</tr>
<tr>
<td>West Midlands</td>
<td><a href="http://www.wmas.nhs.uk/Pages/TrustPerformanceACQI.aspx">www.wmas.nhs.uk/Pages/TrustPerformanceACQI.aspx</a></td>
</tr>
<tr>
<td>London</td>
<td><a href="http://www.londonambulance.nhs.uk/about_us/how_we_are_doing/clinical_quality_indicators/clinical_dashboard.aspx">www.londonambulance.nhs.uk/about_us/how_we_are_doing/clinical_quality_indicators/clinical_dashboard.aspx</a></td>
</tr>
<tr>
<td>South East Coast</td>
<td><a href="http://www.secamb.nhs.uk/about_us/our_performance/clinical_quality/clinical_audit/ambulance_quality_indicators.aspx">www.secamb.nhs.uk/about_us/our_performance/clinical_quality/clinical_audit/ambulance_quality_indicators.aspx</a></td>
</tr>
<tr>
<td>South Central</td>
<td><a href="http://www.southcentralambulance.nhs.uk/our-services/performance_information/ambulanceclinicalqualityindicators.ashx">www.southcentralambulance.nhs.uk/our-services/performance_information/ambulanceclinicalqualityindicators.ashx</a></td>
</tr>
<tr>
<td>South West</td>
<td><a href="http://www.swast.nhs.uk/What%20We%20Do/How-we-are-doing.htm">www.swast.nhs.uk/What%20We%20Do/How-we-are-doing.htm</a></td>
</tr>
</tbody>
</table>

6.4 Other parts of the UK

We have contacted organisations that produce similar ambulance data in other countries of the UK, and who have agreed these brief descriptions of their data. The following links to websites for Wales, Scotland and Northern Ireland are also on the NHS England AQI website.

The Welsh Ambulance Services NHS Trust provides monthly data for Wales. Until July 2007, the data was collected quarterly on the KA34 Patient Transport Services return. The publication contains no Clinical Outcome (CO) data; it concentrates on the ambulance response to Category A calls within 8 minutes and other intervals, which are shown for smaller geographies than those in the AQI. http://wales.gov.uk/statistics-and-research/ambulance-services/?lang=en

Data for Scotland are published directly by the Scottish Ambulance Service. They include monthly Systems Indicators for areas of Scotland, and CO data for strokes and Return of Spontaneous Circulation. They are available in extensive Quality Improvement Indicators (QII) documents. www.scottishambulance.com/TheService/BoardPapers.aspx
The Northern Ireland Ambulance Service (NIAS) provides data on a monthly basis to the Department of Health, Social Services and Public Safety using the KA34 information return. The publication contains similar System Indicators to England, along with other statistics on Emergency Care Departments. These are detailed monthly and broken down by Local Commissioning Group (LCG) to help report against the Ministerial target on ambulance response times. www.dhsspsni.gov.uk/index/statistics/hospital/emergency-care/ambulance-statistics.htm

Using the Comparability Framework produced by the Government Statistical Service Comparability Task and Finish Group,15 Ambulance Statistics across the UK are in category D, partially comparable.

The counts of Category A calls can be compared, because the definition of Category A, as immediately life-threatening calls, is the same in England,16 Wales,17 Scotland,18 and Northern Ireland.19 However, even though all four countries measure the proportion of such calls that receive a response in 8 minutes, those proportions cannot be compared, because the clock start definitions differ, and England also splits Category A into Red 1 and Red 2.

**Category A emergency response clock start definitions before February 2015**

<table>
<thead>
<tr>
<th>England</th>
<th>Red 1</th>
<th>When the call starts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Red 2</td>
<td>Earliest of:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• chief complaint or Pathways initial Dx code information is obtained;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• first vehicle assigned;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 60 seconds after Call Connect.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wales</th>
<th>When the location of the incident is established</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Scotland</th>
<th>When the chief complaint is established</th>
</tr>
</thead>
</table>

| Northern Ireland | When these have been ascertained: caller’s telephone number, exact location of incident, and the nature of the chief complaint |


6.5 Specification changes
In January 2015, the Secretary of State for Health announced a pilot of possible changes to the way Ambulance Services respond to 999 calls, based on clinical advice that this will improve the chances of survival for patients. The effects were described in the 9 April 2015 AQI Statistical Note.

7. Revisions

7.1 Revisions Policy and practice
The AQI use the Unify revisions policy, which applies to all data collected by NHS England via the bespoke software of the Unify2 data collection system. This policy states that NHS England normally publishes revisions on a six-monthly basis, but changes this schedule when necessary.

Where an Ambulance Quality Indicators (AQI) publication contains revisions, we describe them in the Statistical Note accompanying that publication. For example, page 7 of the AQI Statistical Note on 5 September 2014 stated which Ambulance Services were affected by revisions to Clinical Outcomes (CO). Graphs showed how all eight CO indicators were affected at national level by revisions, and all revisions to individual months of more than one percentage point were listed.

7.2 Revisions schedule
When collecting AQI data for September or March, we request revisions from Ambulance Services for all the previous months in that financial year. So, for example, during October 2014, when we collected the Systems Indicators (SI) for September 2014, we also collected revisions to the SI data already published for April to August 2014 inclusive. We published these revisions on 6 November 2014.

Ambulance Services have told us that due to internal management demand for complete financial year data, they make greater efforts to be punctual when producing March SI data, so figures for March do not need revising.

Up until 2014, we used a similar timetable for CO revisions. So, for example, during July 2013, when we collected CO data for March 2013, we also collected revisions to the CO data already published for April 2012 to February 2013 inclusive, and published those revisions on 2 August 2013.

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20 www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2015-01-16/HCWS201

21 Unify revisions policy: www.england.nhs.uk/statistics/code-compliance/#Unifypolicy

7.3 Change to CO revisions schedule

In May 2014, data suppliers informed us about the Myocardial Ischaemia National Audit Project. This Project led to revisions to ST-elevation myocardial infarction CO data. The timetable for the Project meant that revised data from hospitals on the outcomes of such patients would reach Ambulance Services too late for our planned publication of revisions on 8 August 2014.

Therefore, we discussed the situation, via a facilitator in NASCQG, and agreed to accept the revisions during August rather than July. This meant that revisions were available to users at the earliest opportunity, on 5 September 2014, rather than the next six-monthly update in the schedule, 6 February 2015. We explained the change in our 8 August 2014 Statistical Note.

Later in 2014, we discussed with NASCQG how March CO data were never revised. For CO data, unlike with SI data, Ambulance Services do not have the extra internal demand to complete financial year data as soon as possible. March data is therefore subject to revisions just as much as any other month.

We therefore discussed and agreed with NASCQG that we would collect revisions one month later. Therefore, during each February in future, we will collect data for October alongside any revisions for April to September, and publish them in early March. And during each August in future, we will collect data for April alongside any revisions for March and other months of the previous financial year, and publish them in early September. We described this in our 8 January 2015 Statistical Note.

8. Privacy of individuals

For this publication, Ambulance Services purely provide us with counts each month for the appropriate categories, such as “All Red 1 calls resulting in an emergency response within 8 minutes”. We receive no identifying information such as names, addresses, dates, or demographics; so the privacy of individuals is protected.

9. Abbreviations

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
<th>Acronym</th>
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<tbody>
<tr>
<td>AQI</td>
<td>Ambulance Quality Indicators</td>
<td>IGT</td>
<td>Information Governance Toolkit</td>
</tr>
<tr>
<td>CO</td>
<td>Clinical Outcomes</td>
<td>NAIG</td>
<td>National Ambulance Information Group</td>
</tr>
<tr>
<td>CQC</td>
<td>Care Quality Commission</td>
<td>NASCQG</td>
<td>National Ambulance Service Clinical Quality Group</td>
</tr>
<tr>
<td>DH</td>
<td>Department of Health</td>
<td>SI</td>
<td>Systems Indicators</td>
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<tr>
<td>FT</td>
<td>Foundation Trust</td>
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<td>HSCIC</td>
<td>Health and Social Care Information Centre</td>
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