

2011 Inpatient Survey Redesign of the Benchmark Reports

The benchmark reports for the 2011 Inpatient Survey are a new style of report and replace the previous reports produced for the national surveys which contained scores out of 100. The data contained here uses the same scoring system as before but presents the data as a score out of 10. Data has been categorised differently, and therefore displays trusts' performance in a different way to the previous reports, using a more robust statistical technique called the 'expected range', rather than identifying the top and bottom 20% of trust scores.

We have designed the reports using feedback from people who use the data, so that as well as meeting their needs, it presents the groupings of the trust results in a simpler and fairer way, to show where we are more confident that a score is 'better' or 'worse'.

The following is provided to answer some of the queries you may have on the changes that have been made. A technical guidance document is also available on the CQC website which goes into further detail on the statistical techniques used to categorise trust scores, and can be found here:

www.cqc.org.uk/Inpatientsurvey2011

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Why have you made changes to the benchmark reports?

During 2011, survey leads at acute trusts were invited to take part in a survey about the reports published by CQC for the 2010 Inpatients Survey, which asked a number of questions about how they are used and what features are useful. We also took into account feedback received about the recent outpatients survey and feedback from a survey published on the CQC website, asking about the presentation of the outpatient survey data.

We received feedback that having two different ways of analysing and presenting the data¹ is confusing to some, and it can be unclear which data to use. In the old style of benchmark reports, it was also necessary to take into account the confidence interval surrounding the score to accurately understand how a trust is performing. Feedback also showed that some people found these confusing and often the confidence intervals were not used.

Based on the results of the survey we reviewed the outputs we produce. In late 2011 / early 2012, a consultation was undertaken with trust survey leads on the proposal for the redeveloped benchmark reports which aligned the analyses, and of those who responded, the majority were in favour of the proposed changes.

The advantages of the redeveloped benchmark reports are that:

- There are no longer two different ways of analysing and presenting the data.
- There are no 'confidence intervals' surrounding the score to take into account when interpreting the data.
- As the method of analysis is much more sophisticated, you can be very confident that if the score for your trust is showing in either the red or the green that your trust is performing better or worse than all other trusts.

What are the red, green and orange sections in the chart?

The red, green and orange sections in the chart display the expected range for a score for a trust. This is the range within which we would expect a particular trust to score if it performed about the same as most other trusts in the survey. The range takes into account the number of respondents from each trust as well as the scores for all other trusts, and allows us to identify which scores we can confidently say are 'better' or 'worse' than the majority of other trusts (see the technical guidance for more details, available from: www.cqc.org.uk/Inpatientsurvey2011 and sent to survey trust leads prior to publication).

PLEASE NOTE: The expected range is **uniquely calculated for each trust for each question** and these groupings are **not the same** as those used in the previous style of benchmark report, which showed the top 20% and bottom 20% of scores. These groupings are instead based on a statistical analysis involving the use of adjusted Z scores and winsorisation. More detail can be found in the technical guidance, available from the link above.

Why are there no national thresholds?

We have moved away from this as it is a far more simplistic way of analysing and presenting the data. As set out in the above detailing why these changes were made,

feedback suggested that having two different ways of analysing and presenting the data is confusing to some, and it can be unclear which data to use.

Why are there no confidence intervals surrounding the score?

As the 'expected range' calculation takes into account the number of respondents at each trust who answer a question, as well as the scores for all other trusts, it is not necessary to present confidence intervals around each score.

Why are the scores presented out of ten rather than 100?

The scores are presented out of ten to emphasise that they are scores and not percentages. Please remember that the scores **are exactly the same** as trusts have been provided with previously but have simply been divided by ten. What has changed is the method of analysis and presentation of the data in the benchmark reports. The scores are therefore also exactly the same as the scores that feed into indicators such as CQUIN.

How are the scores calculated?

The scoring system is exactly the same as has been used in previous years, and is described in the technical guidance available from the CQC website.

Why do most trusts appear to be performing 'about the same'?

The expected range is a conservative statistic. It accounts for the possibility that there is variation across trusts for other reasons, aside from differences in trust performance. There may be significant variation between trusts due to certain factors that are not within the trusts' control. The technique used takes this into account, and so if a trust is found to be performing 'better' or 'worse' compared with most other trusts that took part in the survey, you can be really very confident that this is the case and it is extremely unlikely to have occurred by chance.

How can I make comparisons to previous years data?

The purpose of the expected range is to arrive at a judgement of how a trust is performing compared with all other trusts that took part in the survey. To use the data in another way: to make comparisons to scores achieved in previous surveys, or between trusts, you will need to undertake an appropriate statistical test to ensure that any change is statistically significant. A statistically significant change means that you can be very confident that the change is real and not due to chance.

The survey leads at each trust have been provided with a document that compares their 2010 and the 2011 scores, called 'Trust code_ComparisonReport.xls'. This document includes the outcome of a statistical test, and identifies which differences across the two years are statistically significant. If you wish to look further back, at the differences across earlier surveys, we recommend that the same testing is applied.

A typical way to test for statistical significance is to use confidence intervals. The confidence interval surrounding your trusts score for previous surveys (2004-2009) will be in your previous trust benchmark reports, or can be provided to you by the surveys team. As these are presented out of 100, you will need to divide them by ten.

The guidance documents issued with previous benchmark reports have included the following advice on using confidence intervals to check for statistically significant differences across scores.

The reason for using confidence intervals is that since a score is based on a sample of patients in a trust rather than *all* patients, the score may not be exactly the same as if everyone had been surveyed and had responded. A confidence interval is calculated as an indication of the range within which the 'true' score would lie if all patients had been surveyed. The confidence interval gives upper and lower limits of a range within which you have a stated level of confidence that the 'true' average lies. These are commonly quoted as 95% confidence intervals, which is the level used in the benchmark reports. They are constructed so that you can be 95% certain that the 'true' average lies between these limits.

The width of the confidence interval gives some indication of how cautious we should be; a very wide interval may indicate that more data should be collected before any firm conclusions are made. The fewer the number of respondents that answer a question, the wider the confidence intervals will be. Conversely the greater the number of respondents that answer a question, the narrower the confidence intervals will be.

The confidence intervals make it possible to determine if two scores are significantly different. If the ranges for the two scores overlap then there is no significant difference: we cannot be confident that the difference in the average scores does not simply result from random variation. If there is **no overlap** in the two scores, then we can be confident that the results are genuinely different.

How do I know which category my trust's score is in if the diamond representing the score appears to be on the threshold in the benchmark charts?

In the new benchmark report design, it will not be as easy to determine which category a score lies in, if very close to the category threshold, compared with the previous layout. We will be working on a solution to this for the next survey reporting. The appropriate category will be identified by the roundel graphics that are displayed alongside the scores out of 10 on the CQC organisation search tool, following publication on 24th April 2012. However, for the time being, prior to the publication, you can identify which category your trusts score is in by referring to the excel file that was sent to the survey leads at your trust. This file is called 'Trust code_BetterSameWorse_Report.xls'.

How do I refer to these scores and categories when reporting on the results for my trust?

We have produced a brief guide on how to refer to the findings when disseminating the scored data. This was provided to survey leads prior to publication, and is available on request from the surveys team at: patient.survey@cqc.org.uk.

Further Questions

If you have any further questions please contact the surveys team at CQC:
[**patient.survey@cqc.org.uk**](mailto:patient.survey@cqc.org.uk)

CQC Surveys team
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