2012 Inpatient Survey
Benchmark Reports: Q&A

This document is provided to answer some of the questions you may have on the benchmark reports, and on the underlying data. 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/Inpatientsurvey2012

Questions and Answers

The Benchmark Reports

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

The coloured bars represent the full range of all trust scores, from the lowest score achieved by a trust to the highest. The orange section in the charts represents 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. If a score falls above or below the expected range it will be in the 'better' or 'worse' category, represented by green and red areas respectively. The calculation of the expected 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/Inpatientsurvey2012** and sent to survey trust leads prior to publication).

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?

Text to the right of the graphs clearly states if a trust score for a particular question, or section, is 'better' or 'worse' compared with most other trusts that took part in the survey. If there is no text present, the result is 'about the same'.

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.

About the Scores

Why are the scores presented out of ten?

The scores are presented out of ten to emphasise that they are scores and not percentages. The scores are therefore also exactly the same as the scores that feed into indicators such as CQUIN, though divided by ten.

How are the scores calculated?

For each question in the survey, the **(standardised)** individual responses are converted into scores on a scale of 0 to 10. A score of 10 represents the best possible response and a score of zero the worst. The higher the score for each question, the better the trust is performing. For more detailed information on the methodology, including the scores assigned to each question, please see the technical document.

About the Analysis

What is the 'expected range'?

The better / about the same / worse categories are based on a statistic called the 'expected' range that is calculated for each question for each 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 distribution of 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. Analysing the survey information in such a way allows for fairer conclusions to be made in terms of each trust's performance. This approach presents the findings in a way that takes account of all necessary factors, yet is presented in a simple manner.

It is the same analysis technique as applied to the risk ratings in the Quality and Risk Profiles, and is based on identifying outliers through the use of adjusted Z scores. More detail on this is available in the technical document.

Why are the percentage results for all trusts not provided?

The percentage data is provided to trusts for their own information only as it can only be used to understand the results for individual trusts.

It is not suitable to use to make comparisons between trusts because the results are not **standardised** meaning that differences in the profiles of respondents are not taken into account. Any differences across trusts that are shown in non-standardised data may be in part due to differences in the characteristics of respondents. We know that age, gender and route of admission are three such characteristics and so we adjust for this in the data to make fairer comparisons across trusts with differing population profiles.

A further advantage of using scored data is that it allows for all response options to be taken into account, rather than looking at just a subset of responses from the question. For example, if you look at the table below, from looking at the 'yes definitely' responses only, you would think that trust A and trust B are performing similarly. However, taking into account the other responses, it may be seen that trust B has the more positive result.

Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?

	Trust A	**Trust B**
Yes definitely	59%	59%
Yes to some extent	10%	39%
No	31%	2%

Scored, standardised data is therefore considered to be the fairest way to include survey data in the Commission's regulatory activities, as well as by the Department of Health for their measures and assessments.

In the past the percentage results or scores have been used to present data in a league table form, or to identify the 'best' or 'worse' trusts. Such use would be misleading and inaccurate, as the differences have not been tested for significance.

Why is the data standardised by the age, gender and method of admission of respondents?

The reason for 'standardising' data is that we know that the views of a respondent can reflect not only their experience of NHS services, but can also relate to certain demographic characteristics, such as their age, sex and method of admission (emergency or elective). For example, older respondents tend to report more positive experiences than younger respondents, and women tend to report less positive experiences than do men. Because the mix of patients varies across trusts (for example, one trust may serve a considerably older population than another), this could potentially lead to the results for a trust appearing better or worse than they would if they had a slightly different profile of patients. To account for this we 'standardise' the data. Standardising data adjusts for these differences and enables the results for trusts with different population profiles to be compared more fairly than could be achieved using non-standardised data.

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.

Understanding the Data

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.

Even though your trust may appear to be performing 'about the same' compared to most other trusts nationally, the results should still be useful to you locally, for example you may want to:

- Make comparisons to the results from previous surveys to look for questions where you have improved or declined.
- Identify particular areas you may wish to improve on ahead of the next survey
- Compare your results with those of other similar trusts.
- Look at your results by different patient groups to understand their different experiences, for example, by age, gender, ethnic group, etc.
- Undertake follow up activity with patients such as interviews, workshops or focus groups to get more in depth information into areas in which you would like to improve.

Please remember that for points 1-3 above, to do this accurately you should undertake an appropriate **significance test**.

The survey guidance manual provides more information on making use of survey data. The guidance manual is available on the NHS surveys website, please see the further information section.

Why does the number of trusts performing 'better' or 'worse' at each question vary?

It is important to be aware that the ranges of performance on different questions varies and this has an influence on how much a trust needs to differ from the average by, in order to be considered 'better' or 'worse' than the average. This means that the number of trusts to perform 'better' or 'worse' at each question will vary.

Is the lowest scoring trust the worst trust in the country, for each question? And likewise the highest scoring trust the best?

If a trust is in the 'better' or 'worst' category this mean that they are performing either better or worse compared with *most other trusts* that took part in the survey. However, a trust is not necessarily *the best*, or *the wors*t, and this could not be determined without undertaking an appropriate significance test.

If you took the scores and ordered them by size, you would most likely find that the highest and lowest ones would change if you ran the survey again. This is because the scores are estimates – we have only had questionnaires from some patients who had an inpatient stay during the sampling period, not all patients. If another sample of patients were surveyed, and you put the scores in order again, you would find that there would probably be a different trust at the top and at the bottom. By analysing the data the way we have, we can say which trusts are likely to always be above average and those that will always be below average, so they should be looked at as a group, rather than in order of scores. This is the fairest way to present the data as it means that individual trusts are not pulled out as the very 'best' or very 'worst', when that may not be the case and it may be that if all patients were surveyed, different trusts would be shown to be the very 'best' or 'worst'.

The score for one of my questions has gone up but is categorised as 'about the same' yet last year we were 'better'?

When looking at scores within a trust over time, it is important to be aware that they are relative to the performance of other trusts. If, for example, a trust was 'better' for one question, then 'about the same' the following year, it may not indicate an actual decrease in the performance of the trust, but instead may be due to an improvement in many other trusts' scores, leaving the trust to appear more 'average'. Hence it is more useful to look at actual changes in scores year to year.

We are categorised as 'about the same' for a question yet a trust with a slightly lower score than us is categorised as 'better'. Why is this?

The 'expected range' calculation takes into account the number of respondents from each trust as well as the distribution of 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. As set out above 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. It is likely that your trust came out as 'about the same' because your trust had fewer respondents to the question which creates a greater degree of uncertainty around the result. The trust with the lower score would likely have had more respondents to the question, and so their expected range would have been narrower.

How do I calculate an overall score for my trust?

It is also important to remember that there is no overall indicator or figure for 'patient user experience', so it is not accurate to say that a trust is the 'best in the country' or 'best in the region' *overall*. Adding up the number of 'better' and 'worse' categories to find out which trust did better or worse overall is misleading: we do not provide a single overall rating for each NHS trust as this would be too simplistic. The survey assesses a number of different aspects of patient experience (such as the hospital and ward, doctors, nurses, your care and treatment etc.) and trust performance varies across these different aspects. This means that it is not possible to compare the trusts overall. It is better to look at the trusts that are similar to yours, or particular trusts against which you want to compare yourself, and see how they perform across the particular aspects that are of interest to you.

Why do the results and / or number of respondents provided by CQC differ from those provided to me by our approved contractor?

CQC do not see the reports provided to you by your approved contractor and therefore cannot comment on these. You should raise any queries directly with your approved contractor. However, likely reasons for any discrepancies are:

- The approved contractor may have cleaned the data differently to CQC. In particular, CQC remove respondents from the base of a question that do not analyse the performance of a trust - we refer to these as 'non specific responses', such as 'don't know or can't remember'. A guide to data cleaning is available at: **http://www.nhssurveys.org/Filestore//Inpatient_2012/IP12_DataCleaningGuidance_AJS_v2.pdf**
- Trust level data published by CQC has been 'standardised' by age, gender and method of admission to enable fairer comparisons between the results of trusts which may have different population profiles. Approved Contractors may not have done this or may have applied a different standardisation. To be able to standardise the data, information is needed on age, gender and method of admission, if any of these pieces of information is missing, or not able to be determined, the respondent must be dropped from the analysis as it is not possible to apply a weight.
- CQC analyses trust level data by scoring (and standardising) the responses to each question. Each response option that evaluates performance is scored on a scale of 0-10. Approved Contractors may have analysed and / or scored the data in a different way.
- The Approved Contractor will not be able to make comparisons against all trusts that took part in the survey, only against those that commissioned them. Therefore any 'national' results they publish will not be based on all trusts and any thresholds they calculate may be different.

Comparing Results

Why is statistical significance relevant?

Survey scores are estimates – we have only received questionnaires from some patients who had an inpatient stay during the sampling period, not all patients, as some choose not to respond. If another sample of patients were surveyed, you may find the results would change slightly. This is why it is important to test results for statistical significance.

A statistically significant difference means that the change in the results is very unlikely to have occurred by chance. Without significance testing you cannot be sure that a difference between two results would still be different if you repeated the survey again. If a result is not significant then you cannot be sure of its accuracy. If a significant difference is present then it is likely that it is a true difference, and if the survey was repeated again that you would see the same outcome.

How can I make comparisons to previous years survey data, or to other trusts?

The purpose of the expected range is to arrive at a judgement of a 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 benchmark report for each trust includes a comparison to the 2011 survey scores and indicates whether the change is statistically significant. However, to compare back to earlier surveys (where possible) you would need to undertake a similar significance test.

For advice on making accurate comparisons you may like to speak to someone within your trust with statistical expertise, or your approved contractor (if used) should be able to advise on this. The guidance documents issued with previous benchmark reports included some advice on using confidence intervals to check for statistically significant differences across scores, see for example section four in the following document: **http://www.nhssurveys.org/Filestore/documents/IP10_Guide_to_benchmark_reports.pdf**

Which trusts are performing best / worst?

We have compiled a list of all trusts that performed ‘better’ or ‘worse’ when comparing data across all trusts, for each scored question in the survey which is available from the surveys team on request upon publication. This can be used to at a glance identify which trusts are in each group, rather than searching through each individual trust page or benchmark report. Please note the ‘interpretation’ information at the beginning of the document, which explains how the information should be most appropriately reported.

Why can’t I sort the scores for all trusts and rank the trusts in order of performance?

It is not appropriate to sort the scores:

1) Firstly, due to the analysis technique applied, where the number of respondents is taken into account, it is possible that one trust may score higher than another - though the higher scoring trust is classed as ‘about the same’ and the second, lower scoring, trust is put into the ‘better’ category. This may occur if the second trust has a considerably larger number of respondents, as it will be assumed that their score is more reliable, and hence more likely always to be high.

2) Secondly, the statistical technique does not measure how different individual trust scores are from one another (whether statistically significant), and so it would be too simple to attempt to sort by scores alone, without running more analysis on the data. The banding technique used is helpful in identifying which trusts are likely always to be in the ‘better’, ‘worse’, or ‘about the same’ category, no matter how many surveys are sent out.

Can I see results for my local hospital / ward / site?

The survey data is presented at trust level only. At present we are unable to provide data for individual hospitals for several reasons. Some sites may have too few patients to achieve sufficient numbers of respondents (we set the cut off limit of 30 respondents per organisation). Given that the survey is used by the Department of Health and others to measure trends over time, we are currently unable to change the sampling to accommodate this, without affecting the comparability across years. However, trusts are able to increase their sample size to enable this at a local level. Advice on how to do this is in the survey guidance manual.

Further information

The full national results are on the CQC website, together with an A to Z list to view the results for each trust (alongside the technical document outlining the methodology and the scoring applied to each question):
www.cqc.org.uk/Inpatientsurvey2012

The results for the adult inpatient surveys from 2002 to 2011 can be found at:
www.nhssurveys.org/surveys/292

Full details of the methodology of the survey can be found at:
www.nhssurveys.org/

More information on the programme of NHS patient surveys is available at:
www.cqc.org.uk/public/reports-surveys-and-reviews/surveys

More information on Quality and Risk Profiles (QRP) can be found at:
www.cqc.org.uk/organisations-we-regulate/registered-services/quality-and-risk-profiles-qrps

Further Questions

If you have any further questions please contact the surveys team at CQC:
patient.survey@cqc.org.uk

CQC Surveys team
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