Airedale NHS
NHS Foundation Trust

Report to:	Board of Directors				
Date of Meeting:	27th January 2016				
Report Title:	CQC National Maternity Survey 2015				
Status:	**For information**	**Discussion**	**Assurance**	**Approval**	**Regulatory requirement**
Mark relevant box with X	X	X			
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Executive Sponsor (presenting):	Rob Dearden, Director of Nursing				
Appendices (list if applicable):	Appendix 1: CQC National Maternity Survey 2015- Labour and Birth Survey Appendix 2: CQC National Maternity Survey 2015- Antenatal Survey Appendix 3: CQC FAQ Benchmarked Reports Appendix 4: CQC Technical Document				

Purpose of the Report

The reports presents numerical data for the CQC National Maternity Survey 2015 and provides a comparison of results between 2013 and 2015 surveys.
The report benchmarks ANHSFT's performance with other organisations providing maternity services in the region.
The survey is just one example of measuring patient experience for the Trust' maternity services.

Key points for information

- The Trust is performing 'about the same' for questions relating to 'staff' and 'care in hospital after birth.'
- The Trust is performing 'better' for questions relating to 'labour and birth'
- ANHSFT has significantly improved for three question areas- C10, C12 and D8
- ANHSFT has improved on scores for all questions except two. Of the two questions, one reports a decline in experience (D2) and one reports no change (D5)
- Regionally ANHSFT overall scores indicate the Trust is performing marginally above the regional average
- The action plan will be discussed and agreed with the Women's Integrated Governance Group and at all Clinical Team meetings, EAG and the Board in January 2016. It will also be taken to the Patient and Public Engagement and Experience Steering Group in January 2016.

Recommendations

The Board is asked to receive the report and note the actions identified for improvement.

Airedale NHS
NHS Foundation Trust

Care Quality Commission's 2015 National Maternity Survey
Board Report

About the 2015 survey

On 15 December 2015, the Care Quality Commission (CQC) published the results of the NHS National Maternity Survey. The survey team sampled over 20,000 women across 133 acute NHS Trusts in England. This paper summarises the results reported for Airedale NHS Foundation Trust (ANHSFT) for the 2015 survey where possible comparing them to those reported in the 2013 survey. It also provides a regional performance benchmarking the Trust's scores against those of other local organisations.

The purpose of the survey is to understand what patients think of the maternity services provided by the Trust. Additional questions were also asked of women who had accessed antenatal and postnatal care services in the Trust to explore the experience of services throughout the entire pregnancy. These additional surveys are optional with Trusts voluntarily providing sample data. The CQC advises to view these specific results for Antenatal and Postnatal Care with caution as the benchmarking analysis will only feature those Trusts who opted in to provide data and not all Trusts nationally.

The survey was undertaken between April and August 2015. The sample was drawn from women aged 16 years or older, who had given birth during February 2015. For Airedale 300 women were sent a postal questionnaire. 296 were eligible for the survey of which 129 returned a completed questionnaire. The Trust's overall response rate was 44% (compared to the national of 41%).

The survey results are divided into 3 parts:

- Labour and birth section which all 133 Trusts participated in (Published on the CQC website).
- Antenatal care and postnatal care sections -118 Trusts participated (not published on CQC website).

Interpreting the CQC survey results

For each of the survey questions individual responses were converted into scores on a scale of 0 to 10. A higher score is better as this reflects a more positive reported patient experience.

Each Trust is also assigned a category, to identify whether their score is 'better'- green, 'about the same'- orange, or 'worse'- red, than other Trusts that carried out the survey. This 'expected' range is calculated for each question for each Trust and analysing the survey information in this way allows for fairer conclusions to be made in terms of each Trusts performance.

The graphs in the CQC's report for ANHSFT display the range of scores for each question achieved by all trusts that took part in the survey from the lowest score achieved (left hand side in red) to the highest score achieved (right hand side in green or amber). In the graphs the bar is divided into three sections with ANHSFT's score represented by the black diamond:

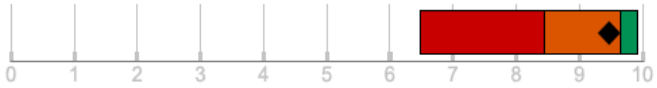
Key discussion points

We are able to compare the Trust's progress since 2013 in regards to all of the survey questions with the exception of four. This is either because the question is new or has been re-phrased and therefore is not directly comparable to previous data.

The CQC labour and birth section for ANHSFT reports an improved experience in respect of **all** questions except two. Of the two, one question reports a decline in experience and one question reports the same level of experience. Three questions show a statistically significant change, with scores improving from 2013.

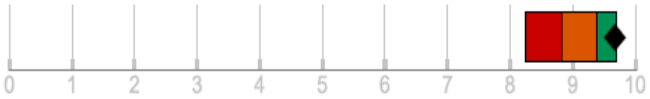
The Trust has **significantly improved** for the following three questions;

C10. Did you have skin to skin contact (baby naked, directly on your chest or tummy) with your baby shortly after the birth?



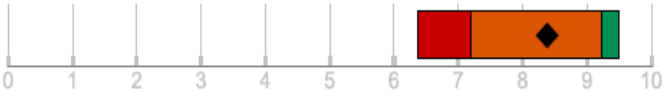
This score has increased from 8.5 out of 10 (2013) to 9.5 out of 10 (2015)

C12. Did the staff treating and examining you introduce themselves?



This score has increased from 9 out of 10 (2013) to 9.7 out of 10 (2015) and also benchmarks as 'better' compared to other Trusts.

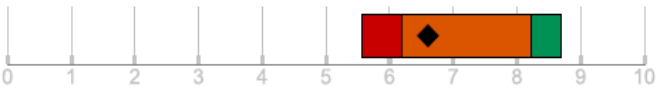
D8. Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?



The Trust has significantly improved the score for the above question, increasing from 7.8 out of 10 (2013) to 8.4 out of 10 (2015)

The question where patients report a **decline** in level of experience is as follows:

D2. Looking back, do you feel that the length of your stay in hospital after the birth was appropriate?



In 2013 the Trust scored 7.1 out of 10 but has fallen to 6.6 out of 10 for 2015.

ANTENATAL AND POSTNATAL SECTIONS

ANTENATAL

This was an optional report with the Trust submitting data voluntarily. The data from the survey section with regards to the antenatal care indicates that ANHSFT is performing **'about the same'** as other Trusts. All of the questions, except two, show an increase in patient satisfaction compared to 2013.

The report suggests a slight decrease in scores from 8.8 out of 10 to 8.6 out of 10 for the question regarding help from a midwife during pregnancy. There has been no movement in scores for involvement in antenatal care decision making with a score of 8.7 out of 10 for both 2013 and 2015 surveys.

The Trust's survey contractor, Picker, produced a report benchmarking ANHSFT with 64 other organisations who had commissioned Picker as their contract provider. Within this report Picker highlight that the Trust scored significantly worse than average (based on 64 organisations) for one question 'If you saw a midwife for your antenatal check-ups, did you see the same one most of the time?' The Trust score (78%) is worse than the Picker average (65%).

POSTNATAL CARE AT HOME

This was an optional report with the Trust submitting data voluntarily. This year the Trust has not received a CQC postnatal care report as less than 30 respondents surveyed received postnatal care from the Trust.

The Picker report (as outlined above) highlighted some areas for improvement for the Trust relating specifically to 'Feeding and Care at home'. Women reported a lower score for 'consistent advice about feeding and care at home' and 'not enough advice about emotional changes experienced after birth'.

The Lead Community Midwife attended a recent event hosted by Picker to look at specific areas for improvement and how to interpret the Picker reports. An action plan is currently being devised by and will start to be implemented by the end of January 2016.

Airedale NHS FT Performance 2013-2015

Survey Section	2013	2015
Labour and Birth		
C1 At the very start of your labour, did you feel that you were given appropriate advice and support when you contacted a midwife or the hospital?	8.2	9
C3 During your labour, were you able to move around and choose the position that made you most comfortable?	-	8.8
C10 Did you have skin to skin contact (baby naked, directly on your chest or tummy) with your baby shortly after the birth?	8.5	9.5 ⬆
C11 If your partner or someone else close to you was involved in your care during labour and birth, were they able to be involved as much as they wanted?	9.6	9.7
Staff		
C12 Did the staff treating and examining you introduce themselves?	9	9.7 ⬆
C13 Were you and/or your partner or a companion left alone by Midwives and doctors at a time when it worried you?	7.9	8
C14 If you raised a concern during labour and birth, did you feel that it was taken seriously?	8.1	8.4
C15 If you needed attention during labour and birth, were you able to get a member of staff to help you within a reasonable time?	-	9
C16 Thinking about your care during labour and birth, were you spoken to in a way that you could understand?	9.2	9.4
C17 Thinking about your care during labour and birth, were you Involved enough in decisions about your care?	8.2	8.9
C18 Thinking about your care during labour and birth, were you treated with respect and dignity?	9.3	9.5
C19 Did you have confidence and trust in the staff caring for you during your labour and birth?	8.9	9.1
Care in Hospital after Birth		
D2 Looking back, do you feel that the length of your stay in hospital after the birth was appropriate?	7.1	6.6
D3 If you needed attention while you were in hospital after the birth, were you able to get a member of staff to help you within a reasonable time?	-	7.5
D4 Thinking about your stay in hospital, after the birth of your baby, were you given the information or explanations you needed?	7	7.8
D5 Thinking about your stay in hospital, after the birth of your baby, were you treated with kindness and understanding?	8.2	8.2
D6 Thinking about your stay in hospital, if your partner or someone else close to you was involved in your care, were they able to stay with you as much as you wanted?	-	8.8
D7 Thinking about your stay in hospital, how clean was the hospital room or ward you were in?	8.5	8.9
D8 Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?	7.8	8.4 ⬆

Benchmarked against other Trusts in the Region

The following show the results of Airedale General Hospital compared to other local hospitals. They are scored out of ten with a higher score reflecting a more positive reported service user experience: - 'Better' in green, 'about the same' in orange and 'worse' in red.

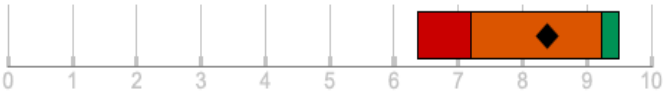
Questions in Section headings	**Highest Trust score achieved nationally**	**Airedale**	**Bradford**	**Leeds teaching hospitals**	**Calderdale & Huddersfield**	**Harrogate**	**York TH NHS FT**	**Lancashire teaching hospitals**
Labour and Birth	**9.4**	**9.2**	**8.7**	**9.1**	**9.1**	**9.2**	**8.7**	**8.7**
C1 advice and support	**9.6**	9	8.7	9	8.4	9.2	8.7	8.4
C3 labour position	**9.3**	8.8	7.8	8.3	8.8	8.7	7.4	8.5
C10 skin to skin contact	**9.9**	9.5	8.9	9.3	9.6	9.3	9.2	8.4
C11 partner Involvement	**10**	9.7	9.5	9.8	9.8	9.6	8.4	9.3
Staff	**9.3**	**9**	**8.6**	**8.9**	**8.9**	**9**	**8.6**	**8.6**
C12 Introduction	**9.7**	9.7	9.2	9.3	9.6	9.5	8.9	9.3
C13 left alone at a time of worry	**8.6**	8	6.9	7.7	8.1	7.9	7.4	7
C14 concern during labour	**9.3**	8.4	8.1	8.3	8.3	8.8	8	7.8
C15 attention and time	**9.5**	9	8.5	8.7	8.9	9	8.8	8.8
C16 understanding	**9.7**	9.4	9.5	9.5	9.4	9.7	9.4	9.5
C17 decision making	**9.3**	8.9	8.5	8.7	8.6	8.8	8.4	8.5
C18 respect and dignity	**9.7**	9.5	9.2	9.4	9.3	9.4	9.1	9.3
C19 confidence in staff	**9.5**	9.1	8.8	9.1	9.2	9	8.8	9
Care in hospital after the birth	**8.9**	**8**	**7.6**	**7.5**	**7.8**	**8.6**	**7.8**	**7.8**
D2 length of stay	**8.7**	6.6	6.9	6.7	7.2	7.8	7.1	7.2
D3 attention and time	**8.7**	7.5	6.6	7.2	7.4	8.1	7.6	7.4
D4 information or explanations?	**8.6**	7.8	7.8	7.8	7.8	8.2	7.7	8
D5 kindness and understanding?	**9.2**	8.2	8.3	8.3	8.5	8.6	8.3	8.5
D6 partner involvement	**9.6**	8.8	8.4	5.6	6.2	8.8	6.1	5.9
D7 cleanliness of room	**9.5**	8.9	7.7	8.7	8.7	9.3	9.2	9
D8 cleanliness of bathrooms	**9.5**	8.4	7.4	8	8.6	9	8.6	8.3

Action Plan for 2016

Although Airedale maternity services are performing 'about the same' as other Trusts and in some cases 'better', there are some areas where the patient experience could be improved. As a result of the findings a detailed action plan to address those areas will be developed.

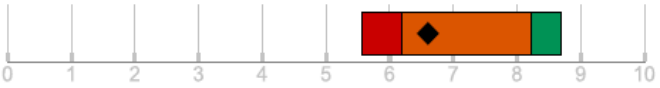
The action plan will be discussed and agreed with the Women's Integrated Governance Group and at all Clinical Team meetings, EAG and the Board in January 2016.

D8. Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?



	Action required and timescale	**Lead responsibility**	**Date completed**
Continue to perform well and move from orange to green section	Initial scoping to update bathroom areas in certain areas of W&C services.	Estates Team	Ongoing

D2. Looking back, do you feel that the length of your stay in hospital after the birth was appropriate?



	Action required and timescale	**Lead responsibility**	**Date completed**
To improve patient satisfaction for women reporting a decline in experience for length of stay after birth.	Plans to open 'Discharge Lounge' for women to go to after birth and if bed is required. Suitable furniture will be sourced for comfort and curtained areas for privacy and dignity. Staff will be available to offer support to patients.	Mary Armitage and Estates Team	Ongoing

ANTENATAL REPORT- Seeing the same midwife	**Action required and timescale**	**Lead responsibility**	**Date completed**
To ensure continuity of care for women at antenatal appointments	Mapping exercise to review level of labour ward staff to reduce requirement to float community staff to labour ward in times of pressure. This will allow for better continuity of care for women in community settings	Mary Armitage	Ongoing

Ongoing performance monitoring of this action plan will be reported via the Women's and Children's Integrated Governance Group (WIGG) and the Patient and Public Engagement and Experience Steering Group (PPEE).

Maternity care pathway reports: antenatal care

Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

The national survey of women's experiences of maternity services 2015 was designed, developed and co-ordinated by the Co-ordination Centre for the NHS Patient Survey Programme at Picker Institute Europe.

National NHS patient survey programme

Survey of women's experiences of maternity services 2015

CQC Maternity care pathway reports: antenatal care

The Care Quality Commission is the independent regulator of health and adult social care in England.

Our purpose:
We make sure health and social care services provide people with safe, effective, compassionate, high-quality care and we encourage care services to improve.

Our role:
We monitor, inspect and regulate services to make sure they meet fundamental standards of quality and safety and we publish what we find, including performance ratings to help people choose care.

Survey of women's experiences of maternity services 2015

To improve the quality of services that the NHS delivers, it is important to understand what service users think about their care and treatment. One way of doing this is by asking people who have recently used their local health services to tell us about their experiences. Information drawn from the questions in the maternity survey will be considered by the Care Quality Commission (CQC) as part of its Hospital Intelligent Monitoring. NHS England will use the results to check progress and improvement against the objectives set out in the NHS mandate, and the Department of Health will hold them to account for the outcomes they achieve. The Trust Development Authority will use the results to inform the quality and governance assessment as part of their Oversight Model for NHS Trusts.

The 2015 survey of women's experiences of maternity services involved 133 NHS acute trusts in England. We received responses from more than 20,000 service users, a response rate of 41%. Women were eligible for the survey if they had a live birth during February 2015, were aged 16 years or older, gave birth in a hospital, birth centre, maternity unit, or who had a home birth[1]. NHS trusts in England took part in the survey if they had a sufficient number of eligible women that give birth at their NHS trust during the sampling time frame.

Similar surveys of maternity services were carried out in 2007, 2010 and 2013. They are part of a wider programme of NHS patient surveys which covers a range of topics including acute inpatient, outpatient, and A&E services, ambulances, and community mental health services. To find out more about our programme and the results from previous surveys, please see the links in the Further Information section.

This report contains the benchmarked results for the antenatal care section of the questionnaire[2]. When answering questions in the survey about labour and birth, we can be confident that in all cases women were referring to the acute trust from which they were sampled. It is therefore possible to compare the results for labour and birth across all 133 NHS trusts that took part in the survey. The survey also asked women about their experiences of antenatal and postnatal care, to cover the entire pregnancy and birth for completeness. However, some women who gave birth at an acute trust may not have received their antenatal and postnatal care from that same trust. This could be due to one of several reasons, such as: having moved home; having to travel for more specialist care; or due to variation in the provision of services across the country.

We asked trusts to identify which of the women in their sample were likely to have also received

[1]Some trusts with a small number of women delivering in February also included women who gave birth in January 2015. For further details on women excluded from the survey, please see the survey instruction manual at: http://www.nhssurveys.org/surveys/843

[2]Please note, responses for question E1 are also included in this report, as although this question features in alongside postnatal questions in the questionnaire, it is actually an antenatal question as it asks about "during your pregnancy".

their antenatal and postnatal care from the same trust at which they gave birth. This attribution exercise was completed for the first time in the 2013 survey. For 2015, 118 trusts that took part in the survey were able to do this for antenatal and postnatal care. The aim was to improve the accuracy with which survey responses are attributed to the care provider and allow trusts to gain better insight to improve services.

The trusts that completed the exercise used either electronic records of antenatal and postnatal care provider, or location information of respondents to identify which women were resident within their boundaries, and responses from those women were used to calculate scores for the antenatal and postnatal survey data for each trust. The scores for postnatal care relating to these trusts have been provided in a separate report. As in 2013, this data cannot be considered as statistically robust as the data for labour and birth, for several reasons:

1. As the attribution data is provided voluntarily, there is not complete coverage across all trusts. It is not possible to consider it representative for all trusts in the survey – comparisons can only be drawn between trusts that completed the exercise. Trusts are only identified as being 'better' or 'worse' within the subset of trusts that completed the attribution exercise, so it is not a true benchmark for performance across England.
2. The attribution was based on the location of respondents for trusts who do not keep electronic records. There was no means available to identify women who had received care from a different provider for other reasons, such as due to requiring specialist care, or having moved house during pregnancy. So although the attribution exercise improved the data to a considerable degree, it may remain that some respondents are included in the data despite having received care from another trust.
3. Many trusts that used the location of respondents to estimate care provider in 2013 had improved electronic records in 2015 so were able to make use of these. Particular care should therefore be taken when interpreting historical changes in trust results, as it is possible these may be affected by the increased accuracy of the respondent sample.
4. The NHS trusts completed the attribution themselves, and due to the limitations of the process, the Co-ordination Centre were unable to verify the accuracy of the exercise. This means we cannot be certain about the reliability of the attribution of the data, as there were limited opportunities to check for errors.

It is also important to note that not every trust who provided attribution data will be provided with an ante- or postnatal report; this is due to low response rates from women who received either ante- or postnatal care in the trust. It is the policy of the Co-ordination Centre to remove responses from trusts with fewer than 30 responses per question because uncertainty around such results would be too great, and very low numbers would risk respondents being recognised from their responses. As a result, seven trusts who provided antenatal data are not eligible to receive antenatal reports.

The antenatal and postnatal survey data from the trusts that completed the attribution exercise will be shared with those trusts. The data will be considered by the Care Quality Commission (CQC) to inform its Intelligent Monitoring and will be shared with CQC inspectors. The reports will be published on the Survey Co-ordination Centre website, but should be viewed with caution for the reasons described above.

Interpreting the report

This report shows how a trust scored for each question in the antenatal care section of the survey, compared with the range of results from 110 other trusts. It is designed to help understand the performance of individual trusts and to identify areas for improvement.

Section scores are also provided, labelled S1, S2, and S3 in the 'section scores' on page 5. The scores for each question are grouped according to the relevant sections of the questionnaire, which are: 'The start of your care in pregnancy'; 'Antenatal check ups'; and 'During your pregnancy'.

Standardisation

Trusts have differing profiles of maternity service users; for example, one trust may have more 'first time' mothers than another. This is significant because whether a woman has given birth previously (parity) could influence their experiences and could potentially lead to a trust's results appearing

better or worse than if they had a slightly different profile of maternity service users. To account for this, we 'standardise' the data. Results have been standardised by parity and age of respondent, to ensure that no trust will appear better or worse than another because of its respondent profile. This helps to ensure that each trust's age-parity profile reflects the national age-parity distribution (based on all of the respondents to the survey) and enables a fairer comparison of results from trusts with different profiles of maternity service users.

Scoring

For each question in the survey, the individual responses were converted into scores on a scale of 0 to 10. A score of 10 represents the best possible response; therefore, the higher the score for each question, the better the trust is performing. It is not appropriate to score all questions within the questionnaire, since not all of the questions assess the trusts in some way (demographic questions, for example).

Graphs

The graphs in this report display the range of scores achieved by all trusts taking part in the survey, from the lowest score achieved (left hand side) to the highest score achieved (right hand side).

The black diamond shows the score for your trust. The black diamond (score) is not shown for questions answered by fewer than 30 people because the confidence interval around the trust's question score is considered too large to be meaningful and results are not reported. Additionally, the trust will also not have a section score for the corresponding section; this is because the section data is not comparable with other trusts, as it is made up of fewer questions.

The graph is divided into three sections:

- If your trust score lies in the orange section of the graph, your trust result is 'about the same' as most other trusts in the survey.
- If your trust score lies in the red section of the graph, your trust result is 'worse' compared with most other trusts in the survey.
- If your trust score lies in the green section of the graph, your trust result is 'better' compared with most other trusts in the survey.

The text to the right of the graph clearly states whether the score for your trust is 'better' or 'worse' compared with most other trusts in the survey. If there is no text here then your trust is 'about the same'.

You may find that there is no red and/or green area in the charts shown for some questions. This can occur in the analysis of the data and is an acceptable consequence of the statistical technique that is used. The size of the orange area is constructed by considering how different all trust scores are across the range, as well as the confidence we can have in that particular trust's score (by looking at the number of respondents to that question). In some cases, this will lead to such a wide margin of error that the 'expected range' (the orange section) will be very wide, and so will also cover the highest or lowest scoring trusts for that question.

Methodology

The categories described above are based on a statistic called the 'expected range' which is uniquely calculated for each trust for each question. 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. This means that where a trust is performing 'better' or 'worse' than the majority of other trusts, this is likely to be a true reflection of all service users that have visited the trust, rather than being unique to those who responded to the survey.

Please note: for question B14, there is a relatively large proportion of trusts that achieve a full 10 score. This means that for all trusts, when using the statistical analysis method described above, the ‘expected range’ covers the entire 0 to 10 scale so for this question, no trusts are rated as ‘better’ or ‘worse’.[3]

[3]For further information, please consult the Quality and Methodology report, published here: http://www.cqc.org.uk/maternitysurvey

A technical document providing more detail about the methodology and the scoring applied to each question is available on our website (see further information section).

Tables

At the end of the report you will find tables containing the data used to create the graphs and background information about the service users that responded. Scores from the 2013 survey where comparable are also displayed. A statistically significant difference means that the change in the results is very unlikely to have occurred by chance. The column called 'change from 2013' uses arrows to indicate whether the score for this year shows a statistically significant increase (up arrow), a statistically significant decrease (down arrow) or has shown no statistically significant change (no arrow) compared with 2013. Significance is tested using a two-sample t-test.

Where a result for 2013 is not shown, this is because the question was either new this year, or the question wording and/or the response categories have been changed. As a result, it is not possible to compare the results as we do not know if any change is caused by alterations in the survey instrument, or variation in a trust's performance.

Comparisons are not shown if your trust has merged with other trusts since the 2013 survey. Please note that comparative data is not shown for the sections as the questions contained in each section can change year on year.

Further information

The full national results for the 2015 survey are on the CQC website, together with an A to Z list to view the results for each trusts labour and birth questions, and the technical document outlining the methodology and the scoring applied to each question:
http://www.cqc.org.uk/maternitysurvey

For the trusts who compiled attribution data, the reports for antenatal and postnatal care are available on the NHS surveys website, along with the labour and birth reports for all trusts, at:
http://www.nhssurveys.org/surveys/876

The results for the 2007, 2010 and 2013 surveys can be found on the NHS surveys website at:
http://www.nhssurveys.org/surveys/299

Full details of the methodology for the survey can be found at:
http://www.nhssurveys.org/surveys/843

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

Survey of women's experiences of maternity services 2015

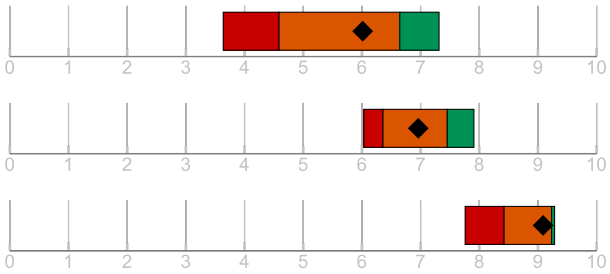
Airedale NHS Foundation Trust

Section scores

S1. The start of your care in pregnancy

S2. Antenatal check-ups

S3. During your pregnancy

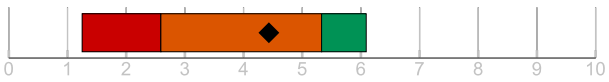


Best performing trusts	'Better/Worse'	Only displayed when this trust is better/worse than most other trusts
About the same	◆	This trust's score (NB: Not shown where there are fewer than 30 respondents)
Worst performing trusts		

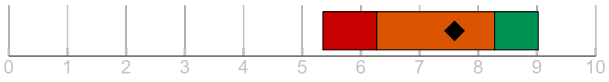
Survey of women's experiences of maternity services 2015
Airedale NHS Foundation Trust

The start of your care in pregnancy

B4. Were you offered any of the following choices about where to have your baby?

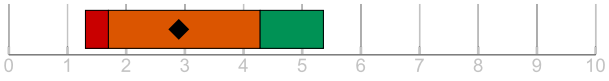


B6. Did you get enough information from either a midwife or doctor to help you decide where to have your baby?

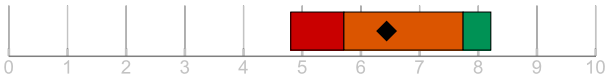


Antenatal check-ups

B7. During your pregnancy were you given a choice about where your antenatal check-ups would take place?



B10. During your antenatal check-ups, did the midwives appear to be aware of your medical history?



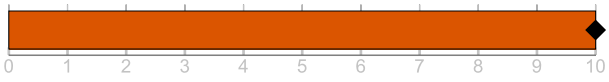
B11. During your antenatal check-ups, were you given enough time to ask questions or discuss your pregnancy?

B12. During your antenatal check-ups, did the midwives listen to you?

B13. During your antenatal check-ups, did a midwife ask you how you were feeling emotionally?

During your pregnancy

B14. During your pregnancy, did you have a telephone number for a midwife or midwifery team that you could contact?



B15. During your pregnancy, if you contact a midwife, were you given the help you needed?

B16. Thinking about your antenatal care, were you spoken to in a way you could understand?

B17. Thinking about your antenatal care, were you involved enough in decisions about your care?

E1. During your pregnancy did midwives provide relevant information about feeding your baby?

Best performing trusts	'Better/Worse'	Only displayed when this trust is better/worse than most other trusts
About the same	◆	This trust's score (NB: Not shown where there are fewer than 30 respondents)
Worst performing trusts		

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		Scores for this NHS trust	Lowest trust score achieved	Highest trust score achieved	Number of respondents (this trust)	2013 scores for this NHS trust	Change from 2013
The start of your care in pregnancy							
S1	Section score	6.0	3.6	7.3			
B4	Were you offered any of the following choices about where to have your baby?	4.4	1.2	6.1	107	3.9	
B6	Did you get enough information from either a midwife or doctor to help you decide where to have your baby?	7.6	5.4	9.0	93	7.4	
Antenatal check-ups							
S2	Section score	7.0	6.0	7.9			
B7	During your pregnancy were you given a choice about where your antenatal check-ups would take place?	2.9	1.3	5.4	112	2.5	
B10	During your antenatal check-ups, did the midwives appear to be aware of your medical history?	6.4	4.8	8.2	117		
B11	During your antenatal check-ups, were you given enough time to ask questions or discuss your pregnancy?	8.7	7.7	9.4	117	8.5	
B12	During your antenatal check-ups, did the midwives listen to you?	9.0	8.2	9.6	118	8.8	
B13	During your antenatal check-ups, did a midwife ask you how you were feeling emotionally?	7.7	5.9	8.8	116		
During your pregnancy							
S3	Section score	9.1	7.8	9.3			
B14	During your pregnancy, did you have a telephone number for a midwife or midwifery team that you could contact?	10.0	8.8	10.0	117	9.9	
B15	During your pregnancy, if you contact a midwife, were you given the help you needed?	8.6	6.2	9.5	106	8.8	
B16	Thinking about your antenatal care, were you spoken to in a way you could understand?	9.6	8.9	9.9	118	9.5	
B17	Thinking about your antenatal care, were you involved enough in decisions about your care?	8.7	7.7	9.4	117	8.7	
E1	During your pregnancy did midwives provide relevant information about feeding your baby?	8.4	6.3	8.6	114	8.2	

↑ or ↓	Indicates where 2015 score is significantly higher or lower than 2013 score (NB: No arrow reflects no statistically significant change) Where no score is displayed, no 2013 data is available.

2015 survey of women's experiences of maternity services
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/maternitysurvey

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: **http://www.cqc.org.uk/maternitysurvey** 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 Trust 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.

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 0 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 Intelligent Monitoring system, 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 for making 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 and parity are two 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, always' responses only, you would think that trust A and trust B are performing equally well. However, taking into account the other responses, it becomes apparent that trust B has the more positive result overall.

C17: Thinking about your **care during labour and birth**, were you involved enough in decisions about your care?

	Trust A	**Trust B**
Yes, always	59%	59%
Yes, sometimes	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 other stakeholders such as NHS England and 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 'better' 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 and parity 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. Women's experiences may also vary if they have previously had a child (we refer to this as parity). For example, older respondents tend to report more positive experiences than younger respondents. Because the mix of service users 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 service users. 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 service user groups to understand their different experiences, for example, by age, parity, ethnic group, etc.
- Undertake follow up activity with service users 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 performing 'better' or 'worse' at each question will vary.

Why has no trust come out as performing better or worse for a particular question?

This can occur in the analysis of the data and is an acceptable consequence of the statistical technique that is used. The size of the expected range is constructed by considering how different all trust scores are across the range, as well as the confidence we can have in that particular trust's score (by looking at the number of respondents to that question). In some cases, this will lead to such a wide margin of error that the 'expected range' will be very wide, and hence will also cover the highest and / or lowest scoring trusts for that question.

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 women who used maternity services (those giving birth in February), not all service users. If another sample of service users 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 'better' and those that will always be 'worse', so they should be looked at as a group of 'better' trusts, and 'worse' trusts, 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 service users 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 in the 2013 survey 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 next time the survey was carried out, 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 over time.

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.

Why is the category for one of my sections 'worse' yet all of the questions that fall into that section are 'about the same'?

This can happen because the calculation of the section scores is a separate calculation and not an average of all questions that make up a particular section. If this has occurred, it is likely that your trust scored very lowly or even on the threshold for all or most of the questions that are in a section.

The thresholds for 'worse', 'about the same' and 'better' are based on the score variance. For sections, this is a composite of the separate question variances, but not a straightforward sum, because it also depends on the correlation between questions. It does not therefore follow that a trust that is above the threshold on separate questions will also be above the threshold when those questions are combined.

The 'expected range' is dependent on the (sampling) variance of the trust's results – with a more reliable score (as would normally be the case for section scores), it is easier to be significantly different from the 'average' group than for a less reliable score.

How do I calculate an overall score for my trust?

It is important to remember that there is no overall indicator or figure for 'patient 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 women's experience (such as the staff, care in hospital) 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/survey/1624
- Trust level data published by CQC has been 'standardised' by age and parity 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 both age and parity, if either of these pieces of information are 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 service users who used services during the sampling period, not all service users, as the survey uses a sample of women from a chosen month (February, possibly also January) and some choose not to respond. If another sample of service users 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 labour and birth benchmark report for each trust includes a comparison to the 2010 survey scores, where possible, and indicates whether the change is statistically significant. Please note that comparative data is not shown for the sections as the questions contained in each section can change year on year.

The previously published results for the 2007, 2010 and 2013 maternity surveys are available here: **http://www.nhssurveys.org/surveys/299**

However, given the issue around attribution of survey responses to providers, there is a limit to how accurately the maternity survey data can be compared across years. We have included the 2013 comparisons within the labour and birth benchmark reports this year as they are the only reliable comparisons that can be made – in both surveys, women were definitely referring to care received from your acute trust. All other survey results, for other questions, would have included women who had received their care elsewhere, and so were reporting on the performance on other organisations. This will hinder the accuracy of comparisons across years as the proportions of women referring to your organisation may have varied, and we cannot identify or control for this.

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. You can also contact the survey team on **patient.survey@cqc.org.uk**.

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 / maternity unit etc.?

The survey data is presented at trust level only. At present we are unable to provide data at a level other than trust for several reasons. Some sites may have too few women giving birth to achieve sufficient numbers of respondents (we set the cut off limit of 30 respondents per organisation). Given that the survey is used by other stakeholders such as NHS England and 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 for the 2013 survey are on the CQC website, together with an A to Z list to view the results for each trusts labour and birth questions, and the technical document outlining the methodology and the scoring applied to each question:
www.cqc.org.uk/maternitysurvey

The results for the 2007, 2010 and 2013 surveys can be found on the NHS surveys website at:
http://www.nhssurveys.org/surveys/299

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

More information about the attribution exercise 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

Further Questions

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

CQC Surveys team
November 2015

Patient survey report 2015

Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

The national survey of women's experiences of maternity services 2015 was designed, developed and co-ordinated by the Co-ordination Centre for the NHS Patient Survey Programme at Picker Institute Europe.

National NHS patient survey programme

Survey of women's experiences of maternity services 2015

CQC Maternity care pathway reports: labour and birth

The Care Quality Commission is the independent regulator of health and adult social care in England.

Our purpose:
We make sure health and social care services provide people with safe, effective, compassionate, high-quality care and we encourage care services to improve.

Our role:
We monitor, inspect and regulate services to make sure they meet fundamental standards of quality and safety and we publish what we find, including performance ratings to help people choose care.

Survey of women's experiences of maternity services 2015

To improve the quality of services that the NHS delivers, it is important to understand what service users think about their care and treatment. One way of doing this is by asking people who have recently used their local health services to tell us about their experiences. Information drawn from the questions in the maternity survey will be considered by the Care Quality Commission (CQC) as part of its Hospital Intelligent Monitoring. NHS England will use the results to check progress and improvement against the objectives set out in the NHS mandate, and the Department of Health will hold them to account for the outcomes they achieve. The Trust Development Authority will use the results to inform the quality and governance assessment as part of their Oversight Model for NHS Trusts.

The 2015 survey of women's experiences of maternity services involved 133 NHS acute trusts in England. We received responses from more than 20,000 service users, a response rate of 41%. Women were eligible for the survey if they had a live birth during February 2015, were aged 16 years or older, gave birth in a hospital, birth centre, maternity unit, or who had a home birth[1]. NHS trusts in England took part in the survey if they had a sufficient number of eligible women that give birth at their NHS trust during the sampling time frame.

Similar surveys of maternity services were carried out in 2007, 2010 and 2013. They are part of a wider programme of NHS patient surveys which covers a range of topics including acute inpatient, outpatient, and A&E services, ambulances, and community mental health services. To find out more about our programme and the results from previous surveys, please see the links in the Further Information section.

This report contains the benchmarked results for the labour and birth care section of the questionnaire. When answering questions in the survey about labour and birth, we can be confident that in all cases women were referring to the acute trust from which they were sampled. For this section, it is then possible to compare the results for labour and birth across all 133 NHS trusts that took part in the survey.

The survey also asked women about their experiences of antenatal and postnatal care to cover the entire pregnancy and birth for completeness. However, some women who gave birth at an acute trust may not have received their antenatal and postnatal care from that same trust. This could be due to one of several reasons, such as: having moved home; having to travel for more specialist care; or due to variation in the provision of services across the country.

We asked trusts to identify which of the women in their sample were likely to have also received their antenatal and postnatal care from the same trust at which they gave birth. This voluntary attribution exercise was completed for the first time in the 2013 survey. For 2015, 118 trusts that

[1]Some trusts with a small number of women delivering in February also included women who gave birth in January 2015. For further details on women excluded from the survey, please see the survey instruction manual at: http://www.nhssurveys.org/surveys/843

took part in the survey were able to do this for antenatal and postnatal care. The aim was to improve the accuracy with which survey responses are attributed to the care provider and allow trusts to gain better insight to improve services.

The antenatal and postnatal survey data from the trusts that completed the attribution exercise will be shared with those trusts. The data will be considered by the Care Quality Commission (CQC) to inform its Intelligent Monitoring and will be shared with CQC inspectors. The reports will be published on the Survey Co-ordination Centre website, but should be viewed with caution for the reasons contained within those documents.

Interpreting the report

This report shows how a trust scored for each question in the labour and birth section of the survey, compared with the range of results from all other trusts that took part. It is designed to help understand the performance of individual trusts and to identify areas for improvement.

Section scores are also provided, labelled S4, S5, and S6 in the 'section scores' on page 5. The scores for each question are grouped according to the relevant sections of the questionnaire, which are, 'Labour and birth', 'Staff' and 'Care in hospital after the birth'. This report shows the same data as published on the CQC website (http://www.cqc.org.uk/public/reports-surveys-and-reviews/surveys). The CQC website displays the data in a more simplified way, identifying whether a trust performed 'better,' 'worse,' or 'about the same' as the majority of other trusts for each question and section.

Standardisation

Trusts have differing profiles of maternity service users; for example, one trust may have more 'first time' mothers than another. This is significant because whether a woman has given birth previously (parity) could influence their experiences and could potentially lead to a trust's results appearing better or worse than if they had a slightly different profile of maternity service users. To account for this, we 'standardise' the data. Results have been standardised by parity and age of respondent, to ensure that no trust will appear better or worse than another because of its respondent profile. This helps to ensure that each trust's age-parity profile reflects the national age-parity distribution (based on all of the respondents to the survey) and enables a fairer comparison of results from trusts with different profiles of maternity service users.

Scoring

For each question in the survey, the individual responses were converted into scores on a scale of 0 to 10. A score of 10 represents the best possible response; therefore, the higher the score for each question, the better the trust is performing. It is not appropriate to score all questions within the questionnaire, since not all of the questions assess the trusts in some way (demographic questions, for example).

Graphs

The graphs in this report display the range of scores achieved by all trusts taking part in the survey, from the lowest score achieved (left hand side) to the highest score achieved (right hand side).

The black diamond shows the score for your trust. The black diamond (score) is not shown for questions answered by fewer than 30 people because the confidence interval around the trust's question score is considered too large to be meaningful and results are not reported. Additionally, the trust will also not have a section score for the corresponding section; this is because the section data is not comparable with other trusts, as it is made up of fewer questions.

The graph is divided into three sections:

- If your trust score lies in the orange section of the graph, your trust result is 'about the same' as most other trusts in the survey.
- If your trust score lies in the red section of the graph, your trust result is 'worse' compared with most other trusts in the survey.
- If your trust score lies in the green section of the graph, your trust result is 'better' compared with most other trusts in the survey.

The text to the right of the graph clearly states whether the score for your trust is 'better' or 'worse' compared with most other trusts in the survey. If there is no text here then your trust is 'about the same'.

You may find that there is no red and/or green area in the charts shown for some questions. This can occur in the analysis of the data and is an acceptable consequence of the statistical technique that is used. The size of the orange area is constructed by considering how different all trust scores are across the range, as well as the confidence we can have in that particular trust's score (by looking at the number of respondents to that question). In some cases, this will lead to such a wide margin of error that the 'expected range' (the orange section) will be very wide, and so will also cover the highest or lowest scoring trusts for that question.

Methodology

The categories described above are based on a statistic called the 'expected range' which is uniquely calculated for each trust for each question. 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. This means that where a trust is performing 'better' or 'worse' than the majority of other trusts, this is likely to be a true reflection of all service users that have visited the trust, rather than being unique to those who responded to the survey.

A technical document providing more detail about the methodology and the scoring applied to each question is available on our website (see the Further Information section).

Tables

At the end of the report you will find tables containing the data used to create the graphs and background information about the service users that responded.

At the end of the report you will find tables containing the data used to create the graphs and background information about the service users that responded. Scores from the 2013 survey are also displayed where comparable. A statistically significant difference means that the change in the results is very unlikely to have occurred by chance. The column called 'change from 2013' uses arrows to indicate whether the score for this year shows a statistically significant increase (up arrow), a statistically significant decrease (down arrow) or has shown no statistically significant change (no arrow) compared with 2013. Significance is tested using a two-sample t-test.

Where a result for 2013 is not shown, this is because the question was either new this year or the question wording and/or the response categories have been changed. As a result, it is not possible to compare the results as we do not know if any change is caused by alterations in the survey instrument or variation in a trust's performance.

Comparisons are not shown if your trust has merged with other trusts since the 2013 survey. Please note that comparative data is not shown for the section scores as the questions contained in each section can change year on year.

Notes on specific questions

The following questions were not answered by women who had a planned caesarean: **C1, C2, C3, C4, C5, C6, C8** and **C9**.

Question C6: was not answered by women whose choice of pain relief did not change.

The following questions were not answered by women who had a home birth and did not go to hospital: **D1, D2, D3, D4, D5, D6, D7** and **D8**.

Further information

The full national results for the 2015 survey are on the CQC website, together with an A to Z list to view the results for each trusts labour and birth questions, and the technical document outlining the methodology and the scoring applied to each question:
http://www.cqc.org.uk/maternitysurvey

For the trusts who compiled attribution data, the reports for antenatal and postnatal care are available on the NHS surveys website, along with the labour and birth reports for all trusts, at:
http://www.nhssurveys.org/surveys/876

The results for the 2007, 2010 and 2013 surveys can be found on the NHS surveys website at:
http://www.nhssurveys.org/surveys/299

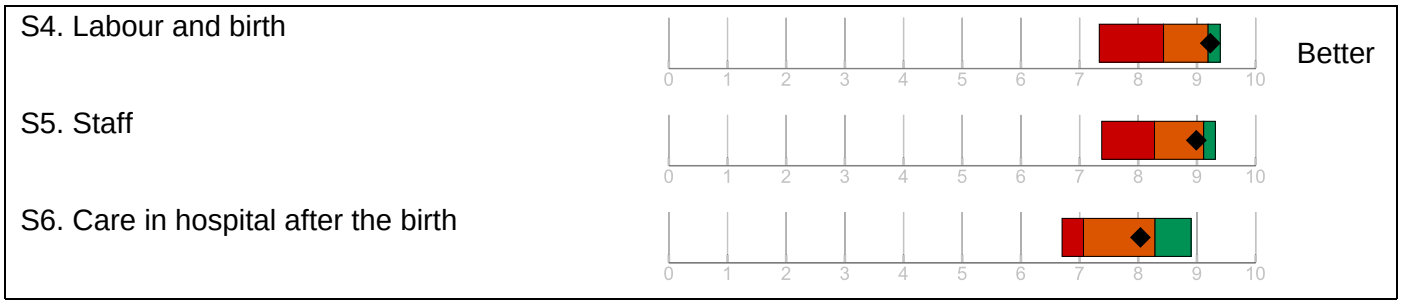
Full details of the methodology for the survey can be found at:
http://www.nhssurveys.org/surveys/843

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

Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

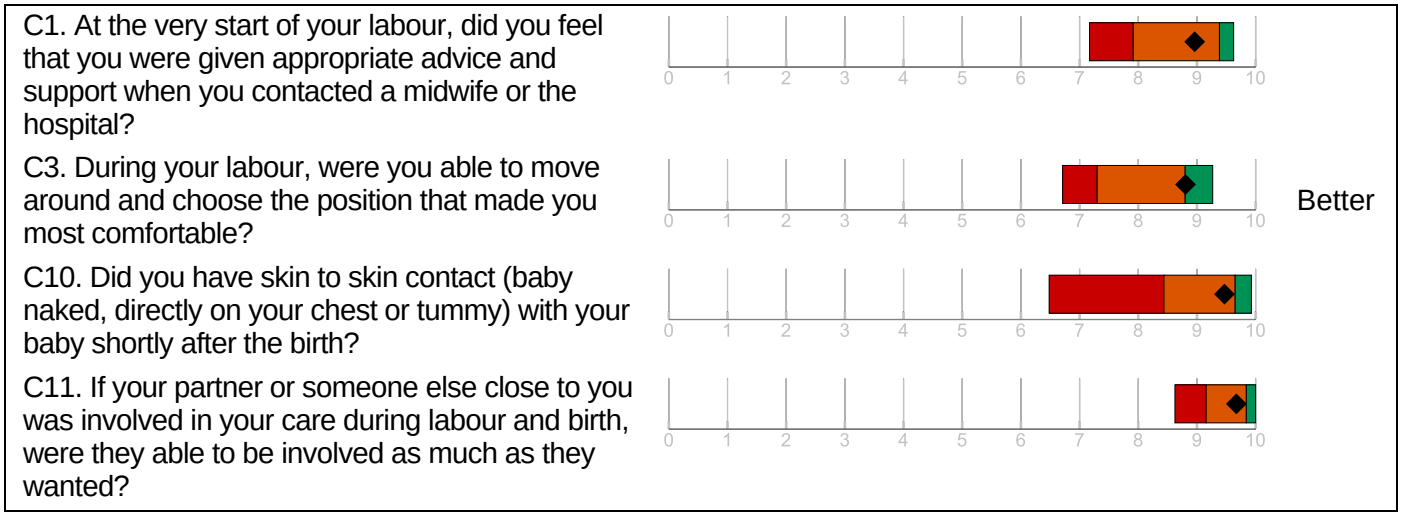
Section scores



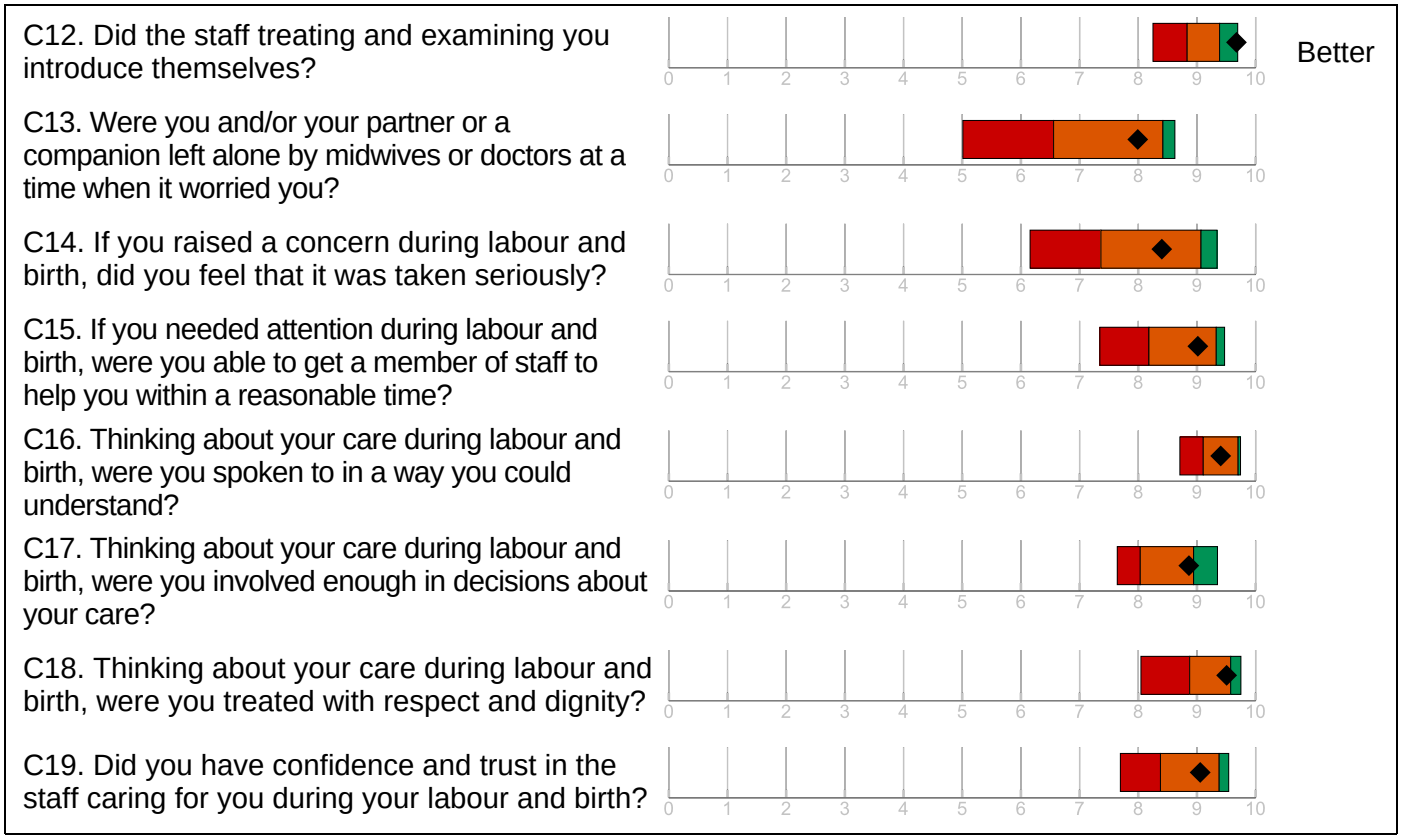
Best performing trusts	'Better/Worse'	Only displayed when this trust is better/worse than most other trusts
About the same	◆	This trust's score (NB: Not shown where there are fewer than 30 respondents)
Worst performing trusts		

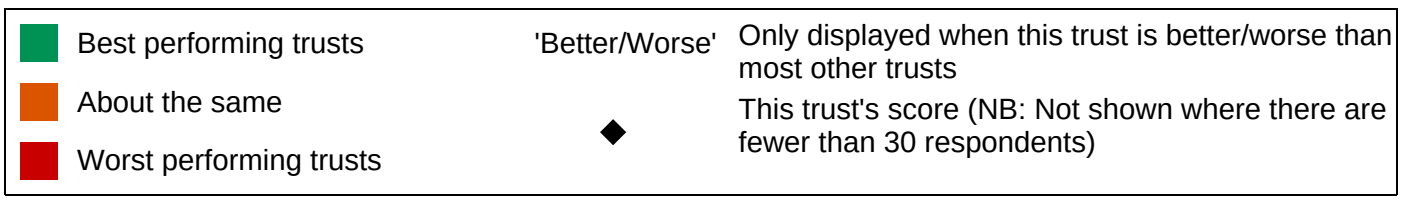
Survey of women's experiences of maternity services 2015
Airedale NHS Foundation Trust

Labour and birth



Staff



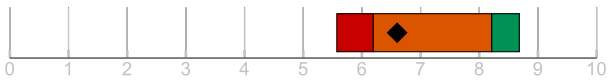


Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

Care in hospital after the birth

D2. Looking back, do you feel that the length of your stay in hospital after the birth was appropriate?

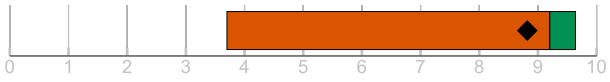


D3. If you needed attention while you were in hospital after the birth, were you able to get a member of staff to help you within a reasonable time?

D4. Thinking about your stay in hospital, after the birth of your baby, were you given the information or explanations you needed?

D5. Thinking about your stay in hospital, after the birth of your baby, were you treated with kindness and understanding?

D6. Thinking about your stay in hospital, if your partner or someone else close to you was involved in your care, were they able to stay with you as much as you wanted?



D7. Thinking about your stay in hospital, how clean was the hospital room or ward you were in?

D8. Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?

Best performing trusts	'Better/Worse'	Only displayed when this trust is better/worse than most other trusts
About the same	◆	This trust's score (NB: Not shown where there are fewer than 30 respondents)
Worst performing trusts		

Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

		Scores for this NHS trust	Lowest trust score achieved	Highest trust score achieved	Number of respondents (this trust)	2013 scores for this NHS trust	Change from 2013
Labour and birth							
S4	Section score	9.2	7.3	9.4			
C1	At the very start of your labour, did you feel that you were given appropriate advice and support when you contacted a midwife or the hospital?	9.0	7.2	9.6	94	8.2	
C3	During your labour, were you able to move around and choose the position that made you most comfortable?	8.8	6.7	9.3	104		
C10	Did you have skin to skin contact (baby naked, directly on your chest or tummy) with your baby shortly after the birth?	9.5	6.5	9.9	109	8.5	↑
C11	If your partner or someone else close to you was involved in your care during labour and birth, were they able to be involved as much as they wanted?	9.7	8.6	10.0	123	9.6	
Staff							
S5	Section score	9.0	7.4	9.3			
C12	Did the staff treating and examining you introduce themselves?	9.7	8.3	9.7	126	9.0	↑
C13	Were you and/or your partner or a companion left alone by midwives or doctors at a time when it worried you?	8.0	5.0	8.6	128	7.9	
C14	If you raised a concern during labour and birth, did you feel that it was taken seriously?	8.4	6.2	9.3	76	8.1	
C15	If you needed attention during labour and birth, were you able to get a member of staff to help you within a reasonable time?	9.0	7.3	9.5	118		
C16	Thinking about your care during labour and birth, were you spoken to in a way you could understand?	9.4	8.7	9.7	128	9.2	
C17	Thinking about your care during labour and birth, were you involved enough in decisions about your care?	8.9	7.6	9.3	126	8.2	
C18	Thinking about your care during labour and birth, were you treated with respect and dignity?	9.5	8.0	9.7	128	9.3	
C19	Did you have confidence and trust in the staff caring for you during your labour and birth?	9.1	7.7	9.5	127	8.9	

↑ or ↓	Indicates where 2015 score is significantly higher or lower than 2013 score (NB: No arrow reflects no statistically significant change) Where no score is displayed, no 2013 data is available.

Survey of women's experiences of maternity services 2015

Airedale NHS Foundation Trust

		Scores for this NHS trust	Lowest trust score achieved	Highest trust score achieved	Number of respondents (this trust)	2013 scores for this NHS trust	Change from 2013
Care in hospital after the birth							
S6	Section score	8.0	6.7	8.9			
D2	Looking back, do you feel that the length of your stay in hospital after the birth was appropriate?	6.6	5.6	8.7	122	7.1	
D3	If you needed attention while you were in hospital after the birth, were you able to get a member of staff to help you within a reasonable time?	7.5	5.7	8.7	124		
D4	Thinking about your stay in hospital, after the birth of your baby, were you given the information or explanations you needed?	7.8	6.7	8.6	126	7.0	
D5	Thinking about your stay in hospital, after the birth of your baby, were you treated with kindness and understanding?	8.2	7.1	9.2	127	8.2	
D6	Thinking about your stay in hospital, if your partner or someone else close to you was involved in your care, were they able to stay with you as much as you wanted?	8.8	3.8	9.6	122		
D7	Thinking about your stay in hospital, how clean was the hospital room or ward you were in?	8.9	7.7	9.5	126	8.5	
D8	Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?	8.4	6.4	9.5	125	7.8	↑

↑ or ↓	Indicates where 2015 score is significantly higher or lower than 2013 score (NB: No arrow reflects no statistically significant change) Where no score is displayed, no 2013 data is available.

Survey of women's experiences of maternity services 2015
Airedale NHS Foundation Trust

Background information

The sample	This trust	All trusts
Number of respondents	129	20631
Response Rate (percentage)	44	41

Demographic characteristics	This trust	All trusts
Percentage of mothers	(%)	(%)
First-time	41	48
Who have previously given birth	59	52
Age group (percentage)	(%)	(%)
Aged 16-18	0	0
Aged 19-24	9	8
Aged 25-29	23	23
Aged 30-34	29	36
Aged 35 and over	39	32
Ethnic group (percentage)	(%)	(%)
White	90	83
Multiple ethnic group	0	2
Asian or Asian British	5	8
Black or Black British	1	3
Arab or other ethnic group	0	1
Not known	4	3
Religion (percentage)	(%)	(%)
No religion	38	37
Buddhist	0	1
Christian	50	51
Hindu	0	2
Jewish	0	1
Muslim	9	6
Sikh	0	1
Other religion	1	1
Prefer not to say	2	2
Sexual orientation (percentage)	(%)	(%)
Heterosexual/straight	95	96
Gay/lesbian	0	0
Bisexual	0	1
Other	1	1
Prefer not to say	4	3

Care Quality Commission (CQC)

Technical details – patient survey information
2015 Maternity Survey
December 2015

Contents

1. Introduction

This document outlines the methods used by the Care Quality Commission to score and analyse the trust level results for the 2015 Maternity Survey, as available on the Care Quality Commission website and in the benchmark reports for each trust.

The survey results are available for the 'labour and birth' section of the questionnaire for each trust on the CQC website. The survey data is shown in a simplified way, identifying whether a trust performed 'better' or 'worse' or 'about the same' as the majority of other trusts for each question. This analysis is done using a statistic called the 'expected range' (see section 6.3). On publication, an A-to-Z list of trust names is available at the link below, containing further links to the labour and birth survey data for all NHS trusts that took part in the survey: **www.cqc.org.uk/maternitysurvey**

The CQC webpage also contains the results for England in the form of a report containing CQC's response and a statistical release document containing the percentage of respondents for England as a whole, alongside relevant national policy and comparisons with the results from the 2013 survey. Further information on the survey is available in the Quality and Methodology report.

A benchmark report is also available for each trust. Results displayed in the benchmark report are a graphical representation of the results displayed for the public on the CQC website (see Further Information, section 7). These have been provided to all trusts and will be available on the survey co-ordination centre website at: **www.nhssurveys.org.**

2. Selecting data for the reporting

Survey data from the labour and birth section of the questionnaire is available on the CQC website. More data is available from the survey covering antenatal and postnatal care. However, this is not as reliable as the labour and birth data it has only been published on the patient survey co-ordination centre website alongside caveats to be considered when looking at the data (see section 6 'The maternity survey attribution exercise' below for more detail).

Scores are assigned to responses to questions that are of an evaluative nature: in other words, those questions where results can be used to assess the performance of a trust (see Appendix A 'Scoring for the 2015 Maternity Survey results' for more detail). Questions that are not presented in this way tend to be those included solely for 'filtering' respondents past any questions that may not be relevant to them, such as: 'In the first few days after the birth how was your baby fed?' or those used for descriptive or information purposes.

The scores for each labour and birth question are grouped on the website according to the subheadings of the questionnaire as completed by respondents. For example, the data published on the CQC website includes sections on 'labour and birth', 'care in hospital after the birth' and 'staff'. The average score for each trust, for each section, is also calculated and presented on the website.

Alongside both the question and the section scores on the website are one of three statements:

- Better (the trust is performing 'better' compared with most other trusts in the survey)

- About the same (the trust is performing 'about the same' as most other trusts in the survey)
- Worse (the trust is performing 'worse' compared with most other trusts in the survey)

This analysis is done using a statistic called the 'expected range' (see section 6.3)

3. The CQC organisation search tool

The organisation search tool is intended for a public audience and contains information from various areas within the Care Quality Commission's functions. The presentation of the survey data was designed 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 simple and fair way, to show where we are more confident that a trust's score is 'better' or 'worse' than we'd expect when compared with most other trusts.

The survey data can be found from the A to Z link available at:
www.cqc.org.uk/maternitysurvey

Or by searching for a provider from the CQC home page, then clicking on 'Patient survey information' on the right hand side then clicking 'latest patient survey results'.

4. Trust benchmark reports

Benchmark reports should be used by NHS trusts to identify how they are performing in relation to most other trusts that took part in the survey. Tables at the back of the report also contain the 2013 results and indicate whether any change is statistically significant. From this, areas for improvement can be identified. The reports are available from the survey co-ordination centre website: **www.nhssurveys.org**

The graphs included in the reports display the scores for a trust compared with the full range of results from all other trusts that took part in the survey. Each bar represents the range of results for each question across all trusts that took part in the survey. In the graphs, the bar is divided into three sections:

- If a trust score lies in the orange section of the graph, the trust result is 'about the same' as most other trusts in the survey
- If a trust scores lies in the red section of the graph, the trust result is 'worse' than expected when compared with most other trusts in the survey.
- If a score lies in the green section of the graph, the trust result is 'better' than expected when compared with most other trusts in the survey

A black diamond represents the score for this trust. The black diamond (score) is not shown for questions answered by fewer than 30 people because the uncertainty around the result would be too great.

5. The maternity survey attribution exercise

Some of the questions in the maternity survey relate to care that women may have received from their GP or other provider rather than the acute trust where they gave birth, which is used as the basis for sampling. Hence the NHS trust that provided the care during labour and birth may not have provided the antenatal and postnatal care that a woman would have been referring to when completing those sections of the questionnaire. Due to this uncertainty, trust level data for the 2010 survey was only

published for 19 questions (out of a total of 77 questions). This data was contained in the trust benchmark reports and was displayed on the CQC organisational search tool on the CQC website. The trust data was published this way as the scored question responses were from women who were definitely referring to care received from the acute trust rather than other providers. The responses to all questions were published in the national summary on the CQC website.

During the development of the 2013 survey, a number of options were considered for improving the attribution of responses to providers, and pilot work was conducted to determine the most effective approach. It was decided that trusts would be asked to use postcode details and/or General Medical Practice codes to identify the women in their sample who lived within their catchment area – and we refer to this as the attribution exercise. However, if trusts held electronic records on the provision of antenatal and postnatal care then this information was used. This same process was followed in 2015.

In total, 118 trusts (out of 133) were able to complete the attribution exercise successfully, with all 118 trusts able to identify women that were likely to have received their antenatal care and / or postnatal care from their trust, based on their home address (via partial postcodes). This information was used to identify the respondents who were likely to have been referring to the acute trust when responding to the antenatal and postnatal care sections of the questionnaire. Scored results were then produced based only on those respondents, and reports produced for antenatal and postnatal care.

The data for the antenatal and postnatal sections cannot be considered as statistically robust as the data for labour and birth, for several reasons:

1. Although the value of the data is improved when looking at individual trust performance, due to the more accurate attribution of responses to provider, the lack of complete coverage across all trusts means that we cannot fairly say that one trust is 'better' or 'worse' than all others. Hence trusts are only identified as being 'better' or 'worse' within the subset of trusts that completed the attribution exercise. We cannot say that the subset of trusts is representative of all trusts, and so it is not a true benchmark for performance across England.
2. The attribution was based on the location of respondents. There were no means available to identify women who had received care from a different provider for other reasons, such as due to requiring specialist care, or having moved house during pregnancy. So although the attribution exercise improved the data to a considerable degree, it may remain that some respondents are included in the data despite having received care from another provider.
3. The NHS trusts completed the attribution themselves, and due to the limitations of the process the co-ordination centre were unable to verify the accuracy of the exercise. This means we cannot be certain about the reliability of the attribution of the data, as there were limited opportunities to check for errors.

The antenatal and postnatal survey data from the trusts that completed the attribution exercise will be shared with those trusts. The data will be considered by the Care Quality Commission (CQC) to inform its intelligence model and will be shared with CQC inspectors. The reports will be published on the surveys coordination centre website here **http://www.nhssurveys.org/** but not the CQC website for the reasons described above.

Those trusts with antenatal and postnatal benchmark reports should bear in mind the above caveats when viewing their data.

6. Interpreting the data

6.1 Scoring

The questions are scored on a scale from 0 to 10. Details of the scoring for all sections of this survey are available in Appendix A at the end of this document.

The scores represent the extent to which the respondents' experience could be improved. A score of 0 was assigned to all responses that reflect considerable scope for improvement, whereas a response that was assigned a score of 10 referred to the most positive possible experience. Where a number of options lay between the negative and positive responses, they were placed at equal intervals along the scale. Where options were provided that did not have any bearing on the trusts' performance in terms of respondent experience, the responses were classified as "not applicable" and a score was not given. Where respondents stated they could not remember or did not know the answer to a question, a score was not assigned. The average score for all respondents within each trust is then presented, having applied standardisation (see below).

6.2 Standardisation

Results are based on 'standardised' data. 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. For example, older respondents tend to report more positive experiences than younger respondents. Because the mix of patients varies across trusts (for example, one trust may have a larger proportion of younger respondents 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 people. To account for this we 'standardise' the data. Standardising data adjusts for these differences and enables the results for trusts to be compared more fairly than could be achieved using non-standardised data.

The maternity survey is standardised by age and parity (whether the woman is a first time mother or has had other children).

6.3 Expected range

The better / about the same / worse categories shown on the website are based on 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 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 Appendix C for more details). The red, green and orange sections in the benchmark report charts display the expected range for a score for a trust. The orange section is the 'expected range', the green section shows where a score would lie if it were better than expected, and the red section signifies worse than expected performance.

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

6.4 Conclusions made on performance

It should be noted that the data only show performance relative to other trusts: there are no absolute thresholds for 'good' or 'bad' performance. Thus, a trust may score low relative to others on a certain question whilst still performing very well on the whole. This is particularly true on questions where the majority of trusts score very highly. The limitations of the antenatal and postnatal care data must also be considered, as described in section 5 above.

The better / worse categories are intended to help trusts identify areas of good or poor performance. However, 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 accurate to look at actual changes in scores and to test for statistically significant differences.

It is also important to remember that there is no overall indicator or figure for 'patient 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 can be misleading. The number of questions on each topic in the survey varies, and often so does trusts performance across these. So if you counted across all of them, some topics will have more influence on the overall average than others, when in fact some might not be so important.

6.5 Comparing scores across trusts or across survey years

The expected range statistic is used to arrive at a judgement about how a trust is performing compared with all other trusts that took part in the survey. However, if you want to use the scored data in another way, to compare scores (either as trend data for an individual trust or between different trusts) you will need to undertake an appropriate statistical test to ensure that any changes are 'statistically significant'. 'Statistically significant' means that you can be very confident that any change between scores is real and not due to chance. The benchmark report for each trust includes a comparison to the 2013 survey scores and indicates whether the change is statistically significant.

7. Further information

The full national results for the 2015 survey are on the CQC website, together with an A to Z list to view the results for each trusts 'labour and birth' questions, and this technical document outlining the methodology and the scoring applied to each question:
www.cqc.org.uk/maternitysurvey

For the trusts who compiled attribution data, the reports for antenatal and postnatal care are available on the NHS surveys website, along with the 'labour and birth' reports for all trusts, at:
www.nhssurveys.org/surveys/876

The results for the 2007, 2010 and 2013 surveys can be found on the NHS surveys website at:
www.nhssurveys.org/surveys/299

Full details of the methodology for the survey can be found at:
www.nhssurveys.org/surveys/843

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

Appendix A: Scoring for the 2015 Maternity Survey results

The following describes the scoring system applied to the evaluative questions. Question C3 asked respondents if, during labour, women were able to move around and choose the position that made them most comfortable. The option of "No" was allocated a score of 0, as this suggests that the woman's experience needs to be improved. A score of 10 was assigned to the option 'Yes, most of the time', as it reflects a positive experience. The remaining option, 'Yes, sometimes, was assigned a score of 5 as the woman was only sometimes able to move around and choose a position that made them most comfortable. Hence it was placed on the midpoint of the scale.

If the respondent ticked 'No, but this was not possible due to medical reasons', this was classified as a 'not applicable' response, as this option was not a direct measure of the question.

Figure A1 Scoring example:
Question C3 (2015 Maternity Survey)

C3. During your labour, were you able to move around and choose the position that made you most comfortable?	
Yes, most of the time	10
Yes, sometimes	5
No	0
No, but this was not possible due to medical reasons	Not applicable

Where a number of options lay between the negative and positive responses, they were placed at equal intervals along the scale. For example, question D7 asks how clean the hospital or ward was (Figure A2). The following response options were provided:

- Very clean
- Fairly clean
- Not very clean
- Not at all clean

A score of 10 was assigned to the option 'Very clean', as this represents best outcome in terms of patient experience. A response of 'Not at all clean' was given a score of 0. The remaining two answers were assigned a score that reflected their position in terms of quality of experience, spread evenly across the scale and shown in Figure A2 below.

Figure A2 Scoring example:
Question D7 (2015 Maternity survey)

D7. Thinking about your stay in hospital, how clean was the hospital room or ward you were in?	
Very clean	10
Fairly clean	6.7
Not very clean	3.3
Not at all clean	0
Don't know / can't remember	Not applicable

Details of the method used to calculate the scores for each trust, for individual questions and each section of the questionnaire, are available in Appendix B. This also includes an explanation of the technique used to identify scores that are better, worse, or about the same as most other trusts.

The below sets out the scoring assigned to each question used in the analysis, under headings to identify which report they are contained within.

ANTENATAL CARE REPORTS

Section B: Care while you were pregnant (Antenatal care)

B4. Were you offered any of the following choices about where to have your baby? (Cross *ALL* that apply)	
I was offered a choice of hospitals	2.5
I was offered a choice of giving birth in a midwife led unit or birth centre	2.5
I was offered a choice of giving birth in a consultant led unit	2.5
I was offered a choice of giving birth at home	2.5
I was not offered any choices	0
I had no choices due to medical reasons	Not applicable
Don't know	Not applicable
Answered by all	

B6. Did you get enough information from either a midwife or doctor to help you decide where to have your baby?	
Yes, definitely	10
Yes, to some extent	5
No	0
No, but I did not need this information	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

Antenatal check-ups

B7. During your pregnancy were you given a choice about where your antenatal check-ups would take place?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

B10. During your antenatal check-ups, did the midwives appear to be aware of your medical history?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know / can't remember	Not applicable
Answered by all	

B11. During your antenatal check-ups, were you given enough time to ask questions or discuss your pregnancy?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know	Not applicable
Answered by all	

B12. During your antenatal check-ups, did the midwives listen to you?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

B13. During your antenatal check-ups, did a midwife ask you how you were feeling emotionally?	
Yes, definitely	10
Yes, to some extent	5
No	0
Don't know/can't remember	Not applicable

During your pregnancy

B14. During your pregnancy, did you have a telephone number for a midwife or midwifery team that you could contact?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

B15. During your pregnancy, if you contacted a midwife, were you given the help you needed?	
Yes, always	10
Yes, sometimes	5
No	0
No, as I was not able to contact a midwife	0
I did not contact a midwife	Not applicable
Answered by all	

B16. Thinking about your antenatal care, were you spoken to in a way you could understand?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

B17. Thinking about your antenatal care, were you involved enough in decisions about your care?	
Yes, always	10
Yes, sometimes	5
No	0
I did not want/need to be involved	Not applicable
Don't know/can't remember	Not applicable

Answered by all

LABOUR AND BIRTH REPORTS

Section C: Your labour and the birth of your baby

C1. At the very start of your labour, did you feel that you were given appropriate advice and support when you contacted a midwife or the hospital?	
I did not contact a midwife or the hospital	Not applicable
Yes	10
No	0

Answered by all those who did not have a planned caesarean

C3. During your labour, were you able to move around and choose the position that made you most comfortable?	
Yes, most of the time	10
Yes, sometimes	5
No	0
No, but it was not possible to move around	Not applicable

Answered by all those who did not have a planned caesarean

C10. Did you have skin to skin contact (*baby naked, directly on your chest or tummy*) with your baby shortly after the birth?	
Yes	10
Yes, but I did not want this	0
No	0
No, but this was not possible for medical reasons	Not applicable
I did not want skin to skin contact with my baby	Not applicable

Answered by all

C11. If your partner or someone else close to you was involved in your care during labour and birth, were they able to be involved as much as they wanted?	
Yes	10
No	0
They did not want to be involved	Not applicable
I did not want them to be involved	Not applicable
I did not have a partner or companion with me	Not applicable

Answered by all

The staff caring for you

C12. Did the staff treating and examining you introduce themselves?	
Yes, all of the staff introduced themselves	10
Some of the staff introduced themselves	5
Very few or none of the staff introduced themselves	0
Don't know / can't remember	Not applicable
Answered by all	

C13. Were you (and/or your partner or a companion) left alone by midwives or doctors at a time when it worried you? (Cross *ALL* that apply)	
Yes, during early labour	0
Yes, during the later stages of labour	0
Yes, during the birth	0
Yes, shortly after the birth	0
No, not at all	10
Answered by all	

C14. If you raised a concern during labour and birth, did you feel that it was taken seriously?	
Yes	10
No	0
I did not raise any concerns	Not applicable
Answered by all	

C15. If you needed attention during labour and birth, were you able to get a member of staff to help you within a reasonable time?	
Yes, always	10
Yes, sometimes	5
No	0
A member of staff was with me all the time	10
I did not want / need this	Not applicable
Don't know / can't remember	Not applicable
Answered by all	

C16. Thinking about your care during labour and birth, were you spoken to in a way you could understand?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

C17. Thinking about your care during labour and birth, were you involved enough in decisions about your care?	
Yes, always	10
Yes, sometimes	5
No	0
I did not want/need to be involved	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

C18. Thinking about your care during labour and birth, were you treated with respect and dignity?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

C19. Did you have confidence and trust in the staff caring for you during your labour and birth?	
Yes, definitely	10
Yes, to some extent	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

POSTNATAL CARE REPORTS

Section D: Care in hospital after the birth (postnatal care)

D2. Looking back, do you feel that the length of your stay in hospital after the birth was...	
Too long?	0
Too short?	0
About right?	10
Not sure/Don't know	Not applicable
Answered by all who went to hospital	

D3. If you needed attention while you were in hospital after the birth, were you able to get a member of staff to help you within a reasonable time?	
Yes, always	10
Yes, sometimes	5
No	0
I did not want / need this	Not applicable
Don't know / can't remember	Not applicable
Answered by all who went to hospital	

D4. Thinking about the care you received in hospital after the birth of your baby, were you given the information or explanations you needed?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all who went to hospital	

D5. Thinking about the care you received in hospital after the birth of your baby, were you treated with kindness and understanding?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all who went to hospital	

D6. Thinking about your stay in hospital, If your partner or someone else close to you was involved in your care, were they able to stay with you as much as they wanted?	
Yes	10
No, as they were restricted to visiting hours	0
No, as there was no accommodation for them in the hospital	0
No, they were not able to stay for another reason	Not applicable
I did not have a partner or companion with me	Not applicable
Answered by all who went to hospital	

D7. Thinking about your stay in hospital, how clean was the hospital room or ward you were in?	
Very clean	10
Fairly clean	6.7
Not very clean	3.3
Not at all clean	0
Don't know/can't remember	Not applicable
Answered by all who went to hospital	

D8. Thinking about your stay in hospital, how clean were the toilets and bathrooms you used?	
Very clean	10
Fairly clean	6.7
Not very clean	3.3
Not at all clean	0
Don't know/can't remember	Not applicable
I did not use the toilet/bathroom	Not applicable
Answered by all who went to hospital	

Section E: Feeding your baby

E1. During your pregnancy did midwives provide relevant information about feeding your baby?	
Yes, definitely	10
Yes, to some extent	5
No	0
I did not want or need this information	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

E4. Were your decisions about how you wanted to feed your baby respected by midwives?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all	

E5. Did you feel that midwives and other health professionals gave you consistent advice about feeding your baby?	
Yes, always	10
Yes, sometimes	5
No	0
I did not want or need any advice	Not applicable
I did not receive any advice	0
Don't know/can't remember	Not applicable
Answered by all	

E6. Did you feel that midwives and other health professionals gave you active support and encouragement about feeding your baby?	
Yes, always	10
Yes, sometimes	5
No	0
I did not want/need this	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

Section F: Care at home after the birth

F1. When you were at home after the birth of your baby, did you have a telephone number for a midwife or midwifery team that you could contact?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

F2. If you contacted a midwife were you given the help you needed?	
Yes, always	10
Yes, sometimes	5
No	0
No as I was not able to contact a midwife	0
I did not contact a midwife	Not applicable
Answered by all	

F6. Would you have liked to have seen a midwife...	
More often?	0
Less often?	0
I saw a midwife as much as I wanted	10
Answered by all who saw a midwife postnatally	

F7. Did the midwife or midwives that you saw appear to be aware of the medical history of you and your baby?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all who saw a midwife postnatally	

F8. Did you feel that the midwife or midwives that you saw always listened to you?	
Yes, always	10
Yes, sometimes	5
No	0
Don't know/can't remember	Not applicable
Answered by all who saw a midwife postnatally	

F9. Did the midwife or midwives that you saw take your personal circumstances into account when giving you advice?	
Yes, always	10
Yes, sometimes	5
No	0
That was not necessary	Not applicable
Don't know/can't remember	Not applicable
Answered by all who saw a midwife postnatally	

F10. Did you have confidence and trust in the midwives you saw after going home?	
Yes, definitely	10
Yes, to some extent	5
No	0
Don't know/can't remember	Not applicable
Answered by all who saw a midwife postnatally	

F11. Did a midwife tell you that you would need to arrange a postnatal check-up of your own health with your GP? (Around 4-8 weeks after the birth)	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all who saw a midwife postnatally	

F12. Did a midwife or health visitor ask you how you were feeling emotionally?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

F13. Were you given enough information about your own physical recovery after the birth?	
Yes, definitely	10
Yes, to some extent	5
No	0
No, but I did not need this information	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

F14. In the six weeks after the birth of your baby did you receive help and advice from a midwife or health visitor about feeding your baby?	
Yes, definitely	10
Yes, to some extent	5
No	0
I did not need any	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

F15. If, during evenings, nights or weekends, you needed support or advice about feeding your baby, were you able to get this?	
Yes, always	10
Yes, sometimes	5
No	0
I did not need this	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

F16. In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's health and progress?	
Yes, definitely	10
Yes, to some extent	5
No	0
I did not need any	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

F17. Were you given enough information about any emotional changes you might experience after the birth?	
Yes, definitely	10
Yes, to some extent	5
No	0
No, but I did not need this information	Not applicable
Don't know/can't remember	Not applicable
Answered by all	

F18. Were you told who you could contact if you needed advice about any emotional changes you might experience after the birth?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

F19. Were you given information or offered advice from a health professional about contraception?	
Yes	10
No	0
Don't know/can't remember	Not applicable
Answered by all	

Appendix B: Calculating the trust score and category

Calculating trust scores

The question and section scores for each trust, for each of the three reports, were calculated using the method described below.

Weights were calculated to adjust for any variation between trusts that resulted from differences in the age and parity groupings of respondents. A weight was calculated for each respondent by dividing the national proportion of respondents in their age/parity group by the corresponding trust proportion. The reason for weighting the data was that younger people tend to be more critical in their responses than older people and we have reason to believe parity may also influence responses to some questions. If a trust had a large population of young people, for example, their performance might be judged more harshly than if there was a more consistent distribution of age and parity of respondents.

Weighting survey responses

The first stage of the analysis involved calculating the national age/ parity proportions. It must be noted that the term “national proportion” is used loosely here as it was obtained from pooling the survey data from all trusts, and was therefore based on the respondent population rather than the entire population of England.

The questionnaire asked respondents to state their year of birth. The approximate age of each woman was then calculated by subtracting the figure given from 2015. Parity was determined according to responses to question G3 (“How many babies have you given birth to before this pregnancy”). The respondents were then grouped according to the categories shown in Figure B1.

If a respondent did not fill in their year of birth on the questionnaire, this information was inputted from the sample file. If information on a respondent’s age was missing from both the questionnaire and the sample file, or if they didn’t complete question G3 to provide information on parity, the woman was excluded from the analysis as it is not possible to assign a weight.

The national age/parity proportions relate to the proportion of women of different age groups, split according to whether they have previously given birth to a child. As shown in Figure B1 below, the proportion of respondents who were first time mothers (primiparous) aged 27 to 32 years is 0.202; the proportion who had previously had children (multiparous) and were aged 27 to 32 years is 0.169, etc.

Figure B1 National Proportions

Parity	Age Group	National proportion 2015
Primiparous	16-26	0.107
	27-32	0.202
	33 and over	0.175
Multiparous	16-26	0.050
	27-32	0.169
	33 and over	0.297

Note: All proportions are given to three decimals places for this example. The analysis included these figures to nine decimal places, and can be provided on request from the CQC surveys team at patient.survey@cqc.org.uk.

These proportions were then calculated for each trust, using the same procedure.

The next step was to calculate the weighting for each individual. Age/parity weightings were calculated for each respondent by dividing the national proportion of respondents in their age/parity group by the corresponding trust proportion.

If, for example, a lower proportion of primiparous women who were aged between 27 and 32 years within Trust A responded to the survey, in comparison with the national proportion, then this group would be under-represented in the final scores for the trust. Dividing the national proportion by the trust proportion results in a weighting greater than one for members of this group (Figure B2). This increases the influence of responses made by respondents within that group in the final score, thus counteracting the low representation.

Figure B2 Proportion and Weighting for Trust A

Parity	Age Group	National Proportion	Trust A Proportion	Trust A Weight (National/Trust A)
Primiparous	16-26	0.107	0.108	0.991
	27-32	0.202	0.099	2.040
	33 +	0.175	0.179	0.978
Multiparous	16-26	0.05	0.092	0.543
	27-32	0.169	0.175	0.966
	33+	0.297	0.299	0.993

Note: All proportions are given to three decimals places for this example. The analysis included these figures to nine decimal places

Likewise, if a considerably higher proportion of multiparous women aged 33 and over from Trust B responded to the survey (Figure B3), then this group would be over-represented within the sample, compared with national representation of this group. Subsequently this group would have a greater influence over the final scores for the trust. To counteract this, dividing the national proportion by the proportion for Trust B results in a weighting of less than one for this group.

Figure B3 Proportion and Weighting for Trust B

Parity	Age Group	National Proportion	Trust B Proportion	Trust B Weight (National/Trust B)
Primiparous	16-26	0.107	0.101	1.059
	27-32	0.202	0.125	1.616
	33+	0.175	0.189	0.926
Multiparous	16-26	0.050	0.045	1.111
	27-32	0.169	0.207	0.816
	33+	0.297	**0.324**	0.917

Note: All proportions are given to three decimals places for this example. The analysis included these figures to nine decimal places

To prevent the possibility of excessive weight being given to respondents in an extremely under-represented group, the maximum value for any weight was set at five. There was no minimum weight for respondents as applying very small weights to over-represented groups does not have the same potential to give excessive impact to the responses of small numbers of individual respondents.

Calculating question scores

The trust score for each question displayed on the website and in the benchmark reports was calculated by applying the weighting for each respondent to the scores allocated to each response.

The below is a working example of this process for the 'care in hospital after birth' section of the questionnaire which for simplicity uses three respondents.

The responses given by each respondent were entered into a dataset using the 0-10 scale described in section 5.1 and outlined in Appendix A. Each row corresponded to an individual respondent, and each column related to a survey question. For those questions that the respondent did not answer (or received a "not applicable" score for), the relevant cell remained empty. Alongside these were the weightings allocated to each respondent (Figure B4).

Figure B4 Scoring for the 'Care in hospital after the birth' section of the Labour and birth report, 2015 Maternity survey, Trust B

Respondent	**Scores**							
	D2	**D3**	**D4**	**D5**	**D6**	**D7**	**D8**	**Weight**
1	0	5		10	0	6.7	10	1.059
2		10	10	5		0	0	0.926
3	10	5	0	0	10	3.3		0.816

Respondents' scores for each question were then multiplied individually by the relevant weighting, in order to obtain the numerators for the trust scores (Figure B5).

Figure B5 Numerators for the 'Care in hospital after the birth' section of the Labour and birth report, 2015 Maternity survey, Trust B

Respondent	Numerators							
	D2	D3	D4	D5	D6	D7	D8	Weight
1	0.000	5.295		10.590	0.000	7.095	10.590	1.059
2	0.000	9.260	9.260	4.630		0.000	0.000	0.926
3	8.160	4.080	0.000	0.000	8.160	2.693	0.000	0.816

Obtaining the denominators for each domain score

A second dataset was then created. This contained a column for each question, and again with each row corresponding to an individual respondent. A value of one was entered for the questions where a response had been given by the respondent, and all questions that had been left unanswered or allocated a scoring of "not applicable" were set to missing (Figure B6).

Figure B6 Values for non-missing responses, for the 'Care in hospital after the birth' section of the Labour and birth report, 2015 Maternity survey, Trust B

Respondent	Values							
	D2	D3	D4	D5	D6	D7	D8	Weight
1	1	1		1	1	1	1	1.059
2	1	1	1	1		1	1	0.926
3	1	1	1	1	1	1	1	0.816

The denominators were calculated by multiplying each of the cells within the second dataset by the weighting allocated to each respondent. This resulted in a figure for each question that the respondent had answered (Figure B7). Again, the cells relating to the questions that the respondent did not answer (or received a 'not applicable' score for) remained set to missing.

Figure B7 Denominators for the 'Care in hospital after the birth' section of the Labour and birth report, 2015 Maternity survey, Trust B

Respondent	Denominators							
	D2	D3	D4	D5	D6	D7	D8	Weight
1	1.059	1.059		1.059	1.059	1.059	1.059	1.059
2	0.926	0.926	0.926	0.926		0.926	0.926	0.926
3	0.816	0.816	0.816	0.816	0.816	0.816	0.816	0.816

The weighted mean score for each trust, for each question, was calculated by dividing the sum of the weighted scores for a question (i.e. numerators), by the weighted sum of all eligible respondents to the question (i.e. denominators) for each trust.

Using the example data for Trust B, we first calculated weighted mean scores for each of the three questions that contributed to the 'care in hospital after the birth' section of the questionnaire.

D2: $\frac{0.00 + 0.00 + 8.160}{1.059 + 0.926 + 0.816} = 2.913$

D3: $\frac{5.295 + 9.260 + 4.080}{1.059 + 0.926 + 0.816} = 6.653$

D4: $\frac{9.260 + 0.000}{0.926 + 0.816} = 5.316$

D5: $\frac{10.590 + 4.630 + 0.000}{1.059 + 0.926 + 0.816} = 5.434$

D6: $\frac{0.000 + 8.160}{1.059 + 0.816} = 4.352$

D7: $\frac{7.095 + 0.000 + 2.693}{1.059 + 0.926 + 0.816} = 3.495$

D8: $\frac{10.590 + 0.000 + 0.000}{1.059 + 0.926 + 0.816} = 3.781$

Calculating section scores

A simple arithmetic mean of each trust's question scores was then taken to give the score for each section. Continuing the example from above, then, Trust B's score for the 'Care in hospital after the birth' section of the 2015 Maternity survey Labour and birth report would be calculated as:

(2.913 + 6.653 + 5.316 + 5.434 + 4.352 + 3.495 + 3.781) / 7 = 4.563

Appendix C: Calculation of the expected ranges

Z statistics (or Z scores) are standardized scores derived from normally distributed data, where the value of the Z score translates directly to a p-value. That p-value then translates to what level of confidence you have in saying that a value is significantly different from the mean of your data (or your 'target' value).

A standard Z score for a given item is calculated as:

$$z_i = \frac{y_i - \theta_0}{s_i} \qquad (1)$$

where: s_i is the standard error of the trust score[1],
y_i is the trust score
θ_0 is the mean score for all trusts

Under this banding scheme, a trust with a Z score of < -1.96 is labeled as "Worse" (significantly below average; p<0.025 that the trust score is below the national average), -1.96 < Z < 1.96 as "About the same", and Z > 1.96 as "Better" (significantly above average; p<0.025 that the trust score is above the national average) than what would be expected based on the national distribution of trust scores.

However, for measures where there is a high level of precision in the estimate (the survey sample sizes average around 400 to 500 per trust) in the estimates, the standard Z score may give a disproportionately high number of trusts in the significantly above/ below average bands (because s_i is generally so small). This is compounded by the fact that all the factors that may affect a trust's score cannot be controlled. For example, if trust scores are closely related to economic deprivation then there may be significant variation between trusts due to this factor, not necessarily due to factors within the trusts' control. In this situation, the data are said to be 'over dispersed'. That problem can be partially overcome by the use of an 'additive random effects model' to calculate the Z score (we refer to this modified Z score as the Z_D score). Under that model, we accept that there is natural variation between trust scores, and this variation is then taken into account by adding this to the trust's local standard error in the denominator of (1). In effect, rather than comparing each trust simply to one national target value, we are comparing them to a national distribution.

The Z_D score for each question and section was calculated as the trust score minus the national mean score, divided by the standard error of the trust score plus the variance of the scores between trusts. This method of calculating a Z_D score differs from the standard method of calculating a Z score in that it recognizes that there is likely to be natural variation between trusts which one should expect, and accept. Rather than comparing each trust to one point only (i.e. the national mean score), it compares each trust to a distribution of acceptable scores. This is achieved by adding some of the variance of the scores between trusts to the denominator.

The steps taken to calculate Z_D scores are outlined below.

Winsorising Z-scores

[1] Calculated using the method in Appendix C.

The first step when calculating Z_D is to 'Winsorise' the standard Z scores (from (1)). Winsorising consists of shrinking in the extreme Z-scores to some selected percentile, using the following method:

1. Rank cases according to their naive Z-scores.

2. Identify Z_q and $Z_{(1-q)}$, the 100q% most extreme top and bottom naive Z-scores. For this work, we used a value of q=0.2

3. Set the lowest 100q% of Z-scores to Z_q, and the highest 100q% of Z-scores to $_{(1-q)}$. These are the Winsorised statistics.

This retains the same number of Z-scores but discounts the influence of outliers.

Estimation of over-dispersion

An over dispersion factor $\hat{\phi}$ is estimated for each indicator which allows us to say whether the data for that indicator are over dispersed or not:

$$\hat{\phi} = \frac{1}{I}\sum_{i=1}^{I} \boldsymbol{Z}_i^{\,2} \quad (2)$$

where I is the sample size (number of trusts) and z_i is the Z score for the *i*th trust given by (1). The Winsorised Z scores are used in estimating $\hat{\phi}$.

An additive random effects model

If I $\hat{\phi}$ is greater than (I - 1) then we need to estimate the expected variance between trusts. We take this as the standard deviation of the distribution of θ_i (trust means) for trusts, which are on target, we give this value the symbol $\hat{\tau}$, which is estimated using the following formula:

$$\hat{\tau}^2 = \frac{I\hat{\phi} - (I-1)}{\sum_i w_i - \sum_i w_i^2 \Big/ \sum_i w_i} \quad (3)$$

where $w_i = 1 / s_i^2$ and $\hat{\phi}$ is from (2). Once $\hat{\tau}$ has been estimated, the Z_D score is calculated as:

$$\boldsymbol{Z}_i^{D} = \frac{\boldsymbol{y}_i - \theta_0}{\sqrt{\boldsymbol{S}_i^{\,2} + \hat{\tau}^2}} \quad (4)$$

Appendix D: Calculation of standard errors

In order to calculate statistical bandings from the data, it is necessary for CQC to have both trusts' scores for each question and section and the associated standard error. Since each section is based on an aggregation of question mean scores that are based on question responses, a standard error needs to be calculated using an appropriate methodology.

For the patient experience surveys, the z-scores are scores calculated for section and question scores, which combines relevant questions making up each section into one overall score, and uses the pooled variance of the question scores

Assumptions and notation

The following notation will be used in formulae:

X_{ijk}	is the score for respondent *j* in trust *i* to question *k*
Q	is the number of questions within section *d*
w_{ij}	is the standardization weight calculated for respondent *j* in trust *i*
Y_{ik}	is the overall trust *i* score for question *k*
Y_{id}	is the overall score for section *d* for trust *i*

Associated with the subject or respondent is a weight w_{ij} corresponding to how well the respondent's age/sex is represented in the survey compared with the population of interest.

Calculating mean scores

Given the notation described above, it follows that the overall score for trust *i* on question *k* is given as:

$$Y_{ik} = \frac{\sum_j w_{ij} X_{ijk}}{\sum_j w_{ij}}$$

The overall score for section *d* for trust *i* is then the average of the trust-level question means within section *d*. This is given as:

$$Y_{id} = \frac{\sum_{k=1}^{Q} Y_{ikd}}{Q}$$

Calculating standard errors

Standard errors are calculated for both sections and questions.

The variance within trust i on question k is given by:

$$\hat{\sigma}_{ik}^2 = \frac{\sum_j w_{ij}\left(X_{ijk} - Y_{ik}\right)^2}{\sum_j w_{ij}}$$

This assumes independence between respondents.

For ease of calculation, and as the sample size is large, we have used the biased estimate for variance.

The variance of the trust level average question score, is then given by:

$$V_{ik} = Var(Y_{ik}) = Var\left(\frac{\sum_j w_{ij} X_{ijk}}{\sum_j w_{ij}}\right)$$

$$= \frac{Var\left(\sum_j w_{ij} X_{ijk}\right)}{\left(\sum_j w_{ij}\right)^2}$$

$$= \frac{\hat{\sigma}_{ik}^2 \sum_j w_{ij}^2}{\left(\sum_j w_{ij}\right)^2}$$

Covariances between pairs of questions (here, *k* and *m*) can be calculated in a similar way:

$$COV_{ik.im}. = Cov(Y_{ik}, Y_{im}) = \frac{\hat{\sigma}_{ikm} \sum_j w_{ij}^2}{\left(\sum_j w_{ij}\right)^2}$$

Where $\hat{\sigma}_{ikm} = \frac{\sum_j w_{ij}(X_{ijk} - Y_{ik})(X_{ijm} - Y_{im})}{\sum_j w_{ij}}$

Note: w_{ij} is set to zero in cases where patient *j* in trust *i* did not answer both questions *k* and *m*.

The trust level variance for the section score *d* for trust *i* is given by:

$$V_{id} = Var(Y_{id}) = \frac{1}{Q^2}\left\{\sum_{k=1}^{Q} V_{ik} + 2\sum_{k=2}^{Q}\sum_{m=1}^{k-1} COV_{ik,im}\right\}$$

The standard error of the section score is then:

$$SE_{id} = \sqrt{V_{id}}$$

This simple case can be extended to cover sections of greater length.