

## **NHS Patient Survey Programme**

# **2015 Maternity Survey: Quality and Methodology**

# Contents

Introduction .....	2
Survey development.....	3
Survey design and implementation.....	3
Questionnaire development .....	4
Sampling and fieldwork .....	5
Sampling .....	5
Sampling error.....	5
Trust Mergers.....	6
Errors in drawing samples .....	6
Fieldwork Considerations .....	8
Data analysis and reporting .....	13
Data cleaning and editing.....	13
Attributing care .....	14
Statistical Release .....	14
Trust results.....	15
Data weighting and comparisons.....	17
Quality assurance .....	18
Approved contractor / in house trust checks .....	18
Patient Survey Co-ordination Centre checks .....	18
Data Limitations .....	20
Context .....	20
Seasonal effects.....	20
Attribution data .....	20
Response rates .....	22
Non response Bias.....	24
Addressing non-response bias in the survey results .....	26
Data Revisions.....	28
Further Information .....	29
Feedback .....	29

# Introduction

The 2015 Maternity Survey involved 133 NHS trusts in England, who sent questionnaires to a total of 50,945 women. Responses were received from 20,631 women, a response rate of 41.2%.<sup>1</sup> Women in the sample who had a live birth between 1 and 28 February 2015 were invited to take part (with smaller trusts sampling back into January)

The survey was first carried out in 2007, then in 2010 and 2013. To reflect changes in policy and best practice, and to reflect feedback from stakeholders, the survey questionnaire has been adjusted over time. We aim to keep the surveys as comparable as possible, but as some new questions have been added and some existing questions have been modified for 2015, this means not all questions are comparable across years.

This report provides detailed information on key quality and methodological issues relating to the 2015 Maternity Survey. It covers the development, implementation and analysis of the survey. This document also describes the quality of the data and statistics and details any points that should be noted when using the outputs. More detail on development of the survey and errors made during the sampling process can also be found at <http://www.nhssurveys.org/surveys/826>.

An overview of our approach to Quality within the Survey Programme is available in the 'Statistics: Quality Statement', available from the link to the right of the webpage [here](#).

---

<sup>1</sup>. Please note: we report the 'adjusted' response rate. The adjusted base is calculated by subtracting the number of questionnaires returned as undeliverable or if someone had died, from the total number of questionnaires sent out. The adjusted response rate is then calculated by dividing the number of returned useable questionnaires by the adjusted base.

# Survey development

## Survey design and implementation

The NHS Patient Survey Programme (NPSP) adopts general principles of good survey practice in design and implementation of surveys. The Programme has put in place a number of measures to help maximise response rates and these include:

- Up to two reminders are set to non-responders
- A Freephone language line provides translation services. MENCAP also provide support for people with learning difficulties.
- Questionnaires are written using simple and clear language
- Rigorous testing of questions and response options with people who have recently used services<sup>2</sup> to ensure that they are easily understood and are relevant ('cognitive testing')
- Reassurances of confidentiality
- Long fieldwork period, as evidence shows this can encourage lesser heard groups, such as minority ethnic groups, to respond<sup>3</sup>
- Development of questions that are relevant to all or most people in the sample
- A Quality Assurance Framework ensuring all survey materials and results are reliable and accurate.

There is also an ongoing programme of pilot work as part of the acute inpatient survey looking at improving response rates, whereby different initiatives are tested for efficacy.

Like most surveys in the NPSP, the Maternity Survey uses a postal survey methodology, and a questionnaire is sent to people after their healthcare experiences. This helps to reduce the effects of 'gratitude bias' which can arise when people give feedback either direct to staff, or whilst on trust premises.

In terms of the survey design and implementation, a number of steps are taken to ensure the survey's robustness. Consultation with key stakeholders takes place in advance of any survey, even for this iteration of the maternity survey where major redevelopment of the survey instrument and methodology was not needed. NHS England, CQC and the National Perinatal Epidemiology Unit (NPEU) were involved in confirming the questionnaire.

Questionnaires were 'cognitively tested' with 23 women who had given birth within the past year. The testing took place across Oxford, London and Brighton. Women of a mix of ages and ethnic groups took part, including women whose first language is not English. This testing helps ensure that questions and response options are understood as intended. Respondents complete a questionnaire with a researcher to check interpretation and comprehension. For more information,

---

<sup>2</sup> For Maternity 2015, this involved interviewing women who had had a baby within cognitive interviewing, which took place in January 2015.

<sup>3</sup> Report available at:

[www.nhssurveys.org/Filestore/documents/Extension\\_of\\_fieldwork\\_for\\_inpatient\\_survey\\_2007.pdf](http://www.nhssurveys.org/Filestore/documents/Extension_of_fieldwork_for_inpatient_survey_2007.pdf)

please see the 'cognitive testing' section of our development report.

All surveys follow a strict methodology as specified in the survey [instruction manual](#) which all trusts (or the contractors they appoint to run the survey on their behalf) must follow. Any deviation from the survey guidance, depending on severity, may result in data being excluded from published results. Any decision to exclude data is made by the Surveys Team at the Care Quality Commission in conjunction with the Patient Surveys Coordination Centre based on discussion with, and evidence provided by the trust(s).

In 2015, no trusts have been excluded from the survey publication. A number of trusts do not have historical comparisons with the 2013 survey because of mergers, dissolutions, or because they have been newly created since the last survey.

## Questionnaire development

Efforts were taken to ensure the 2015 questionnaire was as similar as possible to the 2013 version to maximize comparisons between survey years. The 2013 survey underwent a major redevelopment which reduced comparability back to the 2010 and 2007 surveys. Preserving comparability from 2013 onwards has therefore been a priority when reviewing the Maternity Survey more recently. For the 2015 survey, there are 79 questions, five questions more than 2013.

The 2015 questionnaire also included a new statement highlighting that any free text commentary would be shared *in full* with trusts, CQC and researchers, but would only be published after identifiable information was removed.

For further information please see the [development report](#) for the 2015 survey.

# Sampling and fieldwork

## Sampling

Women aged 16 and over at the time of delivery were eligible for the survey if they had a live birth during the month of February 2015. Only women receiving care from an NHS trust were eligible. Trusts with smaller and / or fewer maternity units, whereby their sample from February births would contain fewer than 300 women, were permitted to include women who gave birth during January 2015 also, starting with deliveries on 31<sup>st</sup> January and working back across the month until the minimum sample size of 300 was achieved, or including the entire month<sup>4</sup>. This approach allows for the entire six-week postnatal period to have concluded by the time of fieldwork (this is important because there are a number of questions that deal with postnatal care). Full details of the sampling are available in the [instruction manual for the survey](#).

All NHS trusts providing maternity services were eligible to take part in the survey. No trusts needed to be excluded from analysis on the basis errors made when drawing the sample. More detailed information is available in the 'errors in drawing sample' section of this document'. Fieldwork for the survey (the time during which questionnaires were sent out and returned) took place between April and September 2015.

## Sampling error

As the survey does not use a random sample, sampling error calculations were not applicable when determining the minimum sample size. The minimum sample size of 300 live deliveries during February (sampling back to January if necessary) was set to ensure that the sample would be large enough to remain robust without excluding hospitals with smaller throughputs of women during the chosen time period. An additional benefit of using all live births during February (or January also in some cases) is the simplicity of the approach: it minimises the possibility of trusts committing an error in compiling samples. For example, if trusts were required to submit a random sample instead of the selecting all women giving birth during February 2015, the process would be more complex and this would increase the opportunity for errors. The survey contractors and Co-ordination Centre would not have access to the original trust records to check for such errors which could potentially then compromise the quality of the survey responses.

---

<sup>4</sup> Please note: weighting is not applied to adjust for differences in trust population size, as the focus of the statistics is to provide comparable data across trusts (see Data Limitations section for more detail).

## Trust Mergers

The results for England are based on an average of the results from all participating trusts pooled. Changes in the number of participating trusts can have a very small effect on the results for England. However, with regard to trust-specific results such as benchmark reports, it is inaccurate to display historical results when an event such as a merger will have rendered the trust incomparable to previous years' statistics. In that regard, some trusts did not receive historical comparisons due to mergers or other trust-wide changes:

- **Frimley Health NHS Foundation Trust (RDU)** – this trust was formed by the merger of Frimley Park Hospital NHS Foundation Trust and Heatherwood and Wexham Park Hospitals NHS Foundation Trust;
- **London North West Healthcare NHS Trust (R1K)** – this trust was formed by the merger of North West London Hospitals NHS Trust and Ealing Hospital NHS Trust;
- **Lewisham and Greenwich NHS Trust (RJ2)** – this trust was formed by the merger of Lewisham Healthcare NHS Trust and Queen Elizabeth Hospital;
- **The Royal Free London NHS Foundation Trust (RAL)** – this trust acquired Barnet and Chase Farm Hospitals NHS Trust;
- **University Hospitals of North Midlands NHS Trust (RJE)** – this trust was formed after the dissolution of Mid Staffordshire NHS Foundation Trust;
- **King's College Hospital NHS Foundation Trust (RJZ)** – this trust acquired Princess Royal University Hospital;
- **Royal United Hospitals Bath NHS Foundation Trust (RD1)** – prior to 2014, the maternity services at RUH Bath were run by Great Western Hospital NHS Foundation Trust, so this is the first year RUH Bath is included in the survey.

Please note: Great Western Hospital NHS Foundation Trust used to provide maternity services for Royal United Hospitals Bath NHS Foundation Trust. In 2015 Royal United then took over the service fully themselves. On reviewing the survey samples for the 2015 survey, it became apparent that Great Western should have submitted sample data from two sites for previous surveys (its own maternity unit and that provided to Royal United) however the Great Western had only submitted sample data for one site (Great Western Hospital). Due to this, the change in provider means that Great Western Hospital NHS Foundation Trust's comparability to 2013 has not been affected by that error as their 2015 sample was drawn from the same single site in 2015 as it was in 2013.

## Errors in drawing samples

The chances of *sampling mistakes* being made by trusts (for example, accidentally excluding certain people) are minimised by multi-stage sample checks. Trusts are provided with a checklist to review their drawn sample. Those trusts that appoint an

'[approved contractor](#)'<sup>5</sup> to undertake the survey on their behalf will have their sample reviewed by this company. Finally, all anonymised samples are checked by the Patient Survey Co-ordination Centre at the [Picker Institute Europe](#) who will look for extraordinary errors that are more noticeable when pooling data together (for example, unusual or skewed age distributions).

Several items are checked against the previous year's submission to help ascertain whether a trust has followed the guidelines correctly. These include comparisons of population size, and demographics such as age, ethnicity and place of birth (both the actual place of delivery such as home birth, and the CCG in which the birth took place). The Co-ordination Centre rely on trusts to confirm how many sites are providing maternity services, though samples are checked against previous years and, should there be discrepancies in the number of sites included, these are queried with the trust.

Errors that are found from these checks are classified as either minor or major.

A minor error is defined as an error that will not affect the usage or quality of the survey response data, but is still classed as a mistake. For example, a minor sampling error would be if the wrong Clinical Commissioning Group (CCG) code was associated with a record. In this case, the trust could make a change to the code and it would not undermine the quality of the sample. This type of error would be rectified by the trust or contractor, or by the Co-ordination Centre if possible, before the statistics are produced. They are often a result of an answer being transcribed incorrectly, and can be rectified by asking the trust or contractor to confirm the correct information.

A major error is defined as an error that will affect the usage or quality of the survey response data: these are errors that are non-rectifiable. For example, a major sampling error would be if the sample drawn for a survey was not in line with the required methodology such as if a trust had drawn a random sample for the Inpatients survey instead of consecutive discharges. If the error was spotted during checking the sample, the trust would be required to re-draw the sample in line with the guidance. Major errors within the survey response data submissions would result if there was an error in the wording of a question (where the questionnaire had been set up for use on different data capture software).

A report is produced each year of these errors and is published on the [NHS surveys website](#)<sup>6</sup> (available for the 2015 survey [here](#)). Trusts and approved contractors are encouraged to review this report to minimise recurrence of previously detected errors. In 2015 there were eight major errors and 18 minor errors found by the Patient Survey Co-ordination Centre during sample checking.

We have explored the way in which trusts input data for patients before it is used to create survey samples, and this is outlined in our Statement of Administrative Sources, available [here](#) (see link on right hand side of webpage). We conclude that there may be potential for incorrect addresses or inaccurate coding of cases – however there is a low likelihood of this due to the requirements placed on NHS

---

<sup>5</sup> These are companies that have been approved by the Care Quality Commission during a competitive tendering process to carry out surveys in the NPSP on behalf of trusts. For more information please see: [www.nhssurveys.org/approvedcontractors](http://www.nhssurveys.org/approvedcontractors)

<sup>6</sup> This website hosts all survey materials (questionnaires, covering letters, guidance manuals etc.) for all current and past surveys as well as results from previous surveys and development reports.



trusts, and their interests in maintaining accurate records. The effects of this on trust results would therefore be small due to the scale of likely error, and on England level statistics this would have an even smaller impact due to aggregation of trust results to the England average.

In 2013 a sample checklist and declaration form was introduced; trusts are required to sign and submit this form prior to submitting their sample. As well as helping to ensure that trusts have followed the sampling methodology as specified in the survey guidance, this form also helps confirm that trusts maintain confidentiality by taking the required steps as specified in the guidance, such as only sharing the required variables. Having this checklist and declaration form approved before sending sample fulfills NHS trusts' own requirements under the Data Protection Act and helps to reduce the potential for breaches to the support received under section 251 of the NHS Act 2006<sup>7</sup> (which provides a legal basis for the transfer of data to a survey contractor).

### Fieldwork Considerations

The Patient Survey Co-ordination Centre undertook thorough testing on six trusts:

- three trusts that entered fieldwork much later than recommended,
- one trust that had an unusually low response rate,
- one that had a large number of respondents removed prior to sample checking due to checks for deceased patients with the Demographic Batch Service (DBS), and
- one trust that had varying sample sizes across the surveys in 2010, 2013 and 2015.

For each of these trusts, the key consideration was whether the respondent population would not be representative of the sample that was originally (or that should have been) drawn by the trust and/or the trust's actual population (i.e. the women who gave birth at the trust during the sampling period). The Patient Survey Co-ordination Centre ran significance testing on the following sample variables to determine whether those who responded differed significantly from those who did not: mother's ethnic code, mother's year of birth, place of birth (this refers to midwife-led ward, consultant-led ward, etc. and not the site code of the hospital). The Co-ordination Centre also checked for representativeness of the response population (comparing their sample demographics to the overall sample demographics and those of the non-responders) At the conclusion of these tests, no trusts were excluded based on any fieldwork issues. Due to the nature of the issues with samples, there are any tangible lessons to take away, other than to highlight the importance of the Co-ordination Centre's role in monitoring idiosyncratic trusts to ensure their data is representative and robust.

Details on each of the trusts' investigations are included below. Please note: as these scenarios did not lead to trusts' data being excluded from the survey statistics, the trusts have not been named below in the interest of maintaining open and honest reporting to the Co-ordination Centre. The issues identified are not

---

<sup>7</sup> <http://www.hra.nhs.uk/about-the-hra/our-committees/section-251/what-is-section-251/>

deemed to be a judgment on the trusts themselves, but rather an indication that the quality assurance of the sampling is working effectively.

The following three trusts entered the fieldwork period much later than recommended; they had six weeks to conduct the entire survey, whereas the full fieldwork period was eighteen weeks, and the average time in field was around fifteen weeks. The concern with these trusts' response data was whether it remains representative of their sample proportions.

### **Trust 1**

The comparison of their respondent population with the sample showed:

- **Mother's Ethnic Code:** there are no significant differences between respondents and non-respondents.
- **Place of Birth:** there are no significant differences between respondents and non-respondents.
- **Mother's Year of Birth:** those who responded have a significantly earlier birth year than those who did not respond, but this is similar to the national figures, with respondents being two years older than non-respondents on average.

Based on these findings, the trust was included in the Maternity survey analysis and reporting as usual, as whilst their response rate is lower than ideal, their late entry into fieldwork does not appear to have reduced the representativeness of their sample.

### **Trust 2**

The comparison of their respondent population with the sample showed:

- **Mother's Ethnic Code:** the proportion of those with "Any other ethnic group" who responded to the survey is significantly higher than the proportion of those with the same ethnic code who did not respond, however this category only included a total of 10 women, so the difference is unlikely to have substantially impacted their data. There are no other significant differences among Ethnic Code.
- **Place of Birth:** all women in the sample for this trust were coded as having given birth in an NHS Hospital in either a midwife unit or a consultant unit. Respondents who were coded as having given birth in a midwife unit were significantly overrepresented in the respondent population compared to the non-respondent population, while respondents who gave birth in a consultant unit were significantly underrepresented. This means the respondent population for the trust contained 25% of women who gave birth in the midwife unit, when this would have been 16% if the response population matched the sample population. Please note: the base size has been omitted to avoid identifying the trust (by comparing base size with published information).

Place of birth	Responded	Did not respond	Total for trust
Midwife unit	26%	9%	16%
Consultant unit	75%	91%	84%

- Mother's Year of Birth: those who responded have a significantly earlier birth year than those who did not respond, but this similar to the national figures, with respondents being three years older than non-respondents on average

The above findings suggest that the trust's response population is reasonably representative of the sample population in terms of ethnicity and year of birth. Whilst the place of birth analysis found that the midwife unit is over-represented in the respondent population, it is not clear that this would be related to the late mailing of the survey, and as the numbers involved are relatively small it was not considered appropriate to exclude this trust from the analysis for this reason. Moreover, despite their late entry into fieldwork, this trust achieved an adjusted response rate of over 40%, which matches the national response rate. The trust's 2015 sample was found sufficiently representative of their population and their data included in reporting.

### Trust 3

The comparison of their respondent population with the sample showed:

- Mother's Ethnic Code: the respondent population was not significantly different to the non-respondent population for the majority of ethnic categories. Two significant differences were found: firstly, Chinese respondents made up almost 4% of the respondent population, compared with 1% of the non-respondent population, although this only totals 9 respondents, so is not likely to have a substantial impact and the usefulness of statistical tests in such small groups is questionable. Secondly, the proportion of women whose ethnicity is recorded as "any other ethnic group" is lower amongst the respondent population than the non-respondent population (7% of the respondent population compared with 14% of the non-respondent population – total number of women in 'any other ethnic group': 66). This finding is difficult to interpret, as the ethnicity of respondents in this category is unknown.
- Place of Birth: there are no significant differences.
- Mother's Year of Birth: those who responded have a significantly earlier average birth year than those who *did not* respond (1983 compared with 1985), but this is in line with national proportions.

Based on the above, the trust's 2015 sample was deemed sufficiently representative of their population and their data included in reporting.

The remaining trusts were reviewed for different reasons:

## Trust 4

This trust obtained a very low response rate compared with both the national figure and their response rate in 2013, despite having nearly 13 weeks in field. A larger than usual proportion of their respondents were recorded as no longer living at the mailing address or survey returned undelivered (this accounts for nearly 10% of their sample, compared with just under 2% nationally). When this issue was flagged during fieldwork, the trust verified that the addresses in their mailing file matched their records, and the contractor checked these addresses were being used correctly.

To check whether the response data was sufficiently representative of the sample the Co-ordination Centre therefore ran the same checks on the trust's data as with the trusts above who went into field late.

- **Mother's Ethnic Code:** the only significant difference between response and non-response population in terms of ethnic group was that the response population had a lower proportion of respondents coded as African, compared with the non-response population. There are no other significances among Ethnic Code. This may be partially explained by the questionnaire delivery issues: 24% of this ethnic group was coded as undelivered/moved house compared with nearly 10% of the trust as a whole – however this does not account for the majority of African non-respondents who were not coded as having an undelivered survey. Please note: the base size has been omitted to avoid identifying the trust (by comparing base size with published information).

Mother's ethnic code	Responded	Did not respond	Total for trust
African	2%	10%	9%

- **Place of Birth:** there are no significant differences.
- **Mother's Year of Birth:** those who responded have a significantly earlier birth year than those who did not respond, but this is in line with the national difference, where respondents are on average 3 years older than non-respondents.

Based on the above, the trust's 2015 sample was deemed sufficiently representative of their population and their data included in reporting.

## Trust 5

This trust came to the attention of the Survey Co-ordination Centre during sample checking as they had 104 respondents removed prior to sample submission due to issues identified in the DBS check. This is a much larger number of exclusions than expected, however upon checking with the trust it appeared the exclusions were made correctly, in line with the survey protocol (many of the exclusions were due to mismatched addresses meaning the mother or baby could not be traced). Aside from the total sample size, which was smaller than 2013, all other sample variables were similar to 2013 suggesting the exclusions were not introducing bias into the sample, and therefore the sample was accepted.

The Co-ordination Centre ran further checks on the 2013 and 2015 response data for this trust to ensure the surveys are comparable and found that there were no

significant changes on any of the questions. The trust's 2015 sample was deemed sufficiently representative of their population and their data included in reporting.

## **Trust 6**

During 2015 sample checking it was discovered that this trust sampled incorrectly in 2013. They had a sample of over 700 women in 2010, which dropped to 323 in 2013 and increased again to over 700 in 2015. A thorough investigation was carried out when this error was uncovered during sample checking, and it was concluded that although the 2013 sample was incorrect, it did not seem to introduce any bias, and therefore would likely be acceptable to include in the 2015 reporting.

After testing on changes to all questions between 2013 and 2015 (unweighted), there was no significant change in responses to questions A1 (multiple births), A3 (gestational age), or the demographic questions in section G (except obviously year of birth, the mean of which increased by 2 years between 2013 and 2015, as would be expected). There were a small number of significant changes between years amongst the other survey questions, but this was in line with the number of significant changes most trusts have, both positive and negative changes were found, and none of the changes were unexpectedly large. The trust's 2015 sample was deemed sufficiently representative of their population and their data included in reporting.

# Data analysis and reporting

## Data cleaning and editing

Survey data from each participating NHS trust is submitted to the Patient Survey Co-ordination Centre for cleaning. During fieldwork, a data cleaning guidance manual covering the checks that the Patient Survey Co-ordination Centre undertakes is published on the [NHS Surveys website](#). This document allows participating trusts and contractors to understand what processes the Patient Survey Co-ordination Centre will undertake and what common errors they will be looking for. This enables contractors and in-house trusts to replicate the cleaning undertaken for the national reports. The data is submitted to the Patient Survey Co-ordination Centre in Microsoft Excel but the final dataset for the survey that is used by secondary data users and deposited with the UK Data Service (UKDS) is in SPSS.

For each survey, there are a number of standard checks undertaken on the data. These include checking that:

- Two paper hard copies of questionnaires as sent out to women are requested from contractors and in-house trusts prior to fieldwork, to ensure they are correct and questions, response options, routing and instructions are laid out as they should be;
- The number of rows of data is as expected, i.e. we have the number of records in the data file as expected;
- The variable, question and response options wording matches the questionnaire;
- There are no out of range sample or response data, such as age or ethnicity;
- Routing is followed correctly, and respondents have not answered a question that does not apply to them;
- All responses fall in the expected range of response options for a question;
- Where applicable, response data reflects sample data (for instance, year of mother's birth), and;
- Only eligible women were included in the survey.

The data is also checked for a number of other more in-dept errors. These include looking at questionnaire item non-response: high levels of missing data on suites of questions that are positioned next to each other in the survey can indicate that there is an issue with page turnover. This can also indicate if a question is not necessarily being understood in the way that it is designed.

When data is suppressed for a question, which happens when there are fewer than 30 responses for a trust, this is cross-referenced against the raw Excel data submitted by a trust to confirm that the suppression was correct. Where a trust has a low response rate the data is also checked for representativeness against the sample with regard to demographics, to determine whether the data should be included. There were no exclusions made for the 2015 statistics due to concerns

around representativeness, as outlined in the previous section of this report.

When errors are found, trusts or contractors are asked to resubmit the data with corrections made. One trust was required to resubmit their data to their contractor due to a partial mis-assignment of response data to record number; after their resubmission, the contractor then resubmitted their entire dataset.

### Attributing care

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 attribution exercise was completed for the first time in the 2013 survey. For 2015, 118 trusts of the 133 trusts that took part in the survey were able to do this for antenatal and postnatal care. The exercise was a voluntary element to the survey, and trusts were encouraged to complete it in order to improve the accuracy of their survey statistics. Some trusts were unable to complete it due to a lack of capacity or difficulty in identifying their geographical boundaries. The aim is 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 statistics for each trust.

It is important to note that not every trust that 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 National Patient Survey Programme policy 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 that provided antenatal data, and two trusts that provided postnatal data are not eligible to receive ante/postnatal reports. The antenatal and postnatal survey statistics from the trusts that completed the attribution exercise will be shared with those trusts. The statistics will be considered by the Care Quality Commission (CQC) to inform its assessment of risk within trusts and will be shared with CQC inspectors. All three forms of benchmark reports (antenatal, labour and birth, and postnatal) will be published on the Patient Survey Co-ordination Centre website, however users of the statistics are advised to apply caution when drawing conclusions from the survey results for the reasons described in the 'Data Limitations' section.

### Statistical Release

A statistical release has been published which provides full England level results for the 2015 survey compared with the 2013 survey as the most recent survey, and the 2007 results where possible (as the first maternity survey that was conducted). This is published on the CQC website at: <http://www.cqc.org.uk/maternitysurvey>. This statistical release document is distinct from the 'CQC response' to the survey which comments on findings from the perspective of the regulator.

The data is weighted to ensure that each response to a question has the same influence/ impact on the overall average; while this is referred to as the 'national

average' or 'England average', results are calculated as the average of participating trusts across England rather than the national average of all respondents across England. As there is variation in trust response rates, the chosen method prevents individual trusts having more (or less) influence on the England average than others. Comparisons across survey years are made where applicable, using a statistical test to compare the difference in proportions. The significance test determines whether the difference is due to natural and expected variation or rather, is a significant and unexpected change<sup>8</sup>. The 2015 questionnaire is similar to the 2013 version; historical comparisons have been made for all questions that remain the same as 2013. In addition, trend analysis has been run on comparable questions across previous maternity surveys – this means that maternity services can be compared from 2007 up to 2015.

The results for antenatal and postnatal care for England as a whole are based on all survey results from all trusts, regardless of whether they carried out the attribution exercise. This is due to the different purpose of the England statistics, as the aim is to get an indication of the experience of women in the 'average' trust rather than comparing across organisations (it is important to accurately match survey responses to providers). It also ensures comparability is maintained across survey years where possible.

## Trust results

Detailed information on the analysis method applied to the trust level statistics is available in the technical document published on the [maternity survey page](#) on the CQC website.

Benchmark reports are produced for each trust illustrating their performance on particular questions compared to all other trusts involved in the survey. These reports are published at: <http://www.nhssurveys.org/surveys/825>

For applicable questions, each response option is assigned a score (0-10) and section scores are calculated from the results for groups of questions (grouped according to the questionnaire headings). Demographic questions, non-specific responses, some routing questions and other questions that do not evaluate a trust's performance are not scored. To view a copy of the scored questionnaire, see the [maternity survey page](#). More information on the scoring system applied across the programme is available from the link to the right of the webpage [here](#).

A trust's question score is calculated by taking the weighted average<sup>9</sup> of scores for the trust for the given question. For each scored question and each section of the questionnaire, a chart is produced. This chart shows the overall range of trusts' scores for the question, broken down into three parts:

- If a trust's score lies in the red section of the graph, the trust result is 'worse'

---

<sup>8</sup> Significance testing was conducted using a z-test applied to the standardised proportions, to see whether the difference is unlikely to have been due to chance and is 'statistically significant'. For significance testing details, see the Maternity 2015 technical document, found here:

<http://www.cqc.org.uk/content/maternity-services-survey-2015>

<sup>9</sup> Weighting the averages adjusts for variation between trusts in age and parity.



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
- If a trust score lies in the orange section of the graph, the trust result is 'about the same.'

A black diamond indicates the score of the specific trust. If a trust has fewer than 30 responses to a question, a chart will not be produced.<sup>10</sup>

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 the experience of all service users that have visited the trust, rather than being unique to the people selected in the sample for the survey and not a reflection of the experience of all women giving birth at the trust.

This year, for question B14 (During your pregnancy, did you have a telephone number for a midwife or midwifery team that you could contact?), there was a relatively large proportion of trusts that achieved a full 10 score. This finding was expected, given the prominence of access and responsiveness of services within maternity policy. Although such ceiling effects tend to be avoided when designing questions for the surveys, stakeholders and users of the statistics were keen to maintain this question within the questionnaire to monitor trust performance and to identify any trusts or groups of women who respond negatively to the question.

Although the same occurred in 2013, with a large proportion of trusts scoring highly for question B14, the data was *not* corrected for over-dispersion,<sup>11</sup> which can lead to amplification of small differences when comparing a trust's score to the overall score for statistical analysis. In keeping with previous surveys with a similar statistical anomaly, the Patient Survey Co-ordination Centre and CQC decided to correct for over-dispersion in the 2015 Maternity Survey, which means that for all trusts, when using the statistical analysis method described above, the 'expected range' covers the entire 0 to 10 scale; for this question, no trusts are rated as 'better' or 'worse'.

Tables are also produced, giving the trust's score and the range of scores for each section and question, and the number of responses to each question. An additional table gives the number of respondents, response rate and demographic information at trust level and for all respondents across England<sup>12</sup>.

---

<sup>10</sup> If a question has fewer than 30 responses for a given trust, the confidence interval around the trust's question score is considered too large to be meaningful and results are not reported. Additionally, for any such question, the trust is excluded from national averages and the trust is not given a section score.

<sup>11</sup> "Over-dispersion" refers to the presence of greater variability (statistical dispersion) in the data than is expected. For question B14, this occurs because so many trusts have a "perfect" score of 10 – this makes trusts with slightly lower scores statistically significantly worse unless the over-dispersion is corrected. However, a "side effect" of the correction is that all trusts are considered 'about the same' – the orange graph section runs from 0 to 10.

<sup>12</sup> 'National' figures are calculated using survey data from all trusts - these figures refer to the sampled population, which may have different characteristics to the population of England.

Historical comparisons, where possible, are made against the 2013 survey. Text next to these questions illustrates whether a trust's performance is significantly better, worse or the same as the previous survey year. Benchmark statistics will be available on the [CQC website](#).

As noted, trusts that did not complete the attribution exercise do not have ante- and postnatal benchmarking reports; in addition, some trusts that did complete the attribution exercise did not receive enough responses from women who received care within the trust to safely compile ante- or postnatal benchmarking reports.

### **Data weighting and comparisons**

Due to the nature of statistical comparisons and weighting calculations, comparisons between years of data should be undertaken with caution, as weights are recalculated every year for statistical comparisons and minor percentage differences may lead to changes in rounding. For instance, figures from 2010 reports may not exactly match the figures given for the 2010 survey when contained in the 2015 statistical release. National figures are standardised by trust to account for the difference in sizes between trusts; this prevents larger trusts from having more impact on the responses than smaller trusts. In addition, the trend analysis conducted for select questions using data from 2007, 2010, 2013 and 2015 has been standardized to 2015 proportions of age and parity. A more thorough explanation of weighting can be found in the technical document published by the CQC, found [here](#).

Any comparisons between years should only be observed as reported in publications on the CQC's or Patient Survey Co-ordination Centre's websites, rather than looking back at previously reported figures and making comparisons across survey years independently (see the Further Information section for links to published data).

# Quality assurance

## Approved contractor / in house trust checks

Each contractor and in-house trust undertakes a series of checks for different stages of the survey. These checks are focused on the key stages of the survey, especially the sample preparation and data cleaning stages. Contractors and in-house trusts will undertake a series of set checks on the sample file. These checks are to identify any obvious errors in the sampling phase such as including ineligible service users. As contractors are able to receive mailing information, contractors also do validation checks on mailing information by determining whether the address is complete enough for a survey to be sent.

Survey progress is monitored weekly during fieldwork at trust level. Should any potential problems be identified, such as a high number of unreturned questionnaires, the Patient Survey Co-ordination Centre will investigate to explore the reasons for this.

## Patient Survey Co-ordination Centre checks

There are a number of quality assurance (QA) checks undertaken by the Patient Survey Co-ordination Centre at various stages of the survey lifecycle.

The first QA checks undertaken are on the sample files submitted by either contractors or in-house trusts. The checks are to determine that there are no errors in the sample file that is used for mailing. These checks help to minimise any exclusions of data at the analysis stage of the survey, due to eligibility issues.

The Patient Survey Co-ordination Centre also check hard copies of the covering letters and questionnaire used by each trust within the survey. This can help to identify where errors have been introduced when the survey documents are reproduced by either contractors or in house trusts. These errors are typographical such as words being misspelt, words missing from questions, improper use of boldening (which is normally used to highlight key words for cognitive reasons), or response options missing or misworded. If an error is identified that would compromise the statistics collected (i.e. the data could not be used due to the error), the data for that particular question would be excluded from the final dataset and outputs for the affected trusts; if the mistakes can be rectified before the mailing commences, this is the most favourable option. There have been no exclusions made on this basis for the 2015 survey.

During fieldwork, the Patient Survey Co-ordination Centre monitor the progress of the mailings and response rates both at national and trust level. This monitoring is not a QA check in the strictest definition but does allow for the Patient Survey Co-ordination Centre to flag where there are concerns with how the survey is progressing which could impact on the data collected. When response rates are low, this can affect the representativeness of the statistics which potentially limits the usability of that information. In addition, the survey is to be administered in a standardised way with a set number of mailings during fieldwork, and with a final mailing date. This is to allow sufficient time to respond for groups that tend to respond late in surveys.

The final set of QA checks undertaken by the Patient Survey Co-ordination Centre focus on the response data and the analysis. In addition to the specific checks undertaken on the survey data, as outlined in the previous section, each stage of the data cleaning is second-checked internally.

All analysis outputs based on the data (such as the trust-level results and national-level reporting) go through a two stage quality assurance process, being checked by the Patient Survey Co-ordination Centre and CQC.

An overall statement on our approach to Quality across the programme can be found [here](#).

# Data Limitations

## Context

As with any survey, statistics based on results from the Maternity Survey are subject to different sources and types of uncertainty and this must be considered in the survey responses and / or survey design. While there are a number of potential sources of error, these are carefully controlled through development work during the design of the questionnaire and methodology (including determining the sampling strategy), and extensive quality assurance at every stage.

These statistics relate to people who used maternity services at a particular point in time and the results are an indication of the average or typical quality of experience for that population. Each participating NHS Trust selected women who had a baby during the month of February 2015 (or January, if there were fewer than 300 live deliveries at the trust). The survey did not include:

- Women aged under 16 at the date of the delivery of their baby.
- Women whose baby had died during or since delivery.
- Any women who had a stillbirth, including where it occurred during a multiple delivery.
- Women who were in hospital, or whose baby was in hospital, at the time the sample was drawn from the trusts' records.
- Women who had a concealed pregnancy (where it was possible to identify from trust records).
- Women whose baby was taken into care (i.e. foster care or adopted), where this was known by the trust.
- Women who gave birth in a private maternity unit or wing.
- Women without a UK postal address.

## Seasonal effects

All women included in the Maternity Survey gave birth in February (or January in smaller trusts), and will have received their antenatal and postnatal care at similar times of the year to each other. It is therefore possible that there may be some seasonal effects on responses – for instance if staffing levels and other factors differ throughout the year. However, as the sampling period is the same for all trusts taking part in the survey and across all years the survey has run, any such seasonal variation would not impact on the comparability of the statistics or its use in assessing the performance of trusts, given that it is comparing performance across the same time of year.

## Attribution data

The providers of antenatal and postnatal care varies considerably across England in terms of the type of organization (acute or community based), and so the number of women receiving such care is likely to vary across trusts. Information on service provision was not available centrally to CQC at the time of the survey development.

Women may receive their antenatal or postnatal care from a midwife employed by their acute trust, a neighbouring trust (if close to a trust boundary), or their local GP surgery. Due to the choice initiative women may receive care from a midwife from another trust: for example, having opted to attend antenatal appointments nearer to their place of work. In some cases women may have to travel further to access specialist care during pregnancy or postnatally. In addition, some women may move house before or after giving birth, which means they receive some maternity care from a different trust from that which they gave birth at.

As noted earlier, trusts are asked to voluntarily provide data on whether the mothers in their sample received ante- and postnatal care from their trust – primarily from electronic records, if available, and otherwise by identifying trust boundaries. This is to better attribute mothers' responses for certain sections of the questionnaire and to increase the accuracy of the statistics that are provided to trusts (i.e. the benchmarking reports). However, the statistics have severe limitations detailed below; this data cannot be considered as statistically robust as the data for labour and birth, for several reasons:

- As the attribution data is provided voluntarily, there is not complete coverage across all trusts (118 trusts out of 133 trusts completed the exercise for the 2015 survey). 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 all eligible trusts in England.
- The attribution was based on the location of respondents for trusts that 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 final statistics despite having received care from another trust.
- 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.
- The NHS trusts completed the attribution themselves, and due to the limitations of the process, the Patient Survey 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.

In 2007 the maternity survey results were reported alongside a broader review of maternity services. Excel spreadsheets for all questions were provided back to trusts (rather than scored benchmark reports) and the variation in service provision across England was noted there, requesting that trusts look at their own results and decide for themselves what was comparable with other trusts (having local knowledge of what is provided). In 2010 only the labour and birth scored results were published within benchmark reports. Antenatal and postnatal data was shared

back to trusts but not published, and explanations given when sending back to them. The 2015 survey publication followed the same format as the 2013 survey, whereby labour and birth results are published by CQC in the form of scored benchmark statistics for trusts, with data for antenatal and postnatal care available as 'experimental' data, available on the Co-ordination Centre website: <http://www.nhssurveys.org/surveys/876>.

## Response rates

Response rates for the survey have dropped since it was first launched. This is consistent with both other surveys in the NPSP and industry wide trends in social and market research.

Table 1 below shows the response information for all maternity surveys carried out to date. The total sample size depends on the number of participating trusts hence it varies across years – mostly due to mergers or transfers of maternity units across trusts.

**Table 1: Response rates for maternity surveys**

	2007	2010	2013	2015
Adjusted response rate	59%	52%	46%	41%
Number of respondents	26,042	25,488	23,077	20,631
Total sample	44,487	50,136	51,071	50,945

The different outcomes of sending the questionnaires, across all maternity surveys to date, are shown in Table 2 below. Please note, the percentage of women returning a useable questionnaire differs from the percentages in Table 1 above as the latter are the adjusted response rates. When calculating the adjusted response rate, all cases marked 'undelivered' or 'deceased' are excluded from denominators (cases marked 'ineligible' are included). The figures for the outcome codes show that the response has declined over the surveys (as shown by the percentage returning useable questionnaires). All other codes have remained fairly stable, with the exception of a corresponding increase in the percentage of questionnaires being mailed out yet not returned, with no reason given.

Due to rounding, the percentages across all codes may not equal 100.

**Table 2: Outcome codes for maternity surveys**

Outcome	Survey year			
	2007	2010	2013	2015
Returned useable questionnaire	60%	51%	45%	40%
Returned undelivered or patient moved house	1%	2%	2%	2%
Mother or baby died	0%	0%	0%	0%
Too ill, opted out or returned blank questionnaire	1%	1%	1%	0%
Woman not eligible to fill in questionnaire	0%	0%	0%	0%
Questionnaire not returned - reason not known	39%	46%	52%	57%
<b>Total sample</b>	44978	50136	51071	50945

Table 3 below compares sample demographics by response rate between 2013 and 2015. Note that the figures are the adjusted response rates.

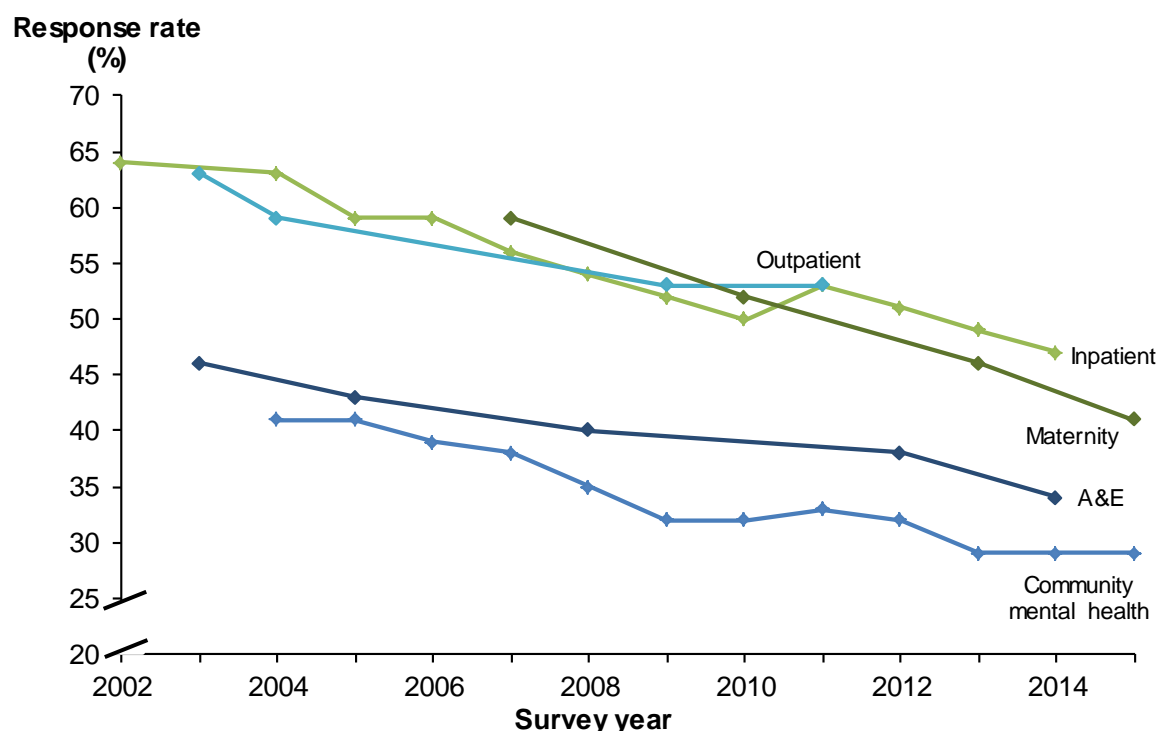
**Table 3: Response rates compared between 2013 and 2015**

	2013	2015
<b>Age</b>		
16-18	23%	19%
19-24	29%	24%
25-29	40%	35%
30-34	52%	47%
35 and over	57%	51%
<b>Ethnicity</b>		
White	48%	43%
Mixed	38%	32%
Asian or Asian British	32%	30%
Black or Black British	35%	31%
Chinese or other	45%	37%
Not stated or missing	50%	45%
<b>Overall adjusted response rate</b>	46%	41%



Figure 1 below illustrates response rate trends for the more established surveys in the NPSP. Please note that not all surveys have been carried out annually. There is a clear downward trend across all surveys. The acute inpatient survey generally has the highest response rates and the community mental health and A&E surveys the lowest. The maternity survey has declined slightly from a 46% response rate in 2013 to 41% in 2015.

**Figure 1: response rates for established surveys in the NPSP**



As part of the adult inpatient survey, there is an on-going programme of pilot work testing different approaches with the aim of increasing response rates and improving participation. For example, as part of the 2015 inpatient survey, the use of a more colourful questionnaire (which it is hoped will be more engaging for potential responders) and 'pre-approach letters' (a letter letting people know that they will be sent a questionnaire) is being piloted. Results are not be available until early 2016, however, if successful, it is expected that such measures will be piloted for other surveys in the programme.

We have previously made changes across the survey programme on the basis of similar pilots. For example extending survey fieldwork to 18 weeks was found to increase response from minority groups. Pilot work<sup>13</sup> had shown that these groups can take longer to respond.

## Non response Bias

Research, including work carried out as part of the NPSP, has shown that certain groups are consistently less likely to respond, and these are: young people, males,

<sup>13</sup> <http://www.nhssurveys.org/survey/513>

black and minority ethnic groups (BME)<sup>14</sup> Tables 4 and 5 below shows that age and ethnic group response bias exist in the maternity survey. However, it is worth noting that these are known biases and there may be other types of bias influencing results which cannot be established due to their implicit nature.

Table 4 contrasts respondents and non-respondents, while Table 5 shows the demographic profile for the sample as a whole (everyone selected for inclusion on the survey) compared with respondents. It can be seen that older mothers are more likely to respond compared with other age groups and women who identify as white are more likely to respond compared with those from other ethnic groups. In interpreting these tables it should be borne in mind that there are likely also interrelationships between these groups.

**Table 4: respondents and non-respondents to the 2015 Maternity Survey by key demographics**

Demographics	Responded (%)	
	Yes	No
<b>Age</b>		
16-18	19%	81%
19-24	23%	77%
25-29	35%	65%
30-34	46%	54%
35 and over	50%	50%
<b>Ethnicity</b>		
White	43%	57%
Mixed	32%	68%
Asian or Asian British	30%	70%
Black or Black British	30%	70%
Chinese or other	36%	64%
Not stated or missing	44%	56%

<sup>14</sup>[www.nhssurveys.org/Filestore/documents/Increasing\\_response\\_rates\\_literature\\_review.pdf](http://www.nhssurveys.org/Filestore/documents/Increasing_response_rates_literature_review.pdf)  
[www.nhssurveys.org/Filestore/documents/Review\\_BMEcoverage\\_HCC\\_surveys.pdf](http://www.nhssurveys.org/Filestore/documents/Review_BMEcoverage_HCC_surveys.pdf)  
[www.nhssurveys.org/Filestore/documents/Increasing\\_response\\_rates\\_stakeholder\\_consultation\\_v6.pdf](http://www.nhssurveys.org/Filestore/documents/Increasing_response_rates_stakeholder_consultation_v6.pdf)

**Table 5: sample and demographic profile for the 2015 Maternity Survey**

Demographics	Profile (%)	
	Sample	Respondent
<b>Age</b>		
16-18	1%	0%
19-24	15%	8%
25-29	27%	23%
30-34	32%	36%
35 and over	26%	32%
<b>Ethnicity</b>		
White	73%	77%
Mixed	2%	1%
Asian or Asian British	10%	7%
Black or Black British	4%	3%
Chinese or other	4%	3%
Not stated or missing	8%	9%

Please note that tables 4 and 5 are based on information from trust sample files only<sup>15</sup> so will differ from response rates published elsewhere which are a combination of responses to the demographics questions or sample file information if the response is missing. We cannot use respondent-provided information to calculate response rates, as we do not have this for non-responders. The response rate is based on the adjusted response rate which means we have removed anyone who died, or anyone for whom the questionnaire was undeliverable, from the base.

### Addressing non-response bias in the survey results

We have considered the application of non-response weighting to the survey results for both the England statistics and the trust level results. However, in the consideration of whether to weight for non-response and whether this should be according to either the sample or population data, we need to factor in the primary aim of *why* the survey data is being collected.

For the majority of social research studies, in particular those that are cross-sectional or general population, non-response is weighted for against the population demographics. This is normally achieved by weighting for key characteristics such as age, gender, marital status, socio-economic status, if these variables exist either on the sampling frame or are collected at the time of interview. For example, in face to face interviewing, interviewers are able to collect observations about non-responding sample units by assessing the characteristics of the dwelling or neighbourhood (Lynn, 1996). Alternatively, if a national dataset exists for these key characteristics, such as the Census, then this can be used in deriving the weighting approach. The reason why weighting back to the population is key for these studies is that they are looking to make generalisations about a population as a whole rather than individual cases or sampling units within it.

<sup>15</sup> Trust sample files contain all women selected to take part in the survey and include information such as age, place of baby's birth, and ethnicity.

For the NPSP, the data collected is used for measuring and comparing the performance of individual NHS Trusts. Therefore it is important that we are able to distinguish between the characteristics of different Trusts (i.e. the variation between them) to identify those Trusts that are doing better or worse than the 'average' Trust. As demographic characteristics such as age and gender<sup>16</sup> are known to be related to responses, we therefore standardise different organisations to a common average case-mix when calculating organisational results; this removes demographic differences as a source of variation and provides a 'level playing field' for comparing providers. Weighting for non-response to either a national population dataset or back to the sample data for a Trust would not achieve this.

The national results for the survey are currently weighted to the average trust. Some trusts have a higher response rate than others and would therefore have a greater influence over the England average if a simple mean was 'calculated' across all respondents. To avoid this, weights are applied to the data. By applying these weights the responses from each trust have an equal influence over the England average regardless of differences in response rates between trusts.

This weighting has been applied to all question results for England except for the demographic questions at the end of the survey questionnaire (Section G). The demographic questions are presented without weights applied, as it is more appropriate to present the real percentages of respondents to describe the profile of respondents, rather than average figures.

The potential non-response bias is partly addressed via statistical standardisation – the data is weighted by age and parity in the trust-level results to account for variation in the responses of these groups, as discussed in the Maternity 2015 technical document. 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. Standardising by ethnicity would in theory help address this non-response, however the ability to do this is hindered by a number of limitations detailed below.

Where the response rates for different groups vary, we have considered whether we could additionally weight by groups that are less likely to respond. However, there are a number of drawbacks to this approach, hence it has not been implemented:

- The more variables that are included in the weighting, the more complex the analysis becomes. It also greatly increases the risk of very small groups with large weights.
- In order to weight data by age and by parity, and therefore include it in the trust statistics, we need to have information on age and parity. To additionally weight by ethnicity we would need to have age, parity, and ethnicity information for each respondent. In order to maximise the amount of available data, if a respondent has not answered the question asking this, we use information provided to us by trusts in their sample file. While data for age is very good quality with only very few, if any, missing cases once this has been done, ethnicity is much poorer: In 2015, 707 respondents (3.4%) did not

---

<sup>16</sup> It is important to note that Maternity Survey statistics do not use gender as a weighting variable as only women are sampled – instead, due to the differences in populations that are first-time mothers or have children already, the trust-level statistics are weighted by age and parity.

answer the question asking their ethnicity. In trust sample file information, for responders, this data was missing for 595 women (2.9%) and was not stated at the time of collection by 1167 women (5.7%). As the questionnaire uses ethnicity categories as used in the census, but trust records have slightly different categories, and due to historical data quality concerns about recording of ethnicity data at trusts, the survey analysis relies solely on respondent-provided information for ethnicity. If we were to additionally standardise by ethnicity, we would have to remove 547 women from the analysis, which is not desirable, particularly in a survey with already low response rates. In addition, parity is not in the provided sample at all.

- An additional difficulty would be that some trusts have very low proportions of women in some ethnic groups. As weights are capped, this would lead to many respondents having capped weights, which should be avoided as far as possible when standardising data as it limits the comparisons that can be made fairly.
- We would also risk standardising out genuine differences in the experiences across the subgroups.
- Changing the method of weighting the data would make the survey statistics incomparable with previous statistics and interrupt trend comparisons. This is less relevant to the Maternity Survey than others within the programme due to the development work carried out for the 2013 survey, which led to fewer comparisons back to previous survey questions. However, consultation with users of the statistics would be required to gauge the importance of maintaining the comparable data that is available, if any change to the weighting approach was to be considered.

It is important to note that direct assessment of non-response bias is difficult because of the lack of opportunity to measure the views of non-respondents. Rather than further adjusting the data, we therefore seek to manage this issue by using best-practice methodologies to maximise response rates from all groups. For example, all surveys in the NPSP send up to two reminders to non-respondents. The effect of non-response bias is also reduced by the survey methodology. The NPSP follows best practice methodologies to maximise response rates and this is discussed in the 'Survey Design and Implementation' section of this document. As noted previously, there is ongoing work within the survey programme to investigate possible means for improving response rates for the surveys.

## Data Revisions

CQC publishes a [Revisions and Corrections Policy](#) relating to these statistics. The National Patient Experience Survey statistics are not subject to any scheduled revision as they capture the views of patients about their experiences of care at a specific point in time. All new survey results are therefore published on CQC's website and NHS Surveys, as appropriate, and previously published results for the same survey are not revised.

This policy sets out how CQC will respond if an error is identified within this and it becomes necessary to correct published statistics and/or reports.

## Further Information

The report outlining the CQC response to survey results, and trust level results can be found on the CQC website. You can also find a technical document here which describes the methodology for analysing trust level results:

[www.cqc.org.uk/content/maternitysurvey](http://www.cqc.org.uk/content/maternitysurvey)

The England level results from previous maternity surveys that took place in 2007, 2010, and 2013 are available at the following link:

<http://www.nhssurveys.org/surveys/299>

Full details of the methodology for the survey, including questionnaires, letters sent to people who use services, instructions on how to carry out the survey and the survey development report, are available at:

<http://www.nhssurveys.org/surveys/825>

More information on the NPSP, including results from other surveys and a programme of current and forthcoming surveys can be found at:

[www.cqc.org.uk/public/reports-surveys-and-reviews/surveys](http://www.cqc.org.uk/public/reports-surveys-and-reviews/surveys)

## Feedback

We welcome all feedback on the survey findings and the approach we have used to reporting the results, particularly from people using services, their representatives, and those providing services. If you have any views, comments or suggestions on how this publication could be improved, please contact Paul Williamson, User Voice Development Manager at: [Patient.Survey@cqc.org.uk](mailto:Patient.Survey@cqc.org.uk)

The information you provide will be reviewed by CQC and used, as appropriate, to improve the statistics that we publish across the NPSP.

If you would like to be involved in consultations or receive updates on the NHS Patient Survey Programme, please subscribe here: [www.cqc.org.uk/surveyupdates](http://www.cqc.org.uk/surveyupdates)