

NHS Patient Survey Programme

**2019 Community
Mental Health Survey:
Quality and Methodology
Report**

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Introduction

This report provides detailed information on key quality and methodological issues relating to the 2019 Community Mental Health Survey. It covers the development, implementation and analysis of the survey, as well as the quality of the data and any points that should be noted when using the outputs. More detail on the development of the survey and errors made during the sampling process can be found in the [Survey Development Report](#) and the [Sampling Errors Report](#), respectively.

The Community Mental Health Survey has been run on an annual basis since 2004, with the exception of 2009 when a survey of mental health inpatients was run. The 2019 survey was sent to a sample of service users who had at least one face-to-face contact with a trust providing community mental health services between 1 September and 30 November 2018, and had at least one other contact at any other time. Each trust drew a random sample of 850 service users seen during the sampling period. In total, 56 NHS mental health trusts and social enterprises took part in the survey, with 12,551 questionnaires completed by service users. This equates to a response rate of 27%, a one percentage point decrease from 2018.

The Survey Coordination Centre for Existing Methods (SCCEM), based at Picker, manages and coordinates the NHS Patient Survey Programme (NPSP) at a national level, on behalf of the Care Quality Commission (CQC). An overview of CQC's approach to quality within the NPSP is available in the [NHS Patient Survey Programme: Quality Statement](#) document.

Survey development

Survey design and implementation

The NPSP adopts general principles of good survey practice. The programme has implemented a number of measures to help maximise response rates, including:

- Development of survey questions that are relevant to all, or most, people in the sample.
- Questionnaires written using simple and clear language.
- Use of cognitive interviewing to test questions and response options with people who have recently used NHS services, in order to ensure that they are easily understood and relevant.
- Reassurances of anonymity and confidentiality.
- Sending up to two reminders to non-responders.
- Long fieldwork periods to encourage lesser-heard groups, such as minority ethnic groups, to respond.
- A freephone language line providing translation services.
- Contact details for Mencap which offers support for people with learning difficulties.
- Use of a Quality Assurance Framework ensuring all survey materials and results are reliable and accurate.

Like other surveys in the NPSP, the Community Mental Health Survey uses a postal survey mode whereby questionnaires are sent to service users' residential addresses. This aims to reduce the effects of social desirability bias, which can arise when people give feedback either directly to staff, or while on trust premises.

A number of steps are taken to ensure the quality of the survey design and implementation. As with all surveys in the programme, an advisory group is consulted to ensure that a range of internal and external stakeholders are given the opportunity to provide input during survey development. The advisory group includes representatives from CQC, NHS England, NHS mental health trusts, The Department of Health and Social Care, mental health charity Mind, and mental health service users. Questionnaires are also cognitively tested with recent service users, as described in the [Questionnaire development](#) section below.

There were two main methodological changes to the survey in 2019:

- The dissent poster was translated and made available in the ten most commonly spoken languages in England.
- The time between the first and second mailing was shortened from 2-3 weeks to five working days. This followed a pilot study which found a significant increase in response rate with a faster first reminder.

Further information about methodological changes can be found in the [Survey Development Report](#).

The Community Mental Health Survey follows a strict methodology, as specified in the [Survey Handbook](#), which all in-house trusts¹ and approved contractors² must follow. Any deviation from the survey instructions, depending on severity, may result in data being excluded from published results. Any decision to exclude data is made by the Survey Team at CQC in conjunction with the SCCEM, based on discussion with, and evidence provided by, the trust(s). No trusts were excluded from the 2019 Community Mental Health Survey publication.

Questionnaire development

Following consultation with key stakeholders and analysis of the 2018 survey results, four new questions were added to the 2019 questionnaire, two existing questions were modified, and five questions were removed.

Prior to fieldwork, the redeveloped questionnaire was cognitively tested with 19 volunteers who were adults aged at least 18 years old and had used NHS community mental health services at least twice in the past year. Respondents completed a questionnaire with a researcher to check that the questions and response options were appropriate and were being understood as intended. The testing took place in Oxfordshire, Berkshire, London and the Midlands, and volunteers of mixed ages, ethnicities and genders took part. Interviews were carried out in three rounds, with alterations made to certain questions between rounds in accordance with feedback from participants and stakeholders.

¹ These are trusts which have opted to carry out the survey themselves. In 2019 one trust conducted the survey in-house.

² These are companies which have been approved by the CQC during a competitive tendering process to carry out NPSP survey on behalf of trusts. For more information see [here](#).

For more information about the cognitive testing process and amendments made to the 2019 survey, please see the [Survey Development Report](#).

Sampling and fieldwork

Sampling

All trusts that provide community mental health services were eligible to take part in the survey. In total, 56 NHS mental health trusts and social enterprises participated in the 2019 survey.

Trusts were instructed to include:

All service users (aged 18 and above) who were seen by someone at their trust between 1 September and 30 November 2018. These are people who:

- Had at least one face-to-face contact* during the sampling period (this could include an initial assessment)

AND

- Had at least one other contact* (face-to-face, phone or email) either before, during or after the sampling period.

* By contact, we mean an attendance/appointment where a service user would have received care, treatment or assessment. This does not include, for example, service users who simply called the trust to query details about forthcoming appointments.

Fieldwork for the survey (the time during which questionnaires were sent out and returned) took place between February and June 2019. Further information about the sampling process and full details of the inclusion and exclusion criteria are available in the [Sampling Instructions](#).

Sampling error

The sample size for the Community Mental Health Survey was 850 service users per trust; of which there were 56. Larger samples are associated with greater confidence in results which are more representative of the target population's true value. Larger samples also provide data subject to less sampling error than for smaller samples. Overall 12,551 people responded to the survey, giving confidence that sampling error is sufficiently small.

Trust mergers

The results for England are based on an average of the pooled results from all participating trusts. Changes in the number of participating trusts have a very small effect on the results for England. However, when reporting individual trust results it would be inaccurate to display historical data if a trust has undergone a merger since the previous survey which makes trust's results incomparable with previous years.

There were two trust mergers since the 2018 survey. Mersey Care NHS Foundation Trust acquired Liverpool Community Health NHS Trust. South Staffordshire and Shropshire Healthcare NHS Foundation Trust acquired Staffordshire and Stoke-on-Trent Partnership NHS Trust and was

renamed to Midlands Partnership NHS Foundation Trust. However, as both of the acquired trusts were non-mental health trusts, the results remain historically comparable.

Errors in drawing samples

The chances of sampling mistakes being made by trusts (for example, excluding certain eligible service users) are minimised by multi-stage sample checks. First, trusts are provided with standard [Sampling Instructions](#) and a checklist to review their sample. Trusts that appoint an approved contractor to undertake the survey on their behalf will then have their sample reviewed by their contractor. Finally, all pseudonymised samples are checked by the SCCEM.

During the SCCEM's sample checking process, several items are checked against the previous two years' submissions to help ascertain whether a trust has followed the sampling instructions correctly. These include comparisons of population size, and demographics such as age, ethnicity, CPA status and mental health care cluster codes. If there are any concerning discrepancies, queries will be raised with the trust's contractor or, in the case of in-house trusts, with the trust directly.

Errors identified from these checks are classified as either minor or major. A minor error is defined as a mistake that will not affect the usage or quality of the survey response data. One example of a minor error is applying service user record numbers (SURNs) in an incorrect format. Minor errors can be rectified by the trust, contractor or the SCCEM as appropriate, without the need for the sample to be redrawn or service users to be added or replaced.

A major error is defined as an error that will affect the usage or quality of the response data. An example of this type of error is the exclusion of service users with a particular mental health care cluster code, which potentially creates bias in the sample. If a major error is spotted during sample checking, the trust is required to redraw their sample or add/remove service users as appropriate.

A [Sampling Errors Report](#) is produced each year and is published on the NHS surveys website. Trusts and approved contractors are encouraged to review this report to minimise the recurrence of previously detected errors. As detailed in the 2019 report one major error and one minor error were identified in samples submitted to the SCCEM for this survey.

A [Sample Declaration Form](#), which trusts must complete prior to submitting their sample, is used to help further reduce sampling errors. This form outlines a number of required checks to ensure that the sampling instructions have been followed. It also helps to confirm that trusts have maintained service user confidentiality by taking the steps laid out in the sampling instructions, such as only sharing the required variables. Approval of this form by a trust's Caldicott Guardian prior to data submission not only fulfils the trust's requirements under the Data Protection Act (the data protection legislation which the 2019 Community Mental Health Survey was subject to), but also reduces the potential for breaches to the support received under Section 251 of the NHS Act 2006.

We have explored the way in which trusts input data for service users before it is used to create survey samples, in order to identify the level of risk for error at that stage. This is outlined in CQC's [Statement of Administrative Sources](#). It was concluded that, although the potential does exist for inaccurate addresses or coding of cases at this stage, this is unlikely to occur due to the data quality requirements placed upon NHS trusts. As a result, the chances of such errors occurring at this stage are small enough that any impact on trust results is likely to be minimal, and in turn, would have an even smaller impact on the aggregated results for England.

Historical sampling errors and excluded trusts

Part of the SCCEM's sample checking process involves comparing a trust's sample data to their samples from previous iterations of the survey and investigating any discrepancies. This can sometimes reveal errors in samples from previous years³. If these are classified as major errors, historical comparisons between the current and previous years may not be possible for the trust in question.

Through this process, eight trusts were found to have made a total of 13 historical errors. Following discussions between the SCCEM and CQC, it was decided that these trusts would not receive historical comparisons in 2019.

For more information about the historical errors identified in the 2019 survey please see the [Sampling Errors Report](#).

Fieldwork

Fieldwork for the 2019 Community Mental Health Survey took place between February and June 2019. Each week during fieldwork, approved contractors and in-house trusts sent a weekly monitoring report to the SCCEM, summarising the survey's outcome status with the following codes:

- Outcome 1 = questionnaire returned completed
- Outcome 2 = questionnaire returned undelivered
- Outcome 3 = service user deceased after fieldwork commenced
- Outcome 4 = service user too ill, opted out or returned blank questionnaire
- Outcome 5 = service user ineligible
- Outcome 6 = questionnaire not returned
- Outcome 7 = service user deceased prior to fieldwork.

From the above outcome codes, adjusted response rates were calculated each week by dividing service users who returned a completed questionnaire (Outcome 1) by all service users who potentially received the questionnaire and were potentially able to respond:

$$\text{Adjusted response rate} = \frac{\text{outcome 1}}{\sum(\text{outcome 1, 4, 5 and 6})}$$

Weekly monitoring allowed the SCCEM to track the progress of the survey throughout fieldwork and identify and assist with any problems that arose.

³ Whilst the SCCEM undertake robust checks on the sample, it is not always possible to identify all sampling errors from the sample declaration form and anonymised sample file. Therefore, some errors are identified retrospectively when checking the current year's data. It remains the responsibility of trusts to ensure samples are drawn correctly and that all inclusion and exclusion criteria have been correctly applied.

Data analysis and reporting

Data cleaning and editing

Survey data from each participating trust are submitted to the SCCEM for cleaning. During fieldwork, a [Data Cleaning Guidance](#) document covering the cleaning that the SCCEM undertakes is published. This document allows participating trusts and contractors to understand the SCCEM's cleaning processes and replicate it themselves. However, trusts and contractors are required to submit raw (i.e. uncleaned) data to the SCCEM at fieldwork close. Data are submitted to the SCCEM in Excel, but the final dataset for the survey is in SPSS. A version of this data is available for secondary data users at the [UK Data Service](#) (UKDS).

There are a number of standard checks undertaken on the data. These include checking that:

- The number of rows of data (i.e. the number of service users) is as expected.
- The variable, question and response option wording matches the questionnaire.
- There are no out-of-range values in either sample or response data.
- Routing has been followed correctly, i.e. respondents have not answered a question that does not apply to them.
- Response data reflect the sample data, e.g. year of birth in the sample data matches the year of birth reported by the respondent.
- Only eligible service users were included in the survey.

The data are also checked for a number of other, more in-depth, errors. This includes looking at questionnaire item non-response, which can indicate if a question is not necessarily being understood in the way it has been designed. In addition, high levels of missing data on suites of questions that are positioned next to each other can indicate an issue with page turnover.

When data are suppressed for a question, which occurs 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 correctly applied. When a trust has a low response rate, the data are also checked against the sample for representativeness (in terms of demographics), in order to determine whether the data should be included. There were no exclusions made for the 2019 data due to representativeness concerns.

When errors are found, trusts or contractors are asked to re-submit the data with corrections made.

Statistical release

A statistical release has been published which provides full descriptive analysis of England-level results for the 2019 survey. The 2019 results are compared against previous survey years and a multi-level analysis of sub-groups was conducted to assess the experience of care for different demographic sub-populations. The statistical release is published on the [CQC website](#).

The data are weighted in order to control for the influence individual trusts' response rates have on the England-level average⁴. For questions that are comparable across survey years, comparisons were made using z-tests to determine whether differences between years were statistically significant. For the 2019 iteration of the survey, control charts have also been produced. For each question, a chart displaying the trend data from 2014 to 2019 has been included where possible. For questions evaluating care, the chart is a 'p-chart' which plots the percentage of the most positive response to a question (top box) and shows the 'expected limits' of variation in survey results under the hypothesis that there has been no change in reality. The upper and lower limits show the boundaries outside of which year-on-year change is considered 'notable', meaning that the degree of change is greater than the standard variation you would expect to see around results year-on-year given that there has been no underlying change. When changes fall outside of the expected limits, it suggests an underlying phenomenon at play or that there has been a change in behaviour. However, an isolated data point outside the limits may not indicate any underlying shift. Please note that a historical baseline was established in 2019 by retaining the 2014-18 control limits as they were in 2018 (whereas normally, historical control limits are adjusted slightly when new survey data is added to the model).

The multi-level analysis of sub-groups highlights the experiences of different demographic sub-populations. Results for each demographic sub-group are generated as adjusted means (also known as estimated marginal means or population marginal means) using a linear mixed effects model. These means are compared within themes, derived from composites of results from specific questions. This model takes into account trust-level effects, as trusts are likely to have an effect on reported service user experience at an England-level.

To assess whether experiences differ by demographic factors, F-tests were performed on each factor (fixed effect) as a predictor of the target variable. P-values were generated to show the likelihood of the observed differences between groups arising from a population where no actual differences occur. They relate to the demographic factor as a whole rather than to comparisons between specific categories within the factor. Predictor variables were checked for multicollinearity to ensure coefficients could be accurately estimated.

Differences of at least 0.1 standard deviations from the overall mean of the target variable are treated as being noteworthy, provided that the confidence interval does not overlap the mean line.

For the 2019 survey the following demographic sub-groups were analysed:

- Age
- Sex
- Ethnicity
- Religion
- Sexual orientation
- CPA status
- Care cluster

⁴ More information on the weighting approach applied to the data can be found in the [Addressing potential non-response bias in the survey results](#) section of this report.

- Length of contact (from Q2)
- Long-term conditions (from Q39)
- Proxy response (from Q41)

The themes of person-centred care against which these sub-groups were compared are as follows:

- Overall question (Q35)
- Respect and dignity (Q36)
- Organisation of care (Q7, Q10)
- Involvement (Q12, Q15)
- Involvement of family and friends (Q33)
- Respect for person-centred values (Q5, Q13)
- Access (Q3)
- Crisis care (access) (Q16)
- Crisis care (care) (Q17)
- Communication (Q4)
- Treatment history (Q6)
- Information sharing (medicines) (Q20, Q21)
- Information sharing (therapies) (Q26)
- Information sharing (peer support) (Q34)
- Support and well-being (Q29, Q30, Q31, Q32)

Trust results

Analysis is conducted on the data at trust-level to allow comparisons to be drawn between the performances of different trusts for individual questions in the survey. The method for this analysis is detailed in the Technical Document on the [CQC website](#).

The results of this analysis are published in benchmark reports for each individual trust, available on the [NHS Surveys website](#).

For questions evaluating care (scored questions), each response option is assigned a score (from 0-10), and composite section scores are then produced by grouping similar questions together. Demographic questions, non-specific responses, some routing questions and other questions that do not evaluate a trust's performance are not scored. A scored version of the questionnaire can be found on the [NHS Surveys website](#).

A trust's question score is calculated by taking the weighted average of responses for the trust, for the given question. A chart is produced for each scored question and each section of the

questionnaire, unless a question has fewer than 30 responses⁵. These charts show the overall range of trusts' scores for a question, broken down into three parts (where a black diamond indicates the score of the trust in question):

- If the black diamond lies in the orange section of the graph, the trust result is 'worse' than expected when compared with most other trusts in the survey.
- If the black diamond 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 the black diamond lies in the grey section of the graph, the trust result is 'about the same' when compared with most other trusts in the survey.

An example of one of these charts is shown below.



Tables are also produced for the benchmark reports, giving the trust's score, the range of scores for each section and question, and the number of responses to each question.

Historical comparisons are made, where possible, against the 2018 survey. Arrows next to comparable questions indicate where the 2019 score is significantly higher or lower than the 2018 score. No arrow reflects that there was no statistically significant change.

NHS England National Statistics

This year 15 questions from the 2019 survey contribute to Overall Patient Experience Scores (OPES) as outlined by NHS England. The domain names included in OPES are the following:

- Access and waiting (Q9, Q16)
- Safe, high quality coordinated care (Q10, Q14, Q24, Q29)
- Better information, more choice (Q11, Q12, Q13, Q19, Q27)
- Building closer relationships (Q4, Q5, Q7, Q36)

More information is available on the [NHS England website](#).

Quality assurance

Approved contractor/in house trust checks

Each contractor and in-house trust undertakes a series of checks at key stages of the survey, especially at the sample preparation and data cleaning stages. These checks aim to identify any obvious errors in the sample and response data, such as inclusion of ineligible service users or

⁵ 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 England averages and is not given a section score.

incorrect coding. Validation checks are also undertaken on mailing information in order to determine whether the service user's address is complete enough for a survey to be sent.

SCCEM checks

There are a number of quality assurance (QA) checks undertaken by the SCCEM at various stages of the survey. The first QA checks are on the sample files submitted by either contractors or in-house trusts. These checks help to determine whether there are any errors in the sample file, such as the exclusion of eligible service users.

The SCCEM also checks hard copies of the covering letters and questionnaire used by in-house trusts and contractors. This can help to identify if any errors have been introduced when the survey documents are reproduced. Errors are usually typographical in nature, such as misspelt or missing words, improper use of boldening (which is normally used to highlight key words for cognition reasons), and misworded or missing response options. If an error is identified that would compromise the data collected, the SCCEM asks the contractor or in-house trust to rectify the error and resubmit their hard copies.

The SCCEM also checks PDF copies of completed questionnaires returned during fieldwork, in case any changes were made to the questionnaire between hard copy approval and mailing. If an error is found, the SCCEM undertakes investigatory analysis to determine the impact of the error on the response data such as identifying any response bias with regards to demography or patterns of response (for example, certain groups responding differently to questions as a result of the errors introduced). Data for the question containing the error may then be excluded from the final dataset and outputs for the affected trusts.

During fieldwork the SCCEM monitors the weekly progress of the mailings and response rates both at England and trust-level. This is important because low response rates can limit the representativeness, and therefore usability, of the data. In addition, the survey needs to be administered using a standardised approach with a set number of mailings during fieldwork, and a particular deadline for the final mailing. This is to allow groups that tend to respond late in surveys to have sufficient time to respond. If any concerns about the progress of the survey are identified, the SCCEM will investigate the reasons for this.

The final set of QA checks undertaken by the SCCEM focuses on the response data and analysis. In addition to the specific checks of the survey data, as outlined in the [Data cleaning and editing](#) section above, each stage of the data cleaning is second-checked internally. Third-checks are also carried out at certain milestones.

All analysis outputs based on the data (such as the trust-level results and England-level reporting) go through a two-stage quality assurance process, checked by both the SCCEM and CQC.

Data limitations

Context

As with any survey, statistical analysis of data from the Community Mental Health Survey is susceptible to various types of error from different sources. Potential sources of error are carefully

controlled through development work in terms of questionnaire design and sampling strategy, which is in turn supported by extensive quality assurance at every stage of the survey.

Seasonal effects

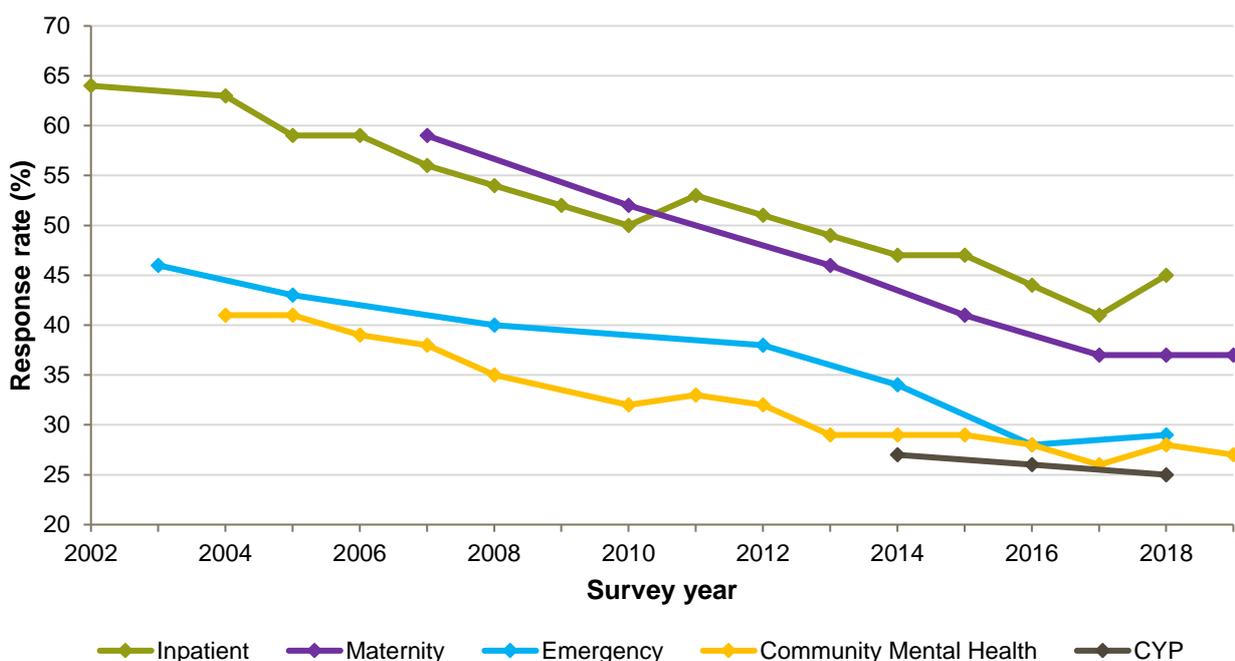
In determining the sample period for the survey, seasonal effects were considered. The sampling period for the survey has remained the same since the Community Mental Health Survey was substantially redeveloped in 2014.

Due to the sampling approach, seasonal effects are unlikely to be an issue. The Community Mental Health Survey does not take a flow of patients. Instead, the sample is based on people who have had at least one face-to-face appointment with mental health services during the sample period and at least one other contact beforehand, during or after the sampling period. Those individuals are likely to have maintained contact with services during a longer time period than the sample period itself and are therefore less likely to be affected by any variation in the time of year. In addition, respondents are directed in particular questions to think about events over the previous 12 months, which helps negate any effect that there may be in service provision across a given year.

Response rates

Response rates for the Community Mental Health Survey have dropped since it was first launched, from 41% in 2004 to 27% in 2019. This is consistent with other surveys in the NPSP and with industry-wide trends in social and market survey research. Figure 1 illustrates response rate trends for the more established surveys in the NPSP⁶. As shown, there is a clear downward trend across all surveys overall.

Figure 1: Response rates for established surveys in the NPSP



⁶ Please note that not all surveys are carried out annually.

Non-response bias

One of the main issues that can affect survey results is non-response bias, and as response rates for surveys decline, the risk of non-response bias increases. Non-response bias refers to the outcome that those who chose to respond to the survey are different from those who do not respond. This type of bias would arise, for example, if service users with more positive views of their care were to be more likely to respond than those with negative views. However, whether non-response bias is present is difficult to assess, as we do not have any way of knowing how people who did not respond would have answered.

A further issue is that we cannot always differentiate between those who did not receive a questionnaire and hence could not respond (non-contact) versus those who received a questionnaire but chose not to respond (non-response).

The number of questionnaires that are returned undelivered is logged during the course of the survey. However, there may be another group of service users who, for example, changed address but did not inform the trust, and therefore did not receive a questionnaire. It is not possible to know how large this group is.

Furthermore, patient confidentiality prevents the SCCEM from assessing the data quality of the samples that were drawn, as they do not have access to the name and address details of those in the sample population.

Research, including work carried out as part of the NPSP, has shown that certain groups are consistently less likely to respond, including young people, males, black and minority ethnic groups (BAME), people living in London, people living in deprived areas, people with a mental health condition, and people with poor literacy^{7 8 9}.

Table 1 below shows key demographic profiles (taken from sample data¹⁰) for responders and non-responders. Table 2 shows key demographics for the overall sampled cohort for the survey (taken from sample data) versus for respondents (taken from response data).

⁷http://www.nhssurveys.org/Filestore/documents/Increasing_response_rates_literature_review.pdf

⁸http://www.nhssurveys.org/Filestore/documents/Review_BMEcoverage_HCC_surveys.pdf

⁹http://www.nhssurveys.org/Filestore/documents/Increasing_response_rates_stakeholder_consultation_v6.pdf

¹⁰ Trust sample files contain all people selected to take part in the survey and include information such as year of birth, date of last contact with mental health services, mental health care cluster code etc.

Table 1: Respondent versus non-responder sample profile for the 2019 Community Mental Health Survey

Demographics	Respondents	Non-responders
Age		
18 – 35	15%	28%
36 - 50	19%	24%
51 - 65	25%	19%
66 - 80	24%	14%
81+	16%	15%
Gender		
Male	44%	44%
Female	56%	56%
Ethnicity		
White	80%	76%
Mixed	1%	2%
Asian or Asian British	4%	5%
Black or Black British	3%	4%
Arab or other ethnic group	2%	2%
Not known	9%	11%
Care cluster		
Variance	1%	1%
Non-psychotic	36%	35%
Psychosis	28%	27%
Organic	22%	19%
Unknown	14%	18%

Note: Percentages are rounded to the nearest whole number - group totals may add up to more than 100%.

Please note that Table 1 is based on information from trust sample files only, and will therefore differ from response rates published elsewhere which are compiled from response data, or sample data if a response is missing. We cannot use respondent-provided information to calculate response rates, as the corresponding information is unavailable for non-respondents. When calculating response rates, deceased service users and anyone for whom the questionnaire was undeliverable are removed from the base.

Table 2: Sample versus response profile for the 2019 Community Mental Health Survey

Demographics	Response	Sample
Age		
18 – 35	16%	25%
36 - 50	19%	22%
51 - 65	25%	20%
66 - 80	24%	17%
81+	16%	16%
Gender		
Male	44%	44%
Female	56%	56%
Ethnicity		
White	86%	77%
Mixed	2%	2%
Asian or Asian British	5%	5%
Black or Black British	3%	4%
Arab or other ethnic group	1%	2%
Not known	4%	10%

Note: Percentages are rounded to the nearest whole number - group totals may add up to more than 100%.

Addressing potential non-response bias in the survey results

We have considered the application of non-response weighting to the survey results for both the England-level data and the trust-level results. However, in considering 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 are being collected.

For the majority of social research studies, in particular those that are cross-sectional or general population studies, non-response is weighted for against the target population demographics. This is normally achieved by weighting for key characteristics such as age, gender, marital status and socio-economic status, if this auxiliary data exists on the sampling frame. Re-weighting is used to eliminate, or at least reduce, non-response bias. For NHS patient surveys, the eligible population equates to the complete drawn sample. This is subdivided into weighting cells according to the demographic data recorded. 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 within it.

Trust-level benchmark analysis

For the NPSP, the data collected are 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 characteristics such as gender and age 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 an England-level population dataset or back to the sample data for a trust would not achieve this.

Differences between trust populations in the Community Mental Health Survey are partly addressed via standardising by gender and age in the trust-level results¹¹. Standardising by ethnicity would in theory also improve comparability, however whether to do this is subject to a number of considerations detailed below:

- The more variables included in the standardisation, the more complex the analysis becomes. It also greatly increases the risk of having very small groups with large weights.
- In order to weight by a certain variable, we need to have information for that variable for each respondent. Information for gender and age is largely complete, with only very few, if any, missing cases for these variables. However, ethnicity information (which is only taken from response data, as sample data tends to be incomplete or unreliable) is less complete. If we were to additionally standardise by ethnicity, we would have to remove people from the analysis in 2019, which is not desirable, particularly in a survey with already low response rates.
- Some trusts have very low proportions of people in some ethnic groups. As weights are capped to avoid heavy weighting, this could lead to many respondents having capped weights. This should be avoided as far as possible when standardising data as it limits the comparisons that can be made.
- Standardising by ethnicity should also be avoided as it would risk standardising out genuine differences in experiences across the sub-groups.

Furthermore, it should be noted that direct assessment of non-response bias upon survey data is difficult due to the obvious ethical implications of acquiring such data. This would require further contact with service users who may not wish to be contacted. Rather than further adjusting the data, this issue is managed by adopting best-practice methodologies so as to maximise response rates from all groups, as discussed in the [Survey development](#) section of this report.

Results for England

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, 'trust' weights are applied to the England-level data. Doing so means that each trust has an equal influence over the England average for each question, regardless of differences in response rates between trusts.

Additional 'population' weights were introduced for the first time in the 2017 survey and have again been applied for the 2019 survey, with the aim of reducing potential non-response bias. This involved weighting by age group and gender so that the weighted proportions in each group in the respondent population match those in the sampled population. Increased weight is therefore given to groups that had lower propensity to respond. A single population weight was computed for each respondent.

As the 2019 England-level results present trend comparisons across surveys from 2014 to 2019, it was also necessary to weight the historic data in the same way as for the current year. Population

¹¹ For more information on the methodology for the trust-level results, please see the technical document which is referenced in the [Further information](#) section at the end of this document.

weights and trust weights were multiplied together to produce a single, combined weight for each question and this was applied when generating the national tables for England¹².

Assuming that responses were missing at random, weighting each trust's results to their eligible population in this way theoretically makes the trust's results more representative of their population, thus potentially yielding a more accurate experience of the average trust. However, it is not possible to check the extent to which this 'missing at random' assumption is satisfied.

The introduction of non-response weights to the England-level results creates a 'design effect' that reduces the precision of statistics from the survey. This has been taken into account for year-to-year comparisons. The design effect can be estimated as the following, where w_i is the weight for respondent and n_{total} is the total number of respondents:

$$DEFF = \frac{n_{total} * [\sum_i w_i^2]}{[\sum_i w_i]^2}$$

This is then used to adjust the alpha value for the tests of column proportions in national tables for England, using $\alpha_{new} = 2$ -tailed probability for a result at least as extreme as $|1.95996398454 \times \sqrt{DEFF}|$.

This weighting has been applied to the England-level results for all except the demographic questions. These questions are presented without weights applied, as it is more appropriate to present unadjusted data that describe the demographic profile of respondents, rather than average figures.

Data revisions

CQC publishes a [Revisions and Corrections Policy](#) relating to these statistics. This policy sets out how CQC will respond if an error is identified and it becomes necessary to correct published data and/or reports. The NHS Patient Survey data are not subject to any scheduled revision as the surveys capture the views of patients about their experiences at a specific point in time. All new survey results are therefore published on CQC's website and the NHS Surveys website, as appropriate, and previously published results for the same survey are not revised.

¹² As this approach was new for 2017, the England-level results for the 2014-2016 Community Mental Health Surveys will differ slightly from the trend comparison results in the 2019 England-level results.

Further information

The England-level and trust-level results for the 2019 Community Mental Health Survey can be found on the [CQC website](#) from late 2019. You can also find a technical document here which describes the methodology for analysing trust-level results.

The trust- and England-level results from previous Community Mental Health Surveys that took place between 2004 and 2008¹³, and from 2010 to 2014¹⁴ are available on the [NHS surveys website](#) or on request. Please note that due to redevelopment work, results from the 2019 survey are only comparable with 2014-2018 results.

Full details of the methodology for the survey, including questionnaires and covering letters, instructions on how to carry out the survey, and the survey development report, are available on the [NHS Surveys website](#).

More information on the NPSP, including results from other surveys and a programme of current and forthcoming surveys, can be found on the [CQC website](#).

Feedback

We welcome all feedback on the survey findings and the approach we have used to report 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 Tamatha Webster, Survey Manager, at 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.

¹³ In 2009 a survey of mental health inpatient services took place.

¹⁴ The survey was substantially redeveloped in 2010. This means that results from the 2010-2013 surveys are comparable with each other but not comparable with those from 2004-2008.