

# Community Mental Health Survey 2016: Sampling Errors Report

## 1. Introduction

Survey contractors and in-house trusts were required to submit samples to the Co-ordination Centre for final, quality control checks before the mailing out of survey packs could begin. These sample files did not include patient identifiable data such as names or addresses but did include demographic and clinical information about each service user:

Demographic information:

- gender;
- year of birth;
- ethnic category.

Clinical information:

- date of last contact;
- CPA status;
- CCG code.

The sample declaration form was revised for 2016. Sample data was drawn by one person and then checked by someone else, both of whom signed the declaration form before final sign off by the Caldicott Guardian. A new section was also added, which required trusts to provide the number of service users aged 18 years and older at their trust and the number of these who indicated dissent. As with last year's survey, trusts were required to indicate the total eligible population of service users along with a breakdown of their CPA status ('on new CPA', 'not on new CPA', and 'CPA not known'). CPA status for the 850 service user sample was also provided. Trusts were also required to confirm that the sample had been DBS checked and checked as per the instruction manual, that service user identifiable information and care cluster data had been removed from the sample submitted to the Co-ordination Centre for checking, with only data relating to the required variables included, and that service users who dissented from the survey had been removed. The sample declaration forms for in-house trusts and trusts using a contractor can be found here:

[www.nhssurveys.org/surveys/893](http://www.nhssurveys.org/surveys/893)

This document outlines the types of errors made in sample declarations and in samples submitted to the Co-ordination Centre for checking. Sample errors are divided into major (*those requiring the sample to be redrawn*) and minor errors (*those that could be corrected using the same sample*). It is important to note that these are only the errors caught by the Co-ordination Centre; many samples would have had errors which were identified during contractors' checks. The types of errors found in care cluster data are also discussed along with Section 251 breaches. As part of the requirement of the Section 251 approval for the survey, care cluster data were submitted separately from the main sample file and directly to the Co-ordination Centre.

This document should be used by trusts and contractors to familiarise themselves with past errors and to prevent these from happening in future surveys. If further assistance is required, please contact the Co-ordination Centre on 01865 208127.

## 2. Major Sampling Errors

Two trusts incurred a major error in drawing their sample. If not corrected, such errors can invalidate a trust's participation in the survey, meaning that trust's survey data cannot be used by the Care Quality Commission in its assessment of mental health trusts in England:

- One trust reviewed their first data submission following queries raised by the Co-ordination Centre and identified issues with the sample submitted:

*“There were a number of duplicated clients in the original submission due to user error” and “clients from specialities were also included due to coding issues whereby we have changed systems and did include ‘incorrectly’ clients that should not have been included, i.e. forensic clients”.*

The trust therefore submitted a second sample which was approved.

- Another trust indicated a 7% increase in the eligible service user population compared to 2015. A misinterpretation of where CCG information needed to be taken from led the trust to use a method of data extraction which resulted in only service users with open referrals being included in the eligible service user population. The trust subsequently re-drew the sample and, following a second submission, was approved.

## 3. Minor Sampling Errors

There were two minor errors found during sample checking, both for the same trust. These types of errors do not require the sample to be re-drawn but must be corrected.

- The trust submitted sample data containing invalid ethnicity codes for two service users. Following corrections by the trust, a second submission of sample data was submitted, which featured 62 changes to service users' ethnicity codes where only two were anticipated. The second submission also featured Service User Record Numbers (SURN's) which were incorrectly formatted. Following corrections to the ethnic codes and reformatting of the SURN's by the trust a third sample dataset was submitted and approved.

## 4. Errors in 2015 sampling

In checking the samples for this year's survey, it became apparent that the samples of nine trusts submitted for the 2015 survey had been incorrectly drawn. If this is determined to be a major error, comparisons with the 2015 data are not possible. The historical data may also be excluded from all other uses, such as in CQC's intelligence model, as well as by other organisations such as NHS England for use in their national statistics.

For the 2016 survey, additional guidance on the inclusion and exclusion criteria for the eligible population was added to the instruction manuals. As a consequence, three trusts identified errors in their application of the inclusion / exclusion criteria in previous surveys:

- One trust identified that they had included telephone-only contacts in the 2015 survey in error as a consequence of the updated instruction manual.
- One trust identified that service users who had received contact via telephone and then were only seen for assessment had been included in last year's survey in error.
- Another trust had previously identified the number of service contacts service users had received by looking at the overall number of contacts at the 'client' level. The trust acknowledged that by using this method it would be unable to distinguish between service

users who had used the trusts' mental health services and service users only seen for assessments. The trust addressed this by tracking service user 'referrals', a more robust method of identifying service users whose contact was for use of the trust's mental health services.

Further historical errors were identified at five trusts following substantial changes in eligible service user population size compared to 2015's survey:

- Following an 86% increase in the eligible service user population, one trust identified that 'daycare' and 'outpatient' service users had been excluded in error in previous community mental health surveys. The trust believed these service users had been excluded since 2011 as a result of a computer system migration. In the 2015 sample, the trust estimated that 1,000 service users were wrongly excluded, resulting in 25% of eligible service users being excluded in error.
- Similarly, another trust excluded outpatients from the eligible service user population in 2015. The extract query used to gather service user data from the trust's patient record system failed to account for a contact type used for outpatients, leading to approximately 1,000 service users being excluded from the eligible service user population in error.
- Another trust reported an increase in eligible service user population of 77% compared to the 2015 survey. It transpired that only service users who were found to have an untraceable NHS Number were included as part of the eligible population in 2015, excluding service users with a traceable NHS Number.
- Another trust reported a 158% increase in eligible service user population compared to last year's survey. The trust had previously excluded any service users who had been seen at least once during the sample period and any time prior to it. Service users who were seen once during sampling period and any time since were included along with those who were seen at least twice during the sample period.
- Similarly, another trust only included service users who were seen at least twice during the sample period. Eligible service users who had been seen once during the sample period and again at any other time (before or after the sample period) were excluded in error.

One historical error came to light during the checking of care cluster data (for more information on care cluster data see *Section 7 – Care cluster data and Section 251 breaches*):

- The trust excluded service users who had a missing or blank care cluster code on their patient records system (coded as '99') from the eligible population. The error resulted from the extract logic not include service users with blank care cluster codes on the patient record system in the eligible service user population.

## 5. Dissent

The Community Mental Health Survey employs an opt-out consent model, in which service users are assumed to consent to being contacted unless they explicitly opt out<sup>1</sup>. This procedure has received full support from the Confidentiality Advisory Group under section 251 of the NHS Act 2006. A number of trusts however used Opt-in consent models which have been shown to lead to lower

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<sup>1</sup> Participating trusts must display posters, during the sample period, drawing service users attention to the national survey and how they can indicate dissent should they not wish for their details to be used for anything other than clinical care

overall response rates<sup>2</sup> and introduce biases in respondent demographics that are not reflected in response/non-response patterns for opt-out surveys<sup>3</sup>.

With this in mind, a particularly high degree of scrutiny had to be employed for four trusts who had a high proportion of dissenters and/or those who had not been asked if they wished to dissent:

- One trust reported a large number of dissenters from their overall population. Further investigation found that there were two differing methods of recording dissent across the trust's two locations. A very large portion of the dissenters were from location A, where service users had to formally 'opt in' for their information to be used for non-clinical purposes as opposed to location B where dissent was the 'opt-out' mechanism. Without being rectified, the sample would be biased through an over-representation of service users from location B. It was decided that the sampling methodology be amended to allow the trust to proportionately sample from each location in line with the number of service users who used each location. This would mean that no historical comparisons could be made to previous years but the trust would be able to participate in this year's survey.
- A trust indicated they had zero dissenting service users in their sample declaration. Notes provided by the trust's contractor indicated that the trust used a 'consent-to-share' consent mechanism. The mechanism actively sought consent from service users who would indicate if they wished their information to be shared or not. Initially figures reported that only 1095 service users out of the trust's 14815 service users had given their consent to share their information, indicative of 13,720 dissenting service users. Following further investigation the 'consent to share' mechanism should only have been used amongst CAMHS (Child and Adolescent Mental Health Services) service users but had been used by some clinicians to collect 'consent to share' information from adult mental health service users in error. The trust re-ran their sample extraction and identified that out of the 12,548 total adult service user population 79 service users were recorded on their system as indicating dissent, 133 were recorded as indicating they did want their information to be shared and 12,336 had no record, suggestive of not being asked. It was decided that as the consent mechanism had been used in error amongst the adult mental health population that the 79 dissenters be excluded and service users whose consent had not been recorded be treated as not reporting dissent. They would therefore be subjected to the full inclusion/exclusion criteria along with the 133 service users who actively agreed that their information be shared. A second sample declaration was submitted based on the revised sample data.
- Extensive work was also undertaken to gather demographic and clinical information to compare the profiles of one further trust's eligible service users against its dissenters. The profiles were considered sufficiently comparable that the exclusion of dissenting service users would introduce minimal bias in the sample. Results would therefore be largely representative of eligible service users at their trust. Although the trust was included in this year's survey, it was recognised that, along with a number of other trusts, they would need to work with the Care Quality Commission and the Information Commissioner's Office to develop and implement a more systematic consent system that accurately recorded service user dissent status.

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<sup>2</sup> See, for instance, Angus, V.C. et al. (2003) The requirement for prior consent to participate on survey response rates: a population-based survey in Grampian. *BMC Health Services Research*; 3: 21.

<sup>3</sup> See, for instance, Al-Shahi, R. et al. (2005) Bias from requiring explicit consent from all participants in observational research: prospective, population based study. *BMJ*, 331, 942-5.

## 6. Technical problems

Technical problems, though not an error in the sampling process, result in delays ensuring the quality and completeness of the sample data submitted. Two trusts experienced issues as a result of migrating from one patient record system to another. It was found that incomplete/out-of-date service user records and poor data quality had arisen as a consequence of the migration process. This meant that eligible service users might not be included in the eligible service user population. Although both trusts eventually began fieldwork, extensive work had to be undertaken by the Co-ordination Centre, CQC and trusts alike to ensure the representativeness of the trust-compiled eligible service user populations:

- One trust had reported significant difficulties in drawing a sample following data quality and data completeness issues arising from system migration. The trust were initially only able to accurately draw an eligible service user population of 959 services users which then dropped to 500 following further checks by the trust. Ongoing review by the trust revealed incompatibility issues with the original query used to extract data. With this amended, the trust were able to accurately draw an eligible population of 1480 which was found to be representative of the overall population despite being significantly lower than the previous year. In addition, the query used to extract service user information from their previous patient record system was not compatible with the new system. This caused further delays through the development, testing, and review of a new compatible extraction.
- In addition, one of these trusts also experienced issues confirming the completeness of their sample data. According to the trust the supplier of the new system would not permit the trust full access to the patient record system. Instead, the supplier produced a subset of data which they believed met the trusts requirements. This in turn caused delay through the trust, and latterly the Co-ordination Centre, querying the completeness of the data.

## 7. Care cluster data and Section 251 breaches

As in 2015, trusts were once again asked to submit data relating to their sampled service users' care clusters. The process for compiling and submitting care cluster data was outlined in the main instruction manual, with more detailed instructions specific to sampling the care cluster data published separately.

Only three columns of data were required: the three-digit trust code, service user record number and care cluster. In the care cluster column, we would only expect to see numeric codes 0-21 (with 0 representing variance, and 1-21 representing the care clusters) and 99 (to replace any blanks, N/A etc.). Further to this, care cluster 9 is no longer used so we would not expect to see a service user assigned this code.

As part of the Section 251 approval, it was mandatory for trusts to submit their care cluster data directly to the Co-ordination Centre's secure ftp server. In submitting their care cluster data, two trusts incurred minor breaches of Section 251 through a failure to correctly follow submission procedures:

- One trust failed to password protect the excel file containing the care cluster data when it was submitted. Another trust included an additional file containing care cluster data for a 350 service user boosted sample alongside the care cluster data file for the 850 service user sample requested. In both instances no patient identifiable data was submitted, however it was necessary to notify CQC, who in turn notified CAG of the breach.

## 8. Errors in Sample Declarations

Some trusts made straightforward errors on their sample declarations, such as declaring incorrect figures or neglecting to apply their initials to sections of the form. In instances where only a small change has been made, for example if a record has had to be replaced after the declaration had been signed off, then it is acceptable to explain these differences in a covering note or email that accompanies the declaration.

In summary:

- Four trusts submitted incorrect or missing figures in the sample declaration form.
- Two trusts did not complete or update Section D of the sample declaration form.

A comprehensive breakdown of each of these errors is located in *Appendix 1 – Sampling declaration errors*.

# Appendices

## Appendix 1 - Sample declaration errors

- One trust identified that they had failed to include the correct figure for the eligible service user population. This had no effect on the numbers reported for the sample itself. Upon submitting their second sample declaration it was noted that the declaration sign off (Section D) had not been updated to reflect the previous amendment, therefore a third submission was required.
- The date of last contact for one trust fell after the date the sample declaration form was signed. The trust confirmed that having re-run their sample a few days after its initial drawdown, they had included the most recent contact dates, some of which were after the date the sample declaration was originally signed off (*"We originally ran the sample on Friday 5th Feb and on Monday 8th Feb we re-ran the sample to make sure it was as up to date as possible but forgot to update the date on the declaration form"*). A second submission of the sample declaration was therefore requested and approved.
- One trust supplied a sample declaration where Section D did not include initials confirming correct completion of the sampling process. A second submission was requested and approved.
- Another trust calculated the figure for the total service user population incorrectly. The trust had calculated the total service user population by adding the number of dissenting service users to the eligible population. When this was queried with the trust, they identified that they had underestimated the overall service user population. Having given assurances that the figures for the eligible service user population and sample were correct, a second sample declaration form with a revised total service user population and dissent figure was submitted and approved.
- A trust also indicated the same figure for both the overall service user population and the eligible service user population. No dissenters were also reported. It is expected that the eligible service user population be significantly lower than the overall service users population. Through ongoing communication, the trust identified four dissenters from the overall service user population and had included the figure for the eligible service user population twice. A second submission was submitted and subsequently approved.
- One trust did not submit a figure for the total service user population on their sample declaration form. Failure to provide a completed sample declaration form meant that a second submission was required.