Survey Coordination Centre

NHS ADULT INPATIENT SURVEY 2018

SURVEY DEVELOPMENT REPORT

26 October 2018

Survey Coordination Centre
Tel: + 44 (0) 1865 208127

team@surveycoordination.com
www.nhssurveys.org

Contents

Survey Coordination Centre
Tel: + 44 (0) 1865 208127

team@surveycoordination.com
www.nhssurveys.org

1. Background

The NHS Adult Inpatient Survey was first undertaken by all acute NHS trusts[1] in England in 2002, and has been carried out annually since 2004. The average response rate across all trusts for the 2017 survey was 41%. In 2018 the survey will be conducted again as part of the NHS Patient Survey Programme (NPSP). The survey will give acute trusts information on inpatient care to facilitate targeted quality improvement.

Data collected from the 2018 Inpatient Survey will be used by the Care Quality Commission (CQC) in its assessment of trusts in England. The results are also used by NHS England and the Department of Health and Social Care for performance assessment, improvement and regulatory purposes, with compound measures such as the NHS Outcomes Framework (Domain 4: Ensuring patients have a positive experience), or the NHS England Overall Patient Experience Score (OPES). The data also constitute a National Statistic on patient experience in the NHS. Results from this survey (and any other patient experience collections) may be used by NHS trusts as evidence of adherence to NICE Quality Standards and used in Quality Accounts.

The survey methods used in this iteration are largely comparable to those of the 2017 survey. In preparation for the 2018 survey, some changes have been made to the content of the questionnaire in order to investigate patient experience of areas where stakeholders expressed interest. Improvements have also been made to survey materials and procedures. This report details such changes, and also provides information about a pilot study which will run alongside the main survey, and aims to explore the impact of using online survey methods.

[1] Those trusts that only treat children (Alder Hey Children's NHS Foundation Trust, Birmingham Children's Hospital NHS Foundation Trust, Great Ormond Street Hospital NHS Trust and Sheffield Children's NHS Trust) were not eligible for participation.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

2. Analysis and consultation

As in previous years, a consultation was undertaken in order to update the questionnaire for 2018. Amendments were made based on:

- Consultation with the Inpatient Advisory Group (which includes patient representatives), and stakeholders at CQC, NHS England, and the Department of Health and Social Care regarding any topics that should be addressed either from a policy or patient perspective.
- Analysis of the 2017 survey data to examine item non-response i.e. questions that were not answered but were applicable to the respondent.
- Analysis of the 2017 survey data to examine ceiling or floor effects i.e. when the vast majority of respondents report a very positive or negative experience.
- Analysis of the 2017 survey data to examine statistical correlations to identify any questions that respondents tend to answer in the same way, suggesting a similar or the same underlying concept

The Survey Coordination Centre presented the findings from the above analyses to the Advisory Group for discussion on which questions to remove or change. Questions discussed are presented in Appendix A.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

3. Cognitive Testing

Taking into account discussions with the Advisory Group, a questionnaire was drafted for testing with people who had recently stayed overnight as an inpatient in an NHS hospital. Cognitive testing is a research method which tests questionnaire items with lay people to check if they are understood as intended. It also tests whether respondents are able to answer them appropriately using the response options provided. Cognitive testing involves holding face-to-face interviews with recent inpatients and asking them to complete the questionnaire, reading out loud the questions and their response, explaining the reasoning behind their answers. The interviewer observes the responses that the participant makes and periodically asks questions such as whether the question was easy to answer, what their circumstances were and what they were thinking about when considering their answer. The interviewer also pays attention to whether the respondent appears to struggle when answering certain questions, and whether instructions were read and followed correctly.

Cognitive testing ensures that as far as possible, the instructions, questions and response options are relevant and understood. For this survey the covering letters were also tested since they had undergone significant changes since the previous survey. Refinements were made to the survey materials following each round of testing in response to any issues that were evidenced by the interviews.

The interviewees were recruited via a range of mechanisms, including advertisements online, online forums and websites (such as Gumtree) in different geographical locations and social media (Twitter, Facebook). In addition, contacts were made with Patient Engagement managers in NHS organisations in Oxfordshire, Birmingham and Bicester, who were able to circulate the advert to their community members.

Participants were recruited in an attempt to include a diverse group of interviewees. This includes volunteers aged 16 to 35 or from Black and minority ethnic (BAME) groups, two distinct groups of people that are less likely to respond according to our previous surveys. To help achieve this, during recruitment interested people were asked their age, gender, ethnicity, geographic location, route of admission (emergency or planned), whether they have any long term conditions and their date of discharge. Despite our efforts, the number of volunteers aged 16 to 35 and from BAME groups were very low: only 1 volunteer was 35 or younger and 1 was from a BAME group (see table 1).

There were 24 interviewees in total. They were split between two groups: those testing the main questionnaire and letters (n=18), and those testing the pilot questionnaire and letters (n=6). Volunteers were given £25 in ‘Love2shop’ vouchers for the one hour interview as a thank you.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Table 1. Demographics of the cognitive interviewees

Interviewee	Gender	Age	Ethnicity	Admission Type
1	M	50	White, British	Planned
2	M	35	White, British	Emergency
3	F	69	White, British	Emergency
4	M	79	White, British	Planned
5	F	40	White, Other	Emergency
6	M	55	White, British	Planned
7 (Pilot)	M	75	White, British	Emergency
8 (Pilot)	M	75	White, British	Planned
9	M	50	White, British	Planned
10	M	42	White, Northern Irish	Emergency
11	M	70	White, British	Planned
12	M	64	White, British	Planned
13	F	73	White, British	Emergency
14 (Pilot)	F	38	White, Other	Emergency
15 (Pilot)	F	65	White, British	Planned
16	M	50	White, British	Emergency
17	F	74	White, British	Emergency
18	M	73	White, Other	Emergency
19	F	70	White, British	Emergency
20	M	73	White, Other	Emergency
21	F	70	White, British	Emergency
22	F	71	White, British	Planned
23 (Pilot)	M	73	Mixed, White and Black Caribbean	Emergency
24 (Pilot)	F	82	White, British	Emergency

The interviews were conducted in March and April 2018 in Oxford, Birmingham, Bicester, London and Banbury. In total, three rounds of cognitive interviews were completed, with eight interviews per round (six for the main survey, two for the pilot). After each round, findings were analysed and discussed with stakeholders. Following this, changes were made to the questionnaires and letters, and the subsequent version was tested in the next round. This iterative process is illustrated in Figure 1 below.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

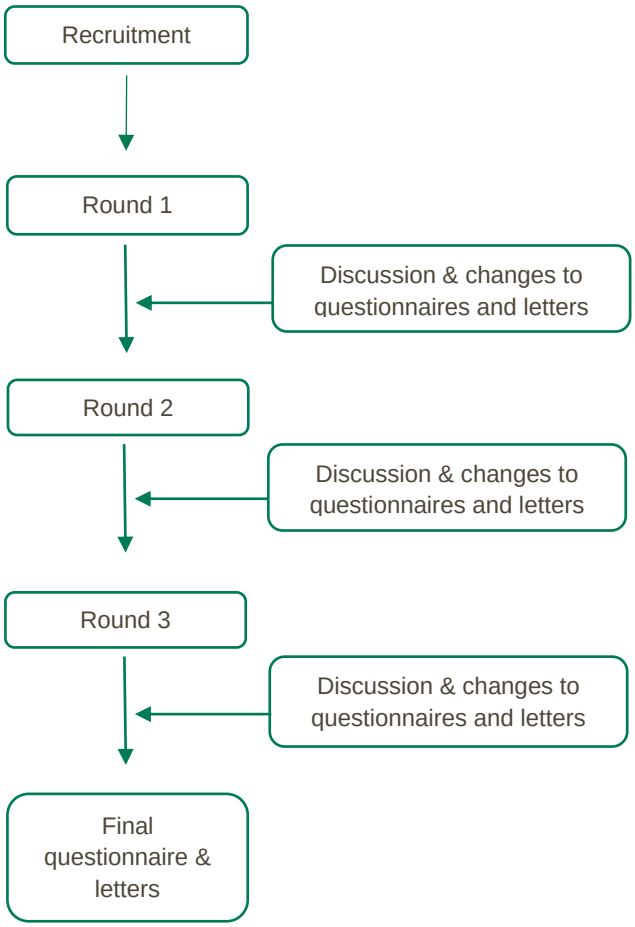


Figure 1: Cognitive testing process

Round 1 changes

New Integrated Care Question:

Q55. Was the care and support you expected available when you needed it?

1 ☐ Yes

2 ☐ No

3 ☐ I did not expect any further care or support after I was discharged

The new integrated care question above was initially added in as Q55. Following round 1, it was decided to swap the position of Q55 with Q56 so respondents would not be routed past the new question from answering response options 3 (*I was transferred to another hospital*), 4 (*I went to a residential nursing home*) or 5 (*I went somewhere else*) in Q53 "*Where did you go after leaving hospital?*".

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

New Research Question:

The new question on patient's being invited to participate in medical research was added following round 1 of cognitive testing. Therefore, the following question on research was only tested for the second and third round of cognitive interviews:

Q69. Did anyone at the hospital discuss with you whether you would like to take part in a research study?

1 ☐ Yes, and I took part in research

2 ☐ Yes, but I was not interested

3 ☐ No

Round 2 changes

New Research Question:

Upon testing the new research question, it was found that some participants were finding it difficult to understand what the question was asking. For example, a participant said his inpatient admission was for an experimental procedure so was already involved in 'research'; therefore the question did not apply to him and he was unsure on how to answer the question. This resulted in the response options being revised for round 3 to add a "*Don't know / can't remember*" option. This response option would be appropriate in any situation where the respondent is unsure how to answer or unsure if it is applicable.

Q69. During this hospital stay, did anyone discuss with you whether you would like to take part in a research study?

1 ☐ Yes, and I agreed to take part

2 ☐ Yes, but I did not want to take part

3 ☐ No

4 ☐ Don't know / can't remember

Round 3 changes

New Integrated Care Question:

Q56 tested well amongst participants and they did not find any problems in relation to understanding and answering the question.

However, it was decided by CQC later that the new question should move its position to Q66. The reason being, there was a concern that with the routing in Q53, patients might skip over the new question. In addition, this question as Q66 would follow Q65 ("*Did hospital staff discuss with you whether you may need any further health or social care services after*

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

leaving hospital (e.g. services from a GP, physiotherapist or community nurse, or assistance from social services or the voluntary sector)?").

Pilot questionnaire changes:

The pilot questionnaire had been tested in all three rounds with 6 participants in total. No changes were made to the questionnaire in any of the rounds as all questions and the layout tested well.

Covering letters changes:

The redesigned covering letters for both the main and pilot survey proved to be a success for each of the interview stages and therefore no visible changes were necessary. Details on the redesign are in the next section of this report.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

4. Changes to the covering letters

Sampled patients are sent up to three letters, as shown in Figure 2:

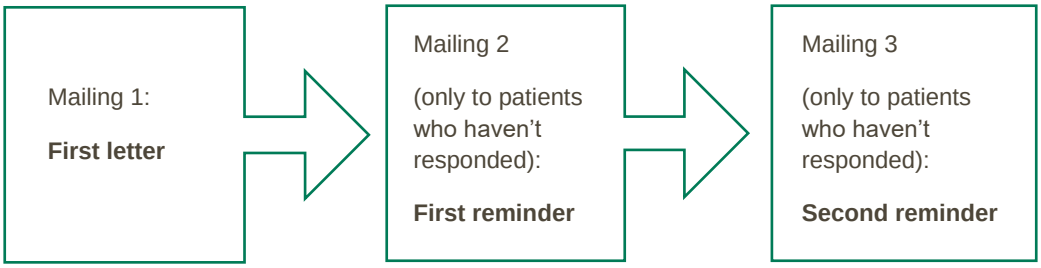


Figure 2: Order of covering letters

Changes were made to all three mailing letters in order to make them more engaging, empowering, concise and tailored, with the aim of increasing response rates. This followed the work carried out during the 2017 Community Mental Health Survey, where redesigned covering letters resulted in an increase in response rates by 4 percentage points (see CMH17 Pilot Report). To match the same approach used in the Community Mental Health Survey, the changes in the 2018 Inpatient Survey covering letters include:

- Using colour to highlight key words and make the letters potentially more attractive
- Using a more informal font
- Removing superfluous and repetitive text on the front page
- Using a more informal and encouraging tone overall
- Adding a text box in the first letter highlighting the instructions
- Adding potentially motivational words and phrases

These changes were thoroughly tested during the three rounds of cognitive testing. The letters received generally positive feedback, and alterations were made when suitable, which resulted in the final version (see Appendix B).

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

5. Changes to the questionnaire

Following consultation with stakeholders and subsequent cognitive testing with patients, a number of changes were made to the questionnaire: one question was removed, two new questions were added, and instructions were modified.

These modifications brought the total number of questions from 80 in 2017 up to 81 questions in the 2018 questionnaire, though the number of pages remained at 12. We expect having one more question than usual will have minimum impact on the time necessary to complete. These changes are detailed in the rest of this section and all questions are presented in Appendix C.

Question removed from the questionnaire

A question relating to medication was removed from the 2017 questionnaire. Factors considered with the advisory group when considering question removal included relevance to service improvement, patient experience and policy, current question usage, and the quality and usability of the data. It is worth noting that research shows questionnaire length has an impact on response rates and therefore this was considered as well[2]. The question removed was former Q59:

> **Q59**. Were you told how to **take** your medication in a way you could understand?
>
> 1 ☐ Yes, definitely
>
> 2 ☐ Yes, to some extent
>
> 3 ☐ No
>
> 4 ☐ I did not need to be told how to take my medication

This question presented a high statistical correlation with the former Q57 ("*Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand?"*), and as such was put forward as an item that could potentially be removed from the questionnaire. This was discussed with the Advisory Group, and it was felt that it was no longer necessary to keep. The preceding and subsequent questions regarding medicine were retained: "*Did a member of staff tell you about medication side effects to watch for when you went home?*" and "*Were you given clear written or printed information about your medicines?*". As a result, the removal of this question is not expected to affect the potential for analysis on medication.

[2] Bogen, K., 1996. The effect of questionnaire length on response rates: A review of the literature. In *Proceedings of the Section on Survey Research Methods* (pp. 1020-1025). American Statistical Association, Alexandria, VA.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Questions added to the questionnaire

A number of topics were considered for new questions, following stakeholder feedback. These were discussed with the Advisory Group, and as a result two questions were added to the questionnaire.

Question about integrated care

Integrated care is defined as the fact that a person's care may be provided by several different health and social care professionals, across different providers. It is intended to ensure that patients benefit from a care that is more person-centred and co-ordinated within healthcare settings, across mental and physical health and across health and social care[3]. The 2017 Inpatient Survey questionnaire already included one question on integrated care and it was felt that an additional one was needed in order to assess whether patients were able to effectively access the care that had been organised for them following discharge.

> **Q66.** Was the care and support you expected available **when** you needed it?
>
> 1 ☐ Yes
>
> 2 ☐ No
>
> 3 ☐ I did not expect any further care or support after I was discharged

This question performed well during cognitive testing, although several placements were explored. Following discussions, this question was placed after Q65 "*Did hospital staff discuss with you whether you may need any further health or social care services after leaving hospital (e.g. services from a GP, physiotherapist or community nurse, or assistance from social services or the voluntary sector)?*", thus referring to care and support after the patient was discharged.

The scoring for this new question reflects a trust's availability of expected support when the patient needs it, "*Yes*" (option 1) being scored a 10 and "*No*" (option 2) being scored a 0. Option 3 has no scoring as this is considered a non-specific response because the patient had no expectation of further care or support.

Question about Research

Members of the Advisory Group felt a question about participation in clinical research was much needed. This reflects the commitments enshrined in the NHS Constitution to "provide high quality care that is safe, effective and focussed on patient experience […] through its commitment to innovation and to the promotion, conduct and use of research to improve the current and future health and care of the population"[4]. Therefore the following question was developed and tested during cognitive interviews:

> **Q69.** During this hospital stay, did anyone discuss with you whether you would like to take part in a research study?

[3] https://www.gov.uk/guidance/enabling-integrated-care-in-the-nhs (consulted 31/08/2018)

[4] Principle 3 of the NHS Constitution

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

1 ☐ Yes, and I agreed to take part

2 ☐ Yes, but I did not want to take part

3 ☐ No

4 ☐ Don't know / can't remember

This question was scored due to expectation that all patients should be asked whether they want to participate in research. For both "*Yes*" responses (options 1 and 2), the trust would be scored a 10 whereas a "*No*" (option 3) would be scored a 0. Option 4 is a non-specific response and the trust will therefore not be scored on this response.

Item modified

While proxy responses are acceptable and encouraged on the Inpatient Survey, emphasis is put on the fact that the responses should strictly reflect the views of the sampled patient. In an attempt to address potential bias introduced by the proxy respondent, the following reminder appears above the demographic questions:

> **Reminder**: All the questions should be answered from the point of view of the person named on the envelope. This includes the following background questions.

The attention of the research team was drawn to the fact that due to the formatting of the printed questionnaire, this reminder appeared at the bottom of a column and was therefore not particularly visible to respondents.

The position of the paragraph was changed for the 2018 questionnaire. It still remains after Q73 ("*Who was the main person or people that filled in this questionnaire?*"), but it has now been placed at the top of the next column, directly above Q74. The new location of the paragraph is considered a more appropriate place to draw patients' attention to whom the questionnaire responses should refer to, as it now comes directly before the demographic questions. The content of the paragraph has not changed.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

6. Fieldwork

Fieldwork for the 2018 Inpatient Survey will take place between August 2018 and January 2019. The pilot study will be conducted alongside the main survey, during the same period of time. Every week during fieldwork, as per usual approved contractors and in-house trusts will send a weekly monitoring report, summarising the outcome status by use of the following codes:

- Outcome 1 = questionnaire returned completed
- Outcome 2 = questionnaire returned undelivered
- Outcome 3 = patient deceased after the start of fieldwork
- Outcome 4 = patient too ill or opted out
- Outcome 5 = patient ineligible for participation (i.e. under 16, never an inpatient etc.)
- Outcome 6 = no response from patient
- Outcome 7 = patient deceased before the start of fieldwork

From the above outcome codes, the adjusted response rate is calculated by dividing all patients that returned a completed questionnaire (Outcome 1) by all patients that potentially received the questionnaire and were potentially able to respond:

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

Entering fieldwork

Whilst the Adult Inpatient Survey has one of the highest response rates of the NPSP, often trusts enter fieldwork late, reducing the amount of time for patients to respond. For instance, in 2017, more than half of all trusts (55%) entered fieldwork over a month late with 47% entering in October, 7% entering in November and 1% entering in December. This of course can have a negative impact on response rate as well as representativeness.

Work was recently undertaken to identify the barriers of trusts entering fieldwork on time. This work highlights feedback from the Survey Coordination Centre, approved contractors and analysis of the 2017 fieldwork dates and response rates. The end result of this work comprised a report with recommendations on how to increase the number of trusts entering fieldwork on time or early. Recommendations included actions necessary for trusts, Survey Coordination Centre, approved contractors and CQC. Whilst some of these recommendations will be implemented in future iterations of the surveys of the programme, the following were implemented for the 2018 Inpatient Survey:

- Continue to develop and utilise the Contractor Checklist to improve the quality of data being submitted and to speed up the sample checking process by reducing the number of queries being asked.
- Set a sampling deadline for when trusts should be submitting sample data to either approved contractors or the Survey Coordination Centre (for in-house trusts only). For the 2018 Inpatient Survey, the deadline was set at 22nd August 2018.
- To ask for post-sampling feedback from each contractor to gain insight into what worked and what didn't work.

With the above implemented, we hope to have more trusts enter fieldwork on time or earlier than the start date of 28th August.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

7. Faster first reminder letter

Since its inception, the NPSP has followed best practice methodology with regards to postal methods of administering a paper self-completion questionnaire. The current approach mirrors that set out by Dillman[5] in his theory on tailored design methods, that is, three contacts via post with a hard copy of the questionnaire included in the first and final mailing. The timing of these contacts will vary dependent on fieldwork period, but the ideal timeframe is around seven working days between the first mailing and the first reminder.

Historically, contractors and in-house trusts mailed the first reminder out within 2-3 weeks following the initial contact. The 2017 Inpatient Survey pilot tested a reduction in the time between the initial contact and first reminder to be five working days. This resulted in a statistically significant increase in overall response rate by 3 percentage points. Following these results, it has been a programme-wide decision to go forward with a faster reminder where the second mailings are sent 5 working days after the initial mailing. Trusts are still required to do local checks in that gap for deceased patients.

[5] Dillman, D.A., 2011. *Mail and internet surveys: The tailored design method-2007 Update with new internet, visual, and mixed-mode guide.* John Wiley & Sons.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

8. Dissent posters

For the first time for the Adult Inpatient Survey, dissent posters have been published in the ten most commonly spoken languages in England. Trusts displayed the English version along with any other languages that most reflect their patient populations. These posters are displayed during the survey sample month(s) and give patients the opportunity to opt-out of the survey should they wish. The dissent posters have been translated in the following 9 non-English languages: Bengali, French, Gujarati, Polish, Portuguese, Punjabi, Spanish, Urdu and Arabic.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

9. Pilot study

As part of the drive to improve response rates (RR) and possibly limit response bias, and to explore a move to a mixed mode methodology using online methods within the NPSP, a pilot study will be conducted to test the effect of three interventions during the 2018 iteration of the Inpatient Survey.

The pilot study is aimed at testing the effect on RR of the questionnaire administered via push-to-web systems. The pilot will also look at any demographic changes in the responding profile based on the interventions to assess the impact on representativeness. Indeed, in addition to positively affecting the RR overall, the pilot is hoped to improve the response from harder to reach sub-groups such as younger patients and those from Black and Minority Ethnic Groups. However, some other groups such as older people and people with lower level of computer-literacy might find it more challenging to complete a survey online.

The focus of the pilot will be placed on the effects of different methods of invitation in comparison to the "business as usual" survey. Three different methods of invitation which combine postal letters and text messages will be tested, together with the use of an online questionnaire. To enable the use of an online survey, the questionnaire was shortened to 32 questions over 6 pages instead of 12 (maximum 25 minutes to complete). All interventions of the pilot study will use the same shortened version of the questionnaire which will be provided to respondents either online, in paper or both. Table 1 outlines the interventions, and the rest of this section provides details for each arm of the pilot study.

Method of invitation	Mailing 1 (M1)	Mailing 2 (M2)	Mailing 3 (M3)
Intervention A – online survey via postal letter	Postal letter with link to online shorter questionnaire	Postal reminder with link to online shorter questionnaire	Postal letter (no link) and hard copy of shorter questionnaire
Intervention B – online survey via postal letter and SMS	Postal letter with link to online shorter questionnaire, followed by SMS with link	Postal reminder with link to online shorter questionnaire, followed by SMS with link	Postal letter (no link) and hard copy of shorter questionnaire
Intervention C – shorter paper questionnaire	Same as main survey, but with shorter questionnaire	Same as main survey	Same as main survey, but with shorter questionnaire

Table 2: Pilot interventions

Control arm

The control arm for the pilot will be each trust's main sample (n=1250 as per previous years).

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Intervention A

Intervention A will have the advantage of first "introducing" the survey to the patient via a postal letter (M1). This letter will contain all the usual information about the survey and have a URL with the patient's unique code to access the online survey. The URL will be short and user-friendly, so that it is easy for people to type it into an online browser. The patient will then be asked to log in using a unique password provided in the postal letter. Having the first contact via a postal letter will be advantageous, as a letter with an authoritative logo (i.e. the trust's name and letterhead) may instil confidence and encourage the patient to respond. This will be especially relevant given the changes in data protection.

The second contact with the patient (M2) will consist of another postal letter with the same URL as the first letter. For the first two mailings, a paper questionnaire will not be included.

The final reminder (M3) will consist of a letter accompanied by a hard copy of the questionnaire, thus giving patients the opportunity to respond on paper. This final letter will not include the URL to avoid respondent burden / overload. The questionnaire included will be the shorter version of the mainstage questionnaire consisting of the same questions as the online survey.

Intervention B

Intervention B will start with the same postal letter as the initial mailing from intervention A (M1). This initial mailing will be followed by an SMS message with a hyperlink to the online survey. The SMS message will be short (less than 160 characters) and a helpline number will be included for patients to call to ask questions or to opt out.

The SMS message will be sent 3 working days after the initial mailing and to only those who have not responded or opted out. The three working days gap allows for two working days for the postal letter to arrive using Royal Mail 2nd Class, plus one additional day: this will reduce the risk of the SMS arriving before the patient receives the letter, thus causing confusion to the patient. The link used in the SMS reminder will be unique to the patient, thus removing the need for a password or login.

The second mailing (M2) will be similar to the initial mailing, reminding the patient to complete the online questionnaire using the URL and unique access code provided. This will again be followed by an SMS message three working days later. The two SMS messages will be worded slightly different in hopes they will each motivate different people.

Finally, the last mailing will be the exact same as in intervention A: a letter without the URL, but instead accompanied by a hard copy of the shorter questionnaire.

In total, intervention B will consist of up to five contacts with the patient:

- Contact 1: postal letter with link
- Contact 2: SMS reminder with link
- Contact 3: postal reminder
- Contact 4: SMS reminder with link
- Contact 5: postal letter & hard copy of questionnaire

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Intervention C

Intervention C will use the same approach as the main survey, albeit with the shorter questionnaire instead of the mainstage 12 page questionnaire. The rest of the materials (letters, reminders) will be as per the main survey (see Quality and Methodology Report). This will enable us to compare each intervention to one another to ascertain whether the impact on response rates is due to the fact that the questionnaire is shorter, or because it is administered online.

Sample size

A sample size of approximately 3,380 would be needed per intervention, bringing the total up to 10,140 additional patients split across 10 trusts (i.e. 1,014 extra patients per pilot trust).

This calculation is powered at 95% to detect increases of 2 percentage points or higher, which is considered an appropriate balance between precision and cost. Table 2 shows the sample size per intervention group.

	Number of patients needed
Intervention A	338 patients x 10 trusts = 3,380
Intervention B	338 patients x 10 trusts = 3,380
Intervention C	338 patients x 10 trusts = 3,380
Total	1,014 patients x 10 trusts = 10,140

Table 3: Sample size per intervention group

These extra 1,014 patients per pilot trust will be additional to the main sample of 1,250 patients for the main survey; therefore, each pilot trust will draw a total sample of 2,264 patients.

Online questionnaire design

The questionnaire for the pilot interventions will be a shorter version of the main survey questionnaire (completed in maximum 25 minutes) (see IP18 Pilot Report). The number of pages has been reduced from 12 to 6 and the number of questions from 81 to 32. This shorter questionnaire will be sent to the patient as a hard copy in all mailings for intervention C and only in the third mailings for interventions A and B. For interventions A and B, patients will receive a URL to the questionnaire instead. For intervention B, patients will have the opportunity to access the questionnaire by tapping/clicking on the link provided in the SMS sent to their mobile telephone. The URL from the letters and the link in the SMS messages will take patients to a responsive-design website (i.e. the questionnaire will display correctly regardless of the type or size of device used) where they will be able to complete the questionnaire completely online.

The online questionnaire design (i.e. the layout, design and colour scheme) was developed and thoroughly tested to ensure quality, functionality and simplicity. Testing was completed using a number of devices and web browsers (see table 3).

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Devices:	Web browsers:
iPhone Android phone iPad Mini Lenovo ThinkPad Microsoft Surface PC desktop	Safari Firefox Chrome Microsoft Edge Internet Explorer

Table 4. Devices and web browsers used for testing the online survey

As part of the pilot intervention, and in order to gather information about the user experience, two additional questions were added at the end of the online questionnaire, asking the respondent about any issues while completing. These questions only appear after patients submit their responses to the main questions. This information will complement the paradata outlined below.

Paradata

Data about the interaction between the respondent and the digital questionnaire will be generated using the appropriate technology (for example, an Active Server Page (ASP)), thus enabling us to collect complex data about the online element of the intervention. The paradata obtained will be completely anonymous and will include process data, server-side data and client-side data (see table 4). Exploring the paradata from the pilot will help inform future decisions on online pilot studies.

Process Data:	Server-side Data:	Client-side Data:
o Date of 1st SMS o Date of 2nd SMS o Time of 1st SMS o Time of 2nd SMS o SMS delivery status	o Date online survey was accessed o Time online survey was accessed o Access mode o Date of dropout o Time of dropout o Date of submission o Time of submission o Date of reaccess o Time of reaccess o Reaccess mode	o Date of log in o Time of log in o Log in mode o Time of submission o Time of participation o Number of answer changes o Number of page changes o Page of dropout o Question of dropout o Number of access attempts o Connection type o Connection error reason o Mode of completion

Table 5. Paradata from SMS and online survey

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Appendix A: list of items discussed by the Advisory Group

Proposed	Rationale	Outcome
Remove: Q5. When you referred to see a specialist, were you offered a choice of hospital for your first hospital appointment?	From the IP17 analysis, it was found Q5 to have a high missing response rate (49.5%). Therefore, consideration was given to remove this from the IP18 questionnaire.	Concluded to keep Q5 in the IP18 questionnaire.
Remove: Q11. While in hospital, did you ever share a sleeping area, for example a room or bay, with patients of the opposite sex?	This question has a ceiling effect of 92% of respondents selecting the 'No' response option.	Concluded to keep Q11 in the IP18 questionnaire.
Remove: Q12. Did you change wards at night?	Almost 80% of respondents indicated they did not change wards at night.	Concluded to keep Q12 in the IP18 questionnaire.
Remove: Q32. In your opinion, did the members of staff caring for you work well together?	This question is not linked to policy and was therefore a candidate for removal if space were to be needed.	Concluded to keep Q32 in the IP18 questionnaire.
Remove or amend: Q57. Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand? Q58. Did a member of staff tell you about medication side	It was thought that these three questions were asking the same thing so it was discussed whether these could be combined in some way or removed. Through statistical correlational tests, Q57 and Q59 were highly correlated (>0.7).	Q59 was removed.

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

effects to watch for when you went home? Q59. Were you told how to take your medication in a way you could understand?		
New question Question around integrated care	The IP17 questionnaire already included one question on integrated care and it was felt that an additional one was needed in order to assess whether patients were able to effectively access the care that had been organised for them following discharge. It will also help to explore the move towards integrated care models, and how patients experience this.	The following question was formed and added to the questionnaire: Q66. Was the care and support you expected available when you needed it?
New question Question regarding patients being asked to take part in medical testing.	A question on medical research was considered to help monitor whether patients were consistently offered to take part in such research, in line with NHS Constitution principles.	The following question was formed and added to the questionnaire: Q69 – Did anyone at the hospital discuss with you whether you would like to take part in a research study?

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Appendix B: Covering letters

Print on trust headed paper. Please edit the text in square brackets and remove the highlighting.

[Date]

Dear [Insert patient's first name and surname]

You're invited to tell us about your recent stay in hospital

We want hospital care to be as good as possible but we can only do this with your help.

This national survey will help us at [Hospital name or NHS trust name] and the Care Quality Commission to find out what was good about your care and if any improvements are needed.

All you need to do:

- Take 20 minutes to fill out the questionnaire
- Return the questionnaire using the Freepost envelope (no need to put a stamp on)

Your feedback is important as it's the best way for us to understand your experience of hospital stay.

This survey is confidential and none of the staff who care for you will know if you take part.

We are also sending this questionnaire to many other people, so please join them in completing this survey.

Please see the back of this letter for more information or call [our Freephone helpline/us] on [phone number] [free of charge] if you have any questions and [they/we] will do our best to help. The line is open between [opening time] and [closing time], [days].

Thank you for taking the time to complete this important survey.

Yours sincerely,

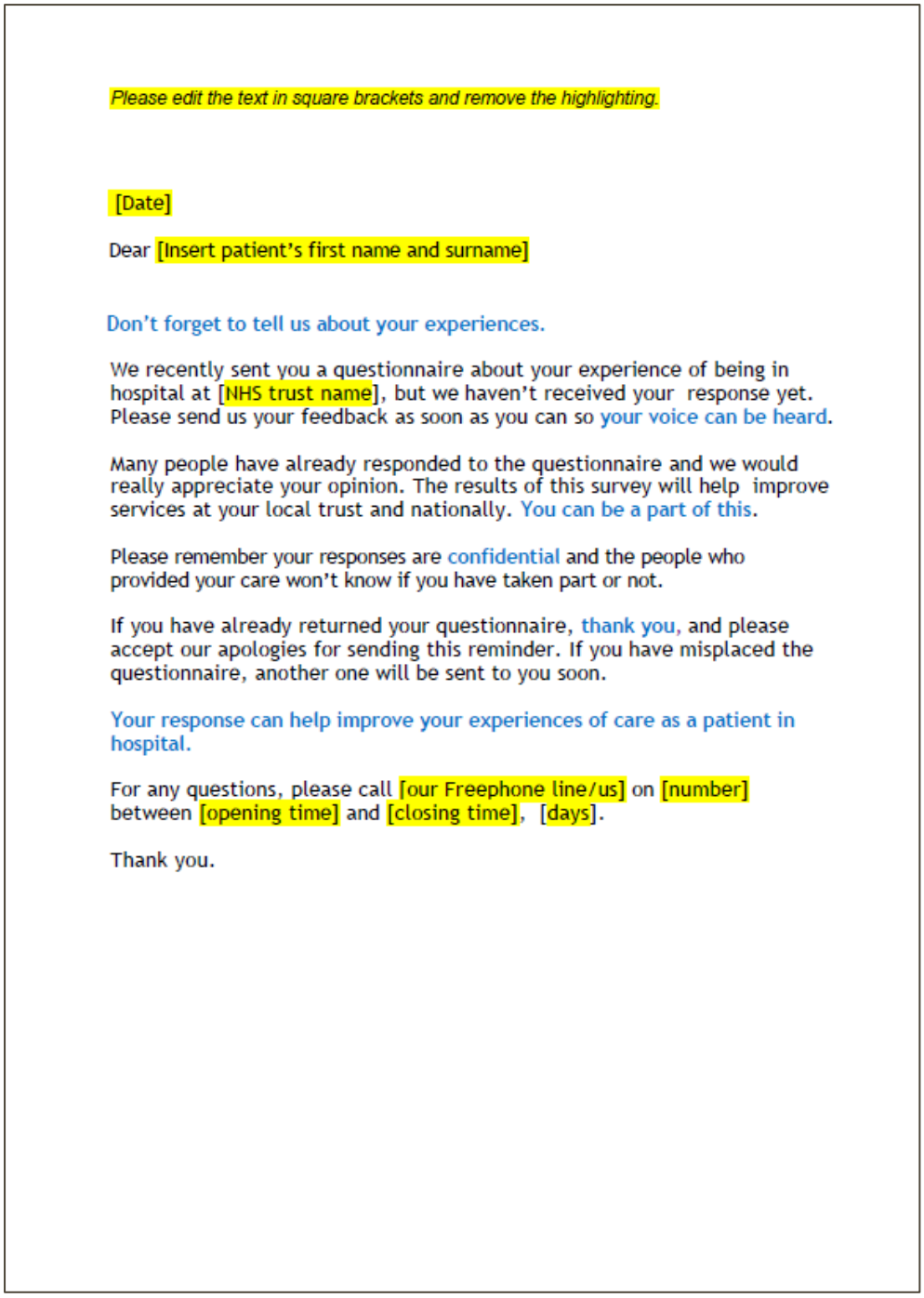
[Chief Executive name]

Chief Executive,
[NHS Trust Name]

Figure 3. 1st covering letter

Survey Coordination Centre
Tel: + 44 (0) 1865 208127

team@surveycoordination.com
www.nhssurveys.org



Please edit the text in square brackets and remove the highlighting.

[Date]

Dear [Insert patient's first name and surname]

Don't forget to tell us about your experiences.

We recently sent you a questionnaire about your experience of being in hospital at [NHS trust name], but we haven't received your response yet. Please send us your feedback as soon as you can so your voice can be heard.

Many people have already responded to the questionnaire and we would really appreciate your opinion. The results of this survey will help improve services at your local trust and nationally. You can be a part of this.

Please remember your responses are confidential and the people who provided your care won't know if you have taken part or not.

If you have already returned your questionnaire, thank you, and please accept our apologies for sending this reminder. If you have misplaced the questionnaire, another one will be sent to you soon.

Your response can help improve your experiences of care as a patient in hospital.

For any questions, please call [our Freephone line/us] on [number] between [opening time] and [closing time], [days].

Thank you.

Figure 4. 2nd covering letter

Survey Coordination Centre
Tel: + 44 (0) 1865 208127

team@surveycoordination.com
www.nhssurveys.org

Print on trust headed paper. Please edit the text in square brackets and remove the highlighting.

[Date]

Dear [Insert patient's first name and surname]

Please take this opportunity to make a difference

A few weeks ago we sent you a questionnaire asking about your stay in hospital. As we don't seem to have heard from you yet, we have enclosed another copy of the questionnaire. Thousands of other people have completed the survey, and we would really like to hear from you too.

This survey is confidential - nobody involved with your care will know if you have participated or not.

This is the final chance to take part in this year's survey so don't miss out on this opportunity to have your say about the care at [NHS trust name].

This survey is voluntary, but to participate please complete the questionnaire as soon as possible and return in the Freepost envelope provided (no need for a stamp).

We look forward to hearing from you soon - thank you for your time.

Yours sincerely,

[Chief Executive Name]

Chief Executive,
[NHS Trust Name]

Figure 5. 3rd covering letter

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

Appendix C: List of questions from the 2018 questionnaire

2018 Inpatient main Survey questionnaire list with summary of changes:

Question number	Question text	Summary of changes
1	Was your most recent hospital stay planned in advance or an emergency?	
2	When you arrived at the hospital, did you go to the A&E Department (also known as the Emergency Department, Casualty, Medical or Surgical Admissions unit)?	
3	While you were in the A&E Department, how much information about your condition or treatment was given to you?	
4	Were you given enough privacy when being examined or treated in the A&E Department?	
5	When you were referred to see a specialist, were you offered a choice of hospital for your **first hospital appointment?**	
6	How do you feel about the length of time you were on the waiting list before your admission to hospital?	
7	Was your admission date changed by the hospital?	
8	In your opinion, had the specialist you saw in hospital been given all of the necessary information about your condition or illness from the person who referred you?	
9	From the time you arrived at the hospital, did you feel that you had to wait a long time to get to a bed on a ward?	
10	While in hospital, did you ever stay in a critical care area (e.g. Intensive Care Unit, High Dependency Unit or Coronary Care Unit)?	
11	While in hospital, did you ever share a sleeping area, for example a room or bay, with patients of the opposite sex?	
12	Did you change wards at night?	
13	Did the hospital staff explain the reasons for being moved in a way you could understand?	
14	Were you ever bothered by noise **at night** from **other patients**?	
15	Were you ever bothered by noise **at night** from **hospital staff**?	
16	In your opinion, how clean was the hospital room or ward that **you** were in?	

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

17	Did you get enough help from staff to wash or keep yourself clean?	
18	If you brought your own medication with you to hospital, were you able to take it when you needed to?	
19	How would you rate the hospital food?	
20	Were you offered a choice of food?	
21	Did you get enough help from staff to eat your meals?	
22	During your time in hospital, did you get enough to drink?	
23	When you had important questions to ask a doctor, did you get answers that you could understand?	
24	Did you have confidence and trust in the doctors treating you?	
25	Did doctors talk in front of you as if you weren't there?	
26	When you had important questions to ask a nurse, did you get answers that you could understand?	
27	Did you have confidence and trust in the nurses treating you?	
28	Did nurses talk in front of you as if you weren't there?	
29	In your opinion, were there enough nurses on duty to care for **you** in hospital?	
30	Did you know which nurse was in charge of looking after you? (this would have been a different person after each shift change)	
31	Did you have confidence and trust in any **other clinical staff** treating you (e.g. physiotherapists, speech therapists, psychologists)?	
32	In your opinion, did the members of staff caring for you work well together?	
33	Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you?	
34	Were you involved as much as you wanted to be in decisions about your care and treatment?	
35	Did you have confidence in the decisions made about your condition or treatment?	
36	How much information about your condition or treatment was given to **you**?	
37	Did you find someone on the hospital staff to talk to about your worries and fears?	
38	Do you feel you got enough emotional support from hospital staff during your stay?	
39	Were you given enough privacy when discussing your condition or treatment?	

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

40	Were you given enough privacy when being examined or treated?	
41	Were you ever in any pain?	
42	Do you think the hospital staff did everything they could to help control your pain?	
43	If you needed attention, were you able to get a member of staff to help you **within a reasonable time**?	
44	During your stay in hospital, did you have an operation or procedure?	
45	Beforehand, did a member of staff answer your questions about the operation or procedure in a way you could understand?	
46	Beforehand, were you told how you could expect to feel after you had the operation or procedure?	
47	After the operation or procedure, did a member of staff explain how the operation or procedure had gone in a way you could understand?	
48	Did you feel you were involved in decisions about your discharge from hospital?	
49	Were you given enough notice about when you were going to be discharged?	
50	On the day you left hospital, was your discharge delayed for any reason?	
51	What was the **MAIN** reason for the delay? (**Cross ONE box only**)	
52	How long was the delay?	
53	Where did you go after leaving hospital?	
54	After leaving hospital, did you get enough support from health or social care professionals to help you recover and manage your condition?	
55	When you left hospital, did you know what would happen next with your care?	
56	Before you left hospital, were you given any written or printed information about what you should or should not do after leaving hospital?	
57	Did a member of staff explain the **purpose** of the medicines you were to take at home in a way you could understand?	
58	Did a member of staff tell you about medication **side effects** to watch for when you went home?	
59	Were you given clear written or printed information about your medicines?	
60	Did a member of staff tell you about any danger signals you should watch for after you went home?	
61	Did hospital staff take your family or home situation into account when planning your discharge?	

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org

62	Did the doctors or nurses give your family, friends or carers all the information they needed to help care for you?	
63	Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?	
64	Did hospital staff discuss with you whether you would need any additional equipment in your home, or any adaptations made to your home, after leaving hospital?	
65	Did hospital staff discuss with you whether you may need any further health or social care services after leaving hospital? (e.g. services from a GP, physiotherapist or community nurse, or assistance from social services or the voluntary sector)	
66	Was the care and support you expected available when you needed it?	New Question
67	Overall, did you feel you were treated with respect and dignity while you were in the hospital?	
68	Overall... (**Please circle a number**)	
69	During this hospital stay, did anyone discuss with you whether you would like to take part in a research study?	New Question
70	During your hospital stay, were you ever asked to give your views on the quality of your care?	
71	Did you see, or were you given, any information explaining how to complain to the hospital about the care you received?	
72	Did you feel well looked after by the **non-clinical** hospital staff (e.g. cleaners, porters, catering staff)?	
73	Who was the main person or people that filled in this questionnaire?	
74	Do you have any physical or mental health conditions, disabilities or illnesses that have lasted or are expected to last for 12 months or more? Include problems related to old age.	
75	Do you have any of the following? Select **ALL** conditions you have that have lasted or are expected to last for 12 months or more.	
76	Do any of these reduce your ability to carry out day-to-day activities?	
77	Are you male or female?	
78	What was your **year** of birth?	
79	What is your religion?	
80	Which of the following best describes how you think of yourself?	
81	What is your ethnic group? (**Cross ONE box only**)	

Survey Coordination Centre
Tel: + 44 (0) 1865 208127
team@surveycoordination.com
www.nhssurveys.org