

A GUIDE TO CONDUCTING A LOCAL DAY CASE SURGERY SURVEY

THE ADVICE CENTRE FOR LOCAL SURVEYS



Making patients' views count

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Guidance documents

Other guides are also available on the NHS Surveys website (www.nhssurveys.org) to help you carry out your survey:

- A guide to mailing questionnaires, data entry and cleaning
- A guide to analysis, reporting and dissemination of survey results

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1 Introduction

1.1 Why carry out a Day Case Surgery Patient Survey?

Surveys of day case patients have not yet formed part of the national patient survey programme. However trusts may wish to gather feedback from these patients, so the materials and guidance necessary have been developed for this purpose. You may choose to carry out a survey of day case surgery patients, to:

- **Improve services based on patient feedback**
- **Track changes in your patients' experience over time**
- **Provide evidence to support local quality improvement initiatives**
- **Evaluate success of service improvements**

Understanding patients' experience of care is essential in making a complete assessment of service quality. This can only be achieved by asking the patients themselves. It is important to adopt systematic and effective ways to ask patients about their experiences, and use this information to shape and improve the way healthcare is delivered.

1.2 Avoiding duplication with national surveys

Before you carry out an additional patient survey in your trust, please check that the same or a similar survey is not already planned as part of the Care Quality Commission's national patient survey programme.¹ If there is a national survey scheduled for around the same time, it is very important that appropriate steps are taken to avoid duplication.

To do this, you should consider:

- **How will patients or service users be selected for the surveys?** It is of particular importance that patients are **not** included in the samples for both surveys as people will be understandably reluctant to fill in multiple surveys received around the same time and this may negatively impact upon the response rates to both surveys. Carefully check the sampling instructions for any related national surveys when planning local surveys and, if possible, cross check lists of sample members to ensure that there is no duplication. Also, remember that some patients will access more than one service in their care pathway. For example, many patients admitted for day surgery will have attended a prior outpatient appointment before being admitted for their surgery; sending these patients questionnaires about both experiences must be avoided.
- **When will fieldwork for the surveys be taking place?** Ideally, there should normally be no overlap in the fieldwork periods (that is, the time when questionnaires are being sent to sample members) of the two surveys. There may be some exceptions to this – for example where a parallel sample is being used and the desire is to compare results from that cohort to those from the national survey – but, generally, it will be advisable to separate different surveys.

¹ Please see an outline of the national survey programme on the Care Quality Commission's website at: <http://www.cqc.org.uk/usingcareservices/healthcare/patientsurveys/surveysplannedorinprogress.cfm>.

1.3 How can this guide help me?

This guide is designed to help staff in NHS trusts gather patient feedback by using the same approach as the national patient survey programme. Following this guidance will help to ensure that your results are comparable with other surveys undertaken as part of the national patient survey programme¹. This will also allow you to compare your results to any other trusts who decide to conduct a day case surgery patient survey locally using this guidance.

- Sections 2-4 of this guidance outline the preparatory work that can be done and include information to help you decide whether to appoint a survey contractor to assist with carrying out the survey
- Section 7 explains how to use the online question bank tool to create your questionnaire
- Section 8 provides advice on sample size
- Section 9 outlines step-by-step instructions on how to compile the survey sample
- Section 10 offers guidance on data protection and confidentiality
- Appendix 1 presents a generic survey timetable, outlining the main stages involved in carrying out a survey, presented in the order in which these are conducted for the national surveys.

If you decide to undertake the survey mailings in-house, a separate document available on the NHS Surveys website provides guidance on the practicalities of implementing a survey, including the distribution of questionnaires and data entry. This document (*'A guide to mailing questionnaires, data entry and cleaning'*) also provides details of the approach and rationale used in the national patient survey programme to clean survey data and can be downloaded from: www.nhssurveys.org/Filestore/documents/Guide_to_mailing.pdf

There is also a generic guide available on the NHS Surveys website which provides advice and suggestions on data analysis, reporting and dissemination of survey findings. This document (*'A guide to analysis, reporting and dissemination of survey results'*) can be downloaded from: www.nhssurveys.org/Filestore/documents/Guide_to_analysis.pdf

2 Deciding whether to use a survey contractor or carry out the survey in-house

Your trust may choose to carry out the survey in-house, or to commission a survey contractor to carry out the work for you. Getting systematic feedback from patients requires money, resources and staff time. To carry out a survey effectively, the following areas of experience and skills are needed:

- Administration of postal surveys and/or other survey methods if required
- Communication with and co-ordination of multi-disciplinary teams

¹ While the sample for a day case surgery patient survey will be different from other surveys conducted in the national patient survey programme, many of the questions included in the questionnaire are directly comparable to other acute surveys (for example the adult inpatient survey). If you do seek to compare results from a local day case surgery survey with those from another national survey you should standardise the datasets to control for those demographics which might affect how people respond to the questionnaire (i.e. gender, age and route of admission). Once data has been standardised for differences in respondent demographics, using the data from other acute surveys will provide a much more complete picture of the care provided by your trust to patients.

- Data entry, validation and cleaning
- Data analysis and interpretation, and familiarity with a statistical computing package
- Report writing.

2.1 Costs

The financial resources needed to carry out a survey in-house are often under-estimated. The following is a list of the main items of expenditure for a postal survey, including the two reminders:

- **Staff time:** this is one of the largest expenditures, but it is sometimes overlooked. Be sure to include the cost of staff time, including salary and fringe benefits, and time spent away from other work.
- **Stationery and postage:** you will need to cover the cost of stationery and the cost of second class postage for three mailings, two of which will be greater than the standard letter rate, while the second mailing (first reminder slip) will be standard letter rate.
- **FREEPOST licence:** there is a charge for obtaining a freepost license which enables you to print a freepost address on return envelopes so that respondents can send back completed questionnaires at no cost to themselves. You will also be charged for each returned questionnaire. (For details, see the separate guidance document '*A Guide to mailing questionnaires, data entry and cleaning*' available on the NHS Surveys website).
- **PO Box:** for confidentiality reasons, there should be no indication on the outer envelopes that the documentation enclosed relates to healthcare in any way. Trusts carrying out the survey in-house are advised to set up a PO Box so that mail which is undelivered can be returned to sender. There is a fee for setting up a PO Box. For further details on how to set up a PO Box please go to: <http://www2.royalmail.com/delivery/inbound-mail/po-box>
- **FREEPHONE service:** this service gives patients easy access to advice and staff who can reassure them on any concerns they have about the survey. The cost of setting up such a service and of staff time in responding needs to be included. (For details, see the separate guidance document '*A Guide to mailing questionnaires, data entry and cleaning*' available on the NHS Surveys website).
- **Data entry:** if the data are entered manually, you will need to allow enough staff time for this, and for checking the accuracy of the data file. Alternatively, a data processing or scanning company could be contracted to process the data for which there would be a charge.
- **Design and production of reports:** this requires a considerable amount of skilled staff time.

2.2 Quality and confidence in the findings

It is important that the data are as accurate and reliable as possible. Using the expertise of an approved contractor may add credibility to the survey findings in the eyes of staff, patients and the general public.

2.3 Commissioning a survey from an 'approved' contractor

If you decide to appoint a survey contractor organisation/company to help you carry out the survey, we recommend you commission one of the survey contractors that have been 'approved' for the NHS patient survey programme. Five organisations have been approved by the Care Quality Commission to carry out surveys for the NHS patient survey programme:

Five organisations were approved to carry out surveys for the NHS patient survey programme:

- **CAPITA Health Service Partners**
- **Patient Perspective**
- **Picker Institute Europe**
- **Quality Health**
- **TNS-BMRB**

Information about each of these organisations, including their contact details and prices, can be found on the NHS Surveys website at: <http://www.nhssurveys.org/approvedcontractors>

Contracts with survey contractors

A model service contract, provided by the Care Quality Commission for use in the NHS patient survey programme, is recommended to also be used by trusts conducting a survey outside the national programme.

The model service contract is designed to be used as a template contract; trusts and survey contractors may agree on amendments to the wording and content when using them. We suggest that the service contract is used as either an arrangement separate to the financial agreement made between a trust and a contractor when commissioning that contractor, or combined with the financial agreement to minimise the administrative burden. In either case, trusts should specify the following when confirming the requirements of the contractor:

- The groups, and numbers, of patients to be surveyed
- The survey methodology (i.e. postal questionnaire with two reminders to non-responders)
- Exactly what the survey provider and the trust are responsible for in carrying out the survey project (division of responsibilities)
- The main contact at the survey provider and the individual at the trust responsible for managing the project
- A timetable showing the dates when each task is to be carried out and by whom
- The version of the questionnaire to be used
- The outputs of the project. That is, types of and numbers of reports to be delivered and details of any presentations to be carried out by approved contractors
- The costs and a payment schedule.

Further details are available in *section 10.2 - Model service contract*.

3 Deciding on the survey fieldwork period

The fieldwork period for the national patient surveys has been extended in recent years to a total of 18 weeks, as research carried out by the Co-ordination Centre for the acute national patient surveys showed that younger patients or patients from Black and minority ethnic (BME) groups tend to take longer to respond to mailed surveys than older patients or those from white ethnic groups. More information on the investigation of late returns by the Co-ordination Centre can be found on the NHS Surveys website.¹

If you are conducting a local survey, you may wish to reduce the fieldwork period, although we recommend a minimum of eight weeks for a postal survey to allow sufficient time for two reminders to be sent to non-responders and for patients to return their questionnaire. If your trust has a high proportion of young or non-white patients, we recommend that you extend your fieldwork period or you risk too few responses from these groups to make your results representative. A longer fieldwork period should result in an increased response rate but the rate of questionnaires being returned will eventually slow and then plateau; careful monitoring of response rates over time will help you to decide when to close the fieldwork.

If you decide that you need patient experience data collected more rapidly than through a postal survey, you could consider alternative methods such as a telephone or online survey, or using hand-held electronic devices. Other approaches to gathering patient feedback include face-to-face interviews, focus groups and patient panels. However, please bear in mind that using an alternative method will mean that your results will not be comparable to your national survey findings. The Advice Centre for the local surveys is available to discuss these issues with you.

4 Publicising the survey

4.1 Pre-survey communication with staff

The best way to ensure your survey is a success is to work hard in the beginning to involve those people who have the most impact on patients' experiences and who will be responsible for responding to the results of the survey. We suggest you put together a small team of people who are key stakeholders and involve them in decisions. Groups to consider include:

- Caldicott Guardian
- Board members
- Doctors, nurses and other health care staff
- Members of patient groups with a special interest in the trust
- Patients and carers
- Medical records personnel or Patient Administration System (PAS) staff
- Managers
- Staff or directors responsible for:
 - Clinical governance
 - Patient advice and liaison service (PALS)
 - Quality improvement
 - Strategic planning

¹ See: www.nhssurveys.org/Filestore/documents/Extension_of_fieldwork_for_inpatient_survey_2007.pdf

Keeping everyone informed

Notify as many staff members as possible about the survey, in case patients contact the trust asking questions about the questionnaire they have received. Patients can be expected to ask receptionists, doctors, nurses, patient liaison officers, or the Chief Executive's office about the survey, even when your covering letters give contact details for the survey manager(s) and the dedicated helpline. Notify front line staff and executive offices that a survey is being conducted, and give them the name and number of a contact person. Survey manager(s) should be prepared to respond to these calls quickly.

Staff could be notified of the survey through a variety of methods:

- Electronic (e.g. e-bulletins, website, intranet)
- Paper-based (e.g. staff briefings, newsletters, flyers, posters)
- Face-to-face (e.g. meetings, presentations and events)

Appendix 2 includes information which you can tailor for publicising the survey to staff.

4.2 Publicising the survey externally

To help promote involvement and maximise response rates, the survey can be publicised to patients and the public through a number of ways, for example:

Send a press release to the local media to raise awareness of the survey and gain publicity just before the survey takes place. Information to help you draft a press release is shown in *Appendix 3*. Talk to your hospital's press office for more ways in which you can gain publicity locally. Put up posters in areas where day case patients wait or are treated which show the importance the trust places on gathering patient feedback. To be most effective at increasing your response rate, posters should be put up in these areas during the sampling period (i.e. during the month from which your sample of day case surgery attendances will be drawn).

To encourage patients to respond, we recommend you illustrate how the trust has acted on the results of previous surveys carried out by the trust. Patients are likely to be more motivated to take part in the survey if they can see tangible outcomes from a previous survey.

5 Ethical issues, ethics committees and research governance

5.1 Section 251 Approval

If you use a survey contractor to contact patients on your behalf then we recommend you apply for section 251 approval under the NHS Act 2006. Section 251 allows the common law duty of confidentiality to be set aside and may be required if a survey contractor is to be given access to identifiable data (such as patient names/addresses) prior to obtaining consent from patients. Section 251 can only be given where there is no other practicable alternative, and the application form will ask for justification of this.

Further information about section 251 of the NHS Act 2006, including information on how to apply, is available at: <http://www.nigb.nhs.uk/s251/abouts251>.

Approval was sought for the National Inpatient Survey 2011 under section 251 of the NHS Act 2006; the survey methodology was reviewed by the National Information Governance Board (NIGB) for approval. Their Ethics and Confidentiality committee (ECC) granted a recommendation of support in September 2011 [ECC 8-02 (FT1)/ 2011].¹

5.2 Ethical approval

Surveys in the national patient survey programme have sought, and usually received, a favourable opinion from an NHS multi-centre research ethics committee (MREC).

However, seeking and securing such "approval" is not required for such surveys as they are classified by NRES as 'service evaluation' rather than 'research'. The national programme chose to adopt this approach to reassure trusts and to remove any perceived need for them to seek such approval locally. If you would like to seek ethical approval for this survey, you can either consult with your local R&D office, or your Local Research Ethics Committee(s) (LREC).

5.3 Research governance approval

As with ethics committee approval, this does not apply if the survey is not classified as research. You may want to discuss this with the research governance lead at your trust if you are unsure.

¹ **Please note:** the recommendation of support given for the inpatient survey did not cover the transfer of patient identifiable information where a patient has indicated dissent (i.e. instances where a patient has indicated that they do not want their information to be shared for purposes such as patient surveys, or specifically stated that they do not want their details shared outside of the Trust). Consequently, if any patients have indicated that they do not want their records used for secondary purposes (e.g. they have asked to be excluded from all surveys or they do not want their address details shared for any reason other than clinical care), we recommend that these patients are excluded from your mailing list. This should be done using your local records. Please also note that the support given for the inpatients survey covered the use of four of the approved survey contractors.

6 Improving response rates

Why do response rates matter?

Good response rates are essential for your results to be representative of all patients in your trust population; the more respondents your trust has, the more statistically certain you can be about the survey findings. Low response rates raise concerns about the reliability of the findings because responders may differ from non-responders.

How do response rates vary between groups?

Studies have shown that people from black and minority ethnic groups are less likely to respond to postal surveys than people from some other groups. Other groups less likely to respond to postal surveys include: the very old; younger adults; men; those in poorer health; the disabled; people on low income and those who live alone.¹

Why are response rates lower amongst certain groups?

Some reasons for non-participation in a postal survey amongst some of these groups are self-explanatory, while others are more complex. For example, some patients have communication barriers such as difficulty understanding English that impede self-completion of a questionnaire. Other groups, notably younger people, are less likely to have up-to-date contact information.

As part of the development work for the 2007 national inpatient survey, the Coordination Centre reviewed literature relevant to increasing response rates amongst BME and seldom heard groups. This document is available on the NHS Surveys website at:

www.nhssurveys.org/Filestore/documents/Increasing_response_rates_literature_review.pdf

How can we increase our response rate?

The survey methodology outlined in this guide has been designed as far as possible to maximise response rates:

Questionnaire comprehension: the questionnaire and template covering letters have been written in as plain language as possible to facilitate understanding by all respondents. To help patients with visual problems we recommend that a font size of at least 11-point is used. Be careful to leave large enough gaps between questions so that respondents can easily distinguish between individual questions.

Questionnaire length: evidence suggests that increasing the questionnaire length beyond 16 pages (i.e. 16 sides of A4) would decrease response rates, and would therefore have a significant impact on non-response bias.²

Reminder letters: we recommend two reminders are sent to non-responders. The first reminder is a short letter that patients receive while they are still in possession of the first questionnaire. The

¹ For further information, see our review of the literature on response rates:

www.nhssurveys.org/Filestore/documents/Increasing_response_rates_literature_review.pdf

² Although there are UK precedents for using 16 + page questionnaires with not unreasonable levels of response (eg the Department of Health Survey of Infant Feeding 2005), overall, the evidence suggests that increasing the questionnaire length beyond 16 pages *would* decrease response rates, and would therefore have a significant impact on non-response bias. Given that there is a more general trend of declining survey response rates in social surveys (including the national adult inpatient surveys for which the rate has dropped from 63% in 2004 to 54% in 2008), we recommend a 16 page limit should be applied.

second reminder should include a second copy of the questionnaire and a replacement FREEPOST envelope.

Publicising the survey: boosting awareness of the survey can help to maximise response rates. Publicising the survey to patients and the public both before and during the survey may encourage participation (see section 4.2).

Fieldwork period: as noted in section 3, the fieldwork period was extended by four weeks for the national 2008 survey allowing a total of 18 weeks. Research carried out by the Co-ordination Centre for the acute national patient survey programme showed that patients from Black and minority ethnic (BME) groups tend to take longer to respond to mailed surveys than patients from white ethnic groups.

Other approaches: there are other methods of increasing response rates to postal surveys, although they have not been used in the national patient survey programme. These include sending pre-approach letters, personalising covering letters and offering incentives.¹

Collecting data from non-English speaking populations

The patients who respond to your survey should be representative of all of the patients who use the trust, so it is important that groups with limited understanding of English are not excluded. Translated questionnaires are not provided since it is not possible to identify non-English-speaking patients, or their specific language, from patient records before questionnaires are sent out because language spoken is not usually included on patient administrative systems. Therefore, the first contact with them will have to be in English.

There are a number of strategies you can adopt to facilitate the process of collecting the views of people with a limited understanding of English within this survey:

- It is good practice to offer help or interpretation services to those who might require them. You can do this by subscribing to a specialist interpreting service, most of who offer telephone interpretation on a pay-as-you-go basis. This normally involves a three-way conversation between you (or your helpline operator), the patient and the interpreter. Your trust may already have arrangements with such a service.
- A multi-language leaflet template is available on our website, and this can be included with your first and third mailings. Trusts and approved contractors can use this leaflet by inserting their appropriate helpline number. This gives directions in the 20 most common non-English languages spoken in England.²
- Many households include at least one **competent English speaker** who can help the patient to fill in a questionnaire. In practice, this is often the most efficient way of gathering data from non-English-speakers, although it is not ideal, as there is no control over the way in which a patient's family or friends translate questions or interpret their responses, and it does not allow the patient to answer the questions for themselves.

¹ Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratnap, S., Wentz, R., Kwan, I. and Cooper, R (2007). Methods to increase response rates to postal questionnaires. *The Cochrane Library*, 2007, Issue 4

² The languages included are Arabic, Bengali, Cantonese, Farsi, French, Gujarati, Hindi, Italian, Kurdish, Mandarin, Polish, Portuguese, Punjabi, Russian, Somali, Spanish, Tamil, Thai, Turkish and Urdu

7 Creating your questionnaire

7.1 Introduction

A questionnaire compilation tool is available on the NHS Surveys website to help you create your survey. It includes 122 questions that measure patients' experiences of the care received from your day case surgical units and 15 demographic questions. All of the questions have been designed and tested by the Co-ordination Centre for the acute national patient survey programme and are arranged in the following sections:

- Before your visit
- Admission to hospital
- The hospital and ward
- Doctors
- Nurses
- Your Care and Treatment
- Operations and Procedures
- Leaving hospital
- Overall
- About You

A report on the development of this survey is available on the NHS Surveys website (www.nhssurveys.org.uk).

The Care Quality Commission holds the **copyright** to the Day Case Surgery survey tool. To protect this please:

- a) acknowledge in all published materials the Care Quality Commission's ownership of and copyright for the tool
- b) do not use the tool for generation of revenue

7.2 Deciding which questions to include

A PDF document containing all of the questions from the day case surgery question bank can be found on the NHS Surveys website:

http://www.nhssurveys.org/Filestore/documents/Day_Case_Surgery_allquestions.pdf

You may prefer to look at this document first to help you decide which questions to include in your survey. However, we recommend that you use the compilation tool to create your questionnaire as this will format the survey and filter instructions as you select questions.

When deciding which questions to include, you may want to consider the following:

- **Comparison of results over time** as one of the major purposes of surveying patients is to measure change over time, it is likely that you will want to compare your results with any subsequent day case surgery surveys you run. When designing your questionnaire, select questions which are important to your trust now but also consider those questions which are likely to prove useful in the future, for example, to provide collaborating evidence for standards or targets.
- **Comparison with other acute surveys**, such as the adult inpatient surveys (2002-2009). While the samples for this survey and the adult inpatient surveys are mutually exclusive, many of the questions are directly comparable and, once the respondents have been standardised for differences in their demographics, using the data from both of these

surveys will provide a much more complete picture of the care provided by your trust to patients.

- **Evaluation of service improvement initiatives:** if you are implementing service improvements, you may wish to include questions which measure the success of these initiatives.
- **Monitoring progress against national targets / trust-wide initiatives**
- **Data analysis:** if you want to find out if different demographic groups (e.g. age, ethnic group) are reporting differences in the care they receive, then select the relevant question(s) from section J 'About You'
- **Questionnaire length:** we strongly recommend that you do not exceed 16 sides of A4. A questionnaire that is longer than this is likely to lower your response rate¹.

7.3 Using the question bank tool

The Day Case Surgery questionnaire compilation tool is available on the NHS Surveys website at: http://78.33.33.7/PickerNHSSurveys/DC_index.jsp

A username and password (chosen by individual users) need to be entered, to enable identification of each questionnaire, allowing it to be saved and retrieved.

Selecting your questions

To select questions from the compilation tool tick the box alongside the question, they are then placed in the appropriate section of the questionnaire, so that it flows sensibly. [Please note the response options to each question are shown when the questionnaire is generated.]

Questions with additional information:

Some questions in the tool include specific comments to help you decide whether or not to include the question in your survey. These comments can be viewed if you click on the icon alongside the question.

Filtered questions:

Items on the questionnaire that are not intended to be answered by all respondents are referred to as 'filtered' questions. Whether individual respondents are expected to answer filtered questions depends on their responses to preceding 'routing' questions. If you select a filtered question the preceding routing question must also be selected. If you have not ticked the preceding routing question when you choose a filtered question, the tool should automatically select it for you.

Generating the questionnaire

Once you have selected all the questions you want to include in your survey, the questionnaire can be generated by clicking 'Generate PDF'. This produces a questionnaire in PDF format, which can then be saved on the website so you can return to it in future, save it to disk or print it out.

When you have finalised your questionnaire, remember to check the question numbering is consecutive and the 'Go to' routing instructions are correct.

¹ Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratnap, S., Wentz, R., Kwan, I. and Cooper, R (2007). Methods to increase response rates to postal questionnaires. *The Cochrane Library*, 2007, Issue 4

7.4 Questionnaire layout and length

The questionnaire has been tested in the format produced by the online compilation tool. We recommend that the questionnaires used by trusts should emulate this format and should be comprised of the following:

- Two columns of questions on each page
- Questions presented with a consecutive question number, followed by the exact question wording used in the question bank, and then each of the response options presented on a separate line beneath the question, for example:

D2. Did you have confidence and trust in the doctors treating you?

1 ☐ Yes, always

2 ☐ Yes, sometimes

3 ☐ No

- Please do not arrange the response options horizontally across the page, rearrange the question options, or change the order of the questions in the questionnaire.
- It is practical to ensure that the number of pages in a questionnaire is a multiple of four so that sheets can be printed double-sided on A3 paper and folded to make an A4 booklet, stapled in the middle. If pages are stapled at the corner, there is a greater chance that some pages will become detached and get lost. [As stated in section 7.2, we strongly recommend that you do not exceed 16 sides of A4]

7.5 Adding your own questions

The skill and effort required to design survey questions and put them together into a workable format is often underestimated. Please also be aware, the addition of locally designed questions poses a potential risk to the quality of the overall survey, and this is something that would need to be carefully considered. The addition of extra questions to the questionnaire, particularly if using the survey to compare against previous national surveys, could potentially impact on two important forms of survey error: (1) response rates and non-response bias and (2) measurement error for the previously used survey questions. More detail is provided in Appendix 4.

For these reasons, **we strongly recommend** that unless you have experience in questionnaire design, you should only use the questions that are provided in the questionnaire compilation tool as these have been tested with patients.

However, if despite this you feel that there are issues that are uniquely important for your trust that are not covered by the standard sets of questions, we would recommend that you contact an approved survey contractor for advice or, if the question topics are relatively simple, please refer to Appendix 4 for some guidance on designing your own questions.

8 Deciding on your sample size

The standard sample size for surveys undertaken as part of the national patient survey programme is 850 patients per trust. We recommend that a sample size of 850 should be the minimum for your 'local' survey, but you may want to consider increasing the size of your sample.

Why increase the sample size?

To increase the accuracy and reliability of results:

The day case surgery survey uses a sampling rather than a census methodology so it is possible that the results may not be reflective of the complete population served by the trust. Our level of certainty is affected by the response rate of the survey and, ultimately, number of respondents. It is possible to quantify the level of confidence we have in the results. The more respondents your trust has, the more statistically certain you can be about the survey findings.

To allow sub-group analysis:

Whilst a sample size of 850 is large enough to produce sufficient responses to detect differences between groups at a national level (i.e. Trust A versus Trust B, or Trust A versus national data), you may want to compare the answer to a survey question to your previous results and/or between two different groups to see if the differences are significantly different (e.g. the answers for men versus women, one locality within your trust to another). However, comparing results *within* your trust considerably reduces the number of responses in each group. This will impact upon the level of confidence you have in the results and, therefore, your ability to accurately detect differences between these groups.

Table 1 below shows the level of confidence you would achieve for various numbers of respondents.

Table 1: Confidence intervals (at a 95% confidence level)

Number of respondents	Widest Confidence Interval (+/-) ¹
50	13.9%
100	9.8%
200	6.9%
300	5.7%
400	4.9%
500	4.4%
600	4.0%
700	3.7%
800	3.5%
900	3.3%
1000	3.1%
1100	3.0%

¹ A **confidence interval** is an upper and lower limit within which you have a stated level of confidence that the trust mean (average) lies somewhere in that range. The width of the confidence interval gives some indication of how cautious we should be; a very wide interval may indicate that more data should be collected before any conclusions are made. This column (the widest confidence interval) shows the **maximum** margin of error for binomial estimates of proportions

Note: The above confidence intervals relate to the *number of respondents*. So when thinking about increasing your sample size you will need to take into account the *response rate*. The average response rate for the national adult inpatient survey (2008) was 54%¹. Because a previous national survey of day case patients in NHS units has not been conducted, the response rate for the adult inpatient survey is the most appropriate equivalent survey and these response rates should be used for your calculations (i.e. to attain 100 respondents, a sample of around 200 from each subgroup is needed).

If you are interested in looking at different sub-groups within your trust population (for example, patients treated at different sites in your trust), you will need to think about the number of respondents you need in each group, and how this will impact on the confidence you can have in the results. The Advice Centre recommends a **minimum of 100 respondents per group** for comparison between sub-groups. Confidence intervals for analysis with groups of fewer than 100 respondents will be so large that there would be little likelihood of detecting statistically significant differences.²

Example

For a trust, 400 patients responded in total. Taking a particular question, of which 50% of respondents answered 'Yes', from the table we can see that the widest confidence interval for 400 respondents would be +/- 4.9%. We would therefore be 95% confident that the true results would be between 45.1% and 54.9% - that is, if you had surveyed the entire population of inpatients at a trust.

However, if we are looking at the results for this particular question *by eight different groups of patients* (assuming an equal number of respondents in each group), there would only be 50 respondents in each group. If there are 50 respondents and 50% answered 'Yes', the confidence interval would be +/- 13.9%, so the true results could be between 36.1% and 63.9%.

If you are using a survey contractor to help you carry out your survey, they should be able to advise you on the minimum sample size for comparisons by particular sub-groups.

¹ Trust response rates ranged from 34% to 75%. To find out your trust's response rate to the 2008 survey, please refer to the table at the back of your benchmark report which is available on the Care Quality Commission's website (www.cqc.org.uk)

² A **confidence interval** is an upper and lower limit within which you have a stated level of confidence that the trust mean (average) lies somewhere in that range. The width of the confidence interval gives some indication of how cautious we should be; a very wide interval may indicate that more data should be collected before any conclusions are made.

9 Compiling a list of patients

This section explains how to draw a sample of patients, using the same methodology as the national surveys. In hospital trusts, the sample will normally be drawn from the Patient Administration System (PAS). Prior to sending out questionnaires, we strongly recommend the list is checked by the Demographic Batch Service (DBS) to identify deceased patients.

These instructions assume that you will be generating a final sample of 850 patients; if you seek to increase the sample, be aware that you should initially select more patients than you want in your final sample to buffer for any necessary removals, i.e. deceased patients removed after DBS checks. We advise that your initial list that is *at least* 5% greater than your desired sample size.

We advise that you read all of this section before you start to compile your patient list.

9.1 Compile a list of eligible patients

- 1) Select the month of day case surgery episodes that you are interested in. You should start counting back from the last day of this month. If you have good reason to believe that this month was irregular in a way that would generate an unusual sample, your next choice should be the most recent month you can manage.
- 2) Compile a list of 900 adult (**aged 16 and over**) day case patients consecutively discharged alive from your trust working back from the last day of the sampling month. That is, once you have decided on the latest date of patient discharge you will include in the sample, you should count back through the list of patients discharged live from the trust, including all eligible patients, until you have 900 patients.

The information you obtain about each patient will be used both for administering the survey and for sending to the tracing service to check for deceased patients. It saves time and effort if all the information is gathered at the same time.

The list should **INCLUDE**:

- **ALL** eligible day case patients

The list should **EXCLUDE**:

- **Inpatients**¹ (any person whose day case appointment lead to an overnight stay)
- **Outpatients**: outpatients are not included in this survey
- **Diagnostics**, for example, endoscopy patients. Exclude all patients whose admission was for a diagnostic procedure only
- Persons aged **under 16 years** at time of discharge from hospital
- **Obstetrics/maternity service users**, including spontaneous miscarriages²

¹ Patients are considered to have had an **overnight stay** if they were admitted as an inpatient and occupying a bed at midnight, i.e. patients who are admitted as an inpatient on Day 1 and discharged on Day 2 are considered to have had a single overnight stay regardless of their admission time or discharge time.

² Any patients coded with a main specialty of 501 (obstetrics) or 560 (midwife) and admitted for management of pregnancy and childbirth, including miscarriages, should be excluded from the sample

- **Deceased patients**
- Patients admitted for planned **termination of pregnancy**
- **Psychiatry patients**¹
- **Private patients** (non-NHS)
- Any patient known to be **current inpatients**²
- Patients **without a UK postal address** (but do not exclude if addresses are incomplete but useable, e.g.: no postcode)
- Patients included in **other survey samples**.

9.2 Treatment Centres

Patients who had a day case episode at a NHS treatment centre at the trust (if your trust has them) are eligible for inclusion in the sample, provided they meet the criteria above.

9.3 Data fields to include in the list of attendances

You will need to keep the list of patient attendances in an electronic file in a programme such as Microsoft Excel or Access. The list must contain the following information:

- Patient Record Number
- Title (Mr, Mrs, Ms, etc.)
- Initials (or First name)
- Surname
- Address Fields
- Postcode
- Year of birth [Please note full date of birth is required by DBS]
- Gender
- Any other details required by the Demographic Batch Service (DBS). For batch tracing, DBS needs one of these trace datasets:
 - NHS number plus **full** date of birth *or*
 - surname, given name, gender and full date of birth.

Additional data fields

You may also want to include additional 'sample' information for each patient in your list, to find out if different groups of patients report differences in the care they receive³. Whilst this

¹ Patients admitted as an inpatient to hospital for primarily psychiatry reasons should not be included in the sample. This will include all those with main specialties of 700 (learning disability), 710 (adult mental illness), 711 (child and adolescent psychiatry), 712 (forensic psychiatry), 713 (psychotherapy) or 715 (old age psychiatry)

² **Current inpatients:** Trusts are instructed to exclude current inpatients from the sample when generated. This should be the only time current inpatients are excluded from the survey process. When checks for deceased patients are carried out immediately prior to each mailing, do not check for, or exclude, current inpatients at these times, as this can introduce bias.

³ With the exceptions of 'hospital site' and 'source of referral', trusts were required to include all these additional data fields in the 2008 national survey.

information should not be sent to the DBS for batch tracing, it saves time and effort if all the information is gathered at the same time. Other data fields you may want to include for each patient are:

- Ethnic category
- Date of hospital episode
- Survey unit – e.g. hospital site
- Referring PCT
- Main specialty
- OPCS code information for looking at main procedures and interventions. This data can be particularly useful for hip/knee surgery, varicose vein repair, and cataract surgery to allow comparison of patient data with PROM data.

Please see section 9.7 – *Create the sample file* for further advice on how to code and format these additional sample fields.

9.4 Checks carried out by the trust

Once you have compiled your list of patients, you should carry out the following checks before you send the list to the DBS to carry out a further check for deceased patients.

- **Overnight stay.** Check that patients have **not** had an overnight stay in hospital
- **Current inpatients.** Check that none of the patients are known to be current inpatients in your trust (or elsewhere, if possible)
- **Patient ages.** Check that all patients are aged 16 or over at the time of sampling
- **Postal addresses.** Exclude any addresses that are outside the UK
- **Incomplete information.** Check for any records with incomplete information on key fields (such as surname and address) and remove those patients. However, do not exclude anyone simply because you do not have a postcode for them. Only remove a patient if there is insufficient name or address information for the questionnaire to have a reasonable chance of being delivered. The more cases that are removed at this stage, the poorer the sample coverage and the greater the danger of bias
- **Duplicated patients in sample.** Check that the same patient has not been included more than once
- **Obstetrics/maternity service user.** Check that the list does not include maternity service users. Please ensure that no episode of a patient's care has a maternity speciality code
- Check again that none of the patients were admitted for a **termination of pregnancy**
- **Psychiatry patients.** Check that the list does not include psychiatry patients
- **Private patients.** Remove any private patients from the sample
- **Patients treated at private hospitals.** Remove any patients who were treated by the trust as NHS patients in private hospitals
- **Consult survey samples** used for other surveys to ensure patients are not included in more than one sample.

- **Deceased patients.** Check hospital records do not have a record of a patient's death from a subsequent attendance or visit to hospital

Checks for deceased patients

One of the most reliable and up-to-date sources of information on patient deaths is your own trust's records. **It is essential that you check that your trust has no record of a patient selected for the survey having died at your trust.** Relatives are likely to be particularly upset if they receive a questionnaire or reminder from the trust where their relative died. Clearly, patients may also have died at home or while under the care of another trust, so you still need to check with the Demographic Batch Service (DBS) as well.

We recommend that three stages of checks for deceased patients are carried out before the first mailing is sent out. The checks are carried out sequentially by:

- 1) the trust
- 2) DBS
- 3) again by the trust (for patients who may have died in hospital after submission of the sample to DBS).

You are also advised to check your hospital records before the second and third mailings, and to ensure that survey contractors are advised immediately if any patients in the sample die during the survey period.

9.5 Submit the patient list to the Demographics Batch Service (DBS)

Before sending out the questionnaires, the list of patients should be checked for any deaths by the Demographics Batch Service (DBS).

The DBS has replaced the NHS Strategic Tracing Service (NSTS) batch trace. The DBS enables users to submit and receive a file containing relevant patient records electronically using dedicated client software. The patient records in the file are matched against the NHS Spine Personal Demographics Service (PDS).¹

Create a trace request file

Using your list of patients, you need to create a correctly-formatted batch trace request file to send to DBS. This file should be in the same format as that previously used by NSTS (this will include a header row, body and trailer row).

For each patient you will need to include as a minimum:

- NHS number and full date of birth (yyyymmdd) *OR*
- Surname, first name, gender and date of birth

Residential postcode can be included but note that it is not essential but that, if present, there must only be a single space in the middle of postcode. Due to the way addresses are recorded

¹ The PDS is a national electronic database of NHS patient demographic details. The PDS does not hold any clinical or sensitive data such as ethnicity or religion.

throughout the NHS, it is very difficult to get an exact match on address lines. For this reason, **do not include address lines** in the trace request file.

Submitting the trace request file

While the format of the request file is broadly consistent with that used by NSTS, the way in which the file is submitted to DBS differs. The DBS does **not** accept the transfer of files by encrypted emails or on physical media. Instead, **request and response files must be transferred electronically using the dedicated DBS client software**. The DBS client software should have already been installed on a server within your trust. Please speak to a member of your IT department if you do not know how to access and use the application. If your IT department cannot help, contact the DBS implementation team at: cfh.dbs-implementation@nhs.net and they should be able to advise you.

If you have been set up to use DBS, then once you have created the request file, it should be placed in the client in-box. The DBS client will then send the file to the Spine and you will receive an email to say that file was received. The DBS processes the file overnight and it should be ready the following morning. You will be notified by email when the file has been processed.

The response file

The DBS will return a header row, response body and trailer row. The response will be in two parts:

- The response containing all the data supplied in the request record, together with a trace outcome indicator. The main record is returned in all cases.
- An additional response, which is returned only when there is a single unique match. It is on this additional response that patients found to be deceased will be indicated.

Further information is available from www.cfh.nhs.uk/demographics.

Note

Please be aware that tracing services are not foolproof and even after your patient list has been checked for deaths, some patients may die in the period between running the check and the questionnaire being delivered. You may find that some recently deceased patients remain in your sample. You need to be prepared for this. Special sensitivity is required when dealing with telephone calls from bereaved relatives.

9.6 When the patient file is returned from DBS

The trace response file returned from DBS can be used to identify any patients that have died (indicated by a letter 'D') and therefore need to be deleted from the sample file. This will reduce the numbers in your sample list slightly.

You should not exclude patients just because it was not possible for DBS to match them on their records. If you did this, you would bias the sample.

If you have more than the required number of patients remaining on your list:

When your trace response file comes back from DBS, remove any patients from your sample list that have been identified as being deceased. Then if your list still has more than the required number of patients (i.e. your chosen sample size), you will need to remove the **least recent** patients from the file to reduce it to the required number of records.

9.7 Create the sample file

The list of patients can be entered into a 'sample construction spreadsheet'. It will be used to keep a record of which patients have not returned questionnaires so that reminders can be sent to them. An example of the spreadsheet is shown in Table 2 below. This can be downloaded from the NHS Surveys website (<http://www.nhssurveys.org/survey/826>) and is entitled "Day Case Surgery Survey_Sample construction spreadsheet".

Table 1 – Sample file of patient details

Patient record number	Title	Initials	Surname	Address1	Address5	Postcode	Year of birth	Gender	Ethnic category	Day of episode	Month of episode	Year of episode	Survey unit – e.g. hospital site	Main Specialty (or OPCS codes)	Referring PCT	Treatment centre admission	Day of questionnaire being received	Month of questionnaire being received	Year of questionnaire being received	Outcome	Comments
1001	Mrs	AM	Abbot			AB1 1YZ	1934	2	A	5	8	2008	RA862	100	5LS	0				3	Informed that patient had died
1002	Mr	EC	Ahmed			AB2 6XZ	1970	1	J	20	7	2008	RVH12	101	5LT	1	22	10	2008	1	
1849	Ms	K	Yoo			AB4 7MX	1950	2	R	17	6	2008	RDP23	300	5LS	0					
1850	Ms	F	Young			AB9 5ZX	1946	2	A	14	8	2008	RTY99	100	5GT	0	6	11	2008	1	

* indicates 'optional' data fields

- **Patient Record Number**¹. This field will be a series of consecutive whole numbers (for example, 1001 through to 1850). This number is unique for each patient. It can be seen in the example that the numbers are in ascending order, starting at 1001 at the top of the list, through to 1850 at the bottom. The patient record number will be included on address labels and on questionnaires. Later, when questionnaires are returned (whether completed or not), you (or the approved contractor) will be able to use these numbers to monitor which patients have returned their questionnaires and to identify any non-responders, who will need to be sent reminders. If an approved contractor is used, you will need to agree with them on the range of serial numbers that will be used for your patients. Please note: this number should be available in, and correctly referenced for, every patient dataset for this survey.
- Title (Mr, Mrs, Ms, etc.)
- Initials (or First name)
- Surname
- Address Fields
- Postcode
- **Year of Birth** should be included in the form of NNNN
- **Gender** should be coded as 1 = male and 2 = female.

Note: The **Patient Record Number, Title, Initials, Surname, Address** fields and **Postcode** are used for printing out address labels. You (or your contractor) can use the mail merge function in a word processing package for this purpose.

Optional sample data fields:

- **Ethnic Category**² should be coded using the 17 item alphabetical coding specified by NHS Connecting for Health³.
- **Day of the month** of episode (1 or 2 digits; e.g. 7 or 26)
- **Month of episode** (1 or 2 digits; e.g. 02 or 3)
- **Year of episode** (4 digits; e.g. 2008)
- **Survey unit – e.g. hospital site**⁴: this could be coded using the five character NHS Trust Site Codes (maintained by the Organisation Data Service)⁵
- **Referring PCT** should be coded using the **first three characters** of the PCT character codes of the PCT which will be billed for the care of that patient. For the most up-to-date list of PCT codes, please see the Connecting For Health data set, “Primary Care Trusts” (<http://www.connectingforhealth.nhs.uk/systemsandservices/data/ods/data-files>)

¹ This field will be a series of sequential numbers (e.g. 0001 through to 1200). This number is unique for each patient. The patient record number will be included on address labels and on questionnaires. Later, when questionnaires are returned (whether completed or returned undelivered), you (or your survey contractor) will be able to use these numbers to monitor which patients have returned their questionnaires and to identify any non-responders, who will need to be sent reminders. If a survey contractor is used, you will need to agree with them on the range of serial numbers that will be used for your patients.

² It is acknowledged that patient records might not always contain complete data on patients' ethnic category. However, this field should be included if you wish to evaluate non-response from different ethnic categories.

³ These codes can be found in the NHS Data Dictionary provided by Connecting for Health on the following website: http://www.datadictionary.nhs.uk/data_dictionary/attributes/e/enh/ethnic_category_code_de.asp

⁴ This might be useful information if you later want to compare results for different sites within the trust. However, please read section 8 (and/or talk to your survey contractor) for advice on the minimum sample size required for such comparisons.

⁵ See <http://www.connectingforhealth.nhs.uk/systemsandservices/data/ods/data-files> and download the NHS Trust sites file.

- **Main Specialty** on Discharge is recorded in the form NNN as outlined in the Updated National Specialty List which was implemented on the 1 April 2004. See http://www.datadictionary.nhs.uk/web_site_content/supporting_information/main_specialty_and_treatment_function_codes.asp?shownav=1
- **OPCS codes:** as day case surgery patients these are admitted for administration of a specific procedure, OPCS codes could be very valuable for later analysis into how different patient groups rate the care they have received. Additional detail about OPCS-4.4 codes can be found at: <http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding/codingstandards/opcs4/opcs44>

Additional information can also be entered on this 'sample file' spreadsheet:

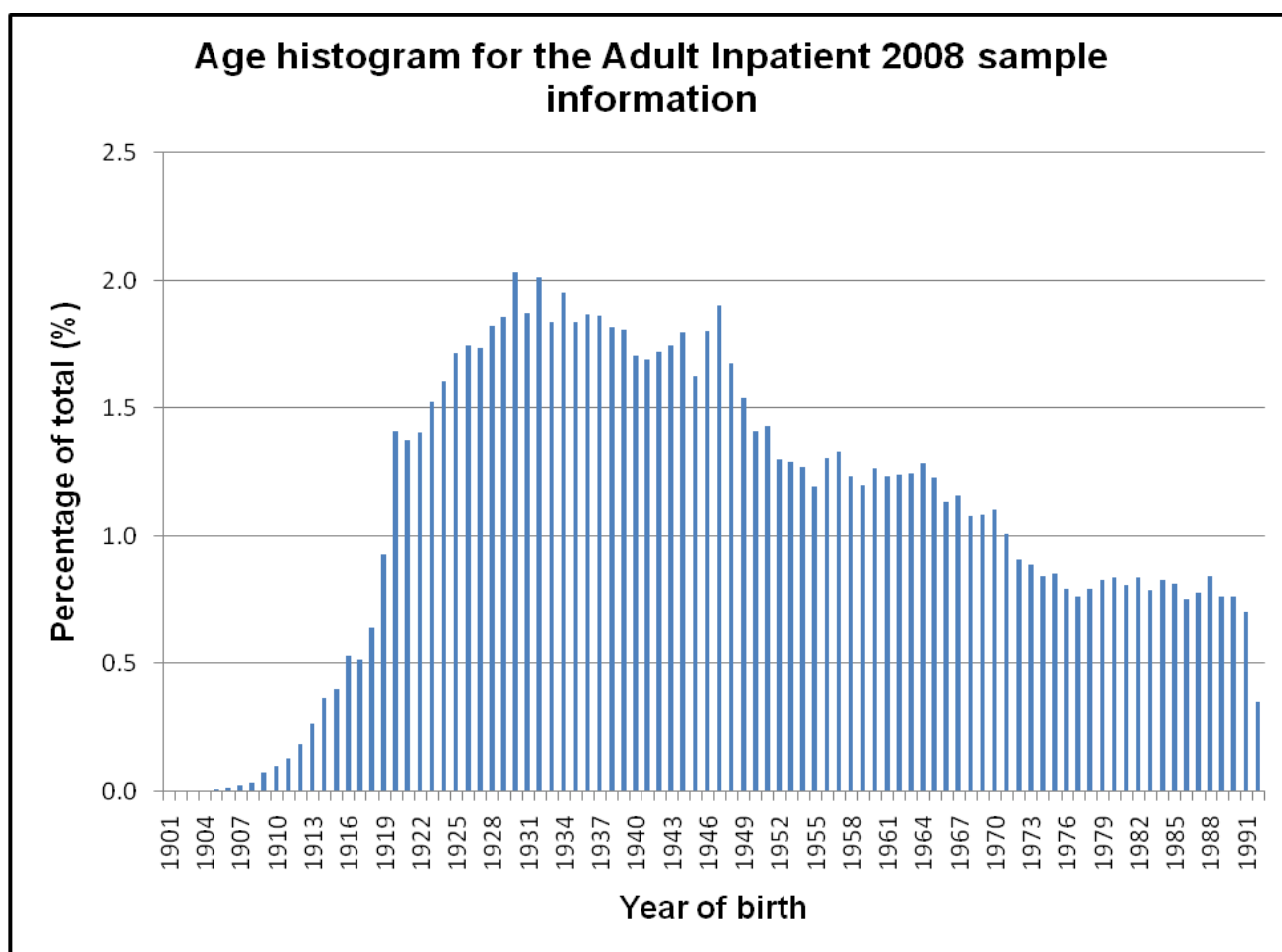
- **Day of questionnaire being received.** This can only be completed if and when a questionnaire is received by the trust or survey contractor.
- **Month of questionnaire being received.** This can only be completed if and when a questionnaire is received by the trusts or approved contractor.
- **Year of questionnaire being received.** This can only be completed if and when a questionnaire is received by the trusts or approved contractor.
- **The Outcome field** will be used to record which questionnaires are returned to the freepost address, or are returned undelivered, or which patients opt out of the survey, etc.
 1 = Returned useable questionnaire
 2 = Returned undelivered by the mail service or patient moved house
 3 = Patient died
 4 = Patient reported too ill to complete questionnaire, opted out or returned blank questionnaire
 5 = Patient was not eligible to fill in questionnaire
 6 = Questionnaire not returned (reason not known).
 The outcome column is left blank at first if the survey has not been returned (on table 1 you can see that Ms Yoo has not yet returned her questionnaire).
- The **Comments** column is useful for recording any additional information that may be provided when someone calls the helpline – for example, to inform you that the respondent has died or is no longer living at this address.

9.8 Distribution of patient gender and ages

Your sample should have similar proportions of men and women. You should check each of these genders are included and not skewed toward male or female patients.

You should also check that patients of all ages are included in your sample, especially for those aged 16, 17 or 18 years or those over 75 years. We have found these age groups are the most likely to be excluded due to poor sampling.

Check that your sampled patients' ages cover the full range of expected ages. Ideally, you should do this by checking the distribution of ages on a histogram (See Figure 1). For most trusts the histogram should generally decrease with age, (representing higher numbers of younger adults) then increase slightly for those aged around 60 years (baby-boomers), before entering a further decline to reflect fewer people at extreme old age.



9.9 Separating mailing details from sample information

In the interests of data security, we strongly recommend that the names, addresses and postcodes of each patient are removed from the rest of the sample information as soon as the sample is finalised. This is to ensure that best practice is followed in keeping the risk of confidentiality breaches to a minimum.

You should transfer the names, address, postcode and any comments for each patient in the sample to a new file. The patient reference number (PRN) for each patient should be copied to the new file, so that the two datasets are connected using the unique PRN. It is essential to ensure this number is correctly applied to the two datasets. Save this new file as your 'mailing data file' (see Table 2 below).

This file should be used for mailing purposes: it will be used to check for deceased service users prior to reminder mailings and will be cross-referenced with the 'sample file' to identify service users who will need to be sent reminders.¹

As this 'mailing data file' will only be used occasionally during the survey, we recommend you keep this file encrypted². The mailing data file should be destroyed when the last mailing process is complete.

¹ As shown in table 1 (section 9.6), the 'outcome' field in the sample file is used to record which questionnaires are returned completed, or are returned undelivered, or which patients opt out etc...

² See section 10.4 for further information on encryption

For patient confidentiality reasons, **it is essential that you do not keep patient name and address details in the same file as their survey response data.**

Table 2 – Example mailing file

<i>Patient record number</i>	Title	Initials	Surname	Address1	Address2	Address3	Address4	Address5	Postcode	Comments
0001	Mrs	AM	Abbot	14 Station Road	London				AB1 1YZ	Informed that patient had died
0002	Mr	EC	Ahmed	Flat 7	Short Street	Oxford			AB2 6XZ	
					--					
1199	Ms	K	Yoo	The Maltings	Birch Road	Little Abington	Cambridge	Cambs	AB4 7MX	
1200	Ms	F	Young	634 Tyne Road	Newcastle-Upon-Tyne	Tyne and Wear			AB9 5ZX	

9.10 Sharing the patient sample file with a survey contractor

If you are working with a survey contractor and have a contract to cover transfer of patient identifiable information (i.e. names and addresses) both the sample file **and** the mailing file should be sent to the contractor staff in encrypted format (see *section 10.4 - Encryption of personal data*).

If you are working with a survey contractor, but **not** using the contract to share patients' name and address details, you should supply them with just the 'sample file' (this will resemble Table 1 'Sample construction spreadsheet' in section 9.6 but with the **patient names, addresses, postcodes and comments removed**). The contractor can use this list to record the outcome codes, but you should ensure that the contractor is kept up to date with any information that comes directly to the trust about patient deaths, etc.

10 Data protection and confidentiality

When carrying out your survey, you will need to ensure that you comply with the Data Protection Act 1998, and ensure that all responses are kept confidential. You will also need to comply with the NHS Code of Practice on Confidentiality (2003), which incorporates the Caldicott principles¹. It

¹ Each NHS trust has a Caldicott Guardian who is responsible for overseeing proper use of patient data. They have to ensure that any use of patient data conforms to the following principles:

is your legal responsibility to ensure that you meet any guarantees of anonymity or confidentiality made in covering letters and on the questionnaire form.

It will also be necessary to establish appropriate contractual arrangements if you commission a survey contractor to carry out the survey for you (see *section 10.2*). Your trust's Caldicott guardian and legal advisors should advise you on these matters.

Guidelines on the use and security of the data collected have been agreed by the Care Quality Commission and the co-ordination centres for the national NHS staff and patient survey programmes. These guidelines will help to ensure that data are handled in a manner most in keeping with the spirit of the Data Protection Act 1998 and the Market Research Society's *Guidelines for social research* (2005). They have implications for approved contractors and for NHS trusts conducting surveys in-house and we recommend that these are also applied to any surveys you conduct outside of the national programme.

Their website below has further information:

<http://www.dh.gov.uk/en/Managingyourorganisation/Informationpolicy/Patientconfidentialityandcaldicottguardians/index.htm>

Information about the Data Protection Act 1998 can be found at the [ICO – Information Commissioner's Office](http://www.ico.gov.uk) (<http://www.ico.gov.uk>)

Further guidance can be found in the Market Research Society document at http://www.mrs.org.uk/standards/downloads/revised/legal/data_protection_social.pdf

10.1 Mailing questionnaires to patients

There are two common methods practised by trusts, and advised by the Advice Centre, when working with survey contractors:

1. The contractor delivers pre-packed serial-numbered envelopes containing questionnaires, covering letters and FREEPOST envelopes to the trust. The trust then attaches number-matched address labels to the envelopes and sends them out to patients. Completed questionnaires can then be returned to the contractor and, by checking the record numbers on returned questionnaires, they can inform the trust which patients need to be sent reminders.
2. Alternatively, with the agreement of the trust's Caldicott Guardian, you may set up a written agreement between the trust and the external contractor. You may wish to use the model service contract provided by the Care Quality Commission for the NHS patient survey programme to avoid the need for to develop your own arrangements. It is strongly

-
- **Principle 1** - Individuals, departments and organisations must justify the purpose(s) for which information is required
 - **Principle 2** - Don't use patient-identifiable information unless it is absolutely necessary
 - **Principle 3** – Use the minimum necessary patient-identifiable information
 - **Principle 4** - Access to patient-identifiable information should be on a strict need-to-know basis
 - **Principle 5** – Everyone should be aware of their responsibilities
 - **Principle 6** - Understand and comply with the law

You should take particular care to ensure that your use of patient data in carrying out the survey, complies with these 6 principles. In particular, you should be aware of the flows of patient data, and the issues which these present. The Caldicott guidance and principles were incorporated into the NHS code of practice on confidentiality.

recommended the model service contract is reviewed by each trust and survey contractor to ensure they are satisfied with it, and to amend where required.

10.2 Model service contract

A template model service contract is provided by the Care Quality Commission for use in the national patient survey programme, which you may want to use for this local survey to avoid the need to develop your own arrangements. This is an agreement between the approved contractor and the trust contracting them. By signing it, the approved contractor is obliged to keep the information confidential at all times, and to comply with the Data Protection Act 1998. It provides the trust with some recourse if any breach of the Data Protection Act were to occur, as a result of the actions of the approved contractor. The model contract also ensures that approved contractor staff members sign and abide by the service contract. The service contract is set up between the trust and the survey contractor who will have access to patients' information. The service contract describes how patients' personal data will be sent to the approved contractor, and how the data can be used.

The model service contract (and supporting documentation) is available on the NHS Surveys website.

10.3 Patients' names and addresses

Please note that under the data protection guidelines for patient surveys, the following principles **must** be followed:

- Trusts/contractors must undertake to keep their products up to date to ensure that security is effective and must strictly observe the following guidance. The requirements that dictate the guidelines include the Data Protection Act 1998, the Health and Social Care Act (Community Health and Standards) Act 2003, the NHS confidentiality code of practice 2003¹ (which incorporates the Caldicott principles)
- It is strongly recommended in the national programme that personal data such as names and addresses must be sent by trusts to contractors securely, either by post or over the Internet using an encrypted session:
 - 1) By post:** Trusts should send the personal data to their contractor in the form of an encrypted data file. We strongly recommend that the **256-bit AES** (Advanced Encryption Standard) encryption algorithm should be used for this purpose – see below for further information on this. The password should be verbally given to a named individual at the contractor. **Passwords should never be written on CD-ROMs or diskettes or otherwise included with encrypted material sent through the post.** The encrypted database should be saved onto a CD-ROM or diskette, place it in a single sealed envelope or other container, annotated "Addressee only", and this should be sent to the contractor by Royal Mail Special Delivery or through a courier service: personal data should **not** be sent by recorded delivery.
 - 2) Over the Internet:** An encrypted session based on the Transport Layer Security (TLS) or Secure Sockets Layer (SSL) protocol (for example as with HTTPS or SFTP) must be used. A key size of 256 bits or greater should be used. This is to ensure a high level of security, to protect against any accidental or intentional interception during the transfer of patients' details. Survey contractors should be able to provide guidance on the use of an encrypted session to Trusts.

¹ http://www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=9722&Rendition=Web

- As the owners of the data, the method for transferring patient samples is ultimately the Trust's decision because the Trust remains legally responsible for the security and processing of the information it shares. The two methods described above are strongly recommended in the national patient survey programme. Trusts wishing to send information by encrypted email will need to seek their own specialist advice. Guidance on best practice in encryption is available from NHS Connecting for Health¹.

Remember: if the data contains patient names and addresses, this should only be sent to the contractor by encrypted CD-ROM or diskette, or over the internet via a secure encrypted method.

10.4 Encryption of personal data

Any patient identifiable information sent between trusts and survey contractors should be in an encrypted format with password protection to help ensure good standards of information security. Many different encryption algorithms exist and not all of these are suitable, so both the Advice Centre and the Care Quality Commission very strongly recommend the use of the **256-bit AES** (Advanced Encryption Standard) algorithm. There are several software tools that can be used to encrypt data in this way, the most commonly available of these being WinZip® (v9 and above)².

10.5 Patient anonymity

In-house surveys

It is important to ensure that any claims you make about patient anonymity are accurate; and you are obliged by law to honour any statements that you do make. In most cases where a survey is carried out in-house, it is not accurate to tell patients that their responses will be anonymous. The person who receives the completed questionnaires is usually able to match these responses to patient names and addresses.

Survey contractors

Patient anonymity can be achieved if there is a clear separation between the information seen by a survey contractor and the information held by the trust. Patients' names and addresses will be seen by trust staff when generating the sample, while contractor staff will usually possess both patient details and patient responses. As long as the response data supplied to trusts do not include patient record numbers or any other detail that allows individuals to be identified or linked, it can reasonably be claimed, with regard to the trust and trust staff, that patients' responses are anonymous.

10.6 Patient confidentiality

It is essential that any patient survey is conducted in such a way that patient confidentiality is respected and given a high priority. The covering letters³ that accompany the mailed questionnaires inform patients that their name and address will never be linked to their responses. Furthermore, patients' responses must not be presented to anyone in a way that allows individuals

¹ http://www.connectingforhealth.nhs.uk/igsecurity/gpg/gpg/NPFIT-FNT-TO-IG-GPG-0004.01%20GPG_%20%20NHS%20Cryptographic%20Algorithms.pdf – this document is only accessible from NHSnet.

² <http://www.winzip.com/>

³ Template covering letters are available on the NHS Surveys website

to be identified. For example, if a patient is known to have stayed on a particular ward, and his or her year of birth, sex and ethnic category are known from their survey responses, it might be possible to use this information to identify them. It would be unlawful to provide staff who may have had contact with respondents any information that would allow these respondents to be identified. The following recommendations are made:

In-house surveys

- 1) The raw data set should not be provided to any member of staff at the trust who do not need to view it, i.e. those who are not directly working on the project
- 2) If data are to be presented to other trust staff, only the aggregated totals for each question should be provided. If analysis by subgroup is carried out, the results for any group consisting of fewer than **30 respondents** should be suppressed (replaced by a dash). The data should be presented as in the following example. In this case, responses for the 'Mixed' and 'Asian' ethnic categories are suppressed (though the subgroup totals are shown):

	F8. Were you given enough privacy when discussing your condition or treatment?			
Ethnic category	Yes, definitely	Yes, to some extent	No	Total responses
	%	%	%	n
White	71	10	19	261
Mixed	-	-	-	8
Asian	-	-	-	18
Black	69	13	18	52
Chinese or other	81	15	4	36

- 3) Do not present response information (including comments) in a form that allows an individual patient to be identified by the group receiving the information. For example, if you are presenting the results of a small number of patients, make sure that it will not be possible for the reader/audience to identify individual patients from their responses, and pay particular attention to the patients' free text comments in this context.

The electronic file containing the patients' names and addresses should be stored securely (i.e. encrypted) and destroyed when the last mailing process is complete.

Survey contractor

- 1) Survey contractors must not provide raw data to the trust as a matter of course.
- 2) If the trust has a particular need for the raw data from the survey from the survey contractor, the contractor may provide an abridged version of this dataset to the trust upon request, providing that the steps below are undertaken first:
 - a. The contractor must delete the two variables pertaining to ethnicity (eg both sample and response variables)
 - b. The contractor must band year of birth into four age groups (16-35, 36-50, 51-65, 66+). This process should be repeated separately for both sample and response variables. The original year of birth variables (eg those specifying an exact year rather than age group) must then be deleted
 - c. Additional information specific to a survey that can be used to identify individual patients must also be removed. For example, date of attendance must be removed.

- d. Verbatim comments that could lead to any staff identifying respondents must be removed, eg those mentioning patient, staff, ward, or unit names¹
- e. Receive confirmation from the trust that they have destroyed the names and addresses of the sampled patients, otherwise they will be able to identify individual patients by matching up the patient record number/serial numbers on the name and address list to those in the raw data file.

These steps **MUST** be followed before supplying raw data to trusts. This is to prevent the disclosure of a patients' identity by specific demographic factors.

If data are to be presented to trust staff, only the aggregated totals for each question should be provided. If analysis by subgroup is carried out, the results for any group consisting of fewer than **30 respondents** should be suppressed. The data should be presented as in the following example. In this case responses for the 'Mixed' and 'Asian' ethnic categories are suppressed (though sub-group totals are shown):

	F8. Were you given enough privacy when discussing your condition or treatment?			
Ethnic category	Yes, definitely	Yes, to some extent	No	Total responses
	%	%	%	n
White	71	10	19	261
Mixed	-	-	-	8
Asian	-	-	-	18
Black	69	13	18	52
Chinese or other	81	15	4	36

Furthermore, do not present response information (including comments) in a form that allows an individual patient to be identified by the group receiving the information. For example, if you are presenting the results of a small number of patients, make sure that it will not be possible for the reader/audience to identify individual patients from their responses, and pay particular attention to the patients' free text comments in this context.

The electronic file containing the patients' names and addresses should be stored securely (i.e. encrypted). Access to the file should be given only to those individuals who have signed the service contract.

10.7 Sharing of survey data between contractors

If a trust uses a different survey contractor than in the last survey, contractors are permitted to transfer an unabridged version of the data set if there is a clear need to use the data from the previous survey to allow year-on-year comparison.

¹ Please be aware that there are exemptions allowing disclosure, such as the prevention of crime exemption which **might** allow disclosure of free text describing criminal matters actual or threatened. Neither the Care Quality Commission nor the Advice Centre can offer legal advice on these matters; the contractor or trust must seek its own independent legal advice before disclosing patients' comments to trusts.

10.8 Storing completed questionnaires

Completed questionnaires must be stored in a separate location to lists of patients' names, and the questionnaires kept no longer than three months after the survey. Mailing lists of patients' names and addresses should be destroyed when the mailing process is complete.

Appendix 1: Survey Timetable

Completing a robust survey of patient experience can take weeks to organise and longer to collect the survey data. The table below sets out the tasks discussed in this guidance, in the order we recommend they be conducted. We have not specified when each of these tasks should take place as all trusts will proceed at a different pace for each stage; your trust's survey leads for the national survey programme are best placed to provide this information. The Advice Centre or an approved survey contractor (see www.nhssurveys.org/approvedcontractors) can provide additional guidance around timings if required.

Recommended order of tasks	Task	See section
1	Decide if using a survey contractor or carrying out survey in-house	2
2	If a survey contractor is to be given access to identifiable data (e.g. name/addresses), we recommend you apply for section 251 approval under the NHS Act 2006	5
3	Decide on the survey fieldwork	3
4	Publicise the survey	4
5	Decide on questions to be included in survey	7
6	Decide on the number of patients to include in your sample	8
7	Draw sample of patients to be included in the survey	9
8	Check sample for deceased patients using hospital records	9.3
9	Submit sample list to the DBS for deceased patients	9.4
10	Print questionnaires and covering letters	See separate document 'A guide to mailing questionnaires, data entry and cleaning'
11	Set up FREEPOST address, survey helpline and PO Box for undelivered mail	
12	Establish system for responding to telephone enquiries	
13	Establish system for booking in questionnaires	
14	Check your own trust's records again for deceased patients	
15	Send out first mailing	
16	Respond to telephone enquiries	
17	Log and process returned questionnaires	
18	Enter data	
19	Check your own trust's records again for deceased patients	
20	Send out first reminders to non-responders	
21	Check your own trust's records again for deceased patients	
22	Send out second reminders to non-responders	
23	Complete data entry	
24	Check data for errors	
25	Analyse results, write report(s) and disseminate findings.	See separate document 'A guide to data analysis, reporting and dissemination of results'

Appendix 2: Suggested text for pre-survey communication with staff

Example titles: **What do our Day Case Surgery patients think about [trust name]?**
 Getting day case surgery patients' views on the quality of care in [trust name]
 Understanding day case surgery patients' experiences in [trust name]
 Patient views vital to drive service improvements in [trust name]

We [or NHS Trust name / Hospital name] are carrying out a survey to find out what day case surgery patients think about the care they receive.

Why are we doing another patient survey?

Surveys of day case surgery patients have not yet formed part of the national patient survey programme. We are carrying out another survey, using the [same / a similar] questionnaire and methodology, to [track any changes in patients' experiences over time so we can continue to improve services / or to evaluate the success of quality improvement initiatives implemented since the last survey]

Obtaining feedback from patients and taking account of their views and priorities is vital for bringing about improvements in the quality of care.

When is the survey taking place?

Questionnaires will be posted to a sample of patients during [month]. Reminders will be sent to those who have not responded during [month(s)].

Patients are being asked about various aspects of their care, including [arrival at hospital, the quality of care and treatment, pain management, communication with doctors and nurses, information, and the hospital environment.]

Who is the survey being sent to?

The survey will be sent to a sample of [number] patients, aged 16 years and over, who were admitted for surgery as a day case patient during [month]. [*If a survey contractor is being used: An external survey contractor, {name}, is administering the survey so that patients' responses are anonymous*] [*If carrying out the survey in-house: Patients' responses will be treated in confidence and their name and address will never be linked to their response.*]

When will the results of this survey be available?

The results of this survey will be available in [month/date] in [location of where results will be published or shared with staff]. The survey findings will be reported in [format, e.g. a summary report, at a meeting etc...]. By working with both staff and patients we will use the feedback from this survey to further help improve patient's experiences of attending surgery on a day case basis.

Where can I find out more?

For more information about the survey, please contact [\[lead survey name and contact details\]](#)

Appendix 3: Suggested template text for pre-survey article for external media

Example titles: [NHS Trust name] seeks patient views or

Patient views vital to drive service improvements in Day Surgery

Your chance to tell [NHS Trust name] about quality of care

[NHS Trust name] is carrying out a survey to find out what day case surgery patients think about the care they received. The trust plans to use this feedback to improve patients' experiences. The results will be used to help [NHS Trust name] highlight areas where they perform well and to identify the areas where there is most room for improvement.

Patients who have recently had a day case surgery episode at [Hospital A and Hospital B] may receive a questionnaire by post [in month], asking about their experiences. They will be asked about various aspects of their care, including [arrival at hospital, the quality of care and treatment, pain management, communication with doctors and nurses, information, and the hospital environment.]

[NHS Trust name] believes that taking account of patients' views and priorities is vital for bringing about improvements in the quality of care. Results from the survey will be used to *[insert purpose of survey here, e.g. to find out if recent changes made to the service has led to an improvement in patients' experiences]*

The results of the survey will be presented in a form that does not allow any individual's answers to be identified. The results will be published by [NHS Trust name in xxx]

[A senior executive at the trust] says "We hope that our patients will take the time to help us with this survey. Their views are vital in helping us to find out how we are doing and how we can improve. This is an excellent way for patients to help shape the services we provide in the future."

Appendix 4: Designing your own questions

Introduction

The skill and effort required to design survey questions and put them together into a workable format is often underestimated. Please also be aware, the addition of locally designed questions poses a potential risk to the quality of the overall survey, and this is something that would need to be carefully considered (see section 'Important issues to consider' below). For these reasons, **we strongly recommend** that unless you have experience in questionnaire design, you should only use the questions that are provided in the questionnaire compilation tool as these have been tested with patients.

For a survey to produce accurate and useful results, the questions must be rooted in what patients say is important to them. Focus groups and patient complaint lines are a rich source of potential topics for survey questions. It is also important to pre-test questions with patients to get a sense of how relevant and understandable the questions are to them.

- **Topics should be specific enough to be relevant, but not so specific that the questions become tedious to answer**

The more specific the topic of a particular question, the easier it will be for those who use the data to act on the results. However, if questions cover processes in too much detail, respondents may lose interest before they complete the survey.

- **Avoid topics that are politically sensitive or might embarrass patients**

Sensitive topics can spur complaints about the survey and may lower response rates. These issues are better addressed in focus groups or face-to-face interviews.

- **Phrase questions in simple and straightforward language**

Long words, complex sentence structures and technical terms can confuse respondents and make interpretation of their responses very difficult.

- **Use single subject questions whenever possible**

Asking questions about two things at the same time ("double barrelled" questions) can lead to confusion and problems with interpretation. For example, a question that asked, "Did a nurse give you advice about caring for yourself at home or obtaining follow-up medical care?" would be difficult to answer. Respondents could be confused about how they should answer if their experiences of the advice given to them about those two issues differed. It would therefore be difficult to interpret responses to this question and it would not lend itself to an analysis that focused on either issue.

- **Avoid leading or biased questions**

Questions that focus too strongly on a positive or negative experience can lead a respondent towards a particular response. For example, a question such as, "Were you unhappy with the amount of time it took to be seen by a doctor or nurse?" might lead respondents toward negative responses, thereby overstating the problem.

- **Limit the number of "open-ended" questions**

Questions that call for a narrative response are often tempting, because they offer more detailed insights into respondents' experiences. However, such "open-ended" questions are difficult and expensive to input and analyse. They also add length to written surveys and can take respondents a long time to complete.

- **Consider the purpose of the question when selecting the wording and format**

Survey questions generally fall into two categories: those that ask patients to report about their experience and those that ask them to rate their experiences.

For example,

"Did ___ happen?" and "How much of ___ did you get?" are *report* questions.

"How would you rate ___?" and "Please rate ___ as poor, fair, good, very good, or excellent," are *rating* questions.

Rating questions are used to elicit opinions or summary judgments about care. Reporting questions are more factual assessments of specific processes of care and can be used more effectively to suggest a clear course of action. Table 1 is a comparison of three different types of question: rating questions, report questions and open-ended questions.

Table 1 - Comparison of types of questions

Ratings	Reports	Open-ended
<ul style="list-style-type: none"> • Provide evaluations 	<ul style="list-style-type: none"> • Find out about events; what happened 	<ul style="list-style-type: none"> • Provide qualitative information
<ul style="list-style-type: none"> • Maximise variation by offering many response alternatives 	<ul style="list-style-type: none"> • Objective, usually involve fewer response options than rating questions 	<ul style="list-style-type: none"> • Unlimited topics
<ul style="list-style-type: none"> • May be influenced by feelings of gratitude 	<ul style="list-style-type: none"> • Can be more specific than ratings 	<ul style="list-style-type: none"> • Good source for anecdotes
<ul style="list-style-type: none"> • Evaluations tend to be positive 	<ul style="list-style-type: none"> • More actionable than ratings 	<ul style="list-style-type: none"> • More difficult to analyse and summarise than closed questions
<ul style="list-style-type: none"> • Good for summary measures (e.g., overall quality and overall satisfaction) 	<ul style="list-style-type: none"> • Often easier to interpret than ratings 	<ul style="list-style-type: none"> • Useful source of quotations for reports
<ul style="list-style-type: none"> • Dependent on expectations 		

Formatting guidelines

- **Put your own questions on a separate page at the end of the questionnaire**

If you want to add new questions to your survey we suggest these are put on a separate page at the end of the questionnaire, so that their inclusion does not impact on the existing questions in your survey. This is important if you wish to compare your results with previous surveys carried out as part of the national survey programme (see 'measurement error' in the section below '*Important issues to consider*')

- **Ensure that appropriate filters are included:**

A filter is an introductory question, which asks the patient whether a topic area is relevant to them. For example, a section on pain and pain relief should begin with the filter "Were you ever in any pain?" Those who answer "no" to this question are guided to skip the pain section and go straight to the next section. However, complex filters can sometimes confuse respondents.

Pre-testing survey questions

Before launching a full-scale survey with a new instrument or new questions, surveys should be discussed and tested with a smaller group of patients. All questions should be pre-tested in face-to-face *cognitive* interviews. The pre-test should be done with a small but *carefully chosen* sample of respondents—that is, a sample chosen to represent all types of patients who will be surveyed.

Pre-testing is essential in order to:

- **Identify questions that are unclear, liable to misinterpretation, or difficult to answer**
All items in a survey must lend themselves to uniform interpretation if the information they generate is to be reliable and valid. Ambiguity is not acceptable. If respondents misunderstand or cannot answer questions, the data collection is fruitless. Pre-testing each question allows you to avoid wasting valuable resources collecting information that cannot be interpreted.
- **Discover parts of the questionnaire that place an unacceptable burden on the respondent**
By mixing types of questions (but not topics), you can avoid wearing respondents out. Asking too many questions about times and dates or other specific knowledge can cause a respondent to become frustrated and terminate an interview or toss aside a questionnaire before completing it.
- **Discover parts of the questionnaire that do not work, or that work with one population but not with another**

Further information on survey testing

For more information about pre-testing survey questions, you may find the following publication useful: Willis, G. (2005), *Cognitive Interviewing: A Tool for Improving Questionnaire Design*, Thousand Oaks, CA: Sage.

A shorter 'how to' guide by the same author is available on the website of the US National Cancer Institute at <http://appliedresearch.cancer.gov/areas/cognitive/interview.pdf>.

Important issues to consider

1. Potential effect on response rates

Questionnaire length: adding your own questions will obviously lengthen the questionnaire and this may reduce the response rate that you would otherwise have achieved. There is evidence that lower response rates are obtained in postal surveys if longer questionnaires are used. For a recent review, see Edwards et al (2007)¹. Please note: we strongly recommend that the overall questionnaire length does not exceed 16 sides of A4.

¹ Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratnap, S., Wentz, R., Kwan, I. and Cooper, R (2007). Methods to increase response rates to postal questionnaires. *The Cochrane Library*, 2007, Issue 4

Sensitivity: if additional locally designed questions were sensitive in nature, response rates may also be reduced (Edwards et al 2007), but by how much would depend on the exact content of the new questions.

Quality: if additional questions were of poor quality (e.g. overly complex, hard to understand, hard to answer etc) it is also likely that response rates would drop because inclusion of such questions would undermine the credibility of the survey instrument and reduce respondents' motivation to participate¹.

2. Measurement error

How questions are answered may also be affected in two ways by the inclusion of additional questions. This may therefore affect how comparisons can be made across surveys, for example where comparing against survey results from previous years.

Firstly, the mere fact of increasing the length of the questionnaire may reduce respondent motivation and discourage respondents from making sufficient cognitive effort to answer questions optimally, especially if they appear later in the questionnaire. Any risk of this affecting the existing survey questions could be largely addressed by ensuring that locally designed questions were always presented at the end of the questionnaire.

Secondly, it is well known in the survey literature (e.g. see Schuman and Presser (1981)²; Tourangeau, Rips and Rasinsky (2000)³) that sometimes the answers given to attitude questions may be affected by the content of questions immediately preceding them; such effects are generally termed *context effects*.

Whether context effects will appear or not is not always straightforward to predict, especially in a self-completion questionnaire where respondents may vary the order in which they answer questions. The research evidence (reviewed in Tourangeau et al, 2000) suggests that they are most likely to occur when attitude questions with related content are presented close to one another in the questionnaire (most research actually looks at the impact of changing the question immediately preceding the question under consideration). Therefore if locally designed questions had content overlapping that of existing questions, and they were presented close together, it is plausible to argue that context effects may impact on answers to existing questions. Again, this might be minimised by including local questions at the end of the questionnaire. Although there is no guarantee in a self-completion questionnaire that questions will be answered in the order in which they are presented, it seems likely that they will by many respondents; and to the extent that this is the case, context effects will be confined to the local section of the questionnaire and should have minimal impact on answers to core questions.

¹ Although we feel fairly confident in this assertion, there is a scarcity of evidence in the literature to support this because methodological researchers do not tend to deliberately include poorly designed questions in their surveys!

² Schuman, H., and Presser, S. (1981). *Questions and Answers in Attitude Surveys*. Academic Press

³ Tourangeau, R., Rips, L., and Rasinsky, K. (2000) *The Psychology of Survey Response*, Cambridge University Press