How To: Set an Audit Sample & Plan Your Data Collection

INTRODUCTION

The aim of this 'How To' guide is to provide advice on how to set your audit sample and how to design your data collection methodology and your data collection form. Aspects of this guide are discussed in more detail in the following 'How To' guides:

1. How To: Engage Patients, Service Users & Carers in Clinical Audit.
2. How To: Apply Ethics to Clinical Audit.

1. SAMPLING

WHICH CASES SHOULD YOU AUDIT

Your sample population will be dependent upon your audit topic. Occasionally an aspect of treatment or care that applies to all patients is audited e.g. nutrition. However, the majority of clinical audit tends to focus upon the care of a defined group of patients who share certain characteristics. Typically the fact that they have the same medical condition, have received the same form of treatment or were seen within a certain time frame. For example, patients over 50 years of age admitted to the BRI for a suspected MI.

In an ideal world you would audit the care received by all your audit population, i.e. every patient seen for a given condition over an extended period of time, every treatment received and every outcome achieved, in order to see whether their care met the agreed standards of best practice. However, if the number of patients in this population is too large this becomes impractical and you will need to look at a sample of your overall population instead.

HOW MANY CASES SHOULD YOU AUDIT

For research projects it is very important that a scientifically valid sample is selected. This is because research is at its most powerful when its results are generalisable to a larger population, nationally or even internationally. For example, a previously unproven surgical method would not be adopted without convincing evidence that it worked otherwise the implications of a change in practice could be catastrophic. Clinical audit, however, simply asks, 'what is happening here?' so the answer does not have to be as definitive as it would need to be in research.

The sample selected for a process-based clinical audit project should be large enough so that senior clinicians and managers are willing to implement changes based on your findings. It is important to be pragmatic, you are not doing research. In terms of clinical audit projects a 'snapshot' sample is usually sufficient, roughly 20-50 cases, for process-based audit. This will enable you to measure whether processes are being followed as per the standards set. Choosing a larger sample size than is necessary takes up extra time and resources without adding value, and can mean that there is no time and energy left within your project team to address any issues of below-par practice and bring about improvement.

It is also important that your sample contains current or recent patients. Clinical audit is about improvement; we cannot change the past but you can change the future. For example if your audit project indicates that the patients seen in the previous month were not given the right drug, changes can be implemented to ensure that future patients are. If, however, your audit project indicates that patients seen three years ago were not given the right drug, is there anything that we can do about that now? It might be that what constituted best practice three years ago was different. Rarely do you need to look at practice

more than 12 months ago unless for a specific reason, usually connected with outcomes rather than processes e.g. looking at outcomes of a rare procedure.

Whilst a 'snapshot' sample is usually sufficient for process-based audit, if you need greater assurance in your results, without looking at every patient in your population, you may need to calculate a sample size that is representative of the whole population. This is likely to be the case if you are auditing outcomes, to be assured that the results you get are within the expected range.

CHOOSING SAMPLE SIZES – THE SCIENTIFIC APPROACH

As mentioned above, occasionally a 'snapshot' sample will not provide the level of assurance required. This only tends to apply to clinical audit when outcomes are being assessed. In this instance you may not want to look at every patient in your population, but you may need to calculate a sample size that is representative of the whole population.

Sample size calculations depend on four variables:

- Size of population.
- Degree of accuracy required.
- Degree of confidence required.
- How often you expect your audit criteria to be met.

The following example shows how this works in practice:

A primary care team is planning an audit of the care of patients with hypertension. There are 300 patients (size of population) being treated for the disorder, but the clinical audit team do not have time to review the records of them all. The audit criteria states that patients receiving treatment should have had their blood pressure checked and the result below 150-90 on three occasions in the past 12 months. The target for meeting this standard is set at 70%. However, the team are willing to accept 5% inaccuracy (degree of accuracy) due to sampling. In other words, if the findings give a level of 70%, on 95% of occasions (degree of confidence) the true value would lie between 65% and 75%. The public domain software programme Epi Info (www.cdc.gov/epiinfo) was used by the team to calculate the sample size using the above parameters, and the sample required is found to be 155.

Strictly speaking, a sample size calculation should be carried out for each audit criteria that is being addressed as part of your clinical audit project. The sample size chosen for your project should be the largest figure that those calculations produce.

The table below appears in a number of guides to choosing audit sample sizes and assumes an expected incidence of 50% i.e. that standards will be met 50% of the time. It gives the sample size you will need in order to be 95% sure (degree of confidence) that the results you obtain from the sample will be within 5% (degree of accuracy) of the results you would have obtained for your whole population if you had collected data on all of them. Put another way, there is a 1 in 20 chance that your results will not be representative.

TABLE 1: Sample size

Population size	Sample size: 95% confidence; +/- 5%
50	44
100	79
150	108
200	132
500	217
1000	278
2000	322
5000	357

Using this table, if your audit showed that audit criteria X was met in 56% of cases, you could be 95% sure that criteria X would have been met in somewhere between 51-61% of cases had we looked at the whole population.

Note that sample sizes need to be proportionately smaller as the population size increases; looking at 357 out of 5000 patients giving you results with the same degree of certainty as looking at 44 out of a population of 50 patients. This is because the chance of the results being unrepresentative is dramatically reduced as the population size increases. Imagine you tossed a coin five times and got four heads and one tail, that sounds quite reasonable (there could be a pattern emerging, but it's almost certainly just chance that you got four heads). If on the other hand, you tossed a coin 500 times, and got 400 heads to 100 tails, we could be pretty certain that there was something rather dubious about the coin.

Remember, sample sizes can vary according to any one of the following:

1. The expected incidence of the thing you are auditing.
2. The confidence level you want. The confidence level does not have to be 95%. It could be 90%, 99% etc.
3. The level of accuracy you are prepared to accept. The level of accuracy could be 5%, 10%, 1% etc.

The table below illustrates how the sample size might vary for a population of 500:

TABLE 2: Sample size

Confidence level	Degree of accuracy	Expected incidence ('best guess')	Sample size
95%	+/- 5%	50%	217
90%	+/- 10%	50%	176
95%	+/- 5%	40%	213
95%	+/- 5%	20%	165
95%	+/- 5%	5%	64
95%	+/- 2.5%	50%	378
95%	+/- 2.5%	5%	185

A sample size calculator, which takes into account population size, confidence levels, accuracy and expected incidence, is available on the UHBristol clinical audit website. The website details are listed at the end of this guide.

SAMPLING METHODS

Once you have decided to take a sample and have decided on the size of that sample, the next question is which cases are you going to include in your audit?

The majority of clinical audit projects use random sampling or convenience sampling.

SIMPLE RANDOM SAMPLING

In a simple random sample every patient within your audit population has an equal chance of selection. An easy way of selecting your cases is to use a random number table, as per the few lines given below. You could take one number at a time from left to right 2, 0, 1, 7, 4, etc or two at a time, reading down table 20, 74, 04, 22, etc. These cases then form your sample, e.g. the 20th, 74th, 4th, 22nd patients from a list of all the patients in your population.

2	0	1	7	4	2	2	8	2	3	1	7	5	9	6	6	3	8	6	1	0	2	1	0	9	6	1	0	5	1	5	5	9	2	5	2	4	4	2	5
7	4	4	9	0	4	4	9	0	3	0	4	1	0	3	3	5	3	7	0	2	1	5	4	4	7	8	6	9	4	6	0	9	4	4	9	5	7	3	8
0	4	7	0	4	9	3	1	3	8	6	7	2	3	4	2	2	9	6	5	4	0	8	8	7	8	7	1	3	7	1	8	4	7	8	4	0	5	4	7
2	2	4	4	8	9	6	5	6	8	9	5	3	2	5	2	3	8	3	7	1	5	1	2	5	4	0	2	0	1	3	7	5	6	8	7	6	5	8	9

Simple random sampling is an example of a probability sampling method. It should result in your sample being representative of the characteristics of the whole population, due to random selection reducing the possibility of any systematic bias that would make the selected group different in character from the overall population. To ensure representative results this method should be used in conjunction with a calculated sample size.

CONSECUTIVE SAMPLING

Consecutive sampling is often referred to as convenience sampling. It involves choosing the next, or last however many cases, e.g. the next OR the last 50 patients, or alternatively, all patients seen over the course of the previous OR next month.

Consecutive sampling is an example of non-probability sampling and is often the most practical way of selecting cases for a 'snapshot' sample of the population. However, it is important to remember that the sample produced may differ in character from the overall population and therefore the audit results may not be representative of the overall care that is given.

Two other probability sampling methods that are less frequently used in clinical audit, but worth mentioning, are:

QUASI RANDOM SAMPLING

Quasi random sampling is also referred to as systematic sampling. If your overall audit population is 1000, your representative sample would be 278. Since 4 x 278 is approximately 1000 you would select every fourth patient from the overall population. To ensure that every patient in your audit population has an equal chance of being selected, your starting point needs to be picked randomly. In this instance the starting number must be between 1 and 4. This means that you could be auditing patients 1, 5, 10, 15, etc, or 2, 6, 11, 16, etc. The start point must be random because if you always started with the first patient, the second patient would never have a chance of being selected. This is an important consideration from a statistical point of view.

STRATIFIED SAMPLING

Stratified sampling ensures that the proportion of different groupings present in the population is reflected in the sample. For example if our patient population is made up of 75% men and 25% women, taking a simple or quasi random sample runs the risk of selecting only men when it might be that there are particular aspects of care being audited which relate specifically to women. So, if your overall population was 500 patients, this number would need to be split in a ration of 3:1 in favour of men, producing a ratio of 375 men:125 women. This would result in your representative sample of 217 patients being split 163 men:74 women. To select your random sample, separate men and women into two groups and randomly select from both i.e. 74 women from a population of 125, and 163 men from a population of 375.

REDUCING BIAS

It is important to take care to consider and eliminate potential sources of bias in your sample. The sample of cases you audit needs to be chosen in such a way that you can reasonably draw inferences about the care given to the whole population.

Beware of daily, weekly or seasonal fluctuations which may skew your data. For example conducting an audit in the week of school half-term may not be representative of care given in the rest of the month or year, due to some staff being off work at these times. In general, the narrower your time frame, the greater the risk of introducing bias, i.e. that your results will not be representative of how well the standards are being met for the population as a whole. Taking a sample across a longer time period and thereby increasing the number of cases may be a better way to ensure your results are representative.

It is also important to make every effort to ensure that every case in your sample is included in your audit, as missing cases may skew your results. For example, if a set of casenotes cannot be located in file, they may

be with complaints, legal services or held on to by the consultant, because of problems in care. Not including that case in your audit would then indicate care was better than it actually is. It is therefore important to try more than once to find any missing notes.

Prospective audits often suffer from bias because cases that met the audit criteria were not picked up, that is, the audit proforma was not completed and therefore not included in results. This may skew results if missing cases are non-random. For example if a particular staff member never completed the forms.

SAMPLE SUMMARY

1. Identify your population characteristics.
2. Find out how many patients make up your population.
3. Decide whether to look at every case or choose a sample.
4. Process based clinical audit projects usually involve a 'snapshot' sample, of roughly 20-50 cases.
5. If you have calculated a statistically representative sample size, select cases randomly.
6. Talk to colleagues who will have the final say about any changes in practice about how many cases they would like to see included in your audit and weigh this against time, resources and requirements for statistical validity.

2. DATA COLLECTION

QUANTITATIVE & QUALITATIVE DATA

Clinical audit is usually concerned with gathering quantitative data, sometimes referred to as 'hard data'. Quantitative data is numerical data that is used to measure variables e.g. counting the number of times certain things are done, how often they are done and to what end. In clinical audit this data is linked to standards of best practice which define what should be done, how often it should be done and what outcome is expected.

Depending on your audit topic, you might also want to collect some qualitative data. This is typically achieved by using a survey to capture patients' or staff experiences or opinions. Qualitative data is subjective and is sometimes referred to as 'soft' data.

WHAT DATA DO YOU NEED TO COLLECT

Data should only be collected that is necessary to satisfy your audit aim. The data items that you collect should enable you to measure practice against your audit standards. It is best to avoid collecting superfluous data items, just because you consider them to be interesting or useful, as this will result in more time spent on your project, but with little or no additional benefit. The collection of superfluous data is also contrary to the principles of the Data Protection Act, which states that data must be adequate, relevant and not excessive for purpose.

A useful technique to ensure that your data items are necessary is to use a data matrix. The data items are listed in the first column and a tick is placed in the box(es) according to which standard(s) it relates to. If you do not have a tick against a particular data item, the chances are that you should not be collecting it. Alternatively, if you feel that the data item is important, you might want to consider whether you need to rewrite an existing standard or include an additional standard.

EXAMPLE 1: A data matrix table

Data item	Standard 1	Standard 2	Standard 3	Standard 4
Sex	✓			
Age		✓		

WHERE WILL YOU FIND THE DATA

If data is routinely recorded, either in the patient's notes or electronically, it is possible to carry out a retrospective audit, i.e. assessing past episodes of patient care. If the data is not routinely recorded prospective data collection is required i.e. assessing patient care at the time it is given.

Both methods have their advantages and disadvantages. Retrospective audit can be quick but can turn into an audit of 'how well is care documented', rather than 'how well care is given'. Prospective audit can be used to gather data that you would not otherwise have access to but you may have problems ensuring that you capture every case particularly if other people are completing your data collection forms. This problem can be mitigated through the provision of training accompanied by written and/or verbal information on the implementation of your data collection process prior to the start of your audit. Additionally prospective data collection might be affected by bias, if people know they are being audited they might alter their behaviour accordingly, i.e. you would assume that compliance with the standards audited would be higher compared to the results obtained if people were unaware that they were being audited.

WHO WILL COLLECT THE DATA

It is usually the responsibility of the clinicians involved in the project to undertake the data collection. However, staff not directly involved in designing the project are often asked to collect data on behalf of the audit team. For example, nursing staff might be asked to complete data collection forms for the patients on their ward. For this reason, it is important to make sure that explicit instructions appear on the form, such as when to collect the data and what to do with the data collection form after completion e.g. to whom and where it should be sent to for analysis.

In addition your questions should be written clearly so that they do not require an explanation. If other staff members are going to be responsible for the data collection process they will need to receive training before hand. It is important to also remember that the role of the Clinical Audit Facilitators is not to collect data.

3. DESIGNING A DATA COLLECTION FORM

You will now need to design a data collection form to obtain your audit data. In clinical audit data collection forms are also referred to as 'audit forms' or 'audit proformas'. The word 'questionnaire' is usually reserved for surveys, where patients or staff are being asked questions. Many of the pointers for designing data collection forms apply equally to questionnaires. Qualitative methods of data collection such as focus groups and in-depth interviews sometimes generate ideas for clinical audit projects, but are not usually employed as part of a clinical audit itself.

The term 'audit tool' is a generic term covering any form or system used to facilitate the clinical audit process.

DATA COLLECTION FORMS

The design of your data collection form is very important. It is important to include the following:

- The audit project title and date of the audit. This ensures that your form is easy to identify if it is lost or to retrieve once it has been archived at the end of your project.
- The contact details of the project lead. This ensures that the lead is easily identifiable and contactable if there are any questions or queries about how to complete the form or where to return it. Again this information also helps to link the form to a particular audit project.
- The instructions for the completing the form. If the form is to be completed by someone other than yourself, clear instructions should be provided for completing the form, such as 'tick the box' or 'circle the appropriate answer'. If clear instructions are not provided people will not necessarily record the

information that you require or they might record information that in ambiguous. This might affect the results as you might not be able to analyse the data easily or exactly.

- The instructions for returning the form. If someone else is responsible for the data collection clear instructions for returning the form are vital. The need for instructions is not applicable, however, if you are doing the data collection yourself.
- Data items. All data items must be included. It is important to remember to include the data items relating to your exceptions. Exceptions will, in part, provide information detailing why certain standards were not met.

Other issues to be aware of when designing your data collection for are that:

- Questions should be clear and unambiguous.
- The format that you want the data recorded in is clear. For example, Time of admission ___:___(24 hr clock)
- Questions should be well spaced out. Importantly whilst you do not want to clutter the form, be careful not to use a font size that is too small to be legible.
- If you want opinions or views, allow space for these to be recorded.
- Keep your data collection form as succinct as possible.

DATA PROTECTION ISSUES

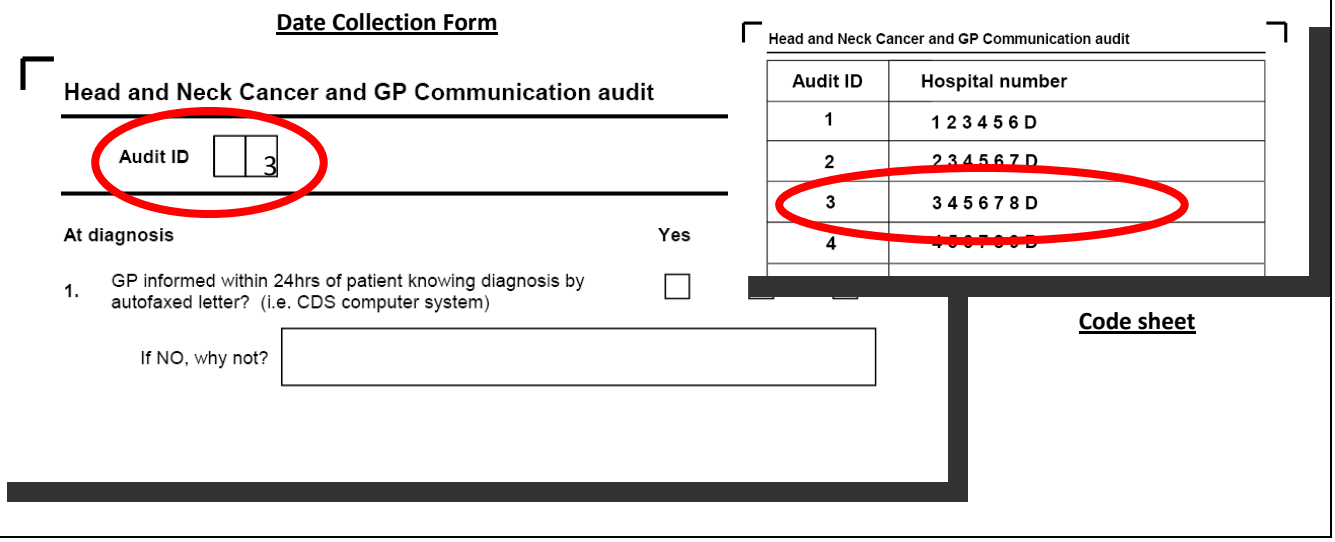
Once you have collected your data you might want to be able to identify which data collection form corresponds to which patient. However, in order to comply with the Data Protection Act and to ensure patient anonymity, personal details, including name, address, data of birth etc, should not be recorded on the data collection form. Therefore the best approach is to number each of your forms using a unique identifier. A separate piece of paper, or 'code sheet' should then be kept, which links each unique identifier to the patients hospital number. Without this list, data collection forms cannot be linked to specific patients.

Occasionally it might be necessary to record patient identifiable information on the data collection form. For example during a prospective data collection exercise the data collection form might have to follow a patient through their pathway of care. In this instance the only patient identifiable information that should be recorded on the form is their hospital ID number. Name, date of birth, etc should never be recorded.

Other data protection issues to bear in mind are:

- Data collected must be adequate, relevant and not excessive.
- Collected data should be kept securely, so that members of the public cannot access it. This relates to both electronic and hard copies of data.
- Data should not kept for any longer than necessary. Completed data collection forms should be destroyed once your project is complete.

EXAMPLE 2: Code Sheet



PILOT YOUR DATA COLLECTION FORM

Before you collect the data for your entire sample it is important to pilot your data collection form. The purpose of the pilot is to try out your data collection form on a small sample to make sure that it works, especially if someone else is going to be collecting the data for you. The pilot may reveal that some of your instructions on how to complete the form or the questions asked are ambiguous, that the form is difficult to complete, or that you are simply not getting the information you wanted. It is essential that you analyse pilot data against your standards to ensure that you can measure current practice against them. Now is the time to put right any problems so that when you do your audit properly, you will end up with the right information, first time.

The pilot test might also indicate where open questions can be reconstructed as tick-box options. We advocate that where possible you avoid using free text on data collection forms. This is where, rather than asking for a numerical or tick-box answer, you allow the person collecting the data or filling in the questionnaire to provide a description of something in their own words. This kind of data can be complex to analyse and is more suited to the kind of qualitative work, e.g. focus groups and in-depth interviews, which may precede an audit.

EXAMPLE 3: Reconstructing open questions into tick box options

Topic: Discharge delays from a day surgery ward

Question: What is the reason for delayed discharge?

Responses:

- TTAs not ready
- Waiting for pharmacy to do drugs
- Ambulance late
- Partner couldn't find anywhere to park

} Are there any themes?

Turning above responses into tick box answers:

Reason for delayed discharge:

☐ Awaiting prescription drugs (TTAs)
☐ Transport delays

Other (please state)_____

IMPORTANT: Always consider adding an 'other' option with additional space to elaborate. There's usually at least one case that will not fit anywhere else.

PATIENT QUESTIONNAIRES

All structured surveys, staff or patient, administered by post, in hospital, or via a one-to-one interview, are subject to approval by the Questionnaire, Interview and Survey (QIS) Group. The contact details for the QIS group are listed at the end of this guide. The QIS group offers advice on survey design and is responsible for monitoring all survey activity at the Trust. Please contact Paul Lewis, the Patient Involvement Facilitator for advice on structured surveys/ questionnaires. If you require advice on unstructured interviews and focus groups, this should be discussed directly with Tony Watkin, the Trust's Public Involvement Project Lead. The contact details for Paul Lewis and Tony Watkin are listed at the end

of this guide. Formal Research projects are subject to approval by a Research Ethics Committee (REC) and therefore do not require QIS approval.

PATIENT QUESIONNAIRE DESIGN TIPS

- Consider whether the information you are seeking is already available. The QIS group may not approve projects if it feels that one group of patients is being excessively targeted.
- Include a covering letter with all patient questionnaires. A template covering letter is available on the QIS intranet site. The intranet details are listed at the end of this guide. The letter should include contact details should the patient have any queries that they wish to be answered quickly about the questionnaire, the background to project and reason for contacting the patients, instructions on how to return the completed questionnaire, a statement on how you will protect the patient's confidentiality, ideally this should be achieved through developing completely anonymised questionnaires, and what you intend to do with the data collected.
- If you use a postal questionnaire a response rate of 60% and above is considered to be reasonably successful. To improve the response rate it is considered to be best practice to include a pre-paid envelope for respondents to use. Your Clinical Audit Facilitator will be able to arrange for you to have access to pre-paid envelopes as necessary.
- If you intend to send a follow-up letter to any non-respondents, your questionnaires will need to be coded; otherwise you will not know which patients have responded. Therefore your questionnaires can not be truly anonymous. In this instance it should be stressed in the covering letter that although their responses will not be anonymous, they will be treated confidentially. IMPORTANT: It is generally considered to be bad practice to follow up a non-response by telephone as this will put the patient 'on the spot'.
- Consider how the results will be feedback to the patient population. For example, will you send out a copy of the final report, write an article for Feedback magazine, or use the hospital notice boards.
- Keep the questionnaire succinct. It is important not to bombard patients with too many questions as they might choose not to participate if the questionnaire looks too long. Up to 20 questions is usually sufficient.
- Use plain English. It is important to consider whether the patients will understand the terms that you use. In particular avoid using NHS jargon. Sometimes a phrase that may seem obvious to anyone working within the NHS may be unfamiliar to patients.
- Avoid asking 'double-barrelled' questions e.g. 'how would you rate the efficiency and friendliness of staff'?
- Avoid using leading questions. Sometimes the way a question is phrased might suggest the answer that you want to receive. For example the question 'Do you think that the waiting times in the outpatient department are good? should be replaced with 'How would you rate the waiting times in the outpatients department'? Tick box options could be used to answer this question e.g. Excellent, Good, Average, Bad, Very Bad, No opinion.
- If appropriate a 'not sure' or 'no opinion' option should be included. If these options are not included and the response options do not fit the patient's views, they might just leave the question blank or add a free text response that might be harder to analyse.
- Filters should be used to direct responses efficiently e.g. 'if Yes, go to question 5'. Filters make the process of completing the questionnaire as quick and efficient as possible.
- Include space for additional comments that the patient may wish to add. This can often be a source of useful data.
- Your sample, if postal survey, should be checked against the latest hospital records, as sending questionnaires to deceased patients is a frequent error that can cause distress to relatives. Similarly, getting patients' names or other details slightly wrong can also cause offence.

USING LIKERT SCALES FOR QUESTION RESPONSES

Sometimes you might want to find out the patient's opinion on a mater, in which case the responses might be presented as:

Strongly agree / Agree / Undecided / Disagree / Strongly disagree

(Please circle the appropriate response)

Alternatively you might present them as tick boxes:

Strongly agree ☐ Agree ☐ Undecided ☐ Disagree ☐ Strongly disagree ☐

(Please tick the appropriate box)

With an odd number of choices, responses may tend towards the middle. With even number of choices you will force a decision towards a positive or negative answer.

SUMMARY DATA COLLECTION & DESIGNING A DATA COLLECTION FORM

- A small, convenience sample of current cases may be all that is needed.
- Beware of potential bias in results.
- Do not collect excess data or patient or staff identifiable information.
- Always pilot data collection forms.

CONTACT DETAILS/ USEFUL INFORMATION

CLINICAL AUDIT

- The UHBristol **Clinical Audit website** is available [online] via: http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit.html
- Contact details for the UHBristol **Clinical Audit Team** are available from the Clinical Audit Central Office or [online] via: http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit/contacts.html
- The full range of UHBristol **'How To' guides** are available [online] via: http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit/how-to-guides.html
- A copy of the UHBristol **Proposal Form, Presentation Template, Report Template, Summary Form, and Action Form** are available [online] via: http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit/doing-projects-at-ubht.html
- The UHBristol **Clinical Audit Central Office** can be contacted on tel. (0117) 342 3614 or e-mail: stuart.metcalfe@uhbristol.nhs.uk
- **Clinical Audit Training Workshops** can be booked through the Clinical Audit Central Office.

CLINICAL EFFECTIVENESS

- For advice on **Clinical Effectiveness**, including how to write guidelines, contact James Osborne, Clinical Effectiveness Co-ordinator, tel. (0117) 342 3753 or e-mail: james.osbourne@uhbristol.nhs.uk

PATIENT ENGAGEMENT

- For advice on **Patient Involvement**, including **designing structured surveys and questionnaires** contact Paul Lewis, Patient Involvement Facilitator, tel. (0117) 342 3638 or e-mail: paul.lewis@UHBristol.nhs.uk
- For advice on **Patient Involvement**, including **unstructured surveys and focus groups** contact Tony Watkin, Public Involvement Lead, tel. (0117 342 3729 or e-mail: tony.watkin@UHBristol.nhs.uk
- Surveys MUST be approved by the Trust's **Questionnaire, Interview and Survey (QIS) Group**. Proposals should be submitted to Paul Lewis using the QIS proposal form. The proposal form is available [online] via http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit/doing-projects-at-ubht.html

- A copy of the UHBristol **Covering Letter** template is available [online] via the internal intranet site http://connect/Governance/patientexperience/ppi/Pages/QISGroup.aspx

RESEARCH

- For advice on research projects contact the **Research & Development Department**, tel. (0117) 342 0233 or e-mail: r&doffice@uhbristol.nhs.uk

LITERATURE REVIEWS

- For advice on literature reviews contact the **Learning Resource Centre**, tel. 0117 342 0105 or e-mail: learningresources@UHBristol.nhs.uk

SAMPLE SIZES

- The **Sample Size Calculator** is available [online] via: http://www.uhbristol.nhs.uk/healthcare-professionals/clinical-audit/how-to-guides.html